

Medicine and Morality in the Ancient World

An analysis of Galen's medical and philosophical writings

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- ABSTRACT -

The great power of the medical profession over the lives of men entails a wealth of moral problems in medical practice and lends particular importance to questions of the responsibility of the physician. We investigate the solutions offered by Galen, the most prolific medical author of classical Antiquity, in his medical and philosophical writings. Issues of ethics and moral psychology are discussed in numerous passages of Galen's works, and he even devoted a number of treatises exclusively to ethics. The main results of our analysis of these treatises and passages can be summarized as follows. Starting with his interpretation of a prominent Hippocratic maxim, we discuss possible motivations for Galen's re-definition of the relationship between physician and patient. For Galen, it was the physician, not the patient, who led the fight against the disease. This prominent position of the Galenic physician entailed particular obligations and responsibilities. But Galen also took the view that certain responsibilities resided with the patient, particularly that of selecting the right physician and keeping the prescribed diets. Moreover Galen thought that everybody ought to pursue the systematic liberation of the soul from passions and errors, guided by his ethical methodology. Galen gave disciplined care for one's health and acquisition of medical knowledge the status of moral duties for every educated person. For physicians, he provided a wealth of additional principles and rules of conduct, covering areas as diverse as experimentation with drugs, surgical risks, promulgation of knowledge on poisons, remuneration and other social impacts of medicine, and medical education, all of them inspired by respect for the health of man, the animal who topped the teleological hierarchy of creation, and medicine, the art whose task it was to preserve and restore man's health. Galen held medicine in exceptionally high esteem, even by the standards of physicians. His view of medicine as the divine art *kat'exochen* is considered in the context of his high valuation of human life and health. Health assumed a high rank in the hierarchy of goods, for it provided the basis for all the other goods and virtues. For Galen, preservation and restoration of health could be attained only on the basis of a sound scientific methodology. He was reluctant to apply criteria external to medicine proper to its practice, and mostly judged the morality of medical activities by the adherence to the principles of a well-founded therapy and avoidance of undue harm.

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Introduction

When Gabriele Zerbi, the eminent physician and anatomist who held professorships for philosophy and medicine in the universities of Bologna, Rome and Padua during the years 1471 to 1504, produced his contribution to medical ethics, *De cautelis medicorum*¹, he explicitly declared his goal as being to convey the views on the subject held by the ancient medical authorities, "imitating therein whatever has been written by the ancients and especially by Hippocrates, who leads us towards all that is good."² Here a medical teacher and practitioner attempted to provide a synopsis of ancient medical ethics for application by his students and colleagues, an objective hardly distinguishable from that of any compendium of Galenic anatomy or clinical medicine of the time. Zerbi did not have to make his allegiance to his admired predecessors quite so explicit. For his collection of recommendations for the behaviour of physicians betrays an influence of ancient, particularly Hippocratic and Galenic, morality, which extends beyond mere quotations and allusions into the entire organisation and purpose of the code of conduct.³ The Paduan professor of theoretical medicine shows himself a true follower of the Galenic methodology of progress (see below, 4.3). It is appropriate, he remarked, that the works of the tradition should undergo a process of *amicabiliter suscipi* and *benignius adimpleri*. Yet the data thus obtained have to be ordered according to universal

¹Venice (Cristoforo de' Pensi): after 1495. This work has been analysed by F.W.O. Bandtlow in his Leipzig dissertation *Die Schrift des Gabriel Zerbis 'De cautelis medicorum'* (1925), Münster (1956) and, recently, by Roger French, "The Medical Ethics of Gabriele de Zerbi", in Wear et al. (1993), pp. 72-97. On its 13th and 14th century forerunners, some of them under the same title, see Münster (1956) 63ff. For Zerbi's life and work see Cervetto (1854), pp. 10-45, and Pesenti (1984).

²... *imitantes in hoc quaecumque ab antiquis scripta sunt & ab ypocrate maxime omnium bonorum nobis duce* (a2r). This expression of reverence towards Hippocrates is taken from Galen's *De praecognitione*, chapter 1 (XIV, 602 K.): The detractor of prognosis is ignorant of the fact "that this subject was expounded by many of his predecessors and especially by Hippocrates, our guide to all that is good (τῷ πάντων ἡμῖν τῶν καλῶν ἡγεμόνι)."

³Cf. Linden (1999).

principles: *Non aliter & medicus rationalem vel logicum se prebeat: ut duce hypocrate cum aliis canonicis medicis particularia consideret: ut sub universalibus comprehensa sunt* (fol. b1v).

For a Renaissance humanist physician, who had been brought up to accept Hippocratic-Galenic medical theories as canonical, it was only natural to expect a similar systematic unity in the morality of Galenic medicine. It will be one of the tasks of this study to consider to what extent that assumption was justified by the evidence available from Galen's own medical and philosophical works. Attention will largely be confined to Galen's writings that pertain to moral matters. Writings of other ancient physicians, contemporary philosophy and legal documents will be considered by way of comparison, whilst popular attitudes towards medicine, as expressed by lay authors, will not be a prominent feature of this work.⁴

The views and theories that were expressed in the Hippocratic writings that he regarded as canonical were Galen's main medical authority and the point of departure for his own methodological considerations. This general feature of Galen's work applies no less to his considerations on medical morality. We will therefore start with a survey of Galen's attitude towards the tradition of Hippocratic morality, as witnessed by his commentary on a prominent passage from the Hippocratic Epidemics (chapter 1). The development of his own methodological approach to ethics in general and its application to medical matters will then be outlined in the following order:

- Galen's ethics and its methodological foundations (chapter 2)
- Medicine and moral philosophy in the treatment of the body and the soul (chapter 3)
- The perfect physician - morality and competence (chapter 4)
- The responsibility of the physician - special questions of daily practice (chapter 5).

⁴On these compare Vivian Nutton, "Murders and Miracles: Lay Attitudes towards Medicine in Classical Antiquity," in Porter (1985), pp. 23-53.

Chapter 2 provides an analysis of Galen's ethical treatises and a comparison with traits in contemporaneous and earlier moral philosophy, particularly the Stoic position. For Galen, ethics, which comprised rules for the behaviour towards other individuals, the community, and oneself and for the right attitude towards external influences that might affect body and soul, had to be based on a systematic methodology, which he modeled on geometric reasoning. In order to be acceptable, recommendations for behaviour must be based on this method and proven by experience. This approach shows parallels to Galen's combination of rational (*logos*) and empirical (*peira*) means in his medical methodology. We will therefore investigate the hypothesis that, for Galen, ethics and medicine share a common methodology and that both are accessible only when a full understanding of the method is attained.

Almost all schools of Hellenistic moral philosophy shared the interest in the possible therapeutic function of philosophical advice and rules for self-discipline in the treatment of what was perceived to be diseases of the soul. Galen, whilst acknowledging such a rôle for moral philosophy, demanded the joint application of philosophy and medicine to these diseases. Similarly, diseases of the body had to be cured by a combination of medical treatment and the maintenance of the balance between body and soul. Galen's views on the complementary workings of medicine and moral philosophy in the therapeutic domain will be discussed in chapter 3.

In the following chapter we will turn from the morality and self-discipline that is expected from a patient to that expected from a physician. Galen's perfect physician combines a sound morality with technical competence. Many earlier and later writers on the issue thought the ideal of the perfect physician to be unattainable and that a choice between morality and competence or between theoretical knowledge and practical skills had to be made. One might argue that with a common methodological foundation for all arts and sciences these choices need not be exclusive. To what extent Galen adopted such a view will be investigated in chapter 4.

The universal rules for the behaviour of the physician are supplemented by a wealth of recommendations for the ethical dilemmas of daily practice, such as

side effects and potentially dangerous therapies and the treatment of hopeless cases (chapter 5). It is argued that often, when there is no universal moral rule to be applied, these recommendations assume a prudential character. They serve to maintain the reputation of the individual physician, the profession, and the art of medicine. Because Galen attributed an intrinsic value to the preservation of the standing of medicine, these recommendations also had a moral dimension.

The intrinsic value that Galen attributed to medicine was derived from the value of human life. As might be expected from a medical writer, life and its preservation assumed a position in Galen's system of values that was higher than in most other axiologies of the time (chapter 6). It is argued that by providing a systematic foundation for the high regard for the preservation of life Galen also laid the ground for the particularly high standards of morality and technical accomplishment a physician had to adhere to. The call to give medicine a prominent place in the canon of *paideia*, based on an axiology which gave bodily health a higher value than that it held in any other system of antiquity, is one of the leitmotifs of Galen's voluminous work. With this combination of medicine and general education he strove to fulfil the legacy of Hippocrates, the admired "guide to all that is good".

Chapter 1

Galen and the Hippocratic legacy of medical morality

Central insights into Galen's attitude towards the Hippocratic legacy in the fields of medical morality and prudence can be gained from his reflections on a passage from the first book of the *Epidemics*:

As to diseases, make a habit of two things - to help or at least to do no harm. The art has three factors, the disease, the patient, the physician. The physician is the servant of the art. The patient must co-operate with the physician in combating the disease.¹

Galen discusses this passage at large in his commentary on the first book of the *Epidemics*.² He admits that, as a student, he first thought that Hippocrates had stated a mere commonplace:

"There was a time when I myself regarded this as a minor point and not worthy of Hippocrates. For I believed that it would be evident for all men that the physician had to aim first and foremost for the benefit of the patients, and in cases when that was not possible, at least to do them no harm."

However, he then found that even the most famous (ἔνδοξοι) members of the profession could not avoid causing harm with their treatment:

"But when I saw quite a few famous physicians being rightly rebuked for what they had done, with their venesections, baths, application of drugs, wine, or cold water, I understood soon that something similar must have happened to Hippocrates himself, and certainly to many other doctors of his time."

Galen claimed that personally he had always meticulously observed the Hippocratic rule:

¹*Epidemics* 1,11 (11,634f. L.). Translation by Jones in *Hippocrates*, vol. 1, p. 165.

²In *Hipp. Ep. I comment.* 11,50 (XVIIa,148f.).

"From this moment onward I made it my main concern, whenever I was going to give a patient an important remedy, to consider beforehand for myself not only how much I would benefit him if I achieved my objective, but also how much I would harm him if I did not. For I never did anything without satisfying myself beforehand that, if I missed the goal, I would not harm the patient."

Galen did not recognize a concept of pharmacotherapy which involves resignation to negative side effects suffered in pursuit of successful therapy. For Galen, no harm is involved in successful therapies, it is only the failure (ἀποτυχία) of a treatment which does harm:

"Yet some doctors, like people playing dice, used to give their patients remedies whose failure would do the patients greatest harm. I know that to the students of the art, like once to myself, the "do good, not harm" will seem not worthy to have been written first by Hippocrates, but I also know certainly that its importance will become evident for them once they start practising medicine. Indeed, when a patient happens to die because of the precipitate use of a strong remedy they will understand very well the importance of this precept of Hippocrates."

Pharmacotherapy, in particular, is a dangerous field, and cannot be exercised without this Hippocratic principle in mind, as Galen remarks in one of his pharmacological works, on drugs for alopecia:

"But the majority of doctors use the drugs these people have written about and not only fail grossly on occasions, but also do severe harm, making the condition incurable, which happens to them likewise with many other drugs which they use without a method, whilst I always try to follow Hippocrates' precept in matters of the art. Thus the remedy applied will, as he wrote, "do good, and not harm". You can learn from this that the use of drugs without method not only has no benefits, but also does harm frequently."³

³*De comp. med. sec. loc. 1,1 (XII,380f. K.).*

The cited passage from the commentary on the Hippocratic Epidemics underlines, as Jacques Jouanna observed, "l'évolution du jugement de Galien sur cette maxime hippocratique".⁴ As a medical student, he had doubts whether this maxim was worthy of the intellectual standard that he associated with the name of the author, but with increasing practice he recognized the deeper meaning, particularly of the admonition to do no harm. He therefore made it a habit to calculate the risks and hazards of potential therapies beforehand and to avoid those which might involve harm. "The ethical advice of Hippocrates, whose value Galen discovered not by way of theory, but as a core element of his practice, forms the starting point for Galen's own method constantly to follow in his therapeutic choices the interest of the patient."⁵ Jouanna suggested that Galen, in this and other passages, transcends the function of a mere commentary in order to derive from the Hippocratic ethical prescriptions a method that would be universally applicable and valid.⁶ This method is contrasted with the dangers of the unmethodological approach of certain colleagues in the cited passage from *De compositione medicamentorum secundum locos*. Yet this method does not belong to a science of ethics or morality *sensu stricto*, but is constituted by the application of principles of morality or prudence to the methodology of pharmacology and pharmacotherapy. It will be argued below (Chapter 2) that Galen saw ethics and medical science in close practical and

⁴Jacques Jouanna, "L'éthique hippocratique chez Galien", in *Entretiens Hardt*, Tome XLIII, pp. 211-244, at p. 216: "D'abord, lorsqu'il était étudiant en médecine, un certain mépris pour une maxime qui lui paraissait énoncer une évidence, au point qu'il ne la jugeait pas digne d'Hippocrate, puis une véritable conversion avec l'expérience de la pratique médicale où il découvre à travers les échecs de médecins réputés l'importance de la dimension négative de cette maxime ('ne pas nuire') et où il définit, à partir de la maxime hippocratique, une méthode qu'il a toujours appliquée ensuite dans la thérapeutique, méthode que l'on pourrait qualifier de pronostic thérapeutique implicite."

⁵Jouanna, *Ibid.*

⁶Jouanna, *ibid.*, p. 216f.: "On voit, dans ce premier exemple tout à fait significatif, comment la lecture de l'éthique hippocratique chez Galien peut dépasser de loin, dans les cas les meilleurs, le niveau du commentaire et de l'explication pour être le point de départ d'une redécouverte par Galien de la valeur de cette éthique et d'une assimilation originale qui, tout en respectant l'esprit de l'éthique hippocratique, la formalise dans une méthode valable pour tous les cas."

epistemological proximity and aimed to provide a common methodology for both.

After the reflections on the value of the rule "do no harm" for medical practice, Galen's commentary turns to the second part of the Hippocratic maxim for the medical profession, which deals with the relationship between the physician, the patient, and the τέχνη:

"The art has three factors, the disease, the patient, the physician. The physician is the servant of the art. The patient must co-operate with the physician in combating the disease."⁷

Galen comments:

"He says that there are altogether three factors by which and through which cure is attained, first the disease, then the physician. The physician and the disease compete with each other and, so to speak, fight and wage war against another. For the physician tries to expel the disease, whereas for the disease the plan is not to be defeated. These two are joined by the patient as the third, who, when obeying the physician and following his prescriptions, becomes his ally and fights the disease. But when he breaks with him and follows the commandments of the disease, he does him an injustice in two respects, firstly by abandoning him, secondly by joining what had previously been alone. The author says that two will by necessity be stronger than one. ... In the majority of copies the physician is described as "the servant of the art", but in some not "of the art", but "of nature". Yet this makes no difference for the understanding of the argument as a whole."⁸

In this passage, Galen clearly went beyond what could be qualified as mere commentary. The Hippocratic original assumed a basic dichotomy between

⁷*Epidemics* I,11 (II,634f. L.). Translation by Jones in *Hippocrates*, vol. 1, p. 165. It would perhaps be more precise to translate "The patient must combat the disease aided by the physician." As Jouanna (op. cit., p. 219f., n. 16) pointed out, Jones's (and others) translation betrays the influence of Galen's interpretation, which replaced the prominent dichotomy between patient and disease with that between the disease and the physician who becomes its principal antagonist.

⁸*In Hipp. Ep. I comment.* II,51 (XVIIa,150f.).

disease and patient, and the rôle of the physician was defined as "servant of the art" who helped the patient in combating the disease. Galen, on the other hand, started with the antagonism of disease and physician. The patient is regarded to be a "third" party, which can either support the physician in his fight or join forces with the disease. The establishment of the physician as the principal opponent of the disease constitutes a major re-definition of the contributions of the patient and the physician. In the Galenic model, strictly speaking, no patient could overcome a disease without the professional help of a physician whilst a physician could combat a disease even if the patient is completely passive. In the original Hippocratic model, the patient could avail himself of the help of the physician but did not have to. As Jouanna⁹ observed: "Such a shift of emphasis could be explained by the entirely natural attitude of any practitioner convinced of the preeminence of his position, but, in Galen, it can also be explained by his will to reconcile the ethical passages which belong to different treatises and which Galen attributed to one author." For in the Aphorisms, Hippocrates had observed that "not only the physician must fulfil his duties, but also the patient and the people around him".¹⁰ Whilst the aim to reconcile this passage with that from Epidemics I,11 might well have been part of Galen's motivation for interpreting the latter passage as he did, his shift of emphasis from the preeminence of the patient to that of the physician was also compatible with his own more general views on the interactions that are required for a successful cure. In Galen's view, the patient had to follow the recommendations of the physician with regard not only to strictly medical matters, but also to the conduct of his life in general (see below chapter 3). For the physician, this implied the necessity of a sound training in the methods of both medicine and moral philosophy (chapter 2), a strict discipline in the conduct of his own life (chapter 4) and a responsible attitude to the morally problematic aspects of medicine (chapter 5).

⁹*Op. cit.*, p. 220.

¹⁰Hippocrates, *Aphorisms* I,1 (IV, 458, 2-4 L. = II, 98, 3-5 Jones).

Chapter 2

Ethics, therapy, and their methodological foundations

Prior to Galen, Greek and Roman doctors had expressed their ethical views almost exclusively with regard to specific questions of medical practice or to the overall attitude and conduct of the physician without aiming for a methodological foundation in terms of general ethics or moral philosophy. Scribonius, Soranus, Aretaeus, and the Hippocratic authors had made their statements on the morality and prudence of physicians in clinical textbooks or codes of professional conduct, not in systematic ethical treatises. To a certain extent, the same pattern still held true for Galen, who not only contributed to the literature on the conduct of physicians (see chapter 4), but also gave a wealth of advice on specific matters of medical prudence and morality in his clinical and pharmacological writings (see chapter 5). Yet Galen also showed a considerable interest in ethics as a philosophical discipline and as a method which could contribute to a cure of the ills of the soul. Galen's approach toward ethical methodology and the extirpation of the errors and passions of the soul and the ensuing questions of the structure of the soul and its relation to the body underlies both his attitude to the specific questions of *medical* morality and his distinction of the kinds of therapies medicine and philosophy can provide.

2.1 *On errors and passions of the soul*

2.1.1 The methodology of ethics

Of the books Galen counted among his ethical writings¹, only the treatises on the passions (*pathe*) and errors (*hamartemata*) of the soul have been preser-

¹Cf. *De libris propriis* 12 (XIX, 45f. K.).

ved.² These works (or work, depending on whether one follows De Boer's division into two treatises or Marquardt's into two books of the same treatise) stand out for their subject-matter: ethics in a broad sense. In its intended audience, however, *De animi cuiuslibet affectionibus et erroribus* follows the pattern of one of the main branches of Galen's writing, the introductory or propaedeutic works. The treatises form the core of Galen's *Ethica ad tirones*.³

Whilst the book on the passions is largely concerned with the diagnosis and therapy of the single affections of the soul⁴, the work on the errors gives Galen's views on the method of ethical reasoning.⁵ The first chapter contains an initial discussion of the concept of *hamartema* (error) and an outline of Galen's ethics *more geometrico*. In accordance with his acceptance of the Platonic partition of the soul, Galen distinguishes two kinds of ἀμαρτήματα

²Cf. Ilberg (1897) 610ff. Quotations are from de Boer's edition (CMG V,4,1,1). For the Arabic fragments of Galen's *De moribus* see Mattock in Festschrift Walzer, Oxford, 1972, pp. 235ff.

³On the intended audience see Menghi in Menghi and Vegetti (1984) 14: "... in particolare di giovani aspiranti a quel ruolo intellettuale di cui Galeno si presenta come il protagonista." Menghi stresses the preparatory character of the work: "Il carattere di quest'opera, infatti, è sostanzialmente propedeutico e propagandistico insieme: non vi s'affrontano temi specificamente scientifici, ma i presupposti stessi di un sapere scientifico che Galeno identifica con il metodo dimostrativo proprio di scienze quali la geometria e l'architettura." The treatises on the errors and the passions of the soul share with the bulk of Galenic writing their essentially polemic or agonistic nature: "Questo, dunque, dovrebbe essere l'argomento forte con cui convincere un uditorio in via di formazione a preferire il suo insegnamento a quello delle sette dei filosofi. E del resto, la prospettiva che con quest'opera viene offerta al futuro intellettuale di superare i filosofi anche su un terreno come le passioni e gli errori è parte integrante [...] del progetto culturale di Galeno."

⁴Its catalogue of passions is largely Stoic, cf. Vegetti in Menghi and Vegetti (1984) 140ff.

⁵Cf. Moraux (1984) 798ff., 803ff. It is unfortunate that Galen's contribution to ethics, not only with regard to medicine, but also to ethical methodology, has found so little attention among scholars. The historians of ethics know Galen mainly as a source for Hellenistic debates, cf. the only reference in a recent book "about the form and structure of ethical theory": "Galen [...] is our best source for some issues, for example the Stoic theory of the emotions" (Annas, 1993, 3; 24). Likewise, Nussbaum (1994) seems to be taking into account only the value of *De placitis Hippocratis et Platonis* as a source for Chrysippus. Galen's own views on the "Therapy of desire" (e.g. *De an. aff. dign. et cur.* 6), even if not always original, would certainly have deserved attention. Furthermore, an inclusion of Galen in the chapter of the "Methodological Achievement of Therapeutic Arguments" (485ff.) might have added valuable aspects to her discussion of the "two areas of concern", i.e. the subordination of "truth and good reasoning to therapeutic efficacy" and the "tension between critical autonomy and causal manipulation in the treatment of the pupil" (491ff.).

ψυχῆς ("errors of the soul"), viz error deriving from a failed exercise of rational judgement and error in the more general sense, including those failures of rational judgement which result from its subordination to passion (V,2f. K.).

Whenever the rational part (*logistikon*) commits an error which is not solicited by the influence of passion it is due to an incorrect judgement. There is no doubt that false or precipitate assent is an *hamartema* - but how about the "weak assent" (*synkatathesis asthenes*)? Does it qualify as an *hamartema*, or is it rather somewhere between virtue and evil? Weak assent is that to which we would commit ourselves when we are not entirely convinced of the validity of a statement.⁶ Galen singles out a class of judgements where a clear position can be reached, viz those which have a scientific proof. In these matters, weak assent is a *hamartema* if given by a man who has been spending all his life pursuing the discovery of truth - he could reasonably be expected to find the scientific proof (1,3). Galen gives an example for the differences in the basis of knowledge required. A geometer must have the full understanding of the teaching of Euclid's elements, whereas for the general public the mere application of rules is sufficient. A geometer who, however, has no sound knowledge of the foundations of his art, commits an *hamartema* (1,4).

In his discussion of the errors which arise from a failed exercise of judgement, Galen made no distinction in principle between mathematical and moral errors, although unlike Chrysippus he did not think that *every* error could be attributed to a mistake of the intellect. Galen did, after all, allow for an influence of the independent irrational part of the soul on the guiding faculty (second class of *hamartemata*). He aimed to give ethics a methodological basis which would be as firm and uncontestable as that of mathematics, in keeping with his endeavour to apply the *geometrike apodeixis*, the only way of proof

⁶*De peccat. dign.* 1,3, p.V,59 K./ 41 De Boer. Galen, by allowing "weak assent" in certain situations, seems to depart from the Stoic position, cf. von Arnim in SVF III, p.41 *videtur contra Stoicos quosdam disputare, qui tēn asthenē synkatathesin in peccatorum numero posuerant*, and Görler (1977) 89f., who takes no account of this reference.

accepted by all philosophical schools, to all branches of scientific enquiry.⁷ Apart from its general acceptance, the method of reasoning used in geometry has another major advantage over other possible candidates for a general method of demonstration. The results of its application, the *pragmata*, provide the evidence of whether it fulfils its promises. The results of geometrical operations are *enargós phainomena* - it is evident whether the constructed body is a solution to a problem, such as a circle drawn around a given square⁸ (3,1-3). It was this same principle of the evidence of the *pragmata* which led Galen to his reluctance to take any position in many of the issues of contemporary philosophical debate. The classical problems of cosmological speculation cannot be decided by the testimony (*martyria*) of the *pragmata* (3,4). He dismissed the dispute over the existence of the void and the multitude of worlds between Peripatetics, Stoics and Epicureans (7,7-11) as vain. On the other hand, Galen maintained against the Academics and Pyrrhonists that a proof which would lead from the "most evident" (*enargestata*) to what is not immediately evident (1,7; 6,1-2) was, at least in some instances, possible. Once the method of demonstration has been tested sufficiently, it can be applied to "questions which cannot give clear evidence of their truth"⁹ (3,5-6). The two main fields of investigation Galen must have had in mind, speculation of the above kind being excluded, were ethics and medicine.¹⁰ They have the additional advantage that their results can be tested against the criteria of the good of the soul and of the body, respectively.

Galen found his model for the method of proof in the mathematical

⁷Cf. *De libr. propr.* 11 (SM II 117). Galen therefore required in *De moribus* (p.44 Kraus, tr. Mattock) training of the faculty of the soul "by which we see that which is known by proof", by the study of geometry, arithmetic, and logic at an early age. These sciences are, unlike medicine, not open to conjecture. He would also add astronomy, and later music (for the reformation of the passionate soul), whereas the epideictic sciences would be taught to the young man.

⁸This problem is Euclid, *Elementa* IV,9.

⁹Tr. Harkins.

¹⁰The use of the apodeictic method in ethics is advocated in the treatise under consideration, whilst the use of that method in medicine receives similar support in *De optimo medico cognoscendo*.

sciences, geometry, theory of numbers (*arithmetike*), art of calculation (*logistike*)¹¹, astronomy and engineering.¹² The validity of the application in the last two can be seen from their predictions (e.g. eclipses, planetary and fixed star movement), or works of craft (*cheirurgemata*), such as sun dials and water clocks (3,7; 5,1-16).¹³ Mathematical reasoning proceeds in two ways: *analysis*, ascending (*anodos*) from some concrete problem through intermediates (*metaxy*) to the most general principles or axioms (πρῶτον κριτήριον; 4,4), and its opposite *synthesis*, the application of these principles to special cases, such as the construction of geometrical objects or the *cheirurgemata* of engineering (5,1-16).¹⁴ The analogous use of *analysis* in the field of ethics would be the discovery of the true *telos* of life by examination and limitation of the criteria (4,4). These must be derived from the study of the human *psyche* and from the scrutiny of earlier ethical concepts (3,1).

Galen gives a catalogue of the steps to be taken on the way toward freedom from error (1,7): The existence of a method for the proof of the *adela* and its nature have to be established, followed by its exercise (*askesis*), i.e. the removal of errors, and finally the search for the ultimate good which leads to perfect happiness (*eudaimonia*). It is, however, not recommended that anyone make an attempt to apply the apodeictic method to questions concerning good life while still under the influence of passion (3,10-11). The removal of those does not fall under the *askesis* of the ethical method proper, but has to rely on the example of wise men (cf. *De an. aff. dign. et cur.*).

Given the right disposition of the soul, the first step toward moral

¹¹On the *arithmetikê/ logistikê* - distinction cf. Kline (1972) 131.

¹²The examples given make clear that *architektonia* stands for engineering rather than architecture.

¹³Cf. Proclus, *In primum Eucl. element., prol.* II, p.77 F. on the analogy between mathematical construction and the productions of the ποιητικά ἐπιστήμαι.

¹⁴On ἀνάλυσις and σύνθεσις in mathematics see Proclus, *In primum Eucl. element.* I, pp. 8. 255. These two methods, together with definition (ἐξ ὅρου διαλύσεως), also constitute the medical methodology of the proem to the *Ars medica* (I,305-7 K.). On the influence the Aristotelian/ Galenic scientific method exercised in the middle ages (mediated through 'Ali ibn Ridwan's commentary on the *Ars medica* (*Liber Tegni*) and Robert Grosseteste) see Crombie (1953) 76ff.

accomplishment can be attained unmethodologically, by having the right opinion (*orthē doxa*).¹⁵ For practical application, the right opinion can often substitute for scientific knowledge:

"He [sc. who has a natural inclination to truth] will be able to benefit from our teaching even without the method of demonstration, not in terms of the precise knowledge of the facts (this is available only to those who apply methodological proof) but according to the right opinion, of which it has appropriately been said by our forebears that, as far as practice is concerned, it is in no way inferior to scientific knowledge, but lacks the firm and permanent foundation" (*De ord. libr. suor.* 2, XIX,54 K.).

This approach will generally be possible, provided that the *pragmata* themselves teach their *physis* (*De peccat. dign.* 5,23).¹⁶ It may be assumed that Galen thought that attention to the evidence of the *pragmata* was sufficient for recognizing and fighting the passions - after all, when acting under passion, we would act contrary to our better knowledge (see below) - and perhaps for the removal of some of the errors about the good life, whereas for a soundly founded concept of the goal of human life methodological proof was required.¹⁷

2.1.2 Error and passion

Like Hesiod¹⁸ and Plato¹⁹, Galen was aware of the dangers of similarities (*homoiotetes*): It is the degree to which they resemble truth that gives false

¹⁵Cf. Moraux (1984) 807.

¹⁶See Posidonius (in *De placitis* 487 Mueller): The πάθη carry the ἔνδειξις of their truth (cf. Kidd, 1971, 204).

¹⁷Cf. Moraux (1984) 805, n.476.

¹⁸*Theogony* 32f.

¹⁹*Sophista* 231a.

judgements (*pseudeis logoi*) their persuasive power (*peithô*). Similarities, however helpful they may at times be, can be "*planai* (errors) and *aporiai*", as Hippocrates called them²⁰, and the best of physicians and philosophers fall victim to them (*De peccat. dign. 2*).²¹ Galen diagnosed two kind of errors²² about the good in human life: People fail to act properly either because they misapprehend the criteria of goodness, but are convinced of the correctness of their judgement (*hamartema* proper), or because they are propelled by passion toward deeds or omissions they know to be wrong.²³ Galen resumes this distinction at the end of the third chapter of *De peccatorum dignotione*. The same action can be caused by passion or error. Someone fails to help his neighbours; in the case of *pathos*, the agent has the appropriate concept of the true aim (e.g. to do good), but fails to act accordingly because of the influence of tiredness, emotions and the like. The person who is under the influence of *hamartema* in the proper sense will act according to his judgement, which might tell him to spend his life on the pursuit of pleasure, and therefore does not help. Here the false opinion about the good in life is the source of the evil action.

The structure of Galen's distinction of errors shows certain parallels to Aristotle's differentiation of harm (*blabe*) and the concept of *hamartia* ("error of judgement"²⁴) of the Nicomachean Ethics: "In the Ethics an *hamartema* is said to originate not in vice or depravity but in ignorance of some material fact or circumstance."²⁵ Substituting "passion" for "vice or depravity" would yield Galen's position. The parallel goes even further, because Aristotle included

²⁰Cf. *Epidemics* VI 8,26.

²¹Cf. *De placitis* IX,1 (V,729 K.) on Plato's and Hippocrates' method for διακρίνειν τὰ ὁμοιώματα.

²²For the general category, which comprises both *pathos* and *hamartêma* proper, Galen rather confusingly uses the terms *sphalêma* or *hamartêma*.

²³Cf. *De placitis* IV,2,42 (V,376 K.): Reason as the slave of ἐπιθυμία. See also *De an. aff. dign. et cur.* 6,8.

²⁴Cf. Bywater's translation of *Poetics* 1453 a 7ff.

²⁵Bywater, *Aristotle, Poetics* p. 215.

actions motivated by passion in his distinction of harmful deeds.²⁶ If the agent is ignorant of the harmful effect, it is a mischief (*atychema*) if he just happens to execute an action without being aware of it, or an error (*hamartema*) if he initiates the act. If however he knows about the harmful effect and takes it into account, he commits an unjust act (*adikema*). Here again, two situations are possible: action under the influence of passion, or according to a deliberate plan. In the latter case, the agent's character would be regarded as genuinely evil.

Of these four harmful acts - mischief, error, action motivated by passion and deliberate injustice - the two middle types correspond to those treated in Galen's diagnosis and therapy of passions and errors. There was no need for him to deal with the extremes - mischief falls outside the realm of ethics, whereas the truly evil character would be regarded as a hopeless case, not amenable to any treatment (*De peccat. dign.* 2; cf. below 6.2). Galen maintains that he who lacks a natural inclination towards truth (and thereby ethical knowledge) is essentially and inescapably evil. This, again, has its parallel in Aristotle. While in the first two cases of harmful acts (*atychema* and *hamartema* as above), which were committed out of ignorance (*δι' ἄγνοιαν*), harm is done involuntarily and the agent deserves pity and pardon (EN III 2; 1111 a 1f.), there is another kind of ignorant agent (who is merely *ἄγνοῶν*), who acts in basic ignorance of the good, but whose ignorance is *voluntary*, such as the drunkard who is responsible for his drinking. His ignorance has its origin in himself (1113 b 30ff.). Galen was sceptical about the potential for healing such cases. He also stressed the fact that the natural disposition of a man must not be underestimated - already in childhood, some are φύσει φιλοψευδεῖς (naturally inclined towards lying), and others φιλαλήθεις (*De an. aff. dign. et cur.* 6,14.).

Galen's emphasis on the role of character and habituation led to some criticism²⁷ of a perceived lack of place for personal responsibility in his moral thought, even of a reduction of ethics to the *éléments paresseux temperament*

²⁶EN V 8, 1135 b 12ff. Cf. Joachim (1955) *a.l.*

²⁷Cf. Riese (1963) 345f.

du corps, juste mesure, habitude, without *l'élément créateur constitutif de toute décision morale*. This criticism underestimates both the importance of moral *knowledge* in Galen's ethics and the element of individual choice.²⁸ The role of the teacher is largely that of an example of how to fight the passions and to diagnose errors (*De an. aff. dign. et cur.* 3; 7), i.e. a preliminary one. The actual liberation from the passions (3) and the exercise (*askesis*) of the method (*De peccat. dign.* 1,7) are the task of whoever wishes to embark on moral reasoning. Furthermore, *askesis* implies application and practical use of the method.²⁹ This, however, could only be the individual choice of the actions required to reach the ultimate goal. Yet Galen did not subscribe to the ethical relativism of Terence's *quot homines to sententiae; suos quoique mos*.³⁰ The definition of the goal of life is not a matter of personal preference. There is only one possible ultimate goal, and the apodeictic method, applied properly, should yield the same result for everyone.

2.1.3 The ultimate goal of life

The purpose of the systematic liberation of the soul from passions and errors is to attain *eudaimonia*, the possession of the "good" (ἀγαθόν) or the "fulfilment of life" (τέλος τοῦ βίου). For Galen, the *telos* is a formal criterion, the principle of the use of the apodeictic method in moral reasoning:

"First, then, the man who wishes to be free from error must consider whether demonstration of an obscure matter is possible; then, when he shall find this out, he must seek ... to discover what the method of demonstration is; then, when he shall be convinced that he has discovered it, he must thereafter exercise himself anew in it for a long time

²⁸On the concept of free will in antiquity in general see Dihle (1982); on Galen's vindication of individual responsibility and accountability see below, 3.2.

²⁹Cf. the parallel in medical methodology (*De const. art. med.* 6, 1 245K.): "... exercise the method in order to be capable not only of recognizing, but also of using it."

³⁰*Phormio* 454. Cf. Persius, *Sat.* V, 52f.

before he goes on in search of the most important things (πρὶν ἐπὶ τὴν τῶν μεγίστων ἰέναι ζήτησιν). This search makes us happy or blessed - or whatever else one may wish to call it - after it has put us in possession of the good which is also called the end and fulfilment of life."³¹

In the absence of an explicit definition of the goal of life in Galen,³² his references to two concepts of the highest good, assimilation to God (ὁμοίωσις θεῶ) and contemplation (θεωρία) may help to explicate his view of what the life aspirations of men should be. In the context of discussing whether the wise man is free from errors, Galen refers to the view of the "most ancient philosophers" (*De an. aff. dign. et cur.* 3,7) that wisdom (*sophia*) is assimilation to God. An explicit identification of the goal of life with the ὁμοίωσις θεῶ is given in the Arabic summary of *De moribus*:

"But there exists no greater honour to your soul than to imitate God according to human capacity. This goal is reached by disregarding present pleasures and giving preference to the noble."³³

The concept of the ὁμοίωσις θεῶ as *telos* of the life of man obtained a central place in Middle Platonist discussions: Foreshadowed in Plato himself (*Tht* 176b), it was introduced by Eudorus³⁴ to replace his teacher Antiochus' Stoicizing definition³⁵ and remained the "distinctive Platonic definition of the *telos*

³¹*De peccat. dign.* 1,7; V,61 K. (tr. Harkins, pp. 75f.).

³²Regrettably, of Galen's treatise "On the consequences of each goal of life" (περὶ τῶν ἀκολούθων ἐκάστῳ τέλει βίων) only the title is known (*De libris propriis* 12, *Scripta minora* II,121). The very title of this work, however, indicates that the goals of life are judged by their consequences and impact on human life. According to Galen's ethical methodology, λόγος and πείρα, properly applied, should yield the same result, so that the pursuit of the goal which has been ascertained by *reason* would also be shown by *experience* to have the most wholesome consequences for one's life.

³³P. 41 Kraus (*Bulletin of the Faculty of Arts of the Egyptian University*, V,1, 1937, pp.1-51), tr. Walzer (1954) 246.

³⁴Cf. Dörrie (1944) 32 on the testimonies of Areius Didymos (*apud Stob. Ecl. eth.* II 49,8), Clement of Alexandria (*Strom.* V 14; II 131) and Alcinoos (28): "... können wir wohl nicht fehlgehen, wenn wir diese Definition des menschlichen telos ihrer Entwicklung nach in die nächste Nähe des Eudorus rücken, ja, ihm zuschreiben."

³⁵Cf. Antiochus *apud Cic. De finibus* 5,26: ... *vivere ex hominis natura undique perfecta et nihil requirente.*

ever afterward."³⁶ We are fortunate to have an account of the Platonist doctrine of Galen's time in Alcinoos' *Didaskalikos*: "When the soul contemplates (θεωροῦσα) the divine and the thoughts of the divine it is said to be in a good condition (εὐπαθεῖν)³⁷, and this condition is called *phronesis*, which one might say is nothing else than becoming like the divine (ch. 2, p.153H)."

Galen, too, inclined toward the view that the ultimate goal of life would have the structure of *theoria*. Yet, while it is not quite clear whether the *theoria* of the Alcinoos passage quoted above is to be taken as discursive reasoning, this is certainly the case in Galen: "And no other *theoria* will please the soul of a noble man more than the analytical, once he is proficient in it" (*De peccat. dign.* 5). The exercise of the apodeictic method and its application to the person becomes a precondition for the μεγίστων ζήτησις and the contemplation of truth. The *bios theoretikos* as ultimate goal reflects Aristotle's theoretical *eudaimonia* of book ten of the Nicomachean ethics (e.g. K8, 1178 b 32)³⁸, albeit with the difference that, for Galen, the highest intellectual activity is still concerned with practical matters.³⁹ Galen's conception of the end of life shows distinctive features which hold true beyond the realm of ethics. He combines the ideas of Middle Platonism and Aristotle on the ideal life with rigorous reasoning and thereby gives a textbook example of his eclecticism⁴⁰ which was based on a strong methodological foundation and on his reservation

³⁶Dillon (1977) 44.

³⁷For the three Stoic εὐπάθειαι - χαρά, εὐλάβεια, and βούλησις - cf. Cicero, *Tusc. Disp.* IV,12-14; Plutarch, *De virtute morali* 449B; and Diogenes Laertius V,116.

³⁸Cf. Donini (1988) 113: "La felicità è riservata a pochi forse soprattutto perché ritorna in realtà a essere per Galeno la vita del filosofo aristotelico, la *theoria*."

³⁹Cf. Donini, *ibid.*

⁴⁰Galen even succeeded in incorporating the Stoic definition of the goal of life in its "Posidonian" modification, cf. *PHP* V,6,7f. (V,470 K.): "For the end is to "live in concord with nature", not as they explain the phrase, but as Plato taught us. For as one part of the soul in us is better, another worse the person who follows the better part would be said to live in concord (ὁμολογουμένως) with nature, but the person who rather follows the worse part, in discord (ἀνομολογουμένως). The latter person is one who lives by the affections; the former, one who lives by reason" (tr. De Lacy).

against the dogmatism and empty debates of the schools (*haireseis*), in philosophy (*De peccat. dign.* 3,26; 7,12-13) as in medicine.⁴¹

2.2 Ethics, methodology and the *Methodus medendi*

Galen demanded from the medical method the same standards as from ethics. Demonstrative reasoning in medicine has to proceed on the lines of mathematical proof, and geometry and arithmetic set the standard for valid arguments concerning therapy.⁴² In the discussion of general methodology in *De methodo medendi*⁴³ I,4, Galen states that, like geometry, medical science, and thera-

⁴¹The influence of Galen's methodology in later times can hardly be overestimated. His writings were one of the most widely read sources of ancient scientific thought for centuries to come. It seems that Leonardo Da Vinci was influenced by Galen's combination of geometrical proof, rejection of sophistical lines of argument, and contempt for metaphysical speculation and theological dogmatism, in his polemic against epitomizers, champions of quick ways to knowledge (*inpatientia, madre della stoltitia*), sophists and believers in miracles and speculative minds (see his Anatomical MS. C in Jean Paul Richter, *The Literary Works of Leonardo da Vinci*, London, 1919, no.1210), and against the *bugiarde scienze mentali* in chapter 29 of the *Trattato della Pittura*. After all, Leonardo was acquainted with the academic medicine of his time through his anatomical studies. In his biography of Leonardo, Vasari reported an, albeit unlikely, period of study with the Pavian Galenist Marcantonio Della Torre, cf. *Vite*, vol. III, p. 400. However, Galen himself would not have fully escaped Leonardo's criticism for even he seems to have relied on compilations, at least partly, cf. Nutton, 1990, 247 (with reference to the parallels between the lists of canonical doctors given by Galen in *De optimo medico cognoscendo* and elsewhere and the school doxographies).

⁴²*De meth. med.* X,4; X,684 K.

⁴³The fourteen books *De methodo medendi*, the *Ars magna* or *Megategni* of mediaeval medicine (see Kibre and Kelter, 1987), form Galen's major contribution to medical therapy. Its two almost equal parts are separated by more than two decades: Books I-VI were written shortly after 172 (cf. Hankinson, 1991, xxxiv), books VII-XIV stem from Galen's last years (demonstrated by Ilberg 1889, 229; 1892, 513; 1896, 175). The first two books contain the general methodology and polemic against the Methodists. Books 3-6 deal with diseases which fall under the heading of "dissolution of continuity" (*συνεχειας λύσις*), books 7-12 with the consequences of a "bad mixture" (*δυσκρασία*) of the humours, mainly the various types of fever, and books 13-14 with the tumours. The main instances of the dissolution of continuity, regarded by Galen as the most basic class of diseases, are ulcerations (*ἔλκη*) of soft tissue, fractures of bones, ruptures of nerves, ligaments and vessels, and contusion of muscles (IV, 1; p.232 K.). Various aspects of Galen's therapeutics are discussed in the contributions to the 1982 Galen Symposium (Durling and Kudlien, 1991).

peutics in particular, must proceed from axioms, propositions which are indemonstrable (ἀναπόδεικτοι) and self-evident (ἐξ ἐαυτῶν πισταί, X,33f. K.).⁴⁴

Experience alone, being unsystematic, does not provide an order of procedure (32).⁴⁵ The medical method therefore has to follow rational criteria. Yet most people would just posit (νομοθετοῦσιν), not justify (ἀποδείκνυσιν) them by scientific proof. The Methodists, the main subjects of Galen's scorn in the first books of the *Methodus medendi* are said to fall within this category. They do not even make the ancient distinction of apparent things grasped by the senses and apparent things grasped by the intellect, such as "equals added to equals yield equals" or "nothing occurs causelessly" (36f.). Nor do they know which of their "common states" (κοινότητες)⁴⁶ are obvious and which not. Galen regarded this as evidence of the Methodists' deplorable lack of training in the methods of proof (37f.).

In Galen's view, Thessalus, a distinguished physician of the time of Nero⁴⁷ and the founder of the Methodist school⁴⁸, applied neither of the two methods available to justify therapy⁴⁹, reason (λόγος) and experience (πειρα); and his followers would not have been able even to acquire a notion of demon-

⁴⁴For the affinity between the epistemological approaches of Galen and Ptolemy see A.A. Long, "Ptolemy *On the Criterion. An epistemology for the practicing scientist*", in Dillon and Long (1988) 176-207, pp. 198ff.: Galen and Ptolemy share the concept of scientific knowledge as a combination of reason and experience, the "resistance to Skepticism", an "extension of self-evidence to indemonstrable truths of reason" and the criterion of "optimum agreement", i.e. the *consensus omnium*. On the *consensus omnium* compare Oehler (1969) 234ff. For Galen's use of the concept see *De optima secta* 2 (I,109f. K.): τῶν μὲν ἐναργῶν ἐπίκρισις ἢ κοινὴ πάντων ἀνθρώπων ἔννοια.

⁴⁵This contradicts the Empiricists' position that it is accumulation of experience, not the organizing power of the λόγος, which makes an expert craftsman (τεχνίτης), whether ναύτης, musician, peasant, or, indeed, physician (Galen, *On Medical Experience*, chapters IX and XVIII, ed. Walzer, 1944).

⁴⁶According to Galen, *De sectis ad introducendos* 6, these are στέγνωσις, ρύσις and the mixture of the two.

⁴⁷Pliny, *Nat. hist.* 29,9.

⁴⁸See Edelstein in *PW Suppl.* VI (1935), coll. 359ff. (s.v. *Methodiker*).

⁴⁹On the role of reason and experience in Galen's epistemology see M. Frede, "On Galen's Epistemology" (1987, 279-98, p.290): Some "bits of general medical knowledge" are "known by reason alone, some by both reason and experience, and some by experience only."

stration for they never studied mathematical or logical subjects (29f.). After an extended attack on the Methodists, Galen began his account of the proper therapeutic method, which he proposed to base on the principles of demonstrative reasoning⁵⁰, in the second book of the *Methodus medendi*. The first task is to make the appropriate divisions and enumerate the species of diseases. Furthermore, the concept of sickness has to be defined: A sickness (νόσημα) is an impairment of natural faculties. Therapy must therefore be their restoration. Pointless debates can be avoided by a consistent use of language to exclude the possibility of terminological differences without factual correlates (II,5).⁵¹

2.2.1 Galen's therapeutic heuristic

The Methodists assumed that the obvious signs of the disease constituted the general principles of the discovery of treatment, as in the case of an inguinal hernia. Yet, according to Galen, only a small number of diseases are of this kind. Most of the challenges of medical practice require specialist medical knowledge (*Methodus Medendi* III,1; X,158 K.). Galen therefore distinguished three approaches to the appropriate treatment for a given disease. The person who is capable of following the "first indication" (πρώτη ἔνδειξις) is called a "healer of diseases" (νοσημάτων θεραπευτής), the Empiricist (ἐμπειρικός or τηρητικός) uses experience as his guide, while the student of the true method will be able to make discoveries by deductive reasoning (159). Whilst Galen ascribed only a very limited function to the "first indication" he regarded both experience and reason as important heuristic principles.

The first step of the rational heuristic procedure (λογικὴ εὕρεσις, 160)

⁵⁰Frede (*op.cit.* 292) compares Galen's rational methods with those advocated by Albinus in his *Introductio* III and V.

⁵¹This is echoed by Harvey at the end of the introduction to *De generatione animalium* (c3v): He wants to follow Galen's admonition *modo de rebus constat, de verbis non esse litigandum*.

is to determine the aim (σκοπός)⁵² of treatment, which is inferred from the disease. Thus, in "dissolution of continuity", the group of diseases with which this part of the *Methodus medendi* is concerned, the principle to be followed is: "Dissolution of continuity requires connection of the parts." This is to be applied to the various instances of "dissolution of continuity", such as fractures and ulcerations: "in all these the aim of treatment is the connection."

Once the principles of treatment have been determined, the first "task of the art" (ἔργον τέχνης) of the physician is to judge whether the aims can be attained either by experience⁵³ or by inference from the "nature of the event" (φύσις τοῦ πράγματος). This is not at all obvious and is often beyond the knowledge of the layman (ιδιώτης). Galen gives an example which is quite remarkable for the fact that it could still illustrate - *mutatis mutandis* - decision-making in modern surgery: whether to treat a fracture (in this case of the skull) or just wait for the callous regeneration (III,1).⁵⁴

Galen continues to specify the sort of reasoning required to determine the aim of the treatment (III,2): The physician has to start with the most simple condition, namely soft tissue ulceration, in which case the aim is just the connection of the edges⁵⁵, and then consider possible combinations of defects, e.g. the ulceration with a cavity which would require additional replacement of tissue (162), presumably some kind of plastic surgery. The comparison of this example with Galen's later criticism of the "non-method" of the "unmethodical followers of Thessalos" (ἀμέθοδοι Θεσσαλείοι) in III,7 reveals a feature of the proper method which, misinterpreted, can lead to fallacies - the occasional

⁵²In IV,6 (286) Hippocrates is praised because, unlike the Methodists, Empiricists, and many Rationalists (λογικοί), he recognized the universal importance of the determination of the σκοπός for therapy. On Hippocrates as the founder of the therapeutic method cf. IX,8 (632-4).

⁵³Cf. IV,3 (243f.): An external cause alone will not reveal the therapy (ἵασις), experience of the doctor is required, as in bites from venomous animals.

⁵⁴Cf. IV,6 (p. 294): Hippocrates regarded the physician not only as an emulator of nature (μιμητῆς φύσεως), but also of "that what helps automatically" (κακείνων ὅσα αὐτόματα ὠφελεῖ).

⁵⁵Galen also uses the closure of an ulceration (κόλλησις ἔλκους) as an instance of therapies which might be counted as prophylaxis (IV,3, p.248). His idea might have been that the treatment of the simple condition prevents the development of complications, such as inflammations.

recourse to obvious principles, which the Methodists mistake for the essence of the heuristic procedure. They are said to have followed principles every layman could find, such as that the ulcerous cavity has to be filled again, or that luxuriating flesh ought to be removed. This simplistic method is inferior even to the unsystematic approach of the Empiricists, as much as the Empiricists are inferior to the "real methodists" (ὄντως μεθοδικοί) or "rationalists" (λογικοί) of Galen's stamp. One group of "doctors", however, is assigned a place even below the Methodists (VIII,6, p.582): the *logiatroi* who are ignorant of principles of treatment even a layman would know, and wrongly prescribe unnecessary and even harmful therapies, such as two day courses of fasting.⁵⁶

2.2.2 *Methodos* and *Askesis*

Throughout the later books of the *Methodus medendi*, Galen returned to questions of methodology, mainly exemplified in case histories. Lack of training in medical method and anatomy and lack of experience are common sources of mistakes. In V,7 (334f.), for example, he tells the story of the inexperienced doctor who thought he had incised a vein, but in fact had cut an artery ("For instantly the blood bubbled out bright and thin and warm, in a pulsating manner").⁵⁷ Galen joins the parts, applies an agglutinating *pharmakon* and a sponge and heals the rupture. Other case histories concern fevers where Galen criticizes the attending doctors for the inappropriate use of fasting (e.g. VIII,2 (pp. 537ff.)). These examples of the consequences of inexperience and inappropriate methods illustrate Galen's tenet that a decent doctor needed both the knowledge of the right heuristic principles and experience in applying them. Method is required for the general rules (ἐν τοῖς καθόλου θεωρήμασιν), expe-

⁵⁶Galen gives as an illustration the case history of a feverish man who does not follow the advice of these infamous διατριτάριοι. This three day rule went back to Thessalus, cf. *De praecognitione* 12 where Galen is praised by Annia Faustina for disobeying this rule and thereby defeating the Methodists οὐ λόγοις, ἀλλ' ἔργοις.

⁵⁷The failure to distinguish veins and arteries also features prominently in Aulus Gellius' disappointing encounter with the *medici* of his time, cf. *Noctes Atticae* XVIII,10.

rience with practical applications (ἄσκησις) for the particular solutions (IX,6; p. 628f.).

This brief account of Galen's medical methodology, from its foundation, the *telos* of the treatment, its rules of reasoning, which are modelled on mathematical proof, to its application in every day practice, shows that reliance on the geometrical method and the interplay of method and application, *methodos* and *askesis*, were common features of Galenic ethical and medical reasoning. Like the pursuit of the ultimate goal of life, the quest for the proper therapy should yield similar results regardless of the investigator, provided the steps of the right method are followed meticulously.

Modern scholars, most prominently Lloyd in his essay "Theories and Practices of Demonstration in Galen"⁵⁸, have asked whether Galen's insistence on demonstrative reasoning from first principles was really appropriate for medicine. Lloyd conceded that

"Galen was rightly impressed by the mathematical sciences, and his ambition to model anatomy, physiology, pathology and therapeutics as far as possible on them has ... undeniably positive features ...: his insistence on order, concern with validity, care over the logical status of different types of premisses, and so on (p. 272)."

But he would have preferred Galen to restrict the analogy of geometrical reasoning to this set of methodological caveats and, where appropriate, the occasional deductive argument rather than aiming at a fully structured axiomatic deductive system of medicine. For

"Galen's top-level medical and biological indemonstrables are generally quite adequate for *that* task, and often run the risk of being either vacuous or highly controversial as well as unclear (*ibid.*)."

Lloyd argues (at p. 266) that, in antiquity, axiomatic status was not firmly established for any of Galen's principles of medico-biological science like "nothing occurs without a cause", "nature does nothing in vain", or "opposites are cures for opposites", whilst the relatively undisputed mathematical axioms

⁵⁸In Frede and Striker (1996), pp. 255-277.

of the excluded middle and non-contradiction would not get the physician very far. Galen's biological principles were rather controversial in his time (pp. 266-269). They thus fail to meet Galen's own criterion for the acceptance of self-evident indemonstrable axioms, viz the *consensus omnium*: τῶν μὲν ἐναργῶν ἐπίκρισις ἢ κοινὴ πάντων ἀνθρώπων ἔννοια.⁵⁹ In the medical sciences, demonstration *more geometrico* therefore had to remain an unattainable ideal, not so much for want of deductive reasoning, but of axiomatic structure. Whilst Galen did not acknowledge this gap between ideal and reality in his disquisitions on methodology (perhaps, as suggested by Lloyd at p. 275, in order to underpin the superiority of his method over those of his Empiricist and Methodist competitors), for the practice of science and therapy he used a more balanced approach. It has been shown above that, once the σκοπός of a therapy is determined, the first ἔργον τέχνης is to judge whether the required measures will be based on experience or deductive reasoning (*Methodus medendi* III,1). It is thus a task of the *art* of medicine, not accessible to an unexperienced layman, to determine the right balance between *logos* and *peira* for the practice of medical therapy and scientific enquiry.

In the field of ethics Galen was perhaps more circumspect in the formulation of general principles. The πρῶτον κριτήριον of ethics is determined formally as the τέλος τοῦ βίου but not explicitly defined (see above, 2.1.3). The pursuit of the goal of life is identified with the *askesis* of methodological error-rejection. We might thus conclude that the method proposed in Galen's ethical treatises, compared to that of the medical works criticized by Lloyd (p. 276), was characterized more by the "positive features" of deductive reasoning and less prone to the danger of premature dogmatism.

⁵⁹*De optima secta* 2 (I,109f. K.).

Chapter 3

The complimentary rôles of medicine and moral philosophy in the treatment of the body and the soul

3.1 Galen and Stoic moral psychology

Galen's writings on ethical topics have to be seen against the background of an intense discussion of the issues of moral psychology in the various philosophical schools and between them. It has to be remembered that Galen himself, quoting approvingly from Posidonius, emphasized the close links between the study of the virtues and the goal of life and the study of the soul (*PHP* IV,7,24; V,421 K., tr. De Lacy):

"He says that instruction about the virtues and about the end is tied to these teachings [i.e. Plato's δόγματα περὶ τῶν παθῶν and περὶ τῆς ψυχῆς δυνάμεων], and, in short, that all the doctrines of ethical philosophy are bound together by the knowledge of the soul's powers as by a single cord."

In the field of psychology, Galen tried to defend the Platonic tripartition of the soul and the dualism of reason and passion, which led to the concept that moderation rather than extirpation of passions was to be sought, against the Stoics (SVF III, 443-455).¹ According to this school, the passions were not affections of a separate irrational part of the soul, but rather inclinations, assents, and impulses of its governing function, i.e. perverse judgements of the *logos* (447A). Plutarch made an attempt at a refutation of this doctrine, which found its prominent expression in Chrysippus' *Peri pathon*², in the second part

¹Cf. M.C. Nussbaum, "The Stoics on the extirpation of the passions", *Apeiron* 20,2 (1987) 129-158. On the Platonic/ Peripatetic view that the wise man will be *metriopathes* rather than *apathes* compare M. Frede, "The Stoic doctrine of the affections of the soul", in Schofield and Striker (1986), p.93.

²Cf. SVF III, 456-490.

of *De virtute morali* (446F-452D). A far more exhaustive response to Chrysippus was then given by Galen in his *De placitis Hippocratis et Platonis* (PHP).

3.1.1 Galen's and Plutarch's criticism of Chrysippus

Plutarch provided three arguments to show that the Stoic doctrine was contrary to human experience, and followed this with a discussion of inconsistencies in Chrysippus' theory of emotions (ch.9). The first argument from human experience is based on the possibility of the co-existence of reason and passion. When reason overcomes passion the latter does not cease and vice versa: "...nor does the lover cease to love when he reasons that he must restrain his love and fight against it, and then give up again the process of reasoning and judging when he is softened by desire and yields to love."³ Passion cannot therefore, he argues, be equivalent to the *loss* of reason. The second argument assumes that "reason dismisses the false and readily inclines towards the true, whenever it appears (448A)." Yet Plutarch observes that people's decisions about an action might vary, although the information available is the same⁴ and concludes that "with most people, their deliberations, judgements and decisions which are to be converted into action are in a state of emotion and therefore offer obstructions and difficulties to the path of reason."⁵

According to the third argument, the partition of the soul is equally obvious from the *agreement* of the passionate and the rational parts: Anger is not necessarily reproachable, it can be justified in certain situations⁶, e.g. anger

³447B, tr. Helmbold.

⁴Explicit in 450B: "Hence it appears that with regard to judgements themselves, some are in greater, some in lesser error."

⁵448AB, tr. Helmbold.

⁶Θυμός, which can be justified at times - θυμῶ ... χρῆσθαι μὲν ἀλόγως δ' ὑπὲρ γονέων καὶ παίδων δικαίως πρὸς πολεμίους καὶ τυράννους (448D) -, is distinguished from ὀργή, which cannot, and therefore needs continuous treatment (*De cohibenda ira, passim*). For Seneca's less conciliatory view see his *De ira* I,6 ff.

against despots - therefore, passion and reason co-exist not only when in disagreement (first argument), but also when in agreement (448D). If, then, passions can assist the effort of reason, it cannot be its task to eradicate them completely and thereby lose the benefits of the passions together with their harms. On the contrary, what is required is not absence (the Stoic *apatheia*), but moderation, of passion. As in the case of medicine, where health is not achieved by the mere removal of heat and cold, but the harmonious mixture of the two, the aim of ethics is reached when reason brings moderation into passionate capacities and movements (451F). The goal of education is delight in the good and anger about the evil (452D). These passions, to be sure, do not replace the criteria of good and bad, but work as essential elements to support and sustain the right decisions made by reason.

The first of Plutarch's arguments shows a particularly close affinity to Posidonius' argument against Chrysippus that affection cannot be a matter of opinion because it fades away even when the opinion remains the same (fr. 165 E.-K.).⁷ Plutarch might have availed himself of intermediate sources for both Stoic psychology and Aristotelian ethics,⁸ yet who exactly these sources were is difficult to establish,⁹ because of the fragmentary state of the transmission of the majority of sources for Stoic and Peripatetic ethics, but also because of the polemic nature of the main source for Posidonian psychology, Galen's *De placitis*.¹⁰

⁷Cf. Becchi, *Plutarco. La virtù etica*, p.19.

⁸Cf. Ziegler, *PW s.v. Plutarchos*, 769f.

⁹Posidonius has been suggested as source for the second part of *De virtute morali* (by Heinze, 1892, 149), Andronicus of Rhodes for the first (by Ringeltaube, 1913, 14-29). Both hypotheses were rejected by Babut, *Plutarque de la vertu éthique*, pp. 44-65.

¹⁰On Galen as historian of philosophy compare M. Vegetti, "Tradizione e verità: forme della storiografia filosofico-scientifica nel *De placitis* di Galeno", in Cambiano (1986) 227-244. Cf. on Galen's value as a source for Posidonius Pohlenz (1898) and Reinhardt (1921). Galen's quotations from Chrysippus are discussed critically in Inwood (1985), who seems to trust Galen more when he quotes from Posidonius (Inwood, 1993, 154ff.) and defends the "traditional" view that he was correct to present Posidonius as departing markedly from Chrysippus' path. John Cooper ("Posidonius on Emotions", forthcoming) argues that Posidonius took an intermediate position between Chrysippus and Plato. The πάθη, albeit partly influenced by "an independent, non-rational power", the παθητικὰ κινήσεις, are "ultimately functions of the rational faculty, and of it alone". Galen's description of Posidonius as simply "rejecting Chrysippus' view in favor of Plato's", which fitted so well into his polemic against Chrysippean psychology, therefore shows

It was the aim of that treatise to demonstrate the overall agreement and soundness of the views on control and motivation of activities of animals held by Plato and Hippocrates, Galen's heroes in his two main fields of interest, philosophy and medicine. Yet its central part is largely concerned with the rejection of the views put forward by Chrysippus in his works *On the Soul* (PHP III) and *On the Affections*, for which it is also the main source¹¹ (PHP IV-V). For the latter, he purports to draw on Posidonius' criticism, thereby rendering his own restitution of Platonist psychology¹² more palatable to the contemporary Stoic.

Posidonius, as Galen depicted him, did not accept Chrysippus' view that an affection was a judgement¹³, which bowed to an impression.¹⁴ but stood by the traditional (Platonist) view that the passions arose in the spirited and the appetitive part of the soul.¹⁵ He went on to challenge Chrysippus' definition of passion as excessive impulse which disobeys reason¹⁶: "For reason could not exceed its own acts and measures. Thus it is evident that some other irrational power causes conation to exceed the measures set by reason, just as the cause that makes the running exceed the measures set by choice is irrational, the weight of the body."¹⁷ Galen refers to Chrysippus' example for the effect of passion on human action (PHP IV,2). According to Chrysippus, the nature

"inattention to important details of Plato's, Chrysippus' and Posidonius' views".

¹¹Cf. SVF III, 456-490.

¹²Cf. P. Manuli, "La passione nel *De placitis Hippocratis et Platonis*" in: Manuli and Vegetti (1988) 185-214, on Galen's use of the Platonic tripartition of the soul. Whether Posidonius saw himself endorsing the Platonic theory of the soul is, however, questionable. On Posidonius' own moral psychology see Dihle (1973).

¹³Cf. Frede, *op. cit.*, p.98.

¹⁴Cf. Pohlenz (1959) 146.

¹⁵Fr. 34 E.K. = PHP IV,3; V,377 K.

¹⁶For this definition see SVF III,462 (= PHP IV,2). 479 (= PHP IV,5). 378 (= Stobaeus, *ecl.* II,88).

¹⁷PHP IV,3, p.379 K., tr. De Lacy. Aetiological enquiry was typical for Posidonius and will have appealed to Galen, cf. Kidd (1971) 210f.

of man, the mortal rational animal¹⁸, entails obedience to reason. Yet in some cases a man is induced by a certain unnatural and irrational motion of his soul, the *pleonazousa horme*, to act against reason. This man is compared to a runner who, from a certain speed, will lose control over his movements.¹⁹

Galen, following his account of Posidonius' criticism of Chrysippus, made the point that if affections of the soul depended on a judgement which decides against reason they could not arise in irrational animals, which, after all, have no opportunity to decide for or against reason.²⁰ More importantly, he tried to establish that Chrysippus' own position presupposes an independent irrational part of the soul. His distinction of error about the rational from disobedience implied that the same judgement had different consequences and required an additional faculty in the soul, which Galen, not surprisingly, identified as the passionate.²¹ Similarly, the analogy of the runner shows that there must be another cause for the affections than reason: "When reason alone is responsible, it is in the power of reason to stop the conation, but when some anger or desire - irrational powers, similar to weight in the body - is added to reason, it is not possible to stop instantly ...".²²

Galen distinguishes four constellations for the causation of an impulse (*horme*) in the soul²³:

- a) Reason alone causes an impulse - then it can be stopped or stimulated by a mere act of will
- b) The impulse is generated by passions - then it will cease once they subside
- c) Both passion and reason have an impact and:
 - 1) reason resists passion - then the stronger will prevail

¹⁸This definition is accepted by Galen, cf. De Lacy, p. 642 *ad locum*.

¹⁹V,368-370 K.

²⁰V,371 K.

²¹*Ibidem*, see above on *De affectuum dignotione* 1.

²²V,374f. K.

²³V,375-377 K.

2) reason acts together with passion - then the impulse will never end. For the last instance, his mechanical analogy is the downhill runner - here, weight and the movement of the legs join forces like passion and reason in the soul. Galen's example of the resulting state of the soul is self-indulgence, *akolasia*: "These persons hold the opinion that the greatest good is the enjoyment of the pleasantest (objects), for in them the soul's reason willingly follows its desire."²⁴ This comes close to Plutarch's discussion of *akolasia* and *akrasia* in *De virtute morali* 6. It had been the aim of Plutarch's ethics to cultivate a harmonious relationship between rational goals and moderated passions.

3.1.2 The cure of the soul

Chrysippus assumed an underlying condition of the soul which made it prone to fall into a passionate state not unlike the predisposition to somatic disease²⁵: "For Chrysippus holds it (sc. the soul of the *phauloi*²⁶) to be analogous to bodies which are prone to fall victim to fever, diarrhoea or another similar disease, the apparent cause being but small and incidental."²⁷

This assumption was criticized by Posidonius.²⁸ His main point was that the unqualified analogy between psychic and somatic health did not account for the state of *apatheia*, freedom from and immunity to any affection, of the wise man: "For clearly would the soul of the wise man become immune to

²⁴Tr. De Lacy. A close parallel is *De peccat. dign.* 3, V,77 K./ 53 De Boer. In both cases, Galen uses the Aristotelian example from EN VII,3. Cf. Hankinson, *Actions and Passions*, p.191: "Galen's language of *akrasia*, *akolasia* and *sophrosyne* is strikingly Aristotelian."

²⁵On the importance of the medical analogy for Stoicism see Nussbaum (1994) 316ff.

²⁶Literally the bad men, but for the Stoics everyone but the wise man would qualify for this category, see below.

²⁷PHP V,2 = SVF III,465. Cf. Diogenes Laertius VII,115: "And as in the body there are tendencies to certain maladies (*euemptosiai*) such as colds and diarrhoea, so it is with the soul, there are tendencies like enviousness, pitifulness, quarrelsomeness and the like." Tr. Hicks.

²⁸*Ibid.*, compare fr. 163 E.-K.

affection (*apathes*)²⁹, but not a single body would be immune to disease. It would rather be appropriate to compare the souls of the *phauloi* either to bodily health which is disposed to illness [...] or the illness itself."

Posidonius was concerned with the treatment of the souls of the (potential) victims of passion.³⁰ Chrysippus did not distinguish between potential and actual passionate states in the souls of the *phauloi*. His treatment would therefore, in any event, have been directed toward the rational faculty of the soul.³¹ Posidonius, who, according to Galen at least, did assume two distinct faculties, wanted to differentiate the treatment. It had to aim at the rational faculty when souls were free from passion, but at the irrational when passion stirred.³²

Galen criticized Posidonius for attributing both health and disease to the temporarily passion-free soul and thereby violating Euclid's first Common Notion that what are equal to a third also be equal to each other. However, this criticism was not justified, since what Posidonius apparently taught was that the souls of the *phauloi* could assume relative health or sickness within their general condition of susceptibility to disease.³³ Galen did not depart much from Posidonius' comparison of the states of body and soul. His fivefold hierarchy of degrees of bodily and psychic health (from the souls of the virtuous and the hypothetical immune bodies down to the souls in passion and the sick bodies) merely adds some further sophistication to the Posidonian analogy.³⁴ This analogy preserved the different degrees of disposition to passion,

²⁹The parallel in Diogenes Laertius VII,117 (Zeno) shows that *apatheia* includes not only present, but also future freedom of affection: "Now they say that the wise man is passionless (*apathes*) because he is not prone to fall into such infirmity." Tr. Hicks.

³⁰For the following cf. Kidd's commentary, pp. 584ff.

³¹PHP V,2 = SVF III,471.

³²Cf. fr. 166 and 168 E.-K.

³³Cf. Kidd's commentary, pp. 586f.

³⁴Fr. 163 E.-K.

since those presently enjoying bodily health, too, differ in how easily they are overwhelmed by an illness.³⁵

Galen regarded the distinction between rational and irrational faculties as essential in formulating an approach to the cure of the soul³⁶:

"Therefore, I believe that also the cure of the passions of the soul is easy and convenient in some cases because in these the passionate motions would not be strong nor the rational weak by nature and void of understanding, but these people would be forced to live a passionate life because of lack of education and bad habits. In other cases it is extremely difficult if the passionate motions which are due to the constitution of the body happen to be strong and violent, the rational, however, by nature weak and without understanding."

Thus, the cure has to embody both aspects: The rational part must be educated to gain insight and the emotions "blunted by habituation to good practices"³⁷, in order to make "a man better with respect to his character." This programme provides the psychological foundation for the dual approach outlined in Galen's treatises on the passions and errors of the soul.

It cannot, however, be determined with certainty whether Galen inclined to the Platonist or Peripatetic view that passions had to be moderated or the Stoic goal of liberating the soul from any affection.³⁸ Hankinson³⁹ suggested that Galen aimed at controlled passions which would contribute to the motivation of virtuous deeds - a solution on the line of Plutarch's *De virtute mora-*

³⁵*Ibidem.*

³⁶See Posidonius, Fr. 169 E.-K.

³⁷Tr. Kidd, *op. cit.*, p.625.

³⁸This does not mean that the wise man would not have impulses (*hormai*), i.e. the impulse to follow virtue, cf. Frede (1986) 107f. These "impulses of the fully rational man" (Inwood, 1985, 173) are the three εὐπάθειαι will (βούλησις), joy (χαρά) and caution (εὐλάβεια).

³⁹*Actions and Passions*, pp. 203f.

li.⁴⁰ Yet for a complete picture of Galen's moral psychology and his concepts regarding intention and the generation of action one must turn to his physiological theories and his attempts at giving a scientific account of the functions of the soul.

3.2 Morality and bodily constitution

The previous sections were largely concerned with the education of the soul according to the principles of ethics and moral psychology. This rather isolated perspective was warranted by the fact that Galen devoted a number of treatises of importance for his moral reasoning to those issues. He did, however, see the limitations of this enquiry and filled the gap created by the absence of a work on the influence of man's bodily constitution on his moral condition in a later treatise which bears the programmatic title "That the faculties of the soul follow⁴¹ the mixtures of the body".⁴² The topic of this treatise will, Galen says in his introductory remarks (ch. 1), be very useful for those who want to educate their souls.

Galen used the example of the differences between children to make

⁴⁰It must be remembered, though, that, unlike Plutarch, Galen, when talking about πάθη, is mainly concerned with detrimental affections, as Hankinson himself (*op. cit.*, p.192) rightly remarked.

⁴¹"Follow", ἑπεσθαί, can have different meanings in this context, cf. Lloyd (1988) 33 on the "variety of positions [...] from the ultrastrong claim that the CS [i.e. capacities of the soul] are solely determined by MD [mixtures of the body], through the more moderate position that they are produced, influenced or affected by such factors [...] to the weak thesis that there is, in certain cases, some kind of correlation or correspondence between them."

⁴²IV,767-822 K. *Scripta minora* II,32-79. The relation of this work to *De affectuum dignotione/ De peccatorum dignotione* has been investigated by Garcia-Ballester (1968; 1969): While the latter treatises have a mainly philosophical orientation, *Quod animi mores* was written later (after 193) out of a largely medical interest. For the interplay between the treatment of the soul according to philosophical and medical principles see Temkin, *Galenism*, p. 83: "The title formulates the thesis: man's behaviour depends on his somatic constitution and disposition; even moral philosophers might well profit by a regime he, Galen, would be willing to prescribe. Mental behavior is said to result from the temperament, which is not necessarily the same as identifying soul and temperament. Nevertheless, regarding passion and desire Galen clearly states that they are the temperaments of the heart and of the liver respectively."

plausible his fundamental thesis that the essence of the soul is not immutable: "It is therefore clear that children differ from each other in the essences of their souls to the same extent as in their activities and affections. If, however, this is the case, they differ in the faculties of the soul, too."⁴³ The presence of evil in small children, i.e. before they are exposed to any kind of social corruption, serves as an argument against the Stoic thesis of the good nature of man.⁴⁴

According to Galen, the soul changes with its faculties which in turn are defined by its activities (ἐνέργειαι). As a substance subjected to generation and corruption, the soul is changed by alterations in the four qualities dry and moist, warm and cold, but by nothing else.⁴⁵ The Platonic tripartition of the soul⁴⁶, however, re-interpreted by Galen under the general heading of "desire", remains unchanged. The rational part (λογιστικόν) "desires" (ἐπιθυμητικόν ἐστὶ) truth, knowledge, understanding, memory, and generally everything of

⁴³Ch. 2, p.769 K.

⁴⁴Cf. Vegetti in Menghi and Vegetti (1984) 134: "Alla tesi della natura buona è contrapposta in primo luogo l'esistenza manifesta di bambini cattivi, prima e indipendentemente dalla frequentazione sociale; e inoltre il paradosso del primo corruttore (chi ha corrotto i primi uomini?) [...]. Questa evidenza e questo paradosso aprono la via all'introduzione del dispositivo platonico della tripartizione dell'anima [...]: l'anima non è affatto monoliticamente razionale e predisposta alla virtù." To be sure, Galen's argument is not wholly impartial. For the Stoics made the point that *children* by nature follow the instincts of animal survival, whereas the change to the *fully rational* human being, i.e. not to the mere *rule* of the rational as in Platonic and Peripatetic moral psychology, takes place later, cf. Frede in Schofield and Striker (1986), 108.

⁴⁵Cf. Galen's *De dubiis motibus* III, 141ff. 166ff. (ed. Larrain, 1994) and his commentary on Plato's *Timaeus*, section 2 (for an exposition of Galen's doctrine of the four elements and their relationship with the four qualities see Larrain's commentary on this passage, pp. 27ff.). In *De propriis placitis*, chapter 7, Galen even describes the soul itself, once it has entered the body, as "created from the four elements". I owe all quotations from *De propriis placitis* to the kindness of Professor Vivian Nutton of the Wellcome Institute for the History of Medicine, London, who provided me with a copy of his English translation which will be part of his forthcoming edition in the series *Corpus Medicorum Graecorum*.

⁴⁶Galen does depart from Plato on the question of the immortality of the soul in which he professes his characteristic metaphysical agnosticism: "... I have not come upon anybody who geometrically demonstrated whether it (sc. the soul) is altogether incorporeal, or whether any [species] is corporeal, or whether it is completely everlasting, or perishable" (*De foetuum formatione* 6; IV, 701f. K.: for a similar view see *De propriis placitis* cc. 7.15). Cf. Lloyd (1988) 19: "Yet his lining up Plato in support of the view that the other two parts of the soul [i.e. the irrational] are mortal involves privileging the *Timaeus* and rather *ignoring* what Plato says elsewhere, notably in the famous passage in *Republic* X 612 A, where the issue of how immortality is to be reconciled with tripartition is raised as a problem." However, Galen merely seems to be following the common approach of Middle Platonists, cf. Alcinoos, *Didaskalikos* c.23.

genuine value (ἀπάντων τῶν καλῶν). The spirited part (θυμοειδές) desires victory, glory, freedom and honour while the desirous part (τὸ κατ' ἐξοχὴν ὀνομαζόμενον ὑπὸ Πλάτωνος ἐπιθυμητικόν) goes after sexual pleasures and wants to indulge in food and drink (772). Barras et al. (1995, pp. xxxv ff.) pointed out that Galen, in *On the passions of the soul*, matches the tripartition of the soul with an *anthropologie tripartite*: "The rational soul is the interior function which corresponds, and responds, to the supervising paedagogue; the irascible soul resembles the man on mid-way and is capable of understanding a lesson, while the desirous soul, in its weakness, can only be punished, not convinced rationally." The three parts of the soul occupy different compartments of the body. The rational is located in the brain, the spirited in the heart, and the desirous in the liver.⁴⁷ This underlines the dependence of the functions of the soul on the bodily constitution. Galen quotes the different mixtures of the humours in the brain as an example of the effect of physiological states on the soul (776f.): Too much yellow bile in the brain will cause madness (παραφροσύνη), black bile "melancholy" and a surplus of phlegm "lethargy". On the other hand, affections of the soul, such as love, have their physiological consequences and somatic signs. In *De praecognitione* 6⁴⁸ Galen describes the case of the wife of Justus: Once the name of the dancer Pylades is mentioned a sudden change of pulse is to be observed, and Galen, following the famous Erasistratean example⁴⁹, diagnoses lovers' grief as the cause of her illness.⁵⁰

Dependent as it is upon the vicissitudes of the bodily constitution, the

⁴⁷Cf. Plato, *Timaeus* 69ff.

⁴⁸XIV,631ff. K.

⁴⁹*Testimonia* 24-26 Garofalo.

⁵⁰For further examples of the impact of the activities of the mind on the state of the body see *De motibus dubiis* III,131ff., VII,137ff. and the case histories in the commentary on the sixth book of Hippocrates' *Epidemics* (CMG 10,2,2; p. 485-7): Fear, anger, grief and sorrow can at times lead to fatal somatic diseases. If the disease originates in the mind only the extinction of the *idée fixe* will bring about a cure, not dietary measures (487). The difficulty of reconciling this last rule with the intention of *Quod animi mores* represents one of the ambiguities in Galen's work.

soul can no longer be assumed to be that which exclusively governs the actions of man.⁵¹ This frustrates all attempts at an education which is primarily directed to the soul, as Vegetti rightly pointed out:

"With this [sc. the Platonic view that only other parts of the soul can disturb the rational] vanishes the possibility of an educational politics of the soul, geared to re-establish within it the proper hierarchical equilibrium, and the very core of the Platonic programme from the *Republic* to the *Laws* is diminished."⁵²

Galen makes an attempt (ch. 6) to prove that even Plato conceded an influence of the body on the soul. He quotes several passages from the *Timaeus* for the connection between unbalanced states of the humours (*kakochymia*) and diseases of the soul. This doxography is extended to Aristotle (a passage from the *Historia animalium* is quoted for his view that the faculties of the soul depend on the mixture of maternal blood, ch. 7) and Hippocrates (*De aeris, aquis, locis*, said to demonstrate how all three parts of the soul, including the rational, follow the different bodily mixtures, ch. 8).⁵³ Galen assures the reader that he trusts Hippocrates not because of his authority, but rather because of the conclusiveness of his proofs (9).

In chapter 11 Galen turns to the question of moral responsibility. The nature of man allows for both a just life and a wicked one. Philosophers who propose one of the two extremes, either that everyone or that noone is born to lead a virtuous life, are mistaken. Men turn out to be friends or enemies of justice, according to their bodily mixtures. How then are judgements of human action justified if all our deeds are determined by the mixture of humours

⁵¹This model does not, however, rule out the traditional hierarchy within the soul as we find it in Galen's *De dubiis motibus*, cf. Larrain (1994, 184): "Die eine Seele also ..., und zwar die logische ..., trifft als *motus electionis* eine Entscheidung, die die andere Seele als *motus secundum impetum* ausführt."

⁵²Vegetti in Menghi and Vegetti (1984) 136.

⁵³On Galen's selective use of both Aristotle and Hippocrates see Lloyd (1988) 24ff. His neglect of the former's ethical and political writings and his tendentious reading of *De aeris, aquis, locis* are only two of Galen's sins against historical scholarship.

(814ff.)? Galen puts the question in the traditional vocabulary of praise and blame:

"Now they ask how one could justly be praised, blamed, hated and loved if he has turned out good or bad not on his own account, but through the mixture which he has apparently received because of other causes?"

Yet the physical determination of human character and action does not remove all accountability: Galen explains that we love the good (ἀγαθοί) - in analogy to the love of God - regardless of whether they are good by nature, education, or exercise (ἐκ φύσεως/ παιδείας/ ἀσκήσεως).⁵⁴ Punishment, on the other hand, is justified for three reasons: to prevent the wrongdoer from doing further harm, to deter others and because it is, taking into account the corruption of their souls⁵⁵, better for those villains whose wickedness is incurable (ἀνίατος κακία) to die anyway.⁵⁶ Donini's (1974, 147) response that the argument from the incurability of the soul is not valid "if it is true that the moral sense and the values themselves are simply the result of a certain clinical combination" is of little impact. For there are two ways in which Galen's conclusion that the wickedness of certain criminals is incurable could be upheld: The *dyskrasia* of the humours which had led to the criminal act might be

⁵⁴This does not imply, *pace* Donini (1974, 146), the assumption of *un'universale e inconsapevole tendenza dell'umanità al bene*.

⁵⁵Cf. Menghi (in Menghi and Vegetti, 1984, 20) on Galen's option for repressive measures in morally hopeless cases: *al medico-educatore che fallisce subentrerà infatti il carnefice* (K IV 816).

⁵⁶Galen might have been influenced by earlier attempts to reconcile *astrological* determinism and moral judgement, such as Manilius' analogy of the poisonous plants (ed. Housman, IV, 108-117).:

nec tamen haec ratio facinus defendere pergit
 virtutemve suis fraudare in praemia donis.
 nam neque mortiferas quisquam minus oderit herbas
 quod non arbitrio veniunt sed semine certo,
 gratia nec levior tribuetur dulcibus escis
 quod natura dedit fruges, non ulla voluntas.
 sic hominum meritis tanto sit gloria maior
 quod caelo laudem debent, rursusque nocentis
 oderimus magis in culpam poenasque creatos.
 nec refert scelus unde cadat, scelus esse fatendum.

itself incurable (Galen had to allow for incurable *dyskrasiai* in the context of internal medicine, anyway), or it might have altered the soul in an irreparable manner.⁵⁷

Galen rejected the Stoic view that all men are capable of acquiring virtue, but are diverted from it by their fellow humans. For how would the first men have been distracted (816)? In addition, this theory would not account for the fact that children can have opposite moral characters even if they have the same parents and have been brought up in identical circumstances (817). In this criticism Galen followed Posidonios (819ff.): The main contribution to wickedness comes from within us, not from external causes.⁵⁸ Yet bad and good habits, wrong and right opinions are confirmed by relevant external influences (821). This is also the point where therapy comes in: "The mixtures themselves are determined by the first generation (τῆ πρώτῃ γενέσει) and by diets which favours the right humours (ταῖς εὐχύμοις διαίταις), in such a way that they reinforce each other."

It has rightly been remarked that Galen's interest in this work is largely medical.⁵⁹ He wants to give medicine a rôle in the treatment of affections and diseases of the soul and thereby supplement the therapy offered by moral philosophy.⁶⁰ Yet medical treatment has an impact on the soul only insofar as

⁵⁷The question of the incurability of the soul assumes an important rôle in the discussion of Galen's axiology (see below 6.2).

⁵⁸Cf. Menghi in Menghi and Vegetti (1984) 19: "L'assunzione di un determinismo organico-stico alla base del nostro comportamento porta Galeno a polemizzare con la dottrina dello stoicismo antico, e in particolare di Crisippo, secondo la quale tutti siamo capaci di virtù, ma sono i contatti sociali a pervertirci. Esiste invece in noi un seme di malvagità, ribatte Galeno, e la parte di malvagità innata è sempre maggiore di quella acquisita (K IV 821)." On Posidonius' view on the matter see P. Steinmetz' article "Poseidonius aus Apameia" in Überweg (1994), 693.

⁵⁹E.g. Lloyd (1988) 41.

⁶⁰This claim would gain a lot of momentum "if no function or structure of man, no aspect of human life, fell without the realm of medical and physiological explanation" (Lloyd, *ibid.*). Cf. Luis García Ballester, "La 'Psique' en el somaticismo medico", *Episteme* III (1969) 195-209, p.199. It lives forth in the use of Terence's *humani nil alienum a me puto* (Chremes in the *heautotimoroumenos*, 77) as adornment of the entrances to institutes of pathology, e.g. at the Royal London Hospital in Whitechapel.

it affects the bodily constitution.⁶¹ Neither is *Quod animi mores a racionalización científica de un problema creencial* (pace García Ballester, *op.cit.* 201). Galen was in fact content in dealing with matters medical and was happy to leave matters of faith to those engaged in metaphysical speculation. The separation and mutual influence of philosophical and medical ways to ὑγεία τῆς ψυχῆς is clearly expressed in the following passage from *De sanitate tuenda*:

"The character of the soul is corrupted by bad habits in food and drink, exercise, optical and acoustic impressions, and the arts in general. Whoever pursues the art of hygiene (ὑγιεινὴ τέχνη) must have experience with all these things and not believe that it is for the philosopher alone to shape the character of the soul; the health of the soul is his task because of something greater, the physician's, however, in order to prevent the body falling easily into sickness."⁶²

A healthy soul is as much required to avoid disease as the wholesome state of the body is essential for an undisturbed soul. Perturbation of the soul upsets the σύμφυτος ἡμῶν θερμότης: When θυμός and other affections become uncontrolled this is the start of μεγάλα νοσήματα.⁶³

The determination of human actions and psychic functions by physiological processes is required in order for medicine to have an impact on the soul, but may lead to undesirable consequences in the fields of ethics and

⁶¹Cf. Vegetti in Menghi and Vegetti (1984) 139: *Non nasce comunque in Galeno una figura di "medico dell'anima". Secondo la prospettiva del Quod animi, il medico resta un terapeuta di organi (soprattutto mediante la dieta e il regime), e solo attraverso di essi può agire sulle facoltà dell'anima.* For a Galenic discussion of the analogy between bodily and psychic diseases, which he, like Cicero (*Tusc. disp.* IV, 10, 23: *morbis corporum comparatur morborum animi similitudo*), attributes to Chrysippus, and the ensuing tasks of the ψυχῆς and the περὶ τὰ σώματα ἰατρός see *De placitis* V, 2, 20ff. (V, 437ff. K.). The Stoic (cf. SVF III, 120, 18ff.) concept of the "doctor of the body" (the physician) and the "doctor of the soul" (the philosopher) is discussed by Kudlien (1968) 6ff.

⁶²*De san. tuenda* I, 8, 14-5 (CMG V, 4, 2; p. 19). The requirement of a symmetric approach to keep body and soul in fitness and health had already been advocated by Plato in the *Timaeus* 87c ff.

⁶³*Ibid.* I, 8, 16.

law, such as moral relativism and the impossibility of individual responsibility.⁶⁴ Galen avoided these by an approach which judged actions by their evident contents and not by their genesis. In *Quod animi mores* he provided no fully coherent solution⁶⁵ of the question of freedom and responsibility in a physically determined individual⁶⁶, but his pragmatic approach showed that he was deeply convinced of the need of human communities to uphold moral standards and punish their wrongdoers.⁶⁷

Galen had, however, vindicated individual responsibility in another context. In *De sanitate tuenda* V,1,25 he rebuked persons of originally healthy constitution (ἀρίστης φύσεως) for falling prey to disabling diseases:

"How would it not be shameful that someone who received the best constitution should be supported by others because of his gout or be strained by pain because he suffers from a stone and colics and has an

⁶⁴Cf. Lloyd (1988) 40f.: Galen, albeit dissociating himself "from a straightforward physical determinism", comes, in certain expressions, close to this very position. This is "understandable in terms of an ambition to maximize the potential claims for medical intervention" - after all, "he had to fight hard against certain tendencies in at least the Platonic and Aristotelian tradition neither of which could be said to be at all accommodating to the view that moral excellence, and intelligence, depend on your physical constitution."

⁶⁵Cf. Donini (1974) 145ff. Vegetti (in Menghi and Vegetti, 1984, 137) refers to the *considerazione debole che è possibile amare i buoni e odiare i malvagi anche se queste qualità morali non dipendono da una scelta del soggetto bensì dalla sua costituzione corporea*. Lloyd (1988, 37) refers to the duality of (inborn or acquired) κρᾶσις and ἄσκησις, the latter being the function which entails the capacity to respond positively to the good and negatively to evil and therefore vindicates reward and punishment: The "capacity to embrace good and turn away from evil [...] is not a matter of your particular *krasis*". On Stoic attempts to reconcile *fate* and moral accountability see Cicero *De fato* XVII,39ff. and Gellius *Noctes Atticae* VII,2. Cf. Long, "Freedom and Determinism in the Stoic Theory of Human Action", in Long (1971) 173ff.

⁶⁶Neither did Plato, who seems to be exculpating wrongdoers (and those afflicted with melancholy) in a passage in the *Timaeus* (87de) - κακὸς μὲν γὰρ ἐκὼν οὐδεὶς, quoted in *Quod animi mores* 6 (IV,790f. K.).

⁶⁷The problem is simplified if approached from the sole perspective of positive law, cf. Vincent Barras et al., *Galien, L'Âme et ses passions*, Paris, 1995, xlix, who summarize Galen's attitude as *tuer avec raison les méchants incurables ... comme on éradique une tumeur devenue incurable autrement*. In the preface to the same work, Jean Starobinski makes the interesting point that physiological determinism can *tout excuser, donc protéger les victimes des troubles mentaux* (in this case sufferers from melancholy in the late Middle Ages against the accusation of being sorcerers) *ou, à l'invers, autoriser la violence punitive lorsque celle-ci prend pour but la survie du corps social*. Galen, however, seems to have shown some concern for a moral foundation of legality in order to reconcile (legal) accountability and (moral) responsibility.

ulceration of the bladder because of the unwholesome state of the humours? How would it not be shameful if he, unable to use his own hands because of that admirable arthritis, needed someone to feed him and to wipe the seat in the privy? It would be better, indeed, for anyone not completely faint-hearted to choose thousandfold death rather than to endure this kind of life. Even if someone is impudent and cowardly enough not to be aware of his own disgrace, he cannot but be aware of the labours which he undergoes day and night as if he were publicly tortured. And yet, we have to blame licentiousness (ἀκολασία) or ignorance (ἄγνοια) or both for all this. But this was not the occasion to rectify licentiousness. As far as ignorance about what ought to be done is concerned, however, I hope to have cured with this treatise, having provided the appropriate health-bringing remedy for each constitution of the body."⁶⁸

Preservation of bodily health lies, therefore, within the responsibility of the patient⁶⁹ - an originally good constitution does not spontaneously become unbalanced and prone to disease.⁷⁰ Whenever this happens, intemperance or

⁶⁸CMG V,4,2; p.137. Cf. *In Hipp. Ep. VI*, CMG V,10,2,2, p.487: "For many people fall prey to diseases because of their audacity and lack of discipline and their wretched character. Once they have fallen prey to a disease they will perish, too, while many save themselves through a strong will, perseverance and patience and enjoy long lasting health."

⁶⁹Cf. *Methodus medendi IX,7* (X, 629-31 K.): The contribution of the *dynamis* of the patient is pivotal for a successful therapy. This is an idea already familiar in the context of Hippocratic medicine, especially dietary, but also pharmacological, therapy. Disease is caused by an imbalance in the patient's body, not by external influences; therefore the cure requires his active cooperation, cf. Goltz (1974), at p. 291: "Wie überall hängt der Erfolg der Therapie von der Befolgung der ärztlichen Anweisung ab, hier von den Diätvorschriften. [...] Auch wenn der Arzt in bezug auf die Nahrungsmittel Rezepte gibt, so hängt doch der Therapieerfolg von der inneren Einstellung des Patienten ab, ob er die Vorschriften befolgt, und wie er sie befolgt." Dietary plans like those given in *De muliebribus* (e.g. II,110) require full-time attention. In addition, the patient has the duty to observe whether the therapy is of any benefit to him or not. Interestingly, the situation was entirely different in Babylonian medicine: Disease belongs to the religious sphere and therefore requires the intercession of a priest. The patient remains largely passive during the healing ceremony (Goltz, *op.cit.* 291f.).

⁷⁰On the other hand, an originally bad constitution of the body is irremediable, cf. *De moribus* 1 (p.34 Kraus) on the importance of the disposition: "Just as bodies that have a sickly disposition cannot be brought to a state of health and strength by regimen and training, so also with souls" (tr. Mattock, 1973). For the opposition of luxury (τρυφή) and nature (φύσις) as factors which contribute to a disease see *De comp. med. sec. loc.* VI,6 (XII,948 K.); the former

ignorance are to be blamed.⁷¹ Galen fought the latter in *De sanitate tuenda*, the former in his ethical writings. If, as Galen proposed in *De sanitate tuenda*, we are responsible for the extent to which body influences soul, the question of moral responsibility could be solved. For, at least in those with a naturally healthy constitution, it was lack of moral (ἀκολασία) or medical (ἄγνοια in the passage quoted above) education which led to the influence of the body on the soul.

However, if physiological determination of the states of the soul, its affections, and ultimately any human action is unavoidable - a view which is at least reconcilable with the arguments put forward in *Quod animi mores* - the pragmatic approach Galen uses at the end of this work seems to be the only logically possible way to uphold morality and the authority of the law and to justify the punishment of criminals.

falls within the responsibility of the patient, the latter does not.

⁷¹Galen occasionally expressed his amazement about the *vis medicatrix naturae*, e.g. in the context of conception and pregnancy - even the utmost licentiousness of the mother during this period can be balanced in most cases by the influence of the *physis* (*De usu part.* XI,10; III,885f. K.): "Nevertheless, nature holds against such hubris, and mostly succeeds in correcting [i.e. the mother's errors]."

Chapter 4

The perfect physician: morality and competence

It was uncommon for the sciences of antiquity to have man as their immediate object. Geometry and arithmetic are entirely independent of the proportions of the human body, the physics of movement could be studied on inanimate bodies, the processes of the generation and corruption of life on the other animals, and even music dealt primarily with the laws governing the generation of sound and only secondarily with human perception. The same was true for the arts. Architecture and ship-building do not necessarily require humans to populate their works in order to be productive. Only medicine, both as a science and as an art, always involved men other than the *technitês*. It is this evident characteristic of medicine which gave and still gives it the eminently social dimension which shall be investigated in the following chapter. Galen was singularly aware of the social context of his and his colleagues' medical activities. His scepticism regarding the quality of medical education of the time induced him to write the treatise *De optimo medico cognoscendo*, a handbook for patients who wanted to test their doctor's competence, and at the same time, like *De praecognitione*, an advertisement of Galen's own practice (4.1). Galen's criticism of the technical and moral standards of contemporary doctors and the decadence of his time have to be seen against the background of the moral diatribe of the second century (4.2). He does not add to the categories of the debate on the general decline, but was the first to apply them to the specific situation of medicine as he saw it. On the other hand, Galen was committed to the ideal of scientific and moral progress, both for the individual and for society as a whole (4.3). Galen's approach toward the moral problems inherent in the research which is required for this progress will be discussed in the final section of this chapter (4.4).

4.1 Galen on good and bad physicians

*Eodem numero bonus malusque habetur (sc. medicus)*¹ - the complaint of the 1st century AD pharmacological writer Scribonius Largus also figures prominently Galen's work. The Pergamenian even devoted a whole treatise to the question how to distinguish good from bad physicians. *De optimo medico cognoscendo*² combines regret about the decline of medical education and therapeutic standards in Galen's Rome and advice on how to recognize the skilful doctor with a vivid criticism of the society of the capital. In the absence of any state regulation of medical training³ and practice (apart from the appointment of public⁴ and military physicians and legal regulations governing circumstances of gross misbehaviour, such as poisoning⁵), the task of supervising physicians lay largely with the educated patient.⁶

In Galen's view it is a striking paradox that health is so highly valued

¹Scribonius Largus, *Ep. dedic.* 10.

²Preserved in Hunain's Arabic translation. On the authenticity, compare Iskandar in the introduction to his edition (CMG, Supplementum Orientale IV, Berlin 1988) and Nutton, 1990, 240. For another recent discussion of the work see Mario Vegetti, "L'immagine del medico e lo statuto epistemologico della medicina in Galeno", *ANRW* II 37,2 (1994) 1672-86.

³Cf. F. Kudlien, "Medical Education in Classical Antiquity", in O'Malley (1970), pp. 3ff.

⁴On which see V. Nutton, "Archiatri and the Medical Profession", in his (1988), chapter V.

⁵E.g. the *lex Cornelia de sicariis et veneficis*, cf. Mommsen (1899) 635ff. and Below (1953) 122ff.

⁶Cf. Nutton's (1990, 244) remarks about the intended audience of this work. Galen's advice could only be followed by those who had the leisure to do so, which excluded both the average Roman and the sufferer from an acute illness. Thus Galen wrote for "the wealthy Roman with intellectual pretensions" who wanted to determine which physician to engage in the future. Aulus Gellius is a notable example of an educated Roman who was induced by his own experience of the unreliability of *medici* to engage in the study of anatomy and medicine (N.A. XVIII,10). A specific economic motivation would have been given by the rule that when someone had bought a slave who turned out to be ill and subsequently died, the new owner forfeited his right to restitution of his expenses *si non adhibuit medicum, ut sanari possit, vel malum adhibuit* (*Dig.* 21,1,31,12), but the restriction *vel malum adhibuit* was not defined any further and might have been an interpolation (Below, 1953, 77). The procedure suggested by Plato in the *Laws* (916a ff.), i.e. that the fraudulent character of the sale and the right to restitution be determined by a body of physicians, selected by both parties, is more specific and might in fact reflect an Athenian law (quoted by Hyperides, *Contra Athenogenem* 15, see Amundsen and Ferngren (1977) 202-13).

and yet so blatantly neglected by most people (1,2). Lack of interest in the art of medicine among the upper classes⁷ had led to a decline in the reputation of the profession: While the practice of medicine was formerly a highly respected activity, it was by his time regarded as only suitable for slaves (1,4).⁸ The situation was particularly worrying in Rome. Everyone was so occupied with the pursuit of wealth that not even the neighbours would know how someone had died (1,12-3).⁹ This evokes the warnings about the evils of the city which Galen, when a newly arrived doctor in Rome, had heard from Eudemus (cf. *De praecogn.* 4). In provincial towns doctors would at least seek to avoid mistakes for fear of public opinion (*ibid.*).¹⁰

Galen identified a vicious circle: The great number of patients, lacking interest and knowledge, fail to test the quality of their doctors sufficiently. This leads to a further decline of medical standards and to an ever increasing number of quacks, who aim to please their rich patients with flattery and administration of gentle rather than effective treatment¹¹ in order to gain money, power and

⁷Which evidently did not prevent them taking an interest in Galen's anatomical demonstrations (cf. *De praecognitione*).

⁸Galen bends the historical facts: Greek medicine in Rome was first practiced by slaves and freedmen, primarily, and the prestige of single members of the profession could vary greatly (cf. Scarborough, 1969, 109). See Kudlien (1986) on slaves and freedmen in Roman medicine.

⁹This atomized social life of the capital stands in apparent contrast to the solidarity of the Pergamenians abroad, cf. Ilberg (1971) 376f. A disregard for the individual was a particular feature of one of the medical schools, the Methodists. Against this, Celsus sets the concept of the *medicus amicus*, who - *cum par sit scientia* - has to be preferred over the *extraneus*, because of his familiarity with the patient's circumstances (it is the traditional rôle of the *paterfamilias* rather than the concept of *philanthropia* which Celsus here evokes, see Mudry, *Préface*, p.200).

¹⁰While in the country the problem of choice would not arise for want of medical practitioners, cf. Nutton (1990) 244. On the selection of doctors which would be granted immunity in provincial towns compare the extract from "Ulpian's" *libri opinionum* in *Dig.* 50.9.1: *Medicorum intra numerum praefinitum constituendorum arbitrium non praesidi provinciae commissum est, sed ordini et possessoribus cuiusque civitatis, ut certi de probitate morum et peritia artis eligant ipsi, quibus se liberosque suos in aegritudine corporum committant.* These local officials would have better knowledge of the moral and technical qualities of the applicant doctor than the provincial administrator, and were therefore given control over the medical profession in their city

¹¹Notably, they refrained from many areas of surgical treatment, the field where ancient medicine could have some real beneficial effect, cf. *De meth. med.* VI.6 (X,454f. K.) on Eudemus' recipe for an *emplastron* for perforation of the skull ("*Isis*" and *oxymeli*): "I would

status (*De opt. med. cogn.* 1,7-10)¹². Scribonius Largus had complained about similar effects of the patients' attitude:

"Yet this licentiousness of so-called doctors made wider progress because of the negligence of a number of people. For only rarely would someone, before entrusting himself and his family to a physician, examine him carefully. Yet, nobody would even commission his portrait to be painted unless the artist has been found good on account of certain proofs of his art and thus elected, and they all have exact weights and measures to avoid any error in matters which are not necessary: There are, therefore, people who value anything higher than themselves (*qui pluris omnia quam se ipsos aestimant*). Thus, the necessity to study is abolished for everyone ..." (*Ep. dedic.* 9).

His pharmacological compendium did not, however, offer patients much help in testing doctors in clinical practice, but some of the criteria he put forward, particularly intimate knowledge of the medical tradition¹³ and of pharmacotherapy¹⁴, can also be found in Galen's catalogue: Whoever wants to test his doctor should first examine him on theory, notably anatomy, scientific method in dietary and drug therapy and understanding of the ancient authorities. If he proves adequate in these fields the examiner should then scrutinize his practical performance (*De opt. med. cogn.* 9, 22-4).¹⁵

For both the theoretical and the practical parts of the examination, the doctor needs to be acquainted with the "method of demonstration" in order to live up to the scientific standard required (9,1). Galen prides himself on the fact

myself have experimented with this cure at some point, had I remained in Asia minor for good; but as I spent most of my time in Rome I followed the custom of the town to leave most of this kind of work to the so called surgeons."

¹²Cf. *Quod optimus medicus* 2 (I, 56 K.).

¹³*Ep. dedic.* 9; *Comp.* 84.

¹⁴*Ep. dedic.*, *passim*.

¹⁵Rhazes in *Examining Physicians* refers to a third step required by Galen, i.e. *materia medica* (Iskandar, 1962, 365).

that he has been engaged in serious study of this method¹⁶ from an early age - quite unlike his colleagues (9,2).¹⁷ He links this early acquaintance with logic to his studies of the medical authorities (9,3) which might partly account for the largely "instrumental status" he gave to this discipline.¹⁸

Galen illustrates the criteria by which a good doctor can be recognized with examples from his own practice - to preclude any doubt about who, in his time, came closest to the standards of the ideal physician, the ἄριστος ἰατρός. Regarding anatomy, Galen gives a number of clinical cases where his superior knowledge of the matter was supposedly essential for the successful therapy (9,9-13). His adherence to the scientific method in dietetics underlies the sophisticated dietary management of prostration (3,4-11) and the rules he gives for adjusting the diet to the crisis of the disease (4,8-10). With respect to the medical tradition, Galen, who was particularly proud of his intimate knowledge of the great physicians of the past (9,3), gives a catalogue including Hippocrates, Erasistratus, Diocles, and many others (5,2). A wealthy patient - and only these would normally have the means and the leisure to acquire medical knowledge - could certainly find out whether a doctor was familiar with the teaching of his famous predecessors. This is of utmost importance, Galen says, because "it is possible for someone to learn this science, and then to neglect experience and practice and to fall short of an experienced [physician]; but he who has never learned it will gain nothing from experience" (3,12). Yet the prospective patient should not waste his time on etymological

¹⁶Galen must be referring to the method of *geômetrikai apodeixeis* (cf. *De libr. propr.*, SM II, 117), starting from unprovable evident axioms, which he regarded as the genuine way of scientific reasoning (cf. von Müller, 1895, 415. 435).

¹⁷Cf. Nutton (1995) 20: "His (sc. Galen's) own medical education, both in its length and its variety, stands at one extreme of the spectrum, and those who, like him, travelled to Alexandria [...] were the exception rather than the rule." But see Ammianus Marcellinus, *res gestae* 22,16,18: ... *pro omni tamen experimento sufficiat medico ad commendandam artis auctoritatem, Alexandriae si se dixerit eruditum*. The reference to ἰατροὶ οἱ περιόδευταὶ καλούμενοι in *Dig.* 27,1,6,1 suggests that travelling was a common feature of the medical profession, be it for purposes of study or for economic reasons. The protreptic function of Galen's autobiographical remarks is stressed by Vegetti, *op.cit.* 1686-95, whilst Nutton (1972) emphasizes the aspect of self-promotion.

¹⁸Jonathan Barnes, "Galen and the utility of logic", in Kollesch and Nickel (1993) 33-51, cf. his "Galen on logic and therapy", in Kudlien and Durling (1991).

studies and other useless antiquarianism (13,3).¹⁹ Ideally, he would have "training in the demonstrative science" (5,4) and thus be able to examine the doctor's own judgement on the school differences and his ability to distinguish correct from erroneous doctrines (5,3).

The course of the examination of the physician reflects the recommended principles for the search for truth (ζήτησις ἀληθείας)²⁰, which Galen modelled on his own course of studies.²¹ The following characteristics would, ideally, apply to the doctor and his examiner alike: a "sharp nature" (ὄξεια φύσις), which enables the learner to follow the logical presentation of the subject-matter; early training; studies with the best teachers of the time; full devotion to the academic pursuits; exclusive concern with truth; the adoption of a method for the distinction of truth and falsehood; and its exercise towards a practical application (ἀσκῆσαι τὴν μέθοδον ὡς μὴ γιγνώσκειν μόνον, ἀλλὰ κεχρῆσθαι δύνασθαι)²²: "If rich dignitaries and men of power were able to distinguish the correct proof from false doctrines, they would be able to examine every physician by means of disputation, without finding it necessary to test him in therapy" (5,4).

Yet these people "would accept anything more readily than to be trained in demonstration" (5,5; cf. 9,1), and are therefore restricted to examining the doctor's *practical* skills. On the other hand, even a doctor without methodological scientific training might have acquired the ὀρθὴ δόξα, which can be tolerable as far as individual practical applications are concerned.²³ Yet

¹⁹On the paradox that Galen, himself a keen linguist and lexicographer, as his commentaries on Hippocrates and the list of philological works mentioned in *De libris propriis* 18 (XIX,48 K.) show, and as befitted a representative of the intellectual élite of the Second Sophistic movement (cf. Kollesch, 1981), should make this point of criticism see Nutton (1990) 251ff.

²⁰Cf. *De const. art. med.* 6 (I,244f. K.).

²¹Alternatively, one might consider whether his various accounts of his own education were influenced by this ideal catalogue. Galen might also have stylized his early career in order to comply with the literary topos of the *puer senex*, which was popular with the Second Sophistic movement (cf. Curtius, 1948, 107).

²²Cf. Mansfeld (1994) 167f.

²³*De ord. libr. suor.* 2 (XIX, 54 K.).

examining practical skills involves greater risk of employing an insufficiently trained doctor, who had just been lucky in the cases examined. This might explain the slight inconsistency with a later passage about the sequence of examinations (9,22-24) in which Galen does not repeat the option of bypassing the theoretical enquiry into a doctor's competence.

Satisfactory answers to the theoretical questions are said to be a sufficient basis for entrusting a doctor with treatment. The examination, however, continues with its second part (cf. 9,22-4), scrutiny of clinical performance, including the doctor's diagnosis, prognosis, and prescriptions in the instant case. In order for his clinical judgement to be examined, the doctor has to be in charge of the treatment: The prognosis cannot be separated from the therapy on which it partly depends. As the crisis is not a fixed matter, and unsuitable actions could delay recovery or accelerate death, Galen himself would pronounce a prognosis only on the condition that he be entrusted with the supervision of treatment and diet (5, 6ff.). Many doctors might have tried to conceal their insecurity with evasive remarks. Galen gives the patient criteria for the recognition of the doctor who tries to procrastinate: "... a physician should be able to diagnose on the first day of the attack a disease whose duration does not exceed four days" (7,5). Similarly, Galen has concrete views on when prognosis becomes possible for diseases with a longer duration (7,6-11). In order to judge the clinical performance of his doctor, the patient also requires advice on the diseases for which he can reasonably expect successful treatment. Galen therefore gives a detailed catalogue of diseases which the skilful doctor should be able to treat with drugs or diet (10). This includes a surprisingly wide range of conditions, including those which "surgeons treat by making incisions", diseases of the eye, urinary calculi, cancer, gout, epilepsy, hemiplegia, haemoptysis, and a number of abdominal conditions. Galen clearly refers to the standards he claimed to have set in his own therapy, e.g. that he was the first to treat haemoptysis effectively by using drugs (11,1-2). The ophthalmological part of the catalogue is illustrated by the account of the treatment of the man with an eye ulcer and a prolapsed uvea with "a daily preparation of three kinds of lotions" (3,15). This and other treatments, often

unconventional enough, earned Galen the nicknames "wonder-worker" and "wonder-teller".²⁴ Galen's comprehensive catalogue of diseases a decent physician could reasonably be expected to treat was anything but commonly accepted. First of all, it shows not only a clear anti-surgical stance (10,1-4: surgical diseases to be treated without operation)²⁵, but even an overall disapproval of specialization.²⁶ In a different context, Galen would recognize the need for specialists, because the wide range of subjects makes impossible the mastery of medicine in its entirety (*De partibus artis medicativae*, 2,3). Here, however, he seems to denounce even the necessity of one of the oldest specialties, the one dealing with diseases of the eye.²⁷ This apparent contradiction cannot be completely resolved. Yet in *De partibus artis medicativae* Galen sought to deal comprehensively with the parts of medicine and their anatomical correlates (2,2; 4; 8-9), and quoted the specialties mainly to show the wide range of the art. It is also quite likely that, although he refers to the standard partition of medicine (according to the anatomical parts), his own division begins at a higher level and is based on the state of the patient. Medicine is divided into the cure of diseases, the preservation of health and the cure of the state between health and sickness which he calls prophylaxis (5).²⁸

²⁴*Paradoxopoiios* and *paradoxologos*, cf. *De praecogn.* 8,1.

²⁵Galen does deal with the examination of surgeons (ch. 14), but in a rather brief and superficial way.

²⁶This is another feature Galen has in common with Scribonius, cf. *Ep.dedic.* 10: *multos itaque animadvertimus unius partis sanandi scientia medici plenum nomen consecutos*. On Scribonius' and Celsus' affirmation of the unity of medicine see Mudry (1985).

²⁷*De opt. med. cogn.* 10,2; cf. for the opposite attitude *De part. art. medic.* 4 (and, in fact, the epigraphic evidence, cf. the *medicus ocularius* in CIL 6,8909).

²⁸This trichotomy recalls Galen's "elaborate amplification of Herophilus' basic tripartite division" of *hygieinon*, *nosôdes* and *oudeteron* (von Staden, 1989, 103) in *Ars medica* 1, prophylaxis being concerned with the body which has a share in both the healthy and the ill. Galen adds two more branches, geriatrics and paediatrics, with a slight inconsistency, but still in keeping with the principle that the condition of the patient matters more than the organ affected. The topographic distinction of local diseases, a core part of the Roman medical encyclopaedia since Celsus (cf. book 4) becomes part of the therapeutic branch of medicine. The passage from *De part. artis med.* has unfortunately been neglected in Boudon's (1994) discussion of the *définitions tripartites de la médecine chez Galien* and the position of the *médecine préventive* (1473).

This division hardly allows for specialization. On the other hand, Galen's implicit attack on specialization in medicine in *De optimo medico cognoscendo* was clearly part of an invective against his colleagues, and, considering Scribonius Largus²⁹, can be regarded a topos of this kind of polemic.

Galen's list in chapter 10 includes a number of diseases which no modern physician would regard as curable by means of drugs and diet only, to mention only gangrene, fistulae and breast tumours, and it is rather unlikely that his treatment contributed very much to an eventual cure of most of the other conditions. Yet, Galen was proud of the effectiveness of his treatment of, for example, epilepsy, which, as he says, created him enemies among his colleagues.³⁰ Again, the polemical context of *De optimo medico cognoscendo* seems to have defeated the concern for utmost professional sincerity.

To summarize Galen's views on the examination of physicians by patients: The latter had to acquire a sufficient medical knowledge to be able to examine a physician before they entrusted him with their own care or that of members of their families. This examination should proceed in two phases, beginning with theoretical questions about anatomy, scientific method and ancient medical authorities. After he has taken over the responsibility for the case, the doctor's prognostic and therapeutic ability should be tested. For this purpose, Galen provides detailed catalogues of the dates when prognostic statements are to be expected and diseases which the doctor must be able to cure.

Galen may have been aware of one natural reaction of a reader (or listener if *De optimo medico cognoscendo* was a lecture), namely "does Galen himself comply with the standards he sets?" This may have been the reason for the various examples from his own practice. There is no reason to doubt the seriousness of his medical and philosophical studies and his profound knowledge of the teachings of his predecessors. Likewise, he displayed a sound understanding of many parts of macroscopic anatomy and made his own disco-

²⁹*Ep. dedic.* 10.

³⁰Cf. Temkin (1970) 71.

veries in that field. His diagnostic and prognostic skills concerning internal diseases, however, probably were not much better than those of other physicians of the time, extending little beyond the recognition of periodic fevers.³¹ Finally, his therapeutic optimism stands in striking contrast to the virtual absence of efficient pharmacotherapy at that time. Galen might have thought that he actually was able to cure all the diseases included in his catalogue.³² Yet, if any patient had applied Galen's criteria for examination of doctors and demanded a straightforward, explicable cure for, say, cancer, hemiplegia or asthma, he would undoubtedly have concluded that all the doctors available in Rome, including Galen, showed a serious want of higher medical education.

The reason for Galen to set the standards so high that even he himself would have failed to comply with them can be found in the overall rhetorical³³ and polemical tenor of *De optimo medico cognoscendo*.³⁴ Polemic is a prominent feature of Galen's work in general.³⁵ For an understanding of the intricacies of many of his arguments the polemical features of his medical and philosophical writings have to be set aside. One of the sources of Galen's inclination toward polemic was the experience of encountering, throughout his time in Rome, colleagues he regarded as incompetent and immoral (and as a danger to patients), but who were nevertheless held in high public esteem. Yet, rather than quoting the basic principles of Hippocratic morality and the rules of conduct established by previous physicians (as Scribonius Largus did), Galen set out to constitute medicine according to the scientific method (*De*

³¹On Ancient malaria see the recent review by Burke (1996).

³²And so might his patients and his audience, cf. Nutton (1984) 315, note 4. Galen's therapeutic optimism defies the principles of the Hippocratic Prognostic (ch. 1). On the attitudes towards incurability in the Hippocratic Corpus cf. von Staden (1990).

³³On which compare Nutton (1990) 256f.

³⁴And perhaps the fact that he did not expect many of the addressees of his treatise to follow his advice, cf. Nutton (1990) 249: Galen's recommendations are given "for a public he himself admits is unlikely to be able to follow it", or rather unwilling to do so [cf. the distinction between δύναμις and βούλησις of *Quod optimus medicus* (I,56 K.)].

³⁵Cf. Ilberg (1897) 613ff.

constitutione artis medicativae, I,227 K.). He developed his views through critique of his predecessors³⁶, notably the Erasistrateans (cf. *An in arteriis sanguis contineatur; De venae sectione adversus Erasistratum; De venae sect. adv. Erasistrateos*), Empiricists and Methodists (cf. *De sectis ad eos qui introducuntur*) and the proponents of philosophical scepticism (cf. *De optima doctrina*).

4.2 Physicians, patients, and money: The social standards of medicine

In numerous passages in his works Galen expanded the point that the preference of wealth over virtue³⁷, one of the evils prevalent particularly in the cities³⁸, had a detrimental effect on medicine. He complained that the wealthy were not prepared to acquire the medical knowledge which would enable them to find out whether a doctor was familiar with his art and with the teaching of the medical authorities, although they are the ones who could afford it³⁹ (13,3). This negligence led to a general breakdown of social and medical

³⁶On *Galeno contro le sette* see Vegetti, *op.cit.*, pp. 1695ff.

³⁷Cf. *Quod optimus medicus* 2 (I,56f. K.): "It is logical that because of the bad upbringing present men receive and because of the fact that wealth is more highly regarded than virtue (διὰ τὸ τὸν πλοῦτον ἀρετῆς εἶναι τιμιώτερον) no one becomes like Phidias among the sculptors, nor like Apelles among the painters, nor like Hippocrates among the physicians any more."

³⁸By the time of Galen it had become a rhetorical topos to contrast the evils of the city (cf. Eudemus' warnings in *De Praec.* 4) with an account of the comparatively unspoilt life of the country. Cf. Dihle (1989, 240) on Dio Chrysostomus' idealization of primitive cultures. It reflects a "tiefes Mißbehagen, das der Gebildete jener Tage an der einseitig an städtischer Lebensweise orientierten eigenen Kultur verspürte."

³⁹Galen does not call into question the dominant role of the rich and the famous in a society. A telling example is his élitist criticism of Thessalus' low birth and insufficient education: Not everyone is allowed to speak in the best-regulated cities, but only those who can offer proof of a good family-background (γένος), upbringing (ἀνατροφή), and education (παιδεία) worthy of a public speaker, are given the legal right of public address (*Meth. Med.* I,2; p. 10 K.). It must not be forgotten that only a student from a well-to-do background like Galen could afford the kind of lengthy and cosmopolitan medical course he advocates. Thessalus' introduction of the six months course (regularly rejected by Galen, e.g. *Meth. Med.* I,1) made it easier for people with a less sophisticated upbringing to enter the medical profession, a feature which Galen would probably not have regarded as very desirable.

standards and made it easy for people pretending to be doctors to pursue ambitions which were alien to the proper practice of medicine. The promises of physicians advocating Asclepiades' *cito, tute, iucunde*⁴⁰ had not lost their attractiveness since late Republican times.⁴¹ At a time when a variety of cults supplemented state-imposed religion, the competition of different methods of treatment, including the healing cults⁴², on the medical marketplace⁴³ is hardly surprising. Members of prosperous societies inclined to decadence tend to shun uncomfortable treatment and are often willing to pay far more for therapies with a certain non-conformist appeal than for the standard treatment of mainstream medicine.

⁴⁰For the opposite position see Seneca, *De ira* I,6,2: *nec ulla dura videtur curatio cuius salutaris effectus est.*

⁴¹The *topos* of the dependent physician who is restricted in his therapies by the preferences or orders of his patient is used by Seneca for a comparison with the effeminate philosophers of the non-Stoic schools: *Ceteri sapientes molliter agunt et blande, ut fere domestici et familiares medici aegris corporibus non qua optimum et celerrimum est medentur, sed qua licet* (*De constantia sapientis* I,1). Compare already Plato, *Leges* III, 684c, for the *reductio ad absurdum* of the claim that lawgivers should consider which laws the masses would most easily accept - this would be like someone ordering physicians "to treat and cure the ailing bodies in an enjoyable way." On the *servi medici* in Rome see Below (1953) 7-12 and Kudlien, 1986, 92-118. Galen's competitors, however, seem to have been free men, mostly *peregrini* (like himself, see Kudlien, 1986, 86), to judge from their names, operating in independent practice. Some Roman jurists attempted to regulate competition in medicine, notably between a doctor and his *liberti*. Unfortunately, the evidence is contradictory: Alfenus Varus' *responsum* (*Dig.* 38,1,26 pr.) grants the doctor the right to demand that his *liberti* refrain from competing against him in independent practice. This would be an exception from the general rule given by Scaevola (*Dig.* 37,14,18; cf. 37,14,2) that *liberti* could in fact compete against their former masters: *Quaero, an libertus prohiberi potest a patrono in eadem colonia, in qua ipse negotiatur, idem genus negotii exercere. Scaevola respondit non posse prohiberi.* Yet Scaevola himself made the qualification *si nullam laesionem ex hoc sentiet patronus* (*Dig.* 38,1,45). The extension of the rights of the *patronus* in general was treated by Max Kaser, "Die Geschichte der Patronatsgewalt über Freigelassene", *Zeitschrift der Savigny-Stiftung für Rechtsgeschichte, Romanistische Abteilung* 58 (1938) 88-135, who referred to the latter passages (p.125, n.1) without discussing the specific application to medicine. Competition from former trainee doctors is still an issue today, and certain codes of conduct (e.g. the one endorsed by the German assembly of physicians, cf. *Deutsches Ärzteblatt* 93,7 (1996) C-297) call upon doctors not to set up themselves in independent practice in an area covered by a surgery where they had been employed and trained previously.

⁴²Cf. Galen's scornful remarks in the *Protrepitkos* (I,1ff. K.). On Galen's motivation for criticizing the rise of healing cults in *De optimo medico cognoscendo* 1.3-4 see Nutton (1990) 255ff. For Galen's religious beliefs in general see Strohmaier (1965) and Kudlien (1981).

⁴³On the model of the medical marketplace and its application to classical Antiquity see Nutton (1992; 1999).

Galen elaborated further on the prevailing preference for the pursuit of money, power and pleasure over serious studies and the decline of medical and social standards in his *opus magnum* on therapeutics (*De methodo medendi*). In the introduction to this work (I,1), Galen complained about the inimical attitude toward learning of his time. His contemporaries allegedly strive for money (χρήματα), political power (δυνάμεις πολιτικάς) and the insatiable pursuit of pleasure (ἀπλήστους ἡδονῶν ἀπολαύσεις) rather than knowledge. Philosophy is not recognized at all, the other sciences, such as medicine, geometry, arithmetic and music only insofar as they are of some immediate use.⁴⁴ Galen himself is blamed for "pursuing truth beyond the reasonable" (πέρα τοῦ μετρίου τὴν ἀληθείαν σπουδάζεσθαι). He should rather pay visits to his patrons in the morning and dine with the great and good, as is expected from the doctors of members of the upper classes:

"It is only appropriate that as soon as they get ill they should not call the best doctors, whom they had never endeavoured to make out while in health, but those most similar to them and most sycophantic, who administer cold when asked to do so, and baths, and provide snow and wine and carry out every order like slaves, quite contrary to those ancient physicians, descendants of Asclepius, who expected to rule over the ill like generals over armies and kings over subjects, not to be ruled and commanded like the Getan, Tibian, Phrygian or Thracian mercenaries.⁴⁵ Therefore they hold in higher esteem the more able flatterer than the better physician, and for this kind of person every path is free, the doors of the houses are open, and he is soon rich and very

⁴⁴For a second century AD satirical depiction of the lives of salaried scholars in wealthy houses see Lucian's Περὶ τῶν ἐπὶ μισθῷ συνόντων.

⁴⁵Galen's point is supported by the use of *imperantes* for patients of *free* doctors in legal terminology, cf. *Dig.* 38.1.26.pr., suggesting a continuation of the traditional Roman relationship between *coloni* and *anniversarii vicini, quibus imperent, medici* (i.e. free physicians, cf. Kudlien, 1986, 95) transmitted by Varro (*De re rust.* 1,16,4; cf. for the patient as an *imperator* Seneca *De beneficiis* 6,16,2). There is, however, also evidence for the opposite attitude, cf. Pliny, *Nat.hist.* 29,11 on the *physician* as *imperator vitae nostrae necisque* and Epictetus' criticism in *Diss.* 3,10,15.

powerful, and he gets many apprentices from the nurseries, as soon as they become too old for those" (X,3f. K.).

The comparison of the physician's approach towards his patient with that of a general towards his troops or that of a king towards his subjects reflects Galen's idealized view of what the social position of the doctor had been in the past (or, for that matter, should be in his own time). Yet Galen did not fail to recognize the potential for inappropriate medical conduct in cases where the physician did rank higher socially than his patient. He illustrated the ensuing nonchalant attitude of certain physicians with the story of the Thessalus-follower Attalus, who failed to cure the Cynic philosopher Theagenes from a *phlegmone* of the liver but still appeared at the washing of the corpse with his escort and boasted about his correct prognosis that the patient would die within four days.⁴⁶ Some caution, however, is warranted in dealing with such accounts of the behaviour of contemporary doctors. For Galen was always ready to criticize his colleagues, particularly in cases where he had been consulted, but his advice had not been followed.⁴⁷

In Galen's view, this atmosphere of general corruption not only produces outright charlatans and flatterers, it also infects the more serious and scholarly physicians. The reliance of the dogmatists (δογματίζοντες) on authority leads to ridiculous competitions in cases of disagreement (II,5; X, 112 K.), wherein reputation is put before honesty:

"Indeed you know how many of them have confessed to us on many occasions that they have seen the absurdities of their methods in particular cases, but have not been able publicly to recant since they do not know anything else for which they will be honoured, and they have already been recognized and honoured for these things. ... They will not think it worthwhile to practise in the rational methods, but will

⁴⁶*De meth. med.* XII, 15 (X,909-16 K.).

⁴⁷See for example *De praecognitione* 10: Most of his colleagues are unable to apply or even understand any of Galen's treatments as they have abandoned the practical training (τὰς ἐν τοῖς ἔργοις γυμνασίαις) and devoted themselves entirely to villainy (πανουργία).

concentrate on wealth, reputation, and political power, and will fritter away their lives in the pursuit of them (114)."⁴⁸

Despite their learning, these physicians do not escape the decline of standards, professional and moral alike, in medicine. This is yet another of Galen's very perceptive observations concerning the psychology of science and scholarship: Intellectual uncertainty and fear of loss of reputation and privileges are common causes of dogmatism, i.e. the unwillingness or even inability to expose one's cherished beliefs to a sustained critical investigation. It is the ability of the learned systematically to construct argumentative support for prejudices which might make it particularly difficult to extinguish them.⁴⁹

Galen did not object to physicians' demand for appropriate remuneration for their services. Hippocrates, in fact, is quoted as the exemplary doctor, so much missed in Galen's times, who "pursued the acquisition of money only so far as required to serve the necessary needs of the body."⁵⁰ Galen did, however, blame the kind of medical practice where both patients and doctors are obsessed with the pursuit of wealth⁵¹, power and reputation, for it violates the basic principle of Galenic medicine. The physician should put medical knowledge first and make all efforts and sacrifices to keep his professional

⁴⁸Tr. Hankinson, *op. cit.*

⁴⁹Cf. Fontenelle, *Histoire des oracles (Oeuvres complètes vol. II, p.196): Quand les Philosophes s'entêtent une fois d'un préjugé, ils sont plus incurables que le Peuple même, parce qu'ils s'entêtent également et du préjugé et des fausses raisons dont ils le soutiennent.*

⁵⁰*Quod optimus medicus* 1 (I,58 K.). The natural limits of wealth (τοῦ κατὰ φύσιν πλούτου τὸν ὅρον) was not only depicted in words by Hippocrates, but taught by example (οὐ μόνον λόγῳ πλάσασθαι, ἀλλ'ἔργῳ διδάξασθαι, *ibid.*). For natural versus unnatural wealth see Aristotle, *Politics* I,3, 1257 b8 ff.

⁵¹For Galen, as for the Stoics (e.g. SVF I,81; III,31.33), wealth itself was morally indifferent or even preferable, and entailed the obligation to give generously (*De an. aff. dig.* pp. 30ff. De Boer). As far as the professional activity of physicians was concerned, Galen allowed for a χρηματισμὸς ἐλευθέριος (*Protreptikos* 8; I,17 K.), which he, in keeping with the original meaning of *honorarium* in Roman Law, restricted to the acceptance, but not the request of payment (cf. Kudlien, 1976, 458), while in later times the *honorarium* could be requested or even sued for. Regular *salaria* for public physicians date back to the time of Alexander Severus (Below, 1953, 43). On the provisions of Roman law for the remuneration of doctors see Klingmüller in PW, VII 2 (1913) cols. 2270-5 s.v. *Honorarium*, Bernard (1936) 57-86, and Below (1953) 81-98, summary on p.108. Cf. Nörr (1965). Galen himself had to acknowledge that some physicians needed remuneration (XII,916f. K.).

standards high, whilst the patient should take a serious interest in medical learning so that he can ascertain whether the physician maintains such standards.

4.2.1 Incentives for medical practice

Galen claimed that he never demanded a fee for his services from pupils or patients, and even helped needy patients financially.⁵² A sizeable proportion of his patients in Rome, however, belonged to the educated upper classes.⁵³ Therefore, in addition to his independent means⁵⁴, which made him a moderately prosperous man⁵⁵, he received gifts from wealthy patients, as explicitly mentioned in *De praecognitione*.

Even if one is not prepared to trust everything Galen said about his impeccable morals there is no reason to doubt his assertion that it was not the (in any case distant) prospect of generous remuneration what motivated him to enter the medical profession. To be sure, some Ancient physicians could amass astounding wealth through their professional activities, most famously the Coan C. Stertinus Xenophon who was a physician to the emperor Claudius.⁵⁶ The

⁵²See Meyerhof (1929) 84. Cf. *Quod optimus medicus* ch. 3: The ideal physician despises wealth.

⁵³Cf. *De praec. 5 et passim*. On the social background of Galen's practice see Ilberg, *Aus Galens Praxis*, 403ff. and H.F.J. Horstmannshoff, "Galen and his patients" in van der Eijk et al. (1995) 83-99. The latter provides a statistic of 174 patients of Galen, a quarter of whom were from the senatorial or equestrian orders, or intellectuals, as opposed to a seventh from the lower classes (the rest were anonymous, i.e. probably from the latter category) and concludes "that the elite and the intellectuals are over-represented" and that Galen probably "only treated the lower classes if they belonged to the domestic staff of his elite patients" (90f.). There was a class system of medical practitioners in operation in Rome in which Galen would have been among those unlikely to occupy themselves with pedestrian surgery, in contrast to his Asian experience (X,454f. K.). Yet there was certainly nothing like a strict separation between internal medicine and surgery, cf. Gummerus (1932) 21 on the epigraphic evidence, and Seneca, *Ad Marciam de cons.* 22,3.

⁵⁴Cf. *De aff. dig.* 9 (V,41 K.); V,48 K.; X,561 K.; XIV,17 K.

⁵⁵Cf. Ilberg (1971) 386.

⁵⁶On Stertinus Xenophon see Herzog (1922). The physician Pamphilos gained considerable wealth from a medicine against mentagra (*De comp.med.sec.loc.* V,3; XII,839 K.). For the income and status of physicians in antiquity in general see the recent studies by Kudlien "Der

ultimate position, if one's goals were financial and social success, was that of a physician to the imperial family.⁵⁷ Galen was not particularly eager to take up his official court position⁵⁸, but it is difficult to determine the respective contribution of love of personal independence and fear of war and pestilence (which must have been sources of general perplexity⁵⁹ around AD 169) to his reluctance to enter the imperial service.

To enter the medical profession did not generally enhance status, certainly not for an educated youth from the upper classes. For them the *cursus honorum*⁶⁰ was the usual pursuit, unless they chose to refrain from public activity altogether. If someone embarked on the career of an orator, as chosen

ärztliche Beruf in Staat und Gesellschaft der Antike", *Jahrbuch des Instituts für Geschichte der Medizin der Robert Bosch Stiftung* 7 (1988) 41-73, Jackson (1994) and Pleket "The social status of physicians in the Graeco-Roman World", in van der Eijk et al. (1995) 27-34.

⁵⁷Cf. the career of Augustus' physician Antonius Musa who, on top of generous remuneration, received the *anulus aureus* from the grateful emperor (Cassius Dio, *hist. roman.* 53,30,3), which, according to Mommsen, entailed elevation to the *equestris dignitas* (see Theodor Mommsen, *Römisches Staatsrecht*, vol. II, 3rd edition, Leipzig, 1887, p.893). Kaser (*op.cit.*, 125f.) considers a more modest effect of the *ius anulorum aureorum*. It creates an *ingenuus*, yet not with the full rights of a free born Roman citizen, because it confers *imaginem, non statum ingenuitatis* (*Codex Iustinianus* 6,8,2). On the rank of physicians within the court hierarchy see Below (1953) 47f.

⁵⁸Cf. Ilberg (1971) 390f.

⁵⁹Regrettably, there was no Roman Thucydides to give a reliable and well-balanced account of the repercussions which epidemics of this kind had on social cohesion and individual morality (see his analysis of the moral consequences of the "plague" in Athens in II,53). Yet Julius Capitolinus' relation of a madman's prophecy of the end of the world (*Scriptores Historiae Augustae, Marcus Antoninus Philosophus* 13,6) or Cassius Dio's (or his source's) obsession with the story of criminals who infected people for pay by means of tiny needles carrying deadly drugs (during the reigns of Domitian [67,11,6] and Commodus [73,14,3f.]) provide some insight into the fears of moral decay and dissolution of public order which such epidemics could arouse. Cf. Donoso Cortes' remarks in the prologue to his *Consideraciones sobre la Diplomática*, which were inspired by the experience of the cholera epidemic in Madrid: *Rara vez los grandes sacudimientos que se verifican en el mundo físico dejan de estar acompañados de violentas oscilaciones en el mundo moral ... Cuando esta coexistencia de calamidades físicas y de perturbaciones morales se verifica en un pueblo, el espectáculo que ofrece es siempre una lección para los que gobiernan, porque la sociedad se presenta desnuda de los velos que la cubren y pueden estudiar en ella los vicios que la manchan y las pasiones que la dominan.*

⁶⁰For Galen's contempt for the *cursus honorum* of his time and for forensic oratory see *De opt. med. cogn.* 8,9-10, cf. Nutton (1990) 250.

by Aelius Aristides, who had a background similar to Galen's⁶¹, or even more so on that of a physician he might have gained among his peers the reputation of being an excentric rather than an enhancement of status. Galen presumably had the means to refrain from taking up a profession altogether, because his father had amassed a considerable fortune.⁶² A refined *otium cum dignitate* was therefore within his reach. This way of spending one's life was regarded highly in Roman society, as it was in eighteenth century Britain, and was the ultimate aim of many a career.⁶³ Having a profession, on the other hand, did not necessarily contribute to one's social standing.⁶⁴ During his lifetime, Galen

⁶¹Cf. Behr (1968) 5ff. His family owned several farms and houses between Pergamum and Cyzicus and houses in Smyrna. Like Galen, Aristides claims not to have entered his profession for money's sake, quite unlike most of his colleagues, cf. *or.* 28, p.181 Keil and the introduction to his *priamel* in *or.* 33, p.232 Keil: "I alone of all the Greeks I know have started oratory not for the sake of wealth, fame, honour, marriage, power, or any other purpose, but I have established myself purely as a lover of speeches and thereby received appropriate honours from them." Behr's assessment that "Aristides boasts that he never accepted fees", however, is borne out by *or.* 46, p.192f. Dindorf where he says that he always charged the *σύμμετρον*, and also by the account of Damianos in Philostratus, *Vitae Sophistarum*, p.266 (Loeb) that he paid Aristides a fee of ten thousand drachmae in Smyrna. Yet certain other orators demanded substantial fees, see Lucian, *Apologia* 15 where he counts himself among the *μεγαλόμισθοι τῶν σοφιστῶν*.

⁶²On the other hand, the two professions, medicine and architecture, seem to have commanded a similar reputation, cf. Marcus Aurelius, *Ad se ipsum*, VI,35.

⁶³The Younger Pliny cherished every opportunity to escape from his administrative duties to his country estate and relish in reading and writing - *O dulce otium honestumque ac paene omni negotio pulchrius* (*ep.* 1,9,6). Seneca even says (*De otio* II,2) that it is perfectly acceptable to retire from your business in order to devote yourself fully to the pursuit of knowledge (*contemplationi veritatis totum se tradere*): *ut possit hoc aliquis emeritis iam stipendiis, profligatae aetatis, iure optimo facere et ad alios occupationes referre*. Cf. Adam Smith, *The Wealth of Nations* III,4 (1976, 411): "Merchants are commonly ambitious of becoming country gentlemen", though, as befitted their class, with a view to investment and improvement rather than exclusive *otium*.

⁶⁴Cf. Paul Veyne, "Vie de Trimalcion", in *La société romaine*, Paris, 1991, p.45: *Avoir un métier, se définir par lui, était considéré comme une limitation apportée à la qualité d'homme; n'en pas avoir, c'était vivre pleinement, et par là noblement (car la noblesse n'était pas sentie comme une supériorité sur les autres hommes, mais au contraire comme la complète réalisation de l'humanité)*. Considerations of this type, of course, only applied to the upper classes, and even there with qualifications (e.g. Quintilian, *Declamatio* 268, on the respective public utility of oratory - *non pluribus prodest quam nocet* -, philosophy - *ad paucos pertinet*, and medicine - *sola est qua opus sit omnibus*: admittedly, the *medicus* speaks *pro domo*). For a person from a more humble background, professional training would have been attractive, even at the cost of losing personal freedom, see Veyne, "Droit romain et société: les hommes libres qui passent pour esclaves et l'esclavage volontaire", *ibid.*, p.278): *Réduction volontaire en esclavage* might have been an alternative to poverty for citizens who wanted to rise to higher offices or

evidently rose above the lower ranking of the professions through his links to the imperial court. Yet his social status was founded upon his background and general education, not his successful professional career. In tenth century Baghdad his status as a professional earned him the scorn of his philosophical adversary al-Farabi⁶⁵, who would refer to the "doctor Galen" and give his craft the same status as agriculture⁶⁶, which must have sounded offensive in the ears of Rhazes and his other Arab Galenist contemporaries.

Galen's own personal behaviour may have had its share of both the grumbling and the conformism which Seneca⁶⁷ so despised. Yet he gave a remarkable classification of the various motivations for the practice of medicine, which might count as evidence of his high moral aspirations. In the fifth chapter of the last book of *De placitis Hippocratis et Platonis*, Galen discussed the view expressed in the first book of Plato's Republic that the τεχνῖται work for the benefit of that which is under their rule and not for their own advantage. Galen wanted to endorse this position, but he thought that in

professions, such as medicine, particularly if there was the prospect of being manumitted after a reasonable time (cf. Kudlien, 1986, 118-52, for the chances of freedman doctors in the Roman society). Another motivation might have been that the contractual basis for medical services rendered by *servi* and *liberti* (i.e. the *locatio conductio operis/ rei* or *operarum*, respectively, cf. Below, 1953, 56) did not pose anything like the problems which beset the remuneration for doctors who were *ingenui*.

⁶⁵Al-Farabi, of course, was a doctor himself but seems never to have engaged in medical practice, see Moritz Steinscheider, *Al-Farabi*, St. Petersburg, 1869, p.6.

⁶⁶Cf. F.W. Zimmermann, *Al-Farabi's Commentary and Short Treatise on Aristotle's De interpretatione*, Oxford, 1981, lxxx: "Al-Farabi regularly puts Galen in his place by [...] putting medicine, as a practical science concerned with humble possibilities, on a par with agriculture." Before it was established as a separate craft in Rome, medicine had indeed been part of the occupations of the traditional landowner, cf. Cato's remarks on both veterinary (e.g. chapters 102f.) and human (chapters 156ff.) medicine in *De agri cultura* (see Boscherini, 1994, 737ff. for Greek influences on Cato). Cato rejected the professionalisation of medicine and had serious doubts about the moral probity of the (Greek) physicians of his time, but he endorsed the importance of prophylaxis and cure, cf. Pliny, *Naturalis Historia* 29,16f.: *Non rem antiqui damnabant, sed artem; maxime vero quaestum esse manipretio vitae recusabant*. After a while, even the physicians themselves had earned an esteem which was sufficient to exclude them from a general expulsion of all Greeks. According to Pliny, this was fortunate because even in his day *solam hanc artium Graecarum nondum exercet Romana gravitas*. Already in Varro (*De re rustica* 1,16,4), the *medicus* appears alongside the fuller and the carpenter as an independent craftsman, *artifex*, who receives his orders from the landowner.

⁶⁷Cf. *De tranquillitate animi* II,11 (*queri de saeculo*) and IV,1 (*temporibus se submittere*).

order to avoid sophistry, such as Thrasymachos' remark that shepherds work toward their own rather than the sheep's benefit, a clarification of the terms was required:

"It is obvious that a physician too, as physician, looks to the health of the body, but to the extent that he practices medicine for some other reason, he will receive the corresponding name. Some practice the medical art for monetary gain, some because of exemptions granted them by the laws, some from love of their fellow men, others again for the fame and honour that attend the profession. Accordingly, as artisans of health they will all share the name physicians, but insofar as they act with different ends in view one will be called a lover of mankind, another a lover of honour, another of fame, still another a money-maker. The goal of the physician qua physician is not fame or profit as Menodotus the Empiric wrote; this is the goal for Menodotus, but not for Diocles, and not for Hippocrates and Empedocles either, or for many other ancients, who treated men through love of mankind."⁶⁸

The physician *stricto sensu* makes the health of the body his goal. Others may exercise the art of medicine, but are characterized by their pursuit of objectives different from this, such as monetary gain, freedom from public office and other duties⁶⁹, *philanthropia*⁷⁰, fame⁷¹ or reputation.⁷² These people must

⁶⁸πρόδηλον οὖν ὅτι καὶ ἰατρὸς ἢ μὲν ἰατρὸς ἐστὶ ταύτη προνοεῖται τῆς τοῦ σώματος ὑγείας, ἢ δὲ δι' ἄλλο τι τοῦτο πράττει, κατ' ἐκεῖνο καὶ τὴν προσηγορίαν ἔξει. τινὲς μὲν γὰρ ἔνεκα χρηματισμοῦ τὴν ἰατρικὴν τέχνην ἐργάζονται, τινὲς δὲ διὰ τὴν ἐκ τῶν νόμων αὐτοῖς διδομένην ἀλειτουρησίαν, ἔνιοι δὲ διὰ φιλανθρωπίαν, ὡσπερ ἄλλοι διὰ τὴν ἐπὶ ταύτῃ δόξαν καὶ τιμὴν. ὀνομασθήσονται τοιγαροῦν ἢ μὲν ὑγείας εἰσὶ δημιουργοὶ κοινῇ πάντες ἰατροί, καθόσον δὲ τὰς πράξεις ἐπὶ διαφόροις ποιοῦνται σκοποῖς, ὁ μὲν τις φιλάνθρωπος, ὁ δὲ φιλότιμος, ὁ δὲ φιλόδοξος, ὁ δὲ χρηματιστής. οὐκ οὖν τοῖς ἰατροῖς τὸ τέλος ἐστὶν ὡς ἰατροῖς ἔνδοξον ἢ πόριμον, ὡς Μηνόδοτος ὁ ἐμπειρικὸς ἔγραψεν, ἀλλὰ Μηνόδοτῳ μὲν τοῦτο, Διοκλεῖ δ' οὐ τοῦτο, καθάπερ οὐδὲ Ἴπποκράτει καὶ Ἐμπεδοκλεῖ οὐδ' ἄλλοις τῶν παλαιῶν οὐκ ὀλίγοις ὅσοι διὰ φιλανθρωπίαν ἐθεράπευον τοὺς ἀνθρώπους (PHP IX,5, V,751f. K.). Tr. De Lacy.

⁶⁹An example of the privileges enjoyed by certain physicians under these provisions of ἀλειτουρησία can be found in Vespasian's edict *De privilegiis medicorum et magistrorum* (*Fontes Iuris Romani Anteiustiniani I*, Florence 1941, No. 73). These privileges were restricted to a certain number of professionals by the letter written by Antoninus Pius to the Provincial Assembly of Asia (but universally applicable), which also provides the most detailed evidence for the freedom from λειτουργία (*Dig.* 27,1,6, from the second book of Modestinus' *excusationes*). Philosophers, orators, teachers of grammar and physicians were to be exempted

be described according to their respective goals (σκοποί). Galen singles out the Empiricist Menodotus⁷³ and criticizes him for suggesting that fame and gain are the objective of doctors. This might be true for him, Galen responds, but it certainly was not in the cases of Diocles, Hippocrates, Empedocles and other

from the *honores* (i.e. offices in city administration, such as the supervision of the gymnasia and markets, priesthood, and service as a judge or ambassador), *munera personalia* (e.g. *tutela*) and *munera patrimonii* (e.g. taxation) which a citizen would normally owe his city, and from the military service (8). The numbers of exempted professionals, however, were restricted according to the size of the cities granting the immunities. Metropolitan cities, for instance, were allowed to exempt ten physicians (2). There were no limits to the numbers of philosophers διὰ τὸ σπανίους εἶναι τοὺς φιλοσοφοῦντας. Similarly, no restrictions applied to physicians of outstanding reputation and those practising in Rome (Below, 1953, 39; Nutton, 1988, ch. IV). De Lacy (*ad locum*) is therefore right to assume that "Galen himself enjoyed such an exemption ...". His contemporary, the orator Aelius Aristides was less fortunate. In 152 he was elected by the Smyrmaean Council to the office of Tax Collector, which not only required time and effort but probably also private contribution to make up for deficits, and it took him several appeals to get this election voided (cf. Behr, 1968, 77ff.). On the question of the immunity of doctors in general see Below (1953) 22ff. (37f. on Antoninus Pius' motivation and the recognition of free treatment of the poor as the equivalent of λειτουργία) and Nutton (1988) chapters IV-VI.

⁷⁰The link between philanthropy and medicine is emphasized in Aristides' depiction of Asclepius, cf. Behr, *Aelius Aristides*, p.159: "In agreement with the growing awareness of the needs of social responsibility among the upper classes, great emphasis was placed upon the philanthropy of the Gods. Asclepius, the gentle, humanitarian God, epitomized this quality." Galen seems to have referred to Asclepius in connection with the physician's morality in his commentary on the Hippocratic Oath (fr. 2e in Rosenthal, 1956). For the authenticity of this commentary see G. Strohmaier, "Asklepios und das Ei: zur Ikonographie in einem arabisch erhaltenen Kommentar zum hippokratischen Eid", in Stiehl and Stier (1970) 143-53.

⁷¹The link between public munificence (φιλανθρωπεύεσθαι) and fame is questioned by Aristides' advice (*or.*46, p.194 Dindorf) not to aim for the reputation with the many, but for the recognition of the noblest of the Greeks, echoing Heraclitus "one man counts for a thousand if he is excellent", to which allusion is also made by Galen in *De dignotione pulsuum* (I,1; VIII,773 K).

⁷²Fame with laymen can in fact contribute to the philanthropic goals of physicians, such as the δόξα created by εὐπορία of the equipment of the surgery (*In Hipp. de officina* II,1; XVIIIb,722f. K.): "For he will benefit the people more if he is honoured and admired by them, because they will rather imitate his deeds and obey his precepts, like the orders of some god."

⁷³For the fragments of Menodotus see Deichgräber (1930) 212-4. According to Deichgräber (*ibid.*, p. 323), this alleged view of Menodotus is in keeping with the sceptical attitude of the Empiricist doctors: "Such a position can at least be explained by the underlying scepticism: The ἐποχή is to be seen as the ideal of a thoroughly unsocial attitude to human life. Like the Epicureans, they would regard man as a part of the community, but take this position of man as a disagreeable rather than valuable feature. The Sceptic recognizes the community and the state only because he is unable to avoid the social obligations; only compromises with the reality of community life are possible. This might explain why Menodotus stated money-making to be the goal of the activities of the doctor rather than Hippocratic philanthropy and defined the physician entirely as a businessman."

philanthropic doctors. This association with Hippocrates distinguishes *philanthropia* from the other σκοποί, of which Galen strongly disapproved.⁷⁴ Yet, even so it remains an ἄλλο τι whose exact relationship to the art of medicine will have to be determined.

The issue of the appropriate use of the title "physician" is often addressed in codes of medical practice, such as the Hippocratic *Lex* and *Praecepta*⁷⁵, Scribonius Largus' dedicatory letter (*nomine tantummodo medici*)⁷⁶ and Galen's *De optimo medico cognoscendo*. It is commonly encountered in the context of over-specialization (*multos ... unius partis sanandi scientia medici plenum nomen consecutos*⁷⁷) or ignorance in technical matters. In the passage from *De placitis*, however, Galen wants to restrict the use of the name of the ἰατρός to those for whom the whole purpose of the practice of medicine is the health of the body.⁷⁸ Those who might be skilled practitioners, but do not pursue medicine for its own sake, are physicians only incidentally and are more appropriately described as philanthropists, fame-seekers or businessmen.⁷⁹

⁷⁴Cf. Jouanna, *L'ethique Hippocratique chez Galien*, in Flashar and Jouanna (1996), at p. 239.

⁷⁵Cf. the ἀνίητροι of chapter 7 (IX,258 ff. L.).

⁷⁶Cf. CMG I,1,7,10 and *ep. dedic.* 10.

⁷⁷Scribonius Largus, *ep. dedic.* 10.

⁷⁸Medicine, according to *De constitutione artis medicativae* 10 (I,257) is the art of restoring health (τέχνη υγείας ἐπανορθωτική). In PHP Galen uses the expression υγείας δημιουργοί, whereas in *De const. art. med.* he specifies medicine as τέχνη ἐπανορθωτική rather than δημιουργική because it is not a production of something entirely new (ch. 1; I,229f. K.).

⁷⁹The remuneration of doctors was not only a moral, but also a legal problem. A *rescriptum* from the reign of Domitianus or Trajan, found in Pergamum in the year 1934, shows that the different motivations for the transmission of medical knowledge to slaves, *humanitas* (in the sense of φιλανθρωπία) or monetary gain, were of concern to the lawgiver. The *avaritia medicorum et praeceptorum* whose art *venditur non humanitatis, sed augendae mercedis gratia* is to be punished severely, viz by revocation of immunity (cf. the reconstruction by Herzog in "Urkunden zur Hochschulpolitik der römischen Kaiser", *Sitzungsber. d. Preuß. Akad. d. Wiss., phil.-hist. Kl.* 32, Berlin, 1935, pp. 967ff.). For the topical avarice of doctors see Pliny, *nat. hist.* 29,21ff.

Physicians in the strict sense are defined and recognized by their medical knowledge and skilful therapies (cf. *De optimo medico cognoscenco*), by their *habitus* and decent manners (*Medicus gratiosus*)⁸⁰ and by their adherence to the ethos of what Galen considers to be Hippocratic learning and morality (cf. *Quod optimus medicus sit et philosophus*).⁸¹ *Philanthropia* is indeed one of the characteristics of the accomplished doctor, but has to be accompanied by the authority of learning and medical expertise.⁸² For Galen, technical skill and moral perfection are inseparable. The conflict between moral and technical accomplishment, which allegedly troubled Erasistratus⁸³, who opted for the former (see below chapter 6) because even a perfect technique would be corrupted by lack of morality (*artem perfectam corrumpere*), is ruled out by Galen's methodology. Already Scribonius Largus had stressed that sound medical knowledge including the careful study of the ancient authorities was an integral part of the appropriate moral attitude of a physician - otherwise he would be all too likely to cause serious harm. Scribonius referred to the Hippocratic precedent, like Galen in *Quod optimus medicus*, but did not provide a theoretical basis for the postulated interdependence of morality and specialist knowledge. Galen, however, gave this conviction a methodological foundation. Both ethics and therapeutics follow the common demonstrative method, modelled on geometry (see above, chapter 2). Therefore, whoever was capable of applying this method to medical therapy would in principle also be capable of answering questions concerning the right life and how to act in certain circumstances accordingly and vice versa. What Galen could not, however, exclude was the possibility of individual physicians, induced by passion or an evil will, failing to abide by this method on either one or even both counts

⁸⁰The central text is Galen's commentary on Hippocrates' *Epidemics* VI,4,7 (CMG V 10,2,2, p.197-217), compare also the studies by Riese and Bourgey (1960), Deichgräber (1970), and Jouanna, *op.cit.*, pp. 221-230.

⁸¹Cf. Jouanna, *op.cit.*, pp. 230-238.

⁸²On the combination of *φιλανθρωπία* and *σεμνότης* see Deichgräber (1970) 52.

⁸³In Ps.-Soranus, *Introductio ad medicinam* (*Anecdota graeca et graecolatina*, ed. V. Rose, II 244,16ff.).

although they would have been intellectually capable of doing otherwise. It has been shown (3.1.1) that Galen's psychology allowed for such cases of ἀκρασία and ἀκολασία. Yet Galen attempted to argue his case - the interdependence between medicine and morality - by showing that they go hand in hand in everyday practice: Without proper diet and hygiene, ὑγιεινὴ τέχνη in general, the actions and character of a man will be determined by his bodily constitution in an unpredictable manner, while for the appropriate therapy to be implemented it is necessary to curb the passions (see 3.1.2). Thus, everyone is responsible for his own health, bodily and otherwise, and for his own morality, including the medical practitioner who will be an ἰατρός *stricto sensu* only if he has been trained properly in the method of geometry, medicine, and ethics.

Galen seems to have been prepared to accept a proximity between the philanthropic and the strictly health-oriented motivations for medical practice; after all, the great physicians of the past are among those who "cured men for *philanthropia's* sake." Galen is keen to praise the φιλανθρωπία of his father⁸⁴ and the emperor.⁸⁵ A friendly and understanding attitude to the patient is an essential characteristic of the decent physician: ἐν τῷ φιλανθρώπῳ καὶ μετρίῳ καὶ ἡδεῖ τὸ σεμνὸν φυλάττειν.⁸⁶

Yet it has to be emphasized, *pace* Temkin⁸⁷, that Galen, in the passage from *De placitis*, did not make the claim that *he* was motivated by *philanthropia* to practice medicine, nor, indeed, that this would be the perfect doctor's attitude.

Galen knew that a vague general notion of *philanthropia* would be an

⁸⁴*De aff. dig.* 8 (V,40 K.): It was easy to decide whom to follow - the quarrelsome mother or the father, who was an example of justice and kindness (ἀοργητότατον, δικαιοτάτον, χρηστότατον, φιλανθρωπότατον).

⁸⁵*De praecognitione* 9 (XIV,650 K.): Galen was able to persuade his philanthropic lord to leave him in Rome rather than take him to the Teutonic war.

⁸⁶*In Hipp. Ep.* VI, IV, XVIIb,146 K. Cf. *De temperamentis* II,1 (1,576 K.): The person with an ideal mixture of the humours (εὐκρατότατος) will be φιλόανθρωπος and συνετός.

⁸⁷*Galenism*, p. 48.

unstable basis for medicine, or human actions in general - ... *et lateat vitium proximitate boni*.⁸⁸ He provides a telling *exemplum* in the unlikely context of the discovery of viper flesh as a remedy against leprosy in *De simplicium medicamentorum temperamentis et facultatibus* XI,1: A group of hunters drink with a leprous friend when suddenly a dead viper slips out of the jar of wine - δείσαντες οὖν οἱ θερισταὶ μή τι πάθοιεν ἐκ τοῦ πώματος, αὐτοὶ μὲν ὕδατος ἔπιον, ὡς δ' ἀπηλλάττοντο, χαρίζονται δῆθεν ὑπὸ φιλανθρωπίας τῷ τὸν ἐλεφάντα νοσοῦντι τὸν ὅλον οἶνον, ἄμεινον αὐτῷ κρίναντες εἶναι τεθνάναι μᾶλλον ἢ ζῆν τοιούτῳ. ὁ δ' ἐκ τούτου πίνων ὑγιῆς ἐγένετο θαυμαστόν τινα τρόπον.⁸⁹ The hunters refrain from drinking from the contaminated wine because they are afraid of its harmful effects. Instead they give it to their leprous friend, "out of *philanthropia*", because "they judged it to be better for him to die than to live on with such a condition." This attempt at unsolicited active euthanasia, motivated by *philanthropia* in the sense of *miser cordia*⁹⁰, fails because of the unexpected beneficial effect of the flesh of the viper and leads to the discovery of a new medicine.⁹¹

Had this episode been recounted in the context of a treatise on morality

⁸⁸Ovid, *Ars Amandi* II, 662.

⁸⁹XII,313 K.

⁹⁰On the close proximity of these two concept see Hirzel, 1912, 25: "... während die Philanthropie eine weiche Empfindung ist, die man schon im Altertum Mühe hatte von dem bei den Stoikern verpönten Mitleid zu trennen."

⁹¹The concept of φιλανθρωπία/ *miser cordia* is linked to homicide in yet another way: The humane (φιλανθρώπως) way of putting convicted criminals to death in Alexandria is to put a πτυάς, the same venomous snake Cleopatra used, onto their chests (*De theriaca* 8). Regrettably, the study by S. Tromp de Ruiter "De vocis quae est ΦΙΛΑΝΘΡΩΠΙΑ significatione atque usu", *Mnemosyne* 59,3 (1931) 271-306, does not contribute much to medical questions, for it does not include Galen (Plutarch, Origen and Iamblichus are the nearest in time). Furthermore, its aim is clearly to depict the pagan Greek writers on φιλανθρωπία as forerunners of the Christian concepts of *caritas* and *miser cordia*. Therefore the Pythagoreans assume an oddly elevated place in the history of the concept (303). On the central position of the idea of philanthropy in Plutarch see Hirzel, 1912, pp. 23-32, and pp. 157ff. on its influence on Rousseau and the literati of the French eighteenth century.

Galen might have discussed the extent to which *miser cordia*⁹² should influence human action, revealed his attitude to euthanasia, or commented upon the question whether an action was to be judged by its outcome or intent. As it happens, however, Galen is more interested in pharmacology here, and leaves open how he would have decided on these moral issues.

4.2.2 Galen's criticism of luxury and decadence

Physicians and patients alike are single-mindedly occupied with the pursuit of wealth; only very few people are prepared to recognize the value of true learning; whoever has acquired some wealth does not keep a sensible diet any more and requests gentle, rather than effective, therapies: all these are typical criticisms levelled against societies perceived to have lapsed into decadence.⁹³ Indeed, the complaint about vulgar upstarts who prefer wealth, fame, power and worldly honours over education and scholarship and about the philosophers who would accept money from such people was a typical feature of second

⁹²On the Stoic rejection of *miser cordia* see for example Hume's perceptive comment that "Epictetus has scarcely ever mentioned the sentiment of humanity and compassion but in order to put his disciples on their guard against it" (*An Enquiry concerning the Principles of Morals*, App.IV, 266). Interestingly, the concept of *miser cordia*, central to Christian ethics, has been rejected by philosophers of rationalism, enlightenment and irrationalism alike, see Horkheimer and Adorno, *Dialektik der Aufklärung*, Frankfurt am Main, 1969, p. 109f.

⁹³Nutton (1990, 250) is dismissive of the historiographical value of Galen's polemics: "They are far more revealing of Galen's psychology than of life in Rome." In the eighteenth century, Bernard Mandeville, who as a learned physician must have been familiar with at least some of Galen's works (he did in fact depict him as the ambitious originator of medical speculation and rhetoric in *A Treatise of the Hypochondriack and Hysterick Passions*, cf. Francis McKee, "Honeyed Words: Bernard Mandeville and Medical Discourse" in Porter (1995) 223-254) seems to resound the diatribes against fame- and money-seeking doctors in his description of the "ideal" state of luxury: "Physicians valued Fame and Wealth/ Above the drooping Patient's Health/ Or their own skill: The greatest Part/ Study'd, instead of Rules of Art,/ Grave pensive looks, and dull Behaviour ..." (*The Grumbling Hive or, Knaves Turn'd Honest* in: *The Fable of the Bees*, ed. Ph. Harth, Harmondsworth, 1970, p. 65). Fontenelle complained about the fact that even the highly civilized society of France held scientists and their achievements in low esteem in his eulogy on the Marquis de L'Hôpital: *Car il faut avouer que la Nation Françoise, aussi polie qu'aucune Nation, est encore dans cette espèce de barbarie, qu'elle doute si les Sciences poussées à une certaine perfection ne dérogent point, et s'il n'est point plus noble de ne rien savoir* (ed. *OEuvres complètes*, VI,96).

century literary life, which was at least enough for Lucian to satirize one of its noble champions in his *Philosophy of Nigrinos*.⁹⁴

The Antonine age⁹⁵ was a time of relative peace and prosperity, both in the provinces and in Rome. It was characterized by extensive trade, importation of luxury goods and a concentration of wealth in the capital. Galen referred to the luxury of his time on a number of occasions and with varying degrees of contempt.⁹⁶ His most poignant criticism can be found in the first chapter of *De praecognitione*: The τρυφή of the urban upper classes is the reason for the general decay, while the pursuit of virtue is replaced with the quest for pleasure, and the sophist and flatterer held in higher esteem than the learned and educated man.⁹⁷ The indulgent rich are not only more likely to suffer from conditions linked to an unhealthy diet⁹⁸, but also to receive worse treatment than the poor because of their reluctance to tolerate unpleasant therapies. For example, the appropriate treatment for πλεθώρα is blood-letting, yet often rich patients prefer the gentler but useless καταπλάσματα, and their physicians make matters worse by applying remedies every day, with a level of

⁹⁴Ironically, Lucian might equally well have chosen Galen as the target of his benevolent irony (for parallels between Nigrinos' and Galen's criticism of contemporary society see in particular chapters 4,13,17, and 25 of the *Philosophy of Nigrinos*).

⁹⁵Galen was born, in AD 129, under the emperor Hadrian, lived through the reigns of Antoninus Pius, Marcus Aurelius and Lucius Verus, and Commodus, and was still productive in the Severan period. He probably died between 204 and 216, i.e. in the reign of Septimius Severus or Caracalla, as Nutton (1995) has shown.

⁹⁶Criticism of luxury and legal measures to curb it had a long history in Greek culture, the most famous example being Demetrios of Phaleron's apparently successful attempts to restrict sepulchral pomp (cf. Philochoros, *FGrHist* 328, F 65; Cicero, *De legibus* 2,64-66; on the effects on sepulchral art see Möbius, 1968, 44-45. Interestingly, Demetrios' measures were regarded as philanthropical, at least by the 1st century BC historian Diodorus (18,74,3): ἦρχεν εἰρηρικῶς καὶ πρὸς τοὺς πολίτας φιλανθρώπως. I gather from Christian Habicht's *Athen - Die Geschichte der Stadt in hellenistischer Zeit* (Munich, 1995), note 44 on page 62, that a monograph on this topic by R. Bernhardt (*Luxuskritik und Aufwandsbeschränkungen in der griechischen Welt*) is forthcoming.

⁹⁷XIV,604 K.

⁹⁸See Nutton's (1995, 364) vivid account of Galen's description of the harmful effects city life, environmental pollution (particularly of the river Tiber) and over-indulgence have on health. Galen admitted that there were a few things to be said for life in Rome, for example the excellent water supply from the nearby hills. But for him Rome could never match the joys and beauties of Pergamum (cf. Nutton, *ibid.*, p.365).

attention rarely shown to poorer patients. On the other hand, the rich were more likely to fall victim to these conditions because of their indulgence in food and an idle life.⁹⁹ Galen showed considerable restraint in his choice of words. The πλούσιοι, after all, are his patients, too. But with his strong views on everyone's responsibility to keep their bodies healthy he must have been terrified by the lifestyle of these μάλλον ἐμπιμπλάμενοι καὶ βιοῦντες ἀργότερον.¹⁰⁰

In a different context (*De compositione medicamentorum secundum locos* VI,6 on mouth lotions for sensitive people) Galen gave another example of rich patients being unable to tolerate remedies because they are corrupted by love of luxury (τρυφή): Περὶ μὲν τῶν γυναικῶν τί δεῖ καὶ λέγειν, καὶ μάλιστα ὡς αἱ πλούσιαι δυσχεραίνουσιν ὑπὸ τρυφῆς τὰς φαρμακώδεις στωματικάς; ἤδη δὲ καὶ ἄνδρες τινὲς οὐ μόνον ὑπὸ τρυφῆς, ἀλλὰ καὶ κακοστόμαχοι φύσει πῶς ὄντες, οὐ φέρουσι τὰ τοιαύτα φάρμακα.¹⁰¹ Mainly well-to-do women, but even some men had been induced by τρυφή to reject these classical remedies. There are more indications that for Galen self-indulgence was primarily a female character trait which was then spread to the male members of the upper classes.¹⁰² Ladies' love of luxury had not always been so

⁹⁹συμβαίνει δ' ἐν τοῖς τοιοῦτοις νοσήμασι [sc. πληθῶρη] τοὺς πλουσίους μάλλον τῶν πενήτων κακῶς θεραπεύεσθαι. ἀμφοτέρω γὰρ ἐπ' αὐτῶν ἀμαρτάνεται διὰ τὴν τρυφήν οὐκ ὀλιγάκις, ἢ τε τῆς φλεβοτομίας ἔνδεια καὶ ἡ περιττοτέρα δῆθεν ἐπιμέλεια τῶν ἰατρῶν, ὡς καθ' ἑκάστην τι πράττειν ἡμέραν ἐπὶ τῷ τοῦ κάμνοντος σώματι. κατ' ἀρχὰς μὲν οὖν ὑπὸ τρυφῆς οὐκ ἀνέχονται τῆς φλεβοτομίας οἱ πλείους αὐτῶν, καίτοι μάλλον τῶν πενήτων ἀλίσκόμενοι ταῖς πληθωρικαῖς διαθέσεσιν, ὡς ἂν καὶ μάλλον ἐμπιμπλάμενοι καὶ βιοῦντες ἀργότερον. *Methodus medendi* XI,15 (X,783 K.).

¹⁰⁰The view that over-indulgence in food and drink altered the constitution of a body in an unfavourable way, making it weak and prone to disease, was certainly common among Roman authors (e.g. Seneca, *ep.* 95, 13ff.). Yet the *moral* question - how far beyond the strictly necessary could one go and still be in keeping with the *decorum* required from a member of the upper classes - did not find a unanimous answer, cf. John H. D'Arms, "Heavy Drinking and Drunkenness in the Roman World: Four Questions for Historians", in Murray and Tecusan, 1995, 304-317. Interestingly, indulgence (συγχωρή) in food could even be regarded as wholesome in the context of certain chronic diseases (cf. the Hippocratic *Praecepta*, ch.14).

¹⁰¹XII,948 K.

¹⁰²This is actually a conversion of Seneca's order, cf. *ep.* 95, 20f.: *Non mutata feminarum natura, sed victa est; nam cum virorum licentiam aequaverint, corporum quoque virilium incommoda aequarunt. [...] Quid ergo mirandum est maximum medicorum ac naturae peritissimum in mendacio prendi, cum tot feminae podagricae calvaeque sint* (with reference

developed - they had once been content with Heraclides of Tarantum's excellent recipes for hair dyes.¹⁰³ But by Galen's time, the luxury in which Roman ladies lived had become proverbial.¹⁰⁴

Galen's criticism of luxury and decadence has to be seen in the context of the thriving literary genre of diatribes against φιλοπλουτία.¹⁰⁵ Moreover, it must not obscure the extent to which he personally derived benefit from the economic conditions of his time.¹⁰⁶ The wealth his father had acquired as an architect in Pergamum, his own position as a physician to emperors, his freedom to travel and study and procure remedies from any part of the known world, all depended upon the prosperity of the Roman Empire during the Antonine age. The fact that the benefits and vices of this prosperous society went hand in hand has been pointed out by Gibbon in his famous analysis of the Age of the Antonines:

to the observation that in his time, contrary to Hippocrates' verdict, there were lots of bald and gouty women). For an example from Seneca's own time cf. Tacitus, *Annales* 11,31,2: *At Messalina non alias solutior luxu, adulto autumnno simulacrum vindemiae per domum celebrabat.*

¹⁰³*De comp. med. sec. locos* I,3; XII,445 K.: ... καίτοι μήπω τοσαύτης τρυφῆς κατεχούσης τὰς γυναικὰς ὅση νῦν ἐστίν.

¹⁰⁴*Meth. Med.* VIII,5; X,574 K. A passage on the negligence of women around the time of giving birth in the commentary on the second book of Hippocrates' Epidemics (*In Hipp. Ep. II*, II,27; XVIIa,438 K.) is perhaps characteristic for both physicians' views on the fair sex: "Hippocrates was suspicious about the negligence of women around the time of giving birth. For they commit many errors, such as intemperance (*akolasia*) and licentiousness (*akrateia*) in all aspects of their lives, sex, vehement emotions, precipitate leaps, drinking medicines and various other things which bring the danger of a sudden loss of the foetus" See also *De usu partium* XI,10 (III,885 K.): Already the conception is ill-fated because of the couple's intake of alcohol. After this, nature has to struggle against the "wrong behaviour of the pregnant women, their carelessness with respect to moderate bodily exercises, the indulgence in food, anger, drunkenness, baths, untimely intercourse, you name it."

¹⁰⁵E.g. Plutarch's *De cupiditate divitiarum* (*Moralia* 523 ff.), cf. Adelmo Barigazzi, "Una declamazione contro la brama della ricchezza: *De cupiditate divitiarum*", in his *Studi su Plutarco*, Florence, 1984, 75-98, p.84.

¹⁰⁶Furthermore, Galen himself took part in the very competition for wealthy patrons whose effects on the morality of medicine he condemns. Compare on the paradoxes of any criticism of the critic's own society Adorno's perceptive analysis in *Minima Moralia* I,6: "Die eigene Distanz vom Betrieb ist ein Luxus, den einzig der Betrieb abwirft", specifically applied to the "Graeculi" of the Roman empire in II,88: "Die allgemeine Regression unterbieten sie als privat Regredierte, und selbst ihr lauter Widerstand ist meist nur ein verschlagenes Mittel der Anpassung aus Schwäche."

"The Power of Rome was attended with some beneficial consequences to mankind; and the same freedom of intercourse which extended the vices, diffused likewise the improvements, of social life."¹⁰⁷

Thus, the introduction of the "productions of happier climates and the industry of more civilized nations" to the West would contribute to both developments, social progress and moral decay.

"Such refinements, under the odious name of luxury, have been severely attacked by the moralists of every age; and it might perhaps be more conducive to the virtue, as well as happiness, of mankind, if all possessed the necessaries and none the superfluities of life. But in the present imperfect condition of society, luxury, though it may proceed from vice or folly, seems to be the only means that can correct the unequal distribution of property."¹⁰⁸

This, according to Gibbon, applied to the second century AD as much as to his own time.¹⁰⁹ By selling luxury goods to Rome, the provinces were restored what they had paid in taxes and levies.

Galen certainly qualified for Gibbon's category of moralist opponents of luxury. Yet he cannot be blamed for failing to see the links between luxury and social stability. It was not until the eighteenth century that beneficial social effects were explicitly claimed for luxury. Mandeville's *The Fable of the Bees, or Private Vices, Public Benefits* was scandalous at the time of its first publication and only later (and partly) vindicated by economists and philosophers, most notably Smith (in *The Wealth of Nations*) and Hume (*Of*

¹⁰⁷Edward Gibbon, *The History of the Decline and Fall of the Roman Empire*, ed. J.B. Bury, London 1909, vol. I, p.56.

¹⁰⁸*Ibid.*, p.58f. The author of the *Considerations sur les causes de la grandeur des Romains et leur décadence* (1734) was certainly a representative of the "moralist" position. See *Esprit des lois*, book VII, for his preoccupation with Roman sumptuary laws and legislation concerning the conduct of women.

¹⁰⁹Cf. Adam Smith, *Wealth of Nations* (published, like the first volume of the *Decline and Fall*, in 1776) book III, chapter IV "How the Commerce of the Towns contributed to the Improvement of the Country".

Refinement in the Arts).¹¹⁰ Unlike Mandeville, Hume took a balanced approach to luxury - it is beneficial only as long as it is not vicious:

"Since luxury may be considered either as innocent or blameable, one may be surprised at those preposterous opinions, which have been entertained concerning it; while men of libertine principles bestow praises even on vicious luxury, and represent it as highly advantageous to society; and on the other hand, men of severe morals blame even the most innocent luxury, and represent it as the source of all the corruptions, disorders and factions, incident to civil government. We shall here endeavour to correct both these extremes, by proving, *first*, that the ages of refinement are both the happiest and most virtuous: *secondly*, that wherever luxury ceases to be innocent, it also ceases to be beneficial; and when carried a degree too far, is a quality pernicious, though perhaps not the most pernicious to political society."¹¹¹

Gibbon agreed that the age of refinement during the reign of the Antonines was one of the happier times in the history of mankind. This is reflected in the general praise of the prosperous state of the empire, such as Aristides' *laudatio urbis Romae*.¹¹² Works like this, far from convincing Galen of the greatness of the Rome of his time, would have been discarded by him as flagrant flattery¹¹³, as much an indication of contemporary decadence as the notorious valetudinarianism of its author. Galen, in fact, proved himself to be a very perceptive commentator on his time and defied Gibbon's¹¹⁴ verdict that "it was scarcely possible that the eyes of contemporaries should discover in the

¹¹⁰On the impact of Mandeville's ideas on economic theory cf. J.M. Keynes, *The General Theory of Employment, Interest and Money* (Collected Works, vol. VII), London, 1973, pp. 358ff.

¹¹¹*Essays Moral, Political, and Literary* II,2 (edd. Green and Grose, London, 1875, p.300).

¹¹²Gibbon, *op. cit.*, 1,61.

¹¹³For Aristides' praise of the *pax Romana* see or. XIV, 215, ed. Dindorf, Leipzig, 1829: ἄρχειν μὲν γὰρ οἷς μὴ δύναμις οὐ σωτήριον, ἄρχεσθαι δ' ὑπὸ τῶν κρειπτόνων ὁ δεύτερος, φασὶ, πλοῦς, ὑπὸ δὲ ὑμῶν νῦν καὶ πρῶτος ἀπεφάνθη.

¹¹⁴*Op. cit.* p. 61f.

public felicity the latent causes of decay and corruption." For Galen did see the seeds of decadence and decline in the impact which τρυφή had on the health of the body¹¹⁵ and on the morals of his society. This leads to the question of Galen's views on moral, social and scientific progress and decline - was he a traditionalist and Golden Age nostalgic or a champion of moral and scientific advancement?

4.3 Galen on scientific and moral progress

One of the most troubling questions concerning the relationship between the sciences and morality has been whether scientific progress furthered or hindered moral and social progress and vice versa. The view of Galen on these matters commands a particular interest, as that of a practising researcher who drew happily on the opportunities with which his age afforded him, yet at the same time was a fierce critic of the moral and professional standards of his time. Because of the various philosophical and scientific allegiances of Galen's work, however, it is inevitably necessary to examine his concept of progress against the background of the attitudes of the centuries which preceded him.

Different views have been held concerning the question whether there was any concept of progress in antiquity at all, the differences partly pertaining to the definition of "progress". Against the general view of his time, Comte contended that anything like a theory of progress had been impossible in

¹¹⁵For this he had an influential antecedent in Seneca, who elaborated on the way in which luxury and moral decay corrupt the resistance of the body (and the soul) to disease and necessitate more and more sophisticated cures, both medical and philosophical, in *ep.* 95, 13ff. Dihle (in his review of Edelstein, *Idea of Progress, Gnomon* 41, 1969, 431-9, p. 438) sees in this an awareness of the ambiguity of progress, a "beziehungsreiches Miteinander [...], das die positiven wie die negativen Möglichkeiten menschlichen Fortschritts einsichtig macht". Celsus' view of the progress of medicine, on the contrary, was free from ambiguity: Aesculapius and his followers converted medicine from the *rudis et vulgaris scientia* it had been into a respected and useful profession. *Et per hos quidem maxime viros salutaris ista nobis professio increvit (prooem. 11).*

antiquity, and, indeed, until the French Revolution.¹¹⁶ He only conceded that the progressivist ideas of the *philosophie positive* had been foreshadowed in the previous century's belief in scientific progress and the literary modernism of the *Querelle des anciens et des modernes*.¹¹⁷ Dilthey, too, denied classical antiquity a concept of progress, but went further back than Comte: The idea of progress arose with Christianity's teleological conception of the history of mankind, which replaced the cyclical theories of ancient Greece.¹¹⁸ J.B. Bury in his influential *The Idea of Progress* was more reserved about the contribution of Christianity - the doctrine of original sin made "moral advance of humanity to perfection [...] plainly impossible".¹¹⁹ He showed even more reticence to ascribe any concept of development for the better to Greek philosophy: It was "the general view of Greek philosophers [...] that they were living in a period of inevitable degeneration and decay - inevitable because it was prescribed by the nature of the universe."¹²⁰

Even those pagan philosophers who discarded the degeneration-theory of civilization, such as the Epicureans, or recognized the value of the advance of knowledge, as Seneca¹²¹, were not primarily concerned with the benefit scientific progress might bestow on mankind, but rather with the ἀταραξία of

¹¹⁶The pivotal date for progressivist historiography seems to be 1822, the year in which Comte discovered *la grande loi philosophique* of the succession of the three *états généraux primitivement théologique, transitoirement métaphysique, et finalement positif*, as he pointed out with truly Galenic modesty (*Cours de Philosophie Positive*, 2nd ed., Paris, 1864, IV,463).

¹¹⁷*Ibid.* VI,260ff.

¹¹⁸For St. Augustine's rejection of cyclic theories see *De civitate Dei* XII,14 with its idiosyncratic interpretation of Psalm 12.8: *In circuitu impii ambulabunt*.

¹¹⁹Bury (1920) 22.

¹²⁰*Ibid.*, p.9.

¹²¹But see Seneca, *ep.* 95,13ff. for his characteristic ambiguity toward progress: Advancement of medicine and philosophy is necessary, but necessitated only by the physical and moral decay brought about by luxury. Seneca's theory of progress was to be taken up, however with an *entirely* negative overtone, by Rousseau in his *Discours sur les sciences: Les sciences et les arts doivent donc leur naissance à nos vices* - yet they have not contributed to their reduction. In fact, Rousseau maintains, the recent period of rapid scientific advances is paralleled by an unprecedented moral decay. Like many critics of progress, he pointed to this correlation without demonstrating any causation.

the present individual and the independent value of intellectual activity.¹²² According to Bury, the recognition of scientific advance as a cumulative and beneficial process came with sixteenth century reflection on methodology.¹²³ Petrus Ramus is quoted for his praise of the singular achievements of his century: *maiolem doctorum hominum et operum proventum seculo uno vidimus quam totis antea 14 seculis maiores nostri viderunt.*¹²⁴

While the idea of scientific progress was not an entirely new concept in itself, it was, according to Bury, the important innovation of the Viscount of St. Alban's to regard *utility* as the end of knowledge, yet not in the narrow sense of the immediate professional application, but with the future benefits of the advancement of science in view.¹²⁵ For Seneca, the augmentation of knowledge had been merely a "means of escaping from the sordid miseries of life", and for the "friar of Oxford" (Roger Bacon) the preparation for the coming of the Antichrist.¹²⁶ Yet the principle of utility, which Francis Bacon is assumed to have introduced, came to govern not only the establishment of the scientific societies¹²⁷, but also reflections on the purpose of learning and

¹²²*Ibid.* pp. 19, 14.

¹²³*Ibid.* pp.31f. 51.

¹²⁴*Schol. math.*, Basel 1569, preface.

¹²⁵Cf. *Novum Organum* I,81: *Meta autem scientiarum vera et legitima non alia est, quam ut dotetur vita humana novis inventis et copiis.* It is true advancement of science and skills that Bacon has in mind. If people just concentrate on how to make the most out of already existing knowledge this will impede rather than promote progress: *At apud plerosque tantum abest ut homines sibi proponant, ut scientiarum et artium massa augmentum obtineat, ut ex ea quae praesto est massa nil amplius sumant aut quaerant, quam quantum ad usum professorium aut lucrum aut existimationem aut huiusmodi compendia convertere possint.* - *Utilitas* is mentioned as the scope of learning in the context of the discussion of moral problems in *De augmentis scientiarum* VII,1: (The reason for the deplorable lack of systematic ethical treatises is) *quod homines ingenita superbia et gloria vana eas materias tractationum eosque modos tractandi sibi delegerint, quae ingenia ipsorum potius commendent quam lectorum utilitatibus inserviant. [...] Ego certe [...] dignitatem ingenii et nominis mei (si qua sit) saepius sciens et volens projicio, dum commodis humanis inserviam; quique architectus fortasse in philosophia et scientiis esse debeam, etiam operarius et baiulus et quidvis demum fio.*

¹²⁶Bury, *op. cit.*, p.51.

¹²⁷See Hooke's account of the purpose of the Royal Society in the preface to his *Micrographia*.

the progress of the sciences, throughout the seventeenth and eighteenth centuries.¹²⁸ At the same time unduly narrow views of utility were challenged, especially by mathematicians who stressed the pivotal importance of the independence of scientific pursuit.¹²⁹

However, *pace* Bury, none of these three features of the early modern attitude towards scientific progress - acceleration, utility, and independence - were without precedent in classical antiquity.¹³⁰ Already Aristotle referred to the astounding speed of recent advances in the sciences¹³¹ and philosophy¹³²: ... τὸ μηδενὸς μισθοῦ προκειμένου τοῖς ζητοῦσιν ὅμως ἐν ὀλίγῳ χρόνῳ τοσαύτην ἐπίδοσιν τὴν τῶν μαθημάτων θεωρίαν λαβεῖν.¹³³ Aristotle did not only respond favourably to progress achieved, he was equally optimistic with regard to the future progress of medicine and the other arts in the pursuit

¹²⁸Condorcet (*Sketch for a historical picture of the human mind*, tr. J. Barraclough, London 1955, p.121) denied Bacon's methodology any influence on the course of science. This verdict can hardly be maintained with respect to Bacon's heuristic methods, let alone the principle of utility.

¹²⁹E.g. Fontenelle, *Préface sur l'utilité des mathématiques*, (*OEuvres complètes*) vol. VI, p. 38: *Telle est la destinée des sciences maniées par un petit nombre de personnes: l'utilité de leur progrès est invisible à la plupart du monde, sur-tout si elles se renferment dans des professions peu éclatantes.* This happens even to the medical sciences: *L'Anatomie, que l'on étudie depuis quelque temps avec tant de soin, n'a pu devenir plus exacte sans rendre la Chirurgie beaucoup plus sûre dans ses opérations. Les Chirurgiens le savent, mais ceux qui profitent de leur art n'en savent rien. Et comment le sauroient-ils? Il faudrait qu'ils comparassent l'ancienne chirurgie avec la moderne. Ce seroit une grande étude, et qui ne leur convient pas. L'opération a réussi, c'en est assez; il n'importe guère de savoir si dans un autre siècle elle aurait réussi de même.* In the dialogue between Harvey and Erasistratus in the *Dialogues des Morts* (I,93ff.) the young Fontenelle attributed to the latter the view that men, by nature, had a knowledge of the things which pertained to survival, and that all further discoveries might be *des connoissances fort agréables*, but of little, if any, use. It will be shown below that this was a gross misrepresentation of Ancient doctors' attitudes. On Fontenelle's theory of progress and its application to the sciences see Krauss (1969) 28-40.

¹³⁰For elements of Galenic methodology in Francis Bacon compare *Novum Organum*, *Aphorismi de Interpretatione Naturae et Regno Hominis I: Homo Naturae minister et interpres, tantum facit et intelligit quantum de Naturae ordine re vel mente observaverit, nec amplius scit aut potest* (cf. XV, 369 K. and XVI, 35 K.).

¹³¹Cf. Iamblichus *De comm. math. scientia* 26 = fr. 53 Rose.

¹³²Cf. Cicero *Tusculanae disputationes* 3,28,69 = fr. 53 Rose.

¹³³Proclus *in Euclidis librum primum* 28 (Friedlein) = fr. 52 Rose.

of their respective ends.¹³⁴ In the same work¹³⁵ in which he praised science's latest advances, Aristotle also discussed the question of the usefulness of the μαθήματα. He first introduced the opinion of certain παλαιοί and νέοι that the subjects of learned studies, such as geometry, logic and even medicine were entirely useless and do not contribute to human welfare¹³⁶:

οὔτε γὰρ ὑγιαίνομεν τῷ γνωρίζειν τὰ ποιητικὰ τῆς ὑγιείας, ἀλλὰ τῷ προσφέρεσθαι τοῖς σώμασιν [...] οὐδὲ τὸ πάντων μέγιστον εὖ ζῶμεν τῷ γινώσκειν ἅττα τῶν ὄντων, ἀλλὰ τῷ πράττειν εὖ [...] ὥστε προσήκει καὶ τὴν φιλοσοφίαν, εἴπερ ἐστὶν ὠφέλιμος, ἥτοι πράξιν εἶναι τῶν ἀγαθῶν ἢ χρήσιμον εἰς τὰς τοιαύτας πράξεις.

But, they continue, neither is philosophy the exercise of the good nor are the sciences of any practical use - the δοξάζοντες ὀρθῶς are perfectly well equipped for all practical purposes and have no need of logic.¹³⁷ The uselessness of geometry for geodesy and astronomy for navigation is argued on similar lines.¹³⁸

Aristotle's response to this rejection of theoretical learning on grounds of uselessness advocated the study of abstract sciences as a necessary basis for the various applications. Its subject matter, the ὠρισμένα and αἴτια, are not

¹³⁴*Politics* 1257 b 25-28.

¹³⁵The passages discussed in this context are commonly attributed to Aristotle's *Protrepticus*. For a more sceptical view see Rabinowitz (1957) 71ff.

¹³⁶The first instance in Greek history of an artistic or intellectual pursuit being criticized and even banned for lack of public utility seems to be Solon's ban on performances of Thespis' tragedies (ὡς ἀνωφελῆ τὴν ψευδολογίαν, Diogenes Laertius I,59; see Lessing's discussion in *Hamburgische Dramaturgie* 32). Plutarch (*Mor.* 348c-d) wonders what profit Athens had from the tragedies of Aeschylus, Sophocles and Euripides, compared with the achievements of its political and military leaders. In this respect, too, the alleged age of utility merely repeated Greek patterns, cf. Racine's (who shows an overall more favourable judgement of the usefulness of the Greek tragedies) pledge for a recognition of the fact that *nos ouvrages fussent aussi solides et aussi pleins d'utiles instructions que ceux de ces poètes* in the *préface* to his *Phèdre*.

¹³⁷For Galen's recognition of the important *practical* rôle of the "right opinion", "of which it has appropriately been said by our forebears (*palaiotai*) that, as far as practice is concerned (εἰς τὰς πράξεις), it is in no way inferior to scientific knowledge" in *De ordine librorum suorum* 2 (XIX,54 K.) see above, 3.1.1.1.

¹³⁸Iamblichus *De comm. math. scientia* 26 = fr. 52 Rose.

only more basic (ἀρχικώτερα), but also simpler than the material of everyday experience, and universally accessible.¹³⁹ Thus, the view that theoretical sciences did not contribute to practical skills was challenged by Aristotle, not the criterion of utility itself, which had been in vogue for a while (cf. οἱ παλαιοί), i.e. since the era of the Sophists who were the first to combine a certain optimism regarding the advancement of the τέχναι with the quest for the χρήσιμον. The Aristotle of this passage retained utility as a consideration which concerned the effects and successes of his research. Theoretical knowledge, although not pursued for the sake of its usefulness, might very well contribute substantially to matters of immediate utility.

For all his enthusiasm for science, logic and philosophy, Galen always kept the criterion of utility as his guiding principle.¹⁴⁰ This is clearly expressed in the distinction of the practical and political interest and the theoretical one in *De placitis Hippocratis et Platonis* IX,7:

"But some who hold that the end (of philosophy) is practical have arrived at the investigation of these matters by a gradual passage from useful inquiries, supposing that they were passing to inquiries of a

¹³⁹*Ibid.*, cf. Iamblichus, *Protrepticus* 6: If the soul is more basic than the body there must be a science of the soul, like medicine and athletics for the body, which is more fundamental and simpler than these.

¹⁴⁰Galen distinguishes different classes of usefulness, one of which is knowledge for its own sake, the others, in the case of anatomy, the demonstration that Nature does nothing in vain, the investigation of physical or mental function and the benefit to the surgical practitioner (*De anat. admin.* II,2; II,286 K.). The latter version of the concept of utility is reflected in Renaissance vindications of the study of anatomy, e.g. the passage on the *utilitas et necessitas anathomie* in the introduction to Gabriele Zerbi's *Liber Anathomie Corporis Humani et singulorum membrorum illius*, Venice, 1502. For Galen's instrumental approach to logic see Jonathan Barnes, "Galen and the utility of logic", in Kollesch and Nickel (1993), pp. 33-51. Galen apparently saw his works on logic as a collection of necessary tools for the pursuit of scientific enquiry, similar to the way Aristotle's *Organon* was perceived. *De captionibus* assumes the position of the *Sophistici Elenchi*, the *Institutio Logica* that of the *Analytica Priora*, and the fifteen books *De demonstratione*, preserved only in fragments, that of the *Posterior Analytics* (cf. PHP II,3,12). This formal parallel, however, warrants a qualification: The scope of *De demonstratione* was not restricted to the exposition of the syllogisms (including the categorical, hypothetical and mixed forms), but also comprised theory of knowledge and a number of medical problems (cf. Müller, 1895). Furthermore, the actual logical issues Galen addressed went far beyond those Aristotle had dealt with, notably the Stoic logic, its sceptical criticism, and the perceived requirements of its application to medical research (see Hülser, 1992).

similar kind. The truth is that while it is useless to ask whether the universe had a beginning or not, this is not the case with an inquiry about divine providence."¹⁴¹

The investigation of matters useful for the organization of the individual life or of public benefit can occasionally usher in theoretical problems without any apparent link to utility, which then turn out to be of pivotal importance for practical questions, such as the existence of the gods and divine providence. What matters, however, is only whether the gods exist, not the inquiry into their substance and other similar questions. Such speculations are "completely useless for those virtues and actions that we call ethical and political, and no less for the cure of the soul's ills."¹⁴²

The elucidation of divine providence is also the highest objective and greatest gain (μέγιστον κέρδος) for which medical science can aim. The study of the morphology and physiology of the parts of the body leads to the recognition of the intelligent organisation of nature by a divine being¹⁴³ and is therefore not only useful for the physician, but even more so for the

¹⁴¹ παρεγένοντο δ' ἐπὶ τὴν ζήτησιν αὐτῶν ἔνιοι τῶν πρακτικῶν ὑποτιθεμένων τὸ τέλος ἐκ τῶν χρησίμως ζητούμενων κατὰ βραχὺ προελθόντες ὡς ἐφ' ὅμοια. οὐ γὰρ δὴ, ὡσπερ γεγονέναι τὸν κόσμον ἢ μὴ γεγονέναι ζητεῖν ἄχρηστον, οὕτω καὶ περὶ προνοίας καὶ θεῶν (V, 780f. K.). Tr. De Lacy.

¹⁴²*Ibid.*, tr. De Lacy. Cf. a similar passage on the soul (investigation of the essence and the question of the immortality of the soul are immaterial for medicine and practical philosophy alike) in *De subst. nat. fac.*, IV,764 K., cf. *De motibus dubiis* III,172 (ed. Larrain, 1994). For Galen's agnosticism concerning any matters metaphysical, let alone theological, beyond the existence of God and divine providence see *De propriis placitis* 2 (quoted by Nutton, 1987, 38): *Igitur dico quod non habeo scientiam utrum mundus sit generatus et utrum aliquid sit extra. et cum dicam quod non habeam scientiam istarum rerum, igitur manifestius quod non habeam scientiam de creatore omnium istarum rerum que sunt in mundo, utrum sit corporeum aut incorporeum, et in quo loco sit locatum scilicet deitas ...*. However, "of the fact that God exists, he is quite sure, and he adduces arguments from individual revelation, dreams, and divine intervention, as well as the order of creation" (Nutton, *op.cit.*, p. 40).

¹⁴³Cf. Campanella, *La città del Sole*, ed. N. Bobbio, Torino, 1941, p. 107 (in the context of a discussion of original sin): *Ma chi mira la costruzione del mondo, l'anatomia dell'uomo (come essi fan de' condannati a morte, anatomizzandoli) e delle bestie e delle piante, e gli usi delle parti e particelle loro, è forzato a confessare la provvidenza di Dio ad alta voce.*

philosopher whose aim is knowledge of nature as a whole.¹⁴⁴ By revealing the teleological structure of the body, this scientific study goes beyond the Stoic *speculations* about the intelligent organization of all things¹⁴⁵, and lays the foundation of an "exact theology" (θεολογία ἀκριβής), which is "far greater and far more honourable than the whole of medicine."¹⁴⁶ The basis for this judgement is provided by an axiology which places man above the lesser animals¹⁴⁷, god or the providence of nature above men¹⁴⁸, and within man the soul above the body.¹⁴⁹ This is why the tranquillity of the soul, afforded by the study of providence, is valued more highly than the mere health of the body, however much impact the latter might have on the former.

The third of the supposedly innovative features of the modern concept of progress, Fontenelle's independence of scientific pursuits, had already been discussed in Plato's *Politikos*: If all the arts and sciences were regulated by συγγράματα, rather than conducted according to their own principles (κατὰ

¹⁴⁴There are other problems whose solution would be useful to the physician, but not to the philosopher, e.g. whether the brain is the seat of the governing part of the soul (*De placitis* IX,7,7-8; V,779 K.). Cf. *De propriis placitis* 8: The location of the soul within the body does not clarify its metaphysical properties (i.e. the question of its essence and immortality, see Nutton, *Galen's philosophical testament*, p.42).

¹⁴⁵E.g. Cicero, *De natura deorum* 2,76: *nihil est autem praeclarius mundi administratione, deorum igitur consilio administratur*. Galen stresses that the providential organisation of nature is reflected in the physiological state of every single animal (ζῷον διοικούμενον κατ' αὐτὸν τὸν τῆς φύσεως νόμον), cf. *De usu pulsuum* 5 (V,166).

¹⁴⁶*De usu partium* XVII,1 (IV,360ff. K./ II,447ff. Helmreich). Cf. XVII,2 (362ff.) on the three scopes of this study of physiology: First and foremost (μέγιστον κέρδος), to understand the power of utility as ordering principle of nature (περὶ χρείας δυνάμεως), secondly for the diagnosis of not immediately apparent diseases, thirdly to refute those philosophers who deny the influence of intelligent organization in the animal realm.

¹⁴⁷Cf. *De usu partium* XVII,1 (IV,362 K.).

¹⁴⁸True piety (εὐσέβεια) consists not in sacrifices and rituals, but in the study of animal physiology which in fact represents a ὕμνος ἀληθινὸς τοῦ δημιουργήσαντος ἡμᾶς (*De usu partium* III,10; IV,237 K.).

¹⁴⁹It is difficult to reconcile this status of the soul with the view taken by Galen in *De moribus* that the soul is actually subservient to the body (cf. Nutton, 1987, 44). Perhaps this reflects a shift of Galen's priorities in his later years to more strictly medical matters and a theory which would corroborate the pivotal rôle of medicine for human affairs, as has been adduced to account for certain views of *Quod animi mores* (cf. 3.1.4 and 3.4.1).

τέχνην), this would amount to the collapse of all the τέχναι without any prospect of them reappearing because of the law prohibiting research, which would make life completely intolerable (299e).¹⁵⁰

It is likely that these remarks reflected an underlying concept of scientific advancement and its beneficial effects. This case has been argued forcefully by Edelstein in *The Idea of Progress in Classical Antiquity*:

"Xenophanes had expressed his notion of progress almost in the form of an aphorism. The Pre-Socratics had discovered the laws of progress. Isocrates, Plato, and Aristotle made the general conception specific and elaborated a theory of progress."¹⁵¹

Aristotle described progress in philosophy as cumulative.¹⁵² Every art and science has its own unsurpassable state of excellence toward which it proceeds like any other potentiality to its predestined end.¹⁵³ Dodds pointed out, in his response to Edelstein, that for Plato "all progress consists in approximation to a pre-existing model" and for Aristotle it "can never be more than the actualization of a Form which was already present potentially before the progress began."¹⁵⁴ Yet a genuine concept of progress would be well compatible with this kind of essentially closed scientific system. This becomes clearer when one considers the theories on moral and social development. Socrates says in book IV of the *State*: πολιτεία εἰς ἀπάντην ὁρμήσει εὖ, ἔρχεται ὡσπερ κύκλος ἀύξανομένη (424). He goes on to describe the spiralling

¹⁵⁰Not every utopian state allowed for this atmosphere of uninhibited progress of research, e.g. Campanella, *op.cit.*, p.59: *Il Sapienza ha cura di tutte le scienze e delli dottori e magistrati dell'arti liberali e meccaniche, e tiene sotto di sé tanti ufficiali quante sono le scienze [...] e tiene un libro solo, dove stan tutte le scienze, che fa leggere a tutto il popolo ad usanza di Pitagorici.*

¹⁵¹Ludwig Edelstein *The Idea of Progress in Classical Antiquity*, Baltimore, 1967, p. 83.

¹⁵²*Metaphysics* II,1; 993 a 31ff.

¹⁵³Cf. Edelstein, *op.cit.* 126. According to Aristotle, every art has its appropriate level of accuracy and is further restricted by the fact that the number of axioms and operations with them is finite (EN I,3; *Metaphysics* II,3).

¹⁵⁴*The Ancient Concept of Progress*, in Dodds (1973) 14f.

improvement both of upbringing and education (τροφή και παιδείσις) and of natural disposition (φύσις ἀγαθή).

Under ideal conditions there will thus be continuous moral progress, whereas the "second best" state of the *Laws* is "open to a double progressive development of a city in virtue and vice, and which tendency will prevail depends on the course followed by the arts and sciences in their growth and development."¹⁵⁵ The notion that states decline and disappear and new ones emerge (*Leges* III, 676b) does not, however, compel one to discard the hypothesis of a Platonic theory of progress.¹⁵⁶ For progress in social organization, moral maturity and learning¹⁵⁷ is pivotal within each cycle¹⁵⁸, ideally creating a spiralling shift toward perfection. Although Plato was confident about the possibility of both moral and scientific progress, he knew that it could be difficult to keep the two in tandem. In the development of the ancient societies, it was technical progress which led to a deplorable decline of the virtues (*Leges* III, 679). Post-diluvial¹⁵⁹ society in its first stage could benefit from technical skills only in a very basic way. Luxury was unheard of, yet there was no poverty either: ideal conditions for peace and source of γενναιότατα ἦθη. Refinement of the arts brought wealth and with it envy, the rise of the military and political arts induced wars and factions, and made people less prone to follow σωφροσύνη and δίκη. Careful legislation and education is required in order to avert this natural development toward

¹⁵⁵Edelstein, *op.cit.* 113, on *Leges* III, 676ff.

¹⁵⁶Cf. Aristotle, *Politics* 1268 b31ff. and 1329 b25ff. on the progress toward the city state and the concomitant advancement of sciences - it fulfils "a predetermined and limited possibility, one which has been fulfilled many times before and will be fulfilled many times again" (Dodds, 1973, 16).

¹⁵⁷Compare the Athenian's remarks on the progress of the sciences and the political institutions in post-diluvial society in *Leges* 678 a-b.

¹⁵⁸On Plato's theories of periodicity see *Politikos* 270 (periodic celestial τροπαί effect μεταβολαί of human society), cf. *Timaios* 22cff.

¹⁵⁹On the destruction of human culture by deluge cf. *Critias* 111 ff.

individual and social corruption and to have ἀρετή, rather than πονηρία as the outcome of scientific and political progress (678 a).¹⁶⁰

The moral decay brought about by scientific and technical progress and the corresponding social patterns became a common feature of more or less nostalgic theories of culture and influenced authors as diverse as Posidonius¹⁶¹, Lucretius and Seneca.¹⁶² Lucretius' reflection on the progress of human cultures resounded Plato's criticism of the adverse effects of the refinement of political and scientific techniques: Progress in civilization has been steady (V, 1107), some cultures are still advancing (332-7), but generally the end stage has been reached (1457) - yet civilization creates new needs (1412f.), *ambitio* (1120ff.), and wars (999f.; 1434f.).¹⁶³ Seneca, too, combined a belief in the infinite progress of science,¹⁶⁴ partly necessitated by moral decay,¹⁶⁵ with moral pessimism¹⁶⁶ and an apocalyptic outlook.¹⁶⁷ Seneca's reflections

¹⁶⁰Cf. Hankinson, *Galen's concept of Scientific Progress*, 1776: "... people are corrupted by luxury from the simple life that is really the best; and only a powerful political programme founded on a carefully worked out system of eugenics, education and propaganda stands the remotest chance of retrieving the situation."

¹⁶¹On Posidonius' attitude towards moral decay, which is brought about by the intrinsic corruption of the soul, and inhibits the work of the sage toward cultural progress see Steinmetz in Überweg (1994), p.693.

¹⁶²Dodds (1973) 24.

¹⁶³Cf. Leon Robin "Sur la conception épicurienne du progrès" in his *La pensée hellénique*, Paris, 1942, pp. 525-552, and Antoinette Novara, *Les idées Romaines sur le progrès d'après les écrivains de la République (essai sur le sens Latin du progrès)*, Paris, 1982-83, vol. I, pp. 344ff. (*Le sens du progrès chez Lucrèce*).

¹⁶⁴E.g. *Quaestiones naturales* 7,25; 7,30; *ep.* 64,7:

¹⁶⁵Cf. his remarks on the parallels in the progress of philosophy and medicine in *ep.* 95,13 ff.: *Antiqua sapientia nihil aliud quam facienda ac vitanda praecepit, et tunc longe meliores erant viri. Postquam boni prodierunt, boni desunt. Simplex enim illa et aperta virtus in obscuram et sollertem scientiam versa est docemurque disputare, non vivere.* Both philosophy and medicine were in a very basic state. Yet although the cures they had to offer for vices and diseases were rather crude they were quite satisfactory, taking into account that men's bodies had not yet been corrupted by luxury: *Immunes erant ab istis malis* (such as dropsy, jaundice, ulcers, fevers), *qui nondum se deliciis solverant, qui sibi imperabant, sibi ministrabant* (18).

¹⁶⁶In his own times he could only discover decadence: *QN* 7,32.

¹⁶⁷Cf. *QN* 3,27-30 on the *fatalis dies diluvii*.

on his *comtemplatio sapientiae* ushered in topics Galen was very specifically interested in:

Veneror itaque inventa sapientiae inventoresque: adire tamquam multorum hereditatem iuvat. Mihi ista acquisita, mihi laborata sunt. Sed agamus bonum patrem familiae, faciamus ampliora, quae accepimus: maior ista hereditas a me ad posteros transeat. Multum adhuc restat operis multumque restabit, nec ulli nato post mille saecula praeccludetur occasio aliquid adhuc adiciendi; sed etiam si omnia a veteribus inventa sunt, hoc semper novum erit, usus et inventorum ab aliis scientia et dispositio. Puta relictis nobis medicamenta, quibus sanarentur oculi: non opus est mihi alia quaerere, sed haec tamen morbis et temporibus aptanda sunt. [...] Animi remedia inventa sunt ab antiquis: quomodo autem admoveantur aut quando, nostri operis est quaerere. Multum egerunt qui ante nos fuerunt, sed non peregerunt: suspiciendi tamen sunt et ritu deorum colendi.¹⁶⁸

Galen has been named as one of the foremost representatives of a period not only of "consolidation and unification", but even "petrification" of the sciences, characterized by bookish scholars dedicated to the interpretation of the classics of their fields.¹⁶⁹ This characterization may be true for some of later Galenism¹⁷⁰, but seems to miss the point in the case of Galen himself. The physician of Pergamun, it will be shown, could have joined Seneca in his praise

¹⁶⁸*Ep.* 64,7-9.

¹⁶⁹Dodds (1973) 23f.: "Men stood with their backs to the future; all wisdom was in the past, that is to say in books, and their only task was one of interpretation." It is truly regrettable that Edelstein was unable to carry his valuable study beyond the first century AD. His more favourable view on ancient concepts of progress and familiarity with Galen might have led him to conclusions very different from those reached by Dodds.

¹⁷⁰Even there, the quest for modification and inclusion of novel experiences must not be underestimated, cf. Elinor Lieber, *Galen in Hebrew*, in Nutton (1981) 167-86, p.182: "To the mediaeval Islamic world progress lay in perpetuating the ancient tradition, in maintaining the chain of learning handed down from the pagan Greeks; but with the proviso that new links were continuously to be added to the chain, through the experience of different persons, in different places and at different times. It was this cumulative experience, based ultimately on the works of Galen, which sustained the Galenic transmission, and which kept Galen's ideas alive, in a modified and corrected form, over the centuries. This was the kind of contribution made by Maimonides in his original medical works, as by Rhazes and Avicenna before him."

of progress and continuous research.¹⁷¹ He would have wholeheartedly endorsed the motto of the good *pater familias*: *faciamus ampliora quae accepimus*. Galen was prepared to honour Hippocrates like a god, but was far from thinking that his Coan predecessor had left anything like a complete system of medicine. In fact, concerning remedies, he would not have contented himself with Seneca's *morbis et temporibus aptare* - his pharmacological writings bear ample witness of his eagerness to find new ones, *alia quaerere*.

Progress, for Galen, did entail the restoration of the achievements of the (Hippocratic) Golden Age of medicine, which he regarded as the time of the most notable advancement of the field (and which was, in fact, also a period dominated by optimism concerning the progress of medicine, characteristically expressed in *De prisca medicina*). His main champions, the *antiqui*, were Plato, Aristotle and Hippocrates¹⁷²:

*Antiqui quidem philosophorum iuvare studentes hominum genus non solum movebant et proponebant aliquid eorum quae manifeste cognoscuntur, sed etiam immanifestorum conabantur adinvenire multa, et augeri quidem in eorum adinventionibus secundum illa tempora ab hinc maxime proveniebat.*¹⁷³

This great time of research and invention for the benefit of mankind was followed by a period during which the field of true research lay barren¹⁷⁴ and medicine was instead dominated by φιλοδοξία and sophistry:

¹⁷¹For Galen's concept of scientific progress see Hankinson, *op.cit.*, Temkin, *Galenism*, pp. 30ff. and his "Scientific Medicine and Historical Research," *Perspectives in Medicine and Biology*, 3 (1959) 70-85.

¹⁷²See below and *De usu partium* 1,2, Helmreich vol. 1, p. 3.

¹⁷³*De causis procatarteticis* I, p.1 Bardong.

¹⁷⁴Cf. the reference in *De placitis* VIII,1,6 (V,650 K.) to Marinus "who after the ancients revived (ἀνακτησάμενος) anatomical study which had meanwhile fallen into neglect" (tr. De Lacy). Celsus held a similar view of the pattern of progress in medical research - the ancient learning is revived after a long period of stagnation (*prooemium* 5), whereas Seneca thought of medical progress as gradual (see *ep.*95, 15: *paulatim deinde in hanc pervenit tam multiplicem varietatem*), cf. Werner Deuse, "Celsus im Prooemium von 'De Medicina'", *ANRW* II,37.2 (1994), 819-841, n.22 on p.824f.

*Eorum vero qui post venerunt medicorum et philosophorum quidam quidem appetentes gloriam, deinde ut iustum est desperantes fortunari ea conati sunt astuti fieri. quidam vero non potentes solvere ea quae ab illis proposita sunt sophismata duorum alterum passi sunt: vel enim crediderunt eis ut veris, vel de omnibus dubitare iustum fore putaverunt.*¹⁷⁵

These sophist-doctors have contradicted the doctrines of the ancient physicians like Hippocrates, Diocles, and Praxagoras, using arguments based on the ambiguity of words, and thereby obscured the issues at stake¹⁷⁶, as Galen remarked in his third book on the *δυνάμεις φυσικαί*. The restoration of these doctrines, the first step to true learning, consisted therefore in supporting the view of the Ancients with the logical arguments they themselves would have used if they had faced this kind of sophistry.¹⁷⁷ The refutation of these "sophists" and the vindication of Hippocrates was also one of the three main purposes of Galen's *magnum opus* on physiology and teleology, the study of the form and the functions of the parts of the body:

"The third advantage of this work, in addition to what has been said, is to refute the sophists who do not concede that the crises happen in us under the influence of Nature, and deprive it of providence with regard to animals. They often deny the usefulness of the parts of which they are ignorant and seem thereby to deprive nature of art; they then ridicule Hippocrates for his recommendation to follow Nature in what it used to

¹⁷⁵*De causis procatarteticis* I, p.1 Bardong.

¹⁷⁶Already the authors of the Hippocratic Corpus seem to have been familiar with this particular brand of sophistry, cf. *De arte* 1 (VI,2 L.).

¹⁷⁷*De nat. fac.* III,10 (II,178f. K.). Notably, this logical support for the theories of the ancients is, strictly speaking, not the task of the commentaries (*ἐξηγήσεις*). It has, however, traditionally been included, as Galen points out in his remarks on the general nature of a commentary in the preface to his *In Hippocratis de fracturis* (XVIIIb,318f. K.): (The task of the commentary) "is to clarify what might be obscure in the treatises. But to prove something written to be true or to refute it as being false, and to defend it if someone has attacked it with sophisms, is an issue separate from explanation, yet it is commonly done by virtually all commentators. Indeed, by Zeus, nothing prevents the commentator grasping this, too, in an appropriate way. But plainly to argue over the doctrines of the author goes beyond the limits of explanation." Galen promises to confine himself to mere explanation in his commentary.

achieve through crises. This forces us as well to investigate the usefulness of every part even if it does not contribute anything to the diagnosis of a disease or the prognosis of future ones."¹⁷⁸

These considerations lead into the heart of Galen's natural philosophy. If any progress is to be made towards a genuine understanding of the organization of the realm of animal life it has to be done through this laborious method of physiological investigation. However, this passage also demonstrates the limits of Galen's, and to some extent also of Aristotle's, science: Once a useful systematic explanation for certain phenomena has been found, particularly if it is as comforting to the defenders of religion and morality as divine providence, questions may cease and the eagerness to find other possible theories diminish.

Galen consciously built upon the work of his predecessors,¹⁷⁹ an opportunity, which he valued highly: "Yet the fact that we were born later than the ancients and that we receive the arts to whose progress they have contributed most (ὕπ' ἐκείνων ἐπὶ πλεῖστον προηγημένους) is no small gain."¹⁸⁰ The Ancients are authorities only in so far as their arguments are valid or their doctrines can be proven.¹⁸¹ Tradition and progress are inextricably linked - being able to use the pioneering work of the Ancients¹⁸², one can expect the present age to make important advances in medical knowledge¹⁸³:

¹⁷⁸*De usu partium* XVII,2, Helmreich vol. II, p. 451.

¹⁷⁹Cf. *De usu partium* I,8, Helmreich vol. I, p. 15: The research is intended to be a vindication of Hippocrates and conducted according to the methods introduced by him. There is nothing in the Hippocratic Corpus which comes close to the wealth of material Galen's physiological writings contain.

¹⁸⁰Cf. *Quod optimus medicus* 1 (I,57 K.).

¹⁸¹E.g. *Quod animi mores* 9 (IV,805 K.): Hippocrates is not to be believed like a witness, but rather because of the certainty of his proofs.

¹⁸²Hippocrates is perceived by Galen as having provided the *seeds* for any kind of useful inquiry, cf. *Meth. Med.* VII,2 (X,458 K.): ... τοῦ πάντων ἡμῖν τῶν καλῶν παρασχόντος τὰ σπέρματα.

¹⁸³Cf. Cabanis (*Oeuvres philosophiques, Corpus général des philosophes français*, Tome XLIV, edd. C. Lehec and J. Cazeneuve, Paris 1956), *Du degré de certitude de la médecine* (vol. I, p.102), on the exemplary rôle of the great physicians of the past: *Tel fut jadis le grand*

"And we are more fortunate than them [i.e. the pioneers of medical research] to this extent that we learn in a short time the useful discoveries that cost our predecessors much time and effort and concern. If then in the time that remains in our lives we practice the arts not as a diversion but with constant attention to the differentiation of similars and dissimilars, there is nothing to prevent us from advancing beyond the men of earlier times (τῶν ἔμπροσθεν ἡμᾶς γενέσθαι βελτίους). How shall we exercise and train ourselves? By beginning from the things easiest to know, as Hippocrates said. These are the things that have great use for all of life and great differences from one another."¹⁸⁴

Galen's perception of his own rôle in this scientific progress becomes clear from an episode from *De libris propriis* 2¹⁸⁵: Galen gave a public lecture in which he compared his own findings with a book by Lycus (containing the older anatomical discoveries) with a satisfactory outcome. He was able to show that the earlier writers have erred in many respects (ἡγνοηκότας τὰ πολλὰ τοὺς ἔμπροσθεν). Galen was not only proud of his advances over former generations of researchers and close contemporaries¹⁸⁶, he also reported progress within his own work: New discoveries had been made between the first and second

Hippocrate [...], dont les travaux ont servi l'humanité, dont les noms sont la gloire de l'art, et dont l'exemple, offert à l'émulation de la jeunesse, peut encore servir à former, d'âge en âge, des hommes dignes de les remplacer.

¹⁸⁴*De placitis* IX,1 (V,726 K.) in De Lacy's translation. For a similar passage see *Quod optimus medicus* 1 (I,57 K.): "Now it was very easy to learn what had taken Hippocrates a rather long time to find out in a few years and then use the remaining time of life toward the discovery of the remaining things (πρὸς τὴν τῶν λειπόντων εὔρεσιν)." Galen sketches an analogous account of the progress of geometry in *De peccatorum dignotione* 5, (V, 86f. K., tr. Harkins, p.95): "No one man discovered these [i.e. the methods of geometry] in his lifetime. First, the elementary theorems (στοιχειώδη θεωρήματα) were investigated and discovered; then came men of a later day who added to these theorems that most marvelous reasoning which, as I said, is called analytic; thereafter, both these men and others who were willing to learn exercised themselves in this analytic reasoning to the greatest extent. Thus, little by little, the theory of geometry progressed (κατὰ μικρὸν προῆλθεν ἡ γραμμικὴ θεωρία), although the geometers can point to no such handiwork (χειροῦργημα) as I have narrated in the case of sundials and water clocks."

¹⁸⁵SM II,100ff.; XIX,21ff. K.

¹⁸⁶Cf. Temkin, *Galenism*, 34: "Progress does not lead through scientific revolutions. But in claiming the right to improve upon the ancients, Galen declares his superiority, not necessarily over the ancients themselves but at least over others of his own generation."

editions of his anatomical work, such as the *musculi interossei* and the muscles of the upper eyelid.¹⁸⁷ At one time Galen even felt constrained to change one of his theories, viz the chronology of foetal development.¹⁸⁸ Furthermore, the insight that the heart is more likely to be formed after the liver than before led to further inquiry: ἐζήτουν δ' ὅπως γίγνεται τοῦτο.

Medical science is a largely cumulative process.¹⁸⁹ Medicine shares its method, the geometrical, with the other sciences. It is this methodological unity that makes Galen hope that the *διαφωνία* between the schools can be surpassed.¹⁹⁰ In his reflection on the progress which has been made in medicine and is to be expected in the future, Galen displays scientific optimism. The benefit to future generations is an essential part of the motivation of medical research.¹⁹¹ It does, however, have implications beyond medicine: The discovery of the organization of nature develops into an account of divine providence, the highest task to which science can aspire. Galen asserts that this kind of knowledge has an impact on practical and political philosophy, too (*De placitis* IX,7,11-12, see above). For the τέλος of human life is the ὁμοίωσις θεῷ (see above, 2.1.3) - this, evidently, makes sense only if there is a benevolent and provident θεός.

Progress in ethics and natural science is yielded by essentially parallel methods (see above, 2.1.1). Yet Galen is far more pessimistic in his moral outlook than in his assessment of the future of research. Still, medical research

¹⁸⁷*De lib. prop.* SM II,100; XIX,20 K.

¹⁸⁸*De formatione foetus* 3; IV,663f. K. The uniqueness of this incident (cf. Nutton, *Galen's philosophical testament*, p. 39) is supported by its inclusion in the *De propriis placitis* (ed. Helmreich, 1893, 434).

¹⁸⁹Cf. Temkin, *op.cit.*, 31.

¹⁹⁰*Meth. Med.* VII,5 (X,469 K.). Cf. Kieffer, *Galen's Institutio Logica*, p.2: "A unified, autonomous, co-operative, and progressive enterprise, proceeding by rational methods to demonstrate the truth about things observed in this world, owes much to Aristotle, Theophrastus, and Chrysippus, but most of all it owes them the duty of correcting any errors they may have made and rescuing them from the discord into which the prejudice and even stupidity of their followers had led the schools that bore their names."

¹⁹¹*Meth. Med.* I,1; *De anat. admin.*, II,1; *De dign. puls.* I,1.

will not remain unaffected by the decay of morality: Although, as Hankinson observed,

"given the right combination of skill, dedication and moral probity, physicians can contribute to the development of medicine in both material and formal ways [...], the general moral decline into idleness and luxury that his puritanical eye discerns in the Rome of his time will ensure, in his view, that the vast majority of doctors will continue to pursue the easy, broad and seductive road of sycophancy and charlatanry over the more austere pleasures of the hard and narrow path of truth."¹⁹²

Regardless of this pessimistic outlook on the morality of the time, scientific progress could still be achieved because a small number of seriously minded physicians, or even a single one¹⁹³, might advance the study of nature decisively, even if they were not powerful enough to have an impact on the corrupt state of society as a whole.¹⁹⁴

¹⁹²Hankinson, *op.cit.*, 1788. Cf. *Quod optimus medicus* 1 (I,57 K.): "But it is impossible to reach the goal with respect to the art if one regards wealth as higher than virtue and learns the art not for the benefit of mankind (εὐεργεσίας ἀνθρώπων ἔνεκεν) but for the acquisition of money." This failure to make progress in the sciences and arts is all the more reproachable because of the fact that the foundations have been laid by the ancients and the present researcher can acquire the knowledge for which they needed a lifetime in a few years (*ibid.*). Galen clearly sees moral decay as the factor responsible for the lack of the likes of Hippocrates in the medicine of his time (excluding himself, it may be presumed) - it is the willingness to engage in serious study that has changed, because the basic capacity of men must remain the same, "for the world is the same as it was then, and neither has the order of seasons changed, nor has the path of the sun been altered, nor has any other star, fixed star or planet, suffered any change" (*ibid.* I,56 K.). On the problem of how to reconcile the postulate of a constant human nature with the idea of collective change, famously encountered by Rousseau and Goethe, and solved by the former by assuming a flaw in the relations between men, compare Jean Starobinski, *Jean-Jacques Rousseau - Transparency and Obstruction*, tr. A. Goldhammer, Chicago - London, 1988, 20f. In Goethe's *Faust*, naive scientific optimism coincided with pedantry in the character of the bookish scholar Wagner, whose praise of progress was not unlike that of Galen (see *Weimarer Ausgabe* I,14,50f.).

¹⁹³Cf. *De dignotione pulsuum* 1,1 (VIII,773 K.).

¹⁹⁴Leo Strauss, in one of his lectures, stated as a difference between ancient and modern conceptions of progress that the former did not provide for a "guaranteed parallelism between intellectual and social progress". For the progress of the tiny elite of men engaged in philosophical and scientific debate would have no major effect on society at large. According to Strauss, this view was challenged in the 17th century with the introduction of the idea of method, which brought about the "levelling of the natural differences of the mind" (*The Rebirth of Classical Political Rationalism. Essays and Lectures by Leo Strauss*, selected by Thomas L.

4.4 Galen on the ethos of research and teaching

There is hardly any writing of Galen in which he does not, at some point, share with the reader his pride in his own studies, started in childhood and pursued incessantly throughout his life. One might at times feel sympathetic toward those colleagues of his who had been neither prodigies nor in a position to acquire his vast knowledge.¹⁹⁵ One of these passages (*De dignotione pulsuum* I,1; VIII, 766ff. K.), however, deserves interest because of its genuine account of the difficult and often disappointing research Galen conducted in order to gain an understanding of the pulse:

"My opinion is, if I have to say the truth, that a full human life is required for the perfect knowledge, as I possess it now, not just the six months in which the Methodists¹⁹⁶, wisest of all men, profess to teach medicine, but many years. As far as I am concerned, since I had started to visit the doctors in my childhood, I had a certain remarkable desire for the art of the pulses; although I have from then until now laboured a lot I do not think to have learned the whole art yet."

Galen recounts the many years during which he practiced feeling the pulse, the unsuccessful attempts using instruments and his disturbing deliberations. He could not decide between the doctrines of Archigenes¹⁹⁷ (the pulse is the

Pangle, Chicago - London, 1989, pp. 236f.). Galen was evidently not equally optimistic as to the contribution of his methodology to the improvement of mankind.

¹⁹⁵It can certainly be said of Galen that, in his dealings with his colleagues, he was "unhindered by the burden of self-doubt". On the reasons for his controversial standing in the Roman medical community see Kollesch (1965) 53.

¹⁹⁶The criticism of the Methodists and their six months medical course was a commonplace in Galen, e.g. *De Methodo Medendi* 1,1-3.

¹⁹⁷On Archigenes' pulse theory see C.M.S. Harris, *The Heart and the Vascular System in Ancient Greek Medicine*, Oxford 1973, pp. 251-7.

natural systole and diastole of heart and arteries), Herophilus¹⁹⁸ (heart and arteries work by means of pressure), and Agathinos' more general definition of the pulse (as movement of heart and arteries). For a long period his only certainty was the rejection of the empiricist view that the pulse represented the ascending and descending movement of the arteries and that there was no diastole.¹⁹⁹

Galen was led out of this "deep aporia" (772) by continuous efforts to feel the pulse and diagnose systole and diastole unequivocally. Once he had attained this level of proficiency, suddenly all came together, and the light of knowledge shone on the formerly obscure qualities of the pulse. From this personal experience Galen draws a sketch of the process of research in general: During the laborious process of investigation (*to zêtein*) a certain *hexis* grows, at first unnoticed, but as soon as it is complete it pays back all the efforts of research, even with interest. This pattern of the progress of the individual researcher reflects Galen's concept of the cumulative nature of large scale scientific progress described above (4.3). After all, research on any topic is a process with an extension in time which goes beyond the lifespan of the individual researcher - οὐ γὰρ οἷόν τε τὸν αὐτὸν ἄρξασθαί τε καὶ τελειῶσαι.²⁰⁰

Galen gave this account of his own life as a researcher in order to divert men from the dominant quest for wealth and glory: "For this account is not for people who indulge in a life of luxury, but for those who have the proper character and aspirations. Yet very few people today are of this brand" (773). Still, he thought his proselytizing worth the effort because, to follow Heraclitus, one serious researcher outweighs a thousand other men. This again reflects the high opinion Galen had of the life devoted to science. He resented the fact that this view was not widely shared in the society he lived in.

¹⁹⁸Herophilus' sphygmology is discussed in Von Staden. *Herophilus*, pp. 262-88.

¹⁹⁹Cf. Deichgräber (1956) 18f. See also Deichgräber (1930) 313ff. on Galen's rejection of the Empiricists' opinions about the pulse.

²⁰⁰*De nat. fac.* II,9 (II,141 K.).

The laborious route to a discovery is characterized by a long period of apparently futile efforts which gain sense only from the vantage point of the one who has actually completed it.²⁰¹ Galen's epistemology resembles, in some respects, both Plato (Seventh Letter) and the Stoic concept of the *spermatikos logos*, which was deemed by Deichgräber to reflect the influence of the Platonizing and Stoicizing Pneumatic school.²⁰² Yet this resemblance is not so surprising, for both Platonic and Stoic epistemology were familiar enough to any educated person of the second century AD. For a man of Galen's outstanding erudition to have reflected their impact in this context did not imply any particular school allegiances.

Galen evidently was not satisfied with the pulse lore of any of the other schools - his attempts to use two of the components of the Empiricist method (observation and history taking) had not been successful, and the Methodists had no sphygmology to speak of. Galen did, however, acknowledge a predecessor in the pursuit of a serious observational method, namely Erasistratus, who had discovered that the nerves have their origin in the brain by continuously refining his anatomical technique.²⁰³ Galen, for all his inclination to polemic and derogatory remarks, was able to recognize the achievements of a predecessor, whom he was wont to criticize. In addition, he was open about his own struggles and errors. Deichgräber was right to regard this treatise as "a truly genuine testimony not only to Galen's idiosyncrasy, but also the history of his ethos as a researcher."

Explaining previous discoveries and filling the gaps in the knowledge of the time are worthy pursuits for the researcher, "for it is not possible for the same man to make both a beginning and an end."²⁰⁴ Galen perceptively noted a major danger concerning the character of the researcher - if he becomes too enamoured of the prospect of original results, or is carried away by impatience

²⁰¹Cf. Deichgräber (1957) 20.

²⁰²Cf. Deichgräber, *ibid.* p. 22.

²⁰³V, 602 K.

²⁰⁴*De nat. fac.* II,9 (II,141 K.), tr. Brock.

or φιλοτιμία, there is the distinct possibility that he will sacrifice scientific rigour for sophistry and unfounded arguments:

"Those, on the other hand, deserve censure who are so impatient that they will not wait to learn any of the things which have been duly mentioned, as do also those who are so ambitious that, in their lust after novel doctrines, they are always attempting some fraudulent sophistry (πανουργεῖν τι καὶ σοφίζεσθαι), either purposely neglecting certain subjects, as Erasistratus does in the case of the humours, or unscrupulously attacking other people, as does this same writer, as well as many of the more recent authorities."²⁰⁵

Morality has a similar impact on the quality of research as it has on the quality of a physician's clinical work: Improper moral attitudes foster fallacious reasoning and thus lead to inappropriate treatment, fabrication of results and unfounded scientific theories.

Galen attempted to set standards not only for research itself, but also for the propagation of results²⁰⁶, as can be seen from his remarks on the ethics of publication in *De Methodo Medendi* IX,4 (X, 608f. K.):

"Therefore, if every person who endeavours to write or teach something demonstrated it before in practice there would be far fewer false doctrines. Yet, most people undertake to teach others what they have neither tried themselves nor proven. Thus, it is not surprising that many doctors neglect the proper manner (*êthos chrêston*), and are concerned more with the pretension of knowledge than with the truth."

Parallel to the passage on the ethos of the researcher, Galen refers to his long studies of philosophy and medicine. It must be admitted that Galen himself at least attempted to use much of his own experience and his own results in his books. Where he relied on others he normally acknowledged this (though not always with the precision for which a student of the history of medicine would

²⁰⁵ *Ibid.*

²⁰⁶ It was well known at the time that medical competence did not necessarily entail writing skills, cf. Diogenes Laertius' remark about the Herophilean physician Zeno in VII,35: He was νοῆσαι μὲν ἰκανός, γράψαι δ' ἄτονος.

hope), and he used the need for new books to replace inaccurate existing material as an excuse for reiterating the discussions of his predecessors on some topics. He apologized, for example, for writing *De anatomicis administrationibus*: It was superior both to the work of Marinus (II,1-2) and to his own earlier treatment of the subject-matter (I,1) and therefore had to replace them. In addition to his ethics of publication, Galen also advocated specific ethics of reading. In *De Praecognitione* 9 he refers to his medical and philosophical treatises, which he circulated only among his friends²⁰⁷, and he would not even have made them accessible to this restricted group if he had known that they would pass them on to *anaxioi*, i.e. people who do not read for the gain of knowledge, but with some evil intention. A writer should also take the proficiency of the potential reader into account, Galen considered. Whilst the addressee of a work, such as Eugenianos in the case of the *Methodus medendi* might be capable of identifying particular applications of the general principles of treatment given therein, those applications had to be outlined in detail in the written work because it might fall into the hands of an ἀγύμναστος λογισμῶ.²⁰⁸ Therefore, the teacher and the writer of textbooks had constantly to keep in mind the benefit of the student, the aspiring doctor. Φιλανθρωπία toward the reader is thus an important part of the ethos of publishing. This includes clarity and confinement to useful information - obscurity, used by many technical writers who had succumbed to the disease of φιλοριστία, as a device to secure supposed dignity, was to be avoided.²⁰⁹ This benevolent

²⁰⁷It is unlikely that all of Galen's work were intended for such a restricted audience. Among those which were we may count the commentaries on Hippocrates' *Prorrhethikon* (cf. his remarks on the requests by friends that he should also comment on this difficult work in the proem to the second book of *In Hipp. Ep. III*, CMG V 10,2.1, p.62 ff. [XVIIa,578 ff. K.]) and *De optimo medico cognoscendo* (Nutton, 1990, 243).

²⁰⁸Galen acknowledged the Platonic precedent for the rule οὐ γὰρ ἔστιν τὰ γραφέντα μὴ ἐκπεσεῖν (VII,4; X,465 K.).

²⁰⁹... φιλάνθρωπον ἡγησάμην εἶναι, τῶν μανθανόντων ἕνεκα τῆς ὠφελείας τὰς τέχνας, ἐπιδείξαι τὴν ἀλήθειαν, οὐχ ὥσπερ οἱ πολλοὶ τῶν ὀτιοῦν ἐπισταμένων ἐπιχειροῦσιν αὐτὸ σεμνύνειν, ἀλλ' ἐκεῖνοι καὶ σφᾶς αὐτοὺς ἡγούμενοι φανεῖσθαι σεμνοτέρους, ἀλλ' αἰεὶ τῶν ἐγνωσμένων ἑμαυτῶ, διακρίνειν ἀπὸ τῶν ἀχρήστων τὰ χρήσιμα. *De diff. puls.* IV.17 (VIII,764 K.). Cf. the introduction to the same work (I,1; VIII,567 K.): Galen's method of exposition is appropriate and "philanthropic" because it uses the clearest available descriptions and arguments and avoids sophistry and quarrel about the meaning of mere words.

attitude toward learners required consideration of their level of training in the sciences - Galen's books aim at the γεγυμνασμένοι ἐν λόγοις and the ἀγυμναστότεροι alike, as he points out in the context of his explanation - *ad usum Delphini* - of Hippocrates' insight that a bad diet, if one sticks to it, is still safer than sudden alterations:

"Therefore this reminder is rather philanthropical because it aims not only at those who are well trained in arguments, but also at people who are less well trained."²¹⁰

Galen acknowledged the difficulty of many contested questions and considered that debate should never descend to ridicule unless one's adversary was evidently not making sincere efforts to discover the truth:

"Saying that something is false is not the same as saying that it is ridiculous. In *On the Use of Respiration* I showed that Erasistratus himself was mistaken about both the use and the origin of pulsation, and also of swallowing and digestion. But we did not ridicule him, because not all that is false is immediately ridiculous as well. For his errors about the origin of inflammation and the diagnosis of fever were pointed out in our works on venesection and in certain other theoretical works on therapy. And indeed one of his followers, reversing the argument, says that we have erred about these matters, not Erasistratus; but we shall not ridicule him nor he us. For when the doctrines are not evident and by theoretical argument appear convincing to some but not to others, as there is no blame in advocating these doctrines that appear to be true, so also there is no blame in permitting others to speak against

²¹⁰καὶ τοῦτο γὰρ τὸ ὑπόμνημα φιλανθρωπότερόν ἐστι τῷ ἐστοχάσθαι μὴ μόνον τῶν γεγυμνασμένων ἐν λόγοις, ἀλλὰ καὶ τῶν ἀγυμναστοτέρων. *In Hipp. de victu acut.* 11.21 (XV,552 K.). Cf. the preface to the commentary on *Epidemics I* (XVIIa.20 K.): Because of the pivotal importance of astronomical knowledge for the subject-matter of the *Epidemics* Galen regarded it as "philanthropical" to give an introduction into astronomy for the benefit of those who, in defiance of Hippocrates' advice, had not studied this field before.

them. But it is rash (προπετές) to laugh at a matter of dogmatic controversy and to ridicule it as foolish"²¹¹

These recommendations to extend the benevolence of the scientific writer to include criticized colleagues reflect Galen's general, albeit often only theoretical, attitude to controversial issues. Rashness ought to be avoided, prudence to prevail.²¹²

Yet not only colleagues and students could be harmed by a careless approach to publishing. Galen was concerned about the danger of propagating potentially dangerous knowledge in medical or pharmacological treatises (5.1). He claimed that the purpose of his writing had always been the benefit of doctors and patients of the present and future²¹³ generations. From an early age he has learned to despise δόξα and aspire purely to truth and knowledge. This is why he never put his name on any of his books and urged his friends

²¹¹*De placitis* VIII,9,6ff. (V,714f. K.), De Lacy's translation with slight modifications.

²¹²In *Adversus Julianum* 1 (CMG V 10,3, ed. E. Wenkebach, p.33; XVIIIa, 246f. K.), Galen deplors the fact that there is no law which, parallel to those imposing punishment for false accusations (the *temeritas accusatorum* of Roman Law), could prevent rash criticism of notable scholars. New discoveries should be judged, as it used to be in Egypt, by a συνέδριον of men both learned and just in order to be published if they are found to be useful (χρηστά) or to be disposed of if harmful (μοχθηρά). Likewise, the discoverer's name should not be publicized - thereby τῶν φιλοτίμων ἢ περὶ δόξαν ἄμετρος σπουδὴ would be reduced.

²¹³Cf. *Meth. Med.* I,1 (X,1 K.): The purpose of the treatise is τοὺς μεθ' ἡμᾶς ἀνθρώπους ὠφελῆσαι καθ' ὅσον οἶος τέ εἰμι. It has to be acknowledged that Galen was very generous in making his therapies public, at a time when it was common practice to *sell* recipes. However, he does not comment on the question whether it was justifiable for a doctor to withhold a therapy or make it prohibitively expensive in order to secure a living or recover costs, when patients were suffering or even dying because that therapy was not available to them. A famous instance of this attitude was the development of the obstetric forceps by the Chamberlen brothers in the 17th century, which was kept secret by the family for the sake of increasing the profit, while a great number of women and children died in childbirth (see H.W. Haggard, *Devils, drugs, and doctors*, New York, 1929, p.46ff.). A similar monopoly was exercised by the Collot family with regard to the apparatus for lithotomy in the 16th and 17th centuries (see Petrequin, *Chirurgie d'Hippocrate* I,196). For the current problem of "Secrecy in Medical Research" see the editorial by Steven A. Rosenberg in the *New England Journal of Medicine* 334,6 (1996) 392ff.: "There would be immediate improvement if scientists refused to keep information confidential and refused to sign any agreements for the transfer of information or reagents that included a requirement of confidentiality (394)."

not to extol him ἀμετρότερον.²¹⁴ Praise from the public does not enter into his consideration - it is of no use after one's death, and of very little during one's lifetime. For people who, like him, have chosen the tranquil life of devotion to philosophy, public fame would be no small hindrance. At times, he is so put off by encounters with intrusive admirers that he is unable to touch a book for a while.²¹⁵ The appearance of books not written by him but inscribed "Galen the physician" caused confusion and brought him some unfounded criticism²¹⁶, an additional aspect of his fame which annoyed him enough to make him write the treatise *De libris propriis*.²¹⁷ Moreover, widespread misrepresentation of his genuine writings caused him to separate matters about which he did not feel strongly from those about which he did and provide a concise version of the latter in *De propriis placitis*.²¹⁸

It is hard to believe that the most famous of all physicians, who was so anxious to preserve his reputation as a clinician that he publicly advertised the successes of his practice (*De praecognitione*) and never mentioned any failure, and who was also aware of the necessity of general recognition for therapeutic authority²¹⁹ should have shown no concern whatsoever for fame as a researcher and for a literary afterlife.²²⁰ Praise of one's own modesty does not, after all, recommend itself. The redundancy and

²¹⁴Cf. *De ordine librorum suorum ad Eugenianum*, XIX,51 K.: Galen had not wanted any of his writings to appear publicly, but his friends passed them on against his will.

²¹⁵*Meth. Med.* VII,1 (X,456ff. K.).

²¹⁶A characteristic example of this *topos* can be found in Molière's *Misanthrope*, a comedy which abounds with Galenist vocabulary (e.g. 166; 1171f.), where the protagonist falls victim to similar machinations: *Et, non content encor du tort que l'on me fait,/ Il court parmi le monde un livre abominable,/ Et de qui la lecture est même condamnable;/ Un livre à meriter la dernière rigueur,/ Dont le fourbe a le front de me faire l'auteur!* (1500ff.).

²¹⁷Preface, XIX, 8ff. K.

²¹⁸Cf. Nutton, *Galen's philosophical testament*, pp. 39f.

²¹⁹Cf. *In Hipp. de officina* II,1 (XVIIIb,722f. K.).

²²⁰Incidentally, the way he rebukes the authors of recipes for love charms and other dangerous substances is rather revealing: "For how did they think knowledge which is embarrassing for the living would gain them glory for the time after their death?" (*De simplic. med. temperam.* X,1; XII,252 K.).

often monotonous prolixity of his works is likewise indicative of a lack of that virtue. However, it has to be acknowledged that most of his treatises reflect the same spirit of hard work, original research, concern with clarity and sound methodology which Galen demanded from the medical researcher and writer.

4.4.1 The importance of a critical mind

Adherence to the proper path to truth was conceived by Galen to be of utmost importance for valid scientific results. In his outline of the Empiricist doctrine, the *Subfiguratio empirica*, he presented a number of *iudicatoria* of reliable medical *historia*, viz. the agreement of the authorities, the reader's own experience and the expertise and character of the writer. The trustworthy disposition, *mos conscriptoris*, had to be complemented by technical knowledge, his *scientia*, as exemplified by *Hippocrates expertissimus et amicissimus veritatis*.²²¹ Galen was therefore concerned with the obstacles that might be encountered on this path in relation both to medical methodology and to ethics. In *De peccatorum dignotione*, one of his two preserved ethical treatises, Galen dealt with the proper method for preparing students for the pursuit of truth:

"If, then, by the method I mentioned [in chapter 1 of the treatise], vain boasting, self-love, ambition, concern for reputation, conceit of wisdom, and love of money are removed from the heart of the man who is going to search for truth, he will certainly arrive at it. After he has practiced himself in the truth, not for months, but for years, he will sometime thereafter inquire into the doctrines which can lead to happiness or misery."²²²

²²¹Deichgräber (1930) 69.

²²²ἔὰν οὖν ἐξέλῃς τοῦ μέλλοντος ἀλήθειαν ζητήσῃν ἀλαζονείαν φιλαυτίαν φιλοτιμίαν φιλοδοξίαν δοξοσοφίαν φιλοχρηματίαν, ἐφ' ἣν εἶπον ὁδόν, ἀφίξεται πάντως τ' ἐν αὐτῇ προγυμνασμένος, οὐ μῆσιν, ἀλλ' ἔτεσι ποθ' ὕστερον ζητήσῃ τὰ πρὸς εὐδαιμονίαν τε καὶ κακοδαιμονίαν ἄγειν δυνάμενα δόγματα (*De pecc. dign.* 3,10 De Boer [CMG V 4,1,1, p.48]; V,70 K.). Tr. Harkins, p.82.

Success in distinguishing truth from falsehood depends on the proper condition of the soul - it must be purified from all evil and misleading traits. It is, however, not enough to have the appropriate disposition. The second and indispensable requirement is technical training. This is why the Cynics' "concise way to virtue" (σύντομος ἐπ' ἀρετὴν ὁδός)²²³ which purports to do without such training and to be a relatively effortless way to wisdom leads to nothing but unfounded pretensions.²²⁴ What makes a proper logical training so exceedingly crucial is the frequent similarity between true and false statements:

"For if, as I said [in chapter 2 of the treatise], the similarity of false arguments to true is the reason for false doctrines, and if it takes an expert in each subject matter to diagnose them exactly the man who has suddenly become involved in a debate cannot possibly distinguish and separate the false arguments from the true."²²⁵

Galen refers to the "so-called *sophismata*", arguments which are false, but "wickedly fashioned to resemble the true ones".²²⁶ The expert will recognize their falseness from the use of incorrect syllogisms or untrue premises, but this option is often not open to the less experienced student. It will therefore be safest for him to withhold judgement on any argument until he has persuaded himself that he will always be able to distinguish deceptively similar true and false arguments (3,16; V, 73K.). The inherent similarities of true and false arguments and the sophisms of self proclaimed teachers who use the false ones

²²³Cf. Diogenes Laertius, VII, 121: ἔτι τε μὴ δοξάσειν τὸν σοφόν, τουτέστι ψεύδει μὴ συγκαταθήσεσθαι μηδενί. κυνιεῖν τ' αὐτόν· εἶναι γὰρ τὸν κυνισμόν σύντομον ἐπ' ἀρετὴν ὁδόν, ὡς Ἀπολλόδωρος ἐν τῇ Ἡθικῇ. Galen would not agree with the link between the Cynics' short cut to virtue and the Stoic avoidance of unfounded opinion - in his view, the Cynics' way leads to premature assent, προπετῆς συγκατάθεσις, and thereby to a miserable life (3,20; V,74 K.).

²²⁴*Ibid.* 3,12 (V, 71K.). The Cynics' opponents ridiculed their method as σύντομος ἐπ' ἀλαζονείαν ὁδός (*ibid.*).

²²⁵εἰ γάρ, ὡς ἔφην, αἱ ὁμοιότητες τῶν λόγων πρὸς τοὺς ἀληθεῖς αἰτίαι τῶν ψευδῶν δογμάτων εἰσὶ, τὰς δ' ὁμοιότητας οἱ μάλιστα τετριμμένοι καθ' ἑκάστην ὕλην πραγμάτων ἀκριβῶς διαγιγνώσκουσιν, ἀναγκαῖόν ἐστι τὸν ἐξαίφνης προσελθόντα κρίσει λόγων ἀδυνατεῖν διαγνῶναι τε καὶ διακρίναι τοὺς ψευδεῖς ἀπὸ τῶν ἀληθῶν (*ibid.* 3,14 (p. 49 De Boer; V,72 K.). Tr. Harkins, p.84.

²²⁶εἰς ὁμοιότητα δὲ τῶν ἀληθῶν πεπανουργημένοι (3,15; V, 72K.).

are the main obstacles on the path to truth and true virtue. Attempts to cure their pretense are unlikely to be successful, like the cure of an old *skirros*:

"If a man has a tumour which has hardened over a period of three or four years, his induration is indissoluble. Who can cure the induration of thirty or forty years' standing which grips the soul of such old men?"²²⁷

Discussions with these philosophers will therefore normally prove to be futile.²²⁸ This is why Galen tried to tackle the problem of widespread ignorance about the proper purpose of life from the other side, i.e. by inducing a methodologically founded critical approach in the students of both ethics and medicine. Galen deplored the virtual absence of this kind of attitude in his contemporaries. Too many followed the doctrines of whoever happened to be their first teacher, and *nomine tantummodo medici et philosophi* abounded:

"Now people of the present day do not begin by getting a clear comprehension of these sects [i.e. Epicureans, Empiricists and the like], as well as of the better ones, thereafter devoting a long time to judging and testing the true and false in each of them; despite their ignorance, they style themselves, some "physicians" and others "philosophers". No wonder, then, that they honour the false equally with the true. For everyone becomes like the first teacher that he comes across, without waiting to learn anything from anybody else. [...] In the old days such people used to be set to menial tasks. What will be the end of it God knows!"²²⁹

4.3.2 Vivisection and human experiments

One feature of Galens's ethics of research remains to be discussed: his attitude

²²⁷*Ibid.* 3,22 (p.51 De Boer; V,75 K.), tr. Harkins.

²²⁸Cf. *De nat. fac.* I,14 (II,53 K.).

²²⁹*De nat. fac.* I,14; II,52f. K. (tr. Brock).

towards vivisection and human experiments. Galen was convinced of the importance of vivisection of animals for an understanding of physiology, and conducted many groundbreaking experiments in this field, e.g on the respiratory system and the voice (see *De anat. admin.* VIII, 5-8). He performed vivisections of pig and goat brains, during which he observed the pulsations of that organ (IX, 11-12).²³⁰ He chose pigs and goats instead of the macaques,²³¹ which he normally preferred (because they were closest to man in appearance), to avoid the sight of their suffering (II, 690 K.). His cuts of the medulla of live animals led to his famous contributions to neuroanatomy (IX, 13-14). Yet he also deplored the inadequacies of animal experimentation²³² and rebuked the military surgeons for not having made better use of the opportunity to dissect corpses of barbarians during the war against the Teutons:

"When, then, you have often observed the place and size of each tendon and nerve in monkeys you will remember where to find everything quickly and accurately it when you get a chance to perform the dissection of a human corpse. Without previous training you would not benefit from this opportunity. This happened to the physicians in the German war who, although they had the chance to dissect corpses of barbarians, did not learn anything more than a cook would know."²³³

²³⁰The Greek text of *De anatomicis administrationibus* in Kühn's edition ends with chapter IX,5. The remaining chapters of book IX and books X-XV have been translated from Hunain's Arabic translation by Ivan Garofalo in his *Galeno: Procedimenti anatomici, edizione e traduzione*, 3 vols., Milan, 1991.

²³¹The North African tailless Barbary Ape (*Macaca sylvana*), see Savage-Smith (1971) 79.

²³²E.g. *Anat. Admin.* V,3; II, 491 K.

²³³*De comp.med. per genera* III,2 (XIII,604f. K.). Cf. Johannes Ilberg, "Aus Galens Praxis", in Flashar (1971) 403. For a parallel passage see *De anat. admin.* III,5 (II,385f.). The criterion for the acceptability of the dissection of human corpses seems to have been whether the dead had to be buried. Therefore the corpses of "robbers who were lying unburied in the mountains" and of "exposed children, who had died" could be dissected (both groups had lost their social and ritual protection, cf. *ibid.* I,2; II,221f. K.).

Galen cherished the opportunity to make observations during surgical procedures²³⁴ and did arguably harmless experiments on living humans²³⁵, slaves in particular. From these experiments without immediate therapeutic implication a different group has to be distinguished, namely experimental treatment. Galen acknowledged (*De compositione medicamentorum per genera* II,1; XIII,459 K.) that progress in pharmacotherapy was not possible without potentially harmful therapies (although the physician should use *pharmaka* which have been recommended by reliable authorities or which he has found for himself by an appropriate method, whenever possible): "necessity often forces us to use untried methods in an experimental manner" (τοῖς ἀπειράστοις αὐτοσχεδιάζοντας χρῆσθαι). He would, however, justify harmful *experiments*, only if performed on criminals convicted to death (XII, 252 K.). Galen's axiological foundation for this attitude will be explained further below (6.2), but first the famous discussion of the theoretical and ethical justifications for vivisection in the proem of Celsus' *De medicina* should be considered.²³⁶ Celsus reported the views of those physicians *qui rationalem medicinam profitentur*, i.e. the λογικοί of Galen and "Rationalists" of medical history²³⁷, about the scientific understanding required in medicine, namely knowledge of the hidden and evident causes of disease, of the *actiones naturales* and finally of the *partes interiores* (*Prooemium* 13). Having related the Rationalists' approach to the three other topics, Celsus turned to the study of the internal

²³⁴Cf. *Anat. adm.* VII,12f., II,631ff. K. (observation of the heart after removal of the sternum); cf. *De placitis* I, V,181f. K.

²³⁵Such as the instillation of a substance into the nose to evoke a biting sensation in the head and prove that the sense of odour originates in the ventricles (*De instrumento odoratus* 4; II,869 K.).

²³⁶For a recent commentary see Ph. Mudry, *La préface du De medicina de Celse. Texte, traduction et commentaire*. Rome, 1982. Cf. Deuse (1994) 831-837 (a comparison of "Empiricist" and "Dogmatist" sources quoted by Celsus) and von Staden, *Herophilus*, 138-153 (supportive of the evidence for vivisection).

²³⁷For the problems around the references to a "rationalist" school in general and in Celsus in particular see Von Staden "Hairesis and Heresy: The case of the hairesis iatrikai", in Meyer and Sanders (1982) 76-100 and "*Media quodammodo diversas inter sententias: Celsus, the 'rationalists', and Erasistratus*", in Sabbah and Mudry (1994) 77-101.

parts, i.e. anatomy. Again, the importance of the study of human anatomy is founded upon the Rationalists' conviction that without knowing the cause of a disease one cannot treat it and that disorders of the internal organs play a major aetiological role (23). This view implied the necessity of dissections. Celsus referred to Herophilus and Erasistratus as leading exponents of this art and added that they did actually perform their dissections on living men²³⁸. They used criminals, whom they received out of the prisons of Alexandria, so that they could carry out their detailed investigations of internal anatomy *spiritu remanente*, while the dissected were still breathing (24). Celsus then gave some general arguments in favour of anatomical research: Internal pain can only be located on the basis of knowledge of visceral topography and diseased organs only be cured by someone who knows them; if parts of the viscera are exposed one has to distinguish normal and abnormal appearances; it is generally advantageous for therapy (25-6). Of these only the second (exposure of viscera) could be specifically applied to the dissection of living rather than dead bodies (on the assumption that a corpse does not present the healthy state of the organs any more), but Celsus did not make this point. Instead, he only quoted their general justification: "Nor is it, as most people say, cruel that in the execution of criminals, and but a few of them, we should seek remedies for innocent people of all future ages (26)."²³⁹

The Empiricists, on the other hand, were opposed to dissection for epistemological reasons - they regarded the empirical investigation of the *causae evidentes* as sufficient (27) and the search for hidden causes in the dissected corpse as superfluous because of the substantial change of the organs in this situation (41ff.). Vivisection, they contended, was not only superfluous

²³⁸There seem to be only two other ancient accounts of vivisection, viz in Tertullian (*De anima* 10,4 with reference to the *lanius* Herophilus) and in the pseudo-Galenic *Definitiones medicae* 34 (XIX,357 K., with reference to the *dogmatikoi*). cf. Mudry *a.l.*

²³⁹Transl. Spencer. *Neque esse crudele, sicut plerique proponunt, hominum nocentium et horum quoque paucorum suppliciiis remedia populis innocentibus saeculorum omnium quaeri.* To be sure, this was meant to be an account of the vivisectors' defence against charges of inhumanity, not Celsus own view, as Phillips (1973, 141) had it.

but also cruel.²⁴⁰ Moreover, it was alien to medicine, the *ars salutis humanae praeses*, to inflict this *pestis atrocissima* (40). The proper way for a doctor to make these kinds of observations was by attending to wounded gladiators (as Galen indeed did for a number of years), to soldiers, or to travellers. Thus he would learn *per misericordiam ... quod alii dira crudelitate* (43). Celsus sided with the Empiricists as far as the cruelty of vivisections was concerned, but with the Rationalists he agreed on the general necessity of dissections, which reveal the places of the organs and their mutual relations far better than anecdotal observations of patients with open wounds (74). Celsus might have conveyed the general attitude of the ruling classes, for vivisections were in all likelihood performed only for a brief period in a restricted geographic area.²⁴¹

In any event, Galen did not experiment on humans systematically. His accounts of such experiments are remarkable mainly for the fact that he was evidently more sympathetic toward the suffering of one of his monkeys than toward that of a criminal villain. The importance of human experiments for his anatomical and physiological research would have been rather small, for most of his results were obtained from animals²⁴². Galen regarded his research as a contribution to the improvement of medical knowledge and, above all, medical and surgical care. As Lloyd²⁴³ observed,

"Galen provides both theoretical and practical justifications for his far more extensive [sc. as compared to Aristotle] programme of animal dissection and vivisection, the theoretical that the scientist discovers how 'nature does nothing in vain' as well as the answers to problematic

²⁴⁰While dissection is *etsi non crudelis, tamen foeda* (44).

²⁴¹Von Staden (1992, 223) speaks of the "disappearance of systematic human dissection from Greek science after the death of Erasistratus and Herophilus". Von Staden's paper gives a valuable overview of the pre-Galenic attitudes towards dissection and vivisection. Cf. G.E.R. Lloyd, "Science and morality in Greco-Roman Antiquity", in Lloyd (1991), pp. 354-371, pp. 358ff.

²⁴²Cf. Ivan Garofalo "The six classes of animals dissected by Galen", in López-Férez (1991) 73-87.

²⁴³*Op.cit.*, at p. 357.

physiological questions, the practical that the programme yields anatomical knowledge essential for the medical practitioner."²⁴⁴

Thus the justifications that might support animal experimentation today would similarly have supported Galen's research programme. However, emotional and moral ambivalence toward such activity also remained.

4.3.3 Galen's legacy

Galen, who, for all his eclecticism and prolixity, was without doubt the most eminent of Ancient doctors and one of the greatest anatomists of all times, was seriously concerned with both the ethics of scientific discovery and the ethos of the researcher. He regarded both a rigorous methodology, following the patterns of geometrical demonstration, and sound heuristic principles, such as economy in the providential organization of nature, as essential for successful research in anatomy, physiology and therapeutics. He was aware of the difficulties of having to decide between different theories, and of the often laborious process which led to the discovery and corroboration of a new theory. His combination of observation and experiment (for the acquisition of material) and reason (for critical judgement) remained the canonical method of research beyond the introduction of quantitative methods into medicine in the 17th century.

Galen shows some inconsistency as a doctor of extraordinary talent and high moral and professional standards who occasionally seems to forget the premium he had placed upon modesty when writing on the primary virtues in medical practice.²⁴⁵ He also allowed for qualifications of the inviolability of human life which are in disagreement with today's standards of humanity. However, with his call for proper training of doctors, not only in medicine and

²⁴⁴Cf. Lloyd, *op.cit.*, at p. 358: "In general, the price paid, in terms of animal suffering, for the knowledge gained is not an important issue for Galen."

²⁴⁵Cf. Ilberg, *op.cit.*, pp. 385ff.

related subjects, but also in philosophy and the sciences in general, his incessant efforts to confirm correct treatments, through his own experience, and his exemplary outline of the ethos of the researcher-physician, he set universal standards for the practice of medicine.

Chapter 5

The responsibility of the physician

It was the task of the preceding chapters to establish Galen's views on ethics in general and their applicability to medicine (2 and 3) and to investigate his attitude towards the morality of medicine in its social and professional context (4). On this basis, the more technical aspects of Galen's medical ethics will now be investigated in relation to certain conflicts of day-to-day practice. The final chapter (6) will consider Galen's understanding of the *moral* nature of such conflicts.

5.1 Duty or crime - Is knowledge about poisons to be publicized?

Galen's pharmacological treatises had a manifold scope. It was equally important to teach the method for finding remedies, which involved a sound combination of reason (*logos*), own experience (*peira*) and the transmitted experience of former generations of doctors (*historia*)¹, and to apply that method in various particular cases in order to make proper and critical use of the therapies which were advocated by the tradition or suggested by one's own investigation - *methodos* and *askêsis*. Galen acknowledges in *De compositione medicamentorum per genera*² that progress in pharmacotherapy is not possible without potentially harmful experimental treatment (*ἀπειράστοις*

¹It is a remarkable feature of Galen's traditionalism that every authority, even Hippocrates, has to be tested against *peira* (*Meth. med.* V,15; X,375 K.), parallel to the empirical scrutiny of the doctrines of reason established by Hippocrates himself (*Quod optimus medicus* 3). See also *De diebus criticis* II,1 (IX,841f. K.) for the *trias* of *logos*, *peira*, and *historia*. On Galen's epistemology in general see Deichgräber, *Empirikerschule*, p.3, Frede's introduction to *Galen: Three treatises on the nature of science* and Frede, "On Galen's Epistemology" in Frede (1987). The specific features of the combination of rational methodology, experience and tradition in Galen's pharmacological writings are discussed by Caius Fabricius, *Galens Exzerpte aus älteren Pharmakologen*, Berlin - New York (*Ars medica* II,2), 1972, 36ff.

²Cf. *Comp. per gen.* II,1 (XIII,458f.).

αὐτοσχεδιάζοντας χρῆσθαι)³, although the physician should use *pharmaka* which have been recommended by reliable authorities or which he has found for himself by the appropriate method, whenever possible. The proper heuristic methodology therefore assumes a pivotal rôle for the ethics of pharmacotherapy. Like his predecessors, Galen was only too familiar with the potential proximity of remedy to poison (the Greeks never separated the two linguistically⁴), the combination of beneficial and adverse effects in a single drug, and the necessity of a cautious use of medicines which, administered in too high quantities, turned into noxious substances.⁵ For not only is φάρμακον the word for both *remedium* and *noxa*, two of its very common attributes are θανάσιμον (deadly) and δηλητήριον (noxious). Even supposedly harmless remedies can be turned into deadly poisons by increasing the dose beyond the appropriate - *dosis facit venenum*. Yet it does not make sense to call these substances, let alone the antidotes, "noxious". This is why the distinction between *pharmaka dêlêtêria*, which have no justified use whatsoever in medicine, and *pharmaka thanasima* is made: "But it seems to me that for this reason the doctors call many drugs deadly (*thanasima*), whose use is required at times, but noxious (*dêlêtêria*) those which never convey any benefit, neither to ill nor to healthy people."⁶ It is therefore not only the dose which makes the poison - there are *pharmaka thanasima* whose fatal effect is brought about by the *quale*, not just the *quantum*.⁷ Galen did not elaborate any further on the

³For a current view on experimental use of drugs see the editorial, occasioned by the fatal side effects of a new therapy for hepatitis B, by Morton N. Swartz "Mitochondrial toxicity - New Adverse Drug Effects", in the *New England Journal of Medicine* 333,17 (1995) 1146-8.

⁴There is a similar ambiguity in the Latin *venenum*, see *Dig.* 50,16,236 pr.: *qui venenum dicit, adicere debet, utrum malum an bonum*.

⁵Galen does mention substances with no attested harmful potential whatsoever. Their use, however, tends to be confined to hair dying and the like, cf. *De comp. med. sec. loc.* 1,3 (XII,440 K.) on the oil of the Syrian cedar. Yet even prescriptions for alopecia can be dangerous if given by ignorant doctors (*ibid.* I,1; XII,380f. K.).

⁶*In Hipp. epid. VI comment.*, VI,5; XVIIb,337 K. Cf. *De propriis placitis* 9; "... destructive drugs never benefit us, unlike the deadly ones which are of some slight use occasionally when taken with an admixture of beneficial drugs" (tr. Nutton).

⁷*In Hipp. Ep. III comment.* III,75 (XVIIa, 761,11 K.).

substances for which this was the case. Yet it might be inferred that, at least for some of his remedies, it would not have been possible to distinguish a therapeutic dose from a toxic one (if only because any dose was potentially toxic). In these cases, he would have needed criteria for determining when the risk of the patient's death was warranted - the gravity of the disease, or an otherwise poor prognosis, or intolerable pain. Galen, however, did not elucidate considerations of this kind. Accounts of difficult decision-making, of choice of the lesser evil, would perhaps have been against the therapeutic optimism underlying most of his pharmacological writing. In addition, they would not have contributed to his reputation as an almost omniscient doctor.⁸

Quite apart from their medical use, *pharmaka* played an important rôle in ancient societies, being administered both under (e.g. hemlock, snakes⁹) and outside the law. Rulers, who lived in constant fear of conspirators and wives, showed a keen interest in the development of antidotes. Such an interest was most famously shown by Mithridates VI of Pontus. Galen, too, held the topic of antidotes in high esteem. Not only did he devote a special treatise to this field (*De antidotis*), he also regarded the development of a universal antidote as one of the main reasons for the general study of the composition of drugs.¹⁰ His goal was to find a successor to the *Mithridateion* and the theriac, which had been found by that method.¹¹ It would be fair to assume that his eagerness to find an antidote which would not only protect against venomous animals (*iobola thêria*), but also against many deadly drugs reflects the fact that

⁸Galen would probably not have denied this kind of consideration, for admiration of the doctor was in the interest of the patient, cf. *In Hipp. de officina* II,1 (XVIIIb,722f. K.): "For he will benefit men more if he is honoured and admired by them, and they therefore imitate even more what he does and obey his orders, like a god's precepts."

⁹For the latter see *De theriaca ad Pisonem* 8: "And I have observed frequently for myself in the great city of Alexandria the speed of the death caused by them [sc. snakes of the *ptyás*-family]. For whenever they want to kill someone, who has been sentenced to death under the law, in a humane (*φιλανθρώπως*) and quick manner, they throw the animal at his chest and make him walk about a bit, and thereby put the man to death fast" (XIV.237 K.). On the authenticity of this treatise see Nutton in *Dynamis* 15 (1995) 33ff.

¹⁰*Comp. med. sec. gen.* I,3 (XIII,374 K.).

¹¹For an exhaustive survey of Galen's writings on toxic substances and antidotes (and his predecessors) see Touwaide (1994).

the risk potential of many efficacious drugs did pose a problem for Galen's practice of at least equal importance to the treatment of snake bites and the like. Without immersion in the vicissitudes of historical pharmacology¹², it can safely be concluded that Galen did not shun the use of dangerous substances if the condition to be cured was sufficiently grave. His cancer therapy, for example, involved the highly toxic nightshade (*strychnos/ Solanum*).¹³

Whilst Galen would freely publish his knowledge about antidotes (cf. *De antidotis*), he regarded it as inappropriate to give details of the original poisons. This could not be avoided for simple poisonous substances, because their names had at least to be quoted, but the case was different for poisons which required a certain mixture to be effective:

"But enough has been said about the simple fatal substances (*thanasima*). Now we shall discuss the ones which are mixed. Yet it is evil, in my view, to communicate their recipes, even if many have endeavoured to write on these, like Orpheus¹⁴, called the Theologian, and Bolos¹⁵ of Mende the Younger, and Heliodorus of Athens, the tragic poet¹⁶, and Aratus¹⁷, and some other writers on these matters. Someone might admire these people because they endeavoured to write these treatises in metre; but he would rightly condemn them for the contents. For it rather amounts to instruction and support for those who want to get closer experience with these preparations for a wicked purpose. Now the authors of these beautiful poems shun the contempt of

¹²On which see Riddle (1992).

¹³Particularly for "ulcerated cancers", cf. *Meth.med. ad Glauc.* 2,12 (XI,143 K.), *De simp. fac.* 8,19 (XII,146). Already Celsus (5,26) had recommended this drug. Cf. John Riddle, "Ancient and Medieval Chemotherapy for Cancer". *Isis* 76 (1985) 319-330, p.325 (now in Riddle, *Quid pro quo*).

¹⁴Otto Kern, *Orphicorum fragmenta*, Berlin 1922, fr. 322 (from the *carmen* περὶ φυτῶν βοτάνων φαρμάκων).

¹⁵Kühn's *Oros* was corrected anonymously to Βῶλος in the copy of the Greifswald library, cf. Ernst Mass, *Aratea*, Berlin 1892, p. 226.

¹⁶See PW, s.v. *Heliodoros* 10 (Diehl).

¹⁷On Aratus' IATPIKA see Mass, *Aratea*, 223ff.

the masses and therefore try at the beginning of their account to convince the readers that they are not of an evil character [...]. But also the following argument fails: Knowledge of the recipes of such fatal poisons (*thanasima pharmaka*) is necessary to enable the competent to find quick help. For this is a lie. Whoever is capable of helping those who are harmed by a simple poison, checking every single involved substance in turn, would also be the ideal helper for those harmed by a mixed poison, carefully separating every single substance which contributes to the combination of symptoms (*symptomátôn epiplokén*)."¹⁸

For Galen, the case is clear: Information about antidotes can and should be provided, but only the names of the single poisons and their effects should be given. Experience with this kind of toxicology would be a sufficient basis for ascertaining which substances were part of a mixed poison and for applying the appropriate antidotes.¹⁹ Whoever wrote about the recipes for mixed poisons, ought to be blamed - there was, contrary to their claims, no need for this kind of information, and their protestations of innocence were blatant hypocrisy.

Galen's treatise on the simple pharmaceutical substances²⁰ provides parallel testimony of his reluctance to communicate details of dangerous substances which had no therapeutic value at all:

"First of all, even if I had sufficient experience with the so-called philtres, love charms, dream bringers and hatred charms, for I use the names employed by them (i.e. Xenocrates and Ateuristos) on purpose, I would not have published it in my written work. The same applies to the deadly substances (*thanasima pharmaka*) or disease bringers (*pathopoia*), as they call them."

¹⁸*De antidotis* II,7 (XIV,144-6 K.). Cf. the discussion of this passage in the fifth dialogue of Enrique Jorge Enríquez' *Retrato del perfecto medico*, Salamanca, 1595.

¹⁹Today one would perhaps be more sceptical about approaching toxicology in this purely cumulative manner. Often the whole is greater than the sum of its parts.

²⁰*Simp. med. temp. et fac.* X,1 (XII,251 ff. K.).

The examples he gives make clear that Galen is in this passage concerned with substances which fall outside the realm of medical therapy, but on which the doctor would still be the natural expert.²¹ Galen was evidently aware of the dangers of substances which would supposedly help to (re)gain the favours of one's beloved²², if only from his acquaintance with the classics, most famously Sophocles' *Trachinian women* (582ff.) and Antipho's *Against the stepmother, for poisoning* (φαρμακείας κατὰ τῆς μητρειᾶς: 1,1,9). The *hamartêma* of Deianeira had brought realization to the Greeks that to assume a clear cut distinction between κακαὶ τολμαί and φίλτρα was naive. Arguments like the one advanced in the stepmother's defence, on the other hand, viz that she had given the potion ἐπὶ φίλτροις, as a love charm, rather than a poison, ἐπὶ θανάτῳ, would have been impossible if one could assume a common knowledge of the dangers of these substances. Faced with this conundrum, Galen still decided in favour of the Sophoclean "κακὰς δὲ τόλμας μηδ' ἐπισταίμην ἐγώ":

"For their argument is ridiculous, that they would prevent the defendant in a [murder-]trial saying that he intended to induce an abortion or prevent conception and the like (251f.)."

Galen opposed this line of argument not only because of the perceived danger of the promulgation of knowledge about poisons in general, but also because of the specific risks associated with giving information on the basis of insufficient

²¹Cf. his remarks in *De purg. fac.* 4, following the account of the trial of the poisoner: σιωπᾶσθαι δ'εὐλογον αὐτὰ, καθάπερ τὰ ἄλλα δηλητήρια πρὸς ἀπάντων σιωπᾶται τῶν ἐχόντων νοῦν (XI,338 K.). I owe this reference to Professor Vivian Nutton of the Wellcome Institute, London.

²²Incidentally, the danger to the physician who administered it was substantial, too. For even when evil intent was excluded (*etsi id dolo non faciant*), the administration of *abortionis aut amatorium poculum* was punished as a *res mali exempli*, and accidental death of the patient even with capital punishment under the *lex Cornelia* (*Dig.* 48,19,38,5, cf. Mommsen, 1899, 636f.; Ebrard, 1926, 153f.). The punishment of the physician for involvement in abortion, perhaps first introduced for the special case of a divorced mother, remains enigmatic because there seems to be no reference to measures of this kind in the numerous discussions of abortion in Christian and pagan writers of later antiquity. The motivation for the punishment seems to have been the satisfaction of the deceived father (even incarceration of the pregnant wife was possible, *Dig.* 25,4,1 pr.) rather than the idea that a homicide of the foetus was involved (see Ulpian in *Dig.* 25,4,1,1: *fetus ... antequam edatur, mulieris portio est vel viscerum*), cf. Nardi (1980) 376ff.

evidence (the context is, after all, the discussion of the need for *πειρα*) and the ethical problems involved in testing poisonous substances:

"Yet for most of these substances it is impossible to gain evidence from experience, whereas in some cases it is possible, but harmful for the life of men. I therefore wonder what on earth could have induced anyone to *write* these things. For how did they think knowledge which is embarrassing for the living would gain them glory for the time after their death?"

The only way to collect sufficient evidence would be access to royal powers²³: "For if they were kings and could perform their experiments on criminals sentenced to death they would not have done anything grave (*οὐδὲν ἔπραξαν δεινόν*)." Still, Galen would not follow them, for not even sufficient experience (*πειρα ἱκανή*) could induce him to spread such dangerous knowledge.²⁴

By taking a firm stance on this issue, he was certainly trying to improve the reputation of his profession, which had been stained by numerous instances of doctors' involvement in poisoning, either by direct administration or by aiding and abetting.²⁵ Galen held a strong opinion about the moral status of exemplary evil - deeds are partly to be judged by their effects, and immoral acts committed privately are less grave than those which encourage others: "Now the people who *write* this kind of thing deserve not less, but rather more hatred than those who *do* it, as much as it is the smaller injustice to do evil on your own than to involve others" (253). Yet the situation would rarely arise,

²³Cf. *De ther. ad Pisonem*, XIV, 214f. K.

²⁴An understanding of Galen's attitude may be assisted by a survey of the relevant provisions of contemporary Roman law. Under the *lex Cornelia de sicariis et veneficis*, the administration, preparation or sale of poisons for the purpose of killing a third person is treated on a par with murder, cf. Cicero, *pro Cluentio* LIV (148): *venenum quicumque fecerit vendiderit emerit habuerit dederit*; *Dig.* 48,8, pr. and 1; *Dig.* 48,9,1-2 with reference to a doctor. Under the emperors the *lex Cornelia* was extended to encompass also the negligent offer to sell poisons (*Dig.* 48,8,3,3), cf. Mommsen (1899) 635ff., who regards these provisions as "gewerbepolizeiliche, in das Strafrecht übertragene Bestimmungen".

²⁵For a summary see Below (1953) 122ff.

because sound knowledge about poisons could not be obtained without violating basic morality:

"Yet they were private individuals and devoid of such powers when they set out to write this. Therefore, there are only two possibilities: They either write without personal experience on matters of which they are ignorant or, if they have conducted experiments, they are the most abominable of men, for they would have tried noxious drugs (ὀλέθρια φάρμακα) on innocent people, occasionally even on outstanding members of the community."

Galen was not equally adamant about the immorality of disgusting and unbecoming remedies in medical treatises:

"When [in the preceding books] it came to matters of which I did not have knowledge I did not write about them at all, because I did not think that others were to be trusted with knowledge of even one of them, for I had learnt that some people are habitually dishonest."

About disgusting recipes, however, he is prepared to write, albeit reluctantly, whilst denying any involvement of his own person. Some of the remedies prescribed by others

"are disgusting and brutal, others forbidden by the laws. I do not know how Xenocrates could write about the latter, a man born not long ago, but during the time of our grandfathers, when the Roman empire forbade the eating of men. He prescribes in a very trustworthy manner (ἀξιοπίστως πάνυ) as if he had first-hand experience of which diseases can be cured by eating the brain, flesh, or liver of a man, which with the bones of head, shinbone, or fingers, burnt or not burnt, and prepared to be drunk, and which with blood itself. Now these remedies might be against the laws, but they are not brutal. A potion of sweat, urine, or menstrual blood, however, is disgusting and brutal, and likewise excrements For it confers greater shame on a prudent man to be called "dung-eater" than "obscene" or "lewd fellow", and among the obscene we despise more those who follow the Phoenician way than those who follow the Lesbian women, who seem to me similar to those

who drink menstrual blood. ... There must be an enormous shortage of remedies for someone to treat chilblains by applying male sperm which did not stay inside, but flew out of the woman during intercourse. There is a lot of material of a similar sort in his writings on the usefulness of animals."²⁶

In this unique passage Galen seems to be less concerned with the consequences of publication - after all, the recipes are only moderately sophisticated - but more with the legality of the gathering of evidence for the efficacy of the drugs. Under the Roman empire, he confirms, any kind of cannibalistic therapy was illegal, and he therefore wonders how anyone could have experience of it. Harmful effects on the patient are considered in his classification of therapies as brutal (*ἀσεληγή*).²⁷ The brutality of a treatment is measured by the degree of embarrassment it causes, which is not a surprising criterion in an author who, for all his protestations of social independence, was deeply influenced by considerations of reputation and outward appearance.

Galen was not the first physician to express strong views on the attitude a physician should take towards poisons. Scribonius Largus said:

"What is harmful is not the knowledge of the names and forms of poisons, but that of the weight (i.e. the proportion of the components). A doctor must, indeed, neither enquire about nor know the latter unless he wishes to be rightly despised by gods and men and to violate the law of the profession. However, the forms and names must be known by him, so that he can avoid using them out of ignorance and instruct others likewise, for this is medicine's proper business. The other [sc. recipes of poisons] is the business of the most abominable pharmacist, who represents the exact opposite of medicine's virtue, as it is also observed in other crafts: For there is none which would not have another profession fighting against it under the disguise of similarity."²⁸

²⁶*De simplic. med. temperam.* X.1 (XII,248ff. K.).

²⁷Cf. Celsus' distinction between *crudelis* and *foeda* in *pr.* 44 (see above, 3.2.4.2).

²⁸*Compositiones* 199.

Scribonius had gone even further than Galen: The doctor should not even try to acquire any knowledge about the dosage of poisons, and so was effectively precluded from using potentially poisonous substances even in therapeutic doses. According to these principles, not only the use of *deleteria pharmaka*, but also that of the *thanasima*, i.e. the potentially harmful substances with a place in medical therapy, would be banned, which would make pharmacotherapy almost impossible. Scribonius' recommendation of the use of opium, however, shows that he was perhaps not as strict in his daily practice as in his ethical diatribe. Scribonius' attitude might have been influenced by his proximity to the imperial Court. Galen's association with the Court was even closer, albeit during one of the few tranquil times when poison was not the staple of the imperial family.

Like Scribonius, Galen was motivated to pronounce strict rules for the use and publication of dangerous substances by the basic tenet of Hippocratic medical ethics "endeavour with regard to the diseases to do good, not harm."²⁹ Galen discusses this at large in his commentary on the first book of the *Epidemics* (see above, chapter 1).³⁰ In this commentary and in related passages from his pharmacological writings we found a clear cut separation between harm and benefit. This might reflect Galen's pronounced therapeutic optimism. It has to be remembered, however, that this conviction did not lead him to the *avoidance* of daring operations or therapies that the patient would find unpleasant. Indeed, professional timidity was another object of his frequent criticism.

5.2 Galen on the dangers and limits of medical treatment

Regardless of the fact that Galen allowed for little if any criticism of his own practice, there is considerable evidence for Galen's preoccupation with the side effects of treatment and the avoidance of dangerous therapies, but also the

²⁹*Epidemics* 1,11 (II,634f. L.).

³⁰*In Hipp. Ep. I comment.* II,50 (XVIIa,148f.).

instances where certain risks had to be taken.³¹ Galen acknowledged that the art of medicine is rarely law-like and fully predictable, but commonly "stochastic", which warrants doubts about the eventual outcome.³²

Galen was aware, for instance, of the dangers of venesection (see *Meth. med.* IX,10; X,637 K.)³³. In his opinion this procedure ought to be applied until the patient faints, but at the right time, and appropriately measured, otherwise much harm would be done - "for I have seen two men die in the very arms of the doctors, fainting, but then not recovering." If death does not occur instantly there is also long-term harm (ἐκ τῆς ἀμέτρου κενώσεως βλάβη), such as death at a later stage, chronic illness, or an irreversible cold temperament. Similarly, Galen advocated caution with drugs and surgical procedures which could have unpleasant side effects. He even

³¹This necessity was generally recognized by Roman authors, see Apuleius, *Apologia* 40 (*nihil enim, quod salutis ferendae gratia fit, criminis est*), and the legal provisions, according to which fatal outcome of the treatment could only be imputed to the doctor if he had acted *per imperitiam* (*Dig.* 1,18,6,7), cf. Below (1953) 111ff. The latter, however, could be punished severely, see Paulus, *Sent.* 5,23,19 about cases of death from a medicine which had been given *ad salutem hominis vel ad remedium*, i.e. with best intent - the negligent doctor will be exiled or put to death, according to his social status (*is qui dederit, si honestior sit, in insulam relegatur, humilior autem capite punitur*).

³²Cf. *In Hipp. de officina* II,5 (XVIIIb, 737f.) on ἀμφιβολία and the στοχαστικόν in medicine. For a comparison of Alexander of Aphrodisias' and Galen's view on the stochastic nature of medicine see Katerina Ierodiakonou, "Alexander of Aphrodisias on medicine as a stochastic art", in van der Eijk et al. (1995) 473-485. Both authors attempted to "produce a theoretical context which on the one hand explains any possible failure in the medical practice and on the other retains the status of medicine firmly grounded among the arts" (485). The idea that absolute rules (*kathestêkos sophisma*) for medical practice do not exist can be traced back to the Hippocratic author of the *Loci in homine* (VI,330 L.) and can likewise be found in Celsus, *prooem.* 63 (*vix ulla perpetua praecepta medicinalis ars recipit*). Celsus, probably following a Hellenistic discussion, counted medicine as a *technê stochastikê*: *Est enim haec ars coniecturalis neque respondit ei plerumque non solum coniectura sed etiam experientia, et interdum non febris, non cibus, non somnus subsequitur sicut assuevit* (*ibid.* 48). On the status of the *artes coniecturales* see the (admittedly partisan) discussion in Cicero, *De divinatione* I,24 (the indisputable fact that the predictions of *divinatio* are often not fulfilled, does not prevent its being regarded as an art, like the other arts which rely on *coniectura*, such as medicine, navigation, generalship, and government), cf. *De natura deorum* II,4,12. However, the company in which medicine found itself here could also lead to the opposite conclusion. The Megapatagonians, the Utopian people in Restif de la Bretonne's *La Découverte australe* (Paris, Bibliothèque des Utopies, 1977, p.235), had medicine banned: ... *cette science dangereuse & conjecturale est bannie de chez nous, comme la magie & la superstition: les Médecins ne doivent être nécessaires que chez les nations vicieuses* [cf. Seneca, *ep.* 95], *qui ont besoin d'être endormies sur leur excès*.

³³See also e.g. *De venae sect. adv. Erasistratum* 7 (XI,170ff. K.).

pronounces a list of contraindications for a certain remedy, wine mixed with cold water, which was of use in the treatment of the effects of phlebotomy, but had to be avoided in a number of cases: "One has to make sure that nothing hinders (κωλύη) this administration, such as inflamed intestines, or a severe headache, or a πάθος παρακρουστικόν, or a burning fever in an unconcocted disease. For in these cases, drinking of wine is followed by severe and almost untreatable harm (βλάβαι)."³⁴

In surgery, similar difficulties arise. There is always the danger of injuries to muscles, nerves, tendons, or vessels, with ensuing long term damage, such as impairment of the movement of a limb, or even instant death from haemorrhage. This danger can often only be avoided by a restriction of the scope of treatment, as Galen explained in *Methodus medendi* III,9 (X,220) for the case of a cramp:

"For with a transverse cut through the muscle you would indeed cure the cramp, but you would deprive someone of the movements of the limb. Similarly, in the case of a bleeding vein or artery, the doctor who makes a transverse cut through the vessel, will no more be able to heal the ulceration; he has rather caused the additional danger from haemorrhage."

³⁴*Meth. med. ad Glaucum* I,15; XI,51f. K.

To avoid this kind of danger only the ulceration, not any corresponding exarticulation³⁵, is to be treated³⁶, following what Galen calls the "scope of urgency" (κατεπεΐγοντος σκοπός), and avoiding iatrogenic injuries.³⁷

Yet the various risks involved must not prevent the physician from using efficient remedies - after all, proper dosage will generally be sufficient to prevent dangers, whilst it would be as silly to refrain from using drugs and other therapies as to stop eating because the right measure is difficult to obtain:

"However, no physician refrains from administering drugs for fear of side effects (εὐλαβεία τῶν ἐπιγιγνομένων συμπτωμάτων), but if he fails now he will plan not to do it in this way any more."³⁸

Thus, the use of potentially dangerous medical procedures is vindicated by the attention to the right measure and avoidance of ὑπερβολή: In pharmacotherapy, the main problem will normally be overdosing, and no harm (βλάβη) will be done by the ἐπί τούλαττον ἀμαρτία³⁹. However, when other procedures, such as phlebotomy, are concerned, both ways of missing the mark are harmful: ἄμφω τοῦ μέτρου αἱ διαμαρτίαι μεγάλα βλάπτουσιν.⁴⁰ The aim to avoid

³⁵On the dangers of setting dislocations see Hippocrates, *De articulationibus* 63-66 (IV,268ff. L.): μὴ ἐμβάλλειν, ἀλλ' ἔῃν τὸν βουλόμενον τῶν ἰητρῶν ἐμβάλλειν. Σαφέως γὰρ εἰδέναι χρῆ, ὅτι ἀποθανεῖται, ᾧ ἂν ἐμβληθέντα ἐμμεῖνη, καὶ ἡ ζωὴ δὲ ὀλιγήμερος τουτέοισι γενήσεται. See also the remarkable passage on dislocations of the femur or humerus with perforation of the articular capsule in *De fracturis* 35f. The dangers which arise from bleeding are such that these cases are best avoided, if an honourable way to do so (καλὴ ἀποφυγή) can be found. "For the hopes are few and the dangers are many. If the doctor does not set the limb he will appear to be *atechnos*, but otherwise he may promote the death rather than the cure of the patient" (III,540 L.). Cf. von Staden (1990) 104: "When the perfectly feasible cure of a particular disorder would entail the death of the body as a whole, non-intervention therefore is the healer's only acceptable response."

³⁶This more conservative treatment, not attacking the exarticulation, has to allow for future impairment of gait, cf. *De usu partium* XVII,2 (IV,364 K.).

³⁷*Ibid.* 219f.: Three principles govern the treatment of ulcerations: 1) what promotes healing, 2) what else is required, 3) what is urgent (πρὸς τὸ κατεπεΐγον). Cf. *In Hipp. de fract.* 1,44 (XVIIIb, 403): "For the doctor must always act according to urgency rather than regarding the precepts which apply to the regular progress of matters as an inviolable law (νόμος ἀπαράβατος)."

³⁸*De venae sect. adv. Erasistratum* 7; XI,173f. K.

³⁹*De comp. med. sec. gen.* 1,2; XII,390.

⁴⁰*De venae sect. adv. Erasistratum* 7; XI, 170ff.

iatrogenic complications and approaches which will prove to be futile dictates the general pattern of surgical and drug therapy. Tumours which arise *contra naturam* (παρὰ φύσιν), for instance, are treated in the following way: If the lesion is circumscribed like a calculus in the bladder or a mole in the uterus, the treatment of choice is the excision of the lesion. However, if that is impossible (ὅταν ἀνίατον ᾖ), an excision of the affected part is required, as in cancer and untreatable ulcerations (ἀθεράπευτα ἔλκη).⁴¹

A similar sequence, leading to the more radical treatment, is recommended for pharmacotherapy (990). Its first aim is the restoration of the affected part to the natural state by the use of *pharmaka*. If this proves to be impossible (διὰ τὴν τοῦ μορίου φύσιν ἢ καὶ τὸ τοῦ πάθους ἀνίατον ἐκπυῆσαι καὶ διασῆψαι), the wholesale removal of the part by either surgery⁴² or caustic *pharmaka* is required, as in the case of the uvula.⁴³ An interesting application of these principles from *De compositione medicamentorum secundum genera* VI,2 (XIII,866 K.) concerns the treatment of leprosy.⁴⁴ Areas of the skin affected with the full-blown disease (τὸ ἤδη λεπρῶδες) cannot be treated, and therefore the second course has to be pursued, viz excision of the incurable area, by iron, fire, or caustic, dissolving, or detergent drugs.

In his writings on surgery and drug therapy Galen occupied himself with the avoidance of harmful side effects and unnecessary or inappropriate treatment. However, if a condition is incurable (ἀνίατον) this need not be the end of medical activity. For Galen, incurability is, after all, a relative

⁴¹*Meth. med* XIV,13 (X,986f. K.).

⁴²On the surgical removal of the uvula and the *staphylocaustēr* in particular see Ralph Jackson, "Staphylagria, Staphylocaustes, Uvulectomy and Haemorrhoidectomy: the Roman Instruments and Operations", in Krug (1992) 167-86.

⁴³Cf. the famous last Hippocratic aphorism: Ὅκῳσα φάρμακα οὐκ ἰῆται, σίδηρος ἰῆται· ὅσα σίδηρος οὐκ ἰῆται, πῦρ ἰῆται· ὅσα δὲ πῦρ οὐκ ἰῆται, ταῦτα χρῆ νομίζειν ἀνίατα (*Aph.* VII,87; IV,608 L.).

⁴⁴On ancient leprosy see Grmek (1989) 152ff.

concept.⁴⁵ One might have to leave one particular problem alone and concentrate on other aspects of the patient's condition, as in the example of exarticulation combined with exulceration. The alternative option is the radical approach: Excision of the limb or part affected, which cannot properly be called a cure.⁴⁶

Radical measures for otherwise untreatable conditions can also be the first step on the way to full recovery. It is for the diligent physician to recognize when a certain risk may, indeed must be taken (*Methodus medendi* X,10; X,718 ff.):

"Now to the same extent that "to do something and then endure the consequences" (δράσαντάς τι καὶ κινδυνεῦσαι)⁴⁷ with reasonable hope is better than a certain death without any hope, it is better to fight against [the disease] with strong remedies than to do nothing."

5.3 Galen on hopeless cases

Interestingly, Galen seems to have thought that the conditions amenable to standard pharmacotherapy far outnumbered those which were not, as can be seen from *De marcore* 6 (VII,688): Most diseases require ἐναντία τῷ πάθει βοηθήματα⁴⁸, and the greatest number of these are without any risk, some are

⁴⁵*Ars medica* 30 (I,387 K.): A fracture is ἀνίατος with respect to the first possible result, viz the growing together of the parts (σύμφυσις), but not with respect to the second, healing via the formation of callus. On the other hand, Galen does *not* seem to adopt the gradational scheme of incurability used in many Hippocratic writings (on which see von Staden, *op.cit.*, 77ff.).

⁴⁶Cf. *De atra bile* 5 (V,122): "But I have said before that all ulcerations which are caused by black bile are incurable, unless someone wanted to name the excision of the whole affected part with a circular cut *in sano* a cure (ἴασις)."

⁴⁷For this interpretation of δράσαντάς τι καὶ κινδυνεῦσαι see Classen/ Steup *ad* Thucydides I,20,2 (Harmodios and Aristogeiton).

⁴⁸This resounds the famous Hippocratic *contraria contrariis*, cf. *De ventis* 1 (VI,92 L.): εἰ γὰρ τις εἶδη τὴν αἰτίην τοῦ νοσήματος, οἷος τ' ἂν εἴη προσφέρειν τὰ συμφέροντα τῷ σώματι, ἐκ τῶν ἐναντίων ἐπιστάμενος τὰ βοηθήματα. [...] Ἐνὶ δὲ συντόμῳ λόγῳ, τὰ ἐναντία τῶν ἐναντίων ἐστὶν ἰήματα.

dangerous (κινδυνώδη), and only a few are incurable. Yet even for diseases which are altogether incurable, Galen would at times recommend some treatment, as for the form of marasmus which is ἀνίατος ὡσπερ γε καὶ τὸ γῆρας where warmth ought to be applied.⁴⁹ This kind of therapeutic maximalism is also encountered in the work of Rufus of Ephesus. The phlebotomy of the *phrenitikos* was vindicated by its successful outcome. One might, however, consider other motives for therapy in incurable cases in addition to the hope that the disease may not, after all, be as incurable as indicated by experience⁵⁰, such as the palliative aspect (warmth) or the request by the patient or relatives (as in the case reported by Rufus)⁵¹ to leave nothing untried.⁵²

However, Galen's approach to incurable cases was rather differentiated, and he would by no means always recommend treatment, at least not beyond the requirements of palliation. One of the problematic aspects of serious attempts at pharmacotherapy of hitherto incurable diseases is that it shatters the universal trust in the remedies commonly used in medical practice, as recognized by Galen in a passage on hopeless cases of putrefaction (σηπεδῶν) of the whole body.⁵³

"But if there are no signs of concoction, and he does not seem to have strong faculties, it is impossible to save him. Therefore you will not bathe him, nor anoint him with loosening drugs, nor give him wine nor apply cold. For in cases without hope for rescue it would be foolish to

⁴⁹*De marcore* 6; VII,688 K. On Galen's work on the wasting of the body see Theoharides (1971).

⁵⁰On the link between incurability and experience see *De usu partium* VII,7 (Helmreich vol. I, pp.387ff). Affections (abscesses or tumors) involving the tracheal cartilages are ἀνίατα or δεινῶς δυσίατα "as you can learn from the doctors unless you are yourself a practitioner of the art of medicine, for in this case you would not need them for this knowledge because you would have been taught by experience before."

⁵¹Galen, too, would consult with the relatives before applying risky or unconventional therapies, see *De consuetudinibus* 1 (*Scripta minora* II,12).

⁵²On these three motives for intervention in supposedly incurable cases - slight hope for a cure, palliation, social pressure - in the Hippocratic Corpus see von Staden (1990) 107-9.

⁵³*Meth. med.* XI,9; X,760f. K.

use remedies which are beneficial for many others, so giving those remedies a bad reputation with the laymen. Now I know a number of amethodological physicians who imitated our administrations and used the same remedies on patients who were going to die anyway. They did not succeed and had the effect that people are suspicious and fearful even about the appropriate use of those remedies. We do prescribe remedies, and times at which they have to be applied for those who can be saved, but there is no appropriate time or remedy for the incurable among the patients."

Thus, Galen recommends that physicians refrain from ineffective administrations of standard remedies, not so much for the patient's sake as for that of the art of medicine, which depends on popular acceptance.⁵⁴ The practitioner's reputation also depends upon the correct assessment of prognoses, and this is another reason why the physician should not pretend to be capable of treating hopeless cases:

"But when he gets an inflammation [sc. of stomach and liver] the patient will be a hopeless case (ἀνέλπιστος), his body full of raw juices, and his pulse changed in the said way. For patients of this kind you can predict death without exposing yourself to criticism, and refrain from using a genuine remedy (μηδενὶ βοηθήματι γενναίῳ χρώμενος). But in the cases with hope for a cure, and this applies to all these patients as long as they are without inflammation, it would seem to me the most wicked thing, if we have treated them from the beginning, to cause the patient to faint. However, this does happen every day because of the ignorance of the physicians."⁵⁵

Galen was clearly aware of the risks of medicine, of the possibility that situations might arise where the long term benefit of the patient required measures which temporarily seemed harmful, of the many side effects, which

⁵⁴Cf. *In Hipp. de officina* II,1 (XVIIIb,722f. K.). To be sure, this issue looked different from the perspective of the patient, cf. Seneca's assessment of the *medicus amicus*: *Pro me, non pro fama artis extimuit* (*De beneficiis* 6,16,4).

⁵⁵*Meth. med.* XII,3 (X,825).

the prescriptions and administrations of less experienced physicians entailed, and of the need to cope with incurable patients and with requests made by the family to continue some kind of treatment. He was concerned with how to avoid iatrogenic complications, and how to preserve the reputation of the physician and his art at the level required for any rewarding medical practice. In all of these considerations concerning the dangers and limitations of treatment, he followed firmly in the Hippocratic tradition.⁵⁶

⁵⁶See, for the issues of faulty and dangerous treatments and incurability in the Hippocratic Corpus, von Staden (1990).

Chapter 6

Medicine and morality in Galen

In the course of surveying Galen's attitude towards ethics, his moral psychology, his recommendations for the behaviour of physicians and patients, and his guidelines for deciding difficult questions which arise in medical practice, a number of passages have been analysed which illuminate the relationship between morality and medicine, or more specifically between morality and medical practice. Did the Pergamenian's medical experience, or the specific problems of his practice influence his understanding of morality? Conversely, did moral considerations influence his decision-making in day-to-day practice?

Behind these questions lies another: Can any axiology, any system of values, be discovered in Galen, and if so, what position does medicine occupy in it? At stake is not merely the value of medicine as an art and its reputation, but more fundamentally the sanctity of human life. To what extent did Galen attribute a moral value or an epanagogic function to medicine as a *techne*, which might rule out immoral behaviour on the part of properly trained physicians? For the possibility of an incompetent, but morally good doctor, the *vir bonus absque doctrina*, allegedly preferred by Erasistratus over his competent (*artifex perfectus*) but immoral (*improbus*) colleague¹, is ruled out by Galen's methodological nexus between ethics and medicine - the incompetent doctor, who by definition lacks proper understanding of the medical method, must also be unable to grasp, let alone apply, the method of ethics (see above, chapter 2).

Yet the distinction between moral knowledge and its application

¹Cf. Ps.-Soranus, *Introductio ad medicinam (Anecdota graeca et graecolatina)*, ed. V. Rose, II 244, 16ff.): *Iuxta enim Erasitratum felicissimum quidem est ubi utraeque res fuerint, uti et in arte sit perfectus et moribus sit optimus. Si autem unum de duobus defuerit, melius est virum esse bonum absque doctrina quam artificem perfectum mores habentem malos et improbum esse. Modesti siquidem mores quod in arte deest honestate repensare videntur, culpa autem morum artem perfectam corrumpere atque improbare potest.* Cf. the discussions in Edelstein (1967) 334 and Gourevitch (1984) 268.

remains. Could the methodologically trained physician with his sound *knowledge* of ethics and medicine still execute wrongful acts? Surely, Galen would exclude this brand of the *artifex perfectus mores habens malos* from the profession by virtue of his lack of morality, even if he did not lack technical competence. There is no evidence that he subscribed to the stronger claim that the good operates compulsively on all who comprehend it to the extent of rendering mistakes impossible. His extended discussion of *akrasia* (see above, 3.1) recognised the real possibility of moral and technical errors in practice, even for the most knowledgeable. Thus whilst, for Galen, no incompetent physician could qualify for a high standard of morality (the morality of medical treatment being judged by the outcome), he could not exclude that an *artifex perfectus* was led astray by *akrasia* or *akolasia*.

6.1 The value of human life and the status of medicine

6.1.1 Human life and health

Ancient authors frequently followed Herophilus' definition of medicine as "knowledge of the healthy, the ill, and the things in between"² and divided medicine into restoration and preservation of health.³ Medicine was thus clearly intended to prolong life. But was this purpose primary? Where did the value of life and health sit in the hierarchy of values governing the practice of medicine in Galen's era?

Galen clearly did not share the existential pessimism of an earlier age - not to be born at all (μη φῦναι) was by no means the best which could happen to a man, nor was it "by far the second best" (πολὺ δεύτερον)⁴ to "get

²ἐπιστήμη ὑγιεινῶν καὶ νοσῶδων καὶ οὐδετέρων: Test. 42 von Staden = Ps. Galenus, *Introductio* 6 (XIV, 688 K.).

³Cf. Galen, *De partibus artis medicativae* (ed. Lyons, CMG Suppl. Or. II), c.5.

⁴Sophocles, *Oedipus Coloneus* 1225ff., cf. Jebb *a.l.* A similar attitude is expressed in Euripides fr. 449 Nauck (2nd ed.) with reference to the κακά and πόννοι of life. This is quoted disapprovingly by Aelius Aristides (*De quattuor*; II,264 Dindorf) with respect to the gratitude we owe to our parents, and even more to the great heroes of the fatherland.

past the doors of Hades as quickly as possible".⁵ The medical attitude, likely to have reflected the attitude of most ancient Greeks⁶ and Romans, was that death should be deferred - ἀνάβλησις θανάτου.⁷ Galen furnished a theoretical foundation for this essentially pragmatic attitude of his profession: Life (τὸ ζῆν) is the ἀρετή⁸ of man, as much as cutting is that of a knife.⁹ There are, so to speak, three possible states of the knife: the fully functioning instrument

⁵Theognis 425ff. The view expressed in these elegiac lines was criticized by Epicurus in the *epistula moralis* to Menoecus, see Diogenes Laertius X,126f., who argued that nobody was forced to stay alive - *aut bibat aut abeat* (cf. Cicero, *Tusc. Disp.* V,41,118). The wise man of Epicurus does not take offence at having to live, but he does not shun death either. The aim to have not the longest (μῆκιστον), but the most enjoyable (ἡδιστον) life does not lead to any endorsement of suicide. Epicurus regarded suicide as the reproachable act of men too weak to live up to their responsibility, viz to reduce their needs in order to enjoy life even in supposedly difficult circumstances - *malum est in necessitate vivere, sed in necessitate vivere necessitas nulla est* (Seneca, *ep.*12,10), cf. D.L. X,131f. Already Plato had, on theological grounds, rejected suicide as a means to accelerate the liberation of the soul from the body, following man's desire for death, the better lot, see *Phaedo* 61e-62c. The only justifications are legal obligation, "a painful and inevitable misfortune", or utter disgrace (αἰσχύνη τις ἄπορος καὶ ἄβιος, *Leges* IX,873c), echoed in Calderon's famous line *que vida infame no es vida* (*La vida es sueno*, 910). Aristotle followed on these lines, stating that suicide entailed injustice against the πόλις (NE V,11). While the Cynics did not apply any restrictions to suicide, the Stoics would allow it only in exceptional cases similar to Plato's catalogue (D.L. VII,130), and even prescribed it for certain situations (cf. Plutarch, *Mor.* 1042d). The Stoic Euphrates obtained permission from the emperor Hadrian "to drink hemlock in consideration of his extreme age and his malady" (Cassius Dio 69,8, tr. Cary, Loeb ed.).

⁶This was the view expressed by the Euripidean *Alcestis* (301): "For nothing is to be honoured more than life" (ψυχῆς γὰρ οὐδὲν ἐστὶ τιμιώτερον), cf. line 620.

⁷Callimachus, *in Apollinem* 46. A third attitude can be distinguished, namely therapeutic fatalism, which - without implying any judgement of the value of health and life - simply opined that whatever the disease, medical intervention will not change a thing: *Si fatum tibi est ex hoc morbo convallescere, sive tu medicum adhibueris sive non adhibueris, convallesces; item, si fatum tibi est ex hoc morbo non convallescere, sive tu medicum adhibueris sive non adhibueris, non convallesces; et alterutrum fatum est; medicum ergo adhibere nihil attinet* (Cicero, *De fato* 28f.). This reliance on what Leibniz was to call *fatum Mahometanum* meets with Cicero's contempt because it would lead to complete inactivity. The *fatum Stoicum*, on the other hand, was intended to avoid this argument of the *argos logos*, cf. *ibid.* 30: *tam enim est fatale medicum adhibere quam convallescere. haec ... confatalia ille [sc. Chrysippus] appellat.*

⁸For Galen's acceptance of the traditional definition of ἀρετή see *De placitis* VII,1,24 (V,593 K.): "Now virtue, they say, is the best condition, or the perfection of the nature of each thing." (Tr. De Lacy). Cf., for references to older authors, De Lacy *a.l.* The prominent position of ζῶν in Galen's axiology is easily compatible with his commitment to the ὁμοίωσις δεῶν (see above, 3.1.1.3). For already Aristotle had availed himself of the terminology of organic life to describe the perfection of the deity - the ζῶν ἀρίστη of the νόησις νοήσεως (*Metaphysics* Λ7, cf. Linden [1993] 35).

⁹*De soph.* 2 (XIV,586 K.).

everyone would regard as a proper knife, the blunt version, which can, however, be sharpened again on a grindstone, and the knife which has been broken beyond repair. Thus, applied to humans, there are the state of normal physiology, the proper condition of man, the diseased state, which can be turned into the first one by the competent craftsman, in this case with the cooperation of the object of his repair work, and the irreversible state of non-existence as a human individual commonly called death.¹⁰ Man's *arete* therefore coincides with his health, and the physician who exhausts himself in the service rendered to his patients could say with Horace: ... *fungar vice cotis acutum/ reddere quae ferrum valet, exsors ipsa secandi* (*Ep. ad Pisones*, 304f.) - "I'll labour gratis as a grinder's wheel/ And, blunt myself, give edge to others' steel."¹¹

Galen's definition of the *arete* of man is all the more surprising, as the introduction of qualifications and distinctions to the objective called "life" had been one of the great concerns of both Classical and Hellenistic Greek philosophy. For Plato, the accomplishment of man is measured by the perfection of his soul. The specific activity of the soul, the *ergon* which can only or best be achieved by it, comprises life, but also guidance (*ἄρχειν*) and deliberation (*βουλευέσθαι*). This is fulfilled through the joint operation of the *aretai* of the soul, wisdom as the proper virtue of the rational part, courage, which employs the *thymoeides* towards higher goals, temperance, the control of the *epithymetikon*, and, finally, justice, which relies on the contribution of all the parts of the soul.¹² Life lived according to this *arete* is not only best, but also most blessed and happiest (*Politeia* I, 353f.). The link between *arete* and the blessed life - *eudaimonia* - also features prominently in Aristotle's Nicomachean Ethics (X,7): *Eudaimonia* is defined as the activity (*ἐνέργεια*)

¹⁰Galen could not know about the possible fourth state, namely the persistent vegetative state. In this state, the basic physiological functions are preserved, but beyond this no activity is discernible.

¹¹Byron, *Hints from Horace*.

¹²Cf. Irwin (1995) 223ff.

which is in accordance with the virtue of the intellect (νοῦς) or whatever else guides man and has knowledge of the *kala* and *theia*. This *energeia* is contemplation - the moral virtues (X,8) follow second, so far as their contribution to *eudaimonia* is concerned.¹³ They govern human relations, and are therefore not divine, but purely human. Whereas contemplation is the perfect¹⁴ state of the soul and the *arete* of the immaterial side of man, the moral virtues pertain to his composite nature (as the *tou synthetou aretai*).¹⁵

Qualifications were also added to the simple τὸ ζῆν by the Hellenistic schools, notably the Stoics who took the view that it was the approach to life (and, indeed, death) that mattered, not life as such - *Non est res magna vivere: omnes servi tui vivunt, omnia animalia: magnum est honeste mori, prudenter, fortiter*.¹⁶ Thus Zeno had introduced the goal of ὁμολογουμένως ζῆν¹⁷, specified by Cleanthes as ὁμολογουμένως τῆ φύσει ζῆν (Stobaeus II,75,11f.), which was equated with τὸ καλῶς ζῆν, τὸ εὖ ζῆν, and κατ'ἀρετὴν ζῆν (*ibid.* II,77,16ff.). Then it had to be explained what the ἀρετὴ toward which Nature would lead (see Diogenes Laertius VII,87) actually was. The Stoics were therefore compelled to create rules governing appropriate human behaviour¹⁸, which would make morality compatible with the providential organization of all

¹³The nature of this hierarchy itself has been much disputed ever since Hardie (cf. his *Aristotle's Ethical Theory*, pp. 22ff.) introduced the distinction between an "inclusive" approach to happiness, and an "exclusive" or "dominant" one which relied on a single supreme activity. For a recent survey see e.g. Kenny (1992) 6 ff.

¹⁴On Aristotle's understanding of perfection and its relationship to happiness see Kenny, *op.cit.*, 16-22.

¹⁵*EN* X,8 (1178 a 20ff., tr. Rackham, Loeb edition): "But these [sc. the moral virtues] being also connected with the passions are related to our composite nature; now the virtues of our composite nature are purely human; so therefore also is the life that manifests these virtues, and the happiness that belongs to it. Whereas the happiness that belongs to the intellect is separate (...) And such happiness would appear to need but little external equipment, or less than the happiness based on moral virtue."

¹⁶Seneca, *ep.* 77,6.

¹⁷Zeno's position allowed for both interpretations of "living accordingly", i.e. "living consistently" and the Cleanthean "living in accordance with nature".

¹⁸The *praecepta officii*, cf. Cicero, *De officiis* II,14,51ff., and I,35,126ff. on the rules for *decorum*.

things. Yet the *praecepta officii* did not amount to a *system* of ethical rule, for they rather had a paraenetic function and did not purport to capture the *essence* of Stoic morality. There are even fewer concrete rules in Aristotle's and Galen's ethical writings, which followed the general pattern of Ancient ethics and tended to articulate principles or standards rather than specific prescriptions for particular situations.¹⁹

Galen, at least in his later writings, does not seem to base his assessment of the value and the accomplishment of a man's life on the extraordinary position of his soul. For the period concerned, i.e. as long as a man is alive, the soul is inseparable from the body, and the question of its immortality is purely speculative²⁰ and therefore insubstantial in this context. This view is confirmed by the summary of chapter 15 of *De propriis placitis*, given by Nutton:

"As for the soul, all it is essential to know is that, if it makes its home within the body, it must be in some way a slave to the body, and, similarly, that since the soul does not depart before the body loses its proper elemental mixture, the question of the nature of the soul and its hypothetical immortality has nothing to do either with healing, with the preservation of health, or even with moral and political philosophy."²¹

A passage on the teleological structure of animal nature from *De usu partium* provides further insight into Galen's assessment of the value of human life:

"When there seems to be so much art applied to minor animals (τὰ τυχόντα τῶν ζώων) by the creator, rather incidentally as one might

¹⁹Cf. Hardie (1980) 129ff. on the concept of virtue as a *meson*, especially 142f. on the approximate nature of ethical knowledge. See also Anagnostopoulos (1994).

²⁰ "... I have not come upon anybody who geometrically demonstrated whether it (sc. the soul) is altogether incorporeal, or whether any [species] is corporeal, or whether it is completely everlasting, or perishable." (*De foetuum formatione* 6; IV, 701f. K.). Cf. *Quod animi mores* 3; IV, 776.

²¹Nutton (1987) 44.

think, how great must his wisdom and power concerning those worthy of it (ἐν τοῖς ἀξιολόγοις) be assumed?"²²

Man's more sophisticated anatomy and physiology seems to provide the foundation for his place in the hierarchy of nature, rather than the functions of his soul, which ultimately depended, at least for the late Galen, upon man's physiological state.

6.1.2 The value of health

From his commentary on the Hippocratic Oath²³ it can be seen that Galen attributed an extraordinary value to health:

"Are not all the good things, such as wealth, children, or royal authority ... something auxiliary and enjoyable only by virtue of health which is the benefactor worthy of the name? For health is the highest degree of good, not something good in the second degree, as some philosophers, known as Peripatetics and Stoics, have thought. For all the other virtues that are of paramount concern to human beings during their whole life derive their nobility from health."²⁴

Galen contended to show that all the virtues, including justice, require health for their pursuit. However, his statement that health is also the ultimate aim of human action is not a necessary corollary. For the latter assertion, Galen had to change the traditional order of priority between body and soul as, indeed, he did in his late works (see above). Galen would not accept the theory that health is "something good in the second degree." This had in fact been the view of the Peripatetics²⁵, and one commonly ascribed to the Stoics by philosophers, such

²²Cf. *De usu partium* XVII,1 (IV,362 K.).

²³Rosenthal (1952) 74f.

²⁴Cf. Quintilian, *Declam.* 268,23: *Removeam medicinam: tu, philosophe, consolaberis?*

²⁵For the Peripatetic debate on the hierarchy of goods and their contribution to happiness see Moraux, *Aristotelismus* II, 644ff. Aristoteles himself had qualified the popular view (cf. *Rhet.*, 1394 b 13) that "health is best" (cf. EE I,1, 1214 a).

as Carneades²⁶, who did not see more than a terminological difference (*controversia ... nominum*) between the interpretation of health as "good in the second degree" and "indifferent" (the Stoic *adiaphoron*²⁷). Galen avoids the reference to the Platonist view of health, which would have been equally pertinent in this context. For Plato had regarded health as the first of the lesser (human or bodily) goods (followed by beauty, strength and wealth), while the greater (divine or psychic) goods are comprised by wisdom, temperance, justice and courage (Laws 631c, cf. 697b). The divine goods rule over the human goods and are themselves guided by reason (631d). Plato did, however, hint at some interdependence between human and divine goods: "And the human goods are dependent on the divine, and he who receives the greater acquires also the less, or else he is bereft of both" (tr. Bury). This seems to mean that unless someone used the virtues of his soul for the acquisition of, for instance, health, he would be in danger of losing the former, too, which at first sight looks surprisingly close to Galen's position. Plato may have thought that, *ceteris paribus*, it was desirable to obtain health and the other human goods. He

²⁶Cf. Cato's defence of the view that the Peripatetic and Stoic doctrines of goods and happiness differed substantially in Cicero's *De finibus*, III, 41ff.

²⁷It was the Stoic view that nothing one can lose could be an *agathon*. For then the good life would depend on external circumstances, and the ideal of *ἀλυπία* would be unattainable. Yet there is another reason why health, wealth, and pleasure do not qualify, namely that they can effect both benefit and harm, while an *agathon* by its very definition (cf. Sextus Empiricus, *Adv. math.* XI,22) would only confer benefit (ὠφελεισθαί). However, according to Chrysippus and others, they are to be preferred (προηγμένα) over their opposites because they comply better with the providential organisation of the world. This distinction between *prohegmena* and *agatha* was rejected by Aristo (SVF I,fg.361). Posidonius, on the other hand, counted them among the goods (D.L. VII, 102f.), but he might have preserved the original Stoic doctrine insofar as "they were not regarded as *agatha* in relation to the *telos*" (Kidd, "Stoic Intermediates and the End for Man" in Long, 1991, 150-72, p.163). See SVF III, fgg. 124 and 127-139 (on the *prohegmena*). Galen was familiar with this Stoic debate. He held the view that Chrysippus contradicted himself in his response to Aristo (cf. also Plutarch, *De Stoicorum repugnantiis* 7, *Mor.* 1034 D), and that it was indeed impossible to distinguish things to be preferred from the good: There is no material difference in substance between the concepts of αἰρετέον, ποιητέον, θαρρητέον and ἀγαθόν, only a difference in words, (*De placitis* VII,2,4ff., V,596ff. K.). On the philosophical background of Galen's unease with Stoic terminological innovation see Paola Manuli, "Galen and Stoicism", in Kollesch and Nickel (1993), 53-61. On the Stoic doctrine of ἀγαθὰ see Görler (1984). Cicero, perhaps under the influence of Antiochus of Askalon, endorsed what seems to be an attempt to reach a compromise between the Stoic and the Peripatetic positions: Health and external goods have an indubitable value, and the virtuous element required for the preservation of health (*continentia in victu omni atque cultu corporis tuendi causa praetermittendis voluptatibus*) and wealth (*diligentia et parsimonia*) is to be recognized (*De officiis* II,86f.).

would, however, not allow bodily health to assume a prominent position among man's concerns, as is evident from his criticism of Herodicus of Selymbria in the *Republic* (406ff.).²⁸ Thus, a life spent in preoccupation with one's illness (νοσήματι τὸν νοῦν προσέχοντα) and neglect of one's duties in the community (because of the lengthy treatment, μακρὰ δίαιτα) is not worth living (οὐδὲ λυσιτελεῖ οὕτω ζῆν). In these cases, when the body cannot bear its tasks, ἀπαλλαγὴ πραγμάτων (relief from troubles) is to be preferred over what Callimachus was to call ἀνάβλησις θανάτοιο (deferment of death).

Galen took the opposite view: Not only was it perfectly acceptable for a man to look after his health, it was in fact a moral duty to study medicine to an extent sufficient to enable one to tell a doctor from a charlatan and follow the regime prescribed in a meticulous manner.²⁹ Galen's high regard for health³⁰ is founded upon his conviction that the *arete* of man consists in life in the active sense in which cutting is the nature of the knife³¹, without any embellishments which would have required him to depart from his agnosticism in metaphysical matters.

²⁸On this passage compare Rueß (1967).

²⁹A similar position had already been embraced by Athenaeus of Attaleia, the founder of the Pneumatist school, in his remarks on education preserved in Oribasius' *Collectiones Medicae* (*lib. inc.* 21; III,161ff. Bussemaker- Daremberg): "It is useful, even necessary for all men from this age (i.e. the age of fourteen) onward to study medicine together with the other sciences, and to attend lectures on it in order to become good counsellors to themselves, on many an occasion, on matters useful for the restoration of health." There is in fact no time or activity in life which would not require some advice on the proper use of medicine, and this cannot be left to doctors alone (164). I owe this reference to Professor Vivian Nutton, London.

³⁰This solicitude towards health was shared by Aelius Aristides (e.g. II,357 Keil) and is consistent with the view related in Plutarch's *De virtute morali* 10 (450 A-B). For Crantor's classification of goods (*en tois agathois diaphora*) see Sextus Empiricus, *Against the Ethicists* 51-59 - *arete* (in the sense of valour) ranks first, followed by health, pleasure and wealth. Sextus gave a summary of different views on the question whether health is a good in sections 48ff. of the same work: Of those who regarded it as a good, some saw it as the highest (e.g. Herophilus), others as a lesser good (Peripatetics and Academics, e.g. Crantor). Those who regarded it as an *adiaphoron* differed as to whether it was at least to be *preferred* (most Stoics thought so) or not (as Aristo thought). Cf. Spinelli (1995) 221ff.

³¹*De soph.* 2; XIV,586 K.

6.1.3 The dignity of medicine

The hierarchy of arts to which Galen adhered had implications for his view on the perfection of the soul. The "beauty" of the soul depends on its knowledge³² of honourable subjects, most notably medicine:

"The soul's beauty comes from knowledge and its ugliness from ignorance. As for the greater or lesser degree of its beauty, it depends on the greater or lesser degree of the honour in which are held the things that it knows and upon the depth or shallowness of its knowledge. The greater or lesser degree of its ugliness depends on the opposite of this. Because health is one of the things that are pre-eminent in honour, the art of medicine is better than that of building ships, and the medicine of someone who is more knowledgeable, like Hippocrates, is better than that of someone who is inferior to him. Since his medicine is better than the other's, his soul is also better than the other's."³³

The view expressed here that the "art of medicine is better than that of building ships" is basic to any consideration of morality in medicine. If medicine had the same status as the other crafts, the same would be true for its negligent application, and medical malpractice would therefore be of the same moral significance as negligence in, for example, shipbuilding.³⁴ Yet the differences

³²Cf. *De placitis* VII,1,25f. (V,593f. K.) on the virtues of the respective *parts* of the soul.

³³*De moribus* p. 43 Kraus (ed. by Paul Kraus in the *Bulletin of the Faculty of Arts of the University of Egypt* 5, 1937, 1-51; tr. by J.N. Mattock, "A translation of the Arabic epitome of Galen's book Περὶ ἡθῶν", in the *Festschrift for Richard Walzer*. Oxford, 1972, 235-260).

³⁴It certainly was of a *legal* relevance not encountered in the other arts: While unintentional killing of a free man was generally not an offence under penal law (*iniuria*), but only required cultic measures, which might reflect a need for pacification in the still archaic society of the *XII tabulae* (cf. Mommsen, 1899, 835f.), four notable exceptions were introduced in the course of time, two of which had to do with physicians: negligent pharmacotherapy (*Dig.* 1,18,6,7: *sicuti medico imputari eventus mortalitatis non debet, ita quod per imperitiam commisit, imputari ei debet*) and administration of poisonous substances outside therapy (*medicamentum ad conceptionem: Dig.* 48,8,3,2. *abortionis aut amatorium poculum: Dig.* 48,19,38,5). In both cases the physician would be punished either *capite* or with *relegatio* while the other exceptions, which did not deal with professional activities, did not require capital punishment (see Mommsen, *op.cit.*, 839f.). Civil actions, however, were originally excluded for both bodily injury (which was regarded as an *iniuria*) and unintentional homicide if the victim was a free man, according to the doctrine of *Dig.* 9,3,1,5: *in homine libero nulla corporis aestimatio fieri potest*. If a slave

can hardly be denied. A negligent physician normally causes direct harm to human health or life, without any necessity for the additional factors most of the other arts would require for this. Nevertheless medicine had been regarded as on a par with the other crafts, or τέχναι, by Aristotle.³⁵ When he described the subject-matters of the various sciences, Aristotle held that certain concrete properties of material beings, namely those which fall within the realm of ποίησις, are dealt with by the craftsman (τεχνίτης), "such as the carpenter or the physician."³⁶ The parallel is twofold: Medicine and the crafts are structurally similar insofar as they are productive arts, τέχναι ποιητικαί.³⁷ Yet

was killed because of the negligence of the attending physician the owner could demand compensation with the *actio legis Aquiliae* if direct killing could be alleged (the case of *imperite secari* in *Dig.* 9,2,7,8), or if the causation of the death was regarded as indirect, as in cases of poisoning, with an *actio in factum*, as in *Dig.* 9,2,7,6: ... *eum qui venenum pro medicamento dedit [...] causam mortis praestitisse, quemadmodum eum qui furenti gladium porrexit.*

³⁵As the Hippocratic treatise *De arte* shows, medicine, had undergone a struggle to establish itself as a *techne* in the fifth century. That medicine had been established as an art by the second century B.C., recognized even by those who did not regard health as a basic good, can be seen from Diogenes of Babylon, fg. 99 (SVF III,236f.): According to Diogenes, one would not doubt the status of medicine just because sometimes a layman might discover a remedy the physician did not know.

³⁶*De anima* A, 403b 10ff. However, like Plato (*Phaedrus* 270b), Aristotle (see *Politics* 1282 a) allows for a differentiation within the medical profession, similar to that between the *architektones* and *cheirotechnai* of *Met.* I,1 (981a 12 - b 14), cf. F. Kudlien, "'Klassen"-Teilung der Ärzte bei Aristoteles", in Wiesner (1985) 427-35. Furthermore, Aristotle used medicine as model of the scientific method which had to be applied in ethics, cf. Werner Jaeger, "Aristotle's Use of Medicine as Model of Method in his Ethics", *JHS* 77 (1957) 54-61, p.59: "Thus medicine is used as an example of a science that, like ethics, is not concerned with mere theory but with things that are subject to change and require counsel and deliberation." Kudlien (1986, 154, note 1) has indicated that he is preparing a survey of both Greek and Roman attitudes toward medicine as a craft under the title *Werk - Dienst - höhere Leistung: Antike Definitionen der ärztlichen Tätigkeit*. For the need to distinguish between *techne* and *techne banausos* see Berthiaume (1976).

³⁷The simple parallelism of medicine and the crafts was challenged by Galen (cf. Kudlien, 1976, 451f.) who strove to establish medicine as a liberal art. It had indeed been included in Cicero's catalogue of the *artes liberales* in *De officiis* I,42,150f. See, however, Nutton "Lay attitudes to medicine in classical antiquity" (1988, ch.VIII, p.39) for a qualification of Cicero's high regard for medicine and its practitioners - the art of medicine is only suitable for those *quorum ordini convenit (ibid.)*, while for the free man nothing is more becoming than to be a landowner (*Omnium autem rerum, ex quibus aliquid acquiritur, nihil est agri cultura melius, nihil uberius, nihil dulcius, nihil homine libero dignius*). Against Bernard, (1936, 71f.), Below (1953, 58) pointed out that medicine did not belong to the *artes liberales* in the legal sense (with reference to Ulpian in *Dig.* 50,9,4,2). However, Kudlien (1986, 164f.) did not share Below's view: This fragment from the Digests shows at least that the respective value of the professions and their classification as *artes liberales* was discussed by Roman jurists, and that only superstitious practices were clearly excluded (cft. *Dig.* 50,13,1,2f.). One may adduce Quintilian's

they also concur in the dignity of their subject-matter, at least in the interpretation of a later Aristotelizing philosopher in his polemic against Galen.³⁸ Al-Farabi wrote in his commentary on *De interpretatione* about "practical sciences and disciplines concerned with none but base possibilities, such as the things medicine and agriculture are concerned with"³⁹, and likened physicians to "builders, carpenters, weavers, ... farmers and others" in his treatise on the same work.⁴⁰ Such attitudes were reflected in the social standing of medicine and medical professionals throughout most of the ancient world.⁴¹ On the other hand, educated physicians could attain the highest honours and command the respect of the learned world through the breadth and

declamatio 268 as a second century AD non-legal evidence for this kind of discussion. Kudlien (*ibid.*, 154ff.) also urged caution against precipitate interpretations of the status of the physician as an *artifex*. There were distinct differences in the reputations of the various crafts, and medicine was certainly not regarded as an *ars sordida*. The only Roman reference to medicine as a *techne banausos* (together with architecture, Marcus Aurelius, VI,35) uses *banausos* in the general sense of "productive", following Aristotle and Chrysippus (*ibid.*, p.159f.). The craftsmen's clinging to the rationale (*logos*) of their respective *technai* is indeed quoted as a positive example to be emulated by everyone with respect to his own *logos* "which he has in common with the gods". For a contemporary derogatory use of *banausie* (for the shallowness of popular philosophers), in opposition to *techne*, see *Decorum* 2.

³⁸The mere definition of medicine as a craft does not necessarily imply its devaluation, as Kudlien (1974, 309) pointed out for the different attitudes within Cynicism: "The regular physician, even if only a "mender of torn cothes," may still belong to the category of good craftsmen in which he was placed by Diogenes. ... And it certainly means a shift of emphasis whether one praises such craftsmen (as Diogenes did) or devaluates the subject they are concerned with - in this case, the body (as Bion did)."

³⁹Tr. F.W. Zimmermann, *Al-Farabi's Commentary and Short Treatise on Aristotle's De interpretatione*, p. 187.

⁴⁰Tr. Zimmermann, *op.cit.*, p. 246.

⁴¹See above 3.2.2 and H.W. Pleket, "The social status of physicians in the Graeco-Roman World", in van der Eijk et al. (1995) 27-34. For the Roman world cf. in particular Jackson (1988; 1993). A distinction of *medical* and *surgical* practitioners with its possible social impact (cf. the separation of academic medicine and surgery in the Middle ages and into the 18th century) had, if any (cf. Galen *Meth.med.* VI,6; X,444-55 K.), only very limited impact on the Ancient world, see only the numerous inscriptions for *medici chirurgi* (cf. Gummerus, 1932, 21). A notable exception to the later disdain of surgery, with a perhaps slightly naive optimism concerning its *certitudo*, is given by Restif de la Bretonne's Megapatagonians (*La découverte australe*, p.235): ... *mais le Chirurgien est honoré, nous lui avons donné un nom qui marque tout le cas que nous faisons de sa science divine [...] Rien n'est honorable parmi nous, qu'à raison de sa certitude & de son utilité.*

depth of their knowledge.⁴² Differences of education and public function, perhaps even more than of technical skill, stratified a medical profession whose members came from all classes of society, not unlike professed philosophers in that period.

Galen did not challenge the Aristotelian order of *technai* in principle - the sciences and crafts (τέχναι) are separated according to their respective goals (τέλη) into theoretical, practical, productive (ποιητικαί), and receptive (κτητικαί).⁴³ Medicine is a productive art, not in the sense of the production of something entirely new, but in that of restoration to an original condition. It is not "demiurgic" (δημιουργική), but corrective (ἐπανορθωτική).⁴⁴ But surely, this did not in itself imply that medicine, the correction of the σφάλματα τοῦ σώματος⁴⁵, had a higher dignity than any other kind of repair work. Still, Galen does maintain that the "art of medicine is better than that of building ships".⁴⁶ But why? Ship-building is both "demiurgic" and corrective, so that, if anything, it would by these criteria be regarded even more highly than medicine because it actually produces its object, whereas medicine merely

⁴²See Tod (1957) 138f. for Greek inscriptions in honour of physicians who were remembered both for their medical λόγοι καὶ ἔργη and for their literary and philosophical scholarship. Whereas *practical* medicine remained one of the *artes mechanicae* (following Isidore of Seville's system of the arts) throughout the middle ages, its theoretical part was acknowledged (by Vincent of Beauvais) to be part of the *philosophia naturalis* (together with *mathematica* and *metaphysica*), and thus on a par with the quadrivial arts. Cf. von Schlosser, (1896) 37. Medicine then obtained an even higher status in Thomas More's *Utopia: siquidem & si omnium fere gentium, re medica minime egent, nusquam tamen in maiore honore est, vel eo ipso quod eius cognitionem numerant inter pulcherrimas atque utilissimas partes philosophiae* (*Complete Works*, vol. IV, p. 182).

⁴³*De const. artis med.* 1; I, 227ff. K. Cf. Englert (1929) 69f.

⁴⁴Cf. I,257. K. For valuable discussions of the epistemological status of medicine in Galen see Isnardi (1961).

⁴⁵I,258 K.

⁴⁶Cf. the χόρος Ἑρμοῦ in chapter 5 of the *Protreptikos*: The physicians are in the first circle together with the representatives of geometry, arithmetic, philosophy, astronomy and philology, whereas the second is composed of painters, sculptors, teachers, engineers, architects and stonemasons, and the third of the remaining arts. Nutton (1995) 11 suspects Galen of "special pleading" and suggests an account like Ovid's *Fasti* 3,809-21 for a more realistic view of the physician's status as a small tradesman. Cf. Gourevitch (1984) 439-62 and Kudlien (1976).

restores an existing object. Furthermore, like medicine⁴⁷, ship-building is concerned with the "full substance" (ὅλη οὐσία) of its object, i.e. both form (εἶδος) and underlying matter (ὑποδεδεγμένη ὕλη). The systematic foundation for the high esteem for medicine, which is "so philanthropical an art" (τέχνην οὕτω φιλόανθρωπον)⁴⁸ can therefore lie only in the relative value of its object, human life and health, in Galen's axiology.

The extraordinary value of its product makes medicine, in Galen's eyes, the most honourable or "divine" of the *technai poietikai*. But how was its relationship to the *technai praktikai*?⁴⁹ For Galen all the traditional (i.e. Platonic-Aristotelian) moral virtues required health, which he therefore regarded as the most basic of all goods. This is consistent with Aristotle's view that the moral virtues, far more than contemplation, require assistance from external sources (τῆς ἐκτὸς χορηγίας).⁵⁰ However when Galen went on to make the claim that health was actually the highest good, he departed from Aristotelian tradition, for that claim could only be justified by elevating the body and its needs to the axiological position formerly held by the soul or by establishing the health of the body as a prerequisite of that of the soul.

Thus it seems that the high position of human life in the hierarchy of material being is justified by the sophistication of human anatomy and physiology. This, in addition to the nature of his soul, is the reason why he is

⁴⁷*De const. art. med.* 10 (I, 259 K.).

⁴⁸*Quod optimus medicus* 1 (I, 57 K.).

⁴⁹It had been the traditional view that philosophy was the only intellectual pursuit which did not lend itself to abuse. Claims to this effect had been made for various productive arts, too, e.g. for music by Diogenes of Babylon (see above, chapter 1.5). Galen seems to advocate a similar view for medicine, provided it is pursued with the scientific rigour required. For the one exception of the abuse of medical knowledge he mentions (the publication of poisonous substances) refers to poets with limited expertise in this particular field rather than to comprehensively trained medical practitioners. Cf. *De antidotis* II,7 (XIV, 144-6 K.). Seneca, on the other hand, ruled out a contribution towards an improvement of the soul from the *artes coniecturales*: *Sed istae artes [sc. medicine and navigation] non sunt magnitudinem animi professae, non consurgunt in altum nec fortuita fastidiunt: virtus extollit hominem et super cara mortalibus collocat* (ep. 87,16).

⁵⁰Cf. EN X,8. See Kornexl (1970, 142f.) for Aristotle's modification of Plato's attitude toward health (and external goods in general), which reflect an increasing concern for the realities of human life and the influence of factors which are beyond the individual's control.

worthy of the special attention of the Creator (and of the human craftsman-restorer). Yet the soul is essential for the preservation of bodily health, for the body does not include intellectual faculties and therefore does not know how to care for itself. Yet the soul must first attend to its own health (i.e. cure the ἀμαρτήματα τῆς ψυχῆς, according to the ethical programme of *De animi peccatorum curatione*) before it can concern itself with the therapy of the body (i.e. the ἐπανόρθωσις of the σφάλματα τοῦ σώματος):

"The knowledge of the soul, however, from which comes its beauty, knows the elements of which the body is composed and from which the accidents of the soul are generated, composed and increased. The knowledge of this is followed by investigation of the means of treating them. For this reason we do not see a beautiful soul that has an illness, as we sometimes see a very beautiful body that has a severe illness. This is necessarily so because the knowledgeable and beautiful soul first of all preserves itself in health, and then attends to the body since it needs it in order to act. The body, however, knows nothing about its own health and cannot preserve it. The honourableness of the soul comes from its knowledge, and the most honourable of things is complete knowledge. Some of the things that there are to know are human, and some are divine."⁵¹

The relationship between body and soul is thus one of mutual dependence. The body needs the soul until it dies, i.e. as long as the φυσικὴ εὐκρασία is preserved in the body, and the soul needs the body and its organs in order to fulfil its tasks. Furthermore, the concept of the soul in *De moribus* (as essentially a synonym for the intellect) foreshadows the position in *Quod animi mores*⁵² wherein only the *anima cognitiva* (the "leading faculty" of the

⁵¹*De moribus* p.43f. Kraus, tr. Mattock.

⁵²Written not before AD 193, cf. Garcia-Ballester (1969) 286.

soul⁵³) was recognized as an entity separate from (albeit strongly influenced by) the body.⁵⁴

Galen's conviction of the fundamental rôle of medicine in fostering health not only of the body, but also of the soul, as proclaimed in *Quod animi mores*, supported a characterisation of medicine as an activity of comprehensive relevance to the conduct of human life⁵⁵, but potentially eroded the basis for the high value he attributed to the cure of man. Traditional arguments for the dignity of man and the value of human life had relied on man's elevated position as a rational being with a soul which was something beyond mere physiology, and more specifically a *rational* (part of the) soul, which in Plato's *Timaeus* obtained a special metaphysical status because it was a direct creation of the demiurge.⁵⁶ However, if the soul is influenced by the body, a justification for the high rank of man in the hierarchy of being had to be sought in the complexity of his bodily structure. It was to that justification that Galen had recourse. In his early works he had sought a justification in man's cultural superiority⁵⁷:

⁵³For Galen's earlier views on the ἡγεμονικόν τῆς ψυχῆς see e.g. *De placitis* VIII,1,1 (V,649 K.): "... it is a generally acknowledged concept (ἔννοια ὁμολογουμένη) that the source (τὸ κατάρχον) of perception (αἰσθήσεως) and voluntary movement (κινήσεως τῆς κατὰ προαίρεσιν) belongs to the governing part of the soul" (tr. De Lacy). Cf. chapters 13 and 15 of Galen's commentary on Plato's *Timaeus*, where it is even said that the gods joined the body to the νοῦς, man's only share of the divine, to serve it. In these and similar passages Galen still keeps close to the Platonic tradition, from which he was to depart so strikingly, albeit never systematically, in his last works (compare *De propriis placitis*, chapter 15 with chapter 3 on the soul as "source of voluntary motion and sensation" [tr. Nutton]).

⁵⁴Cf. Temkin, *Galenism*, p. 83. García Ballester (1969, 285ff.) rightly elaborates on the influence of *De moribus* on *Quod animi mores*. However, it seems that he has failed to recognize the pivotal difference of the *status* of the soul (and its relation to the body) in both works and its impact on moral issues. For a comparison between the two treatises see also Miklós Maróth, "Galen als Seelenheiler", in Kollesch and Nickel (1993), pp. 145-55.

⁵⁵Cf. Lloyd (1988) 41: Galen intended to "maximize potential claims for medical intervention."

⁵⁶*Timaeus* 41c ff., cf. Cornford, *Plato's Cosmology*, London, 1937, 142f.

⁵⁷This, of course, has several precursors in Greek cultural theory. For the Stoic version see Cicero, *De officiis* 1,4,11. While self-preservation and reproductive instinct are a common feature of all animals, only (adult) man is capable of extending his intellect beyond the present, making inferences about the future and, on this basis, organizing his life in a rational manner (*facile totius vitae cursum videt ad eamque degendam praeparat res necessarias*). On the denial of

"It is not clear whether the so called irrational animals have no share whatever in reason (λόγος). For perhaps all animals, some more, some less, partake of the reason within the mind (κατὰ τὴν ψυχὴν), which one calls "inherent" (ἐνδιάθετος), if not of that expressed by voice, which is also called "spoken" (προφορικόν). Yet it is obvious to us that man is far superior when we consider the wealth of arts (πλῆθος τῶν τεχνῶν) which this animal pursues, and that only man, capable of a grasp of science, learns whichever art he pleases."

Whereas most animals are altogether without art, and those which have developed some skills have done so by nature (φύσει), not by conscious pursuit (προαιρέσει τεχνῶν), man has managed to assimilate not only the skills of all other animals, but also the "divine arts" (θεῖαι τέχναι), such as medicine⁵⁸, music, geometry, astronomy, and finally "the greatest of divine goods", philosophy. Therefore, even if there is reason in the other animals, man deserves to be called "rational" *par excellence* (κατ' ἐξοχὴν αὐτῶν καὶ ὁ ἄνθρωπος μόνος ὀνομάζεται λογικός)."⁵⁹ This argument for man's elevated position in the hierarchy of creation is based on the πλῆθος τῶν τεχνῶν, on his virtues, and ultimately, on his philosophy.⁶⁰ However, when in works like *Quod animi mores* and *De propriis placitis* Galen established an anthropology, according to which the soul, including its intellectual and moral functions, and consequently man's cultural progress, were affected by the needs and temperaments of the

reason to animals in antiquity see Sorabji (1993) 7-16 *et passim*.

⁵⁸The view that medicine derived from the gods was in keeping with Roman tradition, cf. Quintilian, *Declam.* 268,22 (*Cuius auctores ante omnia accepimus deos...*), and Celsus, *prooem.* 2 (*vetustissimus auctor Aesculapius celebretur*; cf. Mudry, *Préface*, 53 on the topos *origo artis*).

⁵⁹*Adhortatio ad artes addiscendas* 1 (I,1f. K.). For a similar argument see Gellius, *Noctes Atticae* XIII,17: *sed "humanitatem" appellaverunt id propemodum quod Graeci παιδείαν vocant, nos "eruditio institutioque in bonas artis" dicimus. Quas qui sinceriter percipiunt adpetuntque, hi sunt vel maxime humanissimi. Huius enim scientiae cura et disciplina ex universis animantibus uni homini dara est idcircoque "humanitas" appellata est.* For Galen's concept of universal erudition see *Quod optimus medicus*, *passim*.

⁶⁰Cf. *De moribus* 4, p.48 Kraus (tr. Mattock): "The man who loves mankind is loved and praised. The man who loves virtues and adopts them is also loved and praised, but he is more excellent. The philosopher, that is the lover of wisdom, is more excellent [still], because of the excellence of wisdom."

body, he had to refrain from arguments which went beyond anatomy and physiology, in seeking to defend man's primacy in the world of material beings and esteem for those sciences which contribute to his health.

6.2 The incurability of the soul and its impact on morality

However highly Galen might have regarded the value of human life, he qualified the principle of its inviolability. In *Quod animi mores* 11 he endorsed the view that for an incorrigible villain it was better to be put to death because his incurable wickedness (ἀνίατος κακία) ruled out the possibility of any change for the better⁶¹ and life with a soul which was utterly corrupted⁶² was not worth preserving.⁶³ Such existence also did not deserve the protection which human life is normally afforded. Convicted criminals⁶⁴ might permissibly be

⁶¹IV,816 K. For Plato's theory of punishment see the speech of Protagoras in the eponymous dialogue (324). The aim of punishment is to improve the wrongdoer. However, when no improvement is to be expected, the criminal ought to be put to death. Seneca (*De ira* I,6,4) expected an educating effect on the general public from such punishment: ... *ut documentum omnium sint et qui alicui noluerunt prodesse morte certe eorum respublica utatur.*

⁶²The people concerned are διεφθαρμένοι τὴν ψυχὴν (*ibid.*). Cf. the expression used for the somewhat more fortunate Stoic philosophers in *De placitis* II,4 (V,226f. K.): "But since our purpose is to persuade not the Stoics only but also all others who have been nurtured in fallacious habits of reasoning but whose minds are not yet incurably perverted, I shall start again at the beginning and show, with reference to our present inquiry, how you may find scientific premises which produce a valid demonstration, and how you may distinguish these from all other premises. ..." (tr. De Lacy, slightly modified).

⁶³Seneca (*De ira* I,16,3) even argued that this approach would actually entail the one and only good the incorrigible criminal could do: *tibi insanabilis animus ..., perbibisti nequitiam et ita visceribus immiscuisti ut nisi cum ipsis exire non possit, olim miser mori quaeris: bene de te merebimur, auferemus tibi istam qua vexas, vexaris insaniam et ... quod unum tibi bonum superest repraesentabimus, mortem.* The incurability of the condition was the criterion for whether *clementia* had to be exercised (*De clementia, prooemium* II,2): *Itaque adhibenda moderatio est, quae sanabilia ingenia distinguere a deploratis sciat. Nec promiscuam habere ac vulgarem clementiam oportet nec abscisam; nam tam omnibus ignoscere crudelitas quam nulli.*

⁶⁴Galen was, on the other hand, aware of the fact that mere legality was not sufficient for the establishment of rules of conduct, let alone a system of morality, cf. his distinction of remedies which are forbidden by the law (such as those made of human parts) and those which are not but are nevertheless brutal and disgusting (such as human excrements) in *De simp. med. temp.* I,1 (XII,248ff.), see 3.3.1.

used in clinical trials to determine the effects of poisonous substances.⁶⁵ The Alexandrian practice of vivisection⁶⁶ is famously described by Celsus (see above, 4.3.2). But it probably occurred only during a brief period, and had ceased by the time of Celsus' writing. Galen, however, referred to another Alexandrian tradition linked to the treatment of convicted criminals: "And I have observed frequently for myself in the great city of Alexandria the speed of the death caused by them [sc. snakes of the *ptyás*-family]. For whenever they want to kill someone, who has been sentenced to death under the law, in a humane (*φιλανθρώπως*) and quick manner, they throw the animal at his chest and make him walk about a bit, and thereby put the man to death fast."⁶⁷

Admittedly, these two accounts refer to periods separated by almost five hundred years. Yet, assuming a certain degree of persistence in the moral attitudes of this part of the Ancient world, we may infer that at least some people, quoted in what seems to be an approving manner by Galen, took the view that whilst as little pain as possible ought be inflicted upon a criminal sentenced to death, painful experiments on them could be performed if higher values, such as the benefit to future generations, were involved.

Celsus (*prooemium* 26) reported the type of argument brought forward by the supporters of vivisection: *neque esse crudele, sicut plerique proponunt, hominum nocentium et horum quoque paucorum suppliciis remedia populis innocentibus saeculorum omnium quaeri*. This argument presupposes that the normal categories which govern human interaction are not applicable to interaction with convicted criminals. One has to assume that inflicting pain on the criminal without any benefit to him is neither cruel nor morally wrong in order to avoid a conflict between *utile* and *honestum* and the Stoic anathema expressed by Cicero: *Sed nihil, quod crudele, utile; est enim homini naturae, quam sequi debemus, maxime inimica crudelitas*.⁶⁸ Galen's doctrine that the

⁶⁵Cf. *De simp. med. temperam. ac fac.* X,1 (XII,252).

⁶⁶Von Staden, *Herophilus*, 138-153 accepts the evidence for the actual practice of vivisection.

⁶⁷*De theriaca ad Pisonem* 8 (XIV,237 K.).

⁶⁸*De officiis* III,11,47.

incurable disease of his soul excluded the *aischrourgos* from the rights and sentiments which man was normally granted could have served this purpose. He did, indeed, compare persons with corrupted souls to "fatted beasts" (βοσκήματα)⁶⁹:

"But what do you think a person of this ilk suffers, what does he do privately? Why does he commit all kinds of excesses with every faculty of his body? How has he made the most beautiful part of his soul wicked and corrupt? For he has made lame and blind that divine power which is man's only natural endowment for the knowledge of truth, and desire, whose tyranny, aided by the most wicked and beastly power (τὴν χειρίστην καὶ θηριωδεστάτην ἔχουσαν δύναμιν), is against justice and the law, he has made great, mighty, and insatiable."

These beasts deserve no more protection than the animals Galen would normally use for his anatomical and physiological experiments. However, when there was no medical utility in another course, the criminal was allowed a painless death and so shared in the benefits of that philanthropy which was perceived to be the characteristic virtue of kings and rulers in Hellenistic times.⁷⁰ Yet the question remains whether Galen saw this as a favour granted specifically to humans, for he also tried to minimize the suffering of monkeys used in his experiments.⁷¹

Yet the importance of the corruption of the soul for medicine went

⁶⁹*De usu partium* III,10 (III,237). A similar view can be found in Iamblichus' *Protrepticus* 5 (νοῦ δὲ μόνον ἀφηρημένος ἐκθηριούται [sc. ἄνθρωπος]) and in the syncretist anthropology of Giovanni Pico della Mirandola's *Oratio de hominis dignitate: Poteris in inferiora quae sunt bruta degenerare; poteris in superiora quae sunt divina ex tui animi sententia regenerari*.

⁷⁰Cf. *Reallexikon für Antike und Christentum*, s.v. *Humanitas* (φιλανθρωπία), coll. 716. 721f.

⁷¹*De anat. admin.* VIII,8 (II,690 K.) and IX,11 (p.842, tr. Garofalo). He chose pigs and goats instead for the relevant experiments on the cervical nerves and the brain "to avoid the horror of watching the living monkey being dissected" which suggests that he regarded monkeys, of whose relative anatomical proximity to man he was aware (in fact he preferred them as objects of study because of this very characteristic), as higher in the hierarchy of creation, than pigs and goats, just as in turn he would have regarded man as more valuable than monkeys. However, his motivation might not have been purely moral, for Galen himself admitted that monkeys were difficult to acquire for such experiments.

beyond this rather limited application in the justification of human experiments (which Galen himself, for other reasons, would not conduct anyway).⁷² Medicine had a rôle to play in preserving the health of the soul, if only because of the soul's effect on the state of the body:

"The character of the soul is corrupted by bad habits in food and drink, in exercise, optical and acoustic impressions, and the arts in general. Whoever pursues the art of hygiene (ὕγιεινὴ τέχνη) must have experience with all these things and not believe that it is for the philosopher alone to shape the character of the soul. The health of the soul is the philosopher's task because of something greater, whereas it is the physician's task in order to prevent the body from falling easily into sickness."⁷³

Like a tumour which must be excised *in sano*, vices of the soul must be eradicated completely to prevent further growth and spread to incurability. Discipline of the soul has to be learned at an early age (like the ability to tolerate pain).⁷⁴ However, few people acquire sufficient discipline, and the perfect state is thus therefore rarely attained - compromise is required with regard to psychic health as much as with regard to its bodily counterpart.

"Each of us needs exercise aimed at making us perfect men throughout almost all of our lives. For it is not appropriate to refrain from seeking to make oneself a better man, even if it were only at the age of fifty that one was found to suffer from a defect of the soul which could be redeemed and corrected. For if one's body were in a bad condition at the age of fifty, one would not leave it to decay, but rather try to make it better in all ways, although one could not attain the perfectly healthy disposition (εὐεξία) of Hercules. Now, as far as we are concerned, we shall not refrain from making our soul better, even if we cannot have that of a wise man, though we would have most hope of attaining such

⁷²*De simp. med. temperam. ac fac.* X,1 (XII,252), see 3.3.1.

⁷³*De san. tuenda* 1,8,14-5 (CMG V,4,2; p.19).

⁷⁴*De an. aff.* 7 (V,36f. K.).

a soul it if we look after our souls from an early age. Otherwise, we should at least make sure that our souls do not become completely rotten, as Thersites' body did."⁷⁵

Every effort has to and can be made to improve the soul and prevent its falling prey to the rule of the desires - for this would soon make its disease incurable, which would in turn bring the person⁷⁶ concerned into a state of irremediable moral corruption.⁷⁷ At that stage both the value of a human life and the duties of the community toward it would vanish. It has been shown that Galen, at least in the phase of *Quod animi mores*, could not avail himself of the qualities of the human soul in order to justify the special value of human life. However, it is logically possible to argue in the opposite direction, and this was indeed what Galen did: The man with the wicked soul does not warrant that special respect normally accorded humanity. Thus, for Galen, the natural (healthy) state of the human soul is a necessary condition for the value of human life.

6.3 The value of life in medicine

Galen's theoretical foundation for the value of human life was provided by his axiology of living beings. But what impact did this regard for the value of life have on medical practice? Was there a gradation in the perceived value of human lives? And what conflicts might there be between that value and others?

To start with the latter question: One possibility might be a clash

⁷⁵*De an. aff.* 4 (V,14f. K.).

⁷⁶Galen emphasized that attributes of character or morality are, in common language, used to describe a person, notwithstanding that they actually belong to the state of the soul, particularly its ἦθος and τρόπος (*De diff. puls.* III,7; VIII,689 K.). He takes his example from Plato: σκληρούς γε (γε missing in Galen) λέγεις καὶ ἀντιτύπους ἀνθρώπους (*Theaetetus* 255 e; Galen wrongly refers to the *Sophist*).

⁷⁷For the natural history of diseases of the soul see *De an. aff.* 6 (V,29f.): Strong affections of the soul tend to become incurable. Specifically, the ἐπιθυμητικὴ δύναμις can lead to incurable eros, gluttony, drunkenness, and παρὰ φύσιν αἰσχροουργία.

between the value of human life and its protection on the one hand, and considerations of utilitarian type on the other - the perennial conflict between *utile* and *honestum* Cicero discusses (and dismisses) in *De officiis* III. In keeping with Stoic ethics, Galen would not allow criteria of expediency to determine decisions about medical treatment. Money should not be a motivation, nor should social status, nor any consideration of what the physician could gain from a treatment.⁷⁸ The issue of the use of standard drugs in incurable cases⁷⁹ represents the only instance wherein medical treatment is restricted by a consideration external to the case concerned, viz concern to preserve the reputation of medicine⁸⁰, required for the benefit of future patients. That concern should prevail over and prevent any attempt to save the patient's life in an incurable case, by putting in a maximal therapeutic effort. Yet such a consideration would probably not have affected Galen's treatment of a member of the imperial family. There was a gradation in the extent to which the patient's or his relatives' wishes would have influenced the course of treatment.⁸¹ Yet these were generally unlikely to affect the outcome in any *positive* (in Galen's perception) way, as Galen himself remarked with reference

⁷⁸In fact, Galen claims to have put the service to his patients and medical learning above even concern for his own health, e.g. spending his nights almost without sleep (*De san. tuenda* V,1; VI,308f. K.), evidently without much harm to his longevity. He might have been encouraged by his colleague Antiochus' example who, at over eighty, still took part in day-to day activities and visited many patients (*ibid.* V,4; VI,332f. K.).

⁷⁹*Meth. med.* XI,9; 760f. K. See above, chapter 3.3.3.

⁸⁰Galen, however strictly opposed he might have been to the pursuit of medicine for the sake of fame, allowed for a concern for the reputation of the doctor, even a striving for public recognition in order to gain authority with patients, see *In Hipp. de officina medici* II,1; XVIIIb,722f. K.): "For he will benefit the people more if he is honoured and admired by them, because they will rather imitate his deeds and obey his precepts, like the orders of some god." In *De moribus* 4 (p. 51 Kraus, tr. Mattock) Galen discusses the parallel case of those who enter politics in order to benefit their country. They have to be concerned with their public standing, for the masses "are more inclined to follow those who are honoured and who have wealth, position, family or authority than those who have none of these things."

⁸¹For a slight differentiation in the frequency of visits paid to slave and free patients see *Meth. med.* IX,4 (X,608ff. K.), cf. Horstmannshoff in van der Eijk et al. (1995), 85.

to the reluctance of well-to-do patients to undergo phlebotomy to a sufficient degree.⁸²

The impact of regard for the value of life on medical practice can be elucidated by considering Galen's attitude to incurable diseases and risk-taking. Galen consistently emphasized the dangers involved in medical procedures and the importance of the highest possible technical standards - after all, it was always a human life which was at stake. Yet there are times when risks have to be taken, even a temporary harm inflicted, in order to serve the superordinate purpose of saving the patient's life.⁸³ In completely hopeless cases he does recommend palliation, motivated probably by some sentiment of philanthropy, which, however, does not go as far as to lead him to endorse anything like what would today be called euthanasia.⁸⁴

6.4 Competence without morality?

Galen saw himself in a constant struggle against charlatanry and incompetence in medicine. His work conveys the impression that he was surrounded by doctors who were either inexperienced or dogmatic or both, and who lacked proper grounding in medical and general scientific methodology. Some of their patients were fortunate - Galen appears on the scene before it is too late to administer the correct therapy⁸⁵, i.e. the treatment required by theory (λόγος) and proven to be efficient by experience (πειρα). These decisions were normally made on a purely technical basis, and Galen does not seem to have attributed any specific *moral* relevance to them (beyond the fact

⁸²*Methodus medendi* XI,15 (X,783 K.).

⁸³E.g. *Methodus medendi* X,10 (X,718ff. K.). See above, 3.3.3.

⁸⁴The Greek εὐθανασία had a different meaning, i.e. a noble, patriotic, (Cicero, letter to Atticus 16,7,3), or painless death, cf. Suetonius, Divus Augustus 99,1-2: ... *sortitus exitum facilem et qualem semper optaverat. Nam fere quotiens audisset cito ac nullo cruciatu defunctum quempiam, sibi et suis εὐθανασίαν similem - hoc enim et verbo uti solebat - precabatur.*

⁸⁵See, e.g., *De praecognitione* 8.

that he regarded incompetence of doctors as immoral⁸⁶). Doubts as to the moral integrity of his own actions did not arise.⁸⁷

One notable example of activities which are technically competent (i.e. guided by the appropriate combination of scientific λόγος and experience) and yet morally reproachable, has been discussed already (5.1): The publication of information about poisons should be restricted to the names and effects of the *simple* substances, without recipes for mixtures, because these are not necessary for administration of the appropriate antidotes and would only help those who use the knowledge for a wicked purpose.⁸⁸ A similar rule is applied to poisonous substances without any medical use - widespread knowledge about them will promote rather than restrict their use and must therefore be prevented, even if it is based on perfectly sound experimental evidence.⁸⁹ These observations do not refer to medical use of dangerous substances but rather to their criminal abuse. The doctor who abets such use by sharing his expertise with undeserving people commits a crime, too, and ought to be condemned, at least morally, for he allows his scientific competence to be used against the life of men, when the value of that life is the basis of legitimate medical activity.⁹⁰ This instance of competent, yet immoral activity seems to be an exception in

⁸⁶On the links between incompetence and immorality see e.g. *Quod optimus medicus* 1 (I,56f. K.) and *Meth. med.* II,5 (X,114 K.).

⁸⁷His own behaviour does in fact seem questionable in the case of the Sicilian physician with an inflammation of the liver (where he withheld his additional information from the other attending doctors) in *De locis affectis* V,8 (VIII,361-6 K.), cf. Kollesch (1965) 51.

⁸⁸*De antidotis* II,7 (XIV,144-6 K.). An interesting instance of a physician withholding information he regards as potentially harmful or leading to immoral activities can be found in Mauricius Cordaeus' commentary to *Hippocratis Coi ... Liber prior de morbis mulierum*, Paris, 1585, 300ff. Cordaeus refers to a difference between abortifacients and contraceptives, viz that the latter are not banned by the Hippocratic Oath. Yet the way he deals with information about contraceptives betrays his unease, and perhaps his "Protestant religious values", see Riddle, 1992, 152f.: "He made no attempt to identify *misy*, the copper compound, although his knowledge of Greek almost certainly would have made its identification in Latin known to him." See for a similar instance in an earlier Renaissance author Alessandro Benedetti, *Collectiones Medicae* (1493): *Famosi veneni vires, aut abortiendi modum, ut quae conceptum inhi-beant, indicare scelus est* (I,24).

⁸⁹*De simp. med. temperam. ac fac.* X,1 (XII,251 K.).

⁹⁰*Ibid.*

Galen's work. As a general rule, in antiquity, "sound medical *practice* inevitably produces a moral attitude, and hence discussions of medical ethics are couched in terms of appropriate action" (with the notable exception of the Hippocratic oath, Nutton, 1993, 29, n.9). Seneca, however, would not have been convinced: *qui non est vir bonus potest nihilominus medicus esse, potest gubernator, potest grammaticus tam mehercules quam cocus* (ep. 87,16). Yet his statement presupposes a purely empirical concept of the crafts⁹¹, whereas Galen's methodological approach, notably to medicine, was the basis for his claims about its proximity to ethics.

The value of human life, based on man's elevated position in the order of creation, provides the foundation for the high esteem in which medicine is held and overrules most other considerations which might influence medical practice, such as the pursuit of wealth, fame (even as a scientific writer), freedom of information, or the status of the patient. Galen's theory of morality has to be seen in the context of his physiological and medical interests. The special concern for man is vindicated by his anatomical and physiological complexity, at least as much as by his intellectual and cultural achievements. In his late writings, medicine seems to assume an influence over the soul which parallels that held by moral philosophy, thereby gaining a scope which goes far beyond its traditional rôle in the care of patients. The question whether there is a specifically medical morality in Galen therefore has to be answered positively in three respects: When laying the foundations for morality, Galen availed himself of biological arguments, in the therapeutic application of his ethics he ascribed to medicine, and dietary procedures in particular, a central rôle, and he made attempts to develop an ethical code applicable to medical activities, both in research and in day-to-day practice. He was reluctant to apply criteria external to medicine proper to its practice, and mostly judged the morality of medical activities by the adherence to the principles of therapy and avoidance of undue harm, that is, by the outcome.

⁹¹Cf. Celsus, *De medicina*, pr. 32: *Nam ne agricolam quidem aut gubernatorem disputatione sed usu fieri.*

6.5 Conclusion

One of the common features of the medical writings discussed is the view that human life is of inestimable value - *emis a medico rem inaestimabilem, vitam et bonam valetudinem*, to use Seneca's⁹² analogy from the world of commerce. The physician, who is in charge of the protection of life, is under certain obligations which derive from the inviolability of life and the nature of the relationship between "craftsman" and "customer" which this particular trade entails. In the Hippocratic Oath this includes, apart from provisions pertaining to the protection of human life as such, like the principle "do no harm" and the ban on abortion and assisted suicide, certain precepts concerning the promulgation of medical knowledge - the lore of the *techne* may only be transmitted to those who have taken the Oath, and absolute confidentiality applies to information which the physician has obtained about other people, even if they are not his patients (ἀνευ θεραπείης κατὰ βίον ἀνθρώπων). These two requirements, the confinement of knowledge to the initiated of the Oath and the confidentiality of medical practice, gave medicine a status close to the religious mysteries, the improper disclosure of which was severely punished. Yet the physicians for whom confidentiality was a matter of principle might very well have been a minority. The parallel provision in the Hippocratic *De medico* is purely pragmatic, and it has been suggested that physicians were "as a general rule, free to say what they wanted"⁹³. Neither Galen nor the authors of the Hippocratic *Epidemics* seem to be in any way concerned about protecting the identity of the patients of their case histories.⁹⁴ Had the confidentiality of information obtained from patients been a basic tenet of medical practitioners, then conflicts with the ruling authorities would have been inevitable.

⁹²*De beneficiis* 6,15,2.

⁹³Grmek (1969) 10: "N'est-il pas significatif qu'aucun poète comique ou autre, grec ou romain, aucun biographe ou historien, n'ait mentionné avec blâme la violation du secret médical. Sans nul doute, les médecins étaient, en règle générale, libres de leur paroles."

⁹⁴L. Elaut (*Het Medisch Beroepsgeheim en zijn Historische Ontwikkeling*, Antwerp, 1958, p.6) finds this particularly remarkable in the case of the *Epidemics*, which were not "medical specialist texts in the strict sense."

particularly for court physicians, and would have resembled those between kings and the confessors of members of their households in the age of Christian monarchies. When it came to duties at the Roman imperial court, Galen steered a middle course. He took obvious pride in the fact that he was consulted by emperors, but he never accepted the appointment as a personal physician to the emperor.⁹⁵ One can only speculate about his reasons for refusal. His relative reluctance to join military campaigns and his fear of the plague probably played a rôle. Likewise the commitment of time, loss of independence, the need to share authority with supposedly less competent colleagues (see above, 4.1 and 4.2), and perhaps the dangers of having to rely on the monarch's benevolence were likely influencing factors.

Notwithstanding his difference in emphasis, Galen was just as concerned with the sanctity of life as his Hippocratic predecessors had been. He gave disciplined care for one's health and acquisition of medical knowledge the status of moral duties for every educated person. For physicians, he gave a wealth of additional principles and rules of conduct, covering areas as diverse as experimentation with drugs, surgical risks (5.2), promulgation of knowledge on poisons (5.1), remuneration and other social impacts of medicine, and medical education (4.1), all of them inspired by respect for the health of man, the animal who topped the teleological hierarchy of creation, and medicine, the art whose task it was to preserve and restore man's health (6.1).

Galen held medicine in exceptionally high esteem, even by the standards of physicians. His view of medicine as the divine art *kat'exochen* has to be considered in the context of his valuation of human life and health (6.1.3). For the rank of medicine, traditionally defined as restoration and preservation of health, in the hierarchy of the arts and sciences depends upon the rank of health in the general axiology. Unlike all of his philosophical predecessors - whether Platonist, Peripatetic, Stoic or Epicurean - he defined man's virtue as life, in the emphatic sense of the processes of normal physiology (6.1.1). Galen was aware of the repercussions that disturbances of the soul could have on the state of the

⁹⁵See e.g. *De praecognitione* (XIV, 657ff. K.).

body, and thus considered the perfection of the soul, a goal which most ancient philosophers shared (though they would often disagree about precisely what it meant), as a necessary, but by no means sufficient condition for the accomplished healthy life (3.2).⁹⁶ Health assumed a high rank in the hierarchy of goods, for it provided the basis for all the other goods and virtues; in the absence of health, hardly any *beneficium* could be enjoyed, any *officium* fulfilled, any *virtus* pursued (6.1.2). Galen's view that medicine was the highest *productive* art was consistent with his axiology. He also attributed to medicine, or more specifically to physiological research and its elucidation of the teleological structure of animal nature, a pivotal rôle in the realm of *theoria*. At the stage of *De usu partium*, the *philosophical* impact of physiology, the foundation of an "exact theology", was held to be far more important than its strictly *medical* use. For Galen, the value of insight into the workings of divine providence lay in its contribution toward the tranquillity of the human mind. Yet, in *Quod animi mores* he reached the conclusion that it was the direct effect of medical therapy on the bodily humours that secured a balanced state of body and soul, the common goal of medicine and moral philosophy.

⁹⁶This is the point where the synthesis of the goal of life proposed in Galen's ethical writings, likeness to God (cf. 2.1.3), and the pursuit of health comes in. For ὁμοίωσις θεῷ is reached "by disregarding present pleasures and giving preference to the noble", i.e. the combined diet of body and soul required for somatic and psychic health.

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