

Galen on the Nature of Man

Introduction

In this second case-study, we will have a closer look at the first book of Galen's commentary on the Hippocratic *On the Nature of Man* (*Nat. Hom.* is the abbreviation for the Hippocratic text itself, Galen's commentary is abbreviated as *HNH*). Presumably, this text was written by Polybus, Hippocrates' student and son-in-law, though Galen argues that it is an authentic Hippocratic text.¹ It has been transmitted together with the so-called *Regimen on Health*, which Galen does ascribe to Polybus, and another text that came to bear the title of second book of *On the Nature of Man*. Galen ascribes this latter text to yet another unknown later author, suggesting that it might be the person who put together the first book of *Nat. Hom.* and the *Regimen on Health* into a single treatise in Hellenistic times.² Galen's view on the text, and his threefold division, has influenced the editing of the Hippocratic text. There has been a division in two separate editions for the first (considered by Galen to be authentic) and second book (considered by Galen to be spurious) on the one hand, and for the third part under the title *Regimen on Health* on the other (thus, although seemingly inspired by Galen's division, the editing has not been faithful to it). However, Jouanna has made it clear that Galen's proposed threefold division and history of the text is unjustified, since the second part of the text, which Galen considers to have been written by an impostor from Hellenistic times, is already quoted by Aristotle, who ascribes it to Polybus.³

In any case, this text, and Galen's commentary on it (*HNH*), are of pivotal importance for the tradition of humoral theory in particular. The Hippocratic text is the first clear expression we have of the notion that the nature of man consists of the now canonical four humours, i.e. blood, phlegm, yellow bile and black bile. Galen's commentary, in turn, has developed and systematized this notion. Together with other Galenic works it has laid the basis for a long-standing tradition in which the humours are considered to be the four basic constituents of human nature, consist themselves of the four elements or

1 Jouanna (2012) 335; cf. *HNH* 8,7 f. Mewaldt (xv 10–1 K).

2 *HNH* 57,4 f. Mewaldt (xv 108 K).

3 Jouanna (2012) 323 f.; cf. Kupreeva (2014) 154–5.

elemental qualities, and correspond to seasons, ages, specific temperaments and character-types.⁴

It is a particularly suitable text for studying Galen's notion of human nature, not only because it is actually the only text from the Galenic corpus explicitly on this subject, but also because it must have been written relatively late in Galen's life and seems to contain all of his elemental doctrine on human nature. Moreover, Galen introduces the work by saying it has the same subject as his *The Elements According to Hippocrates* (*Hipp. Elem.*), but set out in a manner that is more suitable for the reader who is not yet well versed in the subject.⁵ That is to say, the aim of this work, although it is a commentary on a Hippocratic text, is a non-specialist exposition of Galen's views on (human) nature, which amounts to a kind of hylomorphic elemental cosmology, as we shall see. This aim makes it particularly suitable for our purposes.⁶ Presumably, the work is also written later than *QAM*, which was at the centre of Case-Study I. Galen refers to *QAM* in *HNH*, and there are no references in *QAM* to *HNH*. This is in spite of the fact that it does contain a lot of useful material for the subject matter treated in *QAM* and also despite the fact that Galen seeks to emphasize the harmony between his own views and those of Hippocrates in *QAM* as well. In short, if *HNH* would have in fact been written earlier than *QAM*, and thus the reference to *QAM* would be a later insertion, it would have made sense for Galen to refer to it in *QAM*. So even though we cannot be sure, it seems extremely likely that *HNH* should be dated later than *QAM*.⁷

In any case, regardless of the dating, there are many similarities between these two works, as well as some striking differences. *QAM* is about the relation between the soul and the body, and therefore about the substance or nature of the soul. However, the soul as such seems to be conspicuously absent in *HNH*. It is noteworthy in itself, that a 2nd century AD Greek work on human nature barely mentions the soul at all. Not bringing in the soul as an explanatory factor in a book on human nature, or what is more – leaving the soul out of the discussion altogether, is, to say the least, highly remarkable for someone so steeped in the Greek philosophical tradition as Galen. In fact, Galen starts the

4 Jouanna (2012) 336.

5 *HNH* 3,4–19 Mewaldt (xv 1–2 K).

6 Jouanna (2012) 288, calls the Hippocratic *Nat. Hom.* a 'reference point' for Galen, since Galen thought that Hippocrates used the word 'nature' in the most primary sense in that work.

7 *QAM* is dated after 193 by Ilberg (1896) and Bardong (1942), so rather late, which makes it seem likely that *HNH* also postdates 193. Cf. Singer (2013) 335 ff. for a more problematizing view on the dating of *QAM*, which, however, does not take into account the references to *QAM* from *HNH* and *Loc. Aff.* and the similarity between the views espoused in *QAM* and the late *Prop. Plac.*

whole treatise by placing himself into this philosophical tradition, in which the soul has been of such paramount importance. The mere fact that the work is a commentary on a much older treatise in which the notion of soul does not play much of a role, is not sufficient explanation for its notable absence in Galen's text, since Galen is usually comfortable enough in projecting his own thoughts upon Hippocrates' work. Moreover, Galen generally presents his explanation of Hippocrates as being in line with his own doctrines. This is exactly why his commentary can serve as an elaboration of what he wrote in *Hipp. Elem.*, and elsewhere, in the first place. But in Galen's own works, as we know, the soul is far from absent.⁸ Finally, as we have seen in Case-Study 1, Galen in other places identifies soul with the form of the body, identifying form, in turn, as the mixture of elemental qualities that, mixing in prime matter, form the homoeomeric bodies. In *HNH*, the distinction between elemental qualities and prime matter is assumed as elsewhere, and the notion that the elemental qualities are the form of the body is still in place as well. Yet, the notion of soul is almost entirely absent. Why would this be?

We have already noticed in the previous case-study that for Galen nature and substance refer to the same in 'these kinds of discussions' (κατὰ τοὺς τοιούτους λόγους ταύτων σημαίνει).⁹ It seems rather unclear how we can have a discourse on 'our nature' or 'our substance' and leave out a discussion of the soul altogether. Particularly when this 'nature' or 'substance' is understood as the cause for our specific properties as well as our actions and affections, as Galen understands the terms in both *QAM* and *HNH*.¹⁰ In whatever way soul is usually explained in ancient Greek philosophy, it would seem to involve some notion of a causal power, which seems to make it a highly interesting subject for discussions of the causes of our actions and affections. But, if we were able to explain all of the functions that each of our organs (including brain, heart and liver) exercise in terms of a substance (i.e. that which exercises the causal power) that can be broken down into a mixture of elemental qualities and prime matter, what need is there still for some other causal power that we cannot understand in those hylomorphic terms? Perhaps this would not mean that we would dispense of the notion of soul; it would merely mean that the role of soul, i.e. the principle of movement, could be sufficiently played by

8 Even in *Hipp. Elem.*, *HNH*'s predecessor, the relation between the elemental theory and psychic functions is repeatedly brought up, e.g. in *Hipp. Elem.* 76,12–18 De Lacy (I 433–4 K) and 134,9–14 De Lacy (I 487 K).

9 See *infra* Case-Study 1, p. 12. Cf. *QAM* 33,9–10 Müller (IV 769 K); cf. *Hipp. Elem.* 136,1–3 De Lacy (I 488 K), where Galen remarks that it does not matter whether the treatise is called 'On the elements', 'On nature' or 'On substance'; *PHP* VII 440,11–2 De Lacy (V 601 K).

10 *QAM* 33,9–34,2; *HNH* 3,20 f. Mewaldt (XV 2 f. K).

the mixtures of the elemental qualities, so that we would not need something else besides it.

Philip van der Eijk has suggested that Galen, like Aristotle, when speaking of ‘our nature’, generally refers to our *bodily* nature.¹¹ Indeed, in one or perhaps two passages in *HNH* Galen explicitly specifies that the treatise is about our bodily nature.¹² Van der Eijk points out that there is a tradition of treatises titled ‘On the nature of the human being’, that had a focus on the ‘physical, corporeal or natural constitution of human beings and the way this comes about and develops’.¹³ Galen’s commentary on the Hippocratic *On the Nature of Man* appears to stand in this tradition as well. Taken by itself, however, this is not a sufficient explanation for the absence of soul in Galen’s treatise, since, as van der Eijk remarks, such a discussion of the nature of the human being ‘would also include the soul, though primarily in its relationship to the body, the soul’s embodiment, and the involvement of bodily factors in the soul’s operation’.¹⁴ Typically it would exclude the rational soul, given its more precarious relationship with the body and its supposed divine provenance. In Galen’s commentary, however, this distinction between rational and non-rational is not made, and there is nothing on the soul’s ‘embodiment’ or the role of our ‘bodily nature’ with regard to the functions of the soul (with the exception of one passage which refers to *QAM*, as we shall see). These topics are not addressed at all and the soul remains almost entirely absent.

Furthermore, Galen also uses the phrase ‘our nature’ or ‘human nature’ in *HNH* to refer not to our bodily constitution but, rather, to refer to *soul*.¹⁵ This makes it problematic to assume that Galen, when writing about ‘our nature’, is thinking of the body from the perspective of a body-soul dualism. To give another simple example, in *Trem. Palp.*, when explaining what he means by ‘the natural heat in each animal’ (τοῦ κατὰ φύσιν ἐν ἐκάστῳ ζώῳ θερμοῦ), Galen says that ‘the nature and the soul [of the animal] are nothing else than this’ (καὶ ἡ γὰρ φύσις καὶ ἡ ψυχὴ οὐδὲν ἄλλο ἢ τοῦτ’ ἔστιν).¹⁶ So, here we have an apparently synonymous use of nature and soul, in which both amount to the same

11 Van der Eijk (2014) 89 f.; see also Jouanna (2012).

12 *HNH* 7,12–4 Mewaldt (xv 9 K); in 53,17–8 (xv 102 K) he states that the nature of the body is the subject in the Hippocratic treatise itself: ‘Having set himself the task in this book of discovering the nature of our body [τοῦ σώματος ἡμῶν τὴν φύσιν], Hippocrates utilized the following method in order to discover it’. (tr. Hankinson – throughout this case-study I will be using Jim Hankinson’s draft of his forthcoming translation of *HNH*, which he has kindly provided to me and which has been of great use.)

13 van der Eijk (2014) 89.

14 *Ibidem*.

15 *HNH* 40,25–41,8 Mewaldt (xv 76–7 K), we shall discuss this passage below, p. 154–5.

16 *Trem. Palp.* vii 616 K.

thing, namely the innate heat. Galen adds that this innate heat is a 'self-moving and ever-moving substance' (οὐσίαν αὐτοκίνητον τε καὶ ἀεικίνητον), which makes it clear that its suitability as a principle of movement is the reason why Galen here considers heat as both soul and nature of living beings.

Besides all this, it is generally difficult throughout Galen's work to make a clear-cut difference between the body and the soul. Basically, it is unclear where one stops and the other begins. What functions of the human being are not functions of the human body (e.g. the brain) according to Galen?

What is more, even if these matters were easier, and it would be unambiguous that Galen in all cases refers to our bodily (as opposed to psychic) nature when he speaks of 'our nature', then we should still ask: what does this mean – to treat the question of our nature in terms of our body? What consequences does this approach have for the classic notion of soul, with which Galen is thoroughly familiar? What does it mean that Galen refrains from discussing those consequences entirely in a work that supposedly functions as a basic exposition for his views on human nature?

Finally, Galen is also comfortable in, at least, *asking* about 'the nature of the soul' in *QAM* and other places (and even in *HNH* itself quotes from Plato's *Phaedrus* a passage on the nature of the soul), which indicates either, again, that the word 'nature' in itself does not need to imply, for Galen, something solely 'bodily' in the sense of 'something that is not soul', or that soul could be explained in terms of the body ('the bodily nature of the soul', which actually does seem to be the direction of *QAM*). Thus, even though Hippocrates' work was on the bodily nature of man, and Galen himself answers the question of the nature of man in what we could call predominantly bodily (although, importantly, hylomorphic) terms, all of this is not in any way self-evident. It remains remarkable that Galen is not only satisfied to discuss the question of our nature in these hylomorphic bodily terms, but that he does not even address the absence of soul at all in his treatise, despite repeatedly citing the *Phaedrus* (!) and despite the indubitable fact that the question of the soul itself is for him *at least* strongly related to the mixtures that he identifies as our nature in *HNH* and elsewhere. The very fact that Galen can talk about 'our nature' and refer in some cases to our bodily nature, while in other cases he refers to soul, reveals, if anything, the exceptional ambiguity of the difference between the two in Galen.

Instead of dismissing this ambiguity by taking it as sloppy terminology or laxity on Galen's part, I would like to see it as a sign for the general difficulty Galen has with distinguishing the soul from the body, and to find use for a notion of soul as something that is not bodily. This difficulty might rather be the consequence of his knowledge and appreciation of the body as well as his

relative readiness to acknowledge it when he does not know something – for example, whatever soul might be if it is not understood as a form or quality of the body.

With help from the *Phaedrus*-passage, Galen portrays a picture in which Hippocrates wrote on the nature of the body, while Plato stated that the same method used by Hippocrates should also be used for the inquiry into soul. At first sight, this might seem to mean that Galen himself is satisfied to discuss the nature of the body in his commentary, leaving the nature of the soul to be discussed elsewhere, perhaps in an exchange with Plato, or leaving it for others to discuss altogether. However, as we shall see below, Galen seems to present his commentary not merely as a continuation of the Hippocratic text but rather – as he does more often – as the synthesis of the Hippocratic and the Platonic approach, which means, in this case, that he discusses the nature of man as a whole, as opposed to merely the nature of either man's body or soul. I will argue that this is what ultimately lies behind his repeated citation of the passage from Plato's *Phaedrus* in *HNH* and his neglect of the notion of soul in this work, as becomes clear particularly at the end of his commentary. This approach comes down to an interpretation of the nature of man in hylomorphic terms, in which body and soul are inseparable and the mixture of elemental qualities provides the form that determines man's nature and functions as a principle of movement.

In what follows, we shall first look at Galen's definition of nature, which he proposes at the outset of his commentary. He considers nature to be a kind of 'primary substance', which underlies the generation and destruction of all things, as well as the properties of these things. What this primary substance is, according to Galen, will be the subject of our first paragraph. Second, we shall look at the method Galen proposes to uncover this primary substance. As mentioned, Galen proposes what he presents as a Hippocratic-Platonic concord here; a method of division until no further division is possible, equally applicable to all beings subject to generation and destruction and equally applicable to body and soul. To gain some clarity about the primary substance that is to be uncovered through this method, I devote the third paragraph to a brief discussion of elements and qualities in Galen, since the distinction between these is important for his hylomorphic notion of human nature. Since the nature of the human being is constituted by the same two basic principles as the nature of everything else that is not eternal, namely a mixture of the four elemental qualities and prime matter, we shall discuss what nature in this more general sense is and how it relates to human nature, in the fourth paragraph. Finally, in the fifth paragraph, we shall come back to Galen's particular elaboration of the

conceived Hippocratic-Platonic method and the division between the nature of the body and the nature of the soul, as well as their interrelation.

1 The Primary Substance

At the beginning of Galen's commentary, we find the same identification of nature and substance that we have seen in our discussion of *QAM* in Case-Study 1: Galen here explains the term 'nature' in terms of substance (οὐσία).¹⁷ After his introductory remarks on the relation of this treatise to his previous *Hipp. Elem.*, he starts his commentary with a preliminary question of definition:

ἔν μὲν δὴ καὶ πρῶτον ἔστιν εἰπεῖν, ὅ τι ποτε σημαίνεται πρὸς τοῦ τῆς φύσεως ὀνόματος, ἀφ' οὗ καὶ τῶν παλαιῶν φιλοσόφων ἔνιοι παρονομασθέντες ἐκλήθησαν φυσικοί.¹⁸

There is one thing that needs to be discussed first: what, then, is signified by the term 'nature', because of which some of the ancient philosophers are called by derivation 'natural philosophers.'

This is a good question, indeed. If some of the very first philosophers were called 'philosophers of nature', because 'nature' was their main subject of inquiry, and thus philosophy itself appears as something that is originally concerned with the question of 'nature', it makes sense to see if we can understand what is meant by this word. What is meant, at least as it appears to Galen from the works of those ancient natural philosophers (whom we call the Presocratics), is a *primary substance* (πρώτη οὐσία). This primary substance underlies all bodies subject to generation and destruction, as well as all the properties that pertain to these bodies in accordance with their particular structure.¹⁹ As Galen remarks in *HNH*'s predecessor, *Hipp. Elem.*, it would not

17 See *infra* Case-Study 1, p. 12 and note 9 above.

18 *HNH* 3,20–2 Mewaldt (xv 2 K).

19 Cf. Tieleman (2020), who points out that this particular approach can be paralleled with some Middle Platonists, e.g. Alcinous *Handbook of Platonism* chapter v; Galen apparently also gave a definition of the word 'nature' in the *Medical Names*, which is unfortunately lost (see *HNH* 6,8–11 Mewaldt (xv 7 K)); cf. also Jouanna (2012) 288 on the primary meaning of nature being that of the mixture, and on the definition found in Galen's *Hipp. Epid. VI* (253,19–21 Wenkebach): 'by the word nature we should understand the ability residing

have mattered if, instead of ‘On the elements’ that work would have been titled ‘On nature’ (περὶ φύσεως) or ‘On generation and destruction’ (περὶ γενέσεις καὶ φθορᾶς) or ‘On substance’ (περὶ οὐσίας).²⁰ These subjects apparently all amount to the same thing: that which underlies the continuous processes of change. Here, Galen rephrases the question of nature in terms of the question of substance, which has two fundamental aspects: it underlies the bodies as well as their elemental properties. Any knowledge of anything subject to becoming is dependent on knowledge of this primary substance:

φαίνεται γὰρ ἐξηγούμενα τὴν πρώτην οὐσίαν ὅποια τίς ἐστίν, ἣν ἀγέννητόν τε καὶ αἰδίον εἶναι φασιν ὑποβεβλημένην ἅπασιν τοῖς γεννητοῖς τε καὶ φαρτοῖς σώμασι, τὰ θ’ ὑπάρχοντα κατὰ τὸν ἴδιον λόγον ἐκάστῳ τῶν γεννωμένων τε καὶ φθειρομένων, οἷς γνωσθεῖσιν ἔπεται καὶ ἡ τῶν ἄλλων γνῶσις, ὅσα μὴ κατὰ τὸν ἴδιον λόγον ἐκάστη τῶν κατὰ μέρος οὐσιῶν συμβαίνει.²¹

For it is clear that they seek to give an account of what sort of thing is the primary substance which they say is ungenerated and eternal and which underlies all bodies that are subject to generation and destruction, as well as the properties which obtain for each of the generated and destructible things in virtue of their particular structure, upon a knowledge of which depends the knowledge of everything else which belongs to each individual substance not in virtue of its particular structure.²²

tr. HANKINSON

This primary substance, or nature of things, underlies both the body of any given thing, as well as its essential properties. Here we recognize the Aristotelian perspective Galen also took up in *QAM* and elsewhere, as we saw in Case-Study I: the primary substance is one substance that can be viewed in either its material aspect (underlying subject) or its formal aspect (most basic properties which determine secondary properties).²³ Furthermore, the knowledge of everything that belongs to an individual substance accidentally, or not by virtue of its particular structure, is also dependent on knowledge of this

in the very bodies arranged by her’ (tr. Jouanna, slightly modified; δύναμιν δὲ προσήκει νῦν ἀκούειν ἐκ τοῦ τῆς φύσεως ὀνόματος ἐνοικουσαν αὐτοῖς τοῖς σώμασι τοῖς διοικουμένοις ὑπ’ αὐτῆς).

20 *Hipp. Elem.* 136,1–3 De Lacy (I 488 K).

21 *HNH* 3,24–4,5 Mewaldt (xv 3 K).

22 Jim Hankinson has been kind enough to let me use a draft-version of his forthcoming translation of *HNH*.

23 Cf. Kupreeva (2014) 191–2.

primary substance. That is to say, *nothing* can be *known* about anything, if it is not built upon knowledge of this primary substance. This is something we need to keep in mind, as it will be important for the interpretation of what comes later in this treatise. In any case, this must apply to the properties of our bodies and their organs as well, since our bodies are subject to generation and destruction. Thus, we need to know this primary substance underlying all of our properties and functions, if we are to know anything about ourselves. Now, again, what if we were to exclude soul from this discussion, but nonetheless would be able to have a complete analysis of all of the essential and accidental properties of our body, in terms of this primary substance underlying them? This would leave us with an obvious question: what, then, is soul supposed to account for? If we are able to account exhaustively for the causes of all of our bodily functions in terms of this substance, would it be the case that there is no role left for soul to play? Unless, of course, what is considered 'soul' is already taken into this account, as the formal aspect of a hylomorphic whole. This train of thought could perhaps be taken to explain the soul's absence in Galen's commentary, that is to say: perhaps this absence is merely a literal absence of the word, because the role of soul is fulfilled by the formal aspect of the hylomorphic whole. I think it might not be unreasonable, from Galen's perspective, to consider an explanation of our bodily functions in terms of the substance that underlies them as their cause, as a complete description of our nature, including that which is traditionally referred to as soul. Or at least, it would be a description of all we can know about soul. If soul, or a part of it, cannot be explained in these terms, we cannot know anything about it – not according to the epistemological criteria Galen has just proposed here. Could this not simply be the reason why Galen so often expresses his inability to answer the question about the substance of the soul? In this regard, the manner in which he states the problem in *QAM* might be telling: he does not know what the substance of the soul might be *if* we take it to be something incorporeal.²⁴

The primary substance introduced by Galen at the beginning of his commentary, is reminiscent of the common substance (κοινὴ οὐσία) of all bodies that he writes about in *QAM* and elsewhere.²⁵ There, the common substance of all bodies was described as hylomorphic, analysable into a matter without quality and a form consisting of a mixture of the four elemental qualities. With the distinction between the primary substance underlying all bodies (the function of matter as such) and the essential properties of these bodies (the function of elemental form), Galen seems to be framing the traditional

24 *QAM* 38,16–23 Müller (IV 775–6 K).

25 *QAM* 36,21 f. (IV 773 K); cf. *Hipp. Elem.* 128,1 f. De Lacy (I 481–2 K).

endeavour of natural philosophy in his own (Aristotelian, hylomorphic) terms at the start of this treatise. Indeed, further on in *HNH*, Galen criticizes Melissus for thinking that there is some ‘common substance’ (κοινή οὐσία) in the sense of a matter that is ungenerated and indestructible, and that underlies the four elements, while really this matter ‘is not the only thing which is the principle of bodies in generation and decay, as Melissus supposed. In addition to it there are the four qualities, the extreme forms of cold, dryness, heat and moisture.’²⁶ That is to say, in Galen’s reading of Melissus, he was right to assume a common substance as a principle of all bodies subject to generation and decay, but he made the mistake of not seeing that this common substance is in fact hylomorphic and thus consists of two principles instead of merely an underlying matter. Moreover, as with the common substance in *QAM*, we are concerned here – even though the title of the Hippocratic text refers specifically to the nature of *man* – with a nature of *all things*, or at least all things subject to generation and destruction. Notably, it is not only the case that we, as hylomorphic beings, certainly fall within this category, we would also expect our soul – if Galen were to discuss it as such – to at least partly and possibly completely fall into this category as well. After all, as we have noted in Case-Study I, Galen elsewhere assumes that the lower two soul-parts, residing in liver and heart, are mortal, and at least suggests that the rational part might be mortal as well. Again, this shows how, for Galen, a discussion of the nature or substance of man, does not need a point of departure that is fundamentally different from that of a discussion about the nature or substance of any other thing in the cosmos. What man is can be explained in the same basic terms that we use to explain everything else.²⁷

And, as we have seen, this explanation in basic terms is the only way to have *knowledge* of the explanandum. Therefore, Galen takes issue with people that seem to assume something’s nature could be described by merely enumerating some of its accidental properties. He illustrates this point with an example from Homer’s *Odyssey*, where Odysseus receives a drug from Hermes and relates how the god ‘showed its nature [φύσις] to me’. In the immediately following sentence, however, it is said of the drug that ‘It was black at the root and its flower resembled milk’. That is to say, Homer merely recites some of its

26 *HNH* 17,20–30 Mewaldt (xv 29–30 K), translation Hankinson.

27 Cf. Kupreeva (2014) 177: ‘Galen argues that proximate, i.e. organic, elemental qualities have the same nature as their inorganic counterparts: the principles of natural design and mixture are sufficient to account for a variety of properties manifest in the organic and inorganic elemental compounds throughout the cosmos’.

qualities, as opposed to giving an actual description of its nature in the sense Galen intends. Galen wants to make a general point here, following upon and specifying his prior definition of nature:

οὕτω δὲ καὶ οἱ περὶ τῶν βοτανῶν γράψαντες ἢ ὄλως περὶ φυτῶν ἐκδιδάσκουσι τὴν αἰσθητὴν φύσιν ὅποια τίς ἐστὶν ἐκάστῳ ἀπτομένῳ καὶ γευομένῳ καὶ ὀσμωμένῳ καὶ βλεπομένῳ διηγούμενοι τίνα τε ἔχει δύναμιν ἢ εἴσω τοῦ σώματος λαμβανόμενον ἢ ἔξωθεν ἐπιτιθήμενον· ἐν τούτοις γὰρ ἡ αἰσθητὴ φύσις ἐκάστου τῶν ὄντων ἐστὶν· ἢ δὲ τούτων ἀνωτέρω καὶ πρόωτη ...²⁸

In the same way too those who write about herbs, or plants in general, teach what the perceptible nature of each of these is when it is touched, tasted, smelled or seen, detailing what power each of them has, whether it is taken internally or applied to the body externally, since the perceptible nature of each thing consists in these things. But higher than these, and prior to it, is the kind of nature that I spoke of earlier ...

tr. HANKINSON

The nature that Homer was referring to, and that those herbalists refer to, is termed by Galen the *perceptible* nature of a thing. This is the nature of a thing according to our senses, it is what the thing is when it is ‘touched, tasted, smelled or seen’ and what we can observe it bringing about (‘what power each of them has’). Galen carefully distinguishes this perceptible nature of a thing from the nature in the sense of primary substance, which he spoke of earlier.²⁹ Apparently, this implies that nature in a primary sense, the higher kind of nature Galen is referring to, is not available to perception. This reminds us, again, of what he said about the elemental qualities and the prime matter that form the common substance of all bodies. Both matter and form of the most basic hylomorphic constructs making up all bodies in our cosmos are not perceivable by themselves. Their joint construction is the first observable entity; this is the homoeomerous body. Such bodies can be ‘touched, tasted, smelled or seen’, and are therefore called by Galen the ‘perceptible elements’,

28 HNH 4,14–9 Mewaldt (xv 3–4 K).

29 And for good reason, since according to Galen the term φύσις is used in several senses. It can, for example, also refer to the visible form of the body (τὴν τοῦ σώματος ἰδέαν), rather than the mixture of primary qualities, as we can see in *Hipp. Aph.* xvii B 532 K. See Jouanna (2012) 288 f. on these two senses of nature, and Galen’s tendency to call the mixture the primary or most important sense.

i.e. the elements in terms of the realm of perception.³⁰ This is clear from *On the Natural Faculties* (*Nat. Fac.*) as well:

᾿ὄστ', εἰ μὲν τὰς πρώτας τε καὶ στοιχειώδεις ἀλλιωτικὰς δυνάμεις ζητοίης, ὑγρότης ἐστὶ καὶ ξηρότης καὶ ψυχρότης καὶ θερμότης· εἰ δὲ τὰς ἐκ τῆς τούτων κράσεως γενομένηας, τοσαῦτα καθ' ἕκαστον ἔσσονται ζῶον, ὅσαπερ ἂν αὐτοῦ τὰ αἰσθητὰ στοιχεῖα ὑπάρχῃ· καλεῖται δ' αἰσθητὰ στοιχεῖα τὰ ὁμοιομερῆ πάντα τοῦ σώματος μόρια ...³¹

Therefore, if you wish to inquire into which alterative powers are primary and elementary, these are wetness, dryness, coldness, and hotness, and if you wish to inquire into the things that arise from the mixture of these, there will be so many of these in each animal as it has perceptible elements. The name perceptible elements is given to all the homoeomerous parts of the body.

And we find the same definition in *Hipp. Elem.*, the predecessor of *HNH*:

φέρει γάρ, ἴν' ἐπ' ἀνθρώπου διέλθω τὸν λόγον, ἐκ πρώτων οὗτος καὶ ἀπλουστάτων αἰσθητῶν στοιχείων ἐστὶ, τῶν ὁμοιομερῶν ὀνομαζομένων, ἰνὸς καὶ ὑμένος καὶ σαρκὸς καὶ πιμελῆς ὀστοῦ τε καὶ χόνδρου καὶ συνδέσμου καὶ νεύρου καὶ μυελοῦ καὶ τῶν ἄλλων ἀπάντων, ὧν τὰ μόρια τῆς αὐτῆς ἀλλήλοισι ἰδέας ἐστὶ σύμπαντα.³²

Now let me go through the account as it applies to a human being: he is made of the primary and simplest perceptible elements, those called homoeomerous, namely fiber, membrane, flesh, fat, bone and cartilage, ligament, nerve, marrow, and all the other (bodies) whose parts all have the same form.

tr. DE LACY, slightly modified

³⁰ In *HNH* 6,15 Mewaldt (xv 7 K), cited below, they are called 'στοιχεῖα πρὸς αἴσθησιν'. Mewaldt suspected this part of the sentence (since the terminology is not Aristotelian, which might not be a good reason considering how common it would be for Galen to ascribe terminology to predecessors which they have not actually used either in the way he intends or at all).

³¹ *Nat. Fac.* II 12 K; cf. also *Nat. Fac.* II 213 K.

³² *Hipp. Elem.* 126,1–5 De Lacy (1 479 K); though from these latter two examples it may appear as if Galen only considers parts of animals to be homoeomerous bodies, this is not the case, see, e.g. *QAM* 37 Müller (IV 773–74 K), where he mentions also bronze, iron and gold as examples.

These homoeomerous bodies are merely the elements of things in terms of what is perceptible, not the true elements of things in terms of their nature, as the herbalists seem to think.³³ When it comes to finding out about the nature of a thing, we have to dig deeper than what the organs of perception tell us, according to Galen.

As he remarks at the beginning of *Hipp. Elem.*: ‘Let us try to find the parts that are first and simplest by nature and are no longer capable of being dissolved into other parts, if we are going to obtain precise knowledge of the nature of man or of anything else’.³⁴

The nature of any given thing primarily resides at the level of its simplest component parts and manifests itself from there on out into the more complex parts. The simplest parts, however, are not available to our organs of perception, since the homoeomerous bodies, simplest in terms of perception, are composed of yet other elements (or strictly speaking: principles) themselves:

γέγονε δὲ ταῦτα πάλιν ἔκ τινων ἐτέρων προσεχῶν ἑαυτοῖς στοιχείων, αἵματος καὶ φλέγματος καὶ χολῆς διττῆς, ὡχρᾶς καὶ μελαίνης, ὧν ἡ γένεσις ἐκ τῶν ἐσθιομένων καὶ πινομένων, ἃ δὴ πάλιν ἐξ ἀέρος καὶ πυρός ὕδατος τε καὶ γῆς ἐγένετο, ταῦτα δὲ οὐκ ἐξ ἐτέρων σωμάτων, ἀλλ’ ἐξ ὕλης τε καὶ ποιότητων ἐστί.³⁵

These [the homoeomerous bodies] in turn have been generated from certain other elements closest to themselves, blood, phlegm, and the two kinds of bile, yellow and black; their genesis is from the things we eat and drink, which in turn were produced from air and fire, water, and earth; and these last are not from other bodies but from matter and qualities.

tr. DE LACY

Although the Hippocratic text on which Galen is commenting does not systematically connect the theory of the four humours to the four elements or the elemental qualities, Galen obviously does, in line with his own views in other works.³⁶ On the basis of this passage and others, one could wonder why Galen does not consider the humours the perceptible elements, given that they are apparently simpler than the homoeomerous bodies and must be considered perceptible as well. On a general note, it seems to me as if the humours have a somewhat ambiguous status in the hierarchies of bodily construction Galen

33 Cf. also *Opt. Med.* 6,14–9 Müller.

34 *Hipp. Elem.* 58,2–5 De Lacy (I 414–5 K) tr. De Lacy, slightly modified.

35 *Hipp. Elem.* 126,5–9 De Lacy (I 479–80 K).

36 See also Jouanna (2012) 336.

employs in the context of discussions of human nature. Even though the four humours are an intricate and established part of Galen's doctrines and explanatory schemas in many of his works, the four elementary qualities are more indispensable to his general theories. It sometimes seems as if the humours do not really fit in well, and this seems to be the case particularly when Galen theorizes about the general nature of the human being or human body in terms of these various levels of composition (prime matter and elemental qualities being the principles, homoeomerous bodies being the perceptible elements, organs being the unified structure of homoeomerous bodies, the human being as a whole being the unified structure of these organs and their interconnections). It could also be that this has something to do with the fact that the humoral theory has much less presence and importance in the philosophical tradition than it has in the medical one, while Galen prefers to take a philosophical and predominantly Aristotelian position in these general discussions on nature and substance.³⁷ Just to give an illustration, the following passage from Aristotle's *Parts of Animals* is basically a blueprint for Galen's physics, and we can see that the humours are not mentioned at all:

Τριῶν δ' οὐσῶν τῶν συνθέσεων πρώτην μὲν ἄν τις θείη τὴν ἐκ τῶν καλουμένων ὑπὸ τινῶν στοιχείων, οἷον γῆς ἀέρος ὕδατος πυρός. ἔτι δὲ βέλτιον ἴσως ἐκ τῶν δυνάμεω λέγειν, καὶ τούτων οὐκ ἐξ ἀπασῶν, ἀλλ' ὥσπερ ἐν ἐτέροις εἴρηται καὶ πρότερον. ὑγρὸν γὰρ καὶ ξηρὸν καὶ θερμὸν καὶ ψυχρὸν ὕλη τῶν συνθέτων σωμάτων ἐστίν· αἱ δ' ἄλλαι διαφοραὶ ταύταις ἀκολουθοῦσιν, οἷον βᾶρος καὶ κουφότης καὶ πυκνότης καὶ μαρότης καὶ τραχύτης καὶ λειότης καὶ τᾶλλα τὰ τοιαῦτα πάθη τῶν σωμάτων. δευτέρα δὲ σύστασις ἐκ τῶν πρώτων ἢ τῶν ὁμοιομερῶν φύσις ἐν τοῖς ζώοις ἐστίν, οἷον ὀστοῦ καὶ σαρκὸς καὶ τῶν ἄλλων τῶν τοιούτων. τρίτη δὲ καὶ τελευταία κατ' ἀριθμὸν ἢ τῶν ἀνομοιομερῶν, οἷον προσώπου καὶ χειρὸς καὶ τῶν τοιούτων μορίων.³⁸

Since there are three compositions, one might put first composition from what some people call the elements, e.g. earth, air, water, and fire. And

37 Jouanna (2012) 337: '... the theory [of the four humours] did not re-appear in the philosophical tradition of the fourth century, neither in Plato's *Timaeus*, where the nature of man is constituted of four elements (fire, water, earth and air), nor in Aristotle. The famous Problem 30.1, written in the Aristotelian tradition, concerning the melancholic's genius, i.e. those people in whom black bile is predominant, is not placed within a theory of the four humours'. Also, Leith (2015) has shown how this Aristotelian compositional hierarchy does appear in the Hellenistic medical tradition of Erasistratus and Herophilus, but here the theory of the four humours also appears largely absent.

38 Aristotle *PA* 646a12–24.

yet, perhaps it is better to speak of composition from the powers, and not from all of them, but as stated previously in other places. That is, moist, dry, hot, and cold are matter of the composite bodies, while the other differences, e.g. heaviness and lightness, density and rarity, roughness and smoothness, and the other bodily affections of this sort, follow these. Second is the composition of the nature of the uniform parts within animals – e.g. of bone, flesh, and the other things of this sort – out of the primary things. Third and last in number is the composition of the nature of the non-uniform parts – e.g. of face, hand, and such parts.

tr. LENNOX, slightly modified

The three compositional phases, the hylomorphic outlook, the difference between primary and secondary qualities, the terminology of homoeomerous and anhomoeomerous parts, even the examples given of both types ... it is obvious that all basic physical doctrine Galen works out is already here and that this must have been a key passage for Galen.³⁹ And yet, the humours are entirely absent.

This might be a partial explanation for the odd status of the humours in Galen sometimes. However, I am unsure whether we should consider it sufficient. Another possible factor to take into account might be that, in Galen's schema, the humours are constituents of the nature of some beings (among which human beings) but not of other ones. So while the nature of everything is said to consist in the mixture of elemental qualities, the nature of blooded animals more specifically consists of the humours, both according to the Hippocratic text and Galen's commentary.⁴⁰ But, saying man's nature consists of the humours clearly does not amount to saying man's nature does not consist of the mixture of elemental qualities, since the former come to be from the latter:

συμβαίνει δὲ τοῦτο τοῖς χυμοῖς ὡς ἂν οὐκ οὖσιν ὄντως στοιχείοις, ὥσπερ ὕδωρ καὶ γῆ, ἀήρ καὶ πῦρ ἐστίν. ἕκαστος γὰρ αὐτῶν ἐκ τῶν τεσσάρων τούτων γέγονεν ἐπικρατοῦντος ἄλλου κατ' ἄλλον αὐτῶν, ὡς δὴ πολλάκις ἐμάθετε.⁴¹

39 See *QAM* 37 Müller (1v 773–74 K); cf. *HNH* 6,10 f. Mewaldt (xv 7–8 K); *PHP* VIII,4 500,3 f. De Lacy (v 673 K); *Part. Hom.* 45 f. Strohmaier; *Hipp. Elem.* 126,1 f. De Lacy (1 479–81 K); *Opt. Med.* 6,14–9 Müller; cf. Kupreeva (2014); Hankinson (2017); Leith (2015) for the role of this passage in Hellenistic medicine and Galen's response to it.

40 *HNH* 32,10 f. Mewaldt (xv 59 K).

41 *HNH* 36,8–12 Mewaldt (xv 67 K).

And this happens to the humours since they are not really elements, as water and earth, air and fire are. For each of them comes to be from the four, when one of them gains mastery in respect of another, as you have learned on many occasions.

tr. HANKINSON

Although everything's nature has something in common, there also has to be a difference, obviously. This difference has to be accounted for, in Galen's cosmology, in terms of the *specific* mixture of a given being. Thus, certain proportions of the qualities render a humour such as blood, others do not, as is clear from the passage quoted above. Therefore, Galen could say that the nature of man consists of the mixture of the four elemental qualities, and also say that the nature of man consists of the four humours – though in a more primary sense in the mixture, and in a more particular sense in the humours. This is also articulated in the following passage:

ἐκ θερμοῦ γὰρ καὶ ψυχροῦ καὶ ξηροῦ καὶ ὑγροῦ πάντα γεγονέναι καὶ διὰ τοῦτο κοινὰ πάντων εἶναι ταῦτα στοιχεῖα. τὰ δὲ ἴδια τῆς τοῦ ἀνθρώπου φύσεως αἷμα καὶ φλέγμα καὶ χολὴ ξανθὴ τε καὶ μέλαινα. καίτοι γ' οὐδὲ ταῦτα ἴδια καλῶς ἂν λέγοιτο· κοινὰ γὰρ ἐστὶν ἀπάντων τῶν ἐναίμων ζώων. εὐδὴλον δ' ὅτι καὶ τούτων ἕκαστον ἐκ τῶν πρώτων τεττάρων γέγονεν, ἅπερ ἀπὸ τῶν ποιότητων ὀνομάζοντες ὑγρὸν καὶ ξηρὸν καὶ ψυχρὸν καὶ θερμὸν λέγομεν· ἴδια δὲ τῆς οὐσίας αὐτῶν ἐστὶν ὀνόματα πῦρ ἢ ὕδωρ ἢ ἀήρ ἢ γῆ.⁴²

For everything is generated from hot and cold and dry and wet, and for this reason these things are the common elements of everything. The particular ones of the nature of man are blood and phlegm and yellow and black bile, although not even these are properly called 'particular', since they are common to all blooded animals. And it is clear that each of these comes to be from the primary four, which we label wet and dry and cold and hot, naming them from their qualities; but the proper names of the substance of them are fire, water, earth and air.

tr. HANKINSON

Thus, the nature of a given being could be described on various levels of generality. The humours are constituent of the nature of any given sanguine animal, but they are so in a more particular and therefore less elemental sense than the elemental qualities that form the humours and that also form other things

42 HNH 28,12–19 Mewaldt (xv 51 K).

than humours. Perhaps this insight could partly account for the confused status of the humours in these hierarchies. Galen seems to switch very easily (and perhaps sometimes confusingly) between the analysis of the nature of man – where the humours have their place – and the analysis of the common nature of any being subject to generation and destruction – where the humours should be left out to maintain the level of commonality.

But whatever the status of the humours, it is unambiguous that the final stage of this compositional hierarchy is a hylomorphic construct of prime matter and the four elemental qualities. This is not only so in the case of man, but in the case of everything that is not eternal. It implies that behind the nature that we can perceive – for example that of a mixture of humours, that of something which is black in one part and white in another or perhaps even that of a being which has an organ capable of thought – there is another nature, that cannot be perceived, and that it is the latter that is truly the nature of the thing under investigation, in this case man, as the endpoint of analysis. This endpoint is the conceptual division of the homoeomerous body in terms of its two principles of matter and form. Then we are at the level of the primary substance that Galen refers to in order to define what is meant by nature. This primary substance is continuously changing in quality, though it remains the same because of its underlying matter. It primarily manifests itself in the form of homoeomerous bodies, the simplest bodies forming the building-blocks for more complex structures.

2 *Divisio ad principes: a Hippocratic-Platonic Method*

In *HNH*, Galen repeatedly articulates this same ideal of division until some indivisible point is reached, when it comes to the analysis of a being's nature. He does so with reference to a passage from Plato's *Phaedrus* (270c-d), where Hippocrates is presented as having first proposed the right method for the examination of a thing's bodily nature: first, one has to find the simplest parts of it, then one has to determine what causal powers these simplest parts have.⁴³ Galen quotes from the *Phaedrus*:

πρώτον μὲν εἰ ἀπλοῦν ἢ πολυειδές ἐστὶν οὐ περὶ βουλησόμεθα εἶναι αὐτοῖ τε τεχνικοὶ καὶ ἄλλους δυνατοὶ ποιεῖν, ἔπειτα δὲ, ἂν μὲν ἀπλοῦν ᾗ, σκοπεῖν τὴν

43 Cf. Tieleman (2020) on Galen's use of this Platonic passage; Corcilius (2014) 20–58 on the development of the notion of δύναμις in ancient philosophy and the role Plato's appreciation of Hippocrates played therein.

δύναμιν αὐτοῦ, τίνα πρὸς τί πέφυκεν εἰς τὸ δρᾶν ἔχον ἢ τίνα εἰς τὸ παθεῖν ὑπό του, ἐὰν δὲ πλείω εἶδη ἔχη, ταῦτα ἀριθμησάμενον, ὅπερ ἐφ' ἑνός, τοῦτο ἰδεῖν ἐφ' ἑκάστου, τὸ τί ποιεῖν αὐτὸ πέφυκεν ἢ τὸ τί παθεῖν ὑπό του.⁴⁴

Concerning anything in which we both want to be technically proficient ourselves and to be able to make others so too, we must first determine whether it is simple or complex, and then, if it turns out to be simple, to examine what power it has by nature for acting, and in respect of what, and what <power> it has for being affected by something; while if it has many forms, we must enumerate them, and then do for each of them what we did in the case of the single one, namely what it by nature does to what, and how it is acted upon and by what.

tr. HANKINSON, slightly modified

Galen obviously likes this passage a great deal, for several reasons. First of all, in what immediately precedes, the interlocutors credit Hippocrates for having described this as the proper method for investigating nature. It is also implied that the inquiry into soul needs to build on this. In *The Therapeutic Method* (*MM*) book I, Galen summarizes as follows: 'Plato thinks that the things concerning the soul are to be discovered by the same method Hippocrates used with regard to the body'.⁴⁵ A few lines further in the same treatise, he emphasizes the complete agreement between Plato and Hippocrates on the most important matters, as he does throughout *PHP*. However, beyond the apparent agreement of Hippocrates and Plato, with regard to their preferred method to investigate the body and soul respectively, the most important thing here is that the method now described, is the *adequate* method to understand the nature of anything, regardless of what we are talking about. Galen considers a being's nature to consist of its most primary active and passive causal powers. That is to say, the causal powers of its primary or smallest, most basic (in terms of quality) component parts to act upon something or be acted upon by something.⁴⁶ For him, this is a description of the proper method of natural philosophy, which has been employed not only by his two great examples Hippocrates and Plato, but also by Empedocles, Parmenides, Melissus, Alcmaeon, Heraclitus and all those who wrote books titled 'On Nature'.⁴⁷ Thus, according to Galen this is something philosophers have agreed upon throughout the tradition preceding

44 *HNH* 5,1–6 Mewaldt (xv 5 K).

45 *MM* 1.2 (x 13–4 K).

46 Cf. also *Hipp. Elem.* 58,6 f. De Lacy (1 415 K).

47 *HNH* 5,10 ff. Mewaldt (xv 5 K).

him: to know a thing's nature we need to know its most basic elements and the powers of these elements. What these elements and their powers are, on the other hand, is something the philosophers have not agreed upon (which perhaps should not be surprising, from a Galenic perspective, considering that these elements cannot actually be perceived as such). Of course, Galen is not merely enumerating the previous tradition. He is attempting to insert himself into it by presenting this common method with various outcomes, and presenting his own thoughts (in the form of a commentary on Hippocrates with help of the repeated invocation of Plato) on the nature of man as being the proper application of that common method.⁴⁸

Towards the end of the first book of his commentary, Galen returns to his description of this general philosophical method (also citing the *Phaedrus* again) to remark that we can now conclude that Hippocrates followed this method in his work, and that Plato agreed that one must also apply this method for inquiring into soul.⁴⁹

The entire introductory passage, which we have been discussing so far, is what Galen considers the background to the discussion of nature that he omitted in *Hipp. Elem.*, since, as he says, he assumed his audience to be familiar with it.⁵⁰ All that we have discussed thus far is written by Galen at the beginning of his commentary – all before the first commentary on an actual Hippocratic passage – as the introduction to his writing on human nature that was lacking in *Hipp. Elem.* Whether or not the content of these two (and other) works are in complete agreement with regard to their notion of (human) nature and Galen is consistent in this regard, we can at least be sure that he tried his best to make it appear so in writing *HNH*. In line with this, Galen also remarks that his *The Differences of Diseases* and *The Therapeutic Method* as well as other works, 'presuppose the doctrine concerning the nature of our body, which is expounded

48 Cf. Flemming (2008) on Galen's commentary practice in general, 347: 'Textual commentary, in Galen's world, played a key role in the development of ideas and understanding, in their articulation and elaboration, and in their transmission and dispersal. It allowed the exegete to define himself on an existing conceptual and ideological map, in an authoritative manner. The commentator was, after all, the student who had become the teacher. His commentary combined learning and teaching, announced his mastery of the subject, the sense in which he had absorbed, and could now contribute to, the tradition'; Jouanna (2012) 313 ff. on this particular commentary.

49 *HNH* 53,15 f. Mewaldt (xv 102 f. K).

50 *HNH* 3,1–19 (xv 1–2 K), the introductory passage runs until 7,14 Mewaldt (xv 9 K), after which Galen discusses the authenticity of the treatise; the actual commentary starts only at 11,7 Mewaldt (xv 16–7 K).

in the present text'.⁵¹ Thus, we can safely assume that at the point of writing *HNH*, which must have been relatively late, Galen considered it feasible to present it as an elaboration of basic presuppositions he used throughout his earlier work.

Still within the introductory part of the commentary, Galen presents other familiar fundamental doctrine as well: the division of homoeomerous and organic parts we have seen also in Case-Study I:

νυνὶ δὲ οὐ περὶ προσηγοριῶν ἢ σημαιομένων, ἀλλὰ περὶ τῶν πραγμάτων αὐτῶν ὁ λόγος ἡμῖν ἔστιν, ἐξ ὧν ἐλαχίστων εἴτε κατὰ μέγεθος εἴτε κατ' εἶδος ἢ πρώτη σύνθεσις γίνεται τῶν γεννητῶν σωμάτων, ἅπερ Ἀριστοτέλης καὶ ἡμεῖς ὀνομάζομεν ['στοιχεῖα πρὸς αἴσθησιν' καὶ] 'ὁμοιομερῆ'. δευτέρα γὰρ ἐκ τούτων ἄλλη σύνθεσις γίνεται σωμάτων, ἃ καλοῦμεν ὀργανικά, χειρὸς σκέλους ὀφθαλμοῦ τε καὶ γλώττης καὶ πνεύμονος καὶ καρδίας ἢπατός τε καὶ σπληνός καὶ νεφρῶν καὶ γαστρὸς καὶ μήτρας ὅσα τ' ἄλλα τοιαῦτα· σύγκειται γὰρ ἐκ τῶν πρώτων καὶ ὁμοιομερῶν ἃ δὴ καὶ 'πρωτόγονα' καλεῖν εἴωθεν ὁ Πλάτων, ἢ πρώτη τῶν τοιούτων ὀργάνων φύσις ...⁵²

But our present discourse is not concerned with appellations and meanings, but with the actual facts about the parts which are minimal, whether in respect of quantity or quality, from which are generated the first composition of generated bodies, which Aristotle and I call ['perceptible elements' and] 'homoeomerous bodies'. From these a second, distinct composition is generated, of the bodies we call 'organic': i.e. of the hand, leg, eye, tongue, lung, heart, liver, spleen, kidney, stomach, uterus and all the rest of them. For the proximate nature of this sort of organ is composed of the primary and homoeomerous ones, the ones which Plato was accustomed to call 'first-born'.

tr. HANKINSON, slightly modified

This passage is reminiscent of *QAM*. There, Galen first explains how the common substance of everything consists of matter without quality and form

51 *HNH* 7,9–14 (xv 9 K), this is the passage referred to earlier, in which Galen states that his commentary concerns the nature of the body. It might be relevant that he does so in the context of referring to these two works, which are more practically oriented towards the treatment of illnesses of the body. It might perhaps also be that he refers to the Hippocratic text with 'the present text' (τῷ προκειμένῳ συγγράμματι), but it seems much more plausible that it refers to the text the reader presently has in front of him, i.e. Galen's commentary itself.

52 *HNH* 6,11–20 Mewaldt (xv 7–8 K).

as a mixture of the four elemental qualities, and then states that from the mixture the bodies come into being that are called ‘first-born’ by Plato and ‘homoeomerous’ by Aristotle.⁵³ And while in *QAM* he chooses to locate soul at the level of the homoeomerous bodies rather than at the level of the organic bodies, here he explains the nature of the organs in terms of the homoeomerous bodies, which are primary and from which the organs are generated. But, as we have seen, the homoeomerous bodies cannot properly be understood as our nature in the primary sense distinguished earlier: they are themselves hylomorphic, and thus composite. They are rather the elements in terms of perception and in that sense the most primary *body*. Still, they are not entirely simple and therefore do not qualify as a description of nature in the sense of the primary substance. A further division is necessary, if only a conceptual one. But although the homoeomerous body is a composite, it is a composite only of form and matter and simple in terms of form itself. Galen calls the homoeomerous body ‘form’ of the body in *PHP*, when he draws an analogy with the parts or forms of the soul:

καὶ γὰρ εἶδη καὶ μέρη ψυχῆς ὀρθῶς ἂν τις ὀνομάζοι τὸ λογιστικὸν καὶ τὸ θυμοειδὲς καὶ τὸ ἐπιθυμητικόν, ὥσπερ εἰ καὶ σώματος εἶδη τις εἰπὼν εἶναι φλέβα καὶ ἀρτηρίαν καὶ νεῦρον ὅστων τε καὶ χόνδρον καὶ σάρκα καὶ τὰλλα ὅσα τοιαῦτα, μετὰ ταῦθ’ ὡς περὶ μερῶν αὐτῶν διαλέγοιτο. καὶ γὰρ καὶ μέρη τοῦ σώματος ἡμῶν ἀληθῶς ἂν τις εἶναι λέγοι τὰ τοιαῦτα – συμπληροῦται γὰρ τὸ ὅλον ἐξ αὐτῶν –, καὶ μέντοι καὶ εἶδη τοῦ σώματος οὐδὲν ἦττον· ἐν μόνοις γὰρ τοῖς ὁμοιομερέσι τὸ διαφέρον εἶδος οὐκ ἔστιν, οἷον τὸ τῆς σαρκὸς μέρος ἢ τὸ τῆς φλεβὸς ἢ τὸ τῆς πιμελῆς, οὐδὲ ἀληθῆς εἰπεῖν ἐπὶ τῶν τοιούτων ὡς ἐκ τοσῶνδὲ τινων εἰδῶν σύγκειται τὸ ὅλον ...⁵⁴

It would be correct to term the rational, the spirited and the desiderative both ‘forms’ and ‘parts’ of the soul, just as one might say that vein, artery, nerve, bone, cartilage, flesh and the like are forms of body, and then speak of them as parts. Indeed one could say of such things both that they are truly ‘parts’ of our body – for the whole is made up of them –, and again that they are no less truly ‘forms’ of the body. For it is only in homoeomerous structures that differences are not forms, for example, different parts

53 *QAM* 36,21–37,5 Müller (IV 773 K). *QAM* 36,21–37,5 Müller (IV 773 K); cf. Singer (2014) note 32 ad locum: πρωτόγονα is in fact not used in any of Plato’s extant works, let alone in the meaning Galen attributes to it. The closest parallel is *Politicus* 288e and 289b, where Plato uses πρωτογενές, but there too it is quite a stretch, to say the least, towards Galen’s meaning of basic bodies.

54 *PHP* VI 370,3–12 DeLacy (V 514–5 K).

of flesh or of a vein or of fat; and it is not correct to say of such things that the whole is composed of such and such forms.

TI. DE LACY

Here, already in *PHP*, Galen makes it clear that he thinks of the homoeomerous parts as being the (perceptible) elements of the body, not merely in terms of matter but also in terms of form. And, importantly, he refers to the impossibility to divide the form of homoeomerous parts further and presents this as the very reason to call them forms of the body. Thus, this passage also seems to indicate, as we saw previously in Case-Study I, that Galen thinks of form (and thus soul, if soul is understood as form of the body) primarily in terms of more basic constituent elements, rather than more complex ones. Therefore it matches with the passage from *QAM*, where Galen chooses to locate soul – being the form of the body – at the compositional level of the homoeomerous substances rather than at that of the organs.

This notion of a compositional level where there is no more difference in terms of form, is brought up several times in *HNH*, sometimes with the metaphor of the letters: a syllable is composed of different letters, so the difference between its parts is a difference in terms of both quantity and form, but you cannot divide a single letter any further because ‘its sound is single and indivisible, not in respect of simple quantity but rather in respect of form alone’.⁵⁵ The same applies to the homoeomerous body: it is not further divisible in terms of form, we cannot actually divide it into parts that differ from each other in terms of form. Therefore, taking Galen’s earlier reference to the *Phaedrus* passage into account, it is the causal powers of the homoeomerous bodies that need to be analysed in order to determine our nature. This is in accord with Galen’s notion that the homoeomerous bodies are primarily active, as we have established it in Case-Study I.

These causal powers in a primary sense, are the elemental qualities that constitute the most basic form by mixing with each other, by acting upon each other in matter and thus forming a homoeomerous body. For it is because of the causal powers of these qualities that everything else comes to be, as Galen explains on the basis of the Hippocratic text:

ἐν δὲ ταύτῃ τῇ νῦν ἡμῖν προκειμένη ῥήσει διήλθεν, ὅσα μέλλει δεῖξειν ὄντα πρῶτως, ὑφ’ ὧν ἄλλα πάντα γίνεται· ταῦτα δὲ ἐστὶ θερμοὺν καὶ ψυχρὸν ξηρὸν τε καὶ ὑγρὸν ...⁵⁶

55 *HNH* 6,25–6 Mewaldt (xv 6 K), translation Hankinson.

56 *HNH* 22,4–6 Mewaldt (xv 38 K).

In this passage which now concerns us, he enumerates the things which he is about to show to be primary, as a result of which everything else comes to be. These are the hot, cold, dry and wet ...

tr. HANKINSON

Again, Galen emphasizes that the four elemental qualities are primary (πρώτως), and that all other things come to be because of them. This may remind us, once more, of the passage in *QAM*,⁵⁷ where he decides to locate soul at the level of the homoeomerous bodies because the *activities* (ἐνέργειαι) primarily (πρώτως) belong there, particularly when we take into account these lines following shortly after the one quoted above:

δέδεικται δὲ καὶ τὰ φάρμακα πάντα διὰ τοῦ θερμαίνειν ἢ ψύχειν ἢ ξηραίνειν ἢ ὑγραίνειν ἐνεργούντα. πρῶται γὰρ αὐταὶ αἱ ποιότητές εἰσι δραστικαὶ τε καὶ ἀλλοιωτικαὶ τῶν σωμάτων, ὡς ἐπεδείξαμεν ἐν τῷ Περὶ τῶν καθ' Ἴπποκράτην στοιχείων. ἔπονται δὲ αὐταῖς αἶ τε κατὰ γεῦσιν ποιότητες (...) αἶ τε κατὰ χροῖαν (...) αἶ τε κατὰ ἀφήν (...) ταῖς γευσταῖς δ' ἰσάριθμοὶ πῶς εἰσιν αἱ κατὰ τὴν ὄσφρησιν, ἀλλ' οὐκ ἔστιν αὐτῶν ὀνόματα κατ' εἶδος ...⁵⁸

It was also shown that all drugs act by heating or cooling, drying or moistening. For these are the primary active and alterative qualities in the body, as we showed in *Elements* according to Hippocrates. Derivative of these are the qualities of taste (...) and those of colour (...) and those of touch (...) The qualities of smell are more or less the same in number as those of taste, although they have no specific names.

tr. HANKINSON

The four elemental qualities are primarily active and alterative, and therefore it is correct to say that all things come to be from them. Other qualities such as taste, colour, touch or smell, are secondary and derivative of those four elemental ones. It is these kinds of secondary qualities that Homer referred to in the passage quoted by Galen, qualities that relate to colour and to how the drug is perceived by the eye. This is the nature that 'those who write about herbs' teach, namely 'what the perceptible nature of each of these is when it is touched, tasted, smelled or seen'.⁵⁹ These derivative qualities make up what Galen has called the perceptible nature of a thing, but not its nature in a

57 *QAM* 37,12–5 Müller (IV 774 K).

58 *HNH* 22,26–23,6 (xv 40 K); cf. *Hipp. Elem.* 118,16 f. De Lacy (I 473–4 K).

59 *HNH* 4,14–6 Mewaldt (xv 3–4 K).

primary sense. They are already dependent on a more primary kind of qualities that generate the secondary ones through their activity. These qualities are not available to perception as such, since the perceptible bodies can only be divided further conceptually, into form and matter. Thus, Galen also seems to embrace the Heraclitean aphorism, 'φύσις κρύπτεσθαι φιλεί'. The nature of something is by definition never what it is first perceived to be. In fact, Galen emphasizes this axiom by making it the very starting-point, literally – the first sentence, of *Hipp. Elem.*, the predecessor of *HNH*:

ἐπειδὴ τὸ στοιχεῖον ἐλάχιστόν ἐστι μόνιον οὐπὲρ ἂν ἦ στοιχεῖον, ἐλάχιστον δὲ οὐ ταύτῳ αἰσθήσει τε φαίνεται καὶ ὄντως ἐστὶ – πολλὰ γὰρ ὑπὸ σμικρότητος ἐκφεύγει τὴν αἴσθησιν –, εὐδηλον, ὡς οὐκ ἂν εἴη τῶν φύσει τε καὶ ὄντως ἐκάστου πράγματος στοιχείων ἢ αἴσθησις κριτήριον.⁶⁰

Since an element is the least part of the thing of which it is an element, but what appears least to sense-perception and what is truly least are not the same – for many things go unperceived because of their small size –, it is evident that sense-perception would not be the judge of each thing's natural and true elements.

tr. DE LACY

However, there is also an important difference between Galen and at least some of those of Heraclitean persuasion. One of the reasons why Galen wants to maintain this difference between a perceptible and a true nature, as he remarks shortly after the passage just cited, is to avoid a kind of perspectivism which potentially follows from taking the way a given being appears as the guide for determining its nature:

ὡς εἴ γε τὸ φαινόμενον ἐλάχιστόν τε καὶ πρῶτον μόνιον ὑπάρχον ἐκάστῳ τοῦτο φήσομεν εἶναι τὸ φύσει στοιχεῖον, ἄλλα μὲν τοῖς ἀετοῖς καὶ Λυγκεῖ καὶ εἴ τις ἕτερος ἢ ἄνθρωπος ἢ ζῶον ἄλογον ὀξυωπέστατόν ἐστιν, ἄλλα δ' ἡμῶν ἐκάστῳ φανέεται τὰ στοιχεῖα.⁶¹

If we say that what appears to each one as the least and first part (of a thing) is its natural element, then the elements as they appear to eagles

60 *Hipp. Elem.* 56,3–7 De Lacy (I 413 K).

61 *Hipp. Elem.* 56,18–58,2 De Lacy (I 414 K).

and to Lynceus and to any other man or irrational animal with very keen eyesight will be different from the elements as they appear to each of us.

TI. DE LACY

Thus, there would be no possibility of attaining knowledge, in the proper sense, of a thing's nature. Contrary to this, Galen holds that no perception of the qualities of a given being can be considered knowledge until it has been properly grounded in this nature behind perception. That is to say, we cannot *know* anything if we do not go deeper than the realm of perception and learn about the elemental qualities constituting the being we desire knowledge of.

Thus, according to Galen, presenting himself as following in the footsteps of Hippocrates and Plato, the general method for knowledge of the nature of any thing is that of division until no further division is possible, upon which follows analysis of the powers of the undividable elements. This analysis turns out to be an analysis of the elemental powers that constitute the homoeomerous bodies. These are no actual bodies themselves any longer, but conceptually distinguished from the matter in which they inhere.

Since Galen's talk of elements and of elemental qualities conceptually distinguishable from matter is not always consistent and can be confusing, we shall briefly discuss this issue a bit more extensively in the next section.

3 Elements and Qualities

Galen proposes that we go beyond the realm of perception, towards the metaphysical principles of prime matter and elemental qualities, in order to determine the nature of things. However, that does not mean that he does not give any empirical arguments for the thesis that the nature of everything consists of a mixture of the four elemental qualities. One of the most illustrative of such arguments is that of the fig tree.⁶² When a fig tree grows out from a fig tree seed that has been planted in the earth, it is unquestionable (considering its roots in the earth and its dependency on watering) that it has acquired its substance from earth and water. But it has to have a share in heat as well, considering that it is alive and remains so even through the harshest winters, and considering that the earth in which it is planted is of itself extremely cold. Likewise, it needs to have a share in air, since it is evidently lighter than the earth (on which it is standing) and than water (on which it can be seen to float)

62 HNH 30,29 f. Mewaldt (xv 55–6 K).

and it is air that makes things light. Therefore, the fig tree is made up of all four elements, which means that the fig, as a product of the fig tree, must be so as well. The same reasoning can be applied to all trees, and thus to all the fruits they bear. Because the humours in us and other animals are, in turn, generated from the nutriment of these fruits and plants, they will have these four elements as their principles as well.⁶³

Though this example is illustrative as a form of empirical reasoning towards theoretical postulates that are as such not perceivable (we do not see earth and fire in the fruits we eat), it is also confusing because Galen here seems to neglect the difference between elements and principles which he posited before. In an earlier passage he was quite clear about maintaining this difference:

οὐ μὴν στοιχεῖά γε ταῦτα ἔστιν οὔτε τῶν ἄλλων οὔτ' ἀνθρώπου φύσεως, ἀλλὰ ἀρχαί. συνεκέχυτο δ' ἔτι τοῦτο παρά τοῖς ἀρχαίοις οὐδ' εἰς ἔννοιαν ἀφιγμένοις τῆς διαφορᾶς ἀρχῆς τε καὶ στοιχείου διὰ τὸ δύνασθαι χρῆσθαι τῇ τοῦ στοιχείου προσσηγορίᾳ καπὶ τῶν ἀρχῶν. ἄλλα δὲ δύο πράγματά ἐστι φανερώς ἀλλήλων διαφέροντα, τὸ μὲν ἔτερον ἐλάχιστον μόριον τοῦ ὅλου, τὸ δὲ ἔτερον εἰς ὃ διαλλάττεται κατ' ἐπίνοιαν αὐτὸ τοῦτο τὸ ἐλάχιστον.⁶⁴

However, these [the four qualities] are not yet elements of the nature of man (or anything else), but rather its principles. This was confused already by the 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. None the less, these two things are clearly distinct from each other, the one being the least part of the whole, the other that into which this least part itself can be divided conceptually.

tr. HANKINSON

Galen, in line with tradition, justifies this conceptual difference in terms of the necessity to maintain the possibility of change of a given substance that nonetheless could be said to remain the same substance. The underlying matter accounts for that of which the change is predicated, while the changing form accounts for the change itself. Thus, the qualities are principles, while the elements consist already of two (metaphysical) principles, namely the underlying matter and the quality.⁶⁵ Apparently a body could be called an element

63 Cf. *Hipp. Elem.* 100,2 f. De Lacy (1 455–7 K), where Galen employs the same reasoning.

64 *HNH* 17,30–18,5 Mewaldt (xv 30 K); cf. Kupreeva (2014) 190–2 on this passage.

65 Cf. Kovacic (2001) 96: 'In Galens Kosmologie stehen am Anfang die vier Elemente als Bausteine der Natur. Abstrakt gesehen sind diese vier Elemente nicht das Erste

when the extreme of one of the qualities is present in the underlying matter, so that the element fire would be an underlying basic matter in which the quality of heat is extremely predominant. This is in line with what we find in *Hipp. Elem.*:

ὅτι τε γὰρ ἀπλούστερόν ἐστι πυρὸς ἢ ἄκρα θερμότης ὅτι τε ταύτης ἐγγενομένης τῇ ὕλῃ πῦρ ἀποτελεῖται, τοῖς φιλοσόφοις ὡμολόγηται πᾶσιν οἷς Ἀθήναιος ἔπεισθαι σπουδάζει. καὶ μὲν δὴ καὶ ὡς ἀρχὴ τῆς τοῦ πυρὸς γενέσεως ὕλη τέ ἐστὶν ἢ ἅπασιν ὑποβεβλημένη τοῖς στοιχείοις ἢ ἄποιος ἢ τ' ἐγγινομένη ταύτη θερμότης ἢ ἄκρα, καὶ τοῦθ' ὁμοίως ὡμολόγηται, καὶ ὡς ἡ μὲν ὕλη διὰ παντός ἐστὶ τοῦ αἰῶνος ἀγέννητός τε καὶ ἀφθαρτος οὖσα, τὸ δὲ γιγνόμενόν τε καὶ ἀπογιγνόμενον αὐτῆς ἢ ποιότης ἐστὶ καὶ ὡς ὁμογενές εἶναι χρὴ τὸ στοιχεῖον, οὐπερ ἂν ἦ στοιχεῖον.⁶⁶

That extreme heat is simpler than fire and that fire is produced when this heat has entered matter, this has been agreed to by all the philosophers whom Athenaeus is eager to follow. And indeed that the first principles of the generation of fire are the matter which underlies all the elements and is without qualities, and the extreme heat that enters into it, this too has been similarly agreed to, and also that the matter exists through all eternity, being ungenerated and undestroyed, and that what comes and goes in it is the quality, and that the element must be homogeneous with that of which it is an element.

tr. DE LACY

After this passage in *Hipp. Elem.*, Galen distinguishes between three ways of speaking of hot, cold, dry and wet: as quality (conceptually distinct from being the quality of a specific matter), as unmixed body (e.g. the element fire, a body in which heat is unmixed with other qualities), and as mixed body (a body that is relatively hot, but consists of a mixture of heat with the other qualities).⁶⁷

und Ursprüngliche. Denn es gebe eine eigenschaftslose Materie, die allen Elementen zugrunde gelegt sei. Diese Materie währe die ganze Ewigkeit hindurch, ungezeugt oder unerschaffen unvergänglich; das, was an ihr aber entstehe und vergehe, sei die Qualität (ποιότης). Die Verbindung dieser Materie also mit den Qualitäten ergibt die Elemente. Die Grundqualitäten sind ἀρχαί, und Galen unterscheidet sie streng von den Elementen: Die Elemente müssen ganz und gar homogen sein mit den Dingen, deren Elemente sie sind; die Ursprünge (ἀρχαί) sind nicht notwendigerweise homogen mit den Dingen, deren Ursprünge sie sind!

66 *Hipp. Elem.* 114,13–21 De Lacy (I 469–70 K). Cf. Hankinson (2008) 216 on this passage, also Kupreeva (2014) 187 ff.

67 *Hipp. Elem.* 114,25–116,5 De Lacy (I 470 K).

This threefold division seems helpful and clear, and could be applied to most of what Galen writes. However, he is not always consistent in the distinction between element and quality. Despite his emphasis on the need to distinguish element and principle (the principles being the qualities and the prime matter), he also calls the qualities the ‘common elements of everything’.⁶⁸ Perhaps this is a way to align his own notion of the common hylomorphic substance of everything, to the Hippocratic notions of the dry, wet, cold and hot, which Galen interprets as elements. But then again, the very fact that Galen interprets these as elements is in itself remarkable, especially since it is hard to see how the elements (as extreme instantiations of one of the qualities in matter) are indispensable to his own doctrines (since these extreme instantiations are never actually there – see below – and there is rather always a mixture of the various qualities in Galenic physics). It might be that he wishes to emphasize that Hippocrates did not merely write of qualities but also understood that there must be a combination of matter and quality, and that therefore Hippocrates must be taken to refer to elements, i.e. qualities instantiated in matter. Otherwise, Hippocrates would seem to be just the opposite of the Melissus portrayed by Galen earlier: he would have recognized only one of two principles. This seems to come to the fore in the following passage:

ἀλλὰ τοῦτό γε παρορώσιν οἱ πολλοὶ τῶν Ἱπποκρατεῖους ἑαυτοὺς ὀνομαζόντων, ἔτι τε πρὸς τούτοις νομίζοντες ἄλλο τι λέγειν αὐτὸν ὑγρὸν καὶ ξηρὸν καὶ θερμὸν καὶ ψυχρὸν, οὐ τὰ κοινὰ πάντων στοιχεῖα. τὰς μὲν γὰρ ποιότητας αὐτῶν ὅτι μὴ βούλεται στοιχεῖα τίθεσθαι τῶν σωμάτων ἐξ ὧν ἡδὴ παρεθέμην αὐτοῦ ῥήσεων ἐναργῶς ἐπιδειχθῆναι νομίζω, καὶ ταύτης οὐχ ἥκιστα: “καὶ πάλιν, εἰ μὴ τὸ θερμὸν τῷ ψυχρῷ καὶ τὸ ξηρὸν τῷ ὑγρῷ πετριῶς πρὸς ἀλληλα ἔξει καὶ ἴσως, ἀλλὰ τὸ ἕτερον τοῦ ἐτέρου πολὺ προέξει καὶ τὸ ἰσχυρότερον τοῦ ἀσθενεστεροῦ, ἢ γένεσις οὐκ ἂν γένοιτο.” οὐ γὰρ δὴ ἐκ τῶν ποιότητων μόνων ἡγείται τὴν γένεσιν τοῖς ζῴοις ὑπάρχειν, αἶ γε μὴδ’ εἶναι δύνανται χωρὶς τῶν σωμάτων, ἀλλ’ ἐκ τῶν σωμάτων αὐτῶν δηλονότι τῶν ἄκρας ποιότητος δεδεγμένων ...⁶⁹

But the majority of those who call themselves Hippocrateans overlook this, and in addition they think that by wet, dry, hot, and cold he refers to something else, not to the common elements of all things. For I think it has been clearly shown from the passages that I have already cited that he does not want to make the elements’ qualities the elements of

68 *HNH* 28,16 Mewaldt (xv 51 K); 30,3–4 Mewaldt (xv 54 K).

69 *Hipp. Elem.* 124,11–22 De Lacy (I 478–9 K).

bodies, and not least from the following passage: “And again, if there is not a measured and balanced ratio of hot to cold and dry to wet, but one greatly prevails over the other, the stronger over the weaker, birth would not take place.” He does not believe that the birth of animals is from the qualities alone, which cannot even exist apart from bodies, but from the bodies themselves, obviously the bodies that have received the extreme qualities ...

tr. DE LACY

Still, one could ask why it would have to be bodies that have received the extreme qualities and why Galen would not take Hippocrates here to simply say that the qualities need to mix with each other, and then remark that this needs to happen in a substance in which several qualities inhere, i.e. the matter. Given that Galen is out to maintain the notion of the elements, it makes some sense for him to see them as the *extreme* instantiation of the qualities: they have to be properly different from all other bodies that have the qualities in a mixed or even relatively predominant manner since otherwise there would be an infinite variety of elements (anything that is relatively hot could be said to be the element fire).⁷⁰ But why Galen needs to cling to this notion of the elements in the first place, seems less evident. As Jim Hankinson puts it in an insightful paper teasing out this very difficulty: ‘It is one thing to insist that generation cannot occur simply as a result of the qualities, since the qualities need physical vehicles for their instantiation; it is quite another to insist on the physical reality of the elements as such, conceived as the physical instantiations of those qualities in their extreme form.’⁷¹ We might grant that Galen takes the elements as the conceptually instantiated maxima of any of the four qualities, without insisting on their physical reality (which seems reasonable). However, it would still remain difficult to see why, on a mere conceptual level, he needs them. Again, in the words of Hankinson, Galen requires ‘that the qualities need to be conceptualized in some sort of maximal manner, not that there be any maximal expression of them in bodies’. Perhaps it simply fits his positioning in the previous tradition of natural philosophy better. That is to say, Galen might simply have assumed that the notion of the elements require some place in his theories, given that it is an important factor in the tradition Galen is placing himself in. From this perspective, perhaps this particular

70 Cf. *Hipp. Elem.* 104,24 f. De Lacy (1 461–2 K), where Galen puts this argument to Athenaeus; cf. also Hankinson (2006), (2008), and (2017); Kupreeva (2014), particularly 182–3.

71 Hankinson (2017) 2.

interpretation of the elements as the conceptually instantiated maxima of the respective elemental qualities in prime matter, is best, both in terms of not harming his own hylomorphic doctrine, as in giving a favourable explanation of Hippocrates. Obviously, this is not a very satisfying explanation.

In any case, within the threefold division Galen makes, the element is the unmixed body, so the elements in a proper sense are understood as prime matter formed only by an extreme of one of the primary qualities. However, these elements are not available to perception either, as Galen makes clear in *Hipp. Elem.*: you will not find unmixed earth or fire.⁷² It seems as if Galen wants to maintain both the hylomorphic outlook that is more suitable for his central notion of mixture and his view on the relation between body and soul, as well as the traditional notion of element in the sense of a most basic body (partly already obsolete because of his notion of the homoeomerous body as the actual most elemental body). Therefore, perhaps, he fits the element in the hylomorphic schema as the most simple or extreme conceptual example of combinations of form and matter. Thus, fire as we encounter it, cannot strictly be considered an element, while the element fire in a strict sense cannot be encountered:

... εἰ ζητεῖς ἐν τοῖς ζώοις γῆν, ἔχεις θεάσασθαι τοιαύτην οἷαν καὶ τῷ κοσμῷ, τὴν δὲ ἄμικτόν τε καὶ παντελεῆ καὶ μόνην οὐκ ἂν οὐδ' ἐν ἐκείνῳ ῥαδίως ἐξεύροις, ὥσπερ οὐδ' ὕδωρ καθαρὸν καὶ ἀμιγῆς ἀπάντων τῶν ἄλλων οὐδὲ πῦρ οὐδὲ ἀέρα· νενόθευται γὰρ ἅπαντα τοῖς ἑτερογενέσι καὶ ἀναμέμικται καὶ μετείληφεν ἢ μάλλον ἀλλήλων ἢ ἡττον.⁷³

... so if you are looking for earth in animals, you can see (in them) the kind of earth that you also see in the cosmos; but earth that is unmixed, complete, and by itself you would not easily find even in the cosmos;

72 *Hipp. Elem.* 98,2–11 De Lacy (1 453–4 K); cf. Hankinson (2008) 212: 'Speculative metaphysics cannot yield certain knowledge, since it is unsusceptible of empirical testing, *peira*, and the inquirer must sometimes remain content with plausibility rather than proof. Yet he expresses no such qualifications in the case of the elements, which can be known by inference to exist even though they cannot be directly perceived'; Kupreeva (2014) 161: 'There is indeed a whole list of philosophical questions which Galen himself considers to be of little importance for the medical doctor. The question about the nature of the elements is different. Galen takes it seriously, as lying within the doctor's professional remit. This has to do also with the question whether the elements constitutive of living bodies are the same as those that make up the rest of nature, which Galen answers in the affirmative'.

73 *Hipp. Elem.* 98,6–11 De Lacy (1 453–4 K).

similarly you would not see water that is pure and not mixed with all the rest, and the same is true of fire and air; all have been adulterated by other kinds of things and mixed with them, and they have all received a larger or smaller share of each other.

tr. DE LACY

Still, even though these elements cannot be said to be visibly present in the human body, or any other body, and thus – similar to the principles of matter and form – seem to function mainly as a conceptual tool for Galen, he does call them the actual elements of the human body. ‘Actual’ that is, apparently, as opposed to the perceptible elements: the perceptible elements are homoeomerous bodies, for example flesh, vein and bone. Those cannot be considered elements in a strict sense, because they cannot mix with each other to generate ever new substances, thus accounting for the possibility of continuous change:

ὥστε οὐ τὰ σαφῶς βλεπόμενα κατὰ τὸ σῶμα τάνθρώπου θερμὰ καὶ ψυχρὰ καὶ ξηρὰ καὶ ὑγρὰ μόρια στοιχεῖα τῆς τοῦ ἀνθρώπου φύσεως ἐστίν, ἀλλὰ τὰ τούτων αὐτῶν συνθετικά τε καὶ γεννητικά. ταῦτα δὲ ἐστίν ὕδωρ τε καὶ πῦρ ἀήρ τε καὶ γῆ. ἀποδέδεικται δὲ περὶ τούτων ἰκανῶς ἐν τῷ Περὶ τῶν καθ’ Ἱπποκράτην στοιχείων.⁷⁴

Consequently it is not the clearly visible hot, cold, dry and wet parts of the human body which are the elements of the nature of man, but those which compose and produce them; and these are water and fire, air and earth. But this is amply demonstrated in *Elements According to Hippocrates*.

tr. HANKINSON

The mistake made by some people who apparently think that the perceivable hotness, coldness, dryness and wetness are the elements of the human body, is comparable to that of the herbalists we encountered earlier: it is to think nature is restricted to that which is directly accessible to the organs of perception.⁷⁵ As in the case of the herbalists, Galen seems to be debating real contemporaries, who are apparently finding fault with Hippocrates’ reasoning. These people would take the hot, cold, wet and dry to refer to some perceptible parts of the body that are relatively or predominantly hot, cold, wet or dry, and

74 HNH 30,11–16 Mewaldt (xv 54 K).

75 See p. 98 above.

then point out the impossibility of these parts being the starting or ending point of cycles of generation and destruction: flesh is not generated from or dissolved into flesh.⁷⁶ Besides, if we would stop at the perceptible level, there is no way we would have elements that are common to everything, since, as Galen says, a stone is not made of the four humours.⁷⁷ I think this assumption of a common substance of everything is so necessary for Galen (and perhaps indeed some of his predecessors) that it might play an important role in his inclination to posit nature outside of the realm of the senses: how else could it be a primary substance of everything? After all there does not seem to be much that is *perceivably* common to everything, except for the mere fact that it is all there.

4 Grades and Shades of Nature

However, over and above this level of commonality, there is the specification of a being's nature in more particular terms. It is possible from a Galenic perspective to distinguish a scale of more general and more particular natures of a thing. The most particular nature in the end will be individual: individual human beings differ in nature from each other, as can be inferred, according to Galen, from observing their activities (here we have to bear in mind that the activities of a given being are determined by its substance or nature).⁷⁸ The least particular nature will be common to everything and defined in general terms as a mixture of the four qualities in prime matter. At the same time, the most individual differences are eventually determined at the most general level. If we were to have the same mixture, we would have the same affections and activities given the same causes, i.e. we would not be distinguishable on any level. Thus, the governing principles of the activity of any given being are the elemental qualities, but their *specific* interaction – governed, in turn, by Nature as a divine ordering principle – determines the more particular nature of a being, e.g. a being that is made from four humours, a being that is capable of rational thought, a being that is prone to anger, a being that is melancholic, etc. In this way, each human being could have a different nature, while at the same time, at a more general level, the nature of all human beings has something in common. Moreover, at an even more general level it does not even

76 HNH 29,23–30,16 Mewaldt (xv 53–4 K).

77 HNH 28,27–29,6 (xv 52 K).

78 QAM 32,14–33,16 Müller (iv 768–9 K).

differ from the nature of all other beings. As we have noted in Case-Study 1, this commonality constitutes the unity of the cosmos, which is also expressed in the singularity of 'Nature' as a divine ordering principle operative in the generation, subsistence and destruction of all these beings. How, in Galen, 'Nature' as divine creator is exactly related to nature in the sense of this common substance and its elemental capacities, is a rather difficult question, it seems to me.⁷⁹ Surely, there needs to be some difference between the two, though, since it is hard to see how the capacities of this common substance (heating, chilling, moistening, drying) could in themselves account for the complex teleological order they generate. However, a clear-cut separation between a nature as demiurge that steers generation on the one hand and the stuff (common substance) 'with which' the demiurge generates on the other, seems to be an injustice to the ambiguity of Galen's notion of nature and the way its teleological and immanent functions are bound up, especially considering the emphasis Galen puts on the activity of this 'stuff' itself when it comes to generation and destruction and, more in general, processes of change. For example, we noticed in Case-Study 1 that Galen can say about nature as demiurge that it stays present in the living beings it creates, as a kind of guardian, in the form of the basic capacities these living beings have:

ἀνεπιτρόπευτα γὰρ ἔασαντες αὐτὰ καὶ τέχνης καὶ προνοίας ἔρημα μόναίς ταῖς τῶν ὑλῶν οἰακίζόμενα ῥοπαίς, οὐδαμοῦ δυνάμεως οὐδεμιάς τῆς μὲν ἐλκούσης τὸ προσήκον ἑαυτῇ, τῆς δ' ἀπωθοῦσης τὸ ἀλλότριον, τῆς δ' ἀλλοιούσης τε καὶ προσφουούσης τὸ θρέψον, οὐκ οἶδ' ὅπως οὐκ ἂν εἶημεν καταγέλαστοι περὶ τῶν φυσικῶν ἐνεργειῶν διαλεγόμενοι καὶ πολὺ μᾶλλον ἔτι περὶ τῶν ψυχικῶν καὶ συμπάσης γε τῆς ζωῆς.⁸⁰

For if it were conceded that they [the living beings] are without guardianship, devoid of artistry and foresight, governed only by the rule of matter and not by any power such as the attracting of what is appropriate to itself, the rejecting of what is foreign, the alteration and assimilation of that which shall nourish it, then I am sure we would make fools of ourselves discussing natural activities, and even more so discussing psychical activities and, in fact, life as a whole.

79 Kovacic (2001) seems to give the most comprehensive discussion of this question; cf. also Hankinson (2006); van der Eijk (2014).

80 *Nat. Fac.* II 80 K.

Besides an interesting ambiguity between the personal and the natural, or the individual and the universal, there is also an ambiguity here of nature as demiurge that generates an individual being, and nature as that which exercises these basic capacities of sustenance of that same being. Perhaps this is an ambiguity that is not to be solved when one does not want to make speculative commitments about the specific nature of a creator but also appreciates the complexity and capacity of the body as well as the order to be found in nature and, at the same time, thinks that complexity cannot be explained in terms of completely non-intelligent causes. That is to say, I would not only say that we can find both a transcendent and immanent nature in Galen, but also that our analytical desire to distinguish between a transcendent and immanent nature might not have been shared by Galen to the same extent. This is, perhaps, not due to his lack of analytical desire but rather due to the empirical basis of his notion of a creative nature. We can also see this from a passage in his commentary on the Hippocratic *Epidemics*, to which Jouanna has called attention. There, Galen emphasizes both the artistry and providentiality of nature (nature is both τεχνική and προνοητική) and provides something like a definition of nature in the following words:

δύναμιν δὲ προσήκει νῦν ἀκούειν ἐκ τοῦ τῆς φύσεως ὀνόματος ἐνοικοῦσαν αὐτοῖς τοῖς σώμασι τοῖς διοικουμένοις ὑπ' αὐτῆς ...⁸¹

By the word 'nature' we should understand the capacity residing in the very bodies arranged by her.

tr. JOUANNA, modified

Here we can see how close nature as creator (the arranging aspect) and nature as guardian (the capacities then residing in the created body in order to maintain it) are for Galen. It seems here as if they are one, even, in concept.

In another passage in *Nat. Fac.*, Galen dwells further on the powers that nature exercises in its beings as their guardian. He mentions 'affection and caring for offspring' (στερηκτική τινι καὶ προνοητική τῶν ἐγγόνων) as well as 'sociability and friendship for kindred' (κοινωνική δὲ καὶ φιλική τῶν ὁμογενῶν).⁸² Galen seems to consider feelings such as love and friendship for family or others like us, as natural capacities as well. In what follows, he even suggests that

81 *Hipp. Epid.* VI 253,19–21 Wenkebach (XVII B 223 K); see Jouanna (2012) 290 ff.

82 *Nat. Fac.* II 28 K.

certain concepts and notions of justice or beauty are natural.⁸³ Is appreciation of beauty a natural capacity? Galen seems to suggest it is, even though most of his work in *On the Natural Capacities* is not concerned with these kinds of capacities.⁸⁴ Perhaps then, it is also nature acting in us when we appreciate beauty or justice. After all, such appreciation would likely be deemed 'according to nature' by Galen.⁸⁵ From this perspective, the boundaries of nature are perhaps not entirely clear in Galen. With regard to the capacities that we share with plants, the capacities of the soul seated in the liver, Galen generally emphasizes that there is no point in distinguishing between the psychic and the natural at all.⁸⁶ The passage just quoted from *Nat. Fac.* proves that it is unclear whether some capacities which belong to animals and do not belong to plants can also be included among the natural capacities. Furthermore, if more complex capacities follow the bodily mixture or are in the end primarily activities of the homoeomerous bodies, and if these mixtures are the result of nature operating through its most elemental qualities of heating, chilling, moistening and drying, how clear, then, is the boundary between our psychic and natural capacities? I would say that with regard to nature as our individual nature or soul on the one hand, and nature as a general or common teleological ordering principle on the other, the boundaries are at least ambiguous in Galen. In this respect it is important to realize that, first, the mixtures of elemental qualities that form our nature are *always* themselves generated by the same nature that is considered artistic by Galen, at least initially (since it is only God or nature that can generate a complete mixture (i.e., a homoeomerous body), as Galen emphasizes in *Temp.* I 563 K). And second, that the basic powers exercised by the elemental qualities are considered by him as basic powers of nature itself.⁸⁷ Given nature's artistry and foresight, this apparently must imply that the causality exercised by the mixtures cannot in any unambiguous sense be distinguished from the causality exercised by

83 In this passage, Galen contrasts two schools of thought, one group basically consists of the atomists and followers of Asclepiades, the other is founded by Hippocrates, then continued by Plato and Aristotle, and of course finally – as the implication goes – represented by Galen. That is to say, we are in a polemical context of a discussion between schools, but it is safe to assume Galen agrees with the latter school, or rather positions himself as the continuation of this Hippocratic line, cf. Jouanna (2012) 307 and Kupreeva (2014) 160.

84 Cf. *QAM* 73,15 f. Müller (IV 815 K), where Galen suggests that we all naturally love the good and hate the bad.

85 See Jouanna (2012) 291 ff. on Galen's use of this expression.

86 Cf. *UP* I 201,19–202,2 Helmreich; *Nat. Fac.* I 1, II 1–2 K; *Meth. Med.* IX 10, X 635 K; *PHP* VI 3, 374,18 De Lacy; De Lacy (1988) 53 f.; Tieleman (2003) 158–9.

87 See *infra*, Case-Study 1, p. 22–4 (esp. note 36) and 41–5.

nature as an intelligent creator. There is the causality that we, by virtue of our rationality, can exercise on the mixtures, but this, again, is dependent on the present state of our mixture and on our original nature as well, which implies, again, that it is difficult to determine in Galen where 'nature' stops and 'we' begin.

With regard to the difference between nature as a transcendent demiurge and nature as an immanent principle, we shall look at another passage in *Nat. Fac.* In it, Galen describes the role of semen and blood in generation. Here too, boundaries are ambiguous, as we shall see. In a polemic against Erasistratus, Galen compares the artistry of nature to that of sculptors such as Praxiteles and Phidias.⁸⁸ Whereas the sculptors merely change the outside appearance of their material and do not change the actual material itself ('Phidias could not turn wax into ivory and gold nor yet gold into wax'), nature is 'extended throughout the whole substance' of the parts of the body and alters and shapes them through and through.⁸⁹ If nature were to preserve 'the original character' (τὴν ἀρχαίαν ἰδέαν) of its matter, then, states Galen, 'all parts of the animal would be blood'. He compares blood to the wax of the sculptor, the basic material, which the sculptors embellish from the outside, whereas nature alters it completely to turn it into various other homoeomerous substances such as 'bone, artery, vein, nerve' etc. Now, Galen imagines asking Erasistratus what it would be that alters and fits together and shapes this material, in other words, what corresponds to the sculptor in the analogy. In Galen's imagination, Erasistratus would answer 'either nature or the semen' and would mean the same by it. He explains as follows:

ὁ γὰρ ἦν πρότερον σπέρμα, τοῦθ', ὅταν ἄρξηται φύειν τε καὶ διαπλάττειν τὸ ζῶον, φύσις τις γίγνεται. καθάπερ γὰρ ὁ Φειδίας εἶχε μὲν τὰς δυνάμεις τῆς τέχνης καὶ πρὶν ψαύειν τῆς ὕλης, ἐνήργει δ' αὐταῖς περὶ τὴν ὕλην – ἅπαντα γὰρ δύνάμεις ἀργεῖ ἀποροῦσα τῆς οἰκείας ὕλης –, οὕτω καὶ τὸ σπέρμα τὰς μὲν δυνάμεις οἴκοθεν ἐκέκτητο, τὰς δ' ἐνεργείας οὐκ ἐκ τῆς ὕλης ἔλαβεν, ἀλλὰ περὶ τὴν ὕλην ἐπεδείξατο.⁹⁰

For that which was previously semen, this, when it begins to bring forth and to shape the living being, becomes a kind of nature. For in the same way that Phidias possessed the powers of his art even before touching his material, and then actualized those in connection to his matter – for

88 The passage starts around the beginning of the third chapter of book II (II 80 K).

89 Translations Brock.

90 *Nat. Fac.* II 83–4 K.

every power remains inoperative in the absence of its proper material –, in this way also the semen has its powers from the beginning, while it does not receive its activities from the matter but manifests them in connection with the matter.

tr. BROCK, modified

We are here in the context of a polemic against Erasistratus and Galen seems to take a somewhat more Aristotelian position than elsewhere⁹¹ in order to show that the followers of Erasistratus are not proper Peripatetics. However, there is no reason to doubt that Galen is presenting his own views here. What is interesting, first of all, is that he ascribes the role of artificer to the semen, which he also does in other works.⁹² But whereas sometimes he speaks of the power in the seed as the natural power for shaping a living being, here he seems to identify the semen itself as artistic nature (which does, however, correspond to his general understanding of the relation between substances and capacities or powers, as we have seen⁹³). It is said to bring forth and shape the animal and it is compared to the actual artificer in the analogy, namely Phidias. The semen becomes a nature when it has its appropriate material at hand. In the way Galen describes this becoming of a nature, the emphasis is on creative capacity. He continues to describe the necessity of the right amount of material, i.e. blood. If there would be too much blood, the semen would perish, while if there would be no blood at all, the semen would remain completely inoperative and ‘would not become a nature’ (οὐκ ἂν γένοιτο φύσις). As he said before, the semen becomes something else in the right circumstances, namely an artificer, creative nature. This is to be understood as a transformation in which it is no longer semen, it seems, since Galen says that when it does not perish, it can become nature *instead of* semen (γίγνηται φύσις ἀντὶ σπέρματος). So, what is it, that makes sure that the right amount of blood is supplied and that the artificial capacities of the semen are unleashed so that it may become a creative nature? Here, the answer is again: the semen itself, which has the

91 Particularly with regard to the respective passive and active roles of blood and semen.

92 Cf. *Foet. Form.* 86,17–8 Nickel (v 682 K), where Galen says that the semen bears the ‘formula of the creator’ (τὸν τοῦ δημιουργοῦ λόγον) and 86,21 f. Nickel where the ‘power in the seed’ (ἡ ἐν τῷ σπέρματι δύναμις) is said to ‘shape’ (διαπλάττεσθαι) the parts of the body and is used synonymously with ‘the nature which shapes living beings’ (ἡ διαπλάττουσα τὰ ζῶα φύσις); also *Sem.* 98,1–3 De Lacy (iv 546–7 K), where the ‘natural’ or ‘vegetative principle’ is said to ‘create not from blood but from the semen itself artery and vein and nerve, bone and membrane’ (tr. De Lacy), also *Sem.* 78,24 f. and 82,12 f. De Lacy.

93 See *infra*, Case-Study 1, 39–40 and note 76.

basic natural capacity of drawing to itself what it needs, i.e. a due proportion of blood. Galen gives us a more elaborate description of how this works:

σύμμετρον δ' ἂν εἴη τὸ λεπτὸν οὕτω καὶ ἀτμῶδες, ὥστ' εὐθὺς εἰς πᾶν μόνιον ἐλκόμενον τοῦ σπέρματος δροσειδῶς μηδαμοῦ τὴν ἑαυτοῦ παρεμφαίνειν ιδέα. οὕτω γὰρ αὐτοῦ καὶ κρατήσῃ ῥαδίως τὸ σπέρμα καὶ ταχέως ἐξομοιώσῃ καὶ τροφήν ἑαυτῷ ποιήσεται κἄπειτ' οἶμαι δεύτερον ἐπισπάσεται καὶ τρίτον, ὡς ὄγκον ἑαυτῷ καὶ πλήθος ἀξιόλογον ἐργάσασθαι τραφέντι. καὶ μὴν ἤδη καὶ ἡ ἀλλοιωτικὴ δύναμις ἐξεύρηται μὴδ' αὐτὴ πρὸς Ἐρασιστράτου γεγραμμένη. τρίτε δ' ἂν ἡ διαπλαστικὴ φανείη, καθ' ἣν πρῶτον μὲν οἶον ἐπίπαγόν τινα λεπτὸν ὑμένα περιτίθησιν ἑαυτῷ τὸ σπέρμα ...⁹⁴

Now, this fluid would be in due proportion if it were so thin and vaporous, that, as soon as it was drawn like dew into every part of the semen, it would everywhere cease to display its own particular character; for so the semen will easily dominate and quickly assimilate it and will use it as food, and then it will, I imagine, draw to itself a second and a third quantum, and thus by feeding it makes for itself a considerable bulk and quantity. In fact, the alterative power has now been discovered as well, although about this Erasistratus has not written a word. And, thirdly the shaping power will become evident, by virtue of which the semen firstly surrounds itself with a thin membrane like a kind of superficial condensation ...

tr. BROCK, slightly modified

The semen alters blood into other homoeomerous substances and shapes the embryo. These two capacities, the alterative and shaping power, are the same ones that Galen previously distinguished as the powers of nature by which it creates.⁹⁵ So, what we can gather from all this, is that semen becomes creative nature when confronted with its proper material and then generates a living being by exercising the natural capacities of alteration and shaping. It seems

94 *Nat. Fac.* II 85–6 K.

95 *Nat. Fac.* II 10–11 K: 'Genesis, however, is not a simple activity of Nature, but is compounded of alteration and of shaping. That is to say, in order that bone, nerve, veins, and each of the others may come into existence, the underlying substance from which the animal springs must be altered; and in order that the substance so altered may acquire its appropriate shape and position, its cavities, outgrowths, attachments, and so forth, it has to undergo a shaping or formative process. One would be justified in calling this substance which undergoes alteration the material of the animal, just as wood is the material of a ship, and wax of an image'. (tr. Brock, slightly modified)

then, that all the creative capacities of nature, in the case of human beings at least, are simply contained in the seed and in this way passed from one person to the next, i.e. from parent to child, so that it is unnecessary to postulate a transcendent nature. Now, however, Galen poses a caveat: we must take care to not attribute to the semen reason and intelligence.⁹⁶ So on the one hand, the semen seems to have all the powers necessary for new generation given the right conditions, but on the other hand this provides Galen with a problem: if all of these powers can be accounted for with the semen itself, then what about the intelligent design of things? Galen seems to have remained puzzled by this problem, as the following passage from *Foet. Form.*, a relatively late work, shows:

ἐγὼ μὲν οὖν ἀπορεῖν ὁμολογῶ περὶ τοῦ διαπλάσαντος αἰτίου τὸ ἔμβρυον. ἄκραν γὰρ ὄρων ἐν τῇ διαπλάσει σοφίαν τε ἅμα καὶ δύναμιν οὔτε τὴν ἐν τῷ σπέρματι ψυχὴν, τὴν φυτικὴν μὲν ὑπὸ τῶν περὶ τὸν Ἀριστοτέλη καλουμένην, ἐπιθυμητικὴν δ' ὑπὸ Πλάτωνος, ὑπὸ δὲ τῶν Στωϊκῶν οὐδὲ ψυχὴν ὅλως, ἀλλὰ φύσιν, ἡγοῦμαι διαπλάττειν τὸ ἔμβρυον οὐ μόνον οὐκ οὔσαν σοφὴν, ἀλλὰ καὶ παντάπασιν ἄλογον, οὔτ' αὖ πάλιν ἀποστήναι τελέως αὐτῆς δύναμαι διὰ τὴν πρὸς τὰ γεννήσαντα τῶν ἐγγόνων ὁμοιότητα.⁹⁷

And so I confess that I do not know the cause of construction of the foetus. For I observe in this construction the utmost intelligence and power, and I cannot allow that the soul in the seed, which Aristotle calls vegetative and Plato desiderative, and which the Stoics consider not to be soul at all, but nature, constructs the foetus, since this kind of soul is not only not intelligent, but entirely devoid of reason; nor, however, can I entirely distance myself from that opinion, in view of the similarity of the offspring to the parents ...

tr. SINGER

This question is decisive for the question about the relative immanence or transcendence of nature: were the natural powers of creation to be completely contained in the seed, nature would be immanent and passed on through time from one being to another. But if we rather think that this model cannot account for the apparent order of things, then we would perhaps be more inclined to think of a creative nature that transcends individual substances in a sense that is not merely chronological. In the end, apparently, Galen did not

96 *Nat. Fac.* II 85 K: 'μή πως λάθωμεν τῷ σπέρματι λογισμὸν τινα καὶ νοῦν χαρισάμενοι'.

97 *Foet. Form.* 104,15 Nickel (v 700 K).

reach a final conclusion on this matter, and he seems to have remained caught in the tension between the explanatory power of mixture and the conviction of intelligent design.⁹⁸ In this regard, Galen's work may puzzle our tendency to distinguish between 'top-down' and 'bottom-up' approaches in the study of human nature, as Philip van der Eijk has shown in an insightful chapter on the nature of human beings in Galen.⁹⁹ Basing himself on an analysis of Galen's *Mixtures*, he phrases the problem as follows: 'On the one hand, we are told in *Mixtures* that human nature is to be defined as the 'whole being and mixture (*ousia kai krasis*) of the primary elements, hot and cold and dry and wet', and this is what the work is all about; yet on the other hand there are several intriguing passages in *Mixtures* hinting – but no more than that – at the possibility that a higher, indeed divine element, may be involved in the organization of human bodies'.¹⁰⁰ This is a genuine problem, since, as van der Eijk points out, Galen repeatedly makes this distinction himself in *Mixtures*. The issue becomes more difficult when we consider the fact that for Galen the mixtures themselves must also have a divine cause, for several reasons: (1) nothing besides God or divine nature can produce a complete mixture of qualities (2) if we were to assume that the elemental qualities are mixed in a random manner, there is no way to account for the ordered nature of things (this general principle of intelligent design must also apply to the level of the homoeomerous bodies, especially considering their importance with regard to the activities of the soul) (3) the powers manifested by the elemental qualities in virtue of which they bring about alterations in matter are defined by Galen as powers of nature itself.¹⁰¹ Therefore, we cannot strictly distinguish between a 'mechanical' and 'teleological' aspect, but at best between a less and more directly divine or teleological aspect. That is to say, the 'higher, divine element', whatever it is (e.g. the so-called 'shaping capacity'), may be a more direct manifestation of the ordering power of divine nature, whereas the activity of the mixtures are a more indirect manifestation of the ordering power of divine nature, since they seem to manifest themselves as causes in themselves after their creation by nature.¹⁰² And indeed, Galen, as we have seen, considers the

98 Cf. van der Eijk (2014) 89 ff.

99 Van der Eijk (2014).

100 Van der Eijk (2014) 101–2.

101 For (1) *Temp.* I 563 K; for (2) *UP* 440,20–441,1 Helmreich (IV 351 K), see also *infra* Case-Study I, p. 41–5; for (3) *Nat. Fac.* II 12–3 K, see also *infra* Case-Study I, p. 22–4.

102 If I understand van der Eijk (2014) correctly, this is also his conclusion when he says the following, 123: 'To be sure, this is not a purely mechanical construction; but it is part of the 'immanent' nature, the *phusis* of human beings, rather than the result of some kind of external agency. Even the soul and its faculties, including the rational soul, arise 'from the

mixtures as a kind of instruments of divine nature, but at the same time as a kind of crafters.¹⁰³ This difficulty, I think, is another way in which the ambiguity of nature as transcendent or immanent manifests itself in Galen's work and should, perhaps, remain unresolved to some extent.

Another remarkable feature of Galen's notion of (human) nature that has so far remained unmentioned is its essential plurality. When thinking about the nature of the human being, Galen is not out to look for *one* thing, nor something that remains the same, but his assumption is rather that our nature, in its very core, needs to be a dynamic plurality, in order to account for our complexity and differences. On a more fundamental level, according to Galen, basic phenomena such as generation, pain and perception can only be explained when there is a plurality of qualitatively diverse and interacting stuff at the basis.¹⁰⁴ This is a continuous thread in both *Hipp. Elem.* and *HNH* alike. For example, Galen quotes the following passage from the Hippocratic text in his commentary:

Πρῶτον μὲν οὖν ἀνάγκη τὴν γένεσιν γενέσθαι μὴ ἀφ' ἑνός. πῶς γὰρ ἂν ἓν ἐόν τι γεννήσειεν ἄλλο, εἰ μὴ τιμι μιχθείη;¹⁰⁵

First of all, then, it is necessary that generation not take place from a single thing; for how could something, being single, generate anything, if it is not mixed with something else?

tr. HANKINSON

He then remarks that the author is here merely adhering to things that are clearly apparent (τοις ἐναργῶς φαινομένοις). Galen presents the need for an initial plurality for generation as utterly evident. One may think this is unsurprising, since we all know that 'it takes two to tango', and Galen tends to take an empirical point of departure for these questions. However, the matter is more interesting than that. After all, Galen extrapolates from this text, which

bottom up'. True, they are not just there as a product of chance or mechanical causation: there is some good, some *oikeion*, here governing this process; which ensures that the mixtures of the body are such that they give rise to the appropriate faculties and dispositions of the soul, which in turn are tuned to the parts of the body through which they exercise their characteristic activities; and humans themselves have a role to play here in the management of their physical and psychological development. But this seems to be a different way of proceeding from the direct, causative influence of the divine that is present in the *aristê diaplasis*'.

103 See *infra* Case-Study 1, p. 41–5.

104 Cf. Hankinson (2008) 213 ff.

105 *HNH* 24,16–8 Mewaldt (xv 43 K).

seems to be primarily about the generation of living beings by other living beings, to general remarks on generation as such. This takes us back to the beginning of Galen's commentary, where he distinguished between the bodies that are subject to generation and destruction on the one hand, and the substance underlying all generation and destruction on the other.¹⁰⁶ Thus, with the passage cited above, Galen takes an empirical departure point again, pointing to the necessity of two beings of different sex and the same species for procreation, as he did earlier with the necessity of water and earth for a seed to grow, to make a more general theoretical point that goes beyond empirical observation, namely that the primary substance underlying generation cannot be a unity in the fundamental sense that it has to be made up of essentially different constitutive elements that are not reducible to each other and that only through their constant interaction are able to establish the particular temporal unity which characterizes all individual beings as such. In this sense, Galen's emphasis is on plurality as a condition for unity, rather than the other way around.

We have already established that this primary substance (or nature), in Galen's view, is the mixture of elemental qualities in prime matter. Galen presents this specific application of the general philosophical method described in the *Phaedrus* as that of Hippocrates, and repeatedly contrasts this Hippocratic-Galenic view with that of those who think that human nature consists of *one* of the elements (or one of the humours). This view is taken *ad absurdum* by Galen on several occasions, with several arguments, both in *HNH* and in *Hipp. Elem.*¹⁰⁷ Remarkably, however, he does not so much argue against the impossibility of reducing the complexity of perceptible phenomena to some one particular element, but rather focuses on the supposed basic unity, as such, as the focal point of his attack. This shows that to Galen the main problem with these views is not so much empirical, i.e. about only taking one of the four elements or elemental qualities that exist and neglecting the others, but more fundamental, i.e. about not being able to explain the workings of the beings subject to generation and destruction if you take a unity as the nature of these beings. That applies to a unity of whatever kind, which is why, Melissus and the Atomists (Galen's argument is about unity in form), for example, can be included together in this group.¹⁰⁸ As Galen cites the Hippocratic text:

106 *HNH* 3,24–4,5 Mewaldt (xv 3 K).

107 *HNH* 13 Mewaldt (xv 20 K); 16 Mewaldt (xv 26 K); 19 Mewaldt (xv 33 K); cf. *Hipp. Elem.* 80–86 De Lacy (I 438–42 K).

108 Cf. *Hipp. Elem.* 58,10–25 De Lacy (I 415–6 K): 'Now Hippocrates gives the following proof that the first element from which our body and the bodies of all else came into being is not one thing; I think it is better (first) to quote his own words and then give my explanation

ἐπίλογον δὲ ποιέονται καὶ οὗτοι πάντες τὸν αὐτόν· ἓν γὰρ εἶναι φασιν, ὃ τι ἕκαστος βούλεται ὀνομάσας ...¹⁰⁹

All of them too employ the same reasoning; for they say man is one, whatever each of them wants to call it ...

tr. HANKINSON

One of the ridiculous consequences of taking the nature of man to be a unity is that then man would never suffer pain, which is, as we all know, evidently not the case.¹¹⁰ Again, Galen is following the text he is commenting upon:

Ἔγω δὲ φημι· εἰ ἓν ἦν ὁ ἄνθρωπος, οὐδέποτε ἂν ἤλγεεν· οὐδὲ γὰρ ἂν ἦν, ὅφ' ὅτου ἀλγήσειεν ἓν ἑόν ...¹¹¹

I say rather that if man were one, he would never feel pain; for there would not be anything as a result of which he could feel pain if he were a single thing.

tr. HANKINSON

In order to experience pain, a being must be affected by something. But, seems to be Galen's assumption, in order for things to be affected by something else, there has to be a difference in quality between those things.¹¹² Then, if the nature of the being is eventually reducible to some one thing, this kind of affection could not possibly happen. Another assumption that comes to the fore here, is that affections in the end need to happen at the most fundamental

of them: "I say that if man were one thing he would never feel pain, for there would be nothing that would cause him pain if he were one." He seems to me to give most excellently and at the same time in fewest possible words the essential point of his proof that the element cannot be one in form and power. Quite obviously it is utterly absurd to say that what exists is one in number; that is truly the act of a man who has given no thought to any of the obvious facts. But a person might say that all things are one in form and power, as Epicurus and Democritus and their followers say of the atoms. And of the same chorus with them are those who postulate elements that are least and unattached and without parts. Hippocrates, then, making a common answer to all such persons, proves that the element is not one in form and power ...' (tr. De Lacy); cf. Kupreeva (2014), particularly 162 ff.

109 *HNH* 19,26–8 Mewaldt (xv 34 K).

110 *HNH* 13,9 f. Mewaldt (xv 20–1 K); cf. Hankinson (2008) 212 ff.

111 *HNH* 20 Mewaldt (xv 35–6 K).

112 Cf. Hankinson's note *ad locum*: 'Here Galen appeals to a very general Greek (indeed Western) idea, namely that only things which are in the appropriate ways different in quality from one another can affect one another'. cf. Kupreeva (2014).

level. For otherwise one might very well claim that differences which are accidental and which are dependent on a more complex level than that of the primary nature of a thing, could cause the affections, as an Atomist might do. This should not surprise us at this point, since we have already seen that, for Galen, the activities of a given being should also be traced to its activities at the most primary level (i.e. that of the interaction of the elementary qualities) and that it is the substance of a thing that determines its activities and affections, while Galen identifies the substance of any thing with its specific mixture. And indeed, not coincidentally, in the passage following this last quotation, Galen goes on to emphasize that the elemental qualities are primary, cause everything else to come to be, and are the primary active and alterative qualities in the body, of which all other qualities are derivative.¹¹³ Galen adds a less convincing argument by pointing out that even if something were able to be affected as a result of itself (i.e. by the same form which it itself has) and could thus experience pain, there would then only be one simple type of cure or one kind of therapy for this pain, which is, again, evidently not the case.¹¹⁴

It seems an essential assumption for Galen that the activities and affections of a given being must somehow (or in a primary sense) manifest themselves in the thing's primary nature itself and could not be merely generated by its primary nature. His argument against the Atomists, roughly, is: the atoms themselves are not capable of sensation or change, therefore, the physics based on atoms as the primary nature of things could not possibly account for sensation or change.¹¹⁵ Thus, the possibility of the atoms – incapable of being affected (according to Galen) and thus incapable of sensation or change – generating some more complex structure that *is* consequently capable of sensation or change is not considered viable at all by Galen.¹¹⁶

113 *HNH* Mewaldt 22,4–23,8 (xv 38–40 K).

114 *HNH*. 21,20 f. Mewaldt (xv 38–9 K); cf. *Hipp. Elem.* 76,20 f. De Lacy (I 434 f. K).

115 *Hipp. Elem.* De Lacy 62 f. (I 419–20 K).

116 Cf. Hankinson (2008) 213: 'What is ruled out, Galen argues, is what one might call the supervenience of generically different properties: any supervenient properties must be similar in general type to properties actually disposed of by the elements they supervene upon. Thus, since sentience is a type of alteration, the elements in the aggregate upon which sentience supervenes must be capable of alteration, although not necessarily of sentience itself ...'; however, cf. Kupreeva (2014) 167 note 48, after quoting these sentences from Hankinson: 'I do not find in the text the argument stated in the second sentence. As for the analysis given in the first sentence, it does not sound right: Galen says that generically different properties cannot accrue to aggregates, but can do so in more complex structure, such as mixture. Therefore sentience cannot arise in an aggregate, which is like a heap of grains, but can arise in a more unified structure, such as that of a living body'.

καὶ μὴν ἀμφοῖν ἀπολείπεται τὰ τούτων στοιχεῖα μήτ' ἀλλοιοῦσθαι μήτ' αἰσθάνεσθαι πεφυκνίας ἀτόμου μηδεμιᾶς. εἴπερ οὖν ἐξ ἀτόμων τινῶν ἦμεν ἢ τινος ἄλλης τοιαύτης φύσεως μονοειδοῦς, οὐκ ἂν ἠλγοῦμεν, ἀλγοῦμεν δέ γε, δηλον, ὡς οὐκ ἐσμεν ἐξ ἀπλῆς τινος καὶ μονοειδοῦς οὐσίας.¹¹⁷

And in fact these men's elements meet neither requirement; it is not in the nature of any atom to change or to have sensation. If then we were made of atoms of some sort or any other such nature that is of one kind only, we would not feel pain, but since we obviously do feel pain, it is clear that we are not made of a simple substance that is of one kind only.

tr. DE LACY, slightly modified

Galen is aware of his basic assumption and makes it explicit:

... οὐδὲν γὰρ οὐτ' ἐκ τῶν ἀπαθῶν οὐτ' ἐκ τῶν ἀναισθητῶν συντιθέμενον αἰσθητικὸν ἢ παθητικὸν γίνεται.¹¹⁸

... for nothing that is put together from things that are not affected or from things that lack sensation becomes sentient or affected.

tr. DE LACY

According to Galen, the elements of a sentient body must either be both sentient and affected, or at least affected. Also, as we have seen, in order for an element to be affected, there must be elements different in kind, affecting it. Hence, there must be a plurality of qualitatively different elements. Thus, now, we have the possibility of a plurality of insentient elements acting upon and affecting each other, consequently generating a sentient being 'in the course of many partial alterations'.¹¹⁹ According to Galen, it is exactly the dynamic aspect of these elements, their continuous change due to their mutual interaction, that allows for the generation of capacities that are an attribute of their combined mixture, even though they are not an attribute of any of the original constituent parts of that mixture.¹²⁰ Then again, we also have to remember that in a strict sense, for Galen, the elemental qualities or the prime matter in which they mix, are not elements, but (conceptual) principles. The first bodies, or unified structures, are already a mixture of various principles and therefore

117 *Hipp. Elem.* De Lacy 62,21–25 (1 420 K).

118 *Hipp. Elem.* 64,24–5 De Lacy (1 422 K).

119 *Hipp. Elem.* 70,17–18 De Lacy (1 428 K), tr. De Lacy.

120 Cf. Kupreeva (2014) particularly 165 ff.

only simple to perception. At the same time, it seems, Galen would have to say that these mixtures themselves, i.e. the homoeomerous bodies, even though they are the primary locus of activity and soul, are also not sentient (albeit affective and capable of change and alteration). Sentience only comes in when they in turn form an (anhomoeomerous) organ, such as the eye or rather even the brain. This seems paradoxical: the functions that seem to determine what we are, are not yet to be found in what is identified as our nature. But that might be a general problem for anyone trying to explain complex functions in terms of more simple ones. The absence of the complex function itself (that somehow defines the being exercising this function) in the cause of it (that is taken as the (primary) nature of that being), seems to suggest there is something missing, i.e. that the definition of this being does not correspond to the definition of its nature. What Galen seems to suggest, is that since the primary level determines the more complex level, what is happening at the more complex level is happening more truly at the primary level, *even though* the specific functions exercised at the more complex level are not to be found at the more primary level and *even though* these specific functions, for example rational thought, can be seen as defining for the specific kind of being it belongs to. In that sense, rational thinking could, perhaps, take place primarily in the mixtures of the brain, even though a homoeomerous body does not think. Again, it seems that we have to keep in mind that however soul is defined, it is primarily a *principle* of movement.

In any case, to get back to our previous line of reasoning, Galen argues that pain, pleasure and sense-perception – and with that also memory, reasoning and ‘the soul itself’ – will be done away with if it is not assumed that our substance is altered through and through.¹²¹ But, if we were to accept that, and accept that our nature has to consist of a plurality of elements (or principles) that are not reducible to each other, and that cause change through their mutual interaction, why would it have to consist of these four elemental qualities (hot, cold, dry and wet) exactly? We saw earlier that Galen does provide some empirical justification for his choice (in as far as it is his choice, clearly he is also following the previous tradition, and particularly his three main interlocutors Hippocrates, Plato and Aristotle). He also gives another argument for this choice in *Hipp. Elem.*:

... οὔτε μία τὸ εἶδος οὔτ’ ἀπαθῆς ἡμῶν ἐστὶν ἡ οὐσία. καὶ μὴν εἶπερ πάσχει, θερμαινομένη τε καὶ ψυχομένη καὶ ξηρανομένη καὶ ὑγραίνομένη πείσεται· τῶν γὰρ ἄλλων οὐδὲ μία ποιότητων ἀλλοιοῦν οἷα τέ ἐστι τὸ πλησιάζον ὄλον δι’ ὄλου.

¹²¹ *Hipp. Elem.* 134,9–13 De Lacy (I 487 K).

οὔτε γὰρ εἰ τὸ βαρὺ τῷ κούφῳ πλησιάσειεν ἢ τῷ βαρεῖ τὸ κούφον, ἢ τὸ κούφον ἔσται βαρὺ ἢ τὸ βαρὺ κούφον, οὔτ' εἰ τῷ τραχεῖ τὸ λείον καὶ τὸ πυκνὸν τῷ μακρῷ καὶ τὸ παχὺ τῷ λεπτῷ· τῶν τοιούτων γὰρ οὐδὲν ἀλλοιοῦν δύναντα τὸ πλησιάζον ὄλον δι' ὄλου.¹²²

... therefore our substance is neither one in kind nor unaffected. And if in fact it is affected, it will be affected when it is heated, cooled, dried and moistened; for not one of the other qualities is able to alter through and through (the body) that is close to it. It does not happen that if heavy is close to light or light to heavy, the light will be heavy or the heavy light, nor if smooth is close to rough, dense to rarefied, thick to thin, nothing of that kind can alter through and through the (body) close to it.

tr. DE LACY

Apparently, Galen takes these four primary qualities as the only qualities that can be transferred from one body to another by mere contact and the only qualities that can alter a substance through and through. As Hankinson puts it: 'This, fundamentally, is how power is transmitted from one thing to another'.¹²³ Therefore, these four qualities are the only ones that can account for generation, destruction and change in general. That is to say, every other change in quality is already dependent on a change in these elemental qualities.

Since these elemental qualities determine the substance of everything, the human being has its nature in common with all other non-eternal beings. Since this nature is a plurality of qualitatively different aspects that interact with each other and alter their substance, it can, according to Galen, account for all further properties and qualities which we can observe and which differentiate all those beings. As such, this interaction must be governed by a divine and artful nature, since we can see from its generated effects that it causes an intelligible order. Since some of nature's capacities in generating this order are exercised by these elemental qualities, the border between a transcendent, intelligent nature and an immanent nature that passes on its inherent organization of elements through time, is ambiguous in Galen. The same seems to go for the differentiation between what, in a human being, is to be accounted for in terms of 'nature' and what in terms of 'soul'.

122 *Hipp. Elem.* 130–2 De Lacy (I 484–5 K).

123 Hankinson (2017) 10; see also Hankinson (2008), particularly 217.

5 Nature of the Body, Nature of the Soul

As we have seen earlier, both the essential and the accidental attributes of a given being are determined by its specific mixture of elemental qualities, according to Galen. This seems to imply that there is nothing about any being that cannot be explained in terms of these elemental qualities. That means that besides being merely a necessary part of the explanation of a thing's nature, an analysis of its specific mixture actually also suffices as a description of its nature.

It might be that one of the reasons why Galen is so fond of the passage from Plato's *Phaedrus* (270b-c) is that at its beginning, on one possible reading at least, there is an integration of the understanding of the nature of body and soul into the understanding of what is called in Plato's text 'the nature of the whole'.¹²⁴ There are different views as to how to interpret this notion of the whole,¹²⁵ but the most sensible reading *for Galen* may perhaps be 'the whole of body and soul', i.e. the whole human being as composite, hylomorphic being. This reading would integrate body and soul into a notion of a whole that would imply some kind of synthesis of Galen's two great heroes, Hippocrates and Plato, who are then associated with the two respective parts of this whole:

ψυχῆς οὖν φύσιν ἀξίως λόγου κατανοῆσαι οἶε δυνατόν εἶναι ἄνευ τῆς τοῦ ὅλου φύσεως; – εἰ μὲν οὖν Ἱπποκράτει τῶ τῶν Ἀσκληπιαδῶν δεῖ τι πείθεσθαι, οὐδὲ περὶ σώματος ἄνευ τῆς μεθόδου ταύτης.¹²⁶

So do you think it possible to understand the nature of the soul in a proper manner without understanding the nature of the whole? If one should believe Hippocrates the Asclepiad, not even the body can be understood other than by this method.

tr. HANKINSON

From this perspective, the passage fits very well with Galen's general hylomorphic approach of both *HNH* and *QAM*, in which body and soul as form of the body are explained in terms of a single hylomorphic substance. At the same time, he considers the Hippocratic treatise he comments upon to be about the

124 On Galen's use of this passage and its importance for his self-understanding see also Tieleman (2015, 2020).

125 Cf. Jouanna (1999) 59.

126 *HNH* 54,13–6 Mewaldt (XV 103–4 K).

nature of the *body*.¹²⁷ That does not mean, however, that Galen's commentary should also be restricted to this part of the whole. The Hippocratic text does not have a hylomorphic outlook that ties in with the distinction between soul and body, as Galen does. It could not possibly arrive at the notion that soul is the form of the most elemental constitutive bodies of a given being. Galen can, however. Also, it is difficult to see how Galen would go about writing a similar kind of treatise (after *HNH*) about the nature of soul (being out to gain an understanding of the nature of man as a whole) and then proceed to integrate both into an understanding of the nature of the whole. Unless, of course, one would take *QAM* to be something like that (again, it was categorized by Galen as a work 'on *Platonic* philosophy'). After all, there, and nowhere else, Galen delves into the question of the nature of the soul. However, what comes to the fore in that treatise is that Galen does not have an answer to that question other than his answer to the question on the nature of man that is given in *HNH*. That is to say, it comes to the fore that for Galen, apparently, the questions for the nature of the body of man and the soul of man, treated by Hippocrates and Plato, respectively, are too intricately tied together to permit of separate treatment. The only viable answer Galen comes up with with regard to both of these questions goes as follows: a mixture of elemental qualities in prime matter. To me, it seems likely that, for Galen, an understanding of 'the nature of the whole' would consist in an account of the human being as a hylomorphic being consisting of mixtures of the elemental qualities that constitute all of its functions, some of which are traditionally called psychic. Again, this seems to me the most adequate explanation for the almost complete absence of soul in Galen's *HNH*.

Almost, for it is not entirely absent. There is the repeated quotation of the *Phaedrus*, of course, in which soul is mentioned, and to which Galen refers back at the end of the first book of his commentary. It is precisely in the context of this quotation, with its contraposition of Plato and Hippocrates, that Galen says Hippocrates' writing was about 'the nature of our body'. First he describes how Plato replicated the method Hippocrates had used to examine the nature of the body:

127 *HNH* Mewaldt 53,17–8 (XV 102 K): 'Having set himself the task in this book of discovering the nature of our body [τοῦ σώματος ἡμῶν τὴν φύσιν], Hippocrates utilized the following method in order to discover it'.

ταύτην οὖν τὴν μέθοδον ὁ Πλάτων ἀξιοῖ μιμεῖσθαι καὶ τὸν περὶ φύσεως ψυχῆς ἐπισκοπούμενον· οὐδὲν γὰρ δύνασθαι τῶν κατὰ μέρος ἄνευ τῆς τοῦ ὅλου φύσεως ἀκριβῶς γνωσθῆναι.¹²⁸

Plato also thought it was right to replicate this method when considering the nature of the soul; for you cannot do this in individual cases without having a precise understanding of its nature as a whole.

tr. HANKINSON

Then, after quoting the passage from the *Phaedrus* again, he summarizes the relation between Hippocrates and Plato in this regard once more, but now in a slightly different manner:

Πλάτων μὲν οὖν ὁμολογεῖ κατὰ τὴν Ἱπποκράτους μέθοδον ἐπισκοπεῖσθαι περὶ φύσεως ψυχῆς, ὡς ἐκεῖνος περὶ σώματος, ἀδύνατόν τέ φησι καλῶς τοῦτο γενέσθαι πρὸ τοῦ γνῶναι τὴν φύσιν τοῦ παντός.¹²⁹

So Plato agrees that one must investigate the nature of the soul according to the method that Hippocrates used in the case of the body, and says that this cannot be done properly, without knowing the nature of everything.

tr. HANKINSON

The difference is clear: in the latter quotation, which is Galen's final remark on this subject, he does not merely claim Hippocrates and Plato had the same method to investigate two different subjects, namely taking them each as a whole and then analysing them into elemental parts, as he started out by doing. Rather, he now claims that Plato held that in order to know the human soul, one needs to know *the nature of everything*. This is a statement altogether different than the maxim that in order to know the parts of something one needs to know this same thing as a whole. What the nature of everything is, has been made abundantly clear in *HNH*: the mixture of elemental qualities. Galen has been repeating what the nature of everything or all things is so often in his commentary, that I think it would be naïve to consider it a coincidence when he changes the quotation from the *Phaedrus* at the end, making Plato's remark

128 *HNH* 54,9–12 Mewaldt (xv 103 K).

129 *HNH* 55,14–6 Mewaldt (xv 105 K), see also *HNH* Mewaldt 53,17–8 (xv 102 K): 'Having set himself the task in this book of discovering the nature of our body [τοῦ σώματος ἡμῶν τὴν φύσιν], Hippocrates utilized the following method in order to discover it.'

about 'the nature of everything' rather than about 'the whole of the soul' or some other whole, through the simple change of τῆς τοῦ ὅλου φύσεως into τὴν φύσιν τοῦ παντός.¹³⁰ After all, this also happens to be the specific answer Galen comes up with when discussing both the question for the substance of the soul as well as the question for the substance of the body: their substance or nature is a specific mixture of elemental qualities, as is the nature of everything. I think this is why the *Phaedrus* passage appealed so much to Galen all along: the whole which Plato refers to is read by him as the whole of being as such, the nature of everything, which both the enquiries into soul and into body need to depart from if they are to result in knowledge at all. As Galen emphasized at the beginning of his treatise, without knowledge of this nature, there is no knowledge of anything. Neither will there be any knowledge of the soul, as we now learn, which implies that according to Galen's reading of this passage, Plato said that one needs to know about the primary substance, the nature of all things, namely the mixture of the four elemental qualities, in order to understand anything about soul. This might appear strange as a reading of Plato, but it is not so strange as a Galenic reading of Plato.

Of course, Galen is fully aware that Plato did not advocate hylomorphism in this passage, but he does not need to assume so for his reading. Rather, he can suffice with claiming that (1) Hippocrates developed the proper method of natural philosophy and applied it to the human body, (2) Plato saw that we need to apply this to the soul as well, (3) Plato claimed that we would not be able to understand either body or soul if we would not understand nature as a whole, (4) he was right about that, since body and soul form a hylomorphic whole based on the same principles as the rest of nature, (5) Plato, however, did not succeed in adequately analysing nature as a whole and therefore did not meet his own demands for knowledge of body and soul, (6) with all of the previous steps made, what is required now is a proper analysis of nature as a whole, following the right method that has already been established, in order

130 HNH 22,4–6 Mewaldt (xv 38 K): 'ἐν δὲ ταύτῃ τῇ νῦν ἡμῖν προκειμένη ῥήσει διήλθεν, ὅσα μέλλει δείξειν ὄντα πρῶτως, ὕφ' ὧν τὰλλα πάντα γίνεται· ταῦτα δὲ ἐστὶ θερμὸν καὶ ψυχρὸν ξηρὸν τε καὶ ὑγρὸν·; 28,12–4: 'ἐκ θερμοῦ γὰρ καὶ ψυχροῦ καὶ ξηροῦ καὶ ὑγροῦ πάντα γεγονένα καὶ διὰ τοῦτο κοινὰ πάντων εἶναι ταῦτα στοιχεῖα·; 30,19–21: 'τοιαύτη, φησί, οὐ μόνον ἢ τοῦ ἀνθρώπου φύσις ἐστίν, ἀλλὰ καὶ τῶν ἄλλων ἀπάντων, ἐκ θερμοῦ δηλονότι καὶ ψυχροῦ καὶ ξηροῦ καὶ ὑγροῦ κεκραμένη τῶν ἀπλῶν καὶ ἄκρων·; 32,1–2: 'ἐπιμένει τῷ δόγματι τὴν φύσιν ἀπάντων ἐκ τῶν εἰρημένων τεττάρων συνίστασθαι καὶ τελευτᾶν εἰς αὐτὰ βουλόμενος·; 54,5: '... τὰ δὲ κοινὰ πάντων τῶν ὄντων ἀπλᾶ δὴ καὶ πρῶτα κατ' ἀλήθειαν ἐστὶ καὶ κυρίως ὀνομάζεται στοιχεῖα. καλεῖ δὲ ἀπὸ τῶν ποιοτήτων ὁ Ἰπποκράτης αὐτὰ θερμὸν καὶ ψυχρὸν ὑγρὸν τε καὶ ξηρὸν οὐ τὰ μεταξὺ τῶν ἄκρων, ἀλλ' αὐτὰ τὰ ἄκρα ...'

to gain knowledge of the whole of body and soul which we are. We will look more extensively at Galen's remarkable interpretation of Plato, particularly when it comes to the relation between the elemental qualities and the soul, in Case-Study III.

Besides the quotations of the *Phaedrus*, there is also a quotation from the Hippocratic work in which soul appears, namely the following:

οἱ δὲ λέγοντες, ὡς ἔν ἐστιν ὁ ἄνθρωπος, δοκέουσί μοι ταύτη τῇ γνώμῃ χρέεσθαι ὀρώντες τοὺς πίνοντας τὰ φάρμακα ἀπολλυμένους ἐν τῆσιν ὑπερκαθάρσει τοὺς μὲν χολῆν ἐμέοντας, τοὺς δὲ τινὰς φλέγμα, τοῦτο ἕκαστον αὐτῶν ἐνόμισαν εἶναι τὸν ἄνθρωπον, ὅ τι καθαιρόμενον αὐτὸν εἶδον ἀποθανόντα. καὶ οἱ τὸ αἷμα φάντες εἶναι τὸν ἄνθρωπον τῇ αὐτῇ γνώμῃ χρέονται ὀρώντες ἀποσφαζομένους τοὺς ἀνθρώπους καὶ τὸ αἷμα ῥέον ἐκ τοῦ σώματος τοῦτο νομίζουσιν εἶναι τὴν ψυχὴν τῷ ἀνθρώπῳ. καὶ μαρτυροῖσι τουτέοισι πάντες χρέονται ἐν τοῖσι λόγοισιν.¹³¹

Those who say that man is one thing seem to me to be relying on the following thought. They see those who drink drugs and die as a result of superpurgation vomiting, some of them bile, others phlegm, and think that the man is whichever one of them as a result of the purging of which they saw him die. And those who say that man is blood rely on the same thought. They see men who have been mortally wounded, and blood flowing from the body, and so think that this is the soul of man. And all of them make use of the same type of evidence in their arguments.

tr. HANKINSON

Interestingly, it is suggested here that blood could be the soul of man. We have noticed how in the previous text it has often been argued by Galen that man cannot be one but must be constituted from several basic elements or qualities. In all of the foregoing text this question of man being one or a plurality has consistently been about the *nature* of man. If man 'is one', then that means that his nature consists of one kind of thing. But in this passage, the Hippocratic author seems to equate the phrase 'man is blood' to the phrase 'blood is the soul of man'. What is more, Galen has no objections to this equation whatsoever, as appears from his explanatory comment:

¹³¹ HNH 40,25–34 Mewaldt (xv 76 K).

ἐν γὰρ ταῖς ὑπερκαθάρσεσιν ἄλλος ἄλλον ὑπ' ἄλλου καὶ ἄλλου χυμοῦ τελέως ἐκκενωθέντος ὀρώντες ἀπολλύμενον ἐκείνον μόνον ἐνόμισαν εἶναι τὸν χυμὸν τὴν φύσιν τοῦ ἀνθρώπου.¹³²

For in the cases of superpurgation, where one sees someone die as a result of one humour finally being evacuated, and another sees another die as result of another, each of them thinks that humour alone is the nature of man.

tr. HANKINSON

Galen simply paraphrases the Hippocratic author's 'soul of man' as 'nature of man'. The idea is completely the same: the one thing that is observed to abandon the body right before death is thought to be man's soul or nature. Galen criticizes this idea – 'no one dies simply as a result of being purged of a single humour; they are always purged of the others along with it as well' – and argues that it is really a mixture of several kinds of things that forms the nature of man. But he does not criticize or take any issue with the apparent equation of soul and nature itself.¹³³ These people are not wrong in thinking that the soul is flowing from the body when the humours are flowing from it, they are wrong in thinking that it is only one humour that is leaving the body, and that therefore man's soul (or nature) consists only of one humour rather than all four. Thus, though it might be true that we could sometimes take Galen to refer to the nature of the body specifically when using the term 'nature' in *HNH* and though it is certainly true that he in one place describes the subject of the treatise (i.e. *his* treatise, not merely the Hippocratic one) as 'the nature of our body',¹³⁴ the passage quoted above shows that he has no difficulty with using 'our nature' synonymously for 'our soul' either. I think this proves how difficult it is to separate the two in Galen's work, and how, when he is writing about 'our nature', he has something in mind that resists being defined in the terms of this traditional dualism.

132 *HNH* 41,5–8 Mewaldt (xv 77 K).

133 As we have observed earlier, Galen also equates the two in *Trem. Palp.* vii 616 K; in other places, he distinguishes 'soul' and 'nature', particularly in the context of the distinction between 'natural' and 'psychic' functions in *Nat. Fac.*, in which the functions of the desiderative soul are considered natural and those of the other two souls are considered psychic. We have pointed out above (p. 136–8), however, that this distinction is not without ambiguity in *Nat. Fac.* itself.

134 *HNH* 7,12–4 (xv 9 K).

The occurrences of the word 'soul' in this text, as we have seen, are all either direct quotations from Plato or the Hippocratic author, or are part of Galen's immediate reaction to these quotations. Elsewhere, Galen simply seems to avoid using the word altogether. Actually, the only passage in which Galen himself *does* use the word 'soul' outside of the context of the citations from the Hippocratic author and Plato, is when he refers to *QAM*, and precisely emphasizes the dependency of soul on mixture:

ἔστι δὲ καὶ ἕτερός τις λόγος φυσικὸς οὐ σμικρὰν ἔχων πιθανότητα, καθ' ὃν εἰς ἡθῶν ἐπιτηδείων γένεσιν οἱ τέσσαρες ἀποδείκνυνται χυμοὶ χρήσιμοι. προαποδείξαι δὲ χρὴ πάλιν ἐν αὐτῷ ταῖς τοῦ σώματος κράσεσιν ἐπόμενα τὰ τῆς ψυχῆς ἦθη, περὶ οὗ καὶ ἡμῖν ἐτέρωθι γέγραπται. τούτου τοίνυν ὑποκειμένου τὸ μὲν ὀξύ καὶ συνετὸν ἐν τῇ ψυχῇ διὰ τὸν χολώδη χυμὸν ἔσται, τὸ δ' ἑδραῖον καὶ βέβαιον διὰ τὸν μελαγχολικόν, τὸ δ' ἀπλοῦν καὶ ἡλιθιώτερον διὰ τὸ αἷμα· τοῦ δὲ φλέγματος ἢ φύσις εἰς μὲν ἡθοποιῖαν ἄχρηστος, ἀναγκαίαν δὲ φαίνεται τὴν γένεσιν ἔχον ἐν τῇ πρώτῃ μεταβολῇ τῶν σιτίων.¹³⁵

There is also another physical account which has no little plausibility, according to which the four humours are proved to be effective in the generation of the states of character which are appropriate to them. In it we first need to establish that the states of character of the soul are consequent upon the mixtures of the body, about which we have written elsewhere. On this basis, sharpness and intelligence in the soul will exist as a result of the bilious humour, stability and firmness as a result of the melancholic, simplicity and artlessness as a result of the blood. The nature of phlegm is ineffective with regard to the prediction of character, having as it evidently does its necessary generation in the first alteration of the food.

tr. HANKINSON

Note that Galen, here in the context of what he presents as his most basic work on human nature, remarks that the account advanced in *QAM* has no little plausibility, and proceeds to enumerate how each specific humour causes particular psychic capacities. Some (if not most) of the properties he enumerates seem to apply to our rational soul, which means that τὰ τῆς ψυχῆς ἦθη in this passage does not refer to character traits in the sense of qualities peculiar to the irrational parts of the soul, but rather has a much broader meaning,

¹³⁵ HNH Mewaldt 51,9 (xv 97 K).

describing something like the habitual states of the entire soul, i.e. including all its parts. It is also noteworthy that Galen here calls the account of *QAM φυσικὸς*. With this word he seems to put his account of the soul's dependence on the body in line with the writings of the natural philosophers he described in the introduction of *HNH*. Thus, the only time that Galen actually chooses to use the word 'soul' in this commentary beyond the context of his quotations, he refers to the potential for explaining psychic traits in terms of the humours or mixtures. This fact makes it all the more tempting to assume that Galen is not talking about soul in this treatise on human nature because he has nothing to say about it other than what he says in his discussion of the nature of the body.

Conclusion

We have seen how Galen, in his commentary on the Hippocratic *On the Nature of Man*, elaborates on his views on (human) nature. He works out a notion of nature as a primary hylomorphic substance underlying the bodies subject to generation and destruction both in the sense of underlying subject as well as in the sense of the basic form which determines secondary properties or qualities. This nature is the nature of human beings just as well as it is the nature of any other non-eternal being, for Galen. As such, he presents it as the main subject of the ancient quest for knowledge that came to be known as natural philosophy. The ancient philosophers – and Galen in their footsteps – have developed and employed a method of division for uncovering this nature that is always primarily hidden to our senses. Galen presents this method particularly as that of Hippocrates, who used it to inquire into the nature of the body, and as taken over by Plato, who proclaimed the same method should be followed for inquiring into soul. This same method is praised by Galen in other works as well, and consists of a division until no further division is possible, after which the indivisible last elements should be analysed with regard to their active and passive causal powers.

According to Galen, this method of division reaches an endpoint with regard to the realm of perception in the homoeomerous bodies, but should be continued on a conceptual level to divide the homoeomerous bodies still in form and matter, matter being without quality and form being the mixture of elemental qualities. Thus, it turns out that the most basic active and passive causal powers that form the endpoint of the analysis are those of the four elemental qualities, namely heating, cooling, moistening and drying. Their

specific mixture in the prime matter forms our nature, as well as that of anything else. Due to the qualitative variety of this mixture, however, it has the potential to generate all the various complex structures and capacities which we observe. In their generative role, these mixtures cannot be unambiguously demarcated from nature as intelligent creator, which complicates the question of the transcendence or immanence of nature in Galen. Related to this problem is the ambiguity with regard to human nature: it is difficult to distinguish the causality of 'nature' and that of 'soul', particularly when soul is understood as form of the body (i.e., a specific mixture of elemental qualities).

With his definition of (human) nature in terms of the mixture, Galen does not merely adhere to the Hippocratic side of his Hippocratic-Platonic story. The way he quotes and discusses the passage from Plato's *Phaedrus*, betrays a synthesizing approach to the question of our nature, in which the hylomorphic nature of everything forms the adequate point of departure for both the body and soul of man, or rather, for the whole of man.