

‘VISIBLE’ AND ‘INVISIBLE’ AS CATEGORIES OF THOUGHT IN THE
HIPPOCRATICS (*ON REGIMEN, ON ANCIENT MEDICINE, ON THE ART*)*

INTRODUCTION

Greek rationality, it has been pointed out by a well-established scholarly tradition, was of an essentially perceptual and visual kind. In ancient Greek it happens that, when attempting to express and describe structure and strategies, as well as the conditions of possibility and the lines of development of human cognition, even in its most sophisticated and formalised manifestations, the semantic categories of the ‘visible’/‘phenomenal’ and those of the ‘knowable’/‘understandable’/‘thinkable’ tend to overlap or even to coincide both lexically and conceptually. In other respects, the intellectual enterprise that allows man to acquire knowledge (considered both in its speculative and observational aspects) is often represented by Greek thinkers as a struggle to conquer portions of the domain of ‘the invisible’ to human understanding, and even more explicitly it is defined as an endeavour to grasp the ‘visible’ from the ‘invisible’ by means of analogy (Anaxagoras’ famous assertion that ὅψις τῶν ἀδήλων τὰ φαινόμενα (DK 59 B21a) is paradigmatic of this attitude of mind)¹. The evolution in Greek of the Indo-European root *oid-*, from which derived a variety of verbal and nouns – the aorist εἶδον, ‘I saw’, the perfect οἶδα, ‘I know as a consequence of the fact that I have seen’, the nouns εἶδος/ιδέα, ‘external shape’ but also, in the Platonic sense, ‘mentally graspable archetypal form’ – is paradigmatic of such an oscillation between the concrete and the abstract, the ‘perceptual’ and the ‘intellectual’, the ‘experiential’ and the ‘theoretical’ (significantly enough, this semantic ambivalence is also characteristic of the ‘contemplative’ act precisely designated by the verb θεωρεῖν, as well as of verbs like σκοπεῖν and σκέπτεσθαι, ‘to look into’, but also ‘to consider’, ‘to examine attentively’)². The relationship between ‘seeing’ and ‘knowing’ emerges even more dramatically from a notion like that of ἱστορίη (connected with the same root of οἶδα) which, from Herodotus onward, designated among the

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¹ On Anaxagoras’ fragment and, more generally, on ‘analogy’ as a cognitive and rhetoric tool of early Greek philosophical and scientific discourse see DILLER 1952 and LLOYD 1966.

² See CHANTRAINE 1968, p. 813, s.v. ὀράω, and p. 1034, s.v. σκέπτομαι. See also BRUNSCHWIG 2005, pp. 92-93; ARONADIO 2005, pp. 8-9.

Greeks the act (and the result) of intellectual research based on autopsy³. From this point of view, there are striking analogies between the intellectual practice defined as ἱστορίη and other intellectual practices like medicine, τέχνη ἰατρική, based on the direct observation of the patient's body⁴. However, along with analogies and points of contact, there are also substantial differences between ἰατρική and ἱστορίη, one of which is of a pragmatic kind and is elucidated by J. Jouanna when he remarks that «alors que l'ἱστορίη reste une science qui ne modifie pas l'objet de son savoir, la τέχνη ἰατρική est une science qui se réalise par une action sur l'objet de savoir. Connaissance et pouvoir d'agir sont indissolublement liés dans la notion de τέχνη»⁵.

The main point I would like to discuss in what follows is that, when moving from a generic notion of 'knowledge' to a more specific one of 'technical' knowledge (within which Greek or, at least, 5th and 4th century Greek medicine belongs), the nexus between 'seeing' and 'knowing' as well as the tendency to assimilate the domain of 'what is perceptible' into that of 'what is visible' need to be carefully reconsidered and reconfigured as parts of a more complex epistemological triangulation, in which, along with the power to visually (otherwise, perceptually) and intellectually grasp a cognitive object, we find as a third element the power to actively 'intervene' on such object and modify it. Actually, the cognitive structure of the medical practice should encourage us to speak of 'events', things that happen as the result of a web of interdependent circumstances and which a physician must be able to cope with, rather than of statically conceivable 'objects' of knowledge. It should also make us think about the necessity for the physician to constantly redefine both the theoretical and the practical boundaries between 'visibility' and 'invisibility', or, to put it in other terms, to redraw the boundary-line between what 'may' be visible and what 'may' not (if not, perhaps, through the 'eye of the mind')⁶ as well as between what 'is' actually visible and what is 'not'.

In this paper I intend to focus on the polarity between 'visibility' and 'invisibility' as we find it in the corpus of medical treatises that has been transmitted under the name of the *Hippocratic Collection*. In many of these treatises (written, for the most part, between the second half of the 5th century and the first half of the 4th century BCE) the interplay between the categories of visibility and invisibility is particularly evident (I especially, but not exclusively, think of the surgical treatises such as *On Fractures*, *On Joints*, *On Wounds of the Head*), when it does not even play a

³ Hdt. 2. 118. 1; Pl. *Phdr.* 96a; Aristot. *PA* 674b16; Plut. 46. 642d 4.

⁴ THOMAS 2000, pp. 200-212, has produced strong evidence of the influence exerted by 5th century medicine's rhetoric of visibility and method of observation on the constitution of Herodotus' methodological and theoretical horizons, and especially on Herodotus' use of analogy to infer the 'invisible' from the 'visible'. See also CORCELLA 1984 and LATEINER 1986. On Herodotus' autopsy see SCHEPENS 1980 and MÜLLER 1981.

⁵ JOUANNA 1992, p. 93.

⁶ See BRUNSCHWIG 2005, p. 93.

pivotal role either from a theoretical or a rhetorical point of view, as is the case of texts like *On Regimen*, *On Ancient Medicine* and *On the Art*, whose rationale and argumentative strategies will be the specific subject of investigation of these pages. More specifically, in the three sections of the paper I will address the semantic and conceptual polarity of the 'visible'/'invisible' in the light of, and as a key to, three major questions of an epistemological order. These questions concern, respectively, 1) the formation of the human body from the embryo and thus the emergence of life, 2) the definition of medicine's field of intervention and strategies of observation, and 3) the relation between the physician's knowledge and the patient's acquaintance with his own body and perceptions. The aim is to cast light on the multi-sensorial foundations of the medical art as it was practiced, represented and defended by that group of practitioners and medical writers that we label as 'Hippocratic'⁷.

1. Οἱ ἄνθρωποι ἐκ τῶν φανερῶν τὰ ἀφανέα σκέπτεσθαι οὐκ ἐπίστανται: VISIBILITY AND INVISIBILITY IN THE TREATISE *ON REGIMEN*

The four books of *On Regimen* offer sufficient materials to start approaching these issues. In general terms, the theoretical and argumentative framework of this treatise, in which scholars have found echoes of almost all the philosophical schools antecedent or contemporary to it⁸, is characterized by a dualistic approach to reality and the processes that determine the constitution and the phenomenal organization of things. Things, as the author affirms, are made of two primary elements, qualitatively opposite but dynamically interacting and complementary: the first, cold and wet one is water, the second, hot and dry, is fire. Coherently with this approach, the opposition between the two poles of the 'visible' and the 'invisible' is emphasized, above all in the first book of the treatise, in such a way that it stands out as one of the underlying themes of the whole cosmo-anthropo-embryological theory put forward by the author.

⁷ Any attempt to write a history of the scholarly contributions on the *vexata quaestio* of the historical figure of Hippocrates and the existence of an authentically 'Hippocratic' group of treatises within the Hippocratic collection would far exceed the limits of a footnote. I will therefore limit myself to recalling a few contributions that have stood as cornerstones of scholarship for the last forty years, starting with Jouanna's and Grensemann's pioneering investigations into the existence of two different medical schools (based, respectively, in Cos and Cnidos) and the specificity of the Cnidian school: see JOUANNA 1974 and GRENSEMANN 1975. Another fundamental study on ancient medical schools, their distinctive feature and the (presumed) opposition between Coan and Cnidian is THIVEL 1981; see also DI BENEDETTO 1986, pp. 70-87, who rejects the rigid polarization of the most ancient Greek medical tradition into the scheme 'Coans vs Cnidians'. On the features shared by the gynaecological treatises see GRENSEMANN 1982 and 1987. On the clinical works collected under the name *Epidemics* see LANGHOLF 1990 and 2004, for an attempt to classify the treatises included in the Hippocratic Corpus according to both linguistic and rhetorical/pragmatic criteria. In recent times, Philip van der Eijk has done, and has been still doing, a fruitful work of critical revision of the concept of 'Hippocratic' as a category of medical historiography and classical philology: a paper of his on this subject is going to be published in the Proceedings of the 13th Hippocratic Colloquium (see VAN DER EIJK (in press)).

⁸ See JOLY 1961 and 1984, JOUANNA 1966 and 2007.

In ch. 23 we find the list of the seven σχήματα αἰσθήσεως, ‘shapes of sensation’, that, to the author’s eyes, make man’s body able to perceive: among these ‘shapes’ or ‘structures’ we have ‘sight’ (ὄψις), indicated as the σχῆμα φανερώων (interestingly, the Greek ὄψις indicates both the abstract function of ‘sight’ and its material agent, the ‘pupil’)⁹. In this case, the notion of φανερόν has a rigidly circumscribed meaning, as it defines those perceptible things that are ‘manifest’ as a consequence of their being accessible to man’s sight. No metaphorical use of the notion of ‘visible’ is here implied. However, in other passages of *On Regimen* the same notion seems to have a considerably wider range of semantic nuances, so that it tends to coincide with the categories of the ‘phenomenal’ and of ‘what is experienceable through the senses’. In ch. 78, for example, a series of pathological events is described, which events culminate in vomiting – this is what people «with solid flesh» (ἐν τοῖσι πυκνοσάρκοισι τῶν ἀνθρώπων) suffer from while being asleep – and, as a consequence of the food they have ingested, in warming up and melting¹⁰: the author also specifies that, after vomiting, these patients have no manifest pain in their bodies (πόνος δὲ οὐδεὶς ἐν τῷ σώματι φανερός)¹¹, for pain and disease only occur in the course of time. Elsewhere (*Vict.* 3. 70, 78. 13 Joly, 6. 606 Littré), the author claims that, both after eating and after sleeping, one may suffer from blocked nostrils without «obvious cause» (ἄτερ προφάσιος φανερῆς)¹². In ch. 36 reference is made to the notion of ἀφανής, ‘invisible’: speaking of certain moral qualities such as irascibility, indolence, malevolence, and benevolence – qualities on which the physician has no possibility of intervention by means of dietary prescriptions – the author explains that these qualities are determined by the nature of the passages through which the ψυχὴ circulates (ἢ φύσις τῶν πόρων δι’ ὧν ἡ ψυχὴ πορεύεται). Character, he says, depends on the ducts deputed to the passage of the soul, but also on what the soul runs into (πρὸς ὁκοῖά τινα προσπίπτει) and combines with (ὁκοῖοισί τισι καταμίσγεται) during its circular movement in the inside of the body. For this reason, the author admits, there are circumstances in which the modifications of regimen are of no use, as it is not possible to reshape an ‘invisible nature’ (φύσιν γὰρ μεταπλάσαι ἀφανέα οὐχ οἶόν τε)¹³. In all these cases reference is made to the notions of ‘visibility’ and ‘invisibility’ by associating them, respectively, with ‘pain’, with the ‘cause’ of a pathological

⁹ Hippocr. *Vict.* 1. 23 (18. 19 Joly; 6. 496 Littré).

¹⁰ Hippocr. *Vict.* 3 (87. 8 Joly; 6. 622 Littré): «In persons of firm flesh, when the food warms and melts during first sleep, the flesh warming owing to the food and through the sleep, a copious secretion comes from the moist flesh. Then the flesh owing to its firmness will not receive the nourishment, while the secretion from the flesh, being opposed to the nourishment and forced out, warms and chokes the man until he has vomited it forth. Relief follows the vomiting, and no pain is felt in the body though the complexion is pale. In course of time, however, pain and disease occur».

¹¹ Cf. Hippocr. *Morb.* 1. 8 (6. 154 Littré): οὐδὲν ἔχοντος πρόσθεν ἄλγημα ἐν τῷ στήθει φανερόν.

¹² Cf. Hippocr. *Prog.* 18 (218. 3 Alexanderson; 2. 162 Littré): δύσπνοος δὲ τινα χρόνον γενόμενος παύσεται ἄτερ φανερῆς προφάσιος; Hippocr. *Morb.Sacr.* 1 (3. 8 Jouanna): τοῦτο δὲ ὀρῶ μαινομένους ἀνθρώπους καὶ παραφρονεόντας ἀπ’ οὐδεμιῆς προφάσιος ἐμφανέος; Hippocr. *Aph.* 2. 41; 4. 41; 5. 43 and 45.

¹³ Hippocr. *Vict.* 1. 36 (35. 1 Joly; 6. 522-4 Littré).

phenomenon, and with the ‘nature’ of the body or of some of its parts. It is not possible, however, to reduce the ontological status of any of these ‘things’ to that of ‘object of vision’: not of pain, whose manifestation has to do with a person’s perception and awareness of his own internal states; nor of the causal nexuses, which are not a ‘concrete’ entity, but the result of a connection established between phenomena and events by a human observer; nor of ‘nature’ (in the sense of Greek φύσις), which cannot be considered as a ‘thing’ but as a system of cooperating processes that determine the constitution and emergence of ‘things’. It is thus clear that the author of *On Regimen* does not refrain from making recourse to the polarizing categories of the ‘visible’ and the ‘invisible’ in order to express a sort of ‘epistemological tension’ between what can be generically experienced through the senses and what cannot, as well as an ‘ontological tension’ between existent and nonexistent entities (pain simply does not exist if it is not ‘manifest’ to the subject’s perception).

Quite different is the case of the φύσις ἀφανής (of the pores?)¹⁴, to which the author refers when he tries to account for the impossibility for the physician of modifying certain moral qualities in man: the fact that this φύσις is ‘invisible’ does not imply that it does not exist at all, but only that it is not directly subject to any therapeutic intervention¹⁵.

The author’s tendency to polarize reality into ‘visible’ and ‘invisible’ things is, however, tempered and counterbalanced by the attention he pays to movement and transformation as the two factors peculiar to the physiological processes, which factors make the boundaries between φανερός and ἀφανής susceptible to being continuously redefined and crossed. It is in the section of the first book consecrated to embryological issues that the dynamic structure of the ‘visible/invisible’ relation is most evident. In ch. 10 (pp. 10-12 Joly; 6. 484 Littré) we find the description of how fire can exert its organizing influence over reality, both at a cosmological and at an embryological level, by combining the small things and the big things into the same structure and vice versa (ἐνὶ δὲ λόγῳ, πάντα διεκοσμήσατο κατὰ τρόπον αὐτὸ ἐωυτῷ τὰ ἐν τῷ σώματι τὸ πῦρ, ἀπομίμησιν τοῦ ὅλου, μικρὰ πρὸς μεγάλα, καὶ μεγάλα πρὸς μικρά):

Consuming and increasing (τὰ μὲν ἀναλίσκον τὰ δὲ αὖξον), it made a dispersion of fine water and of ethereal fire (σκέδασιν ὕδατος λεπτοῦ καὶ πυρὸς ἐποιήσατο ἡερίου), the invisible and the visible (ἀφανέος καὶ φανεροῦ), a secretion from the compacted substance (ἀπὸ τοῦ συνεστηκότος ἀπόκρισιν), in which things are carried and come to light, each

¹⁴ JOLY 1967, p. 35 n. 1, remarks that «l’interprétation la plus naturelle serait de voir dans cette φύσις la φύσις τῶν πόρων dont parle l’auteur dans ce passage. Mais dans la suite immédiate, à propos de la voix, l’auteur admet fort bien que l’on puisse modifier les pores du soufflé». HEIDEL 1914, p. 162, argues that here reference is made to the φύσις of the ‘soul’ (φύσις τῆς ψυχῆς).

¹⁵ Cf. Hippocr. *Alim.* 14 (140. 20 Joly): αἰτίας δὲ τὰ μὲν δῆλα, τὰ δὲ ἄδηλα, καὶ τὰ μὲν δύνата, τὰ δὲ ἀδύνата (Joly translates: «De la cause, ceci est clair, cela est obscur; ceci est en notre pouvoir, cela ne l’est pas»).

according to its allotted portion (ἐν ᾧ φερόμενα ἐς τὸ φανερὸν ἀφικνεῖται ἕκαστον μοῖρην πεπρωμένη).

The elements we have are not sufficient to establish what the ambivalent nature (visible/invisible) of the ethereal fire consists of. What we can do, instead, is to reconstruct the process, effective at a macro- and microcosmic level, through which things and the human bodies, too, ‘phenomenalize’ (the author speaks of ἐς τὸ φανερὸν ἀφικνεῖσθαι) and form as ‘individual entities’ according to *On Regimen*’s theory. The formation of the natural bodies, it is claimed, depends on the dynamic interaction of the two primordial constituents, fire and water, and results in progressive concretions of matter, on the one hand, and in the progressive differentiation and articulation of the bodily structures, on the other¹⁶. When speaking of ἐς τὸ φανερὸν ἀφικνεῖσθαι we are therefore in the presence of a complex process of ‘emergence’ rather than of one of mere ‘coming into view’, as this process implies the ‘forming’, as well as the coming to light, of a body. We are not allowed, however, to speak of ‘generation’, as this concept is explicitly rejected by the author when he explains (ch. 4, 6. 12 Joly; 6. 476 Littré) that he has spoken of ‘becoming’ and ‘perishing’ only for the masses, as one should more correctly speak of the ‘mixing’ (συμμίσγεσθαι) and ‘separating’ (διακρίνεσθαι) of the elements which things are made of. Thus, from an ontological point of view, the emergence of a φύσει ὄν does not coincide with a movement from ‘nonexistence’ to ‘existence’, but with a sort of ‘passage of state’ of matter, which forms into this or that bodily shape according to its different levels of organization and the proportion of fire and water present in it. It relativizes the link between the ‘visibility’ and the ‘existence’ of a natural body: during the development of the embryo, for example, «the biggest parts of the body become visible before (πρότερα φαίνεται) the smallest, even if they do not form before (οὐδὲν πρότερα γινόμενα)», as all the parts of the body «differentiate (διακρίνεται) and develop (αὕξεται) together at the same time»¹⁷.

Also, if the boundary that divides the visible from the invisible is represented as unstable and fluctuating, the factor that determines the nature of such fluctuations is of an essentially temporal kind. What at some point still remains ἀφανής can later emerge ἐς φανερόν:

¹⁶ This process, which is of an embryological kind as it refers to the constitution of man’s body, is described in ch. 9 (10. 13 Joly; 6. 482 Littré). Also *Nat. Puer.* 18 (63. 17 Joly; 7. 504 Littré), describes the embryogenesis as a process organized according to a temporal pattern whose result is the φαίνεσθαι of differentiated and articulated parts: πολλά δὲ ἤδη γυναικες διέφθειραν κοῦρον ὀλίγω πρόσθεν τριήκοντα ἡμερέων, καὶ ἀναρθρον ἐφαίνετο· ὁκόσα δὲ ὕστερον ἢ ἅμα τῆσι τριήκοντα ἡμέρησι, διηρθρώμενα ἐφαίνετο ἔοντα· καὶ ἐπὶ τῇ κούρῃ κατὰ λόγον τῶν τεσσεράκοντα καὶ δύο ἡμερέων, ὁκόταν διαφθαρή, φαίνεται ἢ διάρθρωσις τῶν μελέων· ἦν τε πρόσθεν φθαρή τὸ παιδίον ἦν τε ὕστερον, ὧδε φαίνεται καὶ λόγῳ καὶ ἀνάγκῃ ἢ διάρθρωσις ἐούσα.

¹⁷ Hippocr. *Vict.* 1. 26 (20. 19 Joly; 6. 498 Littré).

Not all the embryos take the same time to form (οὐκ ἐν ἴσῳ δὲ χρόνῳ πάντα διακοσμεῖται): some take less time, some longer, according as they severally meet with fire and nourishment. Some have everything visible (τὰ μὲν οὖν ἴσχει πάντα φανερά) in forty days, some in two months, some in three months and others in four. Similarly also some are formed before others; those that grew quicker are fully formed in seven months, those that grew more slowly in nine months; and they appear in the light (ἐς φάος ἀναδείκνυται) with the same blend as they will have always¹⁸.

In other respects, the embryogenetic process through which a body comes to light would not be conceivable, to the author’s eyes, without accepting a specular process of ‘becoming invisible’. This is made clear in ch. 29, where the effects of the combination of the male and the female spermatic secretions are described by means of analogy:

If anyone doubts that soul combines with soul (εἰ δέ τις ἀπιστεῖ ψυχὴν μὴ προσμίγεσθαι ψυχῇ), let him consider coals. Let him place lighted coals on lighted coals, strong on weak, giving them nourishment. They will all present a like substance, and one will not be distinguished from another (ὅμοιον τὸ σῶμα πάντες παρασχῆσονται καὶ οὐ διάδηλος ἕτερος τοῦ ἑτέρου), but the whole will be like the body in which they are kindled (ἐν ὁκοίῳ σώματι ζωπυρέονται, τοιοῦτον δὴ τὸ πᾶν ἔσται). And when they have consumed the available nourishment, they dissolve into invisibility (διακρίνονται ἐς τὸ ἄδηλον). So too it is with the soul of man¹⁹.

In order for a body to form as an organized individual entity, the two material agents that first determine the formation and development of the embryo must mix with each other until they gradually disappear: if, on the one hand, it results in the emergence of the body, embryogenesis is, on the other hand, a highly complex process through which objects and boundaries of the two domains of the visible and the invisible are constantly modified and redefined. Evidence of the complexity of this process is provided by the fact that, when a body has reached the end of its lifetime and its constituent elements have consumed all the available nourishment, these elements do not return to the previous state of visibility but «dissolve into invisibility».

The dialectic between visibility and invisibility is thus intrinsic to *On Regimen*’s rationale and serves as a key both to ‘the nature’ of the whole and to ‘the natures’ of the individual bodies; but the same dialectic is also central to the ‘epistemological’ section of the first book (ch. 11-24), as we can see in this passage (*Vict.* 1. 11, 13. 3 Joly, 6. 486 Littré):

¹⁸ Hippocr. *Vict.* 1. 26 (20. 22 Joly; 6. 498 Littré).

¹⁹ Hippocr. *Vict.* 1. 29 (24. 1 Joly; 6. 504 Littré).

But men do not understand how to observe the invisible through the visible (οἱ δὲ ἄνθρωποι ἐκ τῶν φανερῶν τὰ ἀφανέα σκέπτεσθαι οὐκ ἐπίστανται). For though the arts they employ are like the nature of man (τέχνησι γὰρ χρεώμενοι ὁμοίησιν ἀνθρωπίνῃ φύσει οὐ γινώσκουσιν), yet they know it not. For the mind of the gods taught them to imitate their own functions (θεῶν γὰρ νόος ἐδίδαξε μιμῆσθαι τὰ ἑωυτῶν), and though they know what they are doing yet they know not what they are imitating (γινώσκοντας ἃ ποιέουσι, καὶ οὐ γινώσκοντας ἃ μιμῶνται).

The epistemological scenario outlined here is one in which the cognitive structure of the arts, which are visible entities, is shaped after men's 'invisible' nature. Gods, the author says, have taught men to imitate τὰ ἑωυτῶν – «their own functions» according to both Jones' English translation and Joly's French translation («leurs propres fonctions»)²⁰ – while having no acquaintance with them. Men, as the author claims, know what they do – that is, they are able to fully exert a cognitive control over their τέχναι (these being understood as systems for the organization and finalization of praxis) – but are not able to decipher the nexus that binds this praxis to its 'physical', and I would say 'physiological', root. Therefore, if one of the basic procedures of human cognition consists of inferring the invisible from the visible, it also happens that, as far as the foundations of knowledge are concerned, the sense of the relation between φανερός and ἀφανής is reversed, since it is the invisible nature that determines and orients the visible τέχναι. Let us look at ch. 12, where a comparison between the τέχνη μαντική and the φύσις is established:

But I will show that arts are visibly like to the affections of man, both visible and invisible (ἐγὼ δὲ δηλώσω τέχνας φανεράς ἀνθρώπου παθήμασιν ὁμοίας ἐούσας καὶ φανεροῖσι καὶ ἀφανέσι). Seercraft is after this fashion. By the visible it gets knowledge of the invisible (τοῖσι μὲν φανεροῖσι τὰ ἀφανέα γινώσκει), by the invisible knowledge of the visible (καὶ τοῖσι ἀφανέσι τὰ φανερά), by the present knowledge of the future, by the dead knowledge of the living, and by means of that which understands not men have understanding – he who knows, right understanding always, he who knows not, sometimes right understanding, sometimes wrong. These things copy the nature and life of man (φύσιν ἀνθρώπου καὶ βίον ταῦτα μιμῶνται): a man by union with a woman begets a child; by the visible he gets knowledge of the invisible that so it will be (τῷ φανερῷ τὸ ἄδηλον γινώσκει ὅτι οὕτως ἔσται). The invisible human intelligence, getting knowledge of the visible (γνώμη ἀνθρώπου ἀφανῆς γινώσκουσα τὰ φανερά ἐκ παιδὸς ἐς ἄνδρα μεθίσταται), changes from childhood to manhood; by the present it gets knowledge of the future.

²⁰ JONES 1931, p. 249; JOLY 1967, p. 13.

Here, the ontological and the cognitive plans are clearly intertwined with each other, as the aim of the divinatory practices is to investigate and predict future events before they happen, that is before their ἐς τὸ φανερόν ἀφικνεῖσθαι is accomplished. Moreover – and this is perhaps the most interesting indication we can draw from this passage – we are once again in the presence of a kind of invisibility – the invisibility of men’s γνώμη – which, paradoxically, allows men to grasp and interact with the domain of the visible things.

2. MAKING MEDICINE VISIBLE: THE RHETORIC OF *PHANERÓN* AND THE FOUNDATION OF THE *TÉCHNE IATRIKÉ* IN *ON ANCIENT MEDICINE*

On Ancient Medicine opens with a strong polemical attack against those who claim to have provided medicine with a solid theoretical foundation by postulating (ὑπόθεσιν αὐτοὶ ἑωυτοῖσιν ὑποθέμενοι) the existence of a unique causal principle (the author informs us that some think of ‘cold’, some of ‘hot’, others of ‘wet’ or of ‘dry’, etc.) with reference to which they think it possible to reduce (ἐς βραχὺ ἄγοντες) and to fully comprehend all the phenomena concerning health and disease²¹. This attempt is labelled as wrong and blameworthy (μάλιστα δὲ ἄξιον μέμψασθαι) by the author of *On Ancient Medicine*, firstly because it seems to programmatically ignore that medicine already has a methodological and theoretical basis that makes it an «existing art» (τέχνης ἐούσης), and whose effectiveness has long been acknowledged and has already granted its practitioners the greatest honours. But the core of the problem is slightly different, and is one of an epistemological nature: by encompassing the complexity of the phenomenal and cognitive domain over which medicine rules under one postulated causal principle, these adversaries of the τέχνη ἐούση act as if medical investigation were directed towards obscure and dubious objects (τὰ ἀφανέα καὶ ἀπορεόμενα), as invisible as the things that are in the sky or under the earth (οἶον περὶ τῶν μετεώρων ἢ τῶν ὑπὸ γῆν)²². Only someone who intends to speak of and account for such things, admits the author, is able and in a sense forced to make use of postulates. However, in the absence of a firm criterion of epistemological reference, it cannot be clear (δῆλα ἂν εἴη), either to the speaker or to the listeners, whether things are actually as it has been postulated. Nor can a clear knowledge and discernment of what is true and what is not true be attained (οὐ γὰρ ἐστι πρὸς ὅ τι χρὴ ἐπανενέγκαντα εἰδέναι τὸ σαφές).

²¹ Hippocr. *VM* 1 (118. 1-119. 11 Jouanna; 1. 570-572 Littré). On the adversaries of the author of *On Ancient Medicine* see LLOYD 1963, JOUANNA 1990, pp. 155-157, SCHIEFSKY 2005a, pp. 112-129, with an in-depth discussion of the possible meanings to attribute to the word ὑπόθεσις.

²² For the definition of τὰ μετέωρα καὶ τὰ ὑπὸ γῆν see JOUANNA 1990, p. 158, and SCHIEFSKY 2005a, pp. 137-139. The latter (p. 137) remarks that «outside of the Aristotelian tradition the term τὰ μετέωρα referred to both celestial and atmospheric phenomena; it was Aristotle who first drew a sharp distinction between astronomy and meteorology, corresponding to his distinction between the celestial and sublunary realms».

The pointlessness for medicine of making use of hypotheses is therefore a result of its subjects being immediately visible, as well as of the existence of a criterion by which each physician can assess the certainty and clarity of the acquired knowledge. Now, the opposition established between medicine and those forms of knowledge that investigate ἀφανέα καὶ ἀπορεόμενα has led a number of scholars to argue that *On Ancient Medicine* is the perfect expression of an empiricist attitude of mind, one which merely accepts the collection and association of experiential data, without any kind of theoretical principle being involved at any stage of the observational process²³. I will make further remarks on the (presumed) empiricism of the author of *On Ancient Medicine*. For the moment, let us continue to focus on the categories of ‘visibility’ and ‘clarity’, considering them in the light of the two argumentative functions they are assigned to²⁴: (1) that of condition and proof, at the same time, of the existence of medicine qua τέχνη; (2) that of epistemic point of reference for the physician's cognitive practice. As I have already remarked, the author represents medicine as a well-established and well-structured form of knowledge, whose constitutive skills and methods are the result of a long tradition of practice and intellectual research²⁵. Nevertheless, as far as its epistemological status is concerned, medicine proves to be quite an atypical and, so to speak, paradoxical kind of knowledge, one which shows clearly a-technical features, even though its discovery did require «much examination and artful contrivance» (πολλῆς σκέψιός τε καὶ τέχνης)²⁶. Let me quote a passage from ch. 4 (123. 9 Jouanna, 1. 578 Littré), in the translation by M. Schiefsky: «But it is not unreasonable if this is not

²³ See HANKINSON 1992, p. 55; BARTON 2005, p. 36 and p. 43; SCHIEFSKY 2005a, pp. 345-359, and 2005b, pp. 69-85. Of special interest is what is stated by MANSFELD 1980, pp. 379-383, on the interplay between empirical observation and theory: «Philosophy not only made the faraway realms of what is in the sky or below the earth cognitively accessible to the speculating and observing mind, but also opened up, on principle, what had been, until then, the mysterious depth of the body. It became possible to theorize about what is going on inside the body, and to look for confirmation among such bodily phenomena as are actually accessible to observation and become truly significant in the light of such theorizing [...] given such a theory, observation became truly possible, without any need for calling in or thinking of forces other than natural as surmised causes for what occurs. Accordingly, it is the enlightened theoretical attitude which makes the enlightened empirical attitude possible, the latter being inextricably bound up with the former».

²⁴ In the treatises there are traces of what one might define as a ‘rhetoric of visibility’: in ch. 2 (120. 1 Jouanna; 1. 572 Littré), the author announces the subject of his own exposition, stating that the reason why the heuristic method propounded by his adversaries has no actual foundation will become clear from this exposition: δι’ ἧς δὲ ἀνάγκας ἀδύνατον, ἐγὼ πειρήσομαι ἐπιδείξαι λέγων καὶ ἐπιδεικνύων τὴν τέχνην ὅτι ἐστίν. Ἐκ δὲ τούτου καταφανὲς ἔσται ἀδύνατα ἔοντα ἄλλως πως τούτων εὐρίσκεται. Cf. ch. 6 (125. 8 Jouanna; 1. 582 Littré): δῆλον τοῦτο τὸ προσενεχθὲν τῇ μὲν νοῦσῳ τροφή τε καὶ αὐξήσις γινόμενον, τῷ δὲ σώματι φθίσις τε καὶ ἄρρωστίη. A similar recourse to the ‘rhetoric of visibility’ is to be found in *Nat. Hom.* as well: see, above all, ch. 1 (δῆλον ὅτι), ch. 9 (φανερὸν ὅτι), and ch. 2, in which the author says that he aims at ἀποφανεῖν ἀνάγκας, and also ch. 5 and 7.

²⁵ Hippocr. *VM* 2 (119. 12 Jouanna; 1. 572 Littré): Ἱητρικῇ δὲ πάλαι πάντα ὑπάρχει, καὶ ἀρχὴ καὶ ὁδὸς εὐρημένη, καθ’ ἣν καὶ τὰ εὐρημένα πολλά τε καὶ καλῶς ἔχοντα εὐρηται ἐν πολλῷ χρόνῳ καὶ τὰ λοιπὰ εὐρεθήσεται, ἢν τις ἱκανός τ’ ἐὼν καὶ τὰ εὐρήμενα εἰδώς, ἐκ τούτων ὀρμώμενος ζητῇ. «But medicine has long since had everything it needs, both a principle and a discovered method, by which many admirable discoveries have been made over a long period of time and those that remain will be discovered, if one who is adequate to the task and knows what has been discovered sets out from these things in his investigation» (transl. Schiefsky).

²⁶ Hippocr. *VM* 4 (123. 12 Jouanna; 1. 580 Littré).

considered an art: for in the case of an art in which no one is a lay person (ιδιώτης) but all are knowledgeable (πάντες ἐπιστήμονες) because they must make use of it, it is not fitting for anyone to be called a professional (τεχνίτην)». What could be seen as a potentially dangerous contradiction and a source of de-legitimization intrinsic to the τέχνη ἰατρική becomes, in *On Ancient Medicine's* argument, the key to the cultural impact of the heuristic approach of the medical art to its own cognitive and operative domain. Medicine is said to represent a sort of continuation and refinement of the methods of dietetics, as the former aims to develop the search for the most suitable regimen for the sick, at a much higher level of complexity and difficulty, by applying the same methods through which dietetics freed mankind from a primitive brutish and savage regimen and discovered a diet for people in good health (*VM* 7, 126. 3 Jouanna, 1. 584 Littré: transl. Schiefsky):

What difference, then, is to be seen between the reasoning of the one who is called a doctor and is agreed to be a craftsman, who discovered the regimen and nourishment of the sick, and that of the person who originally discovered and prepared for all human beings the nourishment we make use of today from that savage and brutish regimen? To me it is evident that the method was identical and the discovery one and the same. The one sought to do away with all those foods which, when ingested, the human constitution in health could not overcome on account of their brutish and unblended character, while the other sought to do away with those foods which each sick person, in whatever condition he happened to be, could not overcome. How, then, does the latter pursuit differ from the former, except that it has more aspects, is more complex, and requires more diligent effort? But the starting point was the former, the one that arose first²⁷.

However, tracing the pre-technical roots of the ἰατρική also allows the author to depict a quite unusual scenario, one in which both the cultural impact of medicine and its peculiarity are strongly emphasized: medicine as an art has developed and, he claims, is still recognizable as a sort of ‘visible space’, an open cognitive domain in which not only the results (as happens in the case of all the other arts), but also the ‘logic of the discovery’ that makes it possible to get to those results is, at least to some extent, accessible to the layman. Consequently, if both the procedures and

²⁷ Τί οὖν φαίνεται ἕτεροῖον διανοηθεῖς ὁ καλούμενος ἰητρὸς καὶ ὁμολογουμένως χειροτέχνης ὃς ἐξεῦρε τὴν ἀμφὶ τοὺς κάμνοντας διαίταν τε καὶ τροφήν ἢ κείνος ὁ ἀπ’ ἀρχῆς, τοῖσι πᾶσιν ἀνθρώποισι τροφήν ἢ νῦν χρωόμεθα ἐξ ἐκείνης τῆς ἀγρίας τε καὶ θηριώδους διαίτης εὐρών τε καὶ παρασκευασάμενος; ἐμοὶ μὲν γὰρ φαίνεται αὐτὸς τρόπος καὶ ἔν καὶ ὁμοῖον τὸ εὔρημα. Ὁ μὲν, ὅσων μὴ ἐδύνατο ἡ φύσις ἢ ἀνθρωπίνη ὑγιαίνουσα ἐπικρατεῖν ἐμπίπτοντων διὰ τὴν θηριότητά τε καὶ τὴν ἀκρησίην, ὁ δὲ, ὅσων ἡ διάθεσις ἐν οἷῳ ἂν ἐκάστοτε ἕκαστος τύχῃ διακείμενος, μὴ δύνηται ἐπικρατεῖν, ταῦτα ἐζήτησεν ἀφελεῖν. Τί δὴ τοῦτ’ ἐκείνου διαφέρει ἀλλ’ ἢ πλέον τό γε εἶδος, καὶ ὅτι ποικιλώτερον, καὶ πλείονος πρηγματείας; ἀρχὴ δὲ ἐκείνη ἢ πρότερον γενομένη.

achievements of medicine belong within a domain of ‘visibility’, then the mistakes and failures of those who postulate hypothetical principles against the right method are also fully ascribable to the same domain. Significantly enough, these adversaries of the ‘ancient medicine’, whom we have already seen in ch. 1, can be defined as people who «are visibly mistaken» (καταφανείς εἰσὶν ἀμαρτάνοντες).

The ‘visibility’ of mistakes varies according to the individual nature of each body, the seriousness of each disease and the difficulty of its treatment. This is what the author sets forth in one of the key passages of the whole treatise – ch. 9 (126. 3 Jouanna; 1. 584 Littré) – by means of an analogical reasoning on the fallibility both of the physician and of the helmsman:

For I think that most doctors are in the same situation as bad helmsmen. These people, when they err while steering in a calm sea, are not revealed; but when a great storm and a driving wind takes hold of them, it is manifest to all that they have lost their ship through ignorance and error. The same holds for bad doctors, who make up the great majority: when they treat patients suffering from a condition that is not serious, patients who would not be seriously harmed even if one were to make the greatest errors – there are many such diseases, and they come upon people much more often than serious ones – in such cases their errors are not evident to laymen. But whenever they meet with a great, powerful, and dangerous disease, then their errors and incompetence are evident to all.

The mistakes made by a helmsman while steering in a calm sea pass unobserved (καὶ γὰρ ἐκεῖνοι ὅταν ἐν γαλήνῃ κυβερνῶντες ἀμαρτάνωσιν, οὐ καταφανέες εἰσὶν), but those which occur during a storm are visible to all (φανερῶς ἤδη πᾶσιν ἀνθρώποισι) and make it clear to everyone (δῆλοί εἰσιν) that he has lost his ship through his own ignorance and incompetence, as is the case with bad physicians: their lack of technical skills and their errors, even the worst or the grossest, are not clear to the layman's eye (ἐν μὲν δὴ τοῖσι τοιούτοισιν ἀμαρτάνοντες οὐ καταφανέες εἰσὶ τοῖσιν ἰδιώτησιν) if these are made while treating minor diseases, but become dramatically evident (τότε σφέων τὰ ἀμαρτήματα καὶ ἡ ἀτεχνίη πᾶσι καταφανής ἐστίν) when they meet with serious, powerful and potentially fatal diseases. For in these cases the consequences of their lack of technical skills (ἀτεχνίη) are immediately perceptible on and, above all, by the sick body. This is what a passage of ch. 8 (127. 1 Jouanna; 1. 586 Littré) plainly suggests: «Take a man suffering from a disease that is neither difficult and unbearable nor again entirely mild, but one in which, if he makes an error in regimen (αὐτέω ἕξαμαρτάνοντι), it will become quite clear to him (ἐπίδηλον ἔσεσθαι)». In this case the author makes use of the rhetoric of visibility not to signify a visual experience, but to refer to a generically perceptual experience. And, most importantly, the

subject of this perception is the patient here, not the physician. The domain of 'what is visible/perceptible' as the domain of the existence of medicine therefore seems to coincide with the ensemble of phenomena, that is of the bodily reactions to the food ingested, whose physiological or pathological character can only be determined in relation to the sensations of the body. This is what the author sets forth in an important, but controversial, passage of ch. 9 (128. 10 Jouanna; 1. 588 Littré) – which I will further discuss – on the importance of aiming at a measure in medicine: «but you will find no measure – nor number nor weight besides», the author claims, «by referring to which you will know with precision, except the feeling of the body» (μέτρον δέ, οὐδὲ σταθμόν, οὐδὲ ἀριθμὸν οὐδένα ἄλλον, πρὸς ὃ ἀναφέρων εἴση τὸ ἀκριβές, οὐκ ἂν εὐροίης ἄλλ' ἢ τοῦ σώματος τὴν αἴσθησιν). This is precisely what makes medicine's cognitive space intrinsically open to laymen's eyes and comprehension, as each patient, as well as each man in good health, is the very first 'experiential subject' of those bodily reactions of which the physician is the 'external' observer. The interplay between the objective/subjective character of visibility is made clear by a number of passages. In ch. 5, the author refers to those patients who visibly (φανερὸν) benefited from a dietary restriction²⁸; in ch. 6, he remarks that «those of the sick to whom gruels are not beneficial [...] if they take dry food, will be harmed ten times more severely and more manifestly (ἐπιφανέστερον) than if they take gruels» [...] because «it is the strongest foods that harm the human being most severely and most manifestly» (ἰσχυρότατα μάλιστα τε καὶ ἐπιφανέστατα), in both health and sickness²⁹; in ch. 13 (134. 3 Jouanna; 1. 598 Littré), he suggests that «the surest and most evident remedy» (τὸ μὲν γὰρ βεβαιότατόν τε καὶ προφανέστατον φάρμακον) for someone suffering from the ingestion of raw food is to do away with the regimen he has been following; finally, in ch. 19 (144. 15 Jouanna; 1. 618 Littré), it is stated that, when patients suffering from yellow bile get rid of this even by purging, «they manifestly get rid of both their pains and the heat» (φανερῶς καὶ τῶν πόνων καὶ τῆς θερμῆς ἀπαλλάσσονται).

Now the time has come to try to determine what these bodily reactions concretely consist of. Ch. 10 (130. 9 Jouanna; 1. 592 Littré) represents a good starting point for such investigation. Here the author discusses what happens to those who cannot easily recover from any deviation from what is beneficial for them, if they accidentally have more or less meals than they are accustomed to in the space of a day:

If they have lunch when it is not beneficial for them, they at once become heavy and sluggish in

²⁸ Hippocr. VM 5 (124. 13 Jouanna; 1. 582 Littré): ἐπεὶ δὲ αὐτοῖσι τοῦτο ἔστι μὲν ὅτε πρὸς τινὰς τῶν καμνόντων ἤρκεσε καὶ φανερόν ἐγένετο ὠφελῆσαν, οὐ μέντοι πᾶσι γε. Cf. Nat. Hom. 9, where reference is made to a regimen which is *manifestly* not detrimental to man.

²⁹ Hippocr. VM 6 (125. 10 Jouanna; 1. 582 Littré).

both body and mind (βαρεῖς καὶ νωθροὶ καὶ τὸ σῶμα καὶ τὴν γνώμην) and are overcome with yawning, drowsiness, and thirst. If they also have a second meal, there is flatulence and colic and violent diarrhoea; for many this turns out to be the beginning of a serious disease [...] On the other hand, if a person is accustomed to having lunch and this is beneficial for him, but he does not do so, as soon as the hour is past he experiences terrible weakness, trembling, and faintness. Hollowness of the eyes follows; his urine becomes more yellow and hotter, his mouth bitter, and his viscera seem to hang; there is dizziness, depression, and an inability to work³⁰.

This passage is in many regards exemplary, as it gives us a perfect idea of how both subjectively and objectively experienceable symptoms can combine as complementary and intersecting elements of a complex clinical picture. On the other hand, the distinction and the interplay between what is subjectively and objectively φανερός within medicine's cognitive domain finds its strongest justification in the author's representation of both the pathological and the physiological processes. He defines (ch. 14) the body as a physical space composed of substances and qualities such as 'salty' (ἀλμυρόν), 'bitter' (πικρόν), 'sweet' (γλυκύ), 'acid' (ὄξύ), 'insipid' (στρυφνόν) and so on. If these qualities, each of which is said to be endowed with a specific property and to be capable of a specific action on the body, are mixed and blended with one another in the body, they are neither manifest nor harmful (ταῦτα μὲν μεμιγμένα καὶ κεκρημένα ἀλλήλοισιν οὔτε φανερά ἐστιν οὔτε λυπεῖ τὸν ἄνθρωπον); but, «if one of them separates off and comes to be on its own, it is both manifest (τότε καὶ φανερόν ἐστιν) and causes the human being pain»³¹. The process that ends in the rupture of the bodily κρᾶσις is thus described (1) as the passage of a quality to its extreme degree (e.g. from the 'sweet' to 'the sweetest'), that is as an internal qualitative modification that causes suffering along with a series of events and alterations affecting the outward features of the body; (2) as a process of 'coming into view' and 'objectivization' of that quality/substance that has come to be on its own, which objectivization consists in the quality flowing out of the body in the form of a secretion and/or excretion³².

Nevertheless, the attempts to establish points of contact between the φανερόν and the ἀφανές and even forms of transition from the latter to the former, do not only result in the identification of a (pathological) process that makes 'manifest' what normally would not be manifest in a body in

³⁰ Οἱ μὲν γάρ, ἦν ἀριστήσωσι μὴ συμφέροντος αὐτοῖσιν, εὐθέως βαρεῖς καὶ νωθροὶ καὶ τὸ σῶμα καὶ τὴν γνώμην χάσμησ τε καὶ νυσταγμοῦ καὶ δίψης πλήρεις· ἦν δὲ ἐπιδειπνήσωσι, καὶ φῦσα καὶ στρόφος καὶ ἡ κοιλίη καραρρήγνυται· [...] Τοῦτο δέ, ἦν ἀριστᾶν μεμαθηκώς τις καὶ οὕτως αὐτῷ συμφέρον μὴ ἀριστήση, ὅταν τάχιστα παρέλθῃ ἡ ὥρη, εὐθὺς ἀδυναμίη δεινή, τρόμος, ἀψυχίη· ἐπὶ τούτοισιν ὀφθαλμοὶ κοῖλοι, οὖρον χλωρότερον καὶ θερμότερον, στόμα πικρόν, καὶ τὰ σπλάγχνα δοκεῖ οἱ κρεμᾶσθαι, σκοτοδινίη, δυσθυμίη, δυσεργίη.

³¹ Hippocr. VM 14 (135. 17 Jouanna; 1. 602 Littré).

³² The word used by the author to indicate these 'shapes' or 'structures' is σχήματα. See JOUANNA 1990, p. 213 n. 1 for an analysis of this notion and a discussion of its possible meanings. With reference to the parts of the body and their role in Hippocratic medicine see GUNDELT 1992.

good health. In ch. 22, we find an analogical argument by which the author illustrates the function of the body's internal shapes and structures³³ by comparing them to objects and tools that are commonly used, and which thus belong within the sphere of 'visibility'. In this case, the transition suggested, one of an inferential kind, is 'from the visible to the invisible' (*VM* 22, 149. 15 Jouanna: καταμανθάνειν δὲ δεῖ ταῦτα ἕξωθεν ἐκ τῶν φανερῶν). In other respects, as far as the physiological and pathological processes of the body are concerned, the boundary line between what is φανερός and what is ἀφανής cannot be abstractly drawn once for all, as its identification largely depends on the individuals' constitutions. Each body, by 're-acting' to and 'inter-acting' with the properties of food in different ways according to its own nature, represents the field in which a variable series of perceptible events 'may' follow one another and correlate with the hidden processes in complex, peculiar, and thus not always predictable, terms. Therefore, what the physician has to cope with is not a static nor a defective domain of 'visibility' that he is expected to correct with theories and abstract hypotheses, but a 'fluctuating area of emergence' whose definition depends both on the interplay between the physician's observation and the patient's feelings and on the shaping influence exerted by medicine on the individual bodily constitutions. It is therefore reductive, at least to my eyes, to claim that the author of *On Ancient Medicine* makes the cognitive domain of medicine purely and simply coincide with (specific regions of) the phenomenal world, in compliance with an empiricist attitude of mind. The epistemological scenario drawn is far subtler, for it implies the possibility, and in many respects the necessity, for medical practice to reshape, extend and redefine the very limits of the phenomenal world, while trying to investigate and cope with it. This aspect of *On Ancient Medicine's* rationale is worthy of further consideration. It is true that in the author's eyes the evolution from primitive nourishment to dietetics and then to medicine was dictated by the specific constitution and sensitivity of the human body. But the other side of the coin is that the very action of dietetics, at first, and of medicine later, seems to have gradually made the human body somewhat more sensitive to the properties of food, as we find explicitly set forth in that section of the treatise (*VM* 3, 121. 15 Jouanna) that looks back over the origins of medicine: «For human beings endured much terrible suffering because of their strong and brutish regimen, consuming foods that were raw, unblended, and possessing great powers – suffering like that which they would experience from these foods today as well, falling into severe pains and diseases followed by a speedy death. Now it is likely that they suffered these

³³ JOUANNA 1990, p. 215 n. 7, has pointed out that «comme les médecins hippocratiques ne pratiquaient pas la dissection sur l'homme, ils étaient obligés de recourir à la méthode analogique, et d'expliquer les phénomènes internes invisibles par les phénomènes externes visibles». As remarked by the same Jouanna, many scholars have connected this method with that which Anaxagoras propounded in his famous dictum (DK 59 B 21a, see above p. 1 n. 1).

things less at that time because of habituation»³⁴. Medicine must therefore have enriched that very peculiar phenomenological space that is the human body with new ‘objects’, that is, with new or at least ‘stronger’ sensations. This of course presents the notion of sensation as a complex ‘fact’, that is as a characteristic or a disposition of the human body that depends on ‘technical’ (and, one could perhaps say, ‘cultural’) as much as on ‘natural’ factors. But it also helps us to better understand what the author means when, in ch. 9 (see above), he says that the ‘feeling of the body’ is the only possible ‘measure of medicine’: the relation between τέχνη ἰατρική and αἴσθησις τοῦ σώματος is not described as one that simply binds a form of knowledge to its source of information and empirical data, but as one that implies a reciprocal structuring influence exerted by medical practice and the bodily power of perceiving.

Moreover, a further consequence of the relativity of the boundaries that can be drawn between τὰ φανερά and οὐ τὰ φανερά in the medical practice is that, paradoxically enough, the effectiveness and thus the existence of medicine as an art are proven and become manifest at the very moment in which the intervention of a medical practitioner recalls the bodily processes to invisibility. This happens when a correct therapy re-establishes the κατὰ φύσιν mélange of properties and qualities that is a condition of health, and whose alteration causes one single element to separate off and become manifest. One could affirm, following Hans Georg Gadamer, that «the expert practice of this art inserts itself entirely within the process of nature in so far as it seeks to restore this process when it is disturbed, and to do so in such a way that the art can allow itself to disappear once the natural equilibrium of health has returned»³⁵.

It therefore seems that, in *On Ancient Medicine's* rationale, categories of thought such as the ‘visible’ and the ‘invisible’, the ‘manifest’ and the ‘hidden’, strictly correlate with the concepts of ‘nature’ and ‘art’, and are even essential to their definition. Actually, the author of *On Ancient Medicine* finds in the ‘rhetoric of visibility’ a tool of extraordinary theoretical effectiveness for clarifying his views on the reality of medicine, which views have been perfectly synthesized by H. Miller, when he remarks that «the ἀρχή and the ὁδός», the principle and the method of medicine, as the author conceives them, «are both completely κατὰ φύσιν and necessary, and thus the established τέχνη, which has the same ἀρχή and ὁδός and has gradually grown out of them, is also κατὰ φύσιν and necessary»³⁶.

³⁴ Ὡς γὰρ ἔπασχον πολλά τε καὶ δεινὰ ὑπὸ ἰσχυρῆς τε καὶ θηριώδους διαίτης ὡμά τε καὶ ἄκρητα καὶ μεγάλας δυνάμιας ἔχοντα ἐσφερόμενοι, οἷά περ ἂν καὶ νῦν ὑπ’ αὐτῶν πάσχοιεν πόνοισί τε ἰσχυροῖσι καὶ νοῦσοισι περιπίπτοντες καὶ διὰ ταχέος θανάτοισιν. Ἦσσον μὲν οὖν ταῦτα τότε εἶκος ἦν πάσχειν διὰ τὴν συνήθειαν, ἰσχυρῶς δὲ καὶ τότε.

³⁵ GADAMER 1996, p. 34.

³⁶ MILLER 1949, pp. 201-202.

3. THE VISIBLE AND THE INVISIBLE IN *ON THE ART*: THE ORIGINALITY OF A META-TECHNICAL DISCOURSE

Like *On Ancient Medicine*, the treatise *On the Art* also represents an attempt – made with rhetorical ability and theoretical as well as methodological awareness³⁷ – to defend the medical art and to demonstrate its existence, epistemological consistency and effectiveness. One could even claim that these two treatises represent the clearest example of ‘Hippocratic’ reflection on the aims, cognitive structure and conceptual tools of the medical art. Moreover, *On the Art* is structured like a sort of meta-technical discourse³⁸, a discourse that draws the general defining traits of the τέχνηαι qua specific forms of knowledge and active intervention on reality.

However, there are also significant differences between *On Ancient Medicine* and *On the Art*, both in terms of structure and of contents. The way in which the adversaries of the medical art are described and stigmatized is patently different: in the case of *On Ancient Medicine*, the author argues against those who aim to provide medicine with hypothetical foundations by singling out one elementary constituent and reducing human nature to this constituent. The clash is therefore between two models of medical knowledge: one, defended by the author of *On Ancient Medicine*, which keeps on the track of tradition; the other, put forward by the adversaries of the Hippocratic author, which explicitly rejects tradition in the attempt to establish a new method (which is wrong, according to our author). The polemical target of *On the Art* is of a completely different kind. Here we do not find the opposition between two conflicting theoretical and/or methodological systems. Rather, as is explained in the first chapter of the treatise³⁹, we have a strong polemic against the detractors of medicine, people who nihilistically deny the existence and effectiveness of the medical art and who have, in fact, specialized in undermining the foundations of all the arts by means of sterile polemics in bad faith⁴⁰. The danger represented by such detractors makes it necessary for the author to provide a sort of apology for the medical art by resorting to all the tools of rhetoric and logical argumentation. With respect to this necessity it is particularly significant – both from the rhetorical and the epistemological point of view – that the two categories of the visible and the invisible play such an important role in the treatise’s whole argument. As in *On Ancient Medicine*, also in *On the Art* these two categories are so important as to characterize both the section in which

³⁷ A philological debate with a variety of contrasting positions has developed for more than a century on the date of composition and the authorship of *On the Art*. It is here worth mentioning GOMPERZ 1910, DUPRÉEL 1948, pp. 242-251, BOURGEY 1953, p. 117, DUCATILLON 1977, pp. 76-83, JOUANNA 1988, pp. 182-183, JORI 1984-1985, and 1996, pp. 23-41.

³⁸ *On the Art* has been defined a ‘meta-technical discourse’ by JORI 1996, pp. 107-108. See also VEGETTI 1964.

³⁹ Hippocr. *de Arte* 1 (224-225 Jouanna; 6. 2 Littré).

⁴⁰ Hippocr. *de Arte* 1 (224. 7-225. 2 Jouanna).

the author shows the proofs of the existence of the medical art and the section in which are defined the methods and the epistemic referent of medicine.

3.1 VISIBILITY AND EXISTENCE OF THE ARTS

Demonstrating the existence of the medical art requires a substantial argumentative effort by the author. This demonstration takes four of the thirteen chapters of the treatise (from ch. 4 to ch. 7)⁴¹. In the second chapter, in particular, the author aims to establish a connection between the existence and the visibility of the technical knowledge by individuating a series of ontological and epistemological principles whose ‘self-evident’ and ‘necessary’ nature he strongly argues for⁴². Here is the text of ch. 2 (225. 9 Jouanna; 6. 4 Littré; translation by Jones, with slight modifications):

Now it seems to me that generally speaking there is no art which does not exist; in fact it is absurd to regard as non-existent one of the things that exist. Since what substance could there be of non-existents, and who could behold them and declare that they exist? For if really it be possible to see the non-existent, as it is to see the existent, I do not know how a man could regard as non-existent what he can both see with his eyes and with his mind think that it exists. Nay, it cannot be so; but the existent is always seen and known, and the non-existent is neither seen nor known. Now reality is known when the arts have been taught, and there is no art which is not seen as the result of some real essence. I for my part think that the names also of the arts have been given them because of their real essences; for it is absurd – nay impossible – to hold that real essences spring from names. For names are conventions, but real essences are not conventions but the offspring of nature.

On the Art's ontological argument stresses, in the first instance, the illogicality (ἄλογον) of arguing for the non-existence of any real entity: real things – and all the τέχναι, including medicine, are real – have a factuality that makes it impossible to think that they do not exist⁴³. In ch. 2 it is stated that the necessity for such a proposition derives from the intrinsically phenomenal nature of reality, as well as from the essential link between the ‘existence’ and the ‘visibility’ of things. Such a link is explicitly postulated through three conceptual passages: 1) it is not possible to ‘contemplate’ and ‘announce’ the factuality of things that do not exist (τῶν γε μὴ ἔόντων τίνα ἂν τις οὐσίην

⁴¹ See JORI 1996, pp. 202-203.

⁴² Scholars have widely discussed this second chapter both with regard to its contents and its argumentative function. GOMPERZ 1910, p. 94, defines it as an ‘ontological excursus’; JOUANNA 1988 and, above all, JORI 1996, pp. 89-90, have convincingly shown, to the contrary, that the ontological argument of the second chapter is far from being incidental with respect to the whole demonstrative structure of the treatise, as it represents an essential premise – the ontological foundations, in fact – on which the whole argument is based.

⁴³ For a discussion of the ‘anti-Eleatic’ function of *On the Art's* argument see JORI 1996, pp. 111-125.

θεησάμενος ἀπαγγείλειεν ὡς ἔστιν); 2) it is not possible to see things that do not exist in the same way as we see things that do exist, because otherwise, if everything were equally visible, we would not have how to distinguish between existent and non-existent things (εἰ γὰρ δὴ ἔστι γε ἰδεῖν τὰ μὴ ἔοντα ὡσπερ τὰ ἔοντα, οὐκ οἶδ’ ὅπως ἄν τις αὐτὰ νομίσειε μὴ ἔοντα ἅ γε εἴη καὶ ὀφθαλμοῖσιν ἰδεῖν καὶ γνώμη νοῆσαι ὡς ἔστιν)⁴⁴; 3) things that exist are ‘always’ seen and known⁴⁵; on the contrary, things that do not exist are neither seen nor known (τὰ μὲν ἔοντα αἰεὶ ὁρᾶται τε καὶ γινώσκειται, τὰ δὲ μὴ ἔοντα οὔτε ὁρᾶται οὔτε γινώσκειται). As a corollary of this argument, the author claims that knowledge is possible only after τέχναι have been taught and that τέχναι, in their turn, become visible according to their specific form (γινώσκειται τοίνυν δεδιδασγμένων ἤδη τῶν τεχνέων καὶ οὐδεμία ἐστὶν ἢ γε ἔκ τινος εἶδος οὐχ ὁρᾶται)⁴⁶.

The whole ontological argument evidently makes a massive use of the vocabulary of vision. It still has to be clarified, however, what function such vocabulary actually has with respect to the author’s theoretical aims. To put the question in other words, we have to determine whether the vocabulary of vision is used in its literal sense to suggest that all the ‘real’ things are also visually discernible (the syntagma ὀφθαλμοῖσιν ἰδεῖν would seem to suggest this first hypothesis), or whether it is used ‘metaphorically’ to indicate a more generic ‘perceptibility’ of the existent. As if this were the case, all the forms of perceptual experience other than sight would be attracted to the semantic domain of vision, whose primacy in many Greek theories of perception is indisputable. As we will soon see, this question cannot be answered without establishing the exact meaning of the term εἶδος in this context, as it is the εἶδος of each τέχνη that is peremptorily indicated by the author as the very object of vision (ὁρᾶν).

Before considering the notion of εἶδος, however, let me briefly analyse the link between ‘seeing’ (ὁρᾶν) and ‘knowing/thinking’ (γινώσκειν/νοεῖν), a link which is clearly acknowledged in ch. 2 of *On the Art*. The problem here is to understand whether the author is making explicit reference to two distinct cognitive activities (one merely perceptual, the other intellectual) or whether we are in presence of a sort of stereotyped formula with which he intends to classify cognition as a whole. Kurt von Fritz has magisterially shown that the meaning of verbs such as νοεῖν and γινώσκειν has a primary perceptual connotation and that only by means of a long series

⁴⁴ On the visibility/perceptibility of non-existent things see GOMPERZ 1910, p. 97, and JORI 1996, pp. 129-132.

⁴⁵ On the meaning of the Greek adverb αἰεὶ in this context see JORI 1996, p. 140: «sia che il medico riesca a risanare un malato, sia che questi guarisca da solo, sia, infine, che l’infermo soccomba alla malattia – giacché gli errori terapeutici testimoniano l’esistenza e l’efficacia della ἰατρικὴ in misura non minore dei provvedimenti giovevoli – in ogni caso, indipendentemente dal contingente variare delle situazioni, emerge di volta in volta, con la medesima chiarezza autorivelatrice, una stessa area dell’esperienza».

⁴⁶ On the teachability of the medical art and the didactic strategies with which the authors of the Hippocratic Corpus address their public see FAUSTI 2010.

of semantic shifts did these verbs come to mean ‘thinking/knowing’ as a purely intellectual and abstract activity⁴⁷. On the basis of considerations like these, Theodor Gomperz had already affirmed that *On the Art*, ch. 2, represents a first attempt to break the primordial identification of the intellectual sphere with the perceptual one. Nevertheless, as Gomperz claims, there was no understanding of the specificity of the intellectual functions, so that all the cognitive processes could be seen as subspecies of vision⁴⁸. This is why, according to the German scholar, the argument of *On the Art* is characterized – and weakened, in fact – by the confusion the author systematically makes between judgments and perceptions⁴⁹.

This analysis, while highlighting the most problematic aspects of *On the Art*'s ontological argument, is nevertheless unable to satisfactorily answer the questions it raises. The problem is not to establish ‘whether’ a distinction between perception and thinking is drawn (which seems to be the case), but ‘what’ kind of distinction is drawn, and according to what epistemological criteria. As a matter of fact, the text does present ὁρᾶν and γινώσκειν/νοεῖν as differentiated activities: they are different both with respect to their physical medium – the former being performed by means of the eyes, the latter by means of the γνώμη –, and to their degree of immediacy: the same thing, which effectively becomes an object of knowledge only after the technical domain within which it belongs has been taught, can however be immediately seen as a consequence of the intrinsically ostensive nature of the εἶδη. Anyway, differentiation does not necessarily mean separation. Separation would imply 1) that the activity of the γνώμη has no points in common with that of the senses; 2) that what comes to be object of γινώσκειν does not coincide with the εἶδη of things⁵⁰.

Analysing ch. 4-6 will allow us to investigate the two questions just raised, that concerning the epistemological status of sight and that concerning the relationship between sight and knowledge. In ch. 4, the author argues against those who blame medicine for therapeutic failures and ascribe the successful cases of recovery to chance⁵¹. The aim is to get to a definition of the

⁴⁷ According to VON FRITZ 1993, p. 23, still in Xenophanes, νοεῖν maintains its original connotation and means «to realize or to understand a situation», while γινώσκειν indicates the vision and identification of a specific object, in opposition with ἰδεῖν, which generically means ‘to see’. On this matter see also ARONADIO 2005, pp. 8-9.

⁴⁸ GOMPERZ 1910, p. 5: «einen ersten Versuch des Sichlosringens von der alten, ja uranföhlichen Identifizierung jener zwei Sphären bezeichnen, ohne daß doch über die spezifische Natur der eigentlich intellektuellen Verrichtungen – des Abstrahierens, des Urteilens usw. – noch irgendwelche Klarheit gewonnen war, so daß alle Erkenntnis-prozesse nur als Unterarten der einen Anschauung erschienen».

⁴⁹ See JORI 1996, p. 137.

⁵⁰ See JORI 1996, p. 138: «Il trattatista non si sofferma a precisare la natura specifica della relazione che si dà, entro l'orizzonte complessivo dell'esperienza, tra la visione e la comprensione intellettuale. In nessun punto del secondo capitolo, e, più in generale, in nessun luogo dell'opera, egli asserisce che la visione di una realtà comporta che quest'ultima sia attualmente conosciuta anche sul piano intellettuale. Per contro, taluni elementi del testo suggeriscono che la seconda forma di conoscenza implica la prima, quale proprio ineliminabile presupposto, e nel contempo rappresenta per essa una sorta di ideale regolativo».

⁵¹ Hippocr. *de Arte* 4 (227. 6 Jouanna; 6. 6 Littré): ἔστι μὲν οὖν μοι ἀρχὴ τοῦ λόγου, ἣ καὶ ὁμολογήσεται παρὰ πάντων. Ὅτι γὰρ ἔτιοι ἐξυγιαίνονται τῶν θεραπευομένων ὑπὸ ἰητρικῆς ὁμολογεῖται. Ὅτι δ' οὐ πάντες,

domain of effectiveness of chance, and to draw a clear distinction between the causal domain of chance and that of the technical knowledge. The author does not intend to reject the notion of τύχη as devoid of meaning (ἐγὼ δὲ οὐκ ἀποστερέω μὲν οὐδ’ αὐτὸς τὴν τέχνην ἔργου οὐδενός). He just claims that τύχη cannot constitute any actual causal principle, but only a ‘superficial and subjective determination’ of both the events (‘good luck’, ‘bad luck’) and the ontological-phenomenological domain within which such events belong. For only the intervention of the medical art can be inscribed in a coherent system of causation (ἔπειτα δὲ καὶ πῶς οἶόν τ’ ἐστὶ τοῖσιν ἐξυγίανθῆσιν ἄλλο τι αἰτιήσασθαι ἢ τὴν τέχνην εἴπερ χρεώμενοι αὐτῇ καὶ ὑπουργέουτες ὑγιάνθησαν;). Furthermore, when they turn to medicine and its therapeutic strategies, sick people show their unwillingness to behold nothing but «the nude reality of τύχη (τῆς τύχης εἶδος ψιλόν)», «for in that they committed themselves with confidence to the art, they thereby acknowledged its reality (τὸ εἶδος ἐσκέψαντο), and when its work was accomplished they recognized its power (τὴν δύναμιν περανθέντος τοῦ ἔργου ἔγνωσαν)»⁵².

What the author states about τύχη and τέχνη allows us to understand that, in this rhetorical/epistemological context, εἶδος does not necessarily indicate a form graspable through the eyes but any manifestation of reality experienceable through the senses: if even τύχη, whose existence is confined to the subjectiveness of mental representations, has an εἶδος, it is implausible to think that this εἶδος is a concrete form perceptible through the eyes⁵³. Now, this εἶδος is defined as ‘nude’ as it does not result from – and does not reflect – any δύναμις. But how can the δύναμις of a thing that exists be defined? According to the author of *On the Art*, a δύναμις is the power of each thing to cause the emergence and transformation of other things, and it is also the specific object of that cognitive activity defined as γινώσκειν. Εἶδος and δύναμις thus seem to be different but intersecting concepts. The problem, therefore, is to exactly define the terms of this difference, as both these notions indicate «la proprietà specifica di una realtà e, parallelamente, la forma peculiare della sua presenza, del suo collocarsi nella visibilità. È naturale e anzi inevitabile, pertanto, che i termini Εἶδος e δύναμις siano equivalenti» (Jori 1996, p. 149)⁵⁴. Actually, Jori’s approach to the matter seems excessively *tranchant*, as is proven by the fact that the existence of εἶδη (like τύχη) devoid of any δύναμις is accepted, which imposes a kind of shift between these two concepts. Far more convincing are the considerations put forward by H. von Staden when he stresses that the Hippocratic physicians were already able to discern between the Εἶδος and the δύναμις of a thing,

ἐν τούτῳ ἤδη ψέγεται ἡ τέχνη, καὶ φασιν οἱ τὰ χεῖρω λέγοντες διὰ τοὺς ἀλίσκομένους ὑπὸ τῶν νοσημάτων τοὺς ἀποφεύγοντας αὐτὰ τύχη ἀποφεύγειν καὶ οὐ διὰ τὴν τέχνην.

⁵² Hippocr. *de Arte* 4 (227. 17 Jouanna; 6. 6 Littré).

⁵³ On the notion of εἶδος in the ancient Greek thought and especially in the medical texts see TAYLOR 1911, pp. 178-267; GILLESPIE 1912, pp. 179-203; ELSE 1936, pp. 17-56, FRONTEROTTA - LESZL 2005.

⁵⁴ See also KUCHARSKI 1939, p. 335. *Contra* see GOMPERZ 1910, p. 100.

and thus «between its visible, external form or appearance and its invisible but inferentially knowable powers, capacities and susceptibilities. Δύναμις thus has strong ontological and epistemological implications, too: through its effects, it can lead us beyond the surface, beyond the external appearances and visible forms or shapes or ἰδέαι of things»⁵⁵.

It seems to me that, when speaking of Εἶδος and δύναμις, the author of *On the Art* implies the existence of two different forms of cognitive relationship through which a subject can have access to a class of phenomena. This is clearly shown if we consider what the author defines as the εἶδος of medicine: it consists of a collection of particular εἶδη, i.e. of all the therapies and precepts that a physician can adopt according to the circumstances⁵⁶. These εἶδη cover the whole ontological-phenomenological domain in which man lives, and they all have a δύναμις, which is the power to produce this or that effect, or to exert this or that influence on the body. For each of these forms of therapeutic intervention the physician must know in which cases its specific influence is beneficial to the body (which thing determines the correctness of its prescription), and in which cases it is not⁵⁷. The correctness of a prescription is therefore the result of the knowledge of the εἶδη and the δυνάμεις. But what does the knowledge of the δυνάμεις exactly consist of? During the observation, a physician has to deal with two classes of phenomena: the first includes all the things endowed with therapeutic properties; the second includes all the possible bodily reactions to those properties. The physician must be able to establish a web of relations that makes it possible to connect each physiological phenomenon and/or somatic reaction to a τί – φάρμακον, κάθαρσις, διάθεμα – that provides a causal explanation for the emergence of that phenomenon or of that reaction. However, the causal explanation the physician is expected to put forward does not reveal ‘how’ a δύναμις has produced this or that effect (which will be possible only when anatomy and pathology combine with each other in XIX century), but is aimed to suggest ‘why’ a certain effect has become manifest in concomitance with certain others phenomena⁵⁸. If ‘how-like’ questions aim to trace hidden mechanisms behind phenomena, ‘why-like’ questions aim to grasp the sense of phenomena. According to this theoretical framework, a physician is the cognitive agent who engenders this process of signification.

⁵⁵ VON STADEN 1998, pp. 268-269.

⁵⁶ See Hippocr. *de Arte* 5 (229. 1 Jouanna; 6. 8 Littré): ἡ γὰρ ἀσιτία ἢ πολυφαγία, ἢ τοῦτω πλεονίη ἢ δίψη ἢ κουτροῖσιν ἢ ἀλούσιη, ἢ πόνοισιν ἢ ἡσυχίη, ἢ ὕπνοισιν ἢ ἀγρυπνία, ἢ τῆ ἀπάντων τούτων παραχῆ χρεώμενοι ὑγιάνθησαν; 6 (230. 13 Jouanna; 6. 10 Littré): οὐκ ἔστιν ἔτι οὐδεὶ τῶν ἀνευ ἰητροῦ ὑγιαζομένων τὸ αὐτόματον αἰτιήσασθαι ὀρθῶ λόγῳ.

⁵⁷ Hippocr. *de Arte* 5 (229. 11 Jouanna; 6. 8 Littré): τὰ μὲν γὰρ ὠφελήσαντα τῷ ὀρθῶς προσενεχθῆναι ὠφέλησε, τὰ δὲ βλάψαντα τῷ μηκέτι ὀρθῶς προσενεχθῆναι ἔβλαψε.

⁵⁸ For a distinction between ‘how-like’ and ‘why-like’ questions in biology see DELSOL 1989, pp. 13-15, and MAYR 1997, pp. 165-220.

Hence, the shift between the εἶδος and the δύναμις of a thing does not necessarily imply an ontological distinction between the two categories of the ‘phenomenal’ and the ‘infra-phenomenal’, but a cognitive one between a thing considered as absolute and the same thing considered as part of a relation between entities and events. The same, the passage from ‘seeing’ (ὁρᾶν) to ‘knowing’ (γινώσκειν) is to be understood as an attribution of sense to perceptual experience⁵⁹. If this were not the case and the activity indicated by the verb γινώσκειν were looked at as a pure expression of abstract reasoning, it would not be possible for laymen to attain any kind of knowledge, which the author does not concede at all. In fact, even a layman who became sick and recovered ‘spontaneously’ without the intervention of a physician has the cognitive ability to understand what he was doing when he recovered and thus to develop a sort of pre-technical knowledge about medical matters. Such a layman, claims the author, would normally be unable to trace the causal nexuses that rule over things; nevertheless, he actually gets to some kind of causal knowledge as a consequence of his making sense out of his own experience⁶⁰.

3.2 THE EPISTEMIC OBJECT OF THE MEDICAL ART

In the second part of *On the Art* (especially in ch. 9-12) we find an attempt to define the epistemic object of medicine, and the categories of the visible and the invisible also play a key-role in the author’s argument in this case. In ch. 9 (234. 13 Jouanna; 6. 16 Littré) a fundamental distinction is drawn between diseases that are immediately evident to a clever observer and other diseases that are not: «Men with an adequate knowledge of this art realise that some, but only a few, diseases have their seat where they can be seen (τὰ μὲν τῶν νοσημάτων οὐκ ἐν δυσόπτῳ κείμενα); others, and they are many, have a seat where they cannot be perceived (τὰ δὲ οὐκ ἐν εὐδήλῳ)». Once again the author clearly makes use of the rhetoric of visibility. Nevertheless, the definition through which he accounts for τὰ φανερά τῶν νοσημάτων in ch. 10 suggests that the rhetoric of visibility

⁵⁹ The very fact that almost all the εἶδη – the natural as well as the artificial – belong within the domain of the medical art proves that there is no absolute identity between the εἶδος and the δύναμις of a thing: although fire, for example, is an εἶδος of medicine, it is nonetheless the εἶδος of other activities. However, only in relation to the operational domain of medicine, does fire have a specific δύναμις (e.g. that of cauterizing wounds). The εἶδος of a thing thus remains invariable, while its δύναμις is constantly determined and re-determined in relation to the sphere of knowledge and activity to which it is connected. Cf. CAMBIANO 1991, p. 69: «Se la delimitazione di un’arte è operata in riferimento a un preciso insieme di oggetti, questi oggetti vengono a costituire l’unità di misura delle procedure di una tecnica e le condizioni di applicabilità dei suoi strumenti. Un’analisi degli strumenti di una tecnica deve, dunque, vertere più che sulla loro intrinseca struttura, sulla loro funzione rispetto all’oggetto al quale si riferiscono, per controllare in che misura l’oggetto permetta e giustifichi l’impiego di tali strumenti».

⁶⁰ Hippocr. *de Arte* 5 (228. 8 Jouanna; 6. 8 Littré): δοκεῖ δέ μοι οἶόν τε εἶναι καὶ ἰητρῶ μὴ χρωμένους ἰητρικῇ περιτυχεῖν, οὐ μὴν ὥστε εἰδέναι ὅ τι ὀρθόν ἐν αὐτῇ ἔνι ἢ ὅ τι μὴ ὀρθόν, ἀλλ’ ὥστε ἐπιτύχοιεν τοιαῦτα θεραπεύσαντες ἑωυτοὺς ὁποῖάπερ ἂν ἐθεραπεύθησαν εἰ καὶ ἰητροῖσιν ἐχρέωντο [...] πολλὴ ἀνάγκη καὶ τοὺς μὴ χρωμένους εἰδέναι ὅτι ἢ δρῶντές τι ἢ μὴ δρῶντες ὑγιάνθησαν [...] καὶ τῷ ὠφελῆσθαι πολλὴ ἀνάγκη αὐτοῦς ἐστὶν ἐγνωκέναι ὅ τι ἦν τὸ ὠφελῆσαν, καὶ εἴ τί γ’ ἐβλάβησαν, τῷ βλαβῆναι, ὅ ψι ἦν τὸ βλάψαν.

does not in any way imply an empiricist epistemology reductively based on sight. Diseases whose seat is not difficult to see are those that «develop on the skin and are easily perceivable both for the colour and the swelling (τὰ μὲν ἐξανθεῖντα ἐς τὴν χροίην ἢ χροίῃ ἢ οἰδήμασιν ἐν εὐδήλω)»⁶¹. When observing these pathological phenomena – consisting in forms of efflorescence, excrescence and cutaneous eruptions – the physician can effectively appreciate superficial features like colour, warmth, hardness, softness, by means of an integrated sensorial system that primarily combines sight and touch (παρέχει γὰρ ἑωυτῶν τῇ τε ὄψει τῷ τε ψαῦσαι τὴν στερεότητα καὶ τὴν ὑγρότητα αἰσθάνεσθαι, καὶ ἅ τε αὐτῶν θερμὰ ἅ τε ψυχρά, ὧν τε ἑκάστου ἢ παρουσίῃ ἢ ἀπουσίῃ τοιαυτ' ἐστίν).

As regards diseases οὐκ ἐν εὐδήλω, in ch. 10 they are defined as «those that are 'less visible' (τὰ ἥσσον φανερά)» in clear opposition with visible affections (τὰ φανερά τῶν νοσημάτων)⁶². The author, therefore, seems not to consider the invisibility of certain diseases as absolute⁶³. These diseases, far from not belonging within the phenomenal world at all, are just *less* visible than others: they, too, are part of an ontological and cognitive domain whose distinctive traits are transformability (from the ontological point of view) and their possibility of being known (from the cognitive point of view). Hence, it is not by chance that the affections defined as ἄδηλα are subject to the power of the τέχνη ἰατρική both in consequence of the patients' nature, which is available to be investigated (αἱ τε τῶν νοσεόντων φύσεις ἐς τὸ σκεφθῆναι παρέχουσιν), and of the physicians' nature, which is naturally inclined to investigate (αἱ τε τῶν ἐρευνησόντων ἐς τὴν ἔρευναν πεφύκασιν). These affections are explicitly referred to as objects of γινώσκειν⁶⁴: what cannot actually be seen through the eyes (ὅσα γὰρ τὴν τῶν ὀμμάτων ὄψιν ἐκφεύγει) can be controlled through the eyes of mind (ταῦτα τῇ τῆς γνώμης ὄψει κεκράτηται). The epistemological implications of such an assumption are extraordinarily important, but also very problematic are questions it raises: what nexus is here established between sight and that kind of intellectual sight designated by the syntagma τῇ τῆς γνώμης ὄψει? Is this a postulation of the separation between the sphere of perceptual experience and that of reasoning or, on the contrary, does the author refer to a process of integration between cognitive activities that are different but not dichotomously separated?⁶⁵

⁶¹ Hippocr. *de Arte* 9 (234. 16 Jouanna; 6. 16 Littré).

⁶² Hippocr. *de Arte* 10 (235. 10 Jouanna; 6. 16 Littré).

⁶³ Admitting the complete invisibility of certain diseases would make the author's argument patently contradictory, as in ch. 2 he had argued that all existent beings are visible/perceptible and knowable.

⁶⁴ Hippocr. *de Arte* 11 (237. 9 Jouanna): μετὰ πλείονος μὲν γὰρ πόνου καὶ μετ' ἐλάσσονος χρόνου ἢ εἰ τοῖσιν ὀφθαλμοῖσιν ἑωρᾶτο, γινώσκεται.

⁶⁵ Hippocr. *de Arte* 11 (237. 16 Jouanna): ὁ μὲν γὰρ ἐπεὶ οὐκ αὐτῷ ὄψει ἰδεῖν τὸ μοχθέον οὐδ' ἀκοῇ πυθέσθαι, λογισμῷ μετήξει.

In order to answer these questions, we have to consider that 1) in the second part of the treatise the reference to sight also alludes to a more general reference to sense perception: all those phenomena that appear on the surface of the body and are observable by means of a complex sensorial system comprehensive of sight and touch are defined as φανερά; 2) the very notion of ‘sight of the mind’ (ὄψις γνώμης) suggests that all kind of knowledge attainable through this specific form of sight is perceptual or, at least, has perceptual roots; 3) nowhere in the treatise does the author affirm that the affections defined as ἄδηλα are not visible at all⁶⁶, but only that observing them takes more time and requires more sophisticated and time-consuming strategies of investigation. What are these strategies is made clear in ch. 12 (240. 1 Jouanna; 6. 22-24 Littré):

Now medicine, in cases of empyema, and of diseases of the liver, kidneys, and the cavities generally, from seeing with the sight with which all men see everything most perfectly (ἀπεστερημένη τι ἰδεῖν ὄψει ἢ τὰ πάντα πάντες ἰκανωτάτως ὀρώσιν), has nevertheless discovered other means to help it. There is clearness or roughness of the voice (φωνῆς τε γὰρ λαμπρότητι καὶ τρηχύτητι), rapidity or slowness of respiration (πνεύματος ταχυτήτι καὶ βραδυτήτι), and for the customary discharges the ways through which they severally pass, sometimes smell, sometimes colour, sometimes thinness or thickness furnishing medicine with the means of inferring (τὰ μὲν ὀδμησι τὰ δὲ χροίησι τὰ δὲ λεπτότητι καὶ παχύτητι διασταθμωμένη τεκμαίρεται), what condition these symptoms indicate, what symptoms mean that a part is already affected and what that a part may hereafter be affected.

It is clear from this passage that intellectual sight consists in the capacity to make conjectures (τεκμαίρεσθαι) but it is not an abstract form of reasoning nor is it independent from senses. Rather, it must be considered as a rational as well as perceptual way of knowing that organizes and makes sense out of reality by establishing causal nexuses between things and events. The author makes explicit reference to all the senses: hearing (by which the physician can perceive and assess, for example, the quality of the voice and the rhythm of breath), smell, sight and touch, in relation, respectively, to the odours, colours and the density of the fluids coming out of the body. With respect to this variety of data provided by sense perception, the ‘sight of the mind’ represents a rational activity of reconfiguration of the phenomenal world (at least of that portion on which the physician focuses his attention) through which events and phenomena are ordered in accordance with the rules of causation. However, localizing the objects of the ‘sight of the mind’ (which we

⁶⁶ Three times in ch. 12 the verb ὀρᾶν is used with reference to the hidden nature of the affections so-called ἄδηλα: see p. 237. 13 Jouanna: ὅσα δὲ ἐν τῷ μὴ ταχὺ ὀφθῆναι οἱ νοσέοντες πάσχουσιν; p. 238. 11 Jouanna: ἡ φύσις... ἦν μὲν διεξαρκέση ἐς τὸ ὀφθῆναι, ἐξαρκέσει καὶ ἐς τὸ ὑγιαυθῆναι, ἦν δὲ ἐν ᾧ τοῦτο ὀρᾶται κρατηθῆ... οἰχήσεται.

could also define as a sort of second-level vision) is far more difficult than in the case of the ‘sight of the eyes’ (whose specific objects are ‘superficial’ affections), as the whole body becomes a potential source of *σημεῖα*⁶⁷, and ‘all’ the somatic phenomena externally perceivable can potentially reveal a hidden pathological process⁶⁸.

Roberto Lo Presti

Humboldt-Universität zu Berlin
 Institut für Klassische Philologie
 Unter den Linden 6
 D – 10099 Berlin
 e-mail: roberto.lo.presti@hu-berlin.de

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⁶⁷ Hippocr. *de Arte* 12 (241. 7 Jouanna; 6. 26 Littré): ἕτερα μὲν οὖν πρὸς ἐτέρων καὶ ἄλλα δι' ἄλλων ἐστὶ τὰ τε διόντα τὰ τ' ἐξαγγέλλοντα, ὥστε οὐ θαυμάσιον αὐτῶν τὰς τε πίστεως χρονιωτέρας γίνεσθαι τὰς τ' ἐγχειρήσιας βραχυτέρας, οὕτω δι' ἄλλοτρίων ἐρμηνειῶν πρὸς τὴν θεραπεύουσαν σύνεσιν ἐρμηνευομένων.

⁶⁸ JORI 1996, p. 277.

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