THE AMBIGUOUS ROLE OF PERCEPTION
Empiricist views and biological perspectives on sense perception among the Hippocratics

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ABSTRACT

Despite the connections between perception and knowledge in Hippocratic medicine, what still remains unclear is the way in which these are structured and how they arise in relation to each other. It is this shadowy area that I plan to address in my paper, dealing with the ways in which the connection between perception and knowledge has been interpreted, and analysing the reception of some Hippocratic passages in which this link has been identified, without, however, revealing its epistemological structure.

My aim is, in the first instance, to argue against an empiricist representation of Hippocratic views on sense perception and, in the second instance, to show the biological root of aisthesis, which combines physiology, theories of cognition and epistemological function, as found in Hippocratic representations.

There is a long tradition that has portrayed what we define as 'Hippocratic medicine' as a form of medical knowledge based on sense perception and one which attributes the greatest importance to observation. Nonetheless, despite the connections between perception and knowledge in the Hippocratic treatises, what still remains unclear is the way in which these are structured and how they arise in relation to each other.

It is this shadowy area that I plan to address in my paper. In the first part, I shall look, per exempla, at interpretations from both ancient commentaries in Hippocrates' works and modern scholars, dealing with the ways in which the link between perception and knowledge has been interpreted, and analysing the reception of some passages (In the Surgery, ch. 1; Epidemics 6.8.17; On Ancient Medicine, ch. 9) in which this link has been identified, without, however, revealing its epistemological structure. In the second part, I will explore the notion of 'forms of perception', σχήματα aisthēseos, as defined in ch. 23 of On Regimen, and discuss more briefly other relevant passages from the Corpus. My aim is to show the biological root of aisthesis, which combines physio-
logy, theories of cognition and epistemological function, as found in Hippocratic representations.

Ia

I shall start off by quoting In the Surgery, ch.1, which has been seen by both the tradition and modern scholars as a cornerstone of the Hippocratic method:

what is like or unlike (ἡ ὁμοια ἢ ἀνόμοια), beginning with the most marked signs and those easiest to recognize, open to all kinds of investigation (ἀπὸ τῶν μεγίστων, ἀπὸ τῶν ρητῶν, ἀπὸ τῶν πάντως γνωσκομένων): things which can be seen, touched and heard (ἀ καὶ ἴδειν, καὶ θυγεῖν, καὶ ἀκοῦσαι ἔστιν); things which are open to all our senses, sight, touch, hearing, the nose, the tongue and the understanding (ἀ καὶ τῇ ἴδει, καὶ τῇ ἄφη, καὶ τῇ ἀκοῇ, καὶ τῇ ὑπό, καὶ τῇ γλώσσῃ, καὶ τῇ γνώμῃ ἔστιν αἰσθησαι); things which can be known by all our sources of knowledge (ἀ, ὅς γνώσκομεν ἀπασιν, ἔστι γνώσαι).1

Galen’s commentary provides a detailed discussion of this passage. I will pass over Galen’s analyses of the notions of ὁμοια and ἀνόμοια and emphasize that, according to this Hippocratic writer, similarities and dissimilarities must be observed through the use of both (what we might define) ‘the senses’ and ‘reason’, although, as I will argue, they are not distinguished as such by the Hippocratic author himself.

Actually, the recommended method is conveyed by means of a syntax characterized by accumulations and pleonasm. It is Galen himself who first raises the issue, pointing out that detailed research (ἐξής ἐξής) had been carried out into why no mention is made, in the first instance, of the senses of smell and taste (ὅδε τί δὲ τῶν ῥυθῶν καὶ τῆς γλώττης αἰσθησεῖν ἑαυτῷ πρῶτον οὐ μιμομένωσα), and why immediately afterwards the five senses are mentioned again together with reason (ἐξής τῶν πέντε μετὰ τῆς γνώμης ἐρημομένωσα).2

Galen expounds various explanations proposed by other exeges, but – as pointed out by Littre – ‘quant à sa propre opinion, il ne l’exprime pas; il engage le lecteur à examiner les explications mises sous ses yeux, et à choisir celle qu’il jugera préférable.’3 Despite this, the very fact that the claim was made that amongst a series of possible interpretations there are some which

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1 Hipp. Off. 1 (3.272 Littre; 2.30 Kw.; 3.58 Withington).
2 In Hipp. Off. Med. comment. 18/2.650 Köhn.
3 Littre 1839-1861, 3.274.
are not plausible nor worthy of mention (τὰ μὲν ἀπίθανα καὶ ἄναξια μνήμης) allows us to include the extant interpretations – πίθανα καὶ μνήμης ἄξια – within an exegetic horizon which is essentially harmonious and even representative of the Galenic perspective.⁴

According to the first of the exegeses mentioned,⁵ considered not unreasonable (οὐκ ἄλογος) by Galen himself,⁶ Hippocrates would first have referred only to three sensorial spheres by way of an example; at a later time, when his reasoning moved from the ‘simple and elementary objects of senses’ to the ‘substances’, he would then mention all the senses along with reason, since ‘it is expedient for a physician to diagnose disease from the observation of what is like or unlike, at times comparing only simple qualities (τῶν ἀπλῶν ποιοτήτων), at times comparing bodies in their entirety (ὅλων τῶν σωμάτων).’⁷

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⁴ In Hipp. Off. Med. comment. 18/2.650 Kühn: καὶ δὴ καὶ ἀλεξταί πολλοίς τὰ μὲν ἀπίθανα καὶ ἄναξια μνήμης, τὰ δὲ πίθανα καὶ μνήμης ἄξια, τῆς ἀρχῆς ποιησιμένου ἐνθέους. As pointed out by Manetti-Roselli 1994:1558, in connection with the ‘programmatic manifesto’ in which, in his preamble to the Comment on Fractures, Galen explained the purpose of his commentaries on the Hippocratic writings, ‘Galeno propone un commento neutrale, destinato esclusivamente alla chiarificazione di quanto è oscuro; è un proposito serve a collocare colui che se ne fa portatore in una posizione di autorevolezza, al di fuori della polemica (…) apparentemente un progetto di profilo basso; tuttavia, esso risulta di fatto non realizzato fin dall’inizio; subito Galeno precisa che nulla impedisce di affrontare con misura anche la valutazione della veridicità del testo, pur di evitare l’eccesso di un atteggiamento agonistico e oltranzista.’ Cf. also Roselli 1999:361: ‘in the commentaries, the medical doxai have diversified functions, supporting the rhetorical framework or shaping the argumentative structure of his text.’ As was later also noted by Manetti-Roselli 1994:1570, the commentary on In the Surgery belongs to that group of commentaries destined for a wide circulation and therefore features a greater wealth of references, both implicit and explicit, to the tradition preceding Galen. On the style of Galenic commentaries in Hippocratem see also the contribution of Manuli 1984.

⁵ The doxa referred to by Galen is based on the gnoseological distinction between simple qualities and ‘substances’ and implies the establishment of a hierarchically structured ontology of the two faculties, that of perception (used in the recognition process of simple qualities) and the cognitive-rational faculty (capable of synthesizing and combining all that which might be perceived by the senses). A distinction of this sort is formalized in Theaetetus by Plato in the doctrine on the body and its sense organs, or rather those organs whose functions are dictated by the soul, the only centre of knowledge capable of ‘perceiving’ substance, what is like and unlike, identity and difference (Th. 184c and 185c-d).

⁶ In Hipp. Off. Med. comment. 18/2.652 Kühn.

⁷ In Hipp. Off. Med. comment. 18/2.652 Kühn: ἄτε μὲν οὖν εἶπεν Ἡπποκράτης, ἃ καὶ ἑαυτὸς καὶ ἠγεῖται ἑαυτῷ, ὡς ἐν παραδείγματος μόρᾳ μνημοκεισάι
According to another δόξα, the senses are mentioned twice in reference to different subjects, namely the physician who uses them whilst carrying out his observation, and the patient who, through alterations in his own sensorial perceptions and his own γνώμη, provides the physician with subject matter for his analysis, which consists in comparing the perceptions of healthy people with those of the sick person. Nonetheless, others claim that the γνώμη mentioned here is that of the physician, through which he is able to rationally elaborate a diagnosis on the basis of information provided by a sick body.

In a few words, what we can affirm is that the δόξα discussed by Galen ascribe only the γνώμη of the physician with authentic cognitive function, and hence it is only the physician who, armed with his skills in making a
synthesis of the *percepta*, is recognized as able to make medical knowledge eventually arise.\(^{10}\)

Clearly, I am not seeking to establish here whether one – and, in that case, which – of these *doxai* represents the correct interpretation of ch. 1 of *In the Surgery*, but rather to outline the theoretical horizon inside which they might be justified and combined. What we can say is that all these interpretations reveal an intellectualistic conception of the connections between perception and knowledge. Equally intellectualistic is the supposition on the basis of which Hippocrates 'would not have described the same thing making reference, firstly, to the acts of ‘seeing’, ‘touching’, ‘hearing’ and, secondly, to the act of ‘perceiving’ by means of sight, touch and hearing, since it is possible to see, hear and touch without ‘comprehension’ (μη καταληπτικῶς), whilst it is not possible to ‘perceive’ μη καταληπτικῶς.\(^{11}\) Besides, such an interpretation would make of the Hippocratic writer a sort of *avant-litre* advocate of some principles of Stoic empiricism (amongst which the notion of κατάληψις)\(^{12}\) merged with Galenic epistemology.\(^{13}\)

\(^{10}\) On the other hand, despite one of the Galenic sources admitting the reference to the γνώμη of the sick person as one of the various objects of diagnostic investigation, this still has no bearing on the overall interpretation of the passage: the αἰσθήσεως and, eventually, the γνώμη of the sick person are presumed, in any case, not to partake in the cognitive act of which they would exclusively represent the mere object.

\(^{11}\) Cf. 18/2.654 Kühn: οὐ τὸ αὐτὸ σημαίνεσθαι φασιν ἐκ τοῦ φασιν καὶ ἰδεῖν καὶ θυγεῖν καὶ ἀκοῆσαι ἠστὶ, τῷ καὶ τῇ διέγει καὶ τῇ ἀκοῇ καὶ τῇ ἀφή ἐστιν αἰσθάνεσθαι. ίδεῖν μὲν γὰρ ἠστὶ καὶ θυγεῖν καὶ ἀκοῆσαι μὴ καταληπτικῶς, αἰσθάνεσθαι δὲ οὐκέτι μὴ καταληπτικῶς (They say that it does not mean the same to say, on the one hand, that it is possible to see, touch and hear, and say, on the other hand, that it is possible to perceive by means of sight, hearing and touch, since it cannot happen to see, touch and hear without comprehension, but it cannot happen to perceive without comprehension).

\(^{12}\) Cf. Zeno Citius [A]68[2] (Stobaeus, *Ed. 2*, p. 73, 19 W): εἶναι τὴν ἐπιστήμην καταληψίν ἀοφαλὴ καὶ ἀμετάπτωτον ὑπὸ λόγου (‘science is a definite understanding and one beyond confutation’).

\(^{13}\) Besides, it is no coincidence that Galen himself on the one hand rejects the objection that Hippocrates had misused the verb αἰσθάθησα using it in reference to the γνώμα (cf. 18/2.655 Kühn: συγκεκρήσθαι γὰρ φησι τῇ τοῦ αἰσθάθησα φασίν τῶν ἱπ- 

ποκράτην κατά τῆς γνώμης) and thus overlapping the somatic sphere of aisthesis with the mental one, and on the other hand observes, *more tautum*, that the Hippocratic author ‘mentioned all the senses together with reason, making his account infallible and solid, since all the senses share the capability of comprehending the shapes of things’ (ἀπὸ τῶν ἐνομίσαν μετὰ τῆς γνώμης, ἀοφαλὴ καὶ 

βέβαιον τὴν ἀπόφασιν πολύμενος, ἐπειδὴ πᾶσαι ὑπάρχει καῦμα, τὸ κατα- 

ληπτικῶς τῶν ὑποκειμένων ἑνομασσάθαι τὰς ἱδέας, 18/2.655 Kühn). Note the
Now, though we may disregard the hazardous hypothesis that the writer of *In the Surgery* was a forerunner of Stoic epistemology, nevertheless we must account for the underlying theme running through all the δόξαι, since they are based on epistemological categories which display a clear distinction between 1) the ‘acquisitive’ role with which the body and the sense organs as part of it are attributed and the ‘processing’ role which is the exclusive domain of the gnome; 2) the simple and – to use Julia Annas’ definition\(^{14}\) – *hormetic* nature of sensations, and the synthetic and comprehensive (τὸ καταληπτικὸς αἰσθάνεσθαι) nature of rational knowledge; 3) the ‘instrumental’ function of the body and the centralizing and upper intellectual function of the gnome.

Ib

It is now time to widen the spectrum of this analysis, turning to *Epidemics* 6.8.17:

\[τὸ σῶμα ἔργον ἐσ τὴν σκέψιν ἁγείν, ὄψις, ἀκοή, ὑπόσημα, ἀφή, γλῶσσα, λογισμὸς [καταμιμηθάνει].\(^{15}\)

If compared to ch. 1 of *In the Surgery*, this aphoristic sentence raises issues (two, at least) of a similar nature: the first, regarding the meaning attributed to the syntagm τὸ σῶμα ἔργον ἐσ τὴν σκέψιν ἁγείν; the second, regarding the structure of ‘cognition’, since an element like ‘reasoning’ (in Greek, λογισμὸς), which according to modern categories of psychology we might not ascribe, in the strictest sense, to the sphere of αἰσθήσεις, appears alongside the five senses and, what is noteworthy, seems not to be distinguished from them as to its cognitive function.

The terms of the first issue have been set out by Littré, observing that ‘on donnait deux sens à cette phrase: 1) le médecin soumet le corps du malade à l’examen; 2) le médecin emploie son propre corps à l’examen du malade.’\(^{16}\) In both instances, the structure of the relationship between physician and patient relies on the presence of an observer and an observed party. Nevertheless, whilst the first exegetic option, when accepted, allows us to argue...
that it is the *status* of the (patient’s) body, as the object of observation, to be stressed in this aphorism, according to the second option we would have to recognize that it is the role of the (physician’s) body as the only active centre of observation to be emphasized by the Hippocratic author; in my view, we do not deal with two interchangeable perspectives at all, and the fact of seeing the body from the one rather than the other of these perspectives is laden with epistemological implications: what seems to differ is the manner in which the concept itself of ‘body’ is meant, and the *positioning* and the *degree of participation* in the process of *skepsis* attributed to it.

In accord with the first option, the sense of the syntagm should have been perfectly illustrated by the analysis of V. Di Benedetto, according to whom the expression τὸ σῶμα ἐς τὴν σκέψιν ἄγει is taken from the language of courts, deriving from the syntagm ἐς δίκην ἄγει, the meaning of which is ‘to bring before a court’: the body thus represented is reduced to physical evidence, constituting the concrete object of the physician’s rational investigation.17

The second option – supported by both Langholf18 and Manetti-Roselli19 – implies a totally different meaning of the syntagm and, in consequence, of the aphorism: the physician would be still unequivocally described as an agent of observation, but it would be also affirmed explicitly that it is by means of his own body that the observation can be performed: in other words, the structure of the relationship between *techne* and *soma* would be dramatically remodelled (or at least made clearer), and a specific *epistemic function* ascribed to the body.

On the other hand, the second section of the aphorism raises anything but insignificant issues as well: the text as handed down to us by manuscripts20 is the following:

"δῆσις, ἀκοή, βίς, ἀφή, γλώσσα, λογισμός καταμαθάνει"

In his attempt to explain it, Di Benedetto has argued that ‘the syntactic structure must be understood in the sense that the five senses are listed in the absolute nominative case, and these are followed by λογισμός, a sixth

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17 Di Benedetto 1986:114. See also Di Benedetto’s analysis (123 n. 65) of the syntagm τὸ σῶμα ἐς τὴν σκέψιν ἄγει.
18 Cf. Langholf 1990:51, where he translates ‘it is necessary to use the body for observation.’
19 Manetti-Roselli 1982:181, who translate ‘è impegnativo impiegare il corpo per l’osservazione.’
20 The reading of the manuscripts is confirmed even by Palladius. For an analysis of Palladius’ commentary, see Manetti-Roselli 1982:LV-LXII.
element as it were, and one endowed with a special function, that of κατα-
μαναθάνειν.21 Logismos, hence, would carry out the task of collecting and
processing data received from the senses. In my view, such conclusions
derive from the same gnoseological model on which is based the Galenic
commentary on ch. 1 of In the Surgery.22 In both cases, in fact, what we find is
a ‘computational’ logic according to which the senses are presumed to
operate on the lowest level of cognitive processes, collecting information
which reason then processes at a later time, by means of association,
separation or combination.23

Seen from this perspective, Di Benedetto’s interpretation represents a
perfect Galenic move. All the same, Galen himself, quoting the lemma in his
commentary on Epidemics 6, does not mention the verb καταμαναθάνειν at all.
One could argue that this is an eloquent omission,24 since, if Galen did find
καταμαναθάνειν in the Hippocratic text, he would have had no reason to omit
such a verb which makes the sense of the aphorism fully consistent with his
own epistemological horizon. On the contrary, by expunging the verb, one
loses the only textual reference which might validate a hierarchical – or
rather ontological – distinction between senses and λογισμός: precisely that
distinction which In the Surgery, ch. 1, does not affirm at all – at least, not
explicitly – and which Galen sought to identify.25

21 Di Benedetto 1986:123 n. 66. This scholar accepts the reading of the manuscripts,
and what is more, identifying (123 n. 67) in the act of καταμαναθάνειν, which is
carried out by the λογισμός in Epidemics 6.8.17, a function which is comparable to
that of the γνώμη in In the Surgery, ch. 1 (where, however, γνώμη is unequivocally
dependent on the same verb – διεθνέοθαι – on which the substantives indicating
the senses also depend).
22 It cannot be by chance that Di Benedetto attributes the same function to λογι-
sιμός of Epidemics 6.8.17 and γνώμη of In the Surgery, ch. 1.
23 Cf. Di Benedetto 1986:112: ‘i dati difformi rispetto ad un insieme già costituito
possono a loro volta costituire un altro o altri insiemi internamente omogenei. Questo
accertamento dell’omogeneità di un gruppo di dati è espresso attraverso il verbo κατα-
μαναθάνω. L’accertamento dell’omogeneità presuppone la raccolta dei dati e il loro
accostamento.’
24 So eloquent that, in their edition of the Hippocratic text, Manetti-Roselli have
decided to expunge the verb, considering it a later interpolation.
25 It is of relevance that a piece of writing, which is ‘commentary-like’ in nature and
therefore constitutes a text ‘in addition’ to the original one, implies that an attempt
has been made to explain and clarify unclear concepts and doctrines, an attempt
which is lacking in this particular case (and which cannot be justified on the basis of
doctrinal purposes). This encourages one to believe that the decision to expunge
καταμαναθάνειν is philologically correct.
It is clear, therefore, that variations in the translation change the overall epistemological meaning of the Hippocratic aphorism: from an ‘objectified’ representation of the body we move to an ‘agent-like’ one, and from an ‘acquisitive’ notion we move to an ‘enactive’ one of sense-perception, to which, at least as far as its physical origins are concerned, λόγισμός is also ascribed.26

However, the Hippocratic passage in which ambiguity, in terms of the subjective/objective function of the body as to perceptual activity, arises most noticeably is undoubtedly represented by Ancient Medicine, ch. 9. Here, I will focus my attention on the central section of the chapter:

Many other ills, different from those arising from repletion but no less serious, also arise from depletion. For this reason the doctor’s tasks are much more varied and require more precision (διὰ πλεονος ἀκριβεΐς): for one must aim at a measure (δεὶ γὰρ μέτρου τινός στοχάσασθαι); but you will find no measure, nor number nor weight besides, by referring to which you will know with precision, expect the sensation of the body (μέτρων δὲ οὐδὲ ἀριθμῶν οὔτε σταθμῶν ἄλλων πρὸς ὁ ἀναφέρων ἐξη τὸ ἀκριβές, οὐκ ἄν εἴψοις ἄλλα ὧ τοῦ σώματος αἴσθημι).27

Many scholars have sought to discern the function – subjective or objective – of the genitive τοῦ σώματος, by analyzing the overall meaning of the treatise or by comparing other passages – considered similar in epistemolo-

26 I take the definition of enaction as to perceptual activity from the works of the neurophysiologist Francisco Varela (see especially Varela 1992:172-73): ‘We can now give a preliminary formulation of what we mean by enaction. In a nutshell, the enactive approach consists of two points: 1) perception consists in perceptually guided action and 2) cognitive structures emerge from the recurrent sensorimotor patterns that enable action to be perceptually guided. The point of departure for the enactive approach is the study of how the perceiver can guide his actions in his local situation. Since these local situations constantly change as a result of the perceiver’s activity, the reference point for understanding perception is no longer a pre-given, perceiver-independent world but rather the sensorimotor structure of the perceiver. This structure rather than some pre-given world determines how the perceiver can act and be modulated by environmental events.’

gical terms—taken from the Corpus. Lain Entralgo, who upholds the objective function of the genitive τοῦ σώματος, has pointed out that 'la aisthesis du médecin permet véritablement d’obtenir des résultats exacts et satisfaisants; (...) dans la aisthesis τοῦ σώματος que prescrit l’écrit De l’ancienne médecine, le soma en question est bien entendu celui du malade, mais la aisthesis nécessaire est celle du médecin traitant.' Brâtescu is in full agreement, suggesting that 'le syntagme “sensation du corps” pourrait donc représenter le substrat du “sens clinique” indispensable dans la pratique de l’art hippocratique.'

It is precisely this reference to the ‘clinical sense’, upon which ‘Hippocrates’ would have been the first to found his observational method, that I would like to stress, since it has represented a leit-motif in a number of studies on Hippocratic medicine and a cornerstone in the very construction of the myth of Hippocrates as the Father of Western medicine for a very long time. On the other hand, none of those—Jouanna and Schiefsky—are the most recent examples—who have claimed a subjective function for the genitive in the syntagm αἰσθησις τοῦ σώματος and identified within such aisthesis the sensibility of the sick person’s body in response to the actions carried out upon it, have discerned in ch. 9 of Ancient Medicine any traces of a gnostic subjectivism which might be likened to the Protagorean relativistic instances. Festugière, to give an example, has argued that the concept of ‘sensation of the body’ must not be seen as a subjective one, claiming that the reference to the aisthesis rather implies the identification of the way in

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28 In general, such comparisons have been based just on ch. 1 of In the Surgery and Epidemics 6.8.17. For a review of papers from the turn of the last century onwards, cf. Jouanna 1990:174; Schiefsky 2005:201-05.

29 Lain Entralgo 1975:309-10. Cf. also: ‘l’activité curative du médecin ne saurait être vraie techne si le médecin ne dispose d’aucun critère de certitude approprié à la nature de son cas et susceptible de garantir la vérité de ses connaissances et de ses conjectures’ (305).

30 Brâtescu 1983:138. This scholar, furthermore, understood the notion of aisthesis as a ‘tact fin’ of the physician, which Jaeger had been the first to develop in the first half of the last century (cf. Jaeger 1938:39). Pellegrin 1992:166-67 gives a very similar interpretation of the syntagm τοῦ σώματος αἰσθησιν.

31 For example, Lain Entralgo 1975:310 accounted for his exegetical hypothesis claiming that ‘c’est ce recours méthodique à la sensation du corps qui après la techne iatriké des hippocratiques va être la règle d’or de toute la médecine occidentale.’


33 See Schiefsky 2005. For the full list of scholars who have contributed to define this interpretative option see both Jouanna 1990 and Schiefsky 2005.

34 Cf. DK 80 B 1.
which the bodies usually react to the effect of one or other treatment. In this way, he transfers the notion of aisthesis from that of a realm of individual bodies to the conceptual, meta-realm of a statistical body, the generating principle of which is the notion of normal reaction.

II

At this point of my argument, the question I would like to explore further is whether empiricist views on sense perception and dichotomous representations of the objective/subjective function of the body like those discussed above are able to provide effective categories for the analysis of those Hippocratic passages in which the method to be followed in medical observation is expounded, or whether these representations might not rather be the expression of an epistemological model which is inconsistent with those writings and the medical thought they reflect. On the other hand, the most obvious sign of this inconsistency might be shown by the difficulties encountered by modern scholars (and earlier still by Galen) in their quest to discern, within the Hippocratic writings, an operational representation of perceptual and cognitive processes, and by the resulting need to ‘integrate’ the texts when they would otherwise appear ambiguous and unintelligible, in order to state clearly that to which the Hippocratic authors would have merely made allusion.

Back at the end of the Seventies, J. Pigeaud, looking at this inconsistency, had already tried to get out of an interpretative scheme based on the dualism objectivity/subjectivity, and had claimed for ch. 9 of On Ancient Medicine and the syntagm τοῦ σώματος αἰσθήσεως a relational meaning. I would like hence to develop further such a relational concept of αἰσθήσεως – starting from the analysis of On Regimen 1.23 – and then to look briefly at the representations of perceptual activity in other Hippocratic contexts. I quote the text of Regimen 1.23 as established by Joly:

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36 As observed by Pigeaud 1977:216, it is only by postulating this concept of ‘normal reaction’ as authentically ‘Hippocratic’ that it becomes possible to hypothesize that, as a result of the medical observation in Hippocratic treatises, ‘on va pouvoir constituer, grâce au rapport expérimental et à la surveillance, un classement des résultats, des tempéraments et des naturels auxquels conviennent certains traitements.’

Through seven figures come perceptible objects for a man: there is hearing for sounds, sight for the visible, nostril for smell, tongue for pleasant or unpleasant tastes, mouth for speech, body for touch, passages outwards and inwards for hot or cold breath: through these comes knowledge. 38

The link between αἴσθησις and γνώσις is affirmed again. Nonetheless, the σχήματα αἴσθησιως may not be defined as ‘organs’ of perception, in the sense that this notion assumed by Aristotle onwards: indeed, Jouanna has observed that ‘le sens original de σχήμα est celui de “configuration”, “forme”, “structure” du corps’. 39 Each αἴσθησις and the knowledge deriving from the coordinated combination of the αἴσθησις constitute, therefore, the phenomenal product of the body’s morphology, so that human cognition is strictly tied to its physiology. This is even more evident if one thinks that through the use of the term aisthesis the author of On Regimen does not refer to an activity or a process, but the concrete corpuscular form of the various perapta which only give rise to sensation if, through adapting to the respective σχήματα, they penetrate through and encounter the circular movement of the ψυχή. 40

38 Hipp. Vīt. 1.23 (p. 141, 17 Joly CMG; 6.494-96 Littre), transl. by Jones, modified.
39 Jouanna 2002:448-49 n. 13. The plausibility of the use of σχήμα in accordance with such an acceptance, which in the past was questioned, is confirmed by the analogy made by the author between the ‘configurations’ through which perception is produced and those through which art and writing take shape. In this connection, note the observation made by Jouanna 2002:449 n. 13): ‘il est beaucoup plus difficile de préciser ce que l’auteur du Regime entend par les sept instruments de la connaissance dans la γραμματική (...) les σχήμαται ne semblent pas se confondre ici avec les γράμμαται. On peut se demander s’il ne s’agit pas de sept types de la configuration des lettres, par exemple lettres triangulaires, circulaires, rectangulaires, croisées. Il y aurait des types de formes de lettres, comme il y a des types de figures géométriques ou comme il y a des types de configuration d’organes dans le corps de l’homme.’ About the concept of σχήμα cf. also Hipp. VM 22 (p. 149 ed. Jouanna; 1.626 Littre): δείν δὲ μοι δοκεῖ καὶ τοῦτο: εἰδέναι ὁσα τῷ ἀνθρώπῳ παθήματα ἀπὸ δυναμών γίνεται καὶ ὡσα ἀπὸ σχήματων. λέγω δὲ τῷ τούτῳ; δύσμων μὲν εἶναι τῶν χωμάν τὸς ἀνθρώπως τε καὶ ὕσσαν, σχήματα δὲ λέγω ὡσα ἑνεστὸν ἐν τῷ ἀνθρώπῳ. See Jouanna 1990:213 n. 1.
40 The theory of the soul and intelligence is set out in ch. 35 of the first book of Regimen (Hipp. Vīt. 1.35; p. 150-57 Joly CMG; 6.512-22 Littre). Cf., in addition to the previously cited Jouanna 1966 (who analyzes the theory expounded in Regimen,
The definition of knowledge as ‘biological activity depending on the structure of the body’ is also confirmed by the nature of the σχῆμα αἴσθησεως: in addition to the five senses (designated as such from the time of Aristotle onwards), the sixth σχῆμα is represented by the mouth, i.e. ‘the shape of language’ (διαλέκτου), while the seventh σχῆμα consists of, literally, the passages of warm and cool breath from within the body to the outside and vice versa.41

On the one hand, one might observe that the exclusively receptive representation of the perceptual act is severely strained by the fact that language—which in modern terms one should define as an intentional activity—might be counted amongst the αἴσθησεις.42 On the other hand, if the point of intersection between ‘receptive’ and ‘intentional’ dimensions seems to confer a certain ‘relational nature’ to perception, the identification of a seventh σχῆμα αἴσθησεως highlights the need to replace a hermeneutic paradigm constructed on the basis of a purely gnoseological standpoint with a representation of the aisthesis in which theory of cognition and biology are connected in structural terms: otherwise, reference to the πνεύματα, which move through the body by means of a dual action inside/outside and outside/inside, like ‘structures’, or ‘forms’, of the αἴσθησις and therefore also of the γνώσις does not make sense.

Indeed, we are dealing here with the physiological processes—such as respiration, perspiration, the diffusion of air around the cavities of the body—by which the body secures its own self-regulation in response to the environment, and which represent, as other Hippocratic authors as well as some physiologoi do assert,43 the very principle from which life itself originates.

41 Cf. Jouanna 2003. Reference to sensory faculties which may not always be restricted to the five canonical senses does not, however, appear detached from the pre-Platonic sphere of speculation, inasmuch as it often appears tinged with strong elements of contradiction, as highlighted by a comparison of the testimonies given by Aetius on Democritus (Aet. 4.10.4; DK 68 Α 116: Δ. πλείους εἶναι αἴσθησεις [τῶν πέντες]. περὶ τὰ ἄλογα ζῴα καὶ περὶ τοὺς σωφόν καὶ περὶ τοὺς θεόν), and the fragment of Democritus cited by Sextus Empiricus (Sext. 7.138, DK 68 Β 11: γνώμης δὲ δίοι εἶσιν ἰδέαι, ἢ μὲν γνώμη, ἢ δὲ σκοτιν’ καὶ σκοτίς μὲν τάδε σύμπεντα, δῆμος, ἀκοή, ὀδὴ, γεών, ψυχή).

42 In the biological and linguistic theory of Aristotle, language, inasmuch as it represents a faculty for the production of organized, meaningful language, becomes the species-specific characteristic of anthrōpos, as was correctly confirmed by Lo Piparo in 2003.

43 I refer here, for example, to the doctrine of Diogenes of Apollonia or to the pneumatic aetiology of the Hippocratic treatise On the Winds, or yet still to the circular revolution of the ψυχή and the relationships between said theory, the Empedoclean doctrine and the Timaeus by Plato; also Byl 2002.
What is more, it is precisely in the treatise *On Regimen* that the link between respiration, life, ἀνθρώπος and knowledge is pointed out: indeed, whilst in ch. 86 we are told that, when the body is in a state of wakefulness, the ψυχή spreads over the limbs and activates hearing, sight and touch — in short, all the perceptual and cognitive faculties of man — in ch. 25 the same ψυχή is represented as a principle of life, penetrating the ἄνθρωπος and every ζώον which breathes (ἡ δὲ ψυχή τοῦ ἄνθρωπον ... ἐσέρπετι ἐς ἄπαν ζώον ὃ τι περ ἀναπνεῖ).

Clearly, the main question is to verify whether an intersection such as this established by the author of *On Regimen* between theory of cognition and biology might constitute — as do the rest (or, at least, most) of the Hippocratic treatises as well — a shared pattern in the representations of aisthesis. The fact is, to my mind, that this is not only a remote possibility, but a hypothesis corroborated by a number of textual testimonies.

In a paper on the semantic field of ἀνθρώπος in the Hippocratic Corpus, H. Ioannidi has drawn attention to the diversity of subjects to which the verb ἀνθρώπωσαι can be referred:44 it is used in reference both to the physician whilst carrying out his practice45 and to the sick person whilst perceiving his own body and his own internal states,46 or in reference to the patient's own body in relation to the outside world.47 Furthermore, it is used to deal with the body both in terms of a whole48 or in terms of the parts of which it is connected by the connection between respiration and cognition established in the encephalocentric doctrine of *On the Sacred Disease*.

45 Cf. *Fist.* 2 (6.448 Littré); *De Arte* 9.3 (p. 235, 1 Jouanna; 9.16 Littré) and 11.5 (p. 238, 9 Jouanna; 9.20 Littré); *Mebt.* 42 (4.394 Littré).
46 Cf. *Nat. Puer.* 21 (67, 25 Joly; 7.512 Littré); *Morb.* 1.22 (p. 64, 15 Wittern; 6.184 Littré); *Prac.* 6 (9.258 Littré); *Morb. Sacr.* 12 (p. 23, 2 Jouanna; 6.384 Littré). Some passages of *Diseases* 4 and other treatises go into making a rather homogenous and interesting series of textual references in which the verbs ἀνθρώπωσαι and ἐταλεύν (and their derivatives) occur within negative syntactic constructions, in the expression of the delayed perception that a subject has of the physiopathological processes which, although occurring within the body itself, remain 'invisible' to its conscious perception until they exceed a certain gradient of complexity and a specific threshold of severity: cf. *Morb.* 4.36 (89, 22 Joly; 7.552 Littré), 37 (p. 91, 1 Joly; 7.554 Littré), 38 (p. 91, 28 Joly; 7.556 Littré), 45 (p. 99, 15 Joly; 7.568 Littré); *Mebt.* 1.15 (p. 38, 9 Wittern; 6.164 Littré).
composed; alternatively, αἴσθησις is represented as a faculty, or in a stricter sense a capability of being affected, possessed indiscriminately by all living beings, or by 'things' such as wood, leather or earthenware, by entire πόλεις and regions insomuch as these constitute a certain κατάστασις, and lastly by the processes determining the climate and its changes. In the face of such diversity, Ioannidi resorts to the most obvious and maybe most banal of interpretative options, asking whether 'il faut alors parler de traces d'animisme combattu à coups de rationalisation.' I, however, believe it more expedient to refer to a notion which claims a biological root for perceptual processes, since I think that, approaching αἴσθησις in the Hippocratic treatises,

It is precisely the notion of αἴσθησις which might represent this principle since it expresses – on the one hand – the specificity of human and senses-based cognition as compared to other forms (living and non-living) of sensitivity, and

49 Cf. Mul. 1.25 (8.66 Littre) (ἐπειδής γὰρ αἱ μῆτραι τοῦ πρέπους χωρίοντος ἐκ τῆς κολλάσης); Mul. 2.174 (8.354 Littre) (καὶ ὁ θάνατος ἐπαιτεῖ); Β/Σ 2 (p. 64, 21 Hanson CMG; 2.4 Kw; 3.190 Littre) (ὁ γὰρ ἐγκέφαλος τέχνητα τε καὶ λάμπατα κατὰ τὸ βοέγιμα αἰσθάνεται τῶν κακῶν τῶν γυμνούνων ἐν τε τῇ σαρκί καὶ τῷ ὄστεω).

50 Cf. Nat. Puer. 30 (p. 81, 11 Joly; 7.536 Littre).

51 Cf. Ι/Μ 15.4 (p. 138, 11 Jouanna; 1.606 Littre): the fact that wood, leather and many other 'objects' are defined as being 'far less sensitive' than the human body suggests that these too, in some way, are included in the αἴσθησις; Morb. Sae1: 13 (p. 24, 5 Jouanna; 6.384 Littre): τὸ δὲ αὐτὸ τοῦτο καὶ τὴν γῆν ἐργάζεται καὶ τὴν θάλασσαν καὶ τὸν ποταμοῦς καὶ τὰς κορίνθιας καὶ τὰ ὑφέστα καὶ διὰ φύσεις καὶ ἐν οἷσιν ὑπόθεσιν ἐνοτάτης ἐστιν δὲ ἐν παντὶ, ἐν μὲν τῷ πλεόν, ἐν δὲ τῷ ἐλαῖσθαι: ἀπανταὶ δὲ ταῦτα αἰσθάνεται τοῖς πιεῦματος τοίνυν καὶ έκ τε λαμπρῶν διοφορώδεις γίνεται, ἐκ τε ψυχρῶν θερμαί, καί ἐκ ξιρῶν νοσθῆσαι ἀκόσμα τε ἐν οἴκεμας κεράμιν ἤ κατὰ γῆς ἐμπνευσμένα ἤ ἄλλης ποιῶς ὑγιῶς, πάντα ταῦτα αἰσθάνεται τοῦ νόσου καὶ διαλαλάτσει τῆς μορφῆς ἐς ἑτέρων εἰδών: τὸν τε ἡλικόν καὶ τὴν σελήνην καὶ τὰ ὁμορράς πολὺ ἀμβλυωπότερα καθιστά τῆς φύσος, ὅτε οὖν καὶ τούτων οὕτως μεγάλοι ἑνώτων καὶ ἵσσημενον ταῦτα ἐπικρατεῖ, τῆς τε αὐθαίρετος φύσος καὶ σφάδρα εἰκός κράτει καὶ τὸ σῶμα ποιεῖ αἰσθάνεσθαι καὶ μεταβάλλει.

52 Cf. Hipp. Άιρ 10 (p. 216, 1 Jouanna; 2.48 Littre).


54 Ayache 1997:65.
has resulted from that process of differentiation of the bodies through which the dynamic nature of physis is made visible; but, on the other hand, such a notion can also convey the natural continuity by which all the natural beings (τα φύσει δυνατά) are tied together and without which no form of differentiation would be either possible or conceivable.

This is not a question of confusing the gnoseological and biological levels within Hippocratic medical discourse; it is rather the realization that any issue which is raised by such medical discourse and belongs to a 'second-order thinking' is rooted within the context of a medical epistemology. This epistemology does not disregard the specificity of its own cognitive object, consisting of the body and its pathophysiology. Any understanding of the τρόποι by which medical authors provide reasoned accounts for 1) the gnoseological statute of the αἰσθήσεως and 2) the centrality of the latter in the establishment of a method of observation cannot fail to take into consideration the various medical representations of perceptual activity as a manifestation of bodily physiology.

It is for these reasons, in my view, that the intersection/interaction between the theories of cognition, epistemology and biology of αἰσθήσεως constitutes a schema of reciprocity, which may be represented as a system of retro-active ties. In seeking to decipher and describe the structure of this system, one would have to undertake the task of formulating an interpretative framework which would permit movement from one segment of the system to another and to identify a network of possible meanings and a map of the theoretical connections underpinning the various manifestations of medical discourse, as developed in the classical period.

Bibliography


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