

Presocratics and Presocratic Philosophy in Galen

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1 Introduction

The voluminous writings of Galen of Pergamum (129–c. 216 CE) are an extremely rich source of information for the doctrines, statements and arguments of other philosophers and medical scientists. This includes those whom we today refer to as Presocratic thinkers or philosophers: the index of Diels-Kranz' *Fragmente der Vorsokratiker* (hereafter DK) lists sixty items from undisputed works by Galen, including quite a few of the verbatim category ("B Fragments"). We find these references and quotations scattered through Galen's works. Galen does not mention a separate work devoted to one or more Presocratics in his *On My Own Books* (which does list treatises on Plato, Aristotle, the Stoa, and Epicurus). But Galen's take on the Presocratics or perhaps rather, from his viewpoint, Prehippocratic¹ (on which see below) can be studied on the basis of what he says about them in his extant works: to what extent did he view them as a group, representative of a particular phase of intellectual history? What use did he make of their ideas and pronouncements and why? How did he know about them in the first place?

1 As in the case of the term "Presocratics" as referring to Socrates, I use "Prehippocratic" as applicable also to those who are contemporaneous with or even later than Hippocrates but who, at least according to Galen, stick to an older view of nature, notably monism: see further below, sections 4 and 5. The term "Presocratic" is modern. Its earliest known occurrence is in J.-A. Eberhard's manual on the history of philosophy of 1788: see Laks, *Introduction à la philosophie présocratique*, 5. The idea that Socrates represents a watershed was anticipated in antiquity, see Laks, *Introduction à la philosophie présocratique*, 5–31, and, for Galen, below, 126, 127, 143. From a modern historiographical point of view, however, the idea of "Presocratic" philosophy is not without its problems: see e.g. Laks/Most, *Early Greek Philosophy*, 6–7, who prefer to speak of early Greek philosophers for all those who predate Plato rather than Socrates. I have retained "Presocratic" here as an traditional term of periodisation.

2 Ancestors and Adversaries: Galen's Use of Past Authorities

Galen was interested in the history of philosophy, though not for historiographical reasons in the modern sense. Rather he traced back his own position to its anticipations and origins in thinkers of the past because having a pedigree mattered for him, as for most intellectuals of his day, as a means of lending authority and respectability to his philosophical and scientific positions. Thus in his great work *On the Doctrines of Hippocrates and Plato* (hereafter *PHP*) Galen identifies a tradition of good medicine and philosophy founded by the two intellectual heroes mentioned in its title, whom he shows to be correct and in harmony on the most important issues.² Medical and philosophical progress according to Galen consists in further developing the insights already conceived by these two founding figures.³ The practice of developing a genealogy, originally based on master-pupil relationships but later also in a non-institutional sense, was in itself more common. It is instantiated by the Successions-literature that emerged in the Hellenistic era.⁴ Diogenes Laertius, of uncertain date but probably a near-contemporary of Galen (although he reflects Hellenistic rather than Imperial sources) orders the whole history of philosophy in this genealogical mode, arguing that it ramified starting from two founders only (Diog. Laert. 1.12–21, esp. 13 Dorandi). What is peculiar to Galen, then, is not so much his reverence for what is old or his fascination with origins but the particular picture he formed of the development of philosophy and medicine until his own day. There is his ideal of a medical philosophy, or philosophical medicine, aimed at human well-being, both physical and mental, from which those elements that are not conducive to this aim have been removed: not only erroneous assumptions but also speculations on insoluble issues (on which see below). The former category includes the Stoic unitary view of the intellect, which he refutes through both anatomical experiment and argumentative means in *PHP* books II–VI, in an argument that is also designed to vindicate the Platonic tripartite theory. But when it comes to other subjects such as the basic structure of reality, he aligns the Stoics with Hippocrates,

2 Of course, Galen in *PHP* faces a real challenge of demonstrating this. Surprisingly he does not refer to *Phaedrus* 270b–d, where Plato commends the method of Hippocrates, a favorite passage of Galen's, although it may have been invoked in the lost opening parts of book one and/or the lost tenth book. On the *Phaedrus* passage cf. also below, fn. 30 and Tieleman, "Galen's Self-Understanding and the Platonic *Phaedrus*," 28–32. On the project of *PHP* and Galen's construction of an authoritative tradition see Vegetti, "Tradizione e verità"; cf. also Vegetti, "Historiographical Strategies in Galen's Physiology."

3 On Galen's view of scientific progress see Hankinson, "Galen's Concept of Scientific Progress."

4 On the Successions literature see Mansfeld, "Sources," 23–25.

Plato, and other authorities, all of whom correctly defend the theory of the four elements, playing this broad coalition off against both medical and philosophical representatives of atomism. Likewise, Aristotle remains outside the great tradition on certain points (e.g. with regard to his cardiocentric view of the organism) but is mostly included.

3 Dialectic and Doxography: Distinguishing the Options

In polemical and argumentative contexts, however, Galen discusses these past authorities not just to test their claim to admission to the pantheon of good philosophy and medicine. He uses them to identify the different options that are open in a particular debate, which also means that, as in the case of the elements, various thinkers can be found to represent roughly the same position. Proper method starts from what he calls the correct division of the problem at issue, i.e. correctly distinguishing all the options.⁵ An incomplete division may lead one to ignore an option one should refute in order to establish one's own position. Thus, Chrysippus the Stoic in ignoring the Platonic tripartition fails to establish his own position, as when he argues that the heart must be the seat of the intellect on the grounds that the emotions arise there.⁶ An example involving the Presocratic Empedocles and the sophist Critias is found at *PHP* II.8.47–48, 166.11–15 De Lacy (not in DK), where Galen fabricates a dilemma for the Stoic Diogenes of Seleucia concerning the soul's substance as follows:

And he [sc. Diogenes] himself forgetting about his own doctrines says that the soul is blood, as Empedocles and Critias had assumed; but in case he follows Cleanthes, Chrysippus, and Zeno saying that the soul is nourished from the blood but that its substance is the pneuma how then will what nourishes us and what moves us be one and the same thing if the blood nourishes but the pneuma moves?⁷

5 See *PHP* III.1.18, III.1.26–27, 4.1.16, 170.32–34, 172.27–33, 238.14–19 De Lacy with Tieleman, “Galen and Doxography,” 462–468.

6 *PHP* III.1.26–III.2.1, 172.27–174.28 De Lacy.

7 και αὐτὸς [scil. Diogenes of Seleucia] ἐπιλανθανόμενος τῶν οἰκειῶν δογμάτων αἷμα φησιν εἶναι τὴν ψυχὴν, ὡς Ἐμπεδοκλῆς καὶ Κριτίας ὑπέλαβον. εἰ δέ γε ἔποιτο Κλεάνθει καὶ Χρυσίππῳ καὶ Ζήνωνι τρέφεσθαι μὲν ἐξ αἵματος φήσαντι τὴν ψυχὴν, οὐσίαν δ' αὐτῆς ὑπάρχειν τὸ πνεῦμα, πῶς ἔτι ταῦτὸν ἔσται τὸ τρέφον τε καὶ κινουῦν εἴπερ τρέφει μὲν τὸ αἷμα κινεῖ δὲ τὸ πνεῦμα;

Galen at times saddles adversaries with positions they are not supposed to hold because these really belong to a school different from their own. In such cases he typically criticizes the adversary concerned as confused. In particular, the author under attack is not clear about the distinctions involved in the debate and hence about what exactly he should argue and what not given the doctrine of his own school. This is also the case with the Stoic Diogenes, who in the context is cited as arguing that given that the pneuma nourishes itself from the blood in the left ventricle of the heart through a process of exhalation, this must also be the seat of the soul and its ruling part (or intellect) in particular; in other words, where the principle of nourishment is, there also must be the principle of movement (*PHP* 11.8.44, 164.32–166.4 De Lacy).⁸ Galen rejects the linking of the two principles, taking what nourishes as the blood itself rather than the pneumatic soul, although in fact Diogenes meant that the soul nourishes *itself* because it causes the exhalations from the blood through its innate heat. The dilemma presented by Galen either leaves Diogenes with an un-Stoic position represented by Empedocles and Critias or with an argument in favor of the Stoic position that is invalid. Here, as is suggested by some partial parallels, Galen must be taken to be using or recalling some doxographic schema, and in particular a section on the substance of the soul, one of the topics standardly included in such collections.⁹ We know from the so-called *Placita* tradition (first presented in Diels' monumental *Doxographi Graeci* of 1879) that the Presocratics were often used to label particular options, often alongside later thinkers. The researches of Jaap Mansfeld have shown that Galen must

8 On Galen's discussion on this argument see more fully Tieleman, *Galen and Chrysippus on the Soul*, 87–101.

9 Cicero, *Tusc.* 1.18: *Empedocles animum esse censet cordi suffusum sanguinem; aliis pars quaedam cerebri visa est animi principatum tenere* (cf. 19, where the "alii" who take the soul to be breath must be the (post-Zenonian) Stoics in general; Zeno is here said to have taken it to be fire); Theophrastus, *De sensu* 9 (DK 31 A86, 302.23–24 = [22] D237 LM) and the verbatim fragment Empedocles DK 31 B105 = [22] D240 LM (Porph. *ap. Stob.*). For Critias see Aristotle, *De an.* 1.2, 405b5–8, Philoponus, *De an. prooem.*, 9.19–21 Hayduck (DK 88 A23), who even attributes Empedocles fr. 31 B105 DK to Critias; cf. Mansfeld/Runia, *Aëtiana v*, 1433. Theodoret, a witness to Aëtius, while keeping them together, gives each their own view (Empedocles: a mixture of ether and air; Critias: blood and moisture, with moisture being curiously superfluous): Theodoret, *CAG* 5.18.7–8. The two lemmata in question have been printed as 4.5.13–14 in Mansfeld and Runia's text of the reconstructed Aëtius: see Mansfeld/Runia, *Aëtiana v*, 1422 with their comments at 1432–1433. The lemmata from Theodoret indicate that our sources often made adjustments to the traditional material according to their own needs and preferences: as a form of functional literature, the *Placita* was a tradition that was essentially open: see the characterization by Mansfeld/Runia, *Aëtiana v*, 22. This is also witnessed by Galen himself (who may have drawn such labelled tenets from his memory, see below fn. 15 and text thereto).

also be taken to be drawing on the same tradition in quite a number of cases. Detailed comparisons between doxographic schemas in Galen and the reconstructed text of the doxographical author Aëtius indicate that Galen in fact uses a fuller version of a specimen belonging to the same tradition than we have in Aëtius.¹⁰ As we shall see, there is also some evidence that Galen had access to Theophrastus' (lost) *Physical Opinions*, another and early work related to the *Placita* tradition (see further below, 133f.).

That Galen used doxographic schemas also in other ways is illustrated by *On the Elements according to Hippocrates* 9.11, 130.6–10 De Lacy (= 1.483–484 Kühn), where he brings together four incorrect views as follows:

The alteration of bodies is not a separation or combination as Epicurus and Democritus held [i.e. of atoms] or as, in a different way, Anaxagoras and Empedocles also assumed, the latter introducing homoeomerics, the former believing that the four elements are unchanging.¹¹

The four thinkers mentioned here can be subsumed under the class of those who see perceptible change as a matter of basic, unalterable components coming together or falling apart. They are subdivided between those who apply this within a discrete conception of material reality (the atomists Epicurus and Democritus) and continuity theorists (Anaxagoras and Empedocles), with the latter being further subdivided between one who sees the basic components as unalterable elements and one who sees them as homoeomerous (i.e. structures that remain qualitatively the same when cut up, such as bone and flesh). I will return to this theory in due course. For now, it may suffice to add that Empedocles, though having the correct intuition in regard to the four elements, is on the wrong side insofar as he got the analysis of change wrong, taking the elements to be unalterable. Of course, this was inevitable since he was not yet in possession of Aristotle's hylomorphic analysis. Galen projects this analysis back unto Hippocrates, even though, he acknowledges, the latter lacked the terminological apparatus to state it clearly (see further below, 129).

The above schema is used by Galen to contrast all the reported views on change with the correct option attributed by him to Hippocrates that the whole substance (*ousia*) and so the elements themselves undergo change. Change, then, is not a matter of separation or combination. But he also uses such

10 Mansfeld, "Doxography and Dialectic," 312; Tieleman, "Galen and Doxography," 466–468.

11 οὐκ ἔστι διάκρισις τε καὶ σύγκρισις ἢ φαινομένη τῶν σωμάτων ἀλλοίωσις, ὡς οἱ περὶ τὸν Ἐπίκουρον τε καὶ Δημόκριτον ἐνόμιζον ἑτέρῳ τε τρόπῳ πάλιν Ἀναξαγόρας τε καὶ Ἐμπεδοκλῆς, ὁ μὲν τὰς ὁμοιομερείας εἰσάγων, ὁ δ' ἀμετάβλητα νομίζων εἶναι τὰ τέτταρα στοιχεῖα.

schemas for purposes other than refutation. Thus, the schema he presents at *PHP* v.3.18, 308.27–34 De Lacy is meant to show that whatever views authorities take of the physical elements they all concur in seeing health as residing in their correct proportion or balance. This enables him to enlist the support not only from the powerful tradition of four elements theorists (Hippocrates, Plato, Aristotle and the Stoics) but even from the atomists, both philosophical (Epicurus) and medical (Asclepiades). This time, apparently, even the latter are welcome on the good side. But the point at issue here is not the nature of the elements themselves but something different, viz. physical and mental health. The Presocratic thinker Anaxagoras features again as the representative of the theory of homoeomerics.¹² Whether Galen took such a diaeretic schema directly from an existing doxographic collection or produced it himself after the models provided by doxographic tradition (as seems more likely here), it is clearly one of the standard contexts in which he refers to Presocratics.

Diaeresis or division is one of the main tools of Galenic dialectic. Galen may identify and divide the options himself or, in the case of physical issues, avail himself of existing divisions, such as those found in what we call doxographic literature, i.e. the *Placita* tradition represented by Aëtius (probably first century CE), whose compendium of physical doctrines can be reconstructed in large part from the relevant works by later authors.¹³ Incidentally, this should not be taken to imply that Galen always took his doxographic schemata directly from a particular specimen of the *Placita* tradition.¹⁴ As an author he could draw upon his prodigious memory and several individual passages strongly suggest that this was the case. This also increased the occurrence of phrasings and small modifications of his own. His memories of the doxographic tradition may go back all the way to the philosophical education he received as an adolescent.¹⁵

12 εἶτε γὰρ ἐξ ὄγκων καὶ πόρων ὡς Ἀσκληπιάδης ὑπέθετο τὰ τῶν ζῶων σύγκειται σώματα, συμμετρία τούτων ἐστὶν ἡ ὑγίεια· εἶτ' ἐξ ἀτόμων ὡς Ἐπίκουρος εἶτ' ἐξ ὁμοιομερῶν ὡς Ἀναξαγόρας εἶτ' ἐκ θερμοῦ καὶ ψυχροῦ καὶ ξηροῦ καὶ ὑγροῦ καθάπερ ὁ τε Χρῦσιππος δοξάζει καὶ πάντες οἱ Στωϊκοὶ καὶ πρὸ αὐτῶν Ἀριστοτέλης καὶ Θεόφραστος καὶ πρὸ τούτων ἔτι Πλάτων καὶ Ἰπποκράτης, ἡ τῶν στοιχείων κατὰ πάντας συμμετρία τὴν ὑγίειαν ἐργάζεται.

13 See Mansfeld/Runia, *Aëtiana* v, which goes beyond Diels by presenting an actual reconstruction, whereas Diels presented the witnesses in parallel columns and an apparatus.

14 See Tieleman, "Galen and Doxography," 456 fn. 18 with text thereto.

15 The educational use of doxography, at least as seen by Galen, may be inferred from passages such as *Synopsis on Pulses* 1x.431–432 K., where he recommends the use of synopses, compendia and epitomes as an aid to memory. Texts of this kind, he tells us, only give the tenets, without the demonstrations on which they are based (and which one needs to know in order to avoid being refuted by sophists). On compendia see also the very similar view taken by Epicurus, *Hdt.* 35 and *Pyth.* 84, with Castagnoli/Ceccarelli, "Introduction," 60. Galen refers to Theophrastus' doxographic work as an epitome or as epitomes in the

For Galen, as we have seen, good medicine and philosophy started with Hippocrates and Plato. The crucial watershed then was the advent of Hippocrates, whom, as we shall see presently, he opposes to those predecessors we are in the habit of calling Presocratic philosophers.¹⁶ Plato was younger than Hippocrates and, he believes, took over a lot from the latter. Seen in this light, Hippocrates is the more important of the two, although Plato remains the founder of the best philosophical tradition as distinguished from the medical one (a separation which, as we recalled, Galen was concerned to replace with his own unitary ideal).¹⁷ But what about Socrates? Like most ancient authors, Galen revered Socrates.¹⁸ But he had his own reasons for doing so. In particular, Socrates anticipated his aversion to physical speculations that contribute nothing to moral progress. Here he could refer to the fact that Socrates turned away from the cosmologies of the earlier physicists in favour of “human matters.” Galen refers to this at *PHP* IX.7.9–19, 588.7–590.11 and esp. 14–15, 588.25–29 De Lacy citing Xenophon’s *Memories of Socrates*, I.1.11–16. In another passage, the well-known ‘intellectual autobiography’ of Socrates in Plato, *Phaedo* 97b–99d, Socrates explains his early disillusionment with cosmological speculation in the materialist, non-teleological mode represented by the Presocratic philosopher Anaxagoras¹⁹ in particular. But his point is rather different from what we have in Xenophon: the Platonic Socrates argues that a truly causal account gives pride of place to the final cause.²⁰ Socrates, at least according to the *Phaedo*, abandoned cosmology altogether as lying beyond his reach, thereby leaving the enterprise to others after him. In *PHP* IX, Galen notes that Plato has his theory

plural (αἱ τῶν Φυσικῶν δοξῶν ἐπιτομαί [...] ἡ ἐπιτομή ... τῶν φυσικῶν δοξῶν, *HNH* I.2, 15, 22, 25 Mewaldt = xv.25 K.) and to Meno’s collection of medical views as the *Medical Compendium* (ἡ ἰατρικὴ συναγωγὴ, *ibid.* I. 27 = xv.25 K.), recommending the two works as guides to philosophical and medical opinions respectively. On the context of this passage see below, 132–134. On the doxographic works of Aëtius and (Ps.-)Plutarch as a ‘collection’ (συναγωγὴ) and a ‘epitome’ (ἐπιτομή) respectively, see Theodoret, *CAG* 4.31.2.

16 See *supra*, fn. 1.

17 See Tieleman, “Galen’s Self-Understanding and the Platonic *Phaedrus*,” 25 f.

18 Galen, *Protr.* 5.4, 89.16–19 Boudon (= I.8 Kühn), putting Socrates on a par with Homer, Hippocrates and Plato; *Lib. prop.* c. 15.1, 170.17 Boudon (= XIX.45 K.): a (lost) treatise on Socrates directed against Favorinus.

19 On Anaxagoras see further below, 139–142.

20 See *On the Use of Parts* VI, c. 12, 338.20–339.18 Helmreich (III.464.7–465.11 K.) where Galen presents purpose, or the final cause, as the only cause in the true sense of that term in a way that reflects the *Phaedo* passage. Thus he echoes Socrates’ example of the legs as insufficient as an explanation of why he stays in prison, *Phaedo* 98c–d. Note however that Galen refers to Plato not Socrates. Plato, *Tim.* 46d–e on the true nature of cause and kinds of causes also seems to lie behind Galen’s account here.

of nature expounded by Timaeus in the eponymous dialogue, not by Socrates (ibid., IX.7.16), which, he argues, lends credibility to Xenophon's report. Plato himself is saved from the charge of engaging in speculation of the wrong, insoluble kind by Galen insisting on Plato's qualification of his exposition as likely or verisimilar.²¹ But in regard to issues in moral psychology Galen is happy to turn to Socrates as an example (see also below, 143, on Socrates in Galen's treatise *The Capacities of the Soul Follow the Mixtures of the Body*).²²

4 Monism I: Galen's *On the Elements according to Hippocrates*

Justifying the title of his treatise *On the Elements according to Hippocrates* (hereafter: *Elem. Hipp.*), Galen points out that previous works on the same subject bore a variety of titles: *On the Elements* (by the first century BCE medical author Asclepiades) or *On the Heaven* and *On Generation and Corruption* (both by Aristotle) and *On Substance* (by the Stoic Chrysippus). All the treatises of the ancients (*palaioi*), however, were entitled *Peri physeôs*—*On Nature* (*De elem. sec. Hipp.* 9.25–30, 134.13–136.6 De Lacy), Galen reports, giving us the names of Melissus, Parmenides, Empedocles, Alcmaeon, Gorgias, Prodicus, “and all the others” (ibid., 27, 134, 16–19 De Lacy).²³ But it was Hippocrates who discovered (*exeurôn*) “the elements of the nature of existing things” (*ta stoicheia tês tôn ontôn physeôs*) and was the first to give an adequate proof (ibid., 25, 34.13–15 De Lacy). In the context Galen is concerned with the mistaken atomist theory represented by Asclepiades, who had betrayed Hippocrates in spite of the refutation of atomism by Aristotle and Theophrastus. But in another passage, we learn more about what was wrong with the theories of Hippocrates' predecessors: Plato in the *Timaeus* had posited not only the quartet of elements discovered by Hippocrates but understood that their change into each other necessitated a substrate, viz. matter (*hylê*) (ibid., 4.5–6, 88.9–13 De Lacy). Of course, Galen's identification of Plato's “Mother of Becoming” (to use one of its appellations) as matter is disputable from a historical point of view, though

21 See *PHP* IX.9.6,7. For a discussion of this point see Tieleman, “Galen and Academic Scepticism.”

22 Cf. Rosen, “Socratism in Galen's Psychological Works,” who shows that Galen in his works on moral psychology treats Socrates with respect and admiration.

23 The title *Περὶ φύσεως* became customary later on, that is to say, it was not given by the authors themselves to their treatises: see Schmalzriedt, *Peri physeos*; Naddaf, *The Greek Concept of Nature*, 16–17; Mansfeld, *Eleatica 2012*, 96–97, with special reference to Melissus, for whom the title “On Nature or on Being” (*Περὶ φύσεως ἢ περὶ τοῦ ὄντος*) is also attested.

rather common from Aristotle onwards.²⁴ In fact, Galen traces back Aristotle's form/matter distinction as applied to the elements beyond Plato to Hippocrates: at the elementary level the qualities (hot, cold, wet, dry) represent form, their substrate (primary) matter. This anachronistic move also permits him to analyze the mistake made by Presocratics, mentioning this time Thales, Anaximenes, Anaximander and Heraclitus (in this order). All these thinkers already had some premonition of the notion of the one underlying matter but, seeing that this must be one common substrate, were led to suppose that the element must also be one and so to opt for either water or air or fire or earth (*ibid.*, 4.8, 88.18–21 De Lacy). This seems to leave Anaximander with earth, which is plainly wrong since he is on record as having introduced the *apeiron* (the “indefinite” or “infinite,” in both a quantitative and qualitative sense) as the inexhaustible source or principle (*archê*) of everything, including of course the four elements.²⁵ Anaximander's *apeiron* is an abstract notion designed, it appears, precisely to avoid selecting one of the elements known from experience as the infinite source of becoming and destruction—a move which would have made it hard to explain why the other elements are not destroyed.²⁶ Arguably, the *apeiron* is a more credible anticipation of Aristotelian prime matter than Melissus' one being is. It seems unjustifiable to group Melissus together with the others. But then Heraclitus' fire is not the ordinary, perceptible element fire either: it should be taken in the more abstract sense of an all-pervading, governing, and sustaining principle.²⁷ Presumably, it was Hippocrates' onslaught in *Nature of Man* against monism and in particular Melissus which goes some way towards explaining Galen's presentation, which is distortive, albeit by implication, especially in regard to Anaximander as opting for earth as the basic

24 See Aristotle, *Phys.* IV.2, 209b10–16, *De gen. anim.* II.1, 329a13–27, Theophrastus, *Phys. Op.* fr. 9 Diels = Fr. 230 FHSG, with Tieleman, “Galen and Genesis,” 133. Galen is bent on suppressing Plato's geometrical analysis of the physical elements, opting instead for Aristotle's qualitative approach in terms of form and matter. In fact, the principle that both receives and resists God's creative activities in Plato's account combines features of a theory of matter with those of a theory of space. In fact, it is also characterized as “space” and “place,” see *Tim.* 52a8, b4; cf. Aristotle, *Phys.* IV.2, 209b10–16.

25 DK 12 A9, 10, 11 = [6] P5, D6, D12, R2, R7, R9, D8, D7 LM.

26 This interpretation goes back to Aristotle, *Phys.* III.5, 204b22–28; cf. also Theophrastus (from his *Physical Doctrines*) *ap.* Simplicius, *In Phys.* I.2, 184b15 = CAG vol. 9, 24.13–25.13 (= Anaximander DK 12 A9 = [6] D6 LM = Theophrastus Fr. 226A FHSG): Anaximander observed the elements changing into one another and did not think it right to choose one of the elements (στοίχεια) as the substrate (ὑποκείμενον) of all becoming but something else besides these.

27 On fire as principle and fire as perceptible element see DK 22 B31 = [9] D86, R82 LM. On Heraclitus' conception of the soul in terms of fire see below, 144.

stuff.²⁸ It is noteworthy that in two testimonies (DK 12 A9, 11 = [6] D6, D7 LM) Anaximander's *apeiron* is referred to as "principle *and* element," *archê kai stoiceion*, i.e. the two notions that Galen argues are mixed up by Anaximander and the others. This presentation of Anaximander's originative substance as *archê kai stoiceion* may go back to its ultimate source, which is believed to be Theophrastus' *Physical Opinions*²⁹ and which is also cited by Galen in his commentary on Hippocrates' *Nature of Man* (see further below, 133 f.). It cannot of course be established with certainty that Galen draws directly upon Theophrastus' work, but his approach, with its distinction between principle and element, derives from an older tradition, which helps explain some of the presuppositions involved in his presentation of the Presocratics at issue.

As it is, Thales, Anaximenes, Anaximander, and Heraclitus serve in Galen's argument as a stepping stone to a refutation of Melissus as the most sophisticated, or perhaps rather least uncouth, of them all. Galen begins by ascribing an initial and correct intuition to the group formed by Thales, Anaximenes, Anaximander and Heraclitus: they were "dreaming" of primary matter (*ibid.*, 4.7, 88.16 De Lacy). But since they lacked the form-matter distinction they confused the element with matter. Elsewhere Galen grants, as he had to do, that Hippocrates too lacked this distinction and had to speak of "the hot" when in fact what he meant was the element not just the elementary quality (see below, 137). But his intuition was correct and he provided an argument for the plurality of elements. In the passage from *Elem. Hipp.* Galen goes on to present Hippocrates'³⁰ refutation of the monism of the Presocratics and in particu-

28 Aristotle, *Met.* A.8, 989a5–12 says that no *physikos* championed the earth as the element (in the sense of the basic stuff). Among the Presocratics, it is Xenophanes whose name is associated with earth in the later tradition: see DK 21 A38 [= [8] D36 LM] (Theodoret, *rv* 5; all things grow out of the earth). From his own verses it might appear that he saw *both* earth *and* water as the basic stuffs: see DK 21 B29, 33 [= [8] D25, D26 LM], which disqualifies him as a material monist (but cf. DK 21 B28 [= [8] D4 LM]: we live on an infinite column of earth). Yet this may have been enough to lead to his inclusion as the *physikos* who opted for earth, alongside Thales (water), Anaximenes (air) and Heraclitus (fire), making the quartet of elements complete. In fact, this list is ascribed by Galen to some sources including the medical author and Hippocratic commentator Sabinus (first/second century CE) at *HNH*, 1.2, 15.13–25 Mewaldt (= XV, 25 Kühn). However, Galen dismisses this as a falsification on Sabinus' part with an appeal to Theophrastus' *Physical Doctrines* (on which work see below, 133 f.): if Xenophanes had held that earth is the basic stuff, Galen argues, Theophrastus would have said so in this work.

29 For further discussion see Kirk/Raven/Schofield, *The Presocratic Philosophers*, 105–109.

30 Galen takes the author to be Hippocrates himself not his son-in-law Polybus as is generally accepted today (though Galen in referring to some contemporaries of his who also consider Polybus its author, notes that the latter made no changes to Hippocrates' doc-

lar Melissus in *Nat. Hom.* 1.2–3 (ibid., 4.9–21, 88.22–92.14 De Lacy).³¹ Melissus, Galen tells us, made strange (*allokota*) pronouncements about the all, viz. that it is one, unchanging and unlimited (which report is in itself correct).³² Yet his line of reasoning compares favorably with the monists who choose one of the four physical elements instead of one common substrate. Melissus' position is implausible (*atopa*) as is theirs, but still more sensible (ibid., 17). Clearly, Melissus saw that his one being could not be identified with one of the elements or, put differently, he was already making some way toward the notion of primary matter as the substrate of all becoming. Indeed, Galen seems indebted to Aristotle's reading in *Met.* A.5, 986b18–21 (T 24 Brémond) that Melissus spoke of unity "according to matter" (*kata tēn hylēn*).³³ Galen no doubt stresses this comparison found in the Hippocratic text in terms of the levels of (im)plausibility because it is part and parcel of his dialectical habit of isolating useful insights from the thinkers he discusses, that is to say he discusses these Presocratics not just to show their errors or inarticulate way of thought but to teach a more positive lesson. Nonetheless, he goes on to cite the dismissive attitude taken by Aristotle to Melissus and Parmenides in the preface to the *Physics* (1.2, 184b25–185a1) (ibid., 5.1–13): their position not only is foreign to the inquiry into nature but it can be discarded right away as clearly implausible (*atopon*). It does not need to be refuted just as a geometer does not set out to refute those who deny his first principles (ibid., 12; cf. Aristotle, *Phys.* 1.2, 185a1–3). Their rationalism in overriding the evidence of the senses means that they deny the principles of natural science and the individual arts, most notably medicine (as pointed out by Hippocrates ibid., 9; cf. Hippocrates, *Nat. Hom.* 1.1, 163.3–6 Jouanna). It is a basic principle of medicine that coming into being and passing away exist as well as a plurality of diseases; if one does not grant their existence, one makes medicine impossible (ibid., 6). This point makes Galen's argument a dialectical *reductio ad absurdum* of some sort (note again the dialectical terms "implausible" and "granting").

trines whatsoever): see *HNH Prooem.*, 8.18–32 Mewaldt (= xv, 11–12 Kühn). Galen takes Plato's recommendation of Hippocrates' method at *Phaedrus* 270c–d to be a key witness for Hippocratic authorship: see *HNH* 4.19–5.9, 8.31–9.11 Mewaldt (= xv, 4–5, 12 Kühn). In what follows I will refer to Hippocrates as the author *Nature of Man* because Galen considered the treatise authentic. It implies no commitment to authenticity on my part. Cf. Hankinson, "Galen on Hippocratic Physics," 423–424.

31 Galen's discussion of Melissus in light of Hippocrates' and, subsequently, Aristotle's critique at ibid., 4.16–5.6 is printed by Brémond, *Lectures de Mélissos* as Melissus T 51.

32 Cf. Cicero, *Acad.* 37.118 (T 33 Brémond).

33 As suggested by Brémond, *Lectures de Mélissos*, 248. Aristotle's observation is an inference from Melissus' view of the One as unlimited as opposed to Parmenides' limited One (which Aristotle characterizes as speaking about the One *κατὰ λόγον*).

5 Monism II: Galen's *Commentary on the Hippocratic Nature of Man*

The treatment in *Elem. Hipp.* of the early material monists invites comparison with the relevant passages in Galen's *Commentary on Hippocrates' Nature of Man* (hereafter *HNH*).³⁴ Galen himself presents *Elem. Hipp.* as originally written for someone who already knows its subject-matter pretty well; it therefore lacked the explanations he used to include in a book intended for a wider readership (even though *Elem. Hipp.*, he says, did in fact reach such an audience). And indeed his commentary on the *Hippocratic Nature of Man* includes more by way of explanation (*HNH*, 3.1–19 Mewaldt = xv, 1–2 Kühn). Galen starts with the notion of *physis* (“nature”), from which also the name *physikoi* (physicists, natural philosophers) has been derived, a group subsumed by Galen under the “ancient philosophers” (*tôn palaiôn philosophôn*) (3.20–22 Mewaldt = xv, 2–3 Kühn).³⁵ The title of their books, like that of Hippocrates' treatise, referred to the same notion: *Peri physeôs* (ibid., 3.20–24 Mewaldt = xv, 2–3 Kühn). A little further on Galen mentions Empedocles, Parmenides, Melissus, Alcmaeon and Heraclitus as examples of those early physicists who had all written books bearing this title—a point we saw Galen also making in *Elem. Hipp.* (ibid., 5.10–12 Mewaldt = xv, 5 Kühn).³⁶ What all of them are talking about, Galen explains, is the primary substance (*prôtê ousia*) in the sense of the eternal and ungenerated substrate of all generated and perishable bodies. But “nature” can also refer to the properties (*hyparchonta*) of specific substances in the sense of general, as opposed to individual, features, which Galen also calls the visible nature, illustrated through a quotation from Homer's *Odyssee* 10.302–303, where Hermes explains to Odysseus how to recognize the medicinal herb he has to pick: Hermes shows its “nature,” referring to two visible features, its black root and white flower (3.24–4.19 Mewaldt

34 On *HNH* see Manetti & Roselli, “Galeno commentatore di Ippocrate,” 1554–1557. Cf. also Hankinson, “Galen on Hippocratic Physics.” Galen accepts the treatise as authentic: see above, fn. 30.

35 *HNH Praef.* xv, 2 Kühn: ἔν μὲν δὴ καὶ πρῶτον ἔστιν εἰπεῖν, ὅ τι ποτε σημαίνεται πρὸς τοῦ τῆς φύσεως ὄνοματος, ἀφ' οὗ καὶ τῶν παλαιῶν φιλοσόφων ἔνιοι παρονομασθέντες ἐκλήθησαν φυσικοί. γενήσεται δ' ὑμῖν ὧν ἕνεκα λέγω τοῦτο δῆλον ἀναγνοῦσι τὰ Περὶ φύσεως αὐτοῖς γεγραμμένα βιβλία: φαίνεται γὰρ ἐξηγούμενα τὴν πρῶτην οὐσίαν ὅποια τίς ἐστὶν ἢν ἀγέννητον τε καὶ αἰδίον εἶναι φασὶν ὑποβεβλημένην ἅπασιν τοῖς γεννητοῖς τε καὶ φαρτοῖς σώμασι, τὰ θ' ὑπάρχοντα κατὰ τὸν ἴδιον λόγον ἐκάστω τῶν γεννωμένων τε καὶ φθειρομένων, οἷς γνωσθεῖσιν ἔπεται καὶ ἡ τῶν ἄλλων γνώσις, ὅσα μὴ κατὰ τὸν ἴδιον λόγον ἐκάστη τῶν κατὰ μέρος οὐσιῶν συμβαίνει.

36 See above, 127. On the sense of φύσις the study by Beardslee, *The Use of φύσις in Fifth-Century Greek Literature* is still worth consulting. On the notion in Galen see Kovačić, *Der Begriff der Physis bei Galen vor dem Hintergrund seiner Vorgänger*, Jouanna, “La notion de nature chez Galien.”

= v, 3–4 Kühn). In fact, Galen distinguishes between three different levels of corporeal reality: (1) the four elements (earth, water, air, fire), imperceptible in themselves and always mixed according to a particular proportion and forming (2) the “elements with respect to perception,” i.e. the lowest perceptible level, identified, with Aristotle, with the homoeomerics, such as bone and flesh, out of which (3) the organs are formed (*HNH*, 6.8–7.14 Mewaldt = xv, 7–9 Kühn). For our purposes it will suffice to recall that Galen elsewhere often mentions the homoeomerics as the “elements” proposed by the Presocratic thinker Anaxagoras (see above, 124). Just as Empedocles anticipated the doctrine of the four elements, Anaxagoras, then, anticipated that of the “elements with respect to perception,” i.e. the homoeomerics. To the best of my knowledge, Anaxagoras never receives from Galen the credits for this, however. From an Aristotelian and Galenic point of view, Anaxagoras’ doctrine of “everything in everything” results from confusing levels (1) and (2), just as the Ionian physicists had confused elements with principles or causes. In other words, Anaxagoras saw the elements as arising out of the homoeomerics instead of the other way around. Galen’s ascription of “homoeomerics” to Anaxagoras (who himself spoke of “seeds”) reflects Aristotle’s interpretation and so is another Aristotelian feature of Galen’s presentation of Presocratic philosophy.³⁷ In fact, Galen also finds fault with Anaxagoras on other matters, as we shall see presently. Whereas Anaxagoras appears in quite a few other Galenic treatises, he is absent from *HNH*. The reason is that in this treatise Galen is concerned with the representatives of material monism in light of Hippocrates’ critique of them and in particular Melissus. Thanks to his aim of making *HNH* more low threshold than *Elem. Hipp.* (see above, 131) Galen takes more trouble to explain the issues involved in his response to the Presocratics in the former work. In his preface he even gives his readers a suggestion for further reading in case they want to know more about the doctrines of the Presocratics. This piece of advice is triggered by the medical author Sabinus (first or second century CE), who wrote commentaries on Hippocrates too.³⁸ According to Sabinus, Xenophanes of Colophon had written that man is wholly earth:³⁹

But some of the exegetes misrepresented Xenophanes equally wrongly, as for example Sabinus did, when he wrote the following in these very

37 See Arist. *Phys.* I.4, 187a23–41, *Cael.* III.3, 302a28–35 with Kirk/Raven/Schofield, *The Presocratic Philosophers*, 376–378.

38 *Ord. lib. prop.* 3.6–11, 98.6–99.5 Boudon-Millot (= XIX, 57–58 Kühn).

39 See above, fn. 28.

words: “For I say that man is neither wholly air, *as Anaximenes did*, <nor fire, *as Heraclitus did*,>⁴⁰ nor water, *as Thales did*, nor earth, *as Xenophanes did somewhere*.” For nowhere can Xenophanes be found to make any such statement.⁴¹ Moreover, it is clear from his own words that Sabinus is falsifying (matters), rather than simply making a mistake out of ignorance; otherwise he would also have mentioned by name the book in which he [sc. Xenophanes] expounded these things. But as it is, he wrote the following: “nor earth, as Xenophanes did somewhere.” And Theophrastus had recorded the doctrine of Xenophanes in the *Summaries of the Physical Doctrines* if indeed this were the case [sc. that Xenophanes held earth to be the basic stuff]. But if you take pleasure in studying these things you can read the books of Theophrastus, in which he summarized the physical doctrines, just as, if you would like to study the doctrines of the ancient doctors, you can consult the books of the *Medical Collection*, which have been put under the name of Aristotle but are agreed to be by Menon, who was his pupil, which is why some people call these books also “Menonian.” It is clear that this Menon carefully studied the books of the ancient doctors that still survived in his time and collected their doctrines from them. Of the books which had already completely perished or which still existed but had not been studied by him he could not record the doctrines.⁴²

ibid., 15.13–16.3 MEWALDT = XV, 25–26 KÜHN = THEOPHRASTUS Fr. 231 FHSG; TR. HANKINSON, modified

40 This is Mewaldt's addition; it may not be necessary but is probably correct; see below in text.

41 See above, fn. 28.

42 κακῶς δὲ καὶ τῶν ἐξηγητῶν ἔνιοι κατεψεύσαντο Ξενοφάνους, ὥσπερ καὶ Σαβίνος, ὡδί πως γράψας αὐτοῖς ὀνόμασιν· “οὔτε γὰρ τὸ πάμπαν ἀέρα λέγω τὸν ἄνθρωπον, ὥσπερ Ἀναξίμενης, <οὔτε πῦρ, ὡς Ἡράκλειτος>, οὔτε ὕδωρ, ὡς Θαλῆς, οὔτε γῆν, ὡς ἔν τινι Ξενοφάνης.” οὐδαμῶθι γὰρ εὐρίσκειται Ξενοφάνης ἀποφηνάμενος οὕτως, ἀλλὰ καὶ ὁ Σαβίνος αὐτὸς εὐδήλως ἔστιν ἐκ τῶν αὐτοῦ καταψευδόμενος, οὐχ ὑπ' ἀγνοίας ἐσφαλμένος· ἢ πάντως ἂν ὀνομαστί προσέγραψε τὸ βιβλίον, ἐν ᾧ ταῦτα ἀπεφῆναιτο· νῦν δ' οὕτως ἔγραψεν· “οὔτε γῆν, ὡς ἔν τινι Ξενοφάνης.” καὶ Θεόφραστος δ' ἂν ἐν ταῖς τῶν φυσικῶν δοξῶν ἐπιτομαῖς τὴν Ξενοφάνους δόξαν, εἴπερ οὕτως εἶχεν, ἐγεγράφει. καὶ σοι πάρεστιν, εἰ χαιροῖς τῇ περὶ τούτων ἱστορίᾳ, τὰς τοῦ Θεοφράστου βίβλους ἀναγνῶναι, καθ' ἃς τὴν ἐπιτομὴν ἐποίησατο τῶν φυσικῶν δοξῶν, ὥσπερ γε πάλιν, εἰ τὰς τῶν παλαιῶν ἰατρῶν δόξας ἐθέλοις ἱστορῆσαι, πάρεστί σοι τὰς τῆς Ἱατρικῆς συναγωγῆς ἀναγνῶναι βίβλους ἐπιγεγραμμένας μὲν Ἀριστοτέλους, ὁμολογουμένας δὲ ὑπὸ Μένωνος, ὅς ἦν μαθητὴς αὐτοῦ, γεγράφθαι, διὸ καὶ Μενώνεια προσαγορεύουσιν ἔνιοι ταυτὶ τὰ βιβλία. δῆλον δὲ ὅτι καὶ ὁ Μένων ἐκεῖνος, ἀναζητήσας ἐπιμελῶς τὰ διασφζόμενα κατ' αὐτὸν ἔτι τῶν παλαιῶν ἰατρῶν βιβλία, τὰς δόξας αὐτῶν ἐκεῖθεν ἀνελέξατο· τῶν δ' ἥδη διεφθαρμένων παντάπασι νῆ σφζομένων μὲν, οὐ θεωρηθέντων δ' αὐτὰ τὰς γνώμας οὐκ ἠδύνατο γράψαι.

Galen then takes issue with previous Hippocratic exegetes. Among them, Sabinus also commented on Hippocrates' critique of material monism and supplied doxographic information on the material principles favored by different early physicists. Hence its application to the nature of man rather than the cosmos in general (*man* is wholly air, earth, etc.) In fact, he presented a very similar list of thinkers and principles as we have seen Galen doing in *Elem. Hipp.* There, as we have noticed, Galen includes earth as a material principle but mentions Anaximander instead of Xenophanes in his list of physicists. From the above passage it is clear that he thinks it wrong to link earth to Xenophanes, but earth clearly does not belong with Anaximander either. His knowledge of Theophrastus' work (which in other sources is often referred to as *Physical Doctrines*),⁴³ would make that an even stranger mistake.⁴⁴ The first sentence implies that Galen had access to it and used it to check Sabinus' claim, or at least knew that it did not support this claim. Its mention leads him to compare a similar work of reference from Aristotle's school, Menon's *Medical Collection*, which, he goes on to argue, shows that Hippocrates' representation of contemporaneous or previous medical theories on the constitution of man is correct (*ibid.*, 16.4–11 Mewaldt = xv, 26 Kühn). To limit ourselves to the former work as a source for Galen's knowledge of Presocratic philosophy, it is worth noting that Galen refers to it only in this passage. Even so, it is very likely that he used it more often than just to prove Sabinus' claim about Xenophanes incorrect. As we have noted above (124), Galen's doxographic schemas are often very similar but more complete than those found in the reconstructed text of Aëtius, which is much later than Theophrastus' work and may indeed have been composed in the time of Galen himself. Indeed, Theophrastus' *Physical Doctrines*—of which only a mere handful of certifiable fragments survive⁴⁵—has long been seen as the fountainhead of the *Placita* tradition, of which Aëtius' compendium is a relatively late specimen. This idea, which was primarily due to its having been propounded by Hermann Diels, is in the process of being replaced by a less simple but more plausible view of how the tradition(s) in question developed, involving input from more quarters including Theophrastus' own teacher, Aristotle.⁴⁶

43 But the title *Summary* at Diog. Laert. IX.21, 671.2 Dorandi (= Theophrastus fr. 227D FHSG) also seems to refer to it.

44 Cf. also above, fn. 28 with text thereto.

45 For the evidence Diels, *Doxographi Graeci*, 102–144, b. Theophrastus frs. 224–245 FHSG are presented by the editors together as concerned with “doxography of nature.” Without a doubt some of these fragments derive from other treatises such as Theophrastus' *Physics*.

46 See Mansfeld/Runia, *Aëtiana* v, 78–85, and for schematic representations of Diels' theory

One thing seems clear, however: Galen's comments on Hippocrates on the material monism of the earliest Ionians should be considered against the background of the doxographic schemas of the kind associated with authors such as Theophrastus in his *Physical Doctrines* and the much later work of Aëtius. This concerns not only the prosopography or cast of characters representing certain positions but also the conceptual apparatus which serves as the criterion for distinguishing these positions. The following passage (on Hippocrates, *Nat. Hom.* 1.2–4, 164.8–166.11 Jouanna) brings together many of the relevant concepts:

In this entire passage, then, he [*scil.* Hippocrates] clearly contradicts those who consider man to be only one of the four elements, and says that they are mistaken. For because⁴⁷ they demonstrate nothing, their argument is utterly unconvincing. For they do not establish that man is one of the four, but rather put the theory of Melissus on its feet,⁴⁸ since he too supposed that it was one, but not however one of these four (air and earth, water and fire). Rather it seems that this man thought that there was some common substance, which underlies the four elements and is ungenerated and indestructible, what later people called “matter,” even though he was unable to make this clear in an articulated manner. This is that substance which he calls “the one” and “the all.”⁴⁹ But this account is not correct, since this is not the only thing which is the principle of bodies in generation and decay, as Melissus supposed, but in addition to it there are the four qualities, the extreme forms of cold, dryness, heat and moisture.⁵⁰ However these are not yet elements of the nature of man (or anything else), but rather its principles. This was confused already by the

of the *Placita* and that of Mansfeld and Runia, 97 f. Cf. also Mansfeld, “Sources,” 17, with further references.

47 Diels, followed by Mewaldt, supplies “not” before “because,” implying that their position boils down to Melissus-style monism and is utterly implausible in itself, regardless of any proofs.

48 This expression, which is taken over from the Hippocratic text, means, at least according to Galen's exegesis, that they make the theory of Melissus look vigorous or successful for they say in an inarticulate way what Melissus has expressed more clearly: see LSJ s.v. and, in the parallel passage in *Elem. Hipp.*, 4.7, 92.3 De Lacy, where Galen uses the middle voice of the same verb, viz. ὀρθοῦσθαι, to say that compared to the position of those favouring one of the elements Melissus' argument looks successful.

49 See Melissus' characterization of the Eleatic One: DΚ 30 B6, 9 (= T 140, 146 Brémond = [21] D6, D8 LM).

50 The term “extreme” is usually employed by Galen in this context to refer to the elements in themselves or in their purest form: cf. *Elem. Hipp.* 1.4, 114.6–116.5 De Lacy; cf. *PHP* 8.4.19–21,

ancients, who did not arrive at the distinction between principle and element because they were able to use the term “element” for principles as well.⁵¹

HNH I.3, 17.16–18.2 MEWALDT = XV, 29–30 KÜHN = MELISSUS T 54 BRÉMOND; tr. HANKINSON, modified

This passage clearly runs parallel to *Elem. Hipp.* 86.10–92.14 De Lacy (= I.442–448 Kühn), which we have discussed in the preceding section.⁵² As Aristotle had done in his dialectical surveys of the views of his predecessors, Galen not merely exposes the mistakes of the Presocratics but also presents some of them as actually anticipating the correct doctrine, in this case Melissus, who is “put on his feet,” or “raised,” by his predecessors in the sense of being made, or made to look, successful as compared to them.⁵³ The reason is that Galen finds in him a premonition of the concept of matter (*hylê*) as the underlying principle or substrate of physical change. This is why Melissus diverged from his even cruder predecessors in not opting for one element. One could call this intellectual progress. Melissus however was not in possession of the conceptual apparatus to make his point really clear. As Galen explains, the elements air, fire, water earth taken in themselves are analyzable into the two principles matter and (elementary) qualities—a hylomorphic schema derived, of course, from Aristotle too (the elementary qualities represent the principle of form). According to Galen, in line with the standard Peripatetic position, elemental change and mixture occurs at the level of qualities, not the composite or substance as a

502.14–25 De Lacy. It is a theoretical abstraction since in physical reality the elements are always mixed in some proportion, even in the case of, say, visible fire or water.

- 51 φανερώς οὖν ἐν τούτῳ τῷ λόγῳ παντὶ τοῖς ἐν τι μόνον τῶν τεσσάρων στοιχείων ἡγουμένοις εἶναι τὸν ἄνθρωπον ἀντιλέγει καὶ φησιν [scil. Hippocrates] αὐτοὺς ἀμαρτάνειν· ὅτι γὰρ μηδὲν ἀποδεικνύουσιν, ἐσχάτως ἀπίθανος ἦν ὁ λόγος αὐτῶν· ἐν μὲν γὰρ τι τῶν τεσσάρων εἶναι τὸν ἄνθρωπον οὐ κατασκευάζουσι, τὸν δὲ Μελίσσου λόγον ὀρθοῦσιν ἡγουμένου μὲν ἐν εἶναι καὶ αὐτοῦ τοῦτο, οὐ μὴν ἐκ τῶν τεσσάρων γ' ἐν τι τούτων, ἀέρος καὶ γῆς ὕδατός τε καὶ πυρός. ἔοικε δὲ ὁ ἀνὴρ οὗτος ἐννοῆσαι μὲν εἶναι τινα οὐσίαν κοινήν, ὑποβεβλημένην τοῖς τέσσαρσι στοιχείοις, ἀγέννητόν τε καὶ ἄφθαρτον, ἦν οἱ μετ' αὐτὸν ὕλην ἐκάλεσαν, οὐ μὴν διηρθρωμένως γε δυνηθῆναι τοῦτο δηλώσαι· ταύτην δ' οὖν αὐτὴν τὴν οὐσίαν ὀνομάζει τὸ ἐν τε καὶ τὸ πᾶν. ἀληθὴς δὲ οὐδ' οὗτος ὁ λόγος ἐστίν. οὐ γὰρ ἐν τι μόνον ἐστὶν ἐκεῖνο, τῶν ἐν γενέσει καὶ φθορᾷ σωμάτων ἀρχή, καθάπερ ὑπέλαβεν ὁ Μελίσσος, ἀλλὰ πρὸς αὐτῷ ποιότητες τέσσαρες, ψυχρότης ἄκρα καὶ ξηρότης καὶ θερμότης. οὐ μὴν στοιχεῖά γε ταῦτ' ἐστὶν οὔτε τῶν ἄλλων οὔτ' ἀνθρώπου φύσεως, ἀλλὰ ἀρχαί. συνεκέρχτο δ' ἔτι τοῦτο παρὰ τοῖς ἀρχαίοις οὐδ' εἰς ἐννοίαν ἀφικμένοις τῆς διαφορᾶς ἀρχῆς τε καὶ στοιχείου διὰ τὸ δύνασθαι χρῆσθαι τῇ τοῦ στοιχείου προσηγορίᾳ κατὰ τῶν ἀρχῶν.
- 52 For the following interpretation see also the useful notes in Hankinson's forthcoming translation.
- 53 See above, fn. 48.

whole—the view attributed to Empedocles and held by the Stoics.⁵⁴ Galen here clearly goes beyond the Hippocratic passage commented upon: this makes the point that the proponents of one physical element are hopelessly divided inasmuch as they chose different elements for their principles and engage in empty debates with no relevance to medicine. It is especially the last remark on their “putting Melissus on his feet” that Galen seizes upon to make his point that Melissus possessed an inchoate notion of matter. But a correct understanding of the difference between an element and an elementary quality starts not with him but with Hippocrates. Like Melissus, Hippocrates however lacked the terminology to express himself clearly. But when he speaks of “the hot” he must according to Galen be taken to mean the element as the composite of quality and matter.⁵⁵ Thus Galen manages, precariously, to bring Hippocrates in line with later Aristotelian conceptual distinctions.

Galen of course knew the relevant Aristotelian works. A critique of monism in general had been delivered by Aristotle, *Met.* 1.8: 988b23–989a20: all the monists favor one particular element (though, oddly enough, not earth, Aristotle notes) each but they have in common that they lack a proper understanding of the different principles or causes. Broadly speaking, this approach also underlies Galen’s critique. But his analysis seems indebted more directly to the distinctions we encounter in doxographic literature. One could, and should, perhaps say that we are dealing with Aristotelian physics as filtered through a particular philosophical education which is likely to have involved the doxographic schemas and practice of memorizing doctrines and arguments based on them. This becomes clear when we compare both the arrangement of material and the distinctions applied by *Aëtius* at the beginning of his compendium of physical tenets.⁵⁶ Before the principles (*archai*) chosen by each natural philosopher are presented (book 1, chapter 3) there are two preliminary chapters: the first is about the notion of nature (*physis*) and corresponds to Galen’s section devoted to the same subject near the beginning

54 *HNH* 1.3, 19.4–12 Mewaldt (= xv, 32 Kühn): ἔνιοι μὲν γὰρ τὰς τέτταρας ποιότητος μόνας κεράνυσθαι δι’ ὄλων ἀλλήλαις λέγουσιν, ἔνιοι δὲ τὰς οὐσίας ἀπεφήναντο, Περιπατητικοὶ μὲν τῆς προτέρας δόξης προστάντες, Στωϊκοὶ δὲ τῆς δευτέρας· ἔτι τε τούτων ἔμπροσθεν Ἐμπεδοκλῆς ἐξ ἀμεταβλήτων τῶν τεσσάρων στοιχείων ἠγγεῖτο γίνεσθαι τὴν τῶν συνθέτων σωματῶν φύσιν, οὕτως ἀναμειγμένον ἀλλήλοις τῶν πρώτων, ὡσεὶ τις λειώσας ἀκριβῶς καὶ χυώδη ποιήσας ἰὸν καὶ χαλκίτην καὶ καδμείαν καὶ μίσυ μίξειεν, ὡς μηδὲν ἐξ αὐτῶν δύνασθαι μεταχειρίσασθαι χωρὶς ἑτέρου.

55 See Elem. *Hipp.* 9.4–5, 128.2–6 De Lacy (= 1, 481 Kühn); cf. 8.12–13, 126.7–10 De Lacy (= 1, 480 Kühn), *HNH* 1.14, 28.23–26 Mewaldt (= xv, 52 Kühn), 1.15, 30.11–16 M. (= xv, 54 Kühn).

56 For an analysis of the first three chapters of the first book of *Aëtius* see Mansfeld/Runia, *Aëtiana* v, 181–312.

of his preface (*HNH* 3.20–5.9 Mewaldt = xv, 2–5 Kühn); both distinguish between different senses of the word. The second chapter in Aëtius deals with the difference between element (*stoicheion*) and principle (*archê*) in a way that corresponds to the above passage from *HNH*. Both authors take elements as further analyzable into principles.⁵⁷ Aëtius applies this to Thales of Miletus (who championed water) as regarding element and principle as the same thing, i.e. the same inarticulacy that Galen attributes to the earliest physicists. Likewise, the doxographic overview by Theophrastus *ap. Simplicius, In Arist. Phys.* 1.2 184b15 (CAG vol. 9, 24.13–25.13 Diels = Theophr. Fr. 226A FHSG) presents Anaximander⁵⁸ as saying that the “principle and element” (*archên te kai stoicheion*) of the things there are is the indefinite (*apeiron*) (DK 12 A 9 = [6] D6 LM). Without any apparent difference in meaning Theophrastus speaks about the “underlying nature” in connection with Anaximenes (DK 13 A 5 = [7] D1 LM) and about “nature” in connection with Diogenes of Apollonia (DK 64 A4 = [28] D8 LM). We may again compare Galen, who in his preface says that the early physicists who authored treatises *On Nature* are concerned with “underlying nature” (4.1–2 Mewaldt = xv, 3 Kühn). Clearly, then, the terminology and the distinctions we find in Galen reflect the same systematization of Presocratic cosmological and cosmogonic theory that we find in Theophrastus and, much later but standing in the same tradition, Aëtius.

Galen elaborates on further criticisms levelled by Hippocrates against Melissus and other monists including medical ones who hold that man is only blood or one of the other humors. These medical monists run into the same problems as philosophical ones such as Melissus: they cannot explain the occurrence of pain because unity excludes what causes pain, i.e. processes such as penetration from outside and separation or dissolution from within, which involve plurality.⁵⁹ They make clinical medicine impossible since this uses a plurality of therapeutic means.⁶⁰ In fact, they make natural science impossible since this is the study of what is in motion or becoming and incompatible with the view of reality as a motionless One.⁶¹ Moreover, they cannot explain natural repro-

57 On elements being a composite cf. also *Elem. Hipp.* v1.39–40, 114.20–116.5 De Lacy (= 1, 470.7–9 Kühn), esp. 24–25: ποιότης μὲν γὰρ πλὴ ποιότητος συνθέτου στοιχείου, ἀπλοῦν δὲ σώμα σώματος οὐχ ἀπλοῦ.

58 On whom see above, fn. 26 with text thereto.

59 *HNH* 1.6, 20.25–21.24 Mewaldt (= xv, 36–37 Kühn). This objection is correct insofar as Melissus denies pain to the One: see DK 30 B7 (= Brémond T150, [21] LM D10).

60 *HNH* 1.7, 21.25–23.8 Mewaldt (= xv, 38–40 Kühn).

61 *HNH* 1.10, 24.23–24 Mewaldt (= xv, 44 Kühn) echoing Arist. *Phys.* 1.2, esp. 184b27–185a4; cf. 184a15–17.

duction, which necessitates two parties.⁶² Some of these objections boil down to an appeal to perception as the basis of medicine.⁶³ This brings us back to the statement made by Galen in *Elem. Hipp.* that the doctor has nothing to say to the rationalist ontologist. But clearly Galen does have something to say, since he takes an interest in warning against unbridled dogmatic and rationalist speculation but also (as is particularly clear from *Elem. Hipp.*) against atomism as the form of materialism current in his own day. This brings us to the special but mostly negative interest taken by Galen in the Presocratic philosopher Anaxagoras.

6 A Villain: Anaxagoras

So far, we have distinguished two main contexts in which we encounter the Presocratics. First, there was the division of options, some of which were labelled with the names of Presocratics, as a particular feature of Galen's method. Secondly, there was the discussion in *Elem. Hipp.* and *HNH* about the nature of nature, or the basic stuff or principle, and the onslaught on material monism. In the latter context he took a special interest in Melissus because of the prominence given to this Presocratic thinker in the Hippocratic *Nature of Man*. But Galen takes an even greater interest in Anaxagoras in connection with different fields: cosmology, epistemology and ethics. In fact, there is an interesting story told about Galen possessing a copy and indeed an autograph of Anaxagoras' treatise. It comes from the Arabic author Ibn Abī Uṣaybi'a, who in his biography of Galen speaks about Galen's library, which was in large part demolished by the Great Fire that struck Rome in 192 CE. The biographer writes about Galen's books that "some were in the hand of Aristotle, others of Anaxagoras, others of Andromachus," appealing to Galen's *De indolentia* (*Peri alypias*, "Avoiding Distress"), without quoting directly from this tract, however. Already Ilberg suggested that Ibn Abī Uṣaybi'a had mistaken *antigrapha*, "copies," "manuscripts" for *autographa*. Nutton in the introduction to his translation of the recently recovered text of *De indolentia* alternatively suggests that Ibn Abī Uṣaybi'a mistook a reference to the Palatine libraries for that of Galen.⁶⁴

62 *HNH* I.10, 24.16–25.21 Mewaldt (= XV, 43–45 Kühn).

63 Cf. *HNH* I.10, 24.29 Mewaldt (= XV, 44 Kühn): 'Ο μὲν ... Ἰπποκράτης αἰεὶ τοῖς ἐναργῶς φαινομένοις ἀκολουθεῖ.

64 Nutton, "Galen's Library," 27–29, with references to the sources mentioned in the text; cf. Nutton, "Introduction," 56–57; cf. Meyerhof, "Autobiographische Buchstücke Galens aus arabischen Quellen"; cf. also the edition of Strohmaier, 80.

Galen does not refer to Anaxagoras in his *De indolentia*. The tract may not be complete; it ends rather abruptly (which however is not untypical of Galen). But the preserved section on his lost books does not refer to Anaxagoras. References to him in other works do not point to direct access to the original exposition (let alone the quite improbable autograph) but rather to intermediate sources.

Galen treats Anaxagoras as the founding figure within the atheist and materialist opposition he has to combat. This rather prominent role for a Presocratic is noteworthy. It may have been occasioned by the famous passage from Plato's *Phaedo* (97b–d), which we noticed in connection with Galen's attitude to Socrates (above, 126). At the outset of his cosmological treatise Anaxagoras had promisingly appealed to divine Intelligence (*Nous*) but then lapsed into an explanation in terms of mechanistic and materialistic causes, which disappointed and disillusioned Socrates and made him abandon cosmology altogether. Later Plato was to fulfil young Socrates' expectations by writing the *Timaeus*. Its teleological explanation of the cosmos made it particularly dear to Galen's heart. His own *On the Functionality of Parts* focuses on the design of the organs of the individual human—a far more focused, up-to-date and with its fifteen books extensive treatment of human nature than that offered by Plato, who after all discusses the creation of the world as a whole. Focusing on human anatomy it is also more specific than another source of inspiration for Galen, viz. Aristotle's *Parts of Animals*. In this anatomical and teleological context we come across a typical passage featuring Anaxagoras:

Man is the wisest of animals and so his hands are organs appropriate to a wise animal. For not because he has got hands, is he very wise, as Anaxagoras says, but because he was to be very wise, he received hands, as Aristotle says⁶⁵ with great understanding. For not the hands taught man his arts but his reason. The hands are a tool, as the lyre is of the musician and a pair of fire-tongs of the coppersmith.⁶⁶

UP I.3, 3.25–4.7 HELMREICH (= III, 5 KÜHN = DK 59 A102 = [25] D80 LM)

65 Aristotle, *De part. anim.* IV.19, 687a7–11.

66 Οὕτω μὲν σοφώτατον τῶν ζῴων ἄνθρωπος, οὕτω δὲ καὶ χεῖρες ὄργανα πρέποντα ζῳῷ σοφῷ. οὐ γὰρ ὅτι χεῖρας ἔσχε, διὰ τοῦτο σοφώτατον, ὡς Ἀναξαγόρας ἔλεγεν, ἀλλ' ὅτι σοφώτατον ἦν, διὰ τοῦτο χεῖρας ἔσχε, ὡς Ἀριστοτέλης φησὶν ὀρθότατα γινώσκων. οὐ γὰρ αἱ χεῖρες ἄνθρωπον ἐδίδαξαν τὰς τέχνας, ἀλλ' ὁ λόγος· αἱ χεῖρες δ' ὄργανον, ὡς λύρα μουσικοῦ καὶ πυράγρα χαλκῆως.

In a further passage Galen associates Anaxagoras with a few notorious atheists:

And furthermore our Maker knowing well the ingratitude of this sort of men nonetheless proceeded to the creation. And the sun produces the seasons of the year and completes the crops and fruits without caring I think about Diagoras or Anaxagoras or Epicurus or any others of those who engage in blasphemy against it.⁶⁷

UP XII.6, 196.19–24 HELMREICH (= IV, 21 KÜHN; not in DK)

Anaxagoras' reputation as a blasphemer may be due to his trial for impiety. He was persecuted because he claimed that the sun was a red-hot mass of metal (Diog. Laert. II.12, 156.74–82 Dorandi = DK 59 A1 = [25] P23 LM), which explains that Galen shifts here from the Demiurge to the sun, which he regarded as divine too. In fact, Galen here reflects the religious thought of later antiquity, in which the sun increasingly took a central place and tended to become the god that rules the world (with the Demiurge remaining external to his creation).⁶⁸

In one of his pharmacological works Galen reports that some rationalist physicians call on Anaxagoras, a famous natural philosopher, as a witness attesting to their belief that one should use reason to get to the nature of things, going beyond perception: Anaxagoras had argued that snow is not white but black because it is frozen water and water is black. This is just as bad as materialism and atheism in the field of cosmology; it is a crude kind of skepticism, which may count as epistemological blasphemy. Our Maker has seen to it that if our senses are healthy, there is no need for proof; they can be relied upon directly: snow is white.⁶⁹ The point illustrated by this negative example can

67 και μέντοι και ὁ δημιουργὸς ἡμῶν εἰδὼς ἀκριβῶς τῶν τοιούτων ἀνδρῶν τὴν ἀχαριστίαν ἡμῶν δημιουργεῖ. και τὰς ὥρας τοῦ ἔτους ὁ ἥλιος ἀπεργάζεται και τοὺς καρποὺς τελεοῖ μηδὲν φροντίζων οἶμαι μήτε Διαγόρου μήτ' Ἀναξαγόρου μήτ' Ἐπικούρου μήτε τῶν ἄλλων τῶν εἰς αὐτὸν βλασφημησάντων.

68 Donini, "Motivi filosofici in Galeno," 354; Frede, "Galen's Theology," 11–113.

69 SMT XI, 461–462 Kühn: και τινες ἐξ αὐτῶν και τὸν Ἀναξαγόραν ἐπικαλοῦνται μάρτυρα, περὶ τῆς χιόνος ἀποφηνάμενον, ὡς οὐκ εἶη λευκή. οὗτος ἄρα, φασί, φυσικὸς ἀνήρ ὑπὲρ τὴν αἴσθησιν ἐστὶν και καταφρονεῖ μὲν τῶν ταύτης φαντασμάτων, ἐπὶ δὲ τὸν λόγον ἀνέρχεται, και τούτῳ τῶν ὄντων θηράται φύσιν. Temp. III, I, 589 Kühn: εἰ δ' αἰσθητῶν πραγμάτων ἀποδείξεις λογικὰς ζητοῦσιν, ὥρα τι και περὶ τῆς χιόνος αὐτῆς ἡδὴ σκοπεῖν, εἶτε λευκήν, ὡς ἄπασιν ἀνθρώποις φαίνεται, νομιστέον αὐτὴν εἶτε και μὴ λευκήν, ὡς Ἀναξαγόρας ἀπεφήνατο. και μὲν δὴ και περὶ πίττης ὡσαύτως ἀνασκοπεῖν και κόρακος ἀπάντων τε τῶν ἄλλων. οὐ γὰρ δὴ τὸ μὲν λευκὸν ἀπιστεῖσθαι χρὴ τοὺς ὀφθαλμοὺς ὀρώντας, ἄνευ δ' ἀποδείξεως ἐπὶ τῶν μελάνων πιστεῦσθαι (DK 59 A97 = [25] D7a LM).

be paralleled from evidence related to the debate between Dogmatists and Sceptics in the Hellenistic era.⁷⁰

A famous, memorable statement (belonging with the genre called *chreia* in antiquity) pertains to maintaining one's composure in the face of adversity: Anaxagoras when learning about the death of his son replied: "I knew I had begotten a mortal." Galen quotes this statement in discussing the theory and therapy of emotion of the Stoic philosopher Posidonius in the fourth book of his *On the Doctrines of Hippocrates and Plato*. In this work, Posidonius is one of Galen's heroes, whom he continually plays off against other Stoics such as Chrysippus. It was Posidonius who quoted the *chreia* about Anaxagoras as an illustration of the mental technique of "dwelling in advance" (*proendêmein*) on what might happen to you. When you realize that your loved ones may die and imagine them dying, you thereby prepare yourself for the real blow of fortune should it occur. In this context, Galen cannot distance himself from Posidonius so he does not criticize the *chreia* either. But in fact, it instantiates the moral heroism extolled by the Stoics and rejected by Galen in other works such as *De indolentia*.⁷¹ Yet even there he does ascribe some efficacy to the technique of dwelling in advance.⁷²

7 Two Forerunners: Pythagoras and Heraclitus

If Anaxagoras, at least in cosmology-cum-theology and in epistemology, serves as a negative *exemplum*, Pythagoras seems to be at the opposite end. Galen does not seem to be interested in his mathematical work but he does take him very seriously as a moral guide.⁷³ In his sizable work on moral psychology, *On the Diagnosis of the Soul's Affections*, he tells us that he is used to reading and speaking out aloud the moral counsels that circulate under Pythagoras' name, as an antidote against a whole array of vices.⁷⁴ In his treatise *The Capacities of the Soul*

70 See Sextus Empiricus, *PH* 1.33, Cicero, *Luc.* 100.

71 *PHP* 4.7.9, 282.14–16 De Lacy: διὸ καὶ τὸ τοῦ Ἀναξαγόρου παρείληφεν [scil. Posidonius] ἐνταῦθα, ὡς ἄρα τινὸς ἀναγγεῖλαντος αὐτῷ τεθνάναι τὸν υἱὸν εὖ μάλα καθεστηκότως εἶπεν "ἦδειν θνητὸν γεννήσας."

72 See Tieleman, "Wisdom and Emotion," 203–204.

73 Galen mentions Pythagoras as both a wise man and convinced of the power of numbers at *Di. dec.* IX. 923 Kühn: ὁ Πυθαγόρας ἐκεῖνος ἅμα τε σοφὸς ἦν ἀνὴρ ἅμα τε τοσοῦτον ᾤετο δύνασθαι τοὺς ἀριθμούς ... In the context he wonders why Pythagoras did not speak out against some zany forms of numerical symbolism and their application in medicine. Pythagoras is also included in a list of wise men at *MM* 1.2, X, 12 Kühn.

74 *Aff. Dign.* 6.10, 21.8–10 De Boer (= V, 30–31 Kühn): ἐγὼ δὴπου καὶ ταύτας δὴ τὰς φερομένας ὡς

Follow the Mixtures of the Body (standardly abbreviated *QAM* after its Latin title) Galen honors Pythagoras by linking him to Plato and Socrates. Here Pythagoras emerges as the quintessential sage. First, Pythagoras and Plato⁷⁵ feature as prime examples of those ancients who are on record as having improved their moral condition through their diet and life-style, i.e. they did not limit themselves to theorizing about the influence of the body on the mind (*QAM* 1.7.11–14 Bazou = IV, 767 Kühn). Near the end of the treatise Pythagoras is linked to Socrates as an ideal educator and moral beacon (*QAM* 11.80.10–11 Bazou = IV, 816 Kühn). Both Pythagoras⁷⁶ and Socrates are known for not having committed their philosophy to writing. They seem to represent a philosophy actually crowned by a life conforming to it.

Yet Galen does not pay tribute to Pythagoras as a man of practical wisdom only. He also credits him with the doctrine that the soul has both a rational and a non-rational part or power. According to Galen, emotion and weakness of will occur

... because of the causes stated by the ancients. This was not the view of Aristotle and Plato only; it was held even earlier by certain others, among them Pythagoras, who as Posidonius too says, was the first to hold this doctrine, while Plato worked it out and made it more complete.⁷⁷

PHP 4.7.38–39, 290.1–5 DE LACY = V, 425 KÜHN = POSID. T 95 EDELSTEIN-KIDD

Πυθαγόρου παραινέσεις εἶθισμαι δις τῆς ἡμέρας ἀναγινώσκειν μὲν τὰ πρῶτα, λέγειν δ' ἀπὸ στόματος ὕστερον. οὐ γὰρ ἀρκεῖ μόνον ἀοργησίαν ἀσκεῖν, ἀλλὰ καὶ λιχνείας καὶ λαγνείας οἴνοφλυγίας τε καὶ περιεργίας καὶ φθόνου καθαρᾶν. See *ibid.*, 33 for what may have been one of these pieces of advice: ἐλοῦ <τόν> βίον ἄριστον, ἡδὺν δ' αὐτόν ἢ συνῆθεια ποιήσει. Stobaeus, *Ecl.* III.1.29, 14.1–7, III.29.99, 659.12–15 Hense; Plutarchus, *Mor.* 123c (*Advice on Health*) attributing this (or a very similar saying) to Pythagoras.

75 Cf. Plato, *Tim.* 87b, *Leg.* 674a–c, both discussed by Galen, *QAM* ch. 10, 70.16–77.4 Bazou (= IV, 810–814 Kühn).

76 See Posidonius *ap.* Galenus, *PHP* 5.6.43 (= Posid. T 91 Edelstein-Kidd, Pythag. DK 14 A 18 = [18] R31 LM): Ποσειδώνιος δὲ καὶ Πυθαγόραν [scil. took the view that the soul has a non-rational part] φησὶν, αὐτοῦ μὲν τοῦ Πυθαγόρου συγγραμματος οὐδενὸς εἰς ἡμᾶς διασωζομένου τεκμαίρομενος δ' ἐξ ὧν ἔνιοι τῶν μαθητῶν αὐτοῦ γεγράφασιν. Cf. *HNH* 1.27, 36.22 Mewaldt (= xv, 68 Kühn).

77 διὰ τὰς ὑπὸ τῶν παλαιῶν εἰρημένους. οὐ γὰρ Ἀριστοτέλης μόνον ἢ Πλάτων ἐδόξαζον οὕτως ἀλλ' ἔτι πρόσθεν ἄλλοι τέ τινες καὶ ὁ Πυθαγόρας, ὡς καὶ ὁ Ποσειδώνιος φησὶν ἐκεῖνον πρῶτου μὲν εἶναι λέγων τὸ δόγμα, Πλάτωνα δ' ἐξεργάσασθαι καὶ κατασκευάσαι τελεώτερον αὐτό. cf. *PHP* 5.6.43, 334.30–34 De Lacy = Posid. T 91 = F 151 Edelstein-Kidd, where Galen lumps Pythagoras together with Cleanthes and Posidonius as supporters of the Platonic tripartite psychology and notes that Posidonius ascribed this view to Pythagoras on the basis of what some of the latter's pupils had written since Pythagoras himself has left no work: see *prev. fn.* For this linking of Pythagoras and Plato, cf. Cicero, *Tusc.* 4.10–11.

Pythagoras, then, had the correct insight into the soul's structure in terms of a rational/non-rational division. Galen presents the Platonic tripartite theory, to which he subscribes wholeheartedly himself (and which he also attributes to the Stoic Posidonius), as a further articulation of this basic idea: the non-rational part is subdivided into a spirited and an appetitive part. This then seems to provide another example of what we have seen in regard to Empedocles (four elements) and Melissus (notion of matter) that of a Presocratic thinker who was on the right track and had an idea that was further developed in the later philosophical and scientific tradition.

About the soul's substance, as is well known, Galen felt unable to lay claim to knowledge. In *QAM* he is nonetheless inclined to express a preference for a particular position, viz. that the soul (i.e. the Platonic tripartite soul) is the mixture of the elementary qualities. In its fifth chapter (22.9–29.4 Bazou = IV 780–784 Kühn) he even argues for this assumption in the case of the rational form or part of soul, in light of Platonic passages linking oblivion and ignorance to wetness: apart from the River of Unheeding in the plain of Forgetfulness, from which souls have to drink (and some of them do so immoderately) before being incarnated in *Republic* X, 621a–b, there is the comparison of the body with a river within which the souls of babies are “bound” and tossed about, explaining their ignorant and helpless state (*Tim.* 43a, cited at *QAM* 4.23.1–12 Bazou = IV 780 Kühn). This Heraclitean⁷⁸ picture of the human condition, at least in its initial phase, is continued by Galen a little further on through a direct quotation from Heraclitus, viz. (a version of) DK 22 B118 (= [9] D 103 LM), linking the opposite of ignorance, understanding, to dryness and light: “a ray of light is the dry soul, wisest” (*QAM* 6.31.1–2 Bazou = IV, 786 Kühn).⁷⁹ In his physicalist reading of the *Timaeus*, then, Galen presents Heraclitus as a forerunner of Plato, at least where the soul and its relation to the body are concerned.

78 Cf. the “river fragments” (DK 22 B12, 49a, 91 = [9] D65a, D102, R51, R6 LM) and fragments linking ignorance and death with water or the wet (DK 22 B87, 88, 89 = [9] D8, D68, R56 LM).

79 αὐγή ξηρὴ ψυχῆ σοφωτάτη (leaving out καὶ ἀρίστη given by other sources; some of them give αὖη, “dry”, instead of αὐγή, which would seem to make the less archaic a ξηρὴ gloss). This Heraclitean statement is also quoted in one of the fragments ascribed by Carlos Larrain to Galen's lost commentary on the *Timaeus*: Fr. 9, 8–11 Larrain. The noun αὐγή, “(sun)light,” which is given by other sources, is in fact associated by Galen with the soul in that he describes the psychic pneuma as being αὐγοειδές, “of the form of light,” “light-like,” especially in explaining vision, see e.g. *PHP* 7.6.10, 464.16–19, 7.7.25, 474.22–27 De Lacy, *Hipp. Epid.* xviiB, 214 Kühn, *UP* viii.6, vol. 1, 464.14, 19 Helmreich (ii, 640–641 Kühn). There is also a cosmic dimension involved, as is clear from the present context where he calls the stars “of the form of light” and extremely dry and supremely intelligent and gods: *QAM* 6.31.5–8 Bazou = IV, 786 Kühn; cf. also his ideas on the sun, about which above, 141. On

Likewise, Galen at *On Tremor, Palpitation, Spasm and Rigor* (abbreviated *Trem. Palp.* after its Latin title) VII, 617 Kühn characterizes the soul as ever-moving and as innate heat using the words of Heraclitus: “an ever-living fire, kindled in measures and extinguishing in measures” (DK 22 B30 = [9] D85 LM). Note that in the full fragment as known from other sources the subject of this sentence is not the soul but the cosmos. But we have already come across the microcosm-macrocosm analogy involved here, so Galen may not be completely distortive in applying the phrase to the soul, or innate heat. This passage is from a context where the body-soul relationship is treated in terms of pneuma and tension, which seem to reflect Stoic rather than Platonic physics. In fact, Von Arnim was led to include a large chunk of text (*ibid.*, 616–617), including the quotation from Heraclitus, in his collection of early Stoic fragments, taking, no doubt, this quotation as an indicator of Stoic provenance (*SVF* 2.446). This may in itself be insufficient for positing a Stoic backdrop, as is shown by Galen’s reference to Heraclitus in a Platonic context in the passage from *QAM* we have just noted. But although the passage from *Trem. Palp.* may not count as a “fragment” in any strict sense, the Stoic coloring seems nonetheless undeniable.⁸⁰ For our present purposes suffice it to note that we here have another appeal to Heraclitus as having expressed a correct insight in a memorable way.

8 Conclusion

In Galen’s voluminous writings Presocratic philosophers are mentioned or discussed in a variety of ways and contexts. There are contexts where Galen mentions Presocratics without really engaging with their thought. This is the case when he links Presocratics to certain options that are open in a particular debate. These options with the names belonging to them form diaeretic schemas, taken from or inspired by doxographic literature, schemas which Galen put to a variety of uses—dialectical, polemical, constructive. But, it has turned out, it is also rewarding to consider the role played by Presocratics and Presocratic philosophy in terms of the intellectual tradition created by Galen. For Galen, as we have seen, good medicine and good philosophy really started only with Hippocrates and Plato. Even so, the watershed is not as strict as that.

this passage and Galen’s *Timaeus* commentary see further Vinkesteijn, *Philosophical Perspectives on Galen of Pergamum*, 182–193 (cf. 143–153 on the authenticity and value of the material found by Larrain).

80 Galen’s use of Stoic physics may have been mediated by Stoicizing readings of Hippocrates: see Tieleman, “Galen and the Stoics,” 293–294.

Socrates, Plato's teacher, played an important role in turning away from cosmological speculation and becoming the moral philosopher *par excellence*. Given his general reverence for "the ancients" Galen was also interested in anticipations of physical doctrines. The assumption of four elements of Empedocles' cosmology, though flawed, anticipated his own elemental theory, which only got off the ground with Hippocrates and Plato. Galen gives a twist to Melissus' Being so that it becomes an anticipation of Aristotle's material cause and so is superior to the ideas of other material monists who favored one of the four elements. Anaxagoras is given prominence for a different reason: in most cases he is a negative example foreshadowing materialist, non-teleological, and even skeptical modes of thought still current in Galen's day. Like Socrates, Pythagoras again is a beacon of moral wisdom. But he also anticipated the Platonic doctrine of the soul's structure. In regard to the soul's substance Galen approvingly cites Heraclitus as associating the human, rational soul with dryness, light and fire (and its dullness and death with wetness), which he felt anticipated insights about the body-soul relationship to be found in the Platonic *Timaeus*.

With all this Galen taps a variety of intermediate sources, depending on field or context. In regard to natural philosophy the role played by Aristotle, Theophrastus and the literary traditions derived from them, including what has come to be known as doxography, seem particularly noteworthy.

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References

Note: for references to Galenic works (e.g. *SMT*, *UP*, *QAM*) see the guide to the abbreviations in: R.J. Hankinson, *The Cambridge Companion to Galen*. Cambridge: Cambridge University Press, 2008, 391–398.

Primary Sources

Brémond, M. *Lectures de Mélissos. Édition, traduction et interprétation des témoignages sur Mélissos de Samos*. *Studia presocratica* 9. Berlin: Walter de Gruyter, 2017.
Diels, H. *Doxographi Graeci*. Berlin: Verlag Georg Reimer, 1879.

- Diels, H. *Die Fragmente der Vorsokratiker*. Ed. W. Kranz. 3 vols. Zürich and Hildesheim: Weidmann 1992 (= unaltered repr. of the 6th edition, 1951) [DK].
- Diogenes Laertius. *Lives of Eminent Philosophers*. Edited with an Introduction by T. Dorandi. Cambridge Classical Texts and Commentaries 50. Cambridge: Cambridge University Press, 2013.
- Hippocrates. *De natura hominis*. Ed. J. Jouanna. Corpus medicorum graecorum I, 1, 3. Berlin: Akademie Verlag 1975.
- Cl. Galeni *Opera Omnia*. 22 vols. Ed. C.G. Kühn. Leipzig: Knoblauch 1821–1833; repr. Hildesheim: Olms 1964–1965.
- Galenus. *De usu partium*. Ed. G. Helmreich, 2 vols.: Leipzig: Teubner 1907 (repr. Amsterdam: Hakkert 1968).
- Galenus *De propriorum animi cuiuslibet affectuum dignotione et curatione. De animi cuiuslibet peccatorum dignotione et curatione. De atra bile*. Corpus medicorum graecorum v 4, 1, 1. Ed. W. de Boer. Leipzig: Teubner 1937.
- Galen. *Über die Verschiedenheit der homoiomeren Körperteile*. Ed. by G. Strohmaier. Corpus Medicorum Graecorum. Supplementum Orientale III. Berlin: Akademie-Verlag, 1970.
- Galenus *In Hippocratis de natura hominis. In Hippocratis de victu acutorum. De diaeta Hippocratis. In morbis acutis*. Eds. J. Mewaldt, G. Helmreich, J. Westenberger. Corpus Medicorum Graecorum v 9,1. Berlin: Teubner 1914.
- Galen. *On the Doctrines of Hippocrates and Plato*. Ed. By P. De Lacy. 3 vols. Corpus Medicorum Graecorum v 4, 1, 2. Berlin: Akademie Verlag 1978–1984 (with later unrevised editions).
- Galen. *On the Elements according to Hippocrates*. Ed. By P. de Lacy. Corpus medicorum Graecorum v 1,2. Berlin: Akademie-Verlag, 1996.
- Galien. *Sur l'ordre de ses propres livres. Sur les propres livres. Que l'excellent médecin est aussi philosophe*. Ed. V. Boudon. Paris: Les Belles Lettres 2007 (= Budé edition vol. 1).
- Galien. *Ne pas se chagriner*. Ed. V. Budon-Millot & J. Jouanna. Paris: Les Belles Lettres 2010 (= Budé edition vol. IV).
- ΓΑΛΗΝΟΥ ΟΤΙ ΤΑΙΣ ΤΟΥ ΣΩΜΑΤΟΣ ΚΡΑΣΕΕΙΝ ΑΙ ΤΗΣ ΨΟΧΗΣ ΔΥΝΑΜΕΙΣ ΕΠΟΝΤΑΙ (= Quod animi mores temperamenta corporis sequantur [QAM]). Ed. A.D. Bazou. Athens. Academy of Athens 2011.
- Galen. *Commentary on the Nature of Man*. Tr. by R.J. Hankinson. Cambridge Galen Translations. Cambridge: Cambridge University Press, [forthcoming].
- Kirk, G.S., J.E. Raven and M. Schofield. *The Presocratic Philosophers*. Cambridge: Cambridge University Press 2nd 1983.
- Laks, A. and G.W. Most, *Early Greek Philosophy*. 9 vols. Loeb Classical Library. Cambridge MA/London: Harvard University Press 2016. French translation: *Les débuts de la philosophie. Des premiers penseurs grecs à Socrate. Édition et traduction. Ouvertures bilingues*. Paris: Fayard 2016. [LM].

Mansfeld, J. and D.T. Runia. *Aëtiana v. An Edition of the Reconstructed Text of the Placita, with a Commentary and a Collection of Related Texts*. *Philosophia Antiqua* vol. 153/1. Leiden: Brill, 2020.

Secondary Sources

- Beardslee, J.W. *The Use of φύσις in Fifth-Century Greek Literature*. PhD thesis, Chicago, 1918.
- Castagnoli, L. and P. Ceccarelli. "Introduction." In: *Greek Memories Theories and Practices*. Ed. by L. Castagnoli and P. Ceccarelli. Cambridge: Cambridge University Press 2019, 1–50.
- Donini, P.L. "Motivi filosofici in Galeno." In: *La Parola del Passato* 35 (1980), 333–370.
- Frede, M. "Galen's Theology." In: *Galien et la philosophie*. Ed. by J. Barnes and J. Jouanna. *Entretiens Hardt XLIX*. Genève: Fondation Hardt, 2003, 73–126.
- Jouanna, J. "La notion de nature chez Galien." In: *Galien et la philosophie*. Ed. by J. Barnes and J. Jouanna. *Entretiens Hardt XLIX*. Genève: Fondation Hardt, 2003, 229–262 (Discussion 263–268).
- Hankinson, R.J. "Galen's Concept of Scientific Progress." In: *Wissenschaften (Medizin und Biologie [Forts.])*. Ed. by W. Haase. *Aufstieg und Niedergang der römischen Welt* 11.37.2. Berlin/New York: Walter de Gruyter, 1994, 1775–1789.
- Hankinson, R.J. "Galen on Hippocratic Physics." In: *Ancient Concepts of the Hippocratic. Papers Presented at the XIth International Hippocrates Colloquium, Austin, Texas, August 2008*. *Studies in Ancient Medicine* vol. 46. Ed. By L. Dean-Jones and R.M. Rosen. Leiden/Boston: Brill, 2016, 421–443.
- Kovačić, F. *Der Begriff der Physis bei Galen vor dem Hintergrund seiner Vorgänger*. *Philosophie der Antike* 12. Stuttgart: Steiner, 2001.
- Laks, A. *Introduction à la philosophie présocratique*. Paris: Presses Universitaires de France, 2006. English translation (by G.W. Most): *The Concept of Presocratic Philosophy: Its Origin, Development, and Significance*. Princeton: Princeton University Press 2018.
- Manetti, D. and A. Roselli. "Galeno commentatore di Ippocrate." In: *Wissenschaften (Medizin und Biologie [Forts.])*. Ed. by W. Haase. *Aufstieg und Niedergang der römischen Welt* 11.37.2. Berlin/New York: Walter de Gruyter, 1994, 1529–1635, 2071–2080.
- Mansfeld, J. "Doxography and Dialectic. The 'Sitz im Leben' of the 'Placita.'" In: *Philosophie, Wissenschaften, Technik: Philosophie (Epikureismus, Skeptizismus, Kynismus, Orphica, Doxographica)*. Ed. by W. Haase. *Aufstieg und Niedergang der römischen Welt* 11.36.4. Berlin/New York: Walter de Gruyter, 1990, 3056–3229.
- Mansfeld, J. "Sources." In: *The Cambridge History of Hellenistic Philosophy*. Ed. by K. Algra, J. Barnes, J. Mansfeld, and M. Schofield. Cambridge: Cambridge University Press, 1999, 3–30.

- Mansfeld, J. and D.T. Runia. *Aëtiana v. An Edition of the Reconstructed Text of the Placita, with a Commentary and a Collection of Related Texts*. *Philosophia Antiqua* vol. 153/1. Leiden: Brill, 2020.
- Mansfeld, J. et al. *Eleatica 2012: Melissus between Miletus and Elea*. *Eleatica* 5. Sankt Augustin: Academia Verlag, 2016.
- Meyerhof, M. "Autobiographische Buchstücke Galens aus arabischen Quellen." In: *Sudhoffs Archiv für Geschichte der Medizin* 22.1 (1929), 72–86.
- Naddaf, G. *The Greek Concept of Nature*. Albany, N.Y.: SUNY Press, 2005.
- Nutton, V. "Galen's Library." In: *Galen and The World of Knowledge*. Ed. by C.J. Gill, T. Whitmarsh, and J. Wilkins. *Greek Culture in the Roman World*. Cambridge: Cambridge University Press, 2009, 19–34.
- Nutton, V. "Introduction" [i.e. to *Avoiding Distress*]. In: *Galen. Psychological Writings*. Ed. by P. Singer. Cambridge: Cambridge University Press, 2013, 45–76.
- Rosen, R. "Socratism in Galen's Psychological Works." In: *Antike Medizin im Schnittpunkt von Geistes- und Naturwissenschaften*. Ed. by C. Brockmann, W. Brunschön, and O. Overwien. *Beiträge zur Altertumskunde* 255. Berlin: Walter de Gruyter, 2009, 155–171.
- Schmalzriedt, E. *Peri physeos. Zur Frühgeschichte der Buchtitel*. München: Verlag Wilhelm Fink, 1970.
- Tieleman, T.L. "Galen and Academic Scepticism." In: *Galen aus Pergamon. Philosophie in der römischen Kaiserzeit*. Ed. by K.-H. Leven. *Philosophie der Antike*. Stuttgart: Verlag Franz Steiner, [forthcoming].
- Tieleman, T.L. *Galen and Chrysippus on the Soul. Argument and Refutation in the De Placitis, Books II–III*. *Philosophia Antiqua* 68. Leiden: Brill, 1996.
- Tieleman, T.L. "Galen and Doxography." In: *Aëtiana IV. Papers of the Melbourne Colloquium on Ancient Doxography*. Ed. by J. Mansfeld and D.T. Runia. *Philosophia Antiqua* 148. Leiden: Brill, 2018, 453–472.
- Tieleman, T.L. "Galen and Genesis." In: *The Creation of Heaven and Earth. Re-Interpretations of Genesis 1 in the Context of Judaism, Ancient Philosophy, Christianity, and Modern Physics*. Ed. by G.H. van Kooten. *Themes in Biblical Narrative* 8. Leiden: Brill, 2005, 125–145.
- Tieleman, T.L. "Galen and the Stoics. Or: the Art of Not Naming." In: *Galen and the World of Knowledge*. Ed. by C.J. Gill, T. Whitmarsh, and J. Wilkins. *Greek Culture in the Roman World*. Cambridge: Cambridge University Press, 2009, 282–299.
- Tieleman, T.L. "Galen's Self-Understanding and the Platonic Phaedrus." In: *The Reception of Plato's Phaedrus*. Ed. By S. Delcomminette, P. D'Hoine, and M.-S. Gavray. *Beiträge zur Altertumskunde* 384. Berlin: De Gruyter, 2020, 25–39.
- Tieleman, T.L. "Wisdom and Emotion. Galen's Philosophical Position in *Avoiding Distress*." In: *Galen's Treatise Περὶ ἀλμπίας (De indolentia) in Context. A Tale of Resilience*. Ed. by C. Petit. *Studies in Ancient Medicine* 52. Leiden: Brill, 2018, 199–216.

- Vegetti, M. "Historiographical Strategies in Galen's Physiology (*De usu partium, De naturalibus facultatibus*)."
- In: *Ancient Histories of Medicine. Essays in Medical Historiography and Doxography in Classical Antiquity*. Ed. by P.J. van der Eijk. Studies in Ancient Medicine 20. Leiden: Brill, 1999, 383–395.
- Vegetti, M. "Tradizione e verità: Forme della storiografia filosofico-scientifica nel *De Placitis* di Galeno."
- In: *Storiografia e dossografia nella filosofia antica*. Ed. by G. Cambiano. Biblioteca storico-filosofica 2. Torino: Tirrenia Stampatori, 1986, 227–243. [Engl. tr. In P.J. Van der Eijk, ed. *Ancient Histories of Medicine. Essays in Medical Historiography and Doxography in Classical Antiquity*. Studies in Ancient Medicine 20. Leiden: Brill, 1999, 333–357].
- Vinkesteijn, R. *Philosophical Perspectives on Galen of Pergamum: Four Case-Studies on Human Nature and the Relation between Body and Soul*. Quaestiones Infnitae. Publications of the Department of Philosophy and Religious Studies. Vol. 126. Diss. Utrecht 2020.