

7665
—

Kudlin, F

Early Greek primitive medicine

Clio Medica, 1968, 3, p 305-336

Early Greek Primitive Medicine

FRIDOLF KUDLIEN

WHEN used in connection with the ancient Greeks and, moreover, with their highly praised medicine, the word "primitive" does not shock us so inevitably as it did our parents. By such a term we may simply envisage an irrational (but by no means purely magic¹) portion of early Greek medicine, a portion which was originally, it is true, neither imagined nor practised by regular physicians (nor by regular priests) and which, in fact, reminds us of many parallels to what we call strictly "primitive medicine". It is, however, not our purpose to demonstrate here those parallels as such—the interested reader may eventually do this by himself. We are concerned primarily with the early Greeks alone, and with their mentality.

But there are other parallels or connections which must be discussed. In her recent pamphlet *Medicina magica e religione popolare in Grecia fino all'età di Ippocrate* (Roma 1967), the classical philologist Giuliana Lanata has provided us with some valuable, well-founded insights into this kind of early Greek "medicine". In Lanata's view, *Greek medicina magica* is a "flone nettamente distinto" which has its own rights and field, at least in comparison with *Greek medicina scientifica* (l.c., p.17). Given the author's starting point, this view is acceptable and even correct in some sense: Lanata wants to illustrate the background to what in the Hippocratic treatise *De morbo sacro* (ch. 1) is opposed in such well-known and intriguing words. If one regards matters from the viewpoint of this very enlightened Hippocratic physician, it becomes clear that there was no connection whatsoever between those two "floni" of early Greek medicine.

On the other hand, a real and deep-rooted communication between the two "floni", although so different in themselves, cannot be overlooked or denied. In focusing our interest upon this communication, we may add to Lanata's survey a not unimportant aspect. Yet another result is perhaps to be expected: as Miss Lanata rightly states, it may be doubted whether regular Greek medicine in later times was completely untouched by any influences coming from *medicina magica* and, therefore, was fully rational in and by itself, as is suggested, for instance, by Ludwig Edelstein's brilliant discussion on the relations of Greek medicine to religion and magic (see Lanata, l.c., p.15 with note 6). For our part, we shall find that even old Greek medicine, that is to say "Hippocratic" medicine of either Cnidian or Coan provenance, was not so free of primitive or prerational heritage as one would be inclined to assume in the light of *De morbo sacro*. If this is so, it may eventually provoke a new urge to re-examine the widespread belief in the inborn rationalism of Greek medicine.

1. THE "IATROMANTIS"

We have a Greek term which, for us, seems to characterize most fittingly the representative of primitive medicine: we mean "iatromantis" as being a "physician-

seer". This term is to be found in the oldest of the three great Attic tragedians, Aeschylus; as far as we can recognize, he alone uses it. But there is no reason to assume that Aeschylus himself coined the term "iatromantis". On the other hand, being apparently a rare word, "iatromantis" may not have been a generally accepted term.² In Greece, medicine-men could bear several names which were to some extent unspecific.³ Accordingly, their profession could include far more than healing of diseases (the same holds good for the medicine-men of primitive tribes), the more so in very ancient times. Hence the word "iatromantis" may be regarded as an attempt to find a more specific name for Greek medicine-men.⁴ Be that as it may, we intend to consider—leaving aside the possibly wider field of Greek medicine-men—only their "medical" aspects, which can be investigated in some typical, famous figures.⁵

But before doing so, we must note a further limitation: In this study we are not concerned with matters of the kind which Erwin Rohde has discussed under the heading "Iatromantik".⁶ Rohde is speaking of *dead* heroes, whose graves could have been frequented for finding "aid in disease, or revelation of future events". But this combination of duties assigned to a single person is the very point we are interested in. What has to be borne in mind is that these medicine-men were just ordinary persons, i.e. neither heroes nor gods, although feeling sometimes as gods (as, for instance, Empedocles) or becoming closely related to Apollo.

How is the Greek iatromantis to be fairly defined? Is Neustadt's definition ("a Greek medicine-man who recognized and bans the demons of illness")⁷ sufficient? Let us start, so that we have some fixed points, from Aeschylus' description as well as from the etymological meaning of the word. In the *Hiketidae* (v. 262ff) an iatromantis is mentioned by his personal name: Aps. Concerning this mythical personality (not to be confused with the Egyptian holy bull Apis, as was done in late antiquity) there exist several saga-variants.⁸ In the Aeschylean version alone, Apis is presented as a son of Apollo (in the *Eumenidae*, v. 62f, Apollo himself is called an iatromantis). In this version, Apis is a "purifier" of all kinds of calamity, who comes from distant countries.

Thus we have found some traits which may be characteristic for the iatromantis: while the god Apollo was connected with the *physicians*, not only *via* Asclepius (his son), but also directly,⁹ he has been brought together (be it originally or by later mythical contaminations) with *medicine-men* likewise. In so far, the medicine-man seems to be, for the Greeks as well as for other people, a kind of ancestor or, say, elder brother of the regular physician. As to the etymological shape of the term "iatromantis", the meaning of its second half "mantis" is now fully illuminated: Apollo, a god of prophecy *par excellence*, is at the same time an iatromantis too, a "prophet and purifier of the houses" (Aeschylus *Eumenidae*, v. 62f). Such ritual-magic "purifications" will be found to be characteristic for the iatromantis, as well as the motif of coming (or being called) from afar.

Another son of Apollo, Aristaeus, is represented in a certain saga-version as a "trained" physician and prophet (see below p. 322). Although he (as well as his colleagues whom we shall discuss) is never explicitly called "iatromantis", he was so in fact. We hear of him, called an "avertor of plagues" in a certain case. Furthermore, his person helps to reveal a new specifically iatromantic trait: Aristaeus is a man who disappeared from the sight of men. In its varying forms (as to classical

antiquity, for instance, the bodily vanishing into the earth¹⁰ as well as the "journey" of the soul), this feature seems to be, for modern specialists, a sign typical of shamanism.¹¹

Another veritable iatromantis and, so to speak, shaman, was Abaris¹² who came from afar. Usually he carried an arrow or even rode on it. Hence he could be viewed, on the one hand, as being connected with Apollo (who was in fact an archer); on the other hand, just by this feature Abaris comes very near to a Siberian shaman.¹³ He was a prophet as well as a purifier of plagues and diseases; as such, he was once called to Sparta.

A very "Grossmeister" (to use Rohde's expression) among the shaman-like iatromanteis was the famous Cretan Epimenides.¹⁴ As it seems, he was not explicitly believed to be connected with Apollo; apart from this, nearly all iatromantic features can be found in his person: coming from afar, he wandered through all countries; he was a seer and a purifier, e.g. of diseases (the Athenians called him against a plague which was said to have been caused by the Cylonian sacrilege¹⁵); finally, he suffered from long ecstasies or "disappearings". His plague "therapy", which is reported in detail by Diogenes Laertius, was cathartic in a religious as well as a magic sense, not unlike that of Aristaeus (see below, p. 321).

Before discussing, then, two personalities who are of a special importance for our purpose, we should like to mention briefly some other names of iatromanteis: There was Bakis who had purified, by Apollo's order, the ill (mad) Spartan women (which reminds us of Melampus' treatment of the Proitidae).¹⁶ There is also another named Polyidos ("the much-knowing"), a seer who is said to have made a "medical observation".¹⁷ Finally, we should not overlook some persons who are, it is true, neither called "iatromanteis" nor described in the light of typically iatromantic traits and deeds, but who may well have been in fact iatromanteis. For instance, there is Althaimenes who disappeared from the sight of men.¹⁸ His personal name calls for attention: since the river Althaios was explicitly a "healing river",¹⁹ the man Althaimenes may have been a "healer" too, the more so since his sister was named Apemosyne ("freedom from ailments?"). We may recall also the Lamidae who formed a highly praised family of prophets, whose surname may be connected with the Greek verb "iainein" in its special meaning "heal".²⁰

But now we have to speak of two persons who are of outstanding importance to us since they act, within the Greek area, as a kind of bridge between "iatromantis" and "iatros", that is to say between primitive and regular medicine. First, Melampus must be presented here. He was a seer who was "beloved" of Apollo.²¹ Likewise, he was a purifier whose practices are somewhat clearer to us than those of his colleagues. As to these practices, there is something quite remarkable: on the one hand, Melampus used (as did, for instance, Epimenides) cathartical procedures of a religious or magic character;²² on the other, he was viewed as "a seer who invented a medical treatment based on drugs and purgatives".²³ In this sense, he is said to have treated the daughters of Proitos with a plant, namely the famous black hellebore, thus "purging" the maidens of their madness.²⁴ Originally, this treatment was certainly a rather magic one; all "black" vegetables were believed to belong to "subterranean beings", serving, therefore, as magic apotropaea.²⁵ Black hellebore, however, is also a real and effective cathartic which regular medicine took over as a "rationalized" remedy against madness (in particular, against

"melancholy" which itself, as a mental concept, stems originally from a preratation soil²⁶). The physical effects of black hellebore may have been detected empirically—in so far, it is true Melampus, may rightly be named, at least in a symbolic way, the "inventor" of Greek internal drug therapy—a man who stands, so to speak between two different worlds.

Empedocles is likewise an iatromantis whose position is to be sought, perhaps even more, within the border-area between prerational and rational or regular medicine. As an iatromantis, he was a very latecomer in time and place. Coming from afar, he wandered all over the "flourishing cities" (cf. fr. B 112, ed. Diels Kranz) which received him enthusiastically. He was a purifier who wrote a poem "Purifications" (Katharmoi), and he was able, furthermore, to foretell the future and to help with any ailment (fr. B 112). As he stated himself, physicians (iētrōi) and seers (manteis) belong to the same area (fr. B 146). Finally, Empedocles (you may remember the famous and miraculous tales of his death) was removed from the sight of men.²⁷ One of his deeds must now be mentioned especially: as a purifier, he had to aid a city on which a plague had fallen. In this case, Empedocles' therapy (in contrast to that of his colleague Epimenides) was not a magico-religious, but a surprisingly "modern" one, in so far as he diverted some rivers and, by doing so, eliminated the *natural* causes of the plague by *natural* means.²⁸

While emphasizing here the particular role of Melampus and Empedocles in comparison with the other iatromanteis, we need not consider the (real or alleged) connections between them and Orphism or Pythagorism or, in other words, their exact place in the history of Greek culture and philosophy. We are merely interested in the relationship of the iatromanteis to the regular physician. For this, it must be remembered that originally (and as late as in Homer) internal medicine as such was located, for the ancient Greeks, far beyond the field of rational thinking and rational practice.²⁹ Such diseases seemed to be caused by supernatural beings who alone, then, could heal them. A man who wished to be active in this field, had at first to seek for a path towards the supernatural sphere, hence becoming first not an iatros but an iatromantis. Internal therapy was restricted, therefore, to magico-religious methods.³⁰ In the course of a slow development, this field of therapy may have been augmented by drugs (plants) which either the supernatural beings had "donated" to an elect man (as, for instance, in the case of the famous herb "moly" in Homer's *Odyssey*) or which, perhaps, an iatromantis had discovered for himself to be effective (as with Melampus and black hellebore). The main concepts of internal diseases as such corresponded, in general, to this mental level (see below §9). Among all supernatural beings, Apollo stood apparently in the closest connection with this kind of "medicine".

But, as has been said previously, Apollo was likewise connected with the oldest regular Greek physicians, namely the (Homeric) surgeons. For the empirical basis of traumatology the surgeons relied to a far higher degree than the iatromanteis on mere experience. Nevertheless, in the field of internal diseases (which are, by their "hidden" causes and processes, of a somewhat ambiguous character), surgeons, physicians and iatromanteis may have been in some gradually increasing rivalry. In fact, both were travelling all over the country, and both were called in by patients. There was, then, a continuous confrontation between these different types of healers in ancient Greece. Since regular medicine was seeking for rational, i.e.

natural explanations and treatments of internal as well as traumatic diseases, regular physicians needed mental support from without, that is to say from philosophy ("Naturphilosophie"). On the other hand, the iatromantis may also have played an important part as a mental guide for the regular physician, at least in regard to therapeutic concepts and means.

In these circumstances, it seems inevitable that there came a moment when Greek regular medicine felt urged to emancipate itself from its mental predecessors or helpers. Hippocrates "separated medicine from philosophy", as Celsus' well-known, and somewhat symbolic formula runs. The Hippocratic author of *On ancient medicine* (ch. 20) demonstrates very well how radically such a separation from philosophy was propagated.³¹ This physician is one of a few who quote a "Naturphilosoph" by name—and it is Empedocles against whom he is speaking! Thereby, it becomes clear enough that Empedocles had failed to be accepted as a colleague by these self-confident, rational physicians (although he has been viewed, since later Antiquity, as a philosopher and physician). In fact, Empedocles was undoubtedly a "Naturphilosoph" (who had written *On Nature*), and this was a cogent reason for eliminating him from the newly constituted "techné iatriké". On the other hand, he was not primarily a physician but an iatromantis, that is to say the representative of a type of medicine which had to be rejected, as radically as the "philosophic" type, by the new medicine (see Hippocrates *De morbo sacro*, ch. 1). Perhaps it is the most fascinating (or should we say tragic?) feature of Empedocles' career that he (who gave so much to the new medicine) stood on the very border line between such different and even hostile types—iatromantis, "Naturphilosoph", iatros.

Here we meet, for the first time, that kind of confrontation which is our special concern in this study. There *are* two "floni nettamente distinti"; as G. Lanata has put it, but the situation is still not correctly described by this phrase. Within the old Greek medicine as a whole, the two "floni" could have been close neighbours or even inmates of the same house (although Hippocratic physicians certainly would not have liked to see or express it in this way). As we proceed we shall come to recognize the situation better after examining some passages from Cnidian medicine (see below § 3). Coan medicine, it is true, felt explicitly free from any prerational heritage, and especially from any iatromantic kinship. But *was* it free? If we put this question here, we should at least not forget the following: As a real prophet, the iatromantis had to know "the present and the future and the past", as did the Homeric Kalchas (see *Ilias*, I, 70) who was a "mantis" (*ibid.*, v. 92), or as did the divinely inspired poet Hesiod (*Theogony*, v. 31 and 38). Beyond this, it seems to be a very old, and very genuine, claim of the real shaman to know "the future, the past, and everything which is taking place in the present".³² In almost identical words the Hippocratic author of the famous *Prognostikon* (ch. 1), who was, perhaps, Hippocrates himself, claims the same knowledge, as far as the foretelling strictly concerns the medical jurisdiction. Let us say, then, that the old Hippocratic physician in this respect must be called a fully rationalized mantis who concentrates upon medicine alone. "Rationalization," however, must not always mean "rationalism" in itself; a prerational heritage may undergo many kinds of transformation without its essence being totally extinguished. Thus, for the scholar there is a serious need for cautious research in this difficult field; at any rate, for such a

purpose the simple (and simplifying) colours "black" or "white" are strictly to be avoided.

2. EARLY GREEK CONCEPTS OF DISEASE IN THE LIGHT OF "SHAME CULTURE" AND "GUILT CULTURE"

Medical historians, as well as anthropologists, are aware that within a primitive or ancient culture internal diseases are usually believed to be strange events which cannot be understood as merely natural ones. Likewise, it is known to medical historians that in those cultures all events of such kind (internal diseases being only a special group of them) are believed to be caused supernaturally. It is a very common idea that a god or demon who is offended by men is provoked to send a disease or similar punishment. Thus, such events came to be conceived as sequels of a "sin", that is to say, as a punishment for a (religious or moral) crime. Sometimes, the kind of sin which has been committed was obvious. Otherwise the alleged reason had to be sought for with the aid of some especially skilled persons, who might offer an explanation and also indicate the possibilities of cure.

It is true, this concept of sin-punishment correlation is a rather common one. However, several medical historians seem to be inclined to assume that *all* early concepts of disease, when based on the idea of supernatural causation, must operate with the moral or legal categories "sin" and "punishment" (a prejudice which may be well understandable in so far as we are all participants of Christian culture!). This, however, includes the risk of slurring over the obvious fact that early cultures regarded misfortunes (as, for instance, an internal disease) as a simple fatality, without asking for the reason or feeling guilty of a "sin". As an example of a related misinterpretation of early Greek disease-concepts, I may quote P. Lain Entralgo's discussion of Homer's idea of internal diseases.³⁴ Here, the Spanish medical historian is speaking exclusively of a divine punishment which is inflicted on men "for having broken the moral law". One can find the same one-sided view also in regard to similar Greek concepts as, for example, that of "ate", which is said, in the authoritative Greek-English Lexicon of Liddell and Scott, to have been "mostly sent as the punishment of guilty rashness". Actually, the word is used in Homer as denoting simply a certain state of mind which is caused supernaturally; there is no hint of guilt or punishment.

E. R. Dodds has commented very well on such failures of insight and interpretation.³⁴ This classical philologist has the proper merit of having used, for his purpose, anthropological methods and findings. In my opinion, it is especially fruitful that he used such anthropological concepts as "shame culture" and "guilt culture" for elucidating the Homeric and Archaic situation.³⁵ Thereby, the following becomes unequivocally clear: within a certain culture, all things are primarily ruled by public opinion; one is not tolerated who "loses face". A man who suffers anything strange, or who behaves strangely, will be isolated within the community. One is "ashamed" of this man—he in front of the others, and the others in front of him. In order to master this situation mentally, such a community tries to eliminate, so to speak, the strange event from its own body and soul by assuming a supernatural causation. This can be regarded as the simplest form of "shame culture" practised in an environment of which Homer too, was a member. In its proper sense, a

"guilt culture" is different in so far as its participants, facing any kind of "strange" event, also feel guilty of a sin. They ask with a moral overtone for the reason or sense of the "strange" event which is, consequently, for them not only a fatality, but a kind of punishment or revenge. Thus, there are two cultural attitudes in which we are interested, here, in connection with early Greek disease-concepts from Homeric times onwards until about 400 B.C. In fact, we will have to speak of non-medical concepts, and even this only in so far as such concepts are based on the idea of supernatural intervention. In contrast to the iatromantis, the regular Greek physician was not (or, at best, in polemics) concerned with such ideas and concepts; within his technē iatrikē, he wished to handle things in a strictly rational manner.

As was said above, we suggest that several medical historians seem to overlook the strong difference between the idea of "disease as fatality" and that of "disease as punishment". Furthermore, it must be stated that even in so related a book as W. v. Siebenthal's *Krankheit als Folge der Sünde* (Hannover, 1950) almost nothing is said on pre-Christian Greece. It may be justified for an author who has to discuss a vast theme within a small monograph to devote the major part of it to Christian times, but even so, there is no reason to ignore almost totally the forerunners or counterparts of Christian ideas within classical antiquity (see, for this, v. Siebenthal, I.c., p.47f). In the circumstances Lain Entralgo as well as v. Siebenthal have provided us with a rather distorted picture. Let us try, then, to find out the real situation. Accepting, as I do, the scientific categories of "shame culture" and "guilt culture" and their relevance to the early Greek situation, we can diagnose in Homer the following: In book XIII of the *Ilias* (v. 663ff), Euchenor, in accordance with the prophecies of his seer-father Polydos (for whom see above p. 307), was allowed to choose between death by "withering from a painful disease at home" or death on the battlefield. Of course, the nobleman Euchenor chooses the latter kind of death for escaping from the "abominable/hateful (stygere) disease". Here, the leading symptom of shame culture is given with the frank estimation of an internal disease as such ("abominable/hateful"). There is no word as to the cause of disease. But that does not mean that the poet would have had in mind, here, a natural cause of disease. Such an etiology we must take as being quite incongruous for him or for the culture described by him. Further evidence will help to strengthen our assumption that, in the case of Euchenor's foretold disease, the general idea of any kind of supernatural causation can be taken as the predominating one. As you see, "guilt" or "punishment" are totally absent.

At first glance things in Book XI of the *Odyssey* (v. 170ff) do not seem so clear: in Hades, Odysseus is speaking, as a visitor, to his dead mother, asking her for the kind and cause of her death. He himself thinks it was either a "long illness" or an arrow, sent by Artemis to kill the old woman. Is there any justification for remembering the famous scene in *Ilias*, Book I, where Apollo sends a deadly plague by arrows? Did Artemis too cause diseases in such a way? That would be an error which is easily corrected: Artemis causes *death*, not through illness, but immediately by her arrows. This becomes sufficiently clear by v. 173 and v. 199f ("neither she killed me by her soft arrows, nor a disease came upon me"). As to a disease, Odysseus' mother states that thereby the vital energy is absorbed "mostly in form of an abominable/hateful withering" (v. 200f). By the word "mostly" it may have been emphasized that this is the common kind of end for an average human life, and

especially for aged people. Regarding this, I remarkable that Odysseus' mother emphatically rejects this ^{of} death to have been her own (v. 202f); in her opinion, she ^{of} her beloved son. This remark as well as the adjective "abominably clearly expressing an aversion for any chronic internal disease, seems to be typical for a shame culture;³⁶ the wound alone is help^{ful}, therefore, old people or women who cannot be active on the battle^{field} filled by an arrow from Artemis. The death by a "broken head, individual variant of the "honest death". Although not being, once again the idea of supernatural causation should be reg^uminating; likewise, "guilt" and "punishment" are not to be ex^{pl}ained.

In book V of the *Odyssey* (v. 394ff), a n^o suffering from an internal illness and "withering for a long t^{im}e" an abominable/hateful demon". Here, the supernatural e^{le}ment, not as a god, but as a demon who can either send the ill^ust case) be himself the personified illness (which I would ^{be} different aspects of the same matter). The adjective "a^lways continues to be a characteristic symptom of shame culture, punishment" are still non-existent.

Gods as disease-causers are to be found in *Ilias* and *Odyssey*. In book IX of the *Odyssey* (v. 399ff), Poseidon^{us} wounded by Odysseus, complains in a loud voice. Whenⁱⁿ all sides, showing a great interest in what has happened to p^{er}sons them by the words " 'Nobody' (a name cunning Ody^{ss}seus!) is killing me by tricks, and not by force". Say the Cyclopes violence to you, as a man who lives like a hermit—there hope from a disease which was sent by the mighty Zeus. So^o your own father Poseidon". After this, the Cyclopes leaveⁱⁿ the ruling idea is clearly recognizable: for Homer as well as ^{and} by him, internal diseases are usually caused by supernatural^{ly} escape from them (the less so if they are sent by a god so m^uch cannot treat or heal such a disease. Therefore, the commuⁿity with resignation, abandoning the patient who is practically^{ly} lost! Still, internal diseases continue to be seen as a mere ^{of} connection to such categories as "guilt" and "punishment".

An exceptional case is the scene in book Apollo is presented as sending by arrows an illness to the queen points to note: Although in its immediate causation a ^{works} as an internal disease ("infection"). Furthermore, this ^{word} name "nouses" (v. 10) as well as the special term "loim^os", in Homer, here alone. Finally, only here do guilt and p^unishment; Apollo is angry, since Agamemnon has offended t^{he} god^{and} the stage; Apollo is angry himself. After having fulfilled the d^{uty} and purifications), the god is appeased, and the disease ^{of} Among the ritual purifications, the Greek army has to und^{er} the water (v. 313f). How should this be interpreted from o^uther words: do we find here, and here alone, a Homeric ex^{pl}ain^{ed}?

Perhaps the following reflection can lead us to a correct judgement: apart from the concept of "guilt" as such, a genuine "guilt culture" must be characterised by consciousness of the moral and juridical implications. The participants of such a culture must think automatically of these implications, and must interpret and evaluate a related case exactly in this sense. There is no hint, however, of such an attitude in the first book of the *Iliad*. Apollo's anger is not an "objective" one, concerning a deed which Apollo estimates to be objectively unjust or immoral; in contrast, the god has been insulted by the violation of his personal honour ("atimazein", v. 11). After having suffered, then, a "shame", Apollo's reaction is mostly typical for shame culture.³⁸ Beyond this, in regard to the plague-scene of *Iliad* I, one should not forget the magic or primitive overtones (being manifest, for instance, in the arrows which cause a disease—see below p. 324—or in the purification-scene, v. 314³⁹). In the circumstances, it seems to be incorrect if one understands, as Lain Entralgo does,⁴⁰ the purification as well as the plague itself to be evidence of a "realistic" or "naturalistic" outlook of the Homeric Greeks; or if one thinks, in this case, of "somatic hygiene" or "bodily symptoms" (which are *not* mentioned in Homer, as is fully evident⁴¹) or, finally, of an actual "diagnosis of a bodily (instead of a moral) uncleanness". This is a factual misinterpretation of Homer (so vague a term as "loimos" should have been sufficient warning to avoid any too "realistic" interpretation). For the plague-scene, then, the label "shame culture" is as fitting as it had proved to be in the previously discussed cases.

Thus, the Homeric disease-concept appears to be uniform in principle: explicitly or not, an internal disease is a mere fatality which is supernaturally caused and cannot be explained or treated by men alone, in a rational manner. For Homer, neither the peculiar kind of causation nor the peculiar kind of disease is under discussion; there is only an evaluation of the event as being "abominable/hateful". There is but one exception: the plague which was sent for punishment can be appeased by sacrifices and magico-religious purifications,⁴² since the god's personal honour has been restored sufficiently.⁴³ Here the general lack of any more deeply founded consciousness of moral and juridical implications may be evident.

We must now leave Homer to approach the very sphere of guilt culture as it has been sketched previously. In Hesiod and Solon, the disease-concept is fundamentally different from that found in Homer. Intentionally I said "different" instead of "changed", since I am not willing to foster the impression that guilt culture, at least, in ancient Greece, may have represented a *later* stage of development. True, shame culture seems to be, seen objectively, the more primitive form. That being so, one may certainly come to the conclusion that guilt culture was a descendant of shame culture. However, the presumable descent must have taken place long before the Greek epoch of history. As for the Greek situation, Homer belongs, without any doubt, exclusively to shame culture, and this is a quite remarkable fact. On the other hand, there is no justification at all for dating Hesiod later than Homer just because Hesiod was a participant of a guilt culture, and Homer of a shame culture. The chronological relationship between Homer and Hesiod continues to be a more or less open question; perhaps the rural poet was not the younger, at least in relation to the poet of the *Odyssey*. Be that as it may, shame culture and guilt culture could have been, as we shall see, the closest neighbours in time and place.

Before coming to Hesiod and, with him, to a regular guilt culture, I want to present the particularly interesting case of a sick hero who is mentioned already in Homer's *Ilias* and discussed, then, in more detail by Greek tragedy: Philoctetes.

In book II of the *Ilias* (v. 718ff.), the so-called "ship-catalogue" tells us that Philoctetes, being a commander of seven ships and, furthermore, a famous archer, suffers from a "bad wound" which had been caused by the bite of an "evil water-snake". The Achaeans had left him in Lemnos; but they would soon come to "remember the lord Philoctetes". Nevertheless, Philoctetes' fellows went to the battle under a new commander, "missing", however, "their former leader". First, there is a simple wound such as was treated, for instance, by the surgeons Podalirius or Machaon (who are mentioned immediately afterwards in the ship-catalogue). But in Philoctetes' case, no treatment is mentioned at all. Consequently, the matter seems to be handled *a priori* as a bad illness; hence, Philoctetes was to be isolated at the island of Lemnos. This is in full accordance with the attitude of shame culture; the same holds good for the apparent lack of any sympathy or compassion for the sick hero. But there remains something questionable about this special case, just because it was, originally, a simple wound, although caused, it is true, by a poisoned bite and not by a weapon. Furthermore, Homer's record is obviously extraordinarily incomplete; finally there is that cryptic remark on Philoctetes as one to be "remembered in the near future".

Other testimonies can provide us with more information on the case of Philoctetes,⁴⁴ the nature of his illness as well as its causation. Being sick for several years at Lemnos, Philoctetes had become lame; furthermore, a horrible stench came from his wound (see Sophocles' *Philoctetes*, v. 1032). Beyond this, the water-snake had not been a common, but a holy one, acting as a guardian of the sacred place of the nymph Chryse (1.c., v. 1326ff.). Thus, Philoctetes' disease becomes clearer to us, at least in the context of a shame culture: lameness as well as a bad odour must of course have been exceedingly "shameful" things which immediately forced the affected person to be isolated. They were sent to Philoctetes by the bite of a snake, since he had offended a supernatural being or a taboo (sacred place). On the other hand, Philoctetes' disease stood in a special light as being part of a divine plan (see Sophocles, 1.c., v. 191ff.). After having fulfilled this plan, Philoctetes would recover by the medical treatment of Podalirius and Machaon (Sophocles 1.c., v. 133f.) or even of Asclepius himself (1.c., v. 1437f.).

In Sophocles' delineation, those features, although originally stemming from a shame culture (you may recall the case of offended Apollo), are transformed into those of a guilt culture. As it seems to me, such a transformation was to be brought about by two new factors, that is to say, by an articulate consciousness of right or wrong (in a fully moral or juridical sense) and, as well, by an articulate pity, both playing indeed an important part within the Sophoclean tragedy. For the pity, one may compare the choral songs (esp. v. 169ff.) where the lonely sufferer, being abandoned by his companions, is deplored with deep compassion. In regard to the consciousness of right and wrong, shame culture as such would have been content to state that a sacred place had been offended by Philoctetes (the consequence had to be the personal anger of the divine being affected), and, therefore, an illness was sent as a punishment. Sophocles, however, demonstrates a deepened insight

Being the subject of a divine plan, Philoctetes is, in reality, an *innocently* guilty man—and, in so far, an unjustly suffering one. The patient himself frankly expresses this by accusing the “demons” or gods as the really guilty beings who had fostered the injustice (see e.g. v. 446ff.). When the concept of guilt is “deepened” in such a way (as was done, in general, by post-Homeric thinkers), Philoctetes’ case, together with its double-faced concept of disease, has a particular fascination for us. Later, we shall meet the same phenomenon while discussing Orestes’ disease as it has been delineated by Euripides (see below p. 317).

But for the moment, we must concentrate upon the disease-concept which is the most typical and common one in a guilt culture. In Greek literature, we find it first constituted in Hesiod’s poems. Within the mythical genealogy of the *Theogony* (v. 226f.), the diseases (named as “tearful pains”⁴⁵) are ranged among the daughters of the “abominable/hateful Eris (i.e. Struggle)”. This “epitheton ornans” we know very well from Homer, that is to say, from a regular shame culture. But in Hesiod, it is Eris, the mother of diseases, who is qualified by this adjective. Setting aside all mythical or demonic overtones, there seems to be, in and with the “personality” of Eris, a starting-point for another disease-concept, a concept which could be based on moral or juridical presumptions,⁴⁶ and which may have been expressed by the great moralist Hesiod himself as well as by the spirit of his time and environment (being, at any rate, not identical with Homer’s⁴⁷).

In the *Works and Days*, then, two different myths contain two disease-concepts which, while by no means identical, resemble each other very closely. In the famous Pandora-myth, the “nouisoi” are demons who escaped from Pandora’s box, coming automatically by day and night to human beings and silently bringing harm to them (v. 102–4). At first glance, this concept seems to be the same as in *Odyssey*, book V, where a disease demon is tormenting his victim (see above, p. 312). But Hesiod gives more, and more important, details (v. 90–92): In ancient times, men lived “without evil, distress and bad diseases”. Putting the question, then, why were men expelled from that paradise, we learn from Hesiod that Prometheus’ deed (and Zeus’ consequent reaction) were the ultimate reasons: Zeus was angered by Prometheus’ well-known deed (v. 47 and 53); thus he imagined “a sudden trick for which there was no remedy” to be a punishment for the human race (v. 83). The difference between the anger of Zeus and Apollo is that Zeus has not been offended in his personal honour: Prometheus had deceived him (v. 48), and he had stolen something (v. 51 and 55); this is a crime for which Zeus, the god of justice (v. 36), must punish “very painfully you and future men” (v. 56).

As early as in the Pandora-myth, it is evident, we find a moral and juridical consciousness which fosters the idea that internal diseases function as punishment for a “sin”, and even for an inherited one. By the demonic overtones or by Zeus’ “trick” one should not be led to assume that here we are dealing with a shame culture. As a legitimate part of a guilt culture, Hesiod’s disease-concept becomes entirely clear in the myth of the Golden Age (*Works and Days*, v. 225ff.): The moral city, practising the “even” right, lives without trouble; for instance, no “ate” comes to its inhabitants, and everybody is in good health—“the women give birth to children who look like their parents” (v. 235). This is by no means an allusion to adultery and its consequences, but stands as a typical example of public health (no monsters!), as becomes evident from the following delineation of the immoral,

criminal city (v. 238ff): "To them, Zeus brought from heaven many sufferings, hunger as well as plague. People are decimated, and the women cannot bear" (v. 242-244).⁴⁸ Herewith, the disease-concept of a shame culture seems to be finally absorbed by that of a guilt culture. After being either a mere fatality or a matter of personal revenge, disease is now a punishment which is comprehended and interpreted in a fully moral and juridical sense. The Greeks themselves thought Hesiod's just quoted verses to be so typical, in this connection, that in his moral treatise *On Justice* the Stoic philosopher Chrysippus used them as weighty testimony.⁴⁹

In his *Eunomia* (fr. 3, ed. Diehl), Solon, the Attic statesman, sage, and poet, occupies a standpoint which is, in principle, not different (although modified in some degree) from that of Hesiod in *Works and Days*: when its inhabitants are immoral ("covetous and thievish") and its leaders unjust, the city will be destined to suffer much misfortune (1.c., v. 6ff). Dike, the goddess, acts as the punisher; "there comes an inevitable wound" (v. 17). Thereby, the disease appears, so to speak, in an ambiguous and glimmering light: as a punishment, it does not act in so simple and concrete a way as in Hesiod. On the one hand, its special term is "helkos" (which means originally a "wound", but can serve also as a metaphor for "internal disease"⁵⁰); on the other hand, it seems to be active as a kind of "macrocosmic disease" within human society, that is to say as discord, struggle, revolt (v. 19ff). Apparently a very old mythical mode of thought is taken over here into old Greek Polis-Ethics, for demonstrating the idea that within the "body" of the Polis, the bodies of all its citizens are connected with each other in closest interdependence. Within such a half-mythical thinking, an internal disease (which is, at any rate, caused by hidden processes) must become in itself, so to speak, an immoral event. Thus, it could not continue to be regarded as a mere fatality, as a mere shameful thing the consequence of which is isolation. Now, people were to regard it as a result of moral weakness and, furthermore, of a "sin" committed through this weakness; in these circumstances, the internal disease could be conceived as a punishment which the affected person "had himself to thank for".⁵¹

At this point let us pause to review the problems discussed so far. Homer, on the one side, and Hesiod/Solon on the other, have been our witnesses to demonstrate the differences between shame culture and guilt culture as far as disease concepts are concerned. As was said before, the concept of shame culture may be understood, with some justification, as the more primitive one. But this does not imply that the guilt culture's concept, then, completely ousted its "predecessor", so that one could draw a clear-cut line between two different phases of development. On the contrary, the two concepts could continue to coexist as neighbours or even brothers. In any case, the idea of a mere and reasonless fatality must have been felt, at long last, to be insufficient. Once given the expressed idea of retaliation (which, for our theme, had been originally connected with the primitive idea of a broken taboo, or of a personally offended superhuman being), a trend towards a (juridically based) moralisation necessarily follows.⁵² Let us once more observe this development in concentrating upon the phenomenon of mental illness (which may be taken as a border-line case of an internal disease as such):

For primitive people, the idea of a supernatural causation of mental disturbance is a rather common one. As far as the ancient Greeks are concerned, one can

recognize in Homer some hints of this undifferentiated idea.⁵³ Moreover, it seems to me that in regard to the shame culture's attitude towards the phenomenon of mental disturbance, some old rules of conduct, as formulated (for early Greek Poets) by the so-called seven sages, are of great importance: "When you are speaking, don't move your arms—this is 'mad'"; or "don't speak quickly—this may be a sign of madness".⁵⁴ A madman's behaviour is strange and differs from the normal. Consequently, he whose behaviour differs in such a way, may easily come under suspicion of being mad!⁵⁵ In these circumstances, disease and "mores" (not moral or ethics, but etiquette) are to be seen in the closest connection.

Concerning the categories "sin" and "punishment" and their relation to mental disturbances, one may look up Herodotus' remarks about King Cambysses: This man became mad "perhaps because of Apis" (*Herod.* III, 33), since the king had offended the Egyptian god (III, 29). Here is a clear parallel to Apollo in the *Iliad*. In the same vein, "many Greeks" (or "the Athenians" or "the Argives") upheld the opinion that, in the case of King Cleomenes' madness, the violation of a sacred place (located either in Eleusis or in Argos) had been responsible (*Herod.* VI, 75). As one is well aware, simple shame culture-concepts of this kind seem to have been very current among the ancient Greeks.

In considering the attitude towards mental disturbance in a regular guilt culture, we meet again (as was the case with Philoctetes) with a typical figure from old Greek myth being discussed in Greek tragedy of the fifth century B.C. One of the most famous mythical madmen was Orestes; a highly instructive delineation of his illness is to be found in Euripides.⁵⁶ In the Euripidean *Orestes* there are contained all those features (except the concept of mere fatality) which are important within the two cultures: the demonic causation of madness found its personification in the Eumenidae (revenge-goddesses) by whom Orestes "is driven in fear" (v. 38). The related illness has something "highly shameful" in itself (v. 10); Orestes is "ashamed" to face his sister and to trouble her with his sufferings, and he begs her to have no sympathy for him (v. 281–283). Thereby, his isolation becomes fully manifest. In his disgusting exterior habit, the sick Orestes is described quite realistically in v. 219ff. But it is by no means the exterior aspect of the matter or, in other words, the "mores" of the sick man which are primarily under discussion here. Granted the guilt of Orestes, his disease acts as a punishment. Orestes has not offended the personal honour of a superhuman being, but he has committed a crime which is grave for human as well as divine justice; he has murdered his mother. In that respect, his guilt is fundamentally different from that of Philoctetes. Nevertheless, both are alike because they are innocent technically in spite of their actual deeds. In Orestes' case, too, a god (Apollo) must be reckoned unjust and guilty, since he had incited Orestes to become his mother's murderer (she, on her part, had been the murderer of her husband). Accordingly, it is a case which springs from a vendetta (see Euripides, v. 27ff, 76, etc.). In the circumstances, Orestes (as well as Philoctetes) deserves a sympathy which could relieve him from isolation, and which, indeed, is given to him with great intensity by the chorus (v. 323ff) and by his sister Electra. Now let us return to the more general lines of our theme. In the fifth century B.C. the non-medical concepts of disease were those of a regular guilt culture; that is to say, they were more or less moralised, apart from an eventual persistence of some shame culture traits. Consequently, if people were exclusively interested in the

moral and juridical aspects of an affected case, the sick person necessarily continued to be isolated. For this, Plato is a credible witness. The manner in which he moralises the internal disease (see his *Politeia*, 445-409), excludes, it is true, any idea of supernatural causation (in this connection, Plato may have been influenced by a prolonged and widespread discussion; see below p. 319). On the other hand, a "thoroughly ill person" cannot be, for Plato, a member of a community which is morally and juridically well-established (1. c. 406, c. 1ff.). Such a man must be a burden simply on account of his existence, and, further, because of the possibility of his creating a progeny like himself (407, d 5ff.). Since he is "bad by nature", in body as well as in soul, the community should let him die or even kill him; by no means should such a man be given medical treatment (405-409 *passim*, esp. 410 1ff.). If we consider how Plato here discusses both medicine and public justice, in the closest connection, and if, furthermore, we recall the fact that Plato usually (on the basis of a main concept which may be called psychosomatic) suggests that chronic internal diseases are in some way immoral, we shall agree that, for Plato, the moralisation of the internal disease must have been a problem of the greatest political and social importance. As well as the explicit viewpoint, the implications of such a concept may be evident enough already in Plato's text. While Plato ignores the transcendent aspect of the matter, his contemporary Lysias points explicitly to it,⁵⁷ in a way which we may call "reactionary".⁵⁸ There was, in Athens, a club named "Kakodaimonistai", whose hobby was "to laugh at the gods and our laws". As it seems, the club's members were influenced by the Sophistic movement. Now, Kinesias, being a poet and the club's head (he had once been accused in a trial of having violated a sacred place⁵⁹), was called as a witness in a trial in which Lysias had to participate as a lawyer. In his speech, Lysias attacked this Kinesias with the following arguments: All the godless companions of Kinesias were already gone to ruin "as it is apt for such fellows". Kinesias, however, was punished by the gods with a chronic disease, thereby proving that it was by no means the affected person's offspring, but the guilty himself who must pay for his sin. "We all have in common to die or to be ill in a normal fashion (nomimon). But since anyone drags along and dies every day without being able to come to his life's very end, this may be appropriate only to men of Kinesias' character".

Plato as well as Lysias seem to be witnesses in a prolonged discussion which must have come to its culminating point in the fifth century B.C. and in which, for instance, the great tragedians had also been participants. The themes and motifs of this discussion may have been quite traditional. When in the case of Kinesias' illness Lysias is alluding, say, to the problem of original sin and the offspring's liability, a question comes under discussion which had been actual indeed as early as in Solon's days: must the community to which the perpetrator of a crime belongs, be punished for the crime (as had been the old rule)? Or would it not be more just to punish the perpetrator himself, and him alone?⁶⁰ Another related problem which was to be demonstrated extremely well by the difference between murder and manslaughter, concerned the "innocent" perpetrator. Having been discussed in early Greece for a long time,⁶¹ this problem became manifest within the special context of our theme, in such figures as Philoctetes and Orestes. Here the great tragedians are claiming something which so far had not yet been discussed at all, or had been rejected explicitly by conservative-minded thinkers such as Plato: the

sympathy with, and the care for an "innocently punished sick man". This was to be justified by a differentiation between "deed" and "guilt", as we have learned from Sophocles and Euripides. But even so, the odium which attached to the internal disease was far from being totally removed; at first, only the sufferer's isolation was relieved.

In Euripides' *Orestes*, however, there is a further argument justifying Electra's sympathy with the sick brother: the sister wishes to stay with him—he is suffering from periodical attacks of madness—because "you are not really ill but only fancy you are" (1.c., v. 314). In the very moment of an attack (v. 259), Electra's opinion becomes even clearer: "In reality, you see nothing of what you believe is fully evident to you".

It seems to me that this is an extraordinarily remarkable attempt to rationalize (or even overcome) an irrational inheritance—remarkable even with all its insufficiencies: of course, Orestes is a sick man; if not otherwise, his illness becomes evident by his accepting his fancies as reality.⁶² But it was the cultural tradition itself which had given the leading ideas for such a fancy as Orestes is suffering from! Given these circumstances, Electra's encouragement, although insufficient in itself, gains a peculiar importance, since we must take it as a (desperate) attempt to sweep aside some deeply rooted cultural attitudes—at least in so far as the moral implications of her brother's illness could be suppressed within the sister's mind by denying the very existence of an illness.

By ignoring or suppressing a problem, however, one has by no means overcome it mentally. The very solution could only be reached when the idea of a natural causation of internal diseases was as vigorously emphasized as the idea of supernatural causation, together with its moral and legal implications, was rejected. Since Plato spoke of "bodies being sick by nature", he did the one but failed to do the other. Now, what about the great historians of the fifth century B.C.? In Herodotus' remarks on Cambyses' madness (see above) we can find a further etiology which is mentioned besides that of a supernatural character: "From birth onwards, Cambyses is said to have suffered from a serious disorder which people call 'holy'. At any rate, it would be thoroughly understandable if a man whose body is ill, suffers in his mind likewise". Can this be recognized as an intentional and conscious step forward, away from the old concept? We cannot but state that Herodotus seems to have evaded a clear decision since he mentioned, as an alleged etiological factor, an illness which itself had been under suspicion as "holy", that is to say, a supernaturally caused one. At any rate, he fails to prefer explicitly a "natural" explanation.

The same holds good for Thucydides' famous description of the Attic plague. For this historian, the plague's origin lies indeed in obscurity, geographically as well as medically. Thucydides contents himself by quoting some different opinions among which the idea of a supernatural causation is not to be found. As it seems, Thucydides himself would not have put forward such an idea⁶³—but actually, he has no opinion at all in this case.

This being so, some old Hippocratic physicians may have been indeed the first not only to plead for definite natural causes of internal diseases (this, it is true, Presocratic philosophers did also), but also to refuse explicitly any kind of irrational

explanation.⁶⁴ If not in polemics, they did not speak of fatality, guilt and punishment. But it seems to be a fair question (which must remain unanswered, because of the lack of related testimonies) to ask if at the end of the fifth century B.C. all Greek physicians were agreed on this point. In the circumstances, we should be particularly cautious in regard to a too one-sided interpretation. There is at least one instance to be reminded of: old Hippocratic physicians were sometimes reluctant to treat chronic diseases. Certainly their arguments (if any arguments were advanced) sound rational. But on the other hand, there must have been (as Plato and Lysias suggest) many people whose beliefs about such diseases were quite opposite to those of the enlightened medical authors of *De morbo sacro* or *De aere aquis locis*. The burden of cultural tradition lay heavily on all Greeks, including their physicians. Remembering this we may be better aware of the real intellectual progress which is documented as individual instances by individual physicians; we must not overlook the relativity which seems to be inherent in the idea of progress.

3. PRIMITIVE AND CNIDIAN NOSOLOGY

In the two foregoing sections, we have tried to demonstrate some concrete patterns and concepts of early Greek primitive medicine. Thereby, we came to the conclusion that this inheritance on the whole could not have been fully overcome or eliminated by regular physicians. There must have been a kind of confrontation which continued at least below the surface. In Coan (or genuinely "Hippocratic") medicine, such hints of a hidden but nevertheless persistent working of pre-rational inheritance may sometimes be discovered indirectly, that is to say in the rationalizing (but not rational!) arguments of related physicians. But there is, on the other hand, a direct confrontation of primitive and regular medicine; we can observe it not in Coan but, rather clearly, in Cnidian medicine. For our purpose, Cnidian nosology is to be studied at first-hand in the books *peri nouson* (On Diseases). In the following paragraphs, then, we deal with three particularly interesting examples of Cnidian nosology, and go on to discuss their primitive roots.

(a) *The desiccating sickness*

Among the curious descriptions of curiously named diseases which are contained in the 2nd book of *peri nouson*,⁶⁵ one can find the "so-called desiccating (auante) sickness". The patient is unable to sustain either hunger or food; he suffers from headaches; he withers; he suffers from burning inner heat; over the whole body, he has the feeling as if needles are pricking him (these are the most significant symptoms). Since this description is an authentic piece of early Greek medical literature (which as such has on the whole been praised so often as being rational in principle), we must ask whether the Cnidian author has given here simple clinical facts observed by him without any prejudice, so that his description could eventually be identified with the aid of modern medical knowledge. In his translation, Littré speaks of "a kind of hypochondria"; Kapferer-Sticker suggest a "Magersucht" caused by a stagnation of all excretory functions and by a weakness of digestion; in Liddell and Scott's representative Greek-English Lexicon, our case is taken for an "atrophy" (s.v. *auante*). In the circumstances, one apparently needs a more detailed interpretation of the case and its background in order to prevent serious

misunderstandings among medical historians, classical philologists or even physicians. In my opinion, this case must be seen in a light which is primarily different from that of any rational medical knowledge.

First, we must recall that the four books of *peri nason* have come down to us under the name of Hippocrates, belonging actually not to the Coan, but to the Cnidian School of medicine.⁶⁶ Modern scholars incline to the opinion that in some degree Cnidian medicine is more primitive than Coan or, in other words, that Cnidian medicine has taken over many prerational concepts without sufficient cautiousness or criticism.⁶⁷ This being so, we may be allowed to assume that at least a few pieces of the 2nd book *p. nason* offer documentary evidence for the confrontation of regular Greek medicine with early Greek "*medicina magica*" (to use G. Lanata's expression⁶⁸). As a first example, the "desiccating sickness" may help to illustrate this confrontation in more detail.

In his *Works and Days* Hesiod tells us about the effects of midsummer upon human beings (v. 586–588): "Women are (then) mad with love but men are weak, since Sirius⁶⁹ desiccates (azei) the head and the knees; the body is dried (analeos) by the heat". At first glance, this description sounds thoroughly rational—but at first glance only. Why, we may well ask, are women mad with love just in the dog-days? Why, moreover, is it just the head and the knees which suffer especially from Sirius' effects? Finally, why are males alone "very weak"? Or is there another possible interpretation, and did Hesiod believe men as well as women to be weak, that is to say *sick*, since women suffer especially in the head (= mind), and men in the limbs (= bodily)?

Perhaps we can go further in this direction: for several primitive folk (e.g. the Tunguses) and in popular belief, head as well as knees could play an important part as an alleged seat of the soul, thus possessing a great magico-mythical dignity.⁷⁰ If the Hesiodic verses point to an analogous idea in early Greek culture, they may have been written, in a mentality which is close to the primitive, for informing the reader about a kind of very serious "psychosomatic disorder", together with its alleged etiology and symptoms.

The Hesiodic verses were imitated by early Greek lyric poets (e.g. Alcaeus, cf. fr. 94, ed. Diehl, esp. v. 4f). There is, for our purpose, only a small detail to be remarked, namely that Alcaeus says the sick people are "thin" (leptoi), not "weak". Since Hesiod gave us a quite detailed account of Sirius' effects upon human beings, Homer, in contrast, knows the "dog of Orion" to be a "bad sign" but, otherwise, simply remarks that Sirius "brings a lot of heat to miserable men" (*Ilias*, XXII, 30f). In Homer's context, the Greek word "pyretos" (which later means the heat of fever) seems to oscillate rather vaguely between, say, macrocosmic and microcosmic heat.

Other evidence which may be useful for the further elucidation of the problems and questions Hesiod has raised comes from a much later time; but in fact, the *Argonautica* of the Hellenistic poet Apollonius Rhodius are full of very old mythical data. In book II (v. 518–526) the following is told: "When Sirius burned (ephlegen) from heaven, . . . they called for this man (sc. Aristaeus), . . . being a protector against plague . . . And he built a big altar for Zeus Icmæus (i.e. for Zeus the rain-god) and made, in the mountains, sacrifices to that star Sirius and to the Cronos-son Zeus himself".

Here, the great drought event) seems to be conceived not only as experience which undoubtedly had been felt (ures) but as being itself a plague. The "poems to offer firmer evidence here than in H may be inclined to suppose that the "seirias" meant, originally, as a kind of demonic plague late, being created *ad hoc* as a metaphor such Greek words as "astrobles" (or " . . . the sense of "mad". In this case, a protector he must sacrifice to Sirius (as the causer) as wer). Aristaeus, son of Apollo, had learned to fly from the Muses (Apoll. Rhod., 1.c., v. 5) iatromantis in the sense discussed above.⁷¹ And the "desiccating sickness" within a prerational conceived this phenomenon as being a *ps*.

The following testimonia date can tell us something more about "sickness". In a few verses of the Ps. Hesiodi apparently corrupt (v. 149-153; see ed. Rzach that Eris deprives humans of their reason; and their last home in "black" earth. In this (Seirion azaleoio) seem to be connected, so black, perhaps by being burnt) as well as we die. Since it had been stated in the first that the desiccating Sirius influences primarily, that in fact the idea of mental disturbance verses from the lyric poet Ibycus (fr. 6, list about this point: "In my corpse, Eros doleful, rushing along (like?) the Thracian Boia maniaisin) of the love-goddess, being darkened from beginning onwards". Apart from ms of the wording, we can say that on the Sirius (though not so named) is on the stageacting" is given to madness; as we are always even primarily?) an erotic one. This applies days, women were "mad with love" (see Heide later poet Ibycus used a traditional metaphors, however, came undoubtedly from the airy lively) mode of thought, on which we are together, like a mosaic, a few literary *fr*.

Finally, we can, fortit who has left some primitive traits of the "ps, who was himself both physician (and, an physicians) and iatromantis (see above).¹, ed. Diels-Kranz) we hear that "Murderers" and desiccating diseases (auchmerai nosare strolling in the

darkness in Ate's meadow". Here, the demonic aspect of the "desiccating sickness" is given its clearest shape. In Empedocles' description, the "demons" of desiccating sickness belong to the "crowds of other evil spirits", thus being akin to "Murder and Anger" (for which see the following paragraph) as well as to macrocosmic misfortunes (inundations; as it seems to me, the putrefactions are of the macrocosmic kind—and not merely of a medical nature—here). On the other hand, they belong to "Ate" who is a personified mental disturbance which comes from without⁷² (in this connection one may remember also Empedocles' "melankouros Asapheia" in fr. B 122). Finally, they are connected with "darkness"; for this, one may think of Ibycus' "black love-madness" and of the "black" earth in Ps. Hesiod's somewhat cryptic verses.⁷³

What general conclusions can we draw from our literary fragments? Like other early cultures, the early Greeks knew something about that "plague of drought" which comes from the macrocosm and bears heavily on human as well as animal or vegetable life. Viewed in a merely empirical or rational way, this event was bound to a certain season (midsummer, dog days) and to a certain star's rise (Sirius). But additionally there could be, for the Greeks no less than for other ancient cultures, a very different way of viewing and dealing with these things: for instance, one could feel obliged to sacrifice to Sirius. Consequently the idea of demonic personification comes to play its part; here, a shaman-like personality is the fittest one to act. As for Sirius, there are indeed cogent reasons for assuming that this "dog-star" had been connected, or even identified, with a dog-like being already in pre-Homeric times.⁷⁴ This being so, and in regard to several ancient non-Greek parallels for animal-shaped star-demons,⁷⁵ this may fairly indicate a primitive animal demonism. In Sirius' case, however, the Greeks thought not only of animal but also of human personification; for them Sirius was sometimes conceived as a female superhuman being.⁷⁶

As it was with the "personality" (star or demon) of Sirius, his effects, too, could be seen in a twofold way: of course, one can simply observe that in the dog days the heat is extremely "desiccating", weakening physically as well as psychically (as it was pictured in Hesiod's verses); this is a matter of mere experience and rationalism. The same holds good for observing that, during a drought (and the subsequent rainy season), plagues arise with the greatest ease. But for early Greeks, Sirius' desiccating force could have a far wider meaning. In its "personality" as well as in its effects, this star was indeed seen as a very demon of plagues and diseases⁷⁷: everyone who was struck by Sirius, withered and/or became mad, in a general or special (erotic) sense. On the whole, the "desiccation" meant not only a serious illness (instead of a mere weakness) but a mysterious danger to life which leads, as it seems, with some inevitability to death (see Ps. Hesiod's *Shield*). In the circumstances, we cannot be surprised to find that some Greek words for "become desiccated" as, for instance, 'azesthai' and 'anainesthai', were generally used as metaphors for denoting not only a psychosomatic ailment (see e.g. Hesiod's *Theogony*, v. 99, where a deeply grieved man is "desiccated in his heart"), but also a veritable dying (cf. Sophocles' *Electra*, v. 819 and *Philoctetes*, v. 954). At any rate, this phenomenon is a rather uncanny, threatening matter which may be rightly connected with "darkness". If there is any help at all against it, this help must come, for early

Greek as well as primitive mentality, from an iatromantis or medicine-man who performs, in a magic-religious way, a purification.

With such a cultural background, let us return to the regular medical treatise *p. nouson II* and its ch. 66. In the meantime we gained, I hope, a deeper insight into the overtones and implications which are involved in this chapter's contents. Thus, we may be better prepared for accepting the assertion that this old Cnidian physician must have inherited, at least in the case of ch. 66, a cultural tradition which in its mental structure stems from a prerational or irrational domain. This seems to be the reason why the Cnidian is speaking of the *so-called* desiccating sickness. In the light of our non-medical evidence, we are now able to understand why, in the Cnidian description, the "burning heat" (phlegia), the "withering" (which is explained, here, by the inability to take nourishment) and the headache must have been, so to speak, leading symptoms. Nor should the patient's feeling of "being pricked with needles over the whole body" be interpreted primarily in a rational way, that is to say, as a subjective sensation which the Cnidian physician may have mentioned as an accidental observation. True, in our "prerational" testimonies this symptom was not to be found; but as such it is absolutely appropriate in this context, and even of actual importance here, if we recall two general facts: First, it is a well-known and very old idea that an internal disease will be shot or carried by arrows (by supernatural beings) into the body where it is "pricking"; then, from within.⁷⁸ Secondly, Sirius is sometimes conceived not only as an archer, but as an arrow (or stick); the Greek word "rhabdōs" can also mean "needle"⁷⁹).

Some other symptoms which occurred in our non-medical testimonies are mentioned by the Cnidian physician, not in ch. 66, but in some neighbouring chapters, which are apparently in a close (and not merely local) relation to that on the "desiccating sickness". Thus, concerning the "darkness" you may look up ch. 72 (the patient "flies from light and loves the darkness") or ch. 73, which deals with the "dark" (respectively the "black") sickness. Since these two chapters touch the circle of the famous but strange "black bile" and its child "melancholy", love-madness (being an "atrabilious" main symptom of melancholy) comes at the medical stage. Since, furthermore, one must remember that the black bile's main and elementary quality was believed the "dry" one, the chs. 72 and 73 may be called, so to speak, the missing links in Cnidian nosology in so far as the entire "family" of the desiccating sickness is concerned.⁸⁰

We must conclude, then, that in the mind of the old Cnidian physician of *p. nouson II* (or, at least, of the chapters we are interested in) the related diseases (the "desiccating", the "black" and so on) are not clearly defined, but confused, since they overlap each other, so that a more or less homogenous disease entity is mentioned under different categories and names. Or, in other words: a single morbid phenomenon tended to be taken as an isolated sickness itself.⁸¹ In my opinion, this seems to be mostly significant in regard to a certain mental level which was reached at a certain point of the development of early Greek regular medicine. Once again, we must recall the fact that the Cnidian physician sometimes has explicitly used a non-medical and apparently prerational disease-term ("the so-called desiccating sickness", as it runs in his own words). Furthermore, in regard to our fragmentary but, nevertheless, clearly recognizable "primitive" background, the Cnidian author turns out to be prerationally influenced, not only

with regard to the name, but also with regard to the description of the desiccating sickness. We may be allowed to suppose that the patient's case of *p. nouson II 66* had been observed and written down during the first half of the fifth century B.C. True, there were in Greece, then, no iatromanteis, if we exclude the single late-comer Empedocles and a few very low-grade tricksters.⁸² Instead of this, regular physicians had gained the field of wounds as well as that of internal diseases. But there were, apparently, Greek *patients* who could face an internal disease with a more or less "primitive" mentality. As for the case of *p. nouson II 66*, we are not able to identify, in a modern sense, the underlying disease as such; we cannot but assume that there must have been some "psychic" (to avoid the misleading term "psychopathologic") element. At any rate, the Cnidian physician felt no qualms at describing diseases and symptoms in a mentality which was not so different from that of a layman. Thus, we come to assume that the Cnidian's nosologic or pathologic system had not yet reached that stability which would enable him to describe this type of disease as (bodily or mental) derangements caused by humours and bound to seasons—as was the case, shortly after that, within the framework of Coan-Hippocratic epidemiology.⁸³

Indeed, it may be called a remarkable step forwards that, in comparison with the iatromantic mode of treatment, Cnidian physicians had developed some therapeutic methods which were based on empirical grounds (as to the desiccated sickness, walks are prescribed, for instance; for the drinking of ass-milk, however, see below p. 329). Moreover, the Cnidian clinical descriptions may even reveal, if examined closely, some faint attempt to gain an individual or critical standpoint: the patient *fancies* he is pricked with needles, as the Cnidian ch. 66 formulates it. On the other hand, in ch. 73 the author states with a nearly shocking naivety that by a "black" vomited mass the earth "is rising".⁸⁴ To sum up: the Cnidian's mental level turns out to be that of a rather unstable naivety. Indeed, this physician does not mention (perhaps consciously and with full intention) any supernatural influence upon diseases. But actually he avoids not only the supernatural, but any etiology whatsoever! Thus, he may be characterized as a true contemporary of Herodotus, whose etiological "reticence" we have already mentioned. We may recall, in this connection, Herodotus' well-known methodical principle which runs, in his own words, "legein ta legomena = retell the told stories". In Cnidian nosology the prerational inheritance which every early Greek physician was confronted with, was neither eliminated nor sufficiently rationalized.

This seems to be a fairly interesting fact which may help to make evident the development of early Greek regular medicine in its different stages. We must be thankful to the capricious literary tradition for having preserved such a valuable testimony concerning the "naïve" stage of confrontation between Greek "*medicina scientifical*" and "*medicina magica*". A few decades later, the situation has changed thoroughly in Coan medicine. In the old Hippocratic treatise *De aere aquis locis* (ch. 10), the influence of Sirius and the dog days upon the desiccating sickness is still to be found, but in a fully rationalized form and without any irrational overtones: when the midsummer is governed by Boreas and the dog days are especially rainless, this will be harmful for "bilious types". Such people, then, will become extremely desiccated ("anaxerainontai"); and also cases of "melancholy" may occur. Here, we meet again the desiccating sickness, together with its sister melancholy.

But now, the bile is named as a bodily, concrete stuff in and by which this disease is conceived to operate. As a microcosmic element, bile is believed to be in connection with macrocosmic elements and elementary qualities as well as with seasons, weathers and constellations. Hence Sirius and "desiccation" became free of any strange or irrational taint. Concerning therapeutics, a physician who was guided by such a concept had to put the question whether, given a bilious irregularity (be it lack or a change of quality in the bile) caused by the influence of the dog days, the affected patients should be treated at Sirius' time with the usual purgatives. In fact, in the *Aphorisms* (book IV, nr. 5) it is stated that, during the dog days, "purgations by drugs are painful". For such a consideration, we will seek in vain in the Cnidian treatise (which recommends, for the desiccating sickness, the treatment by purgatives without any scruple or caution). Since in this point Coan-Hippocratic medicine must be named progressive and rational (or, at least, rationalized), such a judgement—and this is also the case, conversely, with Cnidian "primitiveness"—cannot be taken as a generally binding one.⁸⁵ At length, the intercourse between "rational" and "irrational" must have been in the classical Greek area a more complex and more fluctuating one than current formulas usually imply.⁸⁶ On the other hand, we must be as cautious as possible in disentangling the mutually interwoven connections. On the whole, Cnidian medicine seems to be more, and even particularly, apt for such a purpose. Having found in it some traits which are "primitive" in the sense discussed above, we do not feel shocked either by the adjective or by the fact as such. True, within the field of classical antiquity Wilamowitz' verdict against comparison taken from ethnological or folkloristic material (which are said to "obscure the Greek individuality") may be of enduring methodical importance, so far as a general approach is concerned.⁸⁷ But given a theme such as ours, at least a momentary glance at regular primitive medicine is scarcely to be avoided.⁸⁸ As to the early Greek situation, our point of view seems to be, in our opinion, more proper than any attempt to interpret the irrationalities in early Greek medicine by the methods of Freudian psychoanalysis.⁸⁹ For a very long time, of course, the early Greeks had ceased to be "savages"; but neither the early Greeks, nor a veritable savage people can be taken, just because of the (for us) somewhat puzzling character of their mental concepts, to have been "psychopaths". Nevertheless—why should we attribute to the ancient Greeks an immunity from 'primitive' rules of thought which we do not find in any society open to our direct observation? (E. R. Dodds.)

(b) *The "murder"-illness*

As was stated above (p. 315), Hesiod, our Greek witness for a moralization of the (internal) disease, has presented in his *Trigony* (v. 226ff) the "abominable/hateful" Eris as being the mother of many children, among whom there were included the diseases. Furthermore, in the same family are to be reckoned the "Murders and Manslaughters" (*Phonoi kai Mokatiasai*, v. 228) which come to be the brothers and sisters of the diseases, pressed in a less mythical, or less personified, manner: murder is the sequel of evil and struggle which in themselves are caused by the "negative principle" which is personified, in Hesiod, as the "Night."⁹⁰ In an even more personified it is to say, more demonstric way than Hesiod's, "Murder and Anger" (*Phonoi kai Kotos*) may be seen veritable

evil demons ('keres', as the Greek term runs); in just this way, Empedocles has presented them, together with the diseases, as "strolling to and fro in the darkness in Ate's meadow" (see above p. 322f.).

Here we find some forms of a very old, and very primitive, mode of thought; they may be on the way towards becoming rationalized and thinking abstractly (that is to say, on the path towards philosophy), without being able to conceal their mythical, magic and demonic roots. As early as this, the idea could grow up that a murderer is ill (insane) or, conversely, that an insane person is likely to become a murderer. For us, Orestes' case served to demonstrate how such a concept could become concrete in ancient Greece. With the case of the furious Ajax, we find another possibility: Ajax himself is filled with *anger*; he becomes overwhelmed by *Ale* and commits, then a cruel *murder* among cattle and men.⁹¹

It is evident that, within this primitive area of concepts, murder as well as madness and darkness are closely connected to each other. As long as people clung to the idea of an external or supernatural causation of the "dark murder-madness", there was no remedy but a magico-religious purification which had to be performed by a competent person as, for instance, an iatromantis (it may be significant that Empedocles' verses on "phonoš" stem from his poem *Purifications*!). On the other hand, it was possible, for the same mentality too, to conceive the idea of an internal causation of black murder-illness. Eventually, one could conceive a "black" agent which came to work within the human body, either intruding into it from without or stemming even from the inner organism itself. At this moment, the glimmering concept of "melancholy" once again comes to our mind. With its constitutive etymological elements, "melan cholía" alludes to the "black" as well as either to the "anger" (cholós) or to a material stuff (chole = bile, that is to say, a bitter liquor). In fact, furious Ajax has been an "angry melancholic";⁹² for early Greek imagination, Ajax's 'medical' case had to be connected with as famous a physician as the Homeric Podaleirius.⁹³ When he was dead, then, Ajax's corpse was "blowing out" something black.⁹⁴ Since this "black" seems to have been imagined, apparently, as acriform (perhaps, there is an analogous case in the *Iliad* when angry Agamemnon's diaphragmatic region becomes filled with "black"⁹⁵), its material quality had been even more condensed in the case of the mad (or melancholic) daughters of Proitus to whom the iatromantic Melampus prescribed a portion of black hellebore (see above p. 307f.), that is to say, an emetic purgative. The very reason for such a treatment may have been seen, in accordance with a mode of thought which is inclined to "sympathetic magic" (Frazer), just in the colour of black hellebore by which an alleged black stuff (or, in other words, an alleged black "bile") could be driven out from the mad maidens' bodies.

Here the very sphere of medicine is touched. Such concepts as that of black bile, and emetics such as black hellebore, belong to the main inventory of medicine. True, in so far as early Greek regular medicine (at least that of Coan Hippocratic provenance) is concerned with a rational explanation and treatment of internal diseases, it may be expected *a priori* that such primitive concepts as the purely demonistic one are more or less out of sight and consciousness, even in the ambiguous case of melancholy with all its implications. The more remarkable must be, for us, ch. 67 of the Cnidian treatise *p. nouson II*, where "the so called murder fever (pyretos ho phonodes)" is under discussion. As to the Greek adjective "phonodes", modern

translators (as, for instance Liddell Scott Jones ^{h.v.}) "murderous" (i.e. disastrous). In my good only for the (perhaps later) Hippocratic most harmless (euthestatoi) fevers" are kotatoi)" ones. For the "murder fever" (ground of the matter, as represented byd not be overlooked. At any rate, the aving inherited here, as was the case with disease concept together with its appropriate case, in ch. 67 one cannot rely on the old nosology; in ch. 67, too, there is no excuse to conclude that our Cnidian physician representative of old Cnidian medicine, say, naive, in grouping and interpret (maybe for this reason alone) to use the mere term.

In fact, one symptom *II* seems to be a veritable "primitive" old the "needle-pricks"). Just at the begin "the eye-brows (of the patient) seem to jutance, that a rational-minded observer kind? We may be even more surpentioned as an exceedingly important symptom, a symptom which is held any rational, that is to say, physiognen for granted here (the specific express-brows seem to possess a strange dignity, dding consent" (see e.g. *Ilias*, I, 528), change grandeur. The *angry* Ajax, then, "eye-brows, thus concealing his eyes" like find anger as well as darkness connectome mysterious meaning. The Homeric the late Greek physician Aretacus' "oging eye-brows", for noting the most dale disease (the so-called "elephas", the identical with modern "elephantiasis" "like the swift Night" (a poetic expreer, *Ilias*, XII, 463).

Knitted brows, servi which is itself akin to night, darkness, for interpreting the "lowering brows" of to say, in a not primarily rational way, when we find "thick" brows especially, e.g. "Summing up all these features, the "murder-fever" as well as for one of its language of modern medicine should emphasized. If necessary, we may speak, At any rate,

it is a peculiar cultural mentality which creates such clinical pictures and terms, the basis of which does not indicate clear-headed observation.

In the Corpus Hippocraticum there is another testimony concerning the murder-fever, in which murder as such gains a real actuality: we have in mind a passage in the short fragment *On Virgins' Diseases*, a treatise (or more correctly, part of a treatise) which seems to be also of Cnidian provenance. This fragment's author, however, turns out to be, on the whole, much more enlightened than the physician of *p. nouseon II*: in the fragment, there is a vigorous pleading for a natural explanation of the different kinds of demon-fear; furthermore, there are polemics (like those in *De morbo sacro*) against the "manteis" who are deceiving female patients; finally, there is, for the strange (bodily or mental) symptoms of the affected cases, a medical etiology. Nevertheless, one of the author's statements seems to have a strong attraction in the light of our theme: during the "so-called errant fevers" from which women or girls suffer in certain circumstances, the patient is said to become "mad from the inflammation (oxyphlegmasia); from the putrefaction (sepedon), she becomes bloodthirsty (phona); from the dark, she becomes fearful".⁹⁹ Undoubtedly, this has the very flair of primitive medicine which we have learned, now, to observe in such elements as "the dark" or "the putrefaction" (remember that Empedocles presented "Sepedon" among the evil demons; see above, p. 322f.), or "the murder". Of course, death is familiarly allied to this horrible circle, be it a natural death or a manipulated one, that is to say, murder or suicide (in regard to suicide, one can find in the text of *On Virgins' Diseases* an interesting testimony for what modern anthropologists usually call "thanatomania"¹⁰⁰). After all, the Cnidian author of *On Virgins' Diseases*, although attempting a rational, medical etiology as well as keeping an explicit and fundamental distance from any kind of irrational medicine, has in fact not yet succeeded in fully abandoning his primitive inheritance.

Finally, it may not be overlooked that even in Cnidian therapeutics (which seems to be, on the whole, the most rational part of Cnidian medicine) some traces of a prerational or magic stock are to be found. First, I would like to call attention to the fact that both in the cases of murder-fever and of desiccating sickness, a drink of asses' milk is recommended without commentary. Of course, the physician must in general be interested in easily digestible food; in so far, the prescription of milk may look well-founded. But for what reason must it be the milk of an ass? In ancient Greece, neither asses' milk nor cows' milk were common; both became so only in Roman times.¹⁰¹ Far more common was the milk of mares, sheep, or goats. In the circumstances, it seems to be striking enough that asses' milk is relatively often mentioned in medical literature especially because of an alleged purgative force.¹⁰² Since this kind of milk was given as a purgative in cases of such "demonic" diseases as murder-fever or desiccating sickness, we may be justified in thinking that the purgation, here, was not originally on a rational basis, but a magic katharsis. If this is so, we should remember the remarkable fact that the so-called Empusae or the Mormo (both Greek "ghosts" *par excellence*) were conceived as ass-legged.¹⁰³ Thus, asses' milk may have been a kind of homeopathic counterspell which was used in an alleged case of demonic obsession (*similia similibus*!) just before Cnidian medicine "rationalized" it.

As a final example, I would like to mention a remedy procedure which is not to be found either in Cnidian or in Coan medicine, although rather closely connected

with the clinical phenomena which we encounter in *Diseases*. In this latter case we are reminded of the well known *of suffocatio uteri*, which is based on the assumption that the underlying "animal within an animal", can provoke by its mephitic" symptoms as anxiety, syncope and so on. Now, it seems interesting that some Greek physicians are said to have treated this in a kind of music-therapy: As Soranus tells us in his gynecological *Corpus Medicorum Graecorum*, vol. IV, p. 112, line 22ff.), in such a method the sound of flutes and drums, and Xenophon (perhaps the Andrian physician who was a pupil of Praxagoras) recommended, to produce the noise of metallic instruments (by "whetting or" Those physicians believed (as, certainly, common people do) that the uterus would return to its proper place when forced by the manipulations. To a modern mind, the treatment savours rather of "suggestion" — but such an explanation would bring things into false perspective. As an element in any type of medical treatment, the instruments belong, to be precise, primarily to the family of magic. From very early times, the sound of metal had played its part in every apotropaic or magic means of averting demons or other evil influences. Magic was finally inherited by regular medicine, which rationalized a scarcely satisfactory manner.

(c) *The "bad sorrow-illness"*

The third, and final, example of the pre-Cnidian nosology concerns an illness (discussed under the above *nouson II*, 72) the symptoms of which are, in the main, excellent suffers from "stinging" pains in the intestines; he loves dark visions ('sometimes, the dead people?'). That his "diaphorae" seems to be an especially significant sign in regard to that of "melancholy" to which all the Cnidian diseases so far discussed are connected.¹⁰⁵

After all, we come easily to assume that this was also originally conceived as being personified, that is to say, as a person. In old Greek mythology "Phrontis" occurs as a personal one of the sons of Phrixos bore it.¹⁰⁶ In the circumstances, it is a coincidence that one of Phrontis' brothers was named "Melas" (light in supposing that "Melas" originally had to name the "we find ourselves, once again, in a familiar environment: the north wind, who apparently played so significant a part with concepts. A male demon "Sorrow" may have been nothing but to say only another aspect of the same uncanny, "cold", deadly, many "personal" names. To realize the mode of action of the already mentioned symptom of a "stinging" or "scratching" In Alosa's words "sorrow (phrontis) scratches my head", *The Persians* v. 161), an original demonic idea may in this idea became undoubtedly a rather meaningless concept.

But there was, apparently, also a *Emotion* — and perhaps in Greece, too. Concerning non-Greek will remember the

famous "Frau Sorge" in Goethe's *Faust*. In this tragedy (v. 11 384ff.), she is conceived as a veritable disease demon. By her breathing on him,¹⁰⁸ the old Dr. Faust becomes blind, being exposed, then, to darkness (!). Without being able to discuss, here, the problem of the sources which Goethe had used for delineating Frau Sorge, we are justified in stating that this woman-demon is conceived by him in a thoroughly "primitive" manner. In folklore of German provenance there are evil spirits and disease demons who fully correspond to "Frau Sorge's" type.¹⁰⁹ As to the early Greek situation, one may remember the "frequent sorrows (merimnai)" by which people "are moved to and fro" (*Homeric Hymns in Mercarium*, v. 44). As seemed to be the case with the above quoted Aeschylean verses, the Homeric language, too, may have preserved, here, an idea which had not yet become a mere *façon de parler*.

This may be sufficient for clearing up the mental background of the "bad illness sorrow". In our opinion, in this case, too, the Cnidian physician has taken over a prerational concept without achieving an appropriate rationalization. In this connection, Coan medicine again was the superior. Here, the two words "phrontis" and "merimnai" lack any demonic tinge. On the contrary, they mean a fully rational "care for" and are able, therewith, to serve positively within medical language as special terms for a kind of "psychic gymnastics".¹¹⁰ As for such a stage of mental development, the Cnidian physician was far from having approached it.¹¹¹

NOTES

1. This may be said for those readers who are inclined to take "magic" in the precise but very refined sense J. G. Frazer has given to the word (excluding any kind of supernatural intervention). Correctly speaking, early Greek medicine as well as primitive medicine *sensu stricto* is "magico-religious" (see E. H. ACKERKNECHT, *Bull. Hist. Med.*, **II**, 504 (1942)).
2. Nevertheless, Aeschylus' metaphorical use in the *Agamemnon* (v. 1621) may demonstrate that the word cannot have been an extremely rare one.
3. Besides the four terms which the Hippocratic author of "De morbo sacro" (ch. 1) is enumerating—magoi; kathartai; agyrtai; alazones—, we may recall such words as "mantis" or "goēs".
4. This also applies to the word "anemokoites" or "wind-banisher" (cp. Lanata, *l.c.*, p. 66f) which denotes explicitly an activity which can be taken as another single aspect of the medicine-man's complex profession.
5. See K. MEULI's masterly paper "Scythica" (in: *Hermes*, **70**, 137ff (1935), where some Greek iatromanteis are enumerated; see also F. W. CORNFORD, *Principium Sapientiae* (Harper Torchbook Edition, 1965), ch. I, §§ 5 and 6 (to quote a few examples from the vast literature).
6. In his classic work *Psyche*, vol. I, p. 184–186 (see also the index, vol. II, p. 435, s.v. "Iatromantik").
7. See NEUSTADT's very brief article in: PAULY-WISSOWA *Real-Encyclopädie*, etc., vol. IX, 1, 802 (1914).
8. See the article "Apsis", nr. 6, in: PAULY-WISSOWA *RE*, vol. I, 2 (1894).
9. See, for instance, Euripides' *Alekestis*, v. 970, according to which Apollo "has donated" the remedies to the Asclepiads (i.e. the physicians) without any intermediaries.
10. See RONDE, *l.c.*, vol. I, p. 113ff (for Aristaeus, *ibid.*, p. 116, n. 3).
11. Cf. H. FINDENSEN, *Schamentum*, Stuttgart, 1957, p. 236, n. 1.
12. References for the following are to be found in RONDE, *l.c.*, vol. II, p. 91, n. 1.
13. See E. R. DODDS, *The Greeks and the Irrational*, Berkeley/Los Angeles,⁴ 1964, p. 141 and 161, n. 34 (as to arrows or needles within old Greek disease-concepts, see below, n. 78 and 79).

14. See H. DIELS, in: *Sitzungsberichte Akademie Berlin*, 1891, part I, p. 387ff and RONDE, *l.c.*, vol. II, p. 96ff.
15. See DIOGENES LAERTIUS, I, 110.
16. See RONDE, *l.c.*, vol. II, p. 70, n. 1.
17. See H. HEKTER, in: *Rheinisches Museum f. Philologie*, **108**, 198 (1965).
18. See RONDE, *l.c.*, vol. I, p. 116, n. 1.
19. "althainesthai" means "heal"; cf. RONDE, vol. I, p. 185, n. 1.
20. For the Iamidae, see the article in: PAULY-WISSOWA *RE*, vol. IX, 1, 685ff (1914).
21. See RONDE, vol. II, p. 52, n. 2.
22. Cf. APOLODORUS *Bibliothèque*, book II, § 29.
23. APOLODORUS, *l.c.*, II, 27.
24. See RONDE, vol. II, p. 51, n. 3.
25. Some testimonies are to be found in RONDE, vol. I, p. 226, n. 3, vol. II, p. 76, n. 1 and p. 406.
26. Black hellebore (sometimes named "Melampodion"), together with "black bile" and "melancholy", belongs both to pre-rational and rational Greek medicine (see ch. IV, § 1 of my book *Der Beginn des medizinischen Denkens bei den Griechen*, Zürich/Stuttgart, 1967). It would be worthwhile, I think, to write the history of such drugs, which, as a pre-rational inheritance, were taken over by regular Greek medicine in a process of gradual "rationalization". To mention a further example: scilla and fig are, among the ancient Greeks, magico-religious cathartica of a very old origin (see RONDE, vol. II, p. 406f); by them, one is able to "wash away" (apomaiemai) any uncleanness. In later Greek medicine (cf. ARETAeus in: *Corp. Medic. Graec.*, vol. II, p. 101, line 14 and 17) these drugs, having been in the meantime sufficiently "rationalized" (remember their irritating effects on the skin!), are used in a completely unchanged way in the treatment of "lethargos" (a disease which, in its concept and name, may be itself very "primitive" since it seems to have been conceived, originally, with the idea of demonic obsession).
27. See DIOGENES LAERTIUS, VIII, 68/9.
28. See DIOGENES LAERTIUS, VIII, 70.
29. See my above-quoted book, chapters II and III.
30. See my book, p. 32-34.
31. See my book, p. 39f.
32. See CASTRÉN, *Nordische Reisen und Forschungen*, vol. IV, p. 256 (quoted by CORNFORD, *l.c.*—see note 5—p. 96).
33. In his book, *Heilkunde in geschichtlicher Entscheidung*, Salzburg (*Wort und Antwort*, vol. 15), p. 40-43.
34. See ch. I of DODD's above-mentioned book (cf. n. 13). Furthermore, one may look up K. LATTE's excellent paper "Schuld und Sünde in der griechischen Religion" which is now reprinted in the same author's *Kleine Schriften*, München, 1968, p. 3ff (for "ate" as mere fatality, see *ibid.*, p. 4).
35. See the end of the 1st and the whole 2nd chapter of DODD's book (on p. 26, n. 106, DODD is explicitly referring to Ruth Benedict).
36. See ch. IV, § 5, of my above-quoted book.
37. When DODD states (*l.c.*, p. 67 with note 18) that the Cyclopes believe Polyphemus to be *mad*, I cannot agree with him. As it seems to me, the Cyclopes are simply diagnosing an *illness* (without any nosologic differentiation).
38. See DODD, *l.c.*, p. 32.
39. See, for this, DODD, p. 54, n. 39; for sea-water as an important magico-religious purgative, *ibid.*, p. 309, n. 109.
40. *l.c.*, p. 43f.
41. J. GRIMM (in his monograph *Die literarische Darstellung der Pest in der Antike und in der Romania*, München. 1965, p. 25f) is quite right, stating that Homer leaves a blank where we should expect a realistic description of the plague.

42. In denying the magic character of the purification in *Iliad*, book I, v. 312ff, L. EDELSTEIN does not convince us (cf. *Ancient Medicine, Selected Papers of L.E.*, Baltimore, 1967, p. 225, n. 67); see for this DODDS (above n. 39).
43. Lain Entralgo is once again mistaken in assuming, from the plague-scene, that Homer's disease-concept on the whole was concentrated primarily on the bodily manifestation, and secondarily on the supernatural causation of an internal disease (*l.c.*, p. 45f). One cannot generalize the situation of the plague-scene; conversely, the plague-scene itself, apart from a few peculiar traits, is integrated in a common concept.
44. For this, one may look up the introduction of SCHNEIDEWIN-NAUCK's *Sophocles*-edition, vol. I, Berlin, 1860, p. 193ff.
45. In v. 227, instead of "limos (hunger)" the variant "loimos (plague)" is given; this seems to be, however, nothing but a mistake of a copyist.
46. In his book *Der listensinnende Trug des Goltos* (Göttingen, 1952), K. DEICHGRÄBER is of the same opinion (*ibid.*, p. 149, note to p. 87). For Eris as a *causer* of illness, one may look up Ps. Hesiod's *Shield*, v. 149ff (see above p. 322); for Murder and Anger as brothers or sisters of the disease, cf. Empedocles, ff. B 121 and above p. 326). Solon's metaphorical use of "disease" and the connection between disease and (civil) war is discussed above p. 316.
47. Here we may add the remark that the phenomenon of the "moralised disease", although being apparently important in the ethical thinking of classical antiquity, has been ignored in modern monographs on Greek ethics (for which I quote the names of Ed. Schwartz, J. Ferguson, A. W. H. Adkins, A. Dihle, L. Pearson, F. Wehrli).
48. In folklore, monsters and miscarriages are usually connected with a plague. Originally, they had been taken as a mere fatality. (For the Greeks, one may look up DIOGENES LAERTIUS, VIII, 70.)
49. See *Stoicorum Veterum Fragmenta*, vol. II, nr. 1175, ed. v. ARNM.
50. See Pindar's "autophyta helkeä" ("self-grown wounds") in Pyth. III, v. 47.
51. One can find this in Solon, *l.c.*, implicitly and in Euripides explicitly formulated (ff. 292, ed. NAUCK²: "nosoi anthairetoi").
52. See, in general, A. DITLE, *Die Goldene Regel*, Göttingen, 1962 (e.g. p. 14ff).
53. See DODDS, *l.c.*, p. 67.
54. Chilon, in DIOGENES LAERTIUS (p. 17, line 40f, ed. Cobet); Bias, *ibid.*, p. 22, line 24f. To the same category may belong the ban on loud laughter or "exalted distemper" (see Pythagoras, in Diog. LAERT., *l.c.*, p. 210, l. 3). One may remember also the "laughing" philosopher Democritus who was consequently believed, by the Abderites, to be mad (see, for instance the Ps. Hippocratic *Letters*, nr. 10ff l.). In the same manner, an "impertinent tongue" is, for primitive community-ethics, like a "highly shameful disease" (see EURIPIDES, *Orestes*, v. 10 and Diog. LAERT., *l.c.*, p. 17, line 27f and 38; p. 22, line 24f).
56. For the dramatic function of Orestes' disease within the Euripidean tragedy *Orestes* you may compare W. D. SMITH's paper in: *Hermes*, 95, 291ff (1967).
57. Lysias, ff. 53, ed. SCHMIDT.
58. See DODDS, *l.c.*, p. 188f.
59. See DODDS, *l.c.*, p. 200, n. 61.
60. See, for that, DITLE, *l.c.*, p. 15 and A. W. H. ADKINS, *Mind and Responsibility*, Oxford, 1965, p. 68f and 138ff. (in this light, too, Plato's above-quoted statement concerning the offspring of a sick man is to be interpreted; at any rate, it is not merely a "medical" statement.)
61. See DITLE, *l.c.*, p. 15f and ADKINS, *l.c.*, p. 102ff and 124ff; for Dracon and "involuntary murder", see K. LATTE's article on "Mord" (now reprinted in: *Kleine Schriften*, München, 1968, p. 382ff).
62. Later physicians or philosophers usually interpreted such fancies as sequels of a disturbance of the imaginative power which had been caused by "melancholy" or "mania"; see, for instance, Chrysippus (*Stoicorum Veterum Fragmenta*, vol. II, p. 22,

- 1, 10ff ed. v. ARNIM) who explicitly refers to Electra's above-quoted utterances. For an otherwise insufficient attempt to test such a phenomenon as fancies, you may compare the Cnidian author of *p. nouson* II who was perhaps a slightly older contemporary of Euripides: 'This physician describes, without any alleged etiology, some patients who "see horrible visions, and even sometimes the dead"'. Elsewhere, the same physician speaks, like Electra, of the patient's "fancy". Here we meet, from the side of medicine, with a mental attitude which is apparently identical with that of Electra (for the Cnidian physician, see above § 3).
63. J. GRAMM (*l.c.*, p. 35, n. 2) is certainly right in stating that "the words II 64 by which Pericles exhorts the Athenians to endure the illness as divine will, do not express Thucydides' own opinion".
64. The well-known testimonies are enumerated by L. BOURGEY, *Observation et expérience chez les médecins de la collection Hippocratique*, Paris, 1953, p. 114, n. 1. I cannot agree with Bourgey's opinion (*l.c.*, p. 113, n. 5) that the religious attitude of the author of *De morbo sacro* is more "authentic" than that of the author of *De aere aquis locis*, as I likewise cannot follow the opinion that in the Hippocratic testimonies which Bourgey has collected, any discrepancies could be found as far as the personal religious attitude is concerned. On the other hand, L. Edelstein's interpretation of the related problems (as given in his paper on "Greek medicine in its relation to religion and magic") fails to convince me on the whole. Perhaps it would be fruitful to treat once more the question of the old Hippocratic religious attitude without any prejudice whatsoever.
65. See also some remarks on the "black disease" (*p. nouson* II, 73) which I made in my above-quoted book, p. 78f.
66. As to the Cnidian treatises of the Corpus Hippocraticum, see I. M. LONIE's recent paper in: *Class. Quart. N.S.*, **15**, 1-30 (1965).
67. See H. DÜLLER in: *Archiv für Begriffsgeschichte*, **9**, 135 (1964); and my above-quoted book, p. 87.
68. For her purpose, Miss Lanata perhaps would have done better not to overlook entirely the Cnidian *péri nouson* and its (more or less apparent) "magic" traits.
69. Apparently, Sirius has to stand here as a substitute for the sun and the sun's radiance which is, of course, extremely intense during the dog days. In old Egyptian as well as in Greco-Roman texts, Sirius was held to be either itself a sun (see GUNDEL in: PAULX-WISSOWA *Real-Encyclopädie d. class. Altertums*, vol. III, A 1, 1927, p. 323, line 3ff) or at least closely connected with the sun (see GUNDEL, *l.c.*, p. 342, line 5ff). Cf. K. MEULI in his above-quoted (see n. 5) paper, now reprinted in: *Herodot. Eine Auswahl aus der neueren Forschung*, ed. W. MARG, München, 1962, p. 462. Furthermore, see BÄCHTHOLD-STÄUBLI, *Handwörterbuch des deutschen Aberglaubens*, vol. IV, 1931/2, p. 1570-1572 and W. D. MONTGOMERY's quite unsatisfactory remarks in: *Ann. Med. Hist.*, 3rd series, vol. I, 393f (1939).
70. For Aristaeus as being, perhaps, identical with Aristaeus of Proconnesus (who was a "miracle man" too), cf. the interesting reflections of RH. CARPENTER, *Folk Tale, Fiction and Saga in the Homeric Epics*, Berkeley/Los Angeles, 1964, p. 162.
71. See DODDS, *l.c.*, p. 2-8 and above p. 310.
72. See also, for Empedocles, fr. B 121, G. LANATA, *l.c.*, p. 34f, with further literature concerning early Greek disease-demons. I cannot agree with Lanata in supposing that Empedocles had inherited this demonistic concept of disease by the influence of Pythagoreism—at any rate, shamanism must not have been bound to Pythagoreism.
73. See GUNDEL, *l.c.*, p. 317, line 28ff.
74. See GUNDEL, *l.c.*, p. 322, line 35ff.
75. As a female being, Sirius is to be found especially in Coan tradition, as represented for us, by Apollonius Rhodius (see above, p. 321ff.); see for this GUNDEL, *l.c.*, p. 318 line 64ff. For etymological as well as other relations between Sirius and Sirens, see H. HERTER in: *Rheinische Jahrbücher für Volkskunde*, **1**, 121f (1950) and K. LATTE's short paper "Die Sirenen" (firstly published 1951, now reprinted in: *Kleine Schriften*

München, 1968, p. 106-111). If the Sirens were bad "Mitagsfrauen" and, on the other hand, were similar, being demons with wings and claws, to the storm-like Harpyiae, one may call the above-quoted poem of Ibycus and, especially, the (not fully evident) allusion to the "Thracian Boreas". For a demonic disease-concept which contains in itself both the motifs of the arrow-shot (for this see below in the text) and the hurricane (or north-wind), one may look up BÄCHTHOLD-STÄUBLI'S *Handwörterbuch d. dtsch. Aberglaubens*, vol. VIII (Leipzig/Berlin, 1936/7), p. 1577f. Now we can fully understand, too, a passage from the guardian's report in the Sophoclean "Antigone" (v. 415-421): Here, the strong heat of midday as well as a sudden hurricane (typhos) are said to have caused a "divine sickness". Manifestly, the poet is using current ideas which stem from the complex of our "desiccating sickness".

77. For Sirius in connection with plagues, see GUNDEL, *l.c.*, p. 336, line 9ff (Egyptian as well as Greco-Roman references); for Sirius as to particular diseases, see *ibid.*, p. 343, line 4ff.

78. One may recall Apollo's "infectious" arrow-shots and, furthermore, Aeschylus *Prometheus*, v. 596-598 (quoted by LANATA, *l.c.*, p. 30, n. 56). Since in the Aeschylean verses the illness "touches" (ἐχρίε) the patient, in Homer's *Odyssey* (V 395f) the disease-demon "scratches" (ἐχράε) his victim. For "touching" disease-demons in ancient Greece, see HERTER, *l.c.*, p. 126, with n. 44. For further "needle-stings" in *p. muson II*, see the chapters 72 and 73.

79. See GUNDEL, *l.c.*, p. 320, line 17ff.

80. As to black bile, melancholy and its peculiarities in the light of pre-rational medicine, one may look up my above-quoted book, ch. IV, § 1.

81. This reminds us of the Chidian "enumeration" of diseases ("Kidney-disease, nr. 1; nr. 2" and so on). In a wider connection, we must remember here the famous "specialization" in primitive medicine (see in general G. ROSEN, *The Specialisation of Medicine*, New York, 1944) or, for instance, old Egyptian medicine (see Herodotus II, 84): An illness as such could only be conceived in its separate manifestations; there is no idea whatsoever of nosological units. *Mutatis mutandis*, we can take the old Roman concept of divinites to be a close parallel to this kind of primitive mentality (see, for that, K. LATTE, *Kleine Schriften*, München, 1968, S. 88f).

82. See M. P. NISSEN, *Geschichte der griech. Religion*, vol. I (3rd ed.), p. 615.

83. A. J. FESTUGIÈRE's recent paper on Hippocratic and demonic epidemics (in: *Wiener Studien*, vol. 79, 157-164 (1966)) seems to be more attractive in its title than in its content, since it compares Hippocrates not with pre-Hippocratic but with Byzantine reports concerning a demonically caused epidemic disease.

84. See my book, p. 78f.

85. In my book, p. 126, I have discussed a *Coan* example for insufficiently rationalized old tradition. Or let us inspect once more the desiccating sickness: why do Coan physicians imagine sexual intercourse to be a "desiccating" event (see e.g. *Epidem. V 72*)? Beyond any rational explanations (as, for instance, a loss of moistness), it seems to me that in the background the old idea of "drought-plague", with its main symptom of love-madness, is still alive. Since ancient times, love, sexual intercourse, dry black bile and melancholy are bound together as a unit. This apparently is the reason why in later medicine Sirius, sexual instinct and "head-sickness" are still brought together as they were in Hesiod (see ARETAEUS, *Corp. Med. Graec.*, vol. II, p. 148, line 28 and the *Lexicon of Suda* s.v. "τενγε"). Finally, the fact that in the famous old Coan treatise *De aere aquis locis* ch. 10, the desiccating sickness is discussed in connection just with the north-wind (Boreas), seems to be remarkable in the light of our pre-rational testimonies (see above, n. 76) where this "dark" wind played a rather irrational part.

86. I explicitly agree with Lanata's (*l.c.*, p. 15) principal reservations as to Edelstein's "pan-rational" interpretation of Greek medicine (see also my book, pp. 88 and 100).
87. See H. HERTER, *l.c.*, p. 112.

- One may look up, for instance 1938; German translation under *The Bone is Pointed* (publ. the symptoms of which (incal) describing a magic death-illness in the body; withering) are *ent*; fever-heat; stinging pain the so-called voodoo-death (cf. *member*, in this connection, Especially, there must be name *anthropologist*, 44, 169ff (1942), from the Latin "sicarius"; for "er" (i.e. "the holy murderer"), mass (Black Hosts) is celebrated following paragraph) whose wish to let an enemy "wither" when the Gascogne peasants 1963, p. 70f).
89. Cf. the interesting but rather of the classical philologist, *Revue de la science hippocratique*, 90. Cf., H. FRÄNKEL, *Dichtung* 17, *Verfuchentums*, New York, 1951, p. 144f.
91. See the Introduction to "A", Berlin, 1860, p. 44f.
92. See especially the famous p. discussion in KLUBANSKY-PAL, 16ff and 89f.
93. See my book, p. 32.
94. Cf. KUDLIEN, *l.c.*, p. 85.
95. Cf. KUDLIEN, *l.c.*, p. 83f.
96. See HIPPOCRATES, *Aphorisms*, 97. See *Corpus Medicorum Graecorum*, 98. See BÄCHTOLD-STÄUBLI, *Handb.*, Vol. VIII, p. 468, LITRE, *Mythologisches*, vol. I, 1927, p. 704. 100. By this occasion, I recall to of *p. nelson* II, 73 (which the case of the "black disease" sickness) the vomited "black, murder-fever and desiccating Cf. PAULY-WISSOWA's *Real-lexikon* like murder-blood" are to be found also referred to, 169ff (1932).
101. For the Corpus Hippocraticum, 102. See PAULY-WISSOWA, *RE*, 103. See, for references, ROHM, 104. For the "swollen diaphragm" 105. See, for that, K. ZIEGLER's 106. 1, 771, nr. 1 (1941).
107. See H. USENER, *Kleine Schriften*, 108. For this "breathing on", one the "aciform" nature of "ent" with our special purpose, remarks about the dead Aja 109. See BÄCHTOLD-STÄUBLI, *Handb.*, p. 1771f.
110. See, for this, my remarks in 111. The concept of a "melancholy" (1962). of the related consequences is a fear of becoming poor and *Handbuch der gerichtlichen Arzneikunde* in J. BERNI's *Systematische und zum Leitfaden bei öffentlichen* (4th ed.), p. 170.