

Science and Philosophy in Classical Greece
Edited with a Preface by ALAN C. BOWEN
GARLAND PUBLISHING INC. NEW YORK and LONDON 1991

CONTENTS

- | | | | |
|-----|--|-------------|-------------|
| pdf | 1. Some Remarks on the Origins of Greek Science and Philosophy
CHARLES H. KAHN | p 1 - 10 | 7918 |
| pdf | 2. Plato's Science—His View and Ours of His
ALEXANDER P. D. MOURELATOS | p 11 - 30 | 7919 |
| pdf | 3. The Aristotelian Conception of the Pure and Applied Sciences
JOSEPH OWENS CSsR | p 31 - 42 | 7920 |
| pdf | 4. Platonic and Aristotelian Science
ROBERT G. TURNBULL | p 43 - 58 | 7921 |
| pdf | 5. On the Notion of a Mathematical Starting Point in Plato, Aristotle, and Euclid
IAN MUELLER | p 59 - 97 | 7922 |
| pdf | 6. Ratio and Proportion in Early Greek Mathematics
D. H. FOWLER | p 98 - 118 | 7923 |
| pdf | 7. What Euclid Meant: On the Use of Evidence in Studying Ancient Mathematics
WILBUR R. KNORR | p 119 - 163 | 7924 |
| pdf | 8. Euclid's Sectio canonis and the History of Pythagoreanism
ALAN C. BOWEN | p 164 - 187 | 7925 |
| pdf | 9. Aristoxenus' Harmonics and Aristotle's Theory of Science
ANDREW D. BARKER | p 188 - 226 | <u>1744</u> |
| pdf | 10. The Relation of Greek Spherics to Early Greek Astronomy
J. L. BERGGREN | p 227 - 248 | -1926 |
| pdf | 11. The Definition, Status, and Methods of the Medical in the Fifth and Fourth Centuries
G. E. R. LLOYD | p 249 - 260 | 7927 |
| | 12. Between Data and Demonstration: The Analytics and the Historia animalium
JAMES G. LENNOX | p 261 - | |

The Definition, Status, and Methods of the Medical Τέχνη in the Fifth and Fourth Centuries

G. E. R. LLOYD

The debates on the definition, status, and methods of the medical τέχνη that took place in the fifth and fourth centuries BC offer us a remarkable opportunity to explore a whole range of issues. In part these are sociological and concern the relationships between the various groups who laid some claim to the title, ἰατρός, or who were involved, in practice, in one or other aspect of one or other rival or complementary tradition of treating the sick. In part they also relate to epistemological and methodological questions concerning the nature of a τέχνη, its defining characteristics, and the type of knowledge it presupposes. Although I shall be concerned chiefly with the second group, it would be foolish to attempt to deal with those questions in isolation from those that come under the first heading. Certainly in many Hippocratic texts besides the three treatises I shall be using as my principal evidence (*On the Art*, *On Regimen in Acute Diseases*, *On Ancient Medicine*), there is a recurrent preoccupation not just with defining medicine and setting down its methods, but also with how the doctor is to be distinguished from the layman, and again how from imposters, charlatans, or doctors in name alone.

It is well known that apart from the medical writers represented in the Hippocratic Corpus (themselves a highly heterogeneous set) several other groups were also involved in healing the sick. There were, for example, the 'midwives' (μαῖαι) concerned, of course, with much more than that conventional translation might suggest. Again, the collection, sale, and administration of drugs, especially herbal remedies, were chiefly the province of those called ῥιζοτόμοι (root-cutters) and φαρμακοπῶλαι (drug-sellers). On occasion, as texts such as [Demosthenes] *In Neaeram* lix 55-56 confirm, the women of the household went and bought drugs and administered them

themselves without, it seems, calling in an *iatrós* of any kind. There were also those whose discourse on diagnosis and cure drew heavily on the categories of the divine and the supernatural; but again they can hardly be treated as a single group, since there are important differences between on the one hand the itinerant purifiers and sellers of charms and incantations whom we hear about from Plato, for instance, as well as from *On the Sacred Disease*, and on the other those who practised temple medicine in the increasingly well-established shrines of Asclepius and other healing gods or heroes.

Now plurality of medical traditions is far from unique to classical Greece: it can be paralleled in ancient Egypt and in ancient Babylonia to look no further afield in ancient, let alone modern, societies. But what is more exceptional is the overt and explicit attacks by one group or another. The point must not be exaggerated. As I have recently had occasion to stress elsewhere, not every Greek group of healers attacks or criticises every other one. Some of the relations between more or less clearly demarcated groups are marked by a certain tolerance and a mutual, though not necessarily symmetrical, respect. We do not find Hippocratic writers of any kind engaging in polemic with the midwives as a group, for instance, or with those whom the author of *On the Diseases of Women* i 68 calls the women healers; rather, as I tried to show in *Science, Folklore and Ideology* [Lloyd 1983a], there is some cooperation between them. On the other hand, some of the boundaries between one group and another were highly contested. The onslaught on the itinerant purifiers in *On the Sacred Disease* is the best known example, but we should be careful not to assume that it was always those represented in the Hippocratic Corpus who did the attacking (even though much of our evidence comes from them). It is clear enough from Aelius Aristides that, in the second century AD at least, temple medicine often set itself apart from and indeed criticised other styles of healing; and there are signs of that developing already much earlier in the fourth century BC in the inscriptions from Epidaurus.

Quite why in Greek society there are these explicit attacks is, to be sure, a highly complex and controversial question which I shall not attempt to reopen here. But *that* they existed is both clear enough and important. Evidently, when some of the frontiers or boundaries were a veritable battlefield, it was not going to be enough for those within a particular group to sit back and assume that sufficient *raison d'être* for their style of activity came from the very existence of the group itself. Self-justification was the order of the day and many Hippocratic treatises revert to the point, even when they are not devoted to it entirely (as *On the Art* is). Of course, self-justification could take many forms. In some Hippocratic

works (such as the *Oath*, *Decorum*, and especially *Precepts*) the writers show themselves chiefly concerned with the moral respectability of their fellow-ἰατροί. Several of the deontological treatises are products of the Hellenistic period, and *Precepts* in particular shows clear signs of influence from Hellenistic epistemology. Yet—whatever its date—it certainly illustrates how methodological recommendations could be combined with advice about bedside manner, about morality, about economic aspects of medical practice, and so on. The author is as anxious about doctors getting a bad name for themselves for ostentation, avarice, and lack of φιλανθρωπία, as he is about their doing so through faulty medical practice.

Attacks on other healers sometimes involve the exposure of an entire group with whom the author certainly does not identify himself, as when *On the Sacred Disease* sets out to demonstrate the fraudulence of the purifiers. But the accusations of bad practice, even charlatanry, can also be levelled at those whom you recognise—or others do—as your colleagues. Often in the surgical treatises, for example, criticisms of bad surgical practices involve no more than an explanation of the real or assumed harmful effects—whether or not supported by reference to firsthand experience. But sometimes such accusations lead to more general discussions of the principles that should underlie medical practice, and of medical method as a whole. Three treatises which can be used to illustrate both certain shared concerns and certain differences of approach are *On the Art*, *On Regimen in Acute Diseases*, and *On Ancient Medicine*. I shall begin with the most theoretical of these, or rather with the one that is least secure in its practical medical knowledge, the treatise *On the Art*.

As is well known, this is a sophistic type of demonstration-lecture (ἐπίδειξις) and it is possible that the author was no practitioner himself. But from our point of view, that cannot be held to detract from the value of the evidence the work provides on the type of question raised about medicine as a τέχνη, the kind of challenge that was offered, and the nature of some of the points used (whether or not from inside the ‘profession’) in its defence. The treatise opens with some general remarks about those who have ‘turned the abuse of the τέχνη into a τέχνη in itself’, and who are accused by the author of *On the Art* of being nasty, malicious, ignorant individuals and indeed of lacking τέχνη (i.e., of being ἀτεχνοί). He says it is up to others to defend other τέχναι, though chapter 9 seems to suggest a promise by the author himself to deal with some aspects of these. But his chief concern in this λόγος is the defence of ἱητρική.

The question this opening chapter immediately poses is whom the author has in mind. Who was in business to abuse the τέχναι or speak shamefully of them? We have plenty of evidence of Plato's eventually wanting to downgrade some of the τέχναι and he certainly had little good to say about those who practised them as full-time professionals. In *Gorgias* 464b–466a there is a contrast between certain genuine τέχναι (including *ιατρική*) and their spurious 'flattering' counterparts, and again between a τέχνη and mere ἐμπειρία [465a]; *Phaedrus* 260e calls rhetoric no τέχνη but an ἄτεχνος τριβή and furthermore contrasts the practice of medicine as a τέχνη with its practice only as a knack and by experience [τριβὴ μόνον καὶ ἐμπειρία: 270b]. Moreover, in the passage of fundamental importance, *Philebus* 55e–58a grades the τέχναι according to their degree of exactness: medicine, in particular, comes in the lowest category (along with music, farming, navigation, and generalship) and below carpentry, which itself comes below the mathematical τέχναι (subdivided here into the impure, mundane applied branches and the purer, philosophical inquiries).

But apart from the problems of dating (and it is difficult to think that the author of *On the Art* 2, which concerns the relations between words and things, was familiar with Platonic dialogues such as the *Cratylus*), it must be thought unlikely for two main reasons that *On the Art* 1 was directed at Plato. First, the attackers envisaged in this treatise apparently reject the τέχναι wholesale; whereas, in the dialogues cited above at least, Plato is concerned to draw distinctions between superior and inferior τέχναι and indeed rates any τέχνη higher than a mere knack. Second, the author of *On the Art* refers to those who bring shame on the arts and their discoveries and abuse them, and this hardly fits the character of the mainly epistemological objections raised by Plato against the less exact τέχναι.

Is it, then, some group of sophists who 'turn the abuse of the τέχναι into a τέχνη'? So far as our evidence concerning that highly amorphous group goes, I do not believe that anyone can be made to fit the bill exactly. Of course there were those, including Gorgias, who privileged the art of rhetoric and wrote books called Τέχναι dealing with that subject; and in the Platonic dialogue, Gorgias is represented as claiming that rhetoric is more powerful than all the other arts: it is he, not his brother who was a doctor, who persuades people to take their medicine [*Gorg.* 456b]; and he claims that in any assembly or gathering set up to choose a doctor, he would win the contest, thanks to his skill in speaking, and defeat any actual doctor. That would obviously involve the discomfiture, the loss of face, the shame, of any doctor unfortunate enough to be so defeated. Many Hippocratic texts make clear just how upset their authors would be likely to be at the prospect of losing an argument with a layman on a medical

matter. Nevertheless the identification breaks down. Although the effect of the Platonic Gorgias' claim would be shaming, the Platonic Gorgias himself says that rhetoric should not be used to detract from the δόξα (reputation) of doctors [*Gorg.* 457b]: rather his case is the positive one, that rhetoric, used justly, should be admired, not the destructive one that the other τέχναι should not be.

Is it, then, that the author of *On the Art* has simply invented the art-abusers he attacks? That too seems a difficult conclusion to draw, not least because of the huge gaps in our evidence for fifth- and fourth-century 'sophists' of one kind or another. That the Hippocratic author overstates his opponents' position, especially perhaps as regards their motivations, may well be the case. But we have enough independent grounds in the Hippocratic Corpus itself that radical challenges to the status of ἱητρική had been mounted, to allow us to say that, in this instance at least, *On the Art* has—not just Aunt Sallys—but genuine opponents, even if we cannot name them. We shall consider the evidence from *On Regimen in Acute Diseases* and *On Ancient Medicine* shortly; but in what are probably later works too, such as *Precepts* 9, there are signs of concern to defend medicine against detractors and to show that it is a τέχνη. That may be as far as it is wise for us to go: yet even if the idea of a group of sophists attacking the arts in general were a mere fiction, a figment of this author's imagination, it has one interesting implication nevertheless. Even if he had no such real opponents, he has himself implicitly raised the very issue he accuses them of pressing. They should not abuse the τέχναι nor disparage their discoveries. But this, of course, by implication poses the questions: What discoveries?, and How secure are the claims of the τέχναι to be τέχναι? These issues are most pertinent in a period when claims for new inventions, for founding new inquiries and for innovating in existing ones, were all the rage. Moreover, these issues once raised, this author's defence of the arts in general is both thin and indiscriminate: 'it seems to me that in general there is no τέχνη that does not exist', the gist of his argument being that what can be seen and recognised exists, and what cannot, does not.

What the author has to say on medicine in particular begins in chapter 3, and is marked by a certain self-consciousness in style. Thus, he will begin his demonstration or exposition (ἀπόδειξις) of the τέχνη of medicine with a definition (cf. ὁριεῖν). This definition comes in two main parts: (1) the complete removal of the sufferings of the sick, together with the alleviation of the violences of diseases; and (2) the refusal to treat cases 'where the disease has already won the mastery', realising that in such instances medicine is powerless. One cannot help admiring the cunning and bravura of this twofold statement. On the one hand, the first part

claims the possibility of complete success and later chapters show that this is no mere opening gesture of the hand. Chapter 9 subdivides diseases into two main groups—broadly those with visible signs and those without—and affirms of the former group that ‘in all cases the cures should be infallible, not because they are easy, but because they have been discovered’. (Chapter 10 goes on to say that in the latter group too the τέχνη should not be at a loss.) But the ‘heads I win, tails you lose’ character of his original definition comes out when he deals with cases where the τέχνη is not successful. There, the disease has already won the mastery and it would be quite unfair to expect the τέχνη to be able to achieve a cure: indeed it is perfectly right for doctors to refuse to treat such cases [cf. ch. 13]. So where there are successes, they are proof of the power of the τέχνη: but no failure, no inability to produce some alleviation, is allowed to count against the art, since he has made it constitutive of medicine, in his definition, that it refuses to deal with hopeless cases.

How far these extravagant claims, with their all-purpose fail-safe clause, were likely to carry conviction—even with an audience at a sophistic ἐπίδειξις—we cannot know. Certainly the actual medical knowledge the author displays is none too impressive. Yet his attempt to distinguish between the products of τέχνη and those of mere chance, τύχη, in chapters 4–6, does score some notable points. Some attribute the successes of medicine merely to chance, he says in chapter 4, and some point out that people have recovered even without calling a physician [ch. 5]. Now while he does not rule out chance—but claims rather that good luck follows good treatment, and bad luck, bad [ch. 4]—he mounts an argument in chapter 6 to suggest that the spontaneous (τὸ αὐτόματον) is a null category. Everything that happens, happens on account of something (διὰ τι). Even if the patient called in no doctor, his recovering from his complaint was due to *doing* something or again to his *not* doing something [ch. 5], that is, to precisely the means the doctor *would* have used, had he been called in. So the medical art is at work whenever there is a cure, whether or not the doctors are in attendance—though chapter 6 ends with the further point that medicine is real not just because it acts διὰ τι but also because its results can be foretold.

The author of my second main text, *On Regimen in Acute Diseases*, is altogether more knowledgeable about actual medical practice; but he too shares some of the worries of *On the Art*. The art as a whole, he says in chapter 3, has a very bad name among laymen, to the point that there is thought to be no ἱγτρικὴ at all. But here the problems arise not—as in *On the Art*—because of malicious slanderers, but rather because of the incompetence of, and especially the disagreements among, doctors

themselves. In chapter 3 he identifies a state of some chaos in the profession on the question of the diet to be prescribed in cases of acute diseases; and he follows this up with the remark that such disagreements are likely to make laymen object that the τέχνη is like divination, where diviners disagree about which birds on the right or left are propitious and on what the signs in the entrails portend.

Now that comparison is interesting for several reasons and chiefly because divination (μαντική) was in most quarters a highly respectable and respected τέχνη. When Prometheus boasts of the benefits he has brought mankind, μαντική figures prominently; and *On Regimen* even cites it as a prime example of a τέχνη. Clearly, however, for the author of *On Regimen in Acute Diseases*, if medicine were no better than divination, that would not be enough. Yet we may note that one requirement he places upon the doctor is to know features of the patient's condition without being told, that is, to practise 'prognosis', not here predicting the future, but inferring the present, a practice medicine shared with divination (and the terms in which both *Prognostic* 1 and *Epidemics* i 5 speak of the doctor 'telling in advance the present, the past and the future' indicate pretty clearly that they were aware of the parallelism with prophecy).

Once again, as in *On the Art*, the author of *On Regimen in Acute Diseases* is led to explore topics to do with the nature of causation, particularly in relation to the classification of diseases. One of the criticisms he has of the revisers of the *Cnidian Sentences* is that though they were keen to enumerate the types of each kind of disease, their account was incorrect; and he goes on to complain that it is impossible to proceed on the assumption that any difference in the symptoms constitutes a different disease—or again that a mere variety in the name does so. Again the problems posed by the fact that the same condition may be due to different causes are mentioned in chapter 11. It is a very serious error, for instance, to mistake weakness that is due to the pain of an acute disease for weakness caused by lack of nourishment and to feed the patient. Conversely, it is also an error not to see that the weakness is due to such a lack. That is not so dangerous to the patient, but it does lay the doctor open to ridicule far more. Another doctor or even a layman seeing what is the matter would immediately be able to help the patient: that is the type of mistake that leads to practitioners being despised by ordinary folk, while the doctor or layman who comes in and saves the patient is like someone who raises him from the dead.

On Regimen in Acute Diseases does recognize some insecurity in the claims of medicine to be a τέχνη, and positively and constructively relies on some detailed advice about diagnosis and especially the characteristics

of different treatments. The author of this treatise frequently criticises his fellow-practitioners, often claiming that current practice and procedures are mistaken: yet most of his recommendations take the form of contrary assertions, the plausibility or persuasiveness of which depend entirely on how convincing his appeals to his own experience sound.

On Ancient Medicine—my third text—has, however, much more to say about methodology. This author attacks those who try to base medicine on the new-fangled method of postulates (ὑποθέσεις). You may have to rely on these in dealing with 'meteorology', where it is not clear 'either to the speaker himself or to his audience whether what is said is true or not, since there is no criterion to which one should refer to obtain clear knowledge'. But that will not do in medicine: it would do there only if medicine were no τέχνη at all and just a matter of chance [ch. 1: cf. ch. 12]. But that is not the case, as is shown by the differences between good and bad practitioners. Such argument depends, to be sure, on the successes being agreed and being attributable to the τέχνη of those who achieved them. But on that his chief point is that medicine has a principle (ἀρχή) and a method (ὁδός) which are tried and tested. It has been discovered (cf. εὑρημα, ζήτημα) as the result of systematic inquiry: indeed he believes that one day the whole of medicine will be discovered, using the same method [ch. 8].

The claim is, then, that medicine has a methodology, delivers results, and is not a matter of chance. But the particular argument the author advances, connecting medicine with cookery and dietetics, in part to support a claim that this was how the τέχνη started and to suggest its antiquity, has a potentially embarrassing feature. It is perfectly reasonable, he says in chapter 4, that dietetics is not considered an art, because no one is a layman in it, but all are knowledgeable since all have to use it. But if medicine starts from dietetics, trial and error procedures with the food you eat and what you drink, at what point, precisely, it becomes a τέχνη and is not just what everyone knows, ought to be a question for the author to take up: yet it is not one for which he has a very clear answer.

In other respects, however, he not only indicates the type of semiology he suggests the doctor should practise in diagnosis and provides a number of specific analyses of the effects of particular regimens, he also has further points to add on the key question of isolating the causal factors that can be held responsible for a condition. Chapter 21 identifies as a common mistake among doctors as well as laymen the assumption that anything unusual done near the beginning of a complaint was its cause—when it may not be at all—and chapter 19 specifies that 'we must consider the causes of each condition to be those things which are such that, when

they are present, the condition necessarily occurs, but when they change to another combination, it ceases'. It is striking that this statement of causal factors that are, as we might say, necessary and sufficient conditions of a disease was propounded in the context of particular problems posed by medical diagnosis.

But this treatise makes an even more important contribution towards the definition of the medical τέχνη in its remarks on the degree of exactness (τὸ ἀτρεκές, τὸ ἀκριβές, and their cognates) which it can attain and which it should be expected to attain. Chapter 9 begins by noting that substituting weaker for stronger foods is far from effective treatment in all cases. The matter is more complex and requires greater exactness. 'One should aim at some measure. But as a measure you will find neither number nor weight by referring to which you will know what is exact, and no other measure than the feeling of the body.' Exactness is difficult to achieve and small errors are bound to occur. Up to a point the subject can be, and has been, made exact; but perfect exactness is unattainable.

But I assert that the ancient art of medicine should not be rejected as non-existent or not well investigated because it has not attained exactness in every item. Much rather, since, as I think, it has been able to come close to perfect exactness by means of reasoning where before there was great ignorance, its discoveries should be a matter of admiration, as well and truly the result of discovery and not of chance.

While the medical τέχνη has achieved exactness in some areas, in others it has not and it could never be expected to be perfectly exact: in particular, it is positively inappropriate in medicine to attempt to use the measures produced by numbering and weighing. To appreciate the full force of this set of statements we must refer both to medical and to non-medical texts.

As is well known, the date of *On Ancient Medicine* is controversial, as also is the question of who exactly are those whom this treatise criticises for importing ὑποθέσεις into medicine. But it is less controversial, even if not universally agreed, to identify mathematics as one domain in which a method of ὑπόθεσις was developed before Plato: it is, after all, by reference to how geometers proceed that Plato himself explains the method when it is first introduced in *Meno* 86e, even though the term itself is not directly attributed to them. It is possible, though far from certain, that the medical writers attacked in *On Ancient Medicine* 1 were influenced by some mathematical usage; and I conjectured, some time ago, that Philolaus might provide an appropriate bridge between medicine and mathematics. (We know he was interested in both subjects and indeed the type of medical

and physiological theories attributed to him, which are based on the hot, correspond broadly to those particularly criticised in *On Ancient Medicine*.)

But whatever we may think about a conjectured mathematical context to the method of ὑπόθεσις attacked in *On Ancient Medicine*, the author's remarks about exactness obviously resist some notion or tendency to turn medicine into an exact inquiry. We need not look far for examples in the Hippocratic Corpus itself of just such a notion or tendency. The whole topic of the periodicities of diseases is an extremely complex one. Different texts set out different schemata, some based on odd/even contrasts (where Pythagorean ideas are often seen in the background) and others using other systems. Some such schemata are explicitly qualified as holding only 'for the most part', even while others carry no such reservation. *Prognostic*, in particular, after proposing an intricate theory of the periodicities of fevers, goes on to remark [ch. 20] that the periods cannot be numbered in whole days exactly—rather they are like the lunar month and the solar year. But the evidence of a substantial group of texts points clearly in the direction of their authors attempting precise, dogmatic theories in this area. Moreover a similar controversy can be traced in regard to the question of exactness in drug prescription, where some Hippocratic texts specify determinate quantities, while others take a line closer to that in *On Ancient Medicine* and insist that the ingredients and dosages have always to be adjusted to particular patients. With its rejection of numbering and weighing, *On Ancient Medicine* takes a stand on an issue about which the medical writers were deeply divided: for some—whether or not they had the model of pure or applied mathematics explicitly in mind—were all for turning medicine into an exact inquiry, while others, as the author of this treatise, resisted that ambition, though insisting nevertheless that medicine is a τέχνη based on experience and reasoning.

Much more could be said, and many more texts adduced from the Hippocratic Corpus, to illustrate and elaborate these themes. But it is time to draw some of the threads of this selective discussion together. Medicine exists in one form or another in every society, whether healing is entrusted to specialists or not, to one group or to more. In the context of fifth- and fourth-century Greece, where so much was being called into question, the foundations of medicine and its status were made the subject of explicit debate, maybe not earlier than other subjects, but among the earliest; and that spirit of challenge itself raises a whole series of problems in a comparative perspective. In the process, as aspects of the pluralism of Greek medicine and its relations with other inquiries became the topic of explicit analysis, there was a heightening of self-consciousness and the construction

of not one but several overlapping and competing models of what medicine is or should be.

Many of the issues were sharpened considerably with Plato's insistence on the distinctions among various ἐπιστήμαι, on the contrast between τέχνη and experience (ἐμπειρία) or mere knack (τριβή), and on the differences between τέχναι that were more or less exact, more or less tied to procedures of measurement. But some of those questions are anticipated in earlier, or made independently in contemporary, medical texts. Could medicine be called a τέχνη at all? Several Hippocratic writers were emphatic that it could, though their ideas differ on how. Its successes are not the results of chance but of reason based on experience, the effects of causal factors that *could* be used by the τέχνη even when they were at work independently; above all, predictions could be made on the basis of reliable signs, and that was a test of the doctor's skill. Some, whether or not aware of the problems that remained if the τέχνη depended solely on the pragmatic criterion, went further and insisted that medicine is an inquiry based on research conducted according to its own methodological principles: its theories should not be based on arbitrary assumptions but should, in principle, be testable. Above all, while some might suppose, and some did suppose, that there was nothing to stop medicine being turned into an exact inquiry, others resisted that ambition and insisted that though not perfectly exact, it was a τέχνη nevertheless.

As remarked, many of these themes become appreciably clearer and more explicit with Plato—not that Plato was happy, in the final analysis, to concede to medicine, as a conjectural art, a very high status at all. With Plato and with Aristotle of the *Posterior Analytics*, the requirement of certainty for knowledge and the securing of incontrovertible conclusions by deduction from self-evident axioms, come into the foreground in philosophical analysis—as they were implicitly to dominate (and to some extent were already dominating) the exact sciences throughout antiquity. But Aristotle's practice in the inquiry concerning nature accommodates more easily than some of his theoretical pronouncements the category of what is true 'for the most part' as well as what is true always; and of course he explicitly allowed differences in the degree of exactness of different disciplines, not just between mathematics and moral philosophy but also between mathematics and physics. Some of these Aristotelian themes may be represented as picking up (though they do not do so explicitly) points already made by Hippocratic writers, while in the next generations the continuing Hellenistic debates on the status and methods of the medical τέχνη were to be one context in which the issues between scepticism and dogmatism were to be fought out. Sophisticated developments were to come: but whatever

we may think of the many different ways the name of Hippocrates was conjured with in the Hellenistic medical sects, at least the first beginnings of important topics are to be found in some of the treatises that came to be ascribed to him.