

Hippocratic Holisms

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Abstract

The aim of this essay is to identify three different pre-Platonic forms of holism: the ‘therapeutic’, the ‘environmental’, and the ‘cosmic.’ With the help of passages from the Hippocratic *On the Nature of Man*, *On Regimen*, and *On Sevens*, on the one hand, and from Plato, the earliest independent authority on the holistic nature of Hippocratic medicine, on the other, I make the case that all three forms of holism play significant roles in dietetic medicine, that they are complementary, and that aspects of them can even be combined into a single account.

Hippocratic medicine has been characterized as ‘holistic’ since antiquity. As early as Plato, a contemporary of Hippocrates and most of the Hippocratic authors, we find mention of this specific feature of Hippocrates’ method. In a discussion in the *Phaedrus* about the best possible way in which one can acquire the art of rhetoric, Socrates suggests that the ‘method of medicine is in a way the same as the method of rhetoric.’ ‘In both cases,’ he explains, ‘we need to determine the nature of something – of the body in medicine, of the soul in rhetoric.’ To Socrates’ question as to whether it is possible to reach a serious understanding of the nature of the soul ‘without understanding the nature of the whole (*tou holou*)’ (*Phaedr.* 270c1–2), his interlocutor Phaedrus replies: ‘if we’re to listen to Hippocrates, Asclepius’ descendant, we won’t even understand the body if we don’t follow that method’ (270c3–5).

This passage has been ‘the source of bitter dispute among scholars’ since Galen’s time,¹ especially with regard to two relatively independent questions that each have distinct consequences for readers of Plato and Hippocrates: (1) what, specifically, does ‘the whole’ mean in the passage; and (2) which Hippocratic text (or texts), if any, served as Plato’s source. As for the first question, which is of special importance for understanding Plato’s own account, at least four different readings of the ‘whole’ (*holon*) have been suggested.

¹ Jouanna (1999) 59.

It can stand for (a) the whole soul (composed of three parts);² (b) the whole of the human body;³ or the totality consisting of body and soul taken together;⁴ (c) the whole environment,⁵ including such things as seasonal cycles, winds, and other meteorological phenomena that immediately influence the condition of human body; or, finally, (d) the cosmic whole,⁶ i.e. the whole world and its component parts.⁷

The second inquiry has played an important role in discussions of the so-called 'Hippocratic question.' For if one were to succeed in identifying a corresponding passage in an extant Hippocratic text, this would provide a strong argument in support of Hippocrates' authorship of that particular text. No less than four strong candidates have been advanced as Plato's source. First, Galen claimed to see in this passage a reference to the Hippocratic *On the Nature of Man*.⁸ Second, É. Littré believed he had definitively demonstrated that Plato alluded to the Hippocratic *On Ancient Medicine*.⁹ Third, and more recently, W. Smith has vehemently argued that *On Regimen* served as Plato's source.¹⁰ And finally, J. Mansfeld suggests that this role was most likely played by *Airs, Waters, Places*.¹¹

Despite all these suggestions, neither of our questions has received a satisfactory and conclusive answer. Nevertheless, the discussion about sources has not been unproductive and has had some important consequences for our understanding of the various meanings of holism in the pre-Platonic medical

2 Hackforth (1952), de Vries (1969), Jouanna (1977), Rowe (1986), Yunis (2011).

3 Hermias, in *Plat. Phaedr. Scholia*, 245, 5 (Couvreur).

4 Verdenius (1982).

5 Gill (2003), Ferrari (1987), (1980), Korobili and Stefou (in this volume, p. 208 n. 20).

6 Galen *HNH* I.48 (XV.105 K. = 55.14–16 Mewaldt), Littré (1839), Kucharski (1939), Joly (1961), Brisson (1989), Thivel (1991), Brisson (1992), Brown (2003).

7 It is also possible that Plato is purposefully ambiguous in the passage. Smith (1979, rev. 2002, 48) assumes that Plato intentionally left 'the whole' ambiguous because both 'man as a whole' and 'cosmos' are comprehended in Hippocratic science. Thein (2012, 139–40) suggests that the 'whole' at 270c2 may be intended by Socrates to be the totality that consists of a body and a soul taken together, whereas Phaedrus (inspired by certain Hippocratic teachings and remarking that even the body demands a holistic approach) would take it for the totality of the universe.

8 Galen, *HNH*, prooem. (XV.4–5 K. = 4.19–5.9 Mewaldt).

9 Littré (1839) 295–320.

10 Smith (1979) 44–60, rejected by Mansfeld (1980) and Lloyd (1991), reiterated in Smith (1999). For similar views, see also Hutchinson (1988) 23, Cooksey (2010) 46, van der Eijk (2004) 188.

11 Mansfeld (1980), see also Vegetti (1965, 44–46), who considers both *On Ancient Medicine* and *Airs, Waters, Places* to be the Hippocratic theory reflected by Plato.

tradition. It is no accident that the four works identified as the most likely candidates for Plato's source all belong to a relatively small group of medical texts that discuss the methodological foundations of dietetic medicine, an innovative medical approach to health that had an enormous impact on the philosophical discussions of the day.¹² The aim of the present paper is to show that the variety of interpretations of the *Phaedrus* passage that have been suggested reflect the variety of holistic approaches attested in the Hippocratic works that promote dietetic medicine. In the course of this essay, I distinguish three different forms of holism (I call them 'therapeutic', 'environmental', and 'cosmic')¹³ and demonstrate that they are all interrelated, complementary, and can even be brought together and combined into a single account.

As for my sources, both *Airs, Waters, Places* and *On Ancient Medicine* attest some characteristic features of the therapeutic and environmental approaches that are typical of dietetic medicine in general. However, neither text employs the term *holon* for the whole of the human body or for the whole world.¹⁴ Accordingly, I shall focus instead on the remaining two texts, *On Regimen* and *On the Nature of Man* (including *On Regimen in Health*),¹⁵ both of which are explicit in their terminology as well as being representative of the dietetic

12 For example, both Plato (*Symp.* 188a4–5) and Aristotle (e.g. *Ph.* 246b4–6) define health in terms of *krasis*, i.e. they both acknowledge and make use of the key theoretical term of dietetic medicine which is attested only in the four treatises mentioned above (i.e. *On the Nature of Man*, *On Ancient Medicine*, *On Regimen*, and *Airs, Waters, Places*) and in no other Hippocratic text (with the exception of *Aph.* 5.62, IV.556 L.), which most likely draws on the account in *Vict.* 2.37). See Smith (1992) and Bartoš (forthcoming).

13 In terms of the classification suggested by Singer (in his contribution to this volume, pp. 155 and 176–78), my 'therapeutic' category roughly corresponds to his 'whole-body' holism, and especially to its second variation (b2), while my 'environmental' class overlaps with his 'one-with-the-cosmos' holism. My 'cosmic' version, by contrast, is not considered by Singer, although it is, I believe, a clearly distinct and highly significant version of the holistic approach which should be duly recognized. At the same time, his 'mind-body holism' is not included in my discussion because it is not explicitly attested in any Hippocratic text (cf. Singer, pp. 155–63). As for the suggestion by Craik (in this volume) that ancient Greek medicine is fundamentally 'holistic' in the sense that 'it views the human organism as a complete mental and somatic unity', I am in complete agreement with her conclusion that 'these ideas are not purely medical, but are rooted in Greek language and thought.' Nonetheless, it should be noted that most of her examples from Hippocratic texts are limited to what I call 'therapeutic' holism and what Singer calls 'whole-body' holism, which is also the case for the examples of 'humoralism' discussed by Nutton in this volume.

14 Cf. *VM* 14 (I.604.10 L.), and *Aër.* 23 (II.86.5–6 L.).

15 In agreement with Jouanna (2002), Craik (2015) and other contemporary authorities, I consider *On the Nature of Man* and *On Regimen in Health* to be one continuous account. Hence, for the sake of clarity, when referring to passages in *Nat. Hom.* 16–24 (according

tradition. In addition, given the fact that the ‘cosmic’ form of holism is very rare in general and is absent from *On the Nature of Man* in particular, I will complement my pair of texts with *On Sevens*, a rarely discussed but philosophically highly significant treatise that contains a remarkably well-elaborated view of the relationship between the human body and higher-level macrocosmic structures.¹⁶

1 Therapeutic Holism

I start with the suggestion that *holon* in the *Phaedrus* passage refers to the whole of the human body. Before I turn to the Hippocratic evidence, it will be useful to consider a passage from Plato’s *Charmides* in which Socrates refers appreciatively to physicians who cure the ‘whole body’ of their patients:

You have probably heard this about good doctors, that if you go to them with a pain in the eyes, they are likely to say that they cannot undertake to cure the eyes by themselves, but that it will be necessary to treat the head at the same time if things are also to go well with the eyes. And again it would be very foolish to suppose that one could ever treat the head by itself without treating the whole body (ἄνευ ὅλου τοῦ σώματος). In keeping with this principle, they plan a regime (διαίταις) for the whole body with the idea of treating and curing the part along with the whole (μετὰ τοῦ ὅλου τὸ μέρος).¹⁷

Socrates refers here to a specific medical method according to which the head (like any other body part) must be treated together with the whole body, a

to Jouanna’s edition), I also indicate its equivalent in Littré’s edition (*Nat. Hom.* 16–24 = *Salubr.* 1–9).

16 While there is a consensus among scholars that *On the Nature of Man* (including *Salubr.*) and *On Regimen* are pre-Platonic (cf. Jouanna 1999, and Craik 2015), there is less agreement on the dating of *On Sevens*. Earlier commentators and editors of the text suggested dating between the sixth century (Roscher 1913, Lommer 1938) and the first half of the fourth century BCE (West 1971), while Mansfeld (1971) argues for the first century CE and Jouanna (1999, 412–13) suggests that ‘the rare passages preserved in Greek do not justify assigning an early date and associating it with the ancient core of the Hippocratic Collection.’ Nonetheless, ‘there is nothing to rule out a date in the fifth century BCE’ (Craik 2015, 128). In any case, in the following discussion I focus only on those topics in *Hebd.* that have a parallel in the other two texts.

17 Plato, *Charmides* 156b3–c5 (trans. R. K. Sprague, modified). For more details on this passage and its context, see Korobili and Stefou (in this volume).

method with which he expects Charmides to be acquainted ('you have probably heard this').¹⁸ The holistic method of the 'good physicians' in this account employs two levels of bodily organization and, accordingly, two different levels of mereological relationship: eyes (parts) with regard to the head (whole), and the head (as a part) together with the body (as a whole). It is noteworthy that the approach of the good physicians is described as therapeutic and that regimen (*diatai*) is mentioned explicitly.

If we focus on *On Regimen* and *On the Nature of Man*, we can see that both authors take for granted that a healthy condition consists in a balanced mixture of the primary constituents and that this balance can also be described at the level of their qualities, i.e. hot, cold, dry, and wet. On both accounts, an imbalance between the qualities causes pathology (*Nat. Hom.* 2 'In the body there are many constituents, which, by heating, by cooling, by drying or by wetting one another contrary to nature, engender diseases'),¹⁹ and the suggested therapy is in principle allopathic (*Nat. Hom.* 9 'One must know that diseases due to repletion are cured by evacuation, and those due to evacuation are cured by repletion').²⁰ There are four basic types of repletion/excess (of heat, cold, moisture, and dryness) and four general forms of dietetic treatment, namely warming, cooling, moistening, and drying.

As for the therapeutic means, the authors provide instructions concerning food and drink, various exercises – such as walking, running, wrestling, swinging the arms, and holding the breath – also bathing, emetics and clysters, sexual activities (e.g. *Nat. Hom.* 16–22 = *Salubr.* 1–7; *Vict.* 3.68, 3.73, 3.80, 3.84), and even activities explicitly connected with the soul, such as seeing, hearing, thinking, speaking, and singing (*Vict.* 2.61). All these dietetic procedures, the authors of both texts believe, contribute to the increase or decrease of the hot or cold, dry or moist in the body and can accordingly be used in the preservation or restoration of health by dietetic means.

18 It should be noted that the aim of Socrates is not to convince Charmides to cure his headache together with the whole body (as the quoted part of the passage seems to suggest) but rather to cure his soul together with the body, which is a method that Socrates ascribes a few lines later to a Thracian doctor who suggests that 'it is necessary first and foremost to cure the soul if the parts of the head and the rest of the body are to be healthy' (157a1–3). Neglect of this principle is 'the very reason why most diseases are beyond the Greek doctors' (156e3–6). As far as the evidence of the Hippocratic texts is concerned, this principle is indeed almost absent in the medical literature of the Classical era, although it is relatively common among Greek philosophers of the time (cf. Bartoš 2018 and 2015, 165–229).

19 *Nat. Hom.* 2, VI.36 L. = 168.6–8 Jouanna, trans. Jones.

20 *Nat. Hom.* 9, VI.52 L. = 188.3–6 Jouanna, trans. Jones.

Although the sources of pathological imbalance are occasionally localized to particular organs or bodily parts in these accounts, therapy is applied, as a rule, to the whole body, either internally or externally, or in both ways.²¹ For instance, when the author of *On Regimen* notes ‘disease in the region of the head’, he recommends the sufferer take longer walks in the early morning and after dinner.²² When he diagnoses fluxes in the head or in the bowels, or tumours growing in the flesh, the suggested therapy is the same: ‘In such cases it is beneficial to reduce food by one-third and to take an emetic, to be followed by a gradual increase of food for five days, the normal diet being resumed in another five; another emetic should be followed by the same gradual increase.’²³ When a corruption of the human seed is indicated, and the excess of hot and dry identified as the cause, the author simply suggests that regimen must be directed towards cooling and moistening.²⁴ When there are indications that blood is arrested by dryness, no matter where the stoppage happens, the author advises that one should ‘cool and moisten the body.’²⁵

To sum up, there is little room for local therapy or isolated therapy directed at particular organs in the dietetic approach. Treating and curing ‘the part along with the whole’, as Plato’s Socrates puts it, is a necessary condition of dietetic therapy given its specific therapeutic means and corresponding theoretical assumptions.

2 Environmental Holism

To introduce the environmental form of Hippocratic holism – which can also be called ‘prognostic’, ‘meteorological’,²⁶ or ‘one-with-the-cosmos’²⁷ – we should

21 As for possible exceptions to this rule, one can mention, for instance, ‘some trouble of the bladder’ indicated by springs and cisterns seen in a dream, in the case of which the author recommends a thorough purge with diuretics (*Vict.* 4.90, VI.656 L. = 226.17–18 Joly-Byl). Similarly, when the author indicates a disease of the belly, he advises that the patient should be thoroughly purged with light, soft aperients (*Vict.* 4.90, VI.656 L. = 226.18–19 Joly-Byl). Another exception is found when he prescribes in chap. 32 for individuals of the third constitution that ‘their exercise should be directed more to the exterior of the body (πρὸς τὰ ἔξω τοῦ σώματος) than to the inner parts (πρὸς τὰ εἴσω)’ (*Vict.* 1.32, VI.508 L. = 148.25–27 Joly-Byl), and to those of the fourth constitution that ‘they profit more if their exercise be directed to the internal parts of the body (εἴσω τοῦ σώματος)’ (*Vict.* 1.32, VI.508–10 L. = 148.27–34 Joly-Byl).

22 *Vict.* 4.90 (VI.654 L. = 226.5–7 Joly-Byl).

23 *Vict.* 4.89 (VI.650 L. = 224.6–8 Joly-Byl), trans. Jones (modified).

24 *Vict.* 4.90 (VI.654 L. = 226.10–13 Joly-Byl).

25 *Vict.* 4.93 (VI.660 L. = 230.2–3 Joly-Byl).

26 Le Blay (2005) 253.

27 Singer (in this volume) 176–78. See also Thumiger (in the introduction) 6–8.

start with the lowest level, i.e. with the primary constituents of the human body. In Plato's reflection of the medical method in the *Phaedrus*, immediately after the passage quoted above Socrates formulates the recommended methodology as follows:

First, we must consider whether the object regarding which we intend to become experts and capable of transmitting our expertise is simple or complex. Then, if it is simple, we must investigate its power ... If, on the other hand, it takes many forms, we must enumerate them all and, as we did in the simple case, investigate how each is naturally able to act upon what and how it has a natural disposition to be acted upon by what.²⁸

Socrates introduces this formulation as something that 'both Hippocrates and true argument say about nature' and as the right way 'to think systematically about the nature of anything.' Phaedrus replies in agreement that 'proceeding by any other method would be like walking with the blind.'²⁹

The authors of *On the Nature of Man* and *On Regimen* both aspire to define the nature of the human body and to identify its constituents (and the relation between them in respect to health). As such, their accounts provide representative illustrations of the use of the method in dietetic texts. I start with a passage from the second chapter of *On Regimen*, identified by Smith and others as the closest parallel to Socrates's formulation.³⁰ Here the Hippocratic author introduces his own methodology:

I maintain that he who aspires to treat correctly of human regimen must first acquire knowledge and discernment (γνῶναι καὶ διαγνῶναι) of the nature of man in general – knowledge of its primary parts and discernment of the parts by which (ὑπὸ τίνων μερῶν) it is controlled. For if he be

28 Plato *Phaedr.* 270c10–d7, trans. Nehamas-Woodruff.

29 Plato *Phaedr.* 270c9–e1.

30 Cf. Smith (1979), 48 'This impressive outline of a science of medicine is, I contend, what Plato refers to in the *Phaedrus*. A closer comparison of what Plato says with what Hippocrates says clarifies Plato's reasons for using Hippocrates' work as he does in the context he does. Plato sees a parallel between Hippocrates' gnosis and diagnosis (which mean "know together" and "know separately"; I translated "know and distinguish") and his own collection and division. Hippocrates says that one must know the nature of man as a whole and must know the parts that control him and the *dynamis* of all aspects of the environment that affect man. Plato found this a useful parallel to his thoughts about scientific oratory: distinguish kinds of souls and how each acts or is acted on and classify speeches according to their *dynamis* in relation to particular souls (*Phaedrus* 271a–b). Plato left 'the whole' ambiguous because both "man as a whole" and "cosmos" are comprehended in the Hippocratic science.'

ignorant of the primary constitution, he will be unable to gain knowledge of their [i.e. the primary parts'] effects; if he be ignorant of the controlling thing in the body, he will not be capable of administering to a patient suitable treatment.³¹

In response to these methodological demands, the author posits in chapter 3 that 'all animals, including man, consist of two parts, different in power but working together in their use, namely of fire and water.' These parts depend on one another ('each by itself suffices neither for itself nor for anything else') and are inseparable. Fire is qualified as the moving agent ('fire can move all things always') and water as the source of nourishment ('water can nourish all things always').³² Apart from the capacities to move and nourish, each of the elements is further characterized in chapter 4 by the possession of two qualities (fire has the hot and the dry, water the cold and the moist), and while the polarity hot-cold seems to define the opposition between fire and water, the polarity wet-dry refers to communication between the elements ('mutually, too, fire has the moist from water, for in fire there is moisture, and water has the dry from fire, for there is dryness in water also').³³ As for the 'discernment' of the parts by which human nature is controlled, the author makes clear that each element 'in turn masters or is mastered to the greatest maximum or the least minimum possible.'³⁴ This account of elements thus satisfies the methodological requirements announced in chapter 2 and also provides theoretical support for the author's main therapeutic principle, according to which food (nutriment/water = cold+moist) and exercise (activity/fire = hot+dry) must be kept in balance: 'For food and exercise, while possessing opposite qualities, yet work together to produce health. For it is the nature of exercise to use up material, but of food and drink to make good deficiencies.'³⁵

The author of *On the Nature of Man* starts with the announcement that he will not address topics related to human nature 'beyond its relation to medicine' and will not speak about air or fire or water or earth or 'anything else that is not an obvious constituent of man.'³⁶ 'I for my part will prove that what I declare to be the constituents of man are, according to both convention and nature, always alike the same ... I will also bring evidence, and set forth the

31 *Vict.* 1.2 (VI.468 L. = 122.22–27 Joly-Byl), trans. Jones.

32 *Vict.* 1.3 (VI.472 L. = 126.5–10 Joly-Byl), trans. Jones.

33 *Vict.* 1.4 (VI.474 L. = 126.21–22 Joly-Byl), trans. Jones.

34 *Vict.* 1.3 (VI.472 L. = 126.10–11 Joly-Byl), trans. Jones (modified).

35 *Vict.* 1.2 (VI.468–70 L. = 124.6–7 Joly-Byl), trans. Jones.

36 *Nat. Hom.* 1 (VI.32 L. = 165.3–7 Jouanna), trans. Jones.

necessary causes why each constituent grows or decreases in the body.³⁷ As for growth, he makes clear that ‘generation will not take place if the combination of hot with cold and of dry with moist be not tempered and equal.’³⁸ The same four qualities also play a crucial role in his humoral theory. In chapter 4, he introduces four humours (bile, black bile, phlegm, and blood) as the constituents of human beings that are responsible for the health of the individual, and argues that they differ not only by sight but also according to touch: ‘For they are not equally warm, nor cold, nor dry, nor moist. Since then they are so different from one another in form and in power, they cannot be one, if fire and water are not one.’³⁹ The assumption that a person ‘enjoys the most perfect health when these humours are duly proportioned to one another in respect of compounding, power, and bulk, and when they are perfectly mingled’⁴⁰ also presupposes a balanced proportion of the primary qualities.

It should be highlighted that, despite their disagreement on the number and nature of the primary elements of the human body (fire and water, on the one hand, the four bodily humours, on the other), both authors can translate the powers of the elements into the language of the primary qualities (i.e. hot, cold, dry, and wet).⁴¹ In their practical therapeutic instructions, in particular, both authors prefer to speak of the four qualities rather than of their peculiar primary elements.⁴²

Apart from the primary elements of the human body and their actual combination in a particular patient’s body, both authors enumerate a whole list of other variables that must be taken into consideration in dietetic diagnosis, all of which can be classified according to the same four qualities. In *On the Nature of Man* (chapter 9) the author claims:

37 *Nat. Hom.* 2 (VI.36 L. = 170.1–7 Jouanna), trans. Jones.

38 *Nat. Hom.* 3 (VI.38 L. = 170.11–14 Jouanna), trans. Jones.

39 *Nat. Hom.* 5 (VI.42 L. = 176.7–9 Jouanna), trans. Jones.

40 *Nat. Hom.* 4 (VI.40 L. = 172.15–174.2 Jouanna), trans. Jones.

41 Already Galen (*HNH* 13–14, XV.4–5 K. = 9.19–24 Mewaldt; cf. *Hipp. Elem.* 5.32, I.456–57 K. = 100.19–24 De Lacy) identifies the four qualities as essential to the original doctrine of Hippocrates.

42 It is remarkable that outside the theoretical account of book one, i.e. in the practical dietetic instructions of books 2–4, the author of *On Regimen* does not need to speak about fire and water as the elements of the human body (with the exception in *Vict.* 2.56, VI.566 L. = 178.16–22 Joly-Byl, and VI.570 L. = 180.23–25 Joly-Byl; see Bartoš 2015, 91–99). Nor does the author of *On the Nature of Man* mention the four humours in his dietetic chapter 9 or in his account of regimen in health (chap. 16–24 = *Salubr.* 1–9), although he occasionally mentions phlegm in the body and the bilious body in chap. 20 (= *Salubr.* 5).

To know the whole matter, the physician must set himself against the established character of disease, of constitutions, of seasons and of ages; he must relax what is tense and make tense what is relaxed ... This one should learn and change, and carry out treatment only after examination of the patient's constitution, age, physique, the season of the year and fashion of the disease, sometimes taking away and sometimes adding, as I have already said, and so making changes in drugging or in regimen to suit the several conditions of age, season, physique and disease.⁴³

Later on, he summarizes what is involved in fixing regimen. One must, he says, 'pay attention to age, seasons, habit, land, and physique, and ... counteract the prevailing heat or cold.' 'For in this way', the author concludes, 'will the best health be enjoyed.'⁴⁴ In *On Regimen*, the enumeration in chapter 2 of the various dietetic conditions or variables to which attention must be paid even culminates with a remark on stars and the whole cosmos:

And it is necessary, as it appears, to discern the power of the various exercises, both natural exercises and artificial, to know which of them tends to increase flesh and which to lessen it; and not only this, but also to proportion exercise to bulk of food, to the constitution of the patient, to the age of the individual, to the season of the year, to the changes of the winds, to the situation of the region in which the patient resides, and to the constitution of the year. A man must observe the risings and settings of stars, that he may know how to watch for change and excess in food, drink, wind, and the whole universe (τοῦ ὅλου κόσμου), from which diseases exist among men.⁴⁵

Seasons of the year are mentioned among the dietetic variables in both Hippocratic accounts. Both authors divide the year into four seasons and presuppose that each season is dominated by one or two qualities (*Vict.* 3.67, *Nat. Hom.* 7). When the author of *On Regimen* advises that one watch for 'the risings and settings of stars', he still speaks about seasonal changes, defined in his account by the stars and constellations ('Winter lasts from the setting of Pleiades to the spring equinox, spring from the equinox to the rising of the Pleiades, summer from the Pleiades to the rising of Arcturus, autumn from Arcturus to

43 *Nat. Hom.* 9 (VI.52 L. = 188.6–190.12 Jouanna), trans. Jones.

44 *Nat. Hom.* 17 = *Salubr.* 2 (VI.76 L. = 208.20 Jouanna).

45 *Vict.* 1.2 (VI.470 L. = 124.8–17 Joly-Byl), trans. Jones (modified).

the setting of the Pleiades').⁴⁶ Accordingly, when he summarizes his position that one has to watch for changes 'in the whole universe from which diseases exist among men', he refers to all the various changes in a patient's environment that directly influence his/her body in terms of hot, cold, dry, and wet.

One of the most notable features of the dietetic accounts is that the practices described assume the possibility of making a timely diagnosis of any possible imbalance in the body (caused by predictable external factors) and of taking preventative measures in terms of applying a regime with counterbalancing effects. The account in *Nat. Hom.* 16–24 (= *Salubr.* 1–9) is oriented entirely towards prevention and pays special attention to seasonal changes. For instance, since summer 'is hot and dry, and makes bodies burning and parched', the author recommends counteracting these conditions with a diet that makes the body 'cold and soft.'⁴⁷ He also advises that one should prepare for changes ('from spring to summer', 'from summer to winter') by 'opposing opposites.'⁴⁸ The author of *On Regimen* spells out his prophylactic concerns with particular precision in the concluding lines of his methodological introduction in chapter 2:

But I have discovered these things, as well as the forecasting of an illness before the patient falls sick, based upon the direction in which is the excess. For diseases do not arise among men all at once; they gather themselves together gradually before appearing with a sudden spring. So I have discovered the symptoms shown in a patient before health is mastered by disease, and how these are to be replaced by a state of health.⁴⁹

The dietetic approach requires knowledge of the effects of a variety of changes in the environment, and as for regular changes, such as those coming with the turning of the seasons, a dietician is advised to predict them and to apply a counterbalancing regimen before these changes attack. It is advised that one should learn about the nature of these changes (i.e. when they come and what effect they have on the human body), but not necessarily about the whole cosmos or about the nature of the heavenly bodies within it. These preventative environmental concerns are also attested in other Hippocratic accounts of dietetics (most explicitly in *Aër.*).⁵⁰ In this context, when the authors speak of

46 *Vict.* 3.68 (VI.594 L. = 194.23–196.2 Joly-Byl), trans. Jones.

47 *Nat. Hom.* 16 = *Salubr.* 1 (VI.72–74 L. = 206.11–16 Jouanna).

48 *Nat. Hom.* 16 = *Salubr.* 1 (VI.74 L. = 206.16–208.7 Jouanna).

49 *Vict.* 1.2 (VI.470 L. = 124.16 Joly-Byl), trans. Jones.

50 Cf. *Aër.* 2 (II.14 L. = 57.2–10 Heiberg), trans. Jones: 'For knowing the changes of the seasons, and the risings and settings of the stars, with the circumstances of each of these

the ‘whole universe’ (*Vict.* 1.2: τοῦ ὅλου κόσμου) or ‘this universe’ (*Nat. Hom.* 7: ἐν τῷδε τῷ κόσμῳ),⁵¹ they may well speak about the environment alone, without having any elaborated cosmological models in mind.

3 Cosmic Holism

While the first two kinds of holism are deeply embedded in the principles of dietetic medicine and are, therefore, relatively common in the Hippocratic literature, the third one is rare, attested only in *On Regimen* and *On Sevens*, as far as I know.⁵² In this ‘cosmic’ approach, sometimes also called ‘philosophical’,⁵³ analogies are drawn between the human body (and its parts) and the cosmos (and its parts). Despite the fact that, as we shall see shortly, these analogies rarely signify a direct influence of the macrocosmic parts on the relevant parts of the human body, the Hippocratic authors consider them highly relevant to dietetic diagnosis and prognosis.

The author of *On Regimen* employs the analogy between the macrocosm and the microcosm of the human body in two different contexts, namely in the embryological account in book one and in the account of dream diagnosis in

phenomena, he [i.e. a physician] will know beforehand the nature of the year that is coming. Through these considerations and by learning the times beforehand, he will have full knowledge of each particular case, will succeed best in securing health, and will achieve the greatest triumphs in the practice of this art. If it be thought that all this belongs to meteorology, he will find out, on second thought, that the contribution of astronomy to medicine is not a very small one but a very great one indeed. For with the seasons men's diseases, like their digestive organs, suffer change.’

- 51 *Nat. Hom.* 7 (VI.48–50 L. = 186.1–2 Jouanna), trans. Jones: ‘For just as every year participates in every element, the hot, the cold, the dry and the moist – none in fact of these elements would last for a moment without all the things that exist in this universe (ἐν τῷδε τῷ κόσμῳ), but if one were to fail all would, for by reason of the same necessity all things are constructed and nourished by another – even so, if any of these congenital elements were to fail, the man could not live.’ Cf. *Vict.* 1.3 (VI.474 L. = 126.16–19 Joly-Byl) for a similar argument.
- 52 Cf. Mansfeld (1980) 347: ‘It is somewhat paradoxical that a consistently cosmological brand of medicine is to be found only in marginal treatises of the *Corpus* such as *Regimen* – and of course also outside the *Corpus*, as in the system of Philistion of Locri, whom Plato to an extent followed in the medical section of his own cosmological treatise, *Timaeus*.’ See also Le Blay (2005) 252–53, who ascribes the same approach to the author of *Fleshes*, which begins its account with a brief description of the creation of the cosmos before turning to the formation of man from the very same elements and by means of similar formations. Nevertheless, it should be noted that unlike in *On Regimen* and *On Sevens*, there is nothing explicit about the micro-macrocosmic relations in *Fleshes*.
- 53 Le Blay (2005) 252–53.

book four. In the former, found towards the end of the embryological account (starting in chapter 6 and culminating in chapter 10), we read a summary of the role of fire in the process of embryogenesis:

In a word, the fire arranged all things in the body by itself properly, in resemblance with the whole (ἀπομίμησιν τοῦ ὅλου), small things in relation to great things and great things in relation to small things. It made the largest cavity, a store-room for dry water and moist, to give to all and to take from all, having the power of the sea, providing food for creatures suited to it, bringing destruction to those not suited. And around it fire made a concretion of cold and moist water, a passage for cold and warm breath, in resemblance with the earth (ἀπομίμησιν τῆς γῆς), which alters all things that fall into it. Consuming some things and increasing others, it made a dispersion of fine water and of aerial fire, the invisible and the visible, a secretion from the formed substance, in which all things are carried and come to light, each according to its allotted portion. And in this fire made three circuits, extending to each other inwards and outwards: one extending towards the cavities of the moist having the power of the moon; another extending towards the outer circumference, towards the solid enclosure having the power of the stars; the middle circuit extends both inwards and outwards [having the power of the sun].⁵⁴

In this passage, identified by Jouanna as ‘the first clear formulation in an entirely preserved Greek text of the micro/macroc cosmic theory’,⁵⁵ the author makes the case that fire forms the organs and other bodily structures in accordance and resemblance with the macrocosmic structures, especially in their shape or function (or both). The expression *apomimēsis* is often mistranslated as ‘imitation’, in the sense of making a copy of something that pre-exists as a paradigm (i.e. it presupposes an ontological priority of the model over its copy). This rendering works well for other authors, such as Plato, but it is inappropriate in the case of the Hippocratic text, since here *apomimēsis* (as well as *mimēsis* and the verb *mímeomai*) indicates a resemblance, likeness, or analogy, suggesting epistemological priority (i.e. the more obvious part of the analogy illustrates the less evident part, as a rule the macrocosmic process or

54 *Vict.* 1.10 (VI.484–86 L. = 134.5–16 Joly-Byl), trans. Jones (modified). The final words in brackets (‘having the power of the sun,’ ἡλίου δύναμιν ἔχουσιν) were added by Joly and Byl on the basis of a parallel passage in 4.89 (VI.644 L. = 220.22–23 Joly-Byl). See also Jouanna 1998.

55 Jouanna (1999) 463 n. 69.

structure illustrates some process or structure in the body), but not necessarily an ontological one.⁵⁶

This is also evident in *On Sevens* (chapter 6), in which we read that all animals and plants on the earth 'have a nature similar to the world' (*natura similem habent mundo*) and are made of the same constituents.⁵⁷ Like the author of *On Regimen*, who successively mentions in his account water, sea, earth, aerial fire, moon, stars, and the solid enclosure (the sun can also be at least implied in the middle circuit), the author of *On Sevens* enumerates more or less the same items in chapter 6, and indicates for each its place in the macrocosm and specifies its analogue in the human body: (1) the earth (bones and flesh) and moist heat (marrow, brain, and semen); (2) water (the blood in the veins) and sea (the moisture in the intestines); (3) the outer air (breath); (4) the moon (the seat of reason); (5) the sun (the heat in the intestines and veins); (6) stars (the heat under the skin); and (7) the cold coat around the world (skin).⁵⁸

As for the significance for medical practice of this knowledge of the macro-microcosmic analogies, the author of *On Sevens* suggests that it helps one to understand how fevers and acute diseases originate, and how they can be managed and also prevented,⁵⁹ although he does not provide any clarification of exactly what this help consists in. A possible clue, I suggest, can be found in the account of dreams that plays a significant role in both Hippocratic accounts. The author of *On Regimen* introduces the topic by saying that 'he who has learnt correctly about the signs that come in sleep will find that they have an important influence upon all things', and that 'whoever knows how to interpret these acts correctly knows a great part of wisdom.'⁶⁰ The author of *On Sevens* claims in chapter 40 that 'things seen in dreams' can be of use in diagnosis (mentioned alongside the complexion, the qualities of the tongue, eyes, urine, faeces, voice, and veins, and also the way in which one inhales, as well as other signs),⁶¹ and in chapter 45, in which he gives more details about the diagnostic potential of dream visions, he sums up his position by stating that 'dreams show clearly which diseases are strong (*magna*) and which will come in the future.'⁶²

56 Cf. Burkert (1972) 44–45, Bartoš (2014) and (2015) 132–38.

57 *Hebd.* 6 (VIII.637 L.). Cf. *Hebd.* 6 (IX.436 L.).

58 *Hebd.* 6 (VIII.637–38 L.), cf. *Hebd.* 6 (IX.436–37 L.).

59 *Hebd.* 12 (VIII.639 L.), cf. *Hebd.* 12 (IX.439 L.).

60 *Vict.* 4.86 (VI.640 L. = 218.12–13 Joly-Byl).

61 *Hebd.* 40 (VIII.660 L.), cf. *Hebd.* 40 (IX.458 L.).

62 *Hebd.* 45 (VIII.662 L.): *Somnia vero ostendunt morborum manifeste quidem quae magna sunt et quae future sunt conturbat enim corpora.* Cf. IX.460 L. *Somnia vero ostendunt morbos manifeste quidem quae magna sunt et quae future sunt.*

Both authors provide almost identical explanations of how dreams can serve in diagnosis, based on the assumption that the soul is awake in sleep and sees everything that happens in the body. The dreaming soul, as the author of *On Regimen* puts it, 'has cognizance of all things – sees what is visible, hears what is audible, walks, touches, feels pain, ponders.'⁶³ The first key for understanding dreams has to do with whether one repeats in the dream one's daily practice, which indicates health, or whether the dream deviates from one's everyday waking experience, which is interpreted as a sign of pathology. The author of *On Regimen* puts it as follows:

Such dreams as repeat in the night a man's actions or thoughts in the day-time, representing them as occurring naturally, just as they were done or planned during the day in a normal act – these are good for a man. They signify health, because the soul abides by the purposes of the day, and is overpowered neither by surfeit nor by depletion nor by any attack from without. But when dreams are contrary to the acts of the day, and there occurs about them some struggle or triumph, a disturbance in the body is indicated, a violent struggle meaning a violent mischief, a feeble struggle a less serious mischief. As to whether the act should be averted or not, I do not decide, but I do advise treatment of the body. For a disturbance of the soul has been caused by a secretion arising from some surfeit that has occurred.⁶⁴

The analogy between the human body and the concentric tripartite structure of the universe (introduced in chapter 10) reappears in chapter 89 to provide an interpretive key to a specific sub-group of dream visions in which heavenly bodies appear. 'To see the sun, moon, heavens, and stars clear and bright, each in the proper order, is good,' claims the author, 'as it indicates physical health in all its signs, but this condition must be maintained by adhering to the regimen followed at the time.' But if there is any contrast between the dream and reality, it indicates 'a physical illness: a violent contrast a violent illness, a slighter contrast a lighter illness.' As the author reminds his readers, 'the outer circuit [in the body] belongs to the stars, the middle circuit to the sun, the circuit towards the cavities belongs to the moon',⁶⁵ and, therefore, the state of the heavenly bodies (as seen in dreams) also correlates with the condition

63 *Vict.* 4.86 (VI.640 L. = 218.9–11 Joly-Byl), trans. Jones.

64 *Vict.* 4.88 (VI.642–44 L. = 220.1–10 Joly-Byl), trans. Jones. Cf. *Hebd.* 45 (VIII.662 L.).

65 *Vict.* 4.89 (VI.644 L. = 220.18–23 Joly-Byl), trans. Jones (modified) ἄστρον μὲν οὖν ἢ ἕξω περίοδος, ἡλίου δὲ ἢ μέση, σελήνης δὲ ἢ πρὸς τὰ κοίλα.

of the corresponding bodily parts. Thus heavenly bodies and other macrocosmic phenomena seen in dreams can serve as a clue for the diagnosis of the human body and, occasionally, even for locating pathological processes, on the assumption that we know what bodily part each of the macrocosmic objects and phenomena corresponds to. For instance, when a heavenly body seems to be dark and dull, and to move upwards, it indicates fluxes in the head; when it moves into the sea, it indicates diseases of the bowels; when into the earth, it shows that tumours are growing in the flesh.⁶⁶ Nor is it only heavenly bodies that can be interpreted according to this pattern: rivers, for instance, correlate with blood vessels, fruits with human semen, and springs and cisterns with the bladder (*Vict.* 4.90; cf. *Hebd.* 6). On the whole, all the correspondences between macrocosm and the human body are based on the assumption that all things in the body are made in analogy with the cosmos (ἀπομίμησις τοῦ ὅλου, *Vict.* 1.10, VI.484 L. = 134.5–6 Joly-Byl), and that the human body and its parts have a ‘similar nature’ (*natura similis*, *Hebd.* 6) to the cosmos and its parts. Both are made from the same constituents and, accordingly, they both suffer the same changes (*Hebd.* 12).⁶⁷

In summary, as the accounts of human nature in the Hippocratic texts attest, the holistic method recommended by Socrates in the *Phaedrus* was employed by medical authors with remarkable flexibility. As I have attempted to illustrate here, three forms of holistic approach can be distinguished, along with three possible meanings of the term holistic. First, an account can be holistic in the sense that it treats each and every part together with the whole body (‘therapeutic’ holism). This approach is common to all proponents of dietetics and relates to the specifics of dietetic procedures that are, as a rule, applied to the whole body. Secondly, the dietetic account can be understood as holistic due to its consideration of the environmental influences on the human body (‘environmental’ holism). One must ‘observe the risings and settings of stars’ in order to forecast seasonal changes, which bring with them a potential pathogenic excess of hot, cold, wet, and dry. Being alert to these changes then allows one to proactively apply the opposing regimen, thus maintaining the bodily balance in a healthy state. On this view, the ‘whole universe’ stands primarily for weather conditions and regular seasonal changes.⁶⁸

66 *Vict.* 4.89 (VI. 650 L. = 224.4–6 Joly-Byl). Cf. *Hebd.* 15 (VIII.641 L.; IX.440–41 L.).

67 *Hebd.* 12 (VIII.639 L.) *Cum sit ergo talis ejusmodi mundus ostendam et in egritudinis hec pati totum mundum et aliorum omnium corpora*. Cf. IX.439 L. *Cum ergo ejusmodi sit mundus, ostendam et in egritudine haec pati totius mundi et aliorum omnium corporum*.

68 Cf. *Hebd.* 23 (VIII.647 L.).

Finally, the accounts in *On Regimen* and *On Sevens* are holistic in the sense that they explain the structure of the human body as analogous to the structure of the whole cosmos ('cosmic' holism). From this point of view, a specific knowledge of cosmic structures is a necessary condition for (a) a proper understanding of the structure and development of the human body, and (b) a successful interpretation of the relevant dream images, which contributes substantially to the dietetic diagnosis. 'So with this knowledge about the heavenly bodies, precaution must be taken, with change of regimen ...', as the author of *On Regimen* (*Vict.* 4.89) concludes. This kind of knowledge does not derive from the physician's knowledge of 'how to watch for change and excess in food, drink, wind, and the whole universe.' Rather, it draws on the soul's intimate knowledge of its own body and on the assumption that this knowledge is encoded in the visions seen in dreams. Accordingly, whoever learns about the structural and functional correspondences between macrocosmic phenomena and the individual parts of the human body can also decipher the particular signs of health and disease in dream visions and make use of them in dietetic therapy as well as prophylaxis.

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