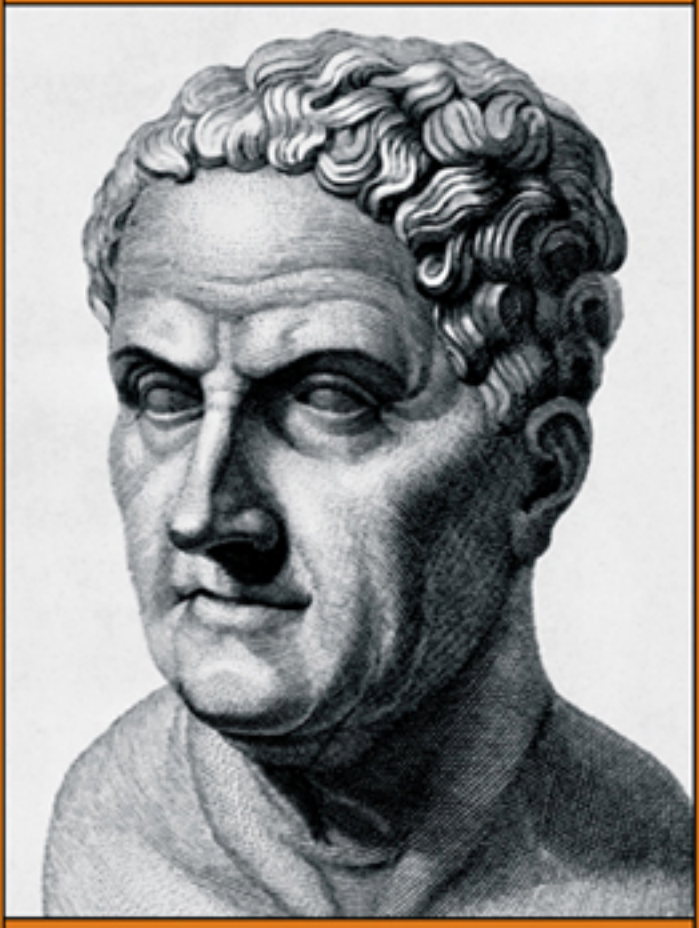
The Cambridge Companion to GALEN



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GALEN

Galen of Pergamum (AD 129–c.216) was the most influential doctor of later antiquity, whose work was to influence medical theory and practice for more than 1,500 years. He was a prolific writer on anatomy, physiology, diagnosis and prognosis, pulse-doctrine, pharmacology, therapeutics and the theory of medicine; but he also wrote extensively on philosophical topics, making original contributions to logic and the philosophy of science, and outlining a scientific epistemology which married a deep respect for empirical adequacy with a commitment to rigorous rational exposition and demonstration. He was also a vigorous polemicist, deeply involved in the doctrinal disputes among the medical schools of his day. This volume offers an introduction to and overview of Galen's achievement in all these fields, while seeking also to evaluate that achievement in the light of the advances made in Galen scholarship over the past thirty years.

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PREFACE

Galen was one of the most successful men of Antiquity. Having grown up and studied in the provinces, he came to Rome at the age of thirty-three, at the height of the Empire's prosperity, and quickly made a name for himself as a theorist and practitioner of medicine, as a philosopher, and as a public controversialist. As a result of his meteoric rise, he gained an *entrée* into the Imperial circle, becoming one of the philosopher–emperor Marcus Aurelius' personal physicians, indeed the one entrusted with the medical care of the imperial prince Commodus in the emperor's absence. In the course of a long life, he wrote voluminously on an impressive variety of subjects, ranging from medicine through philosophy and linguistics to grammar and literary criticism; and although only a fraction of his vast output survives, it still constitutes, by some distance, the largest surviving *oeuvre* of any ancient author. His synthesis and systematization of medicine, which included a good deal of personal discovery and innovation, was to achieve canonical status already in antiquity; the great medical encyclopaedia of Oribasius in the fourth century was founded directly on Galen's work. With the rise of Arabic learning in Baghdad, and subsequently throughout the Islamic world, Galen's treatises were translated, first into Syriac and then into Arabic, where they also formed the basis of Arab medicine, and were extensively excerpted and commented upon in the succeeding centuries.

When the flame of learning was finally rekindled in the West, Galen was among the first of the classical authors to be translated into Latin, originally from the Arabic, and then later directly from Greek manuscripts. His *Ars Medica* was read in Paris and Oxford in the thirteenth century. By the fourteenth century he had become a canonical figure in Europe as well. Dante places him with the

virtuous pagans in a relatively comfortable antechamber to the inferno; Chaucer mentions him along with Hippocrates as the model of the figure of the physician. For several centuries, European learned medicine was basically Galenic; medical students from Salerno to Salamanca, Padua to Paris, learned therapeutics at least indirectly from Galen's *On the Therapeutic Method*, diagnosis and prognosis from his works on the pulse, and anatomy from his anatomical texts, as faithfully demonstrated by professors in the theatres.

Although the first cracks in the façade of his pre-eminence date from 1543 and the publication of Vesalius' *de Fabrica*, his influence continued to be enormous. As late as the seventeenth century, avatars of the new science such as Descartes and Galileo still talk respectfully of Galen and Galenism, even if they sometimes take issue with it, and Galen's demonstration of the cerebral origin of the nerves is still being repeated in the anatomical schools. If Vesalius, and later Harvey, rendered Galen's account of human anatomy and physiology largely obsolescent, his influence continued to be felt in clinical medicine, even as a revival of Hippocratism sought to re-inject a certain empiricism and distrust of systematicity into medical practice. As late as the nineteenth century at the University of Würzburg, the medical student's oral exam consisted in being asked to comment on a passage of Galen chosen at random; the much-maligned edition of Kühn, comprising twenty-two large volumes appearing between 1819 and 1833, and still our best text for much of Galen, was produced with the interests of practising doctors rather than scholars in mind. And some typically Galenic forms of treatment, notably bloodletting, persisted even into the twentieth century. Ninety years ago the physician–scholar Arthur Brock, writing from a wartime military hospital in the introduction to his translation of Galen's *On the Natural Faculties*, could seriously, if somewhat forlornly, advocate a return to some aspects of Galenic practice. It is only in the last hundred years or so that Galen has suffered a final eclipse as a medical authority; although I am told that in parts of rural Spain a doctor may still be familiarly referred to as '*un galeno*'.

But for a while at least that eclipse seemed total; and only a few scholars continued the slow and demanding work of producing proper critical editions of his works that had begun in Germany in the latter part of the nineteenth century. After the First World

War, the stream dwindled and then virtually dried up. It was not until the 1970s that there began to appear signs of a revival of scholarly interest in the man who, along with Ptolemy, and arguably also Archimedes, has the right to claim to have been the most influential of all Greek scientists, and rivalling even Plato and Aristotle in the depth and continuity of his intellectual impact on succeeding centuries. At least now Galen is receiving renewed and vigorous attention from classicists and philosophers as well as historians of culture and medicine.

But of those five giants, Galen is nowadays by far the least well known, even among the generally educated, who will usually know at least the names of others as well as that of Hippocrates, Galen's acknowledged master in matters medical, as well. This *Companion* has been undertaken in the conviction that this state of affairs needs to be remedied, and in the hope of contributing something to that remedy. As such, contributors were asked to make their articles as accessible as possible to the non-specialist, at least the non-specialist in medical history; and they were also asked to make their contributions as representative as possible of Galen's importance in the wide variety of fields surveyed. For obvious reasons, they were not asked to aim at comprehensiveness of treatment; nor did I insist on respect for any orthodoxy (or for any unorthodoxy, for that matter). How far we have succeeded in this aim is obviously for others to decide. But I hope that this brief survey will at least have indicated the worthiness of the enterprise.

To present a rounded picture of Galen's importance and achievements, contributions were solicited from historians of philosophy as well as of medicine; and I have tried to strike a balance in the presentation of the various facets of Galen's intellectual persona. I had hoped to cover more areas, but at various stages four people who had originally agreed to participate in the project withdrew from it for various reasons (and none). In particular, it is a great loss not to have been able to publish the promised article concerning Galen's work on diagnostics and the theory of the pulse, one of his most important contributions to medical theory and practice; I have tried, inadequately, partially to remedy this deficiency in the introductory chapter on Galen's life and work. In addition, it will be apparent that different chapters sometimes range over the same territory, sometimes even quoting the same texts. In almost all cases, these are

approached from different angles, and with the aim of illuminating distinct features of Galen's multi-faceted intellectual personality. But some reduplication has been inevitable, and here again I have not sought to intervene with too heavy an editorial hand; here, too, we would crave the reader's indulgence. These problems have also drawn out the gestation period of this volume to more than usually elephantine proportions; I would like to record my gratitude to the surviving contributors for their cheerfulness in the face of delay, and their conscientiousness in responding to my often hasty and frequently importunate questions.

NOTE ON CITATIONS AND ABBREVIATIONS

It is not easy to impose order and orthodoxy of citation on Galen's sprawling corpus; and within this *Companion* I have tolerated slight variations in referential style in line with the preferences of the various contributors. But I hope – and trust – that none of these variations will cause confusion. Ever since the late medieval period, when Galen's writings began to exercise their extraordinary, resurgent grip on Western medical theory and practice by way of Latin translations, it has been customary to refer to his multifarious texts by way of their Latin titles. For this book, I have insisted on their being assigned English titles, although the preferred abbreviations for them will usually reflect their Latin originals (this is to maintain some degree of consistency with the usual manner of citation elsewhere – although, as I noted above, this too is various). As an aid to cross-reference, two appendixes have been provided. Appendix 1 lists the texts, with their Latin names and abbreviations, as they appear in the massive Kühn edition of 1819–33, as well as listing other, later, critical editions where they exist. Appendix 2 relates the preferred English titles to the Latin abbreviations in the case of the bulk of the texts (and all of those cited in this *Companion*), as well as indicating where translations exist into modern languages. Every treatise will be cited on its first appearance in each chapter by way of English title followed by standard Latin abbreviation; thereafter it will (typically) be referred to by that abbreviation. In the case of reference to particular passages of text, I have also permitted some variability in citation convention. But I have insisted that every text which appears in Kühn (*Galeni Opera Omnia*, 20 vols. in 22, Leipzig, 1819–33) should be referred to by way of volume (in Roman) and page (in Arabic) number in that edition, even in cases where the Kühn text has been superseded by

later critical editions, the reason for this being that such later texts generally (and translations usually) contain marginal references to it, and so Kühn references may be used to navigate other editions. Thus a typical minimal reference might read: '*Aff.Dig*. V 40–1', indicating a reference to the text *The Passions of the Soul* located at pages 40–1 of Kühn volume V. On occasion, line numbers have been added for further precision, even though Kühn's text does not print marginal line-numbers. However, contributors have sometimes preferred to cite the later editions too, in particular when they appear either in the three-volume collection *Galeni Scripta Minora* which appeared in Leipzig in 1884, 1891 and 1893 (edited by Marquardt, Müller and Helmreich, respectively), abbreviated '*SM*', or in the *Corpus Medicorum Graecorum* series begun by the Berlin Academy at the end of the nineteenth century, and which still continues its monumental task of producing proper critical editions of the entire Greek medical corpus, abbreviated '*CMG*'. Thus, since *Aff.Dig*. is also edited in *SM* 1, a fuller reference might read '*Aff.Dig.* V 40–1, = *SM* 1, 31,9–14', further citing page 31, lines 9–14 of *Galeni Scripta Minora* 1. Finally, this text is also edited in the *CMG* (by de Boer, 1937), and consequently a complete reference would read '*Aff.Dig.* V 40–1, = *SM* 1, 31,9–14, = *CMG* V 4,1,1, 27, 21–3', additionally citing page 27, lines 21–3 of *CMG* volume V (which is the Galen section), subvolume 4,1,1 (the 1937 edition of the text in question by Wilko de Boer). But in general, we have not thought it worthwhile to cite more than two different editions. Finally, Galen himself divided his longer works into books; later editors divided these into chapters (often arbitrarily, not to say perversely); and some modern editions break the text down into smaller sections still. Some have preferred on occasion also to cite using these further tools, and I have not stood in their way. Book (Roman) and chapter (Arabic) numbers appear immediately after the title abbreviation, and are separated from the remainder of the reference by a colon (in the case of single-book treatises, no book number will be cited: '*Aff.Dig.* 8: V 40–1, = *SM* 1, 31,9–14', a reference to chapter 8 of *Aff.Dig*.). Thus, *On the Doctrines of Hippocrates and Plato* (*PHP*), a major treatise in nine books, occupies the bulk of Kühn volume V; it has also been edited in recent times, with English translation and commentary, by Phillip De Lacy as *CMG* V 4,1,2 (3 vols., Berlin, 1978–83). So a (very) full reference to a particular passage might read as follows: '*PHP* II 2:

V 212–13, = *CMG* V 4,1,2, 102,18–24'. Here, the page and line numbers refer to the Greek text, and not to the facing English translation; and this convention has been adhered to in other similar cases. In addition, some contributors have preferred to indicate the later editions (*SM*, *CMG*, or others) by citing page number plus the name of the editor; in this manner the last reference would read '*PHP* II 2: V 212–13, = 102,18–24 De Lacy'; in such cases, however, the edition will have been fully referenced at the first mention of the text in the chapter. All of this may seem excessively complex and unwieldy, and perhaps it is. But it should at least be relatively unambiguous.

1 The man and his work

Galen was born in September AD 129, in Pergamum on the Ionian seaboard of Asia Minor. He died sometime in the second decade of the third century, probably in Rome.[1] He lived, and worked, until well into his eighties; and over the course of that long and productive life wrote (or rather dictated, sometimes more than one treatise at a time, to relays of slaves)[2] a vast number of works on a wide variety of topics, ranging from medicine, through logic and philosophy, to philology and literary criticism. Many – indeed most – of these books are lost; but we are fortunate to possess two short texts from Galen's own hand that deal with his output: *On My Own Books* (*Lib.Prop.*) XIX 8–48, = *SM* 2, 91–14,[3] and *The Order of My Own Books* (*Ord.Lib.Prop.*) XIX 49–61, = *SM* 2, 80–90;[4] the latter deals with the order in which an aspirant doctor should read them, while the former was written in order, he says, to help people determine which of the many works circulating under his name was genuine. These lists are not exhaustive: several indisputably genuine texts fail to appear in them, either because they were written later, or because for whatever reason Galen chose to disown them; moreover the Greek text suffers from several *lacunae* (although some of these have been filled from Arabic sources and by way of a newly recovered Greek manuscript in Véronique Boudon's recent edition).[5] But a fair proportion, particularly of the medical output, does survive (in fact it constitutes the most extensive surviving corpus of any ancient author, accounting for about 10 per cent of what we possess of Greek prior to AD 350);[6] and this, along with the bibliographical information supplied by the two texts just mentioned, allows us to form a three-dimensional picture of Galen, the man and his achievement.

Second-century Pergamum was a great and thriving city, one of the largest of Asia Minor;[7] and Galen was born into a good family in it. His father, Nicon, whom he revered, was an architect (a profession that encompassed that of engineer), and he ensured that Galen received the best possible liberal education, as well as providing him with an exemplar of the life well lived, both morally and intellectually (*The Passions of the Soul* [*Aff.Dig.*] V 40, = *SM* I 31,9–12). His mother, by contrast was a bad-tempered shrew, prone to biting her servants, as well as screaming at and attacking her husband (40–1, = *SM* I 31, 12–14). Galen apparently never married (nor do we hear of any brothers or sisters); and, while he treats women patients, and will listen to advice from midwives, his world as he portrays it is almost exclusively a masculine one, and he frequently seems to find female company irritating. When the wife of Boethus, whom he was treating, faints in the bath, Galen berates her maidservants for standing around screaming and wailing, and doing nothing to help (*Praen.* XIV 643–4, = 112,12–114,2), although a little earlier he has described her chief nurse as 'a most excellent woman'. An exception is his attitude to the female Platonist Arria whom, at the very end of his life, he describes as 'dearest of all to me, and most highly praised by all on account of her rigorous philosophising and her great appreciation for Plato's writings' (*On Theriac to Piso* [*Ther.Pis.*] XIV 218); but this is indeed exceptional. And while he allows that 'women are similar to men in that they are rational animals, that is capable of acquiring knowledge'[8] (in apparent contrast with Aristotle), he still thinks (in common with most ancient theorists) that women are in general markedly inferior to men, on account of their being adapted for childbearing (see, e.g., *On the Utility of the Parts* [*UP*] IV 145–58, = ii 286,13–296,7 Helmreich).

Moreover, he evinces an ascetic distaste for sexual excess in general, and homosexuality in particular (homosexuals are derided as 'woolworkers': *On the Therapeutic Method* [*MM*] X 10–11; cf. *On Affected Parts* [*Loc.Aff.*] VIII 225–6), and his attitude to such practices as fellatio and cunnilingus is equally puritanical (*On the Powers* [*and Mixtures*] *of Simple Drugs* [*SMT*] XII 248–50). He understands that sex is extremely pleasurable (indeed, a providential Nature has made it so in order to ensure the continuation of species: *UP* IV 144, 181–2, = ii 285,27–286,12, 314,19–315,4); and Galen expresses his deep admiration at the marvellous skill of the Creator in constructing

the functional architecture of the penis (*UP* IV 211–19, = ii 337,3–342,20).[9] But he still thinks that a preoccupation with sex is bestial, and incompatible with the highest human life (*The Best Doctor is also a Philosopher* [*Opt.Med.*] I 59, = *SM* 2, 6,3–9). His treatise *On Moral Character* (*Mor.*), which survives only in an Arabic epitome,[10] takes the fact that people tend to satisfy their appetites (particularly their sexual ones) in private as a sign that they are aware of their shameful and unworthy nature: 'the rational soul behaves like this when the appetitive soul attempts to win it over to desiring sexual intercourse, since it sees that this is harmful both to the body and to the soul' (*Mor.* 2, 245–6 Mattock). In fact, it is not even true to say that 'pleasure is the goal of the appetitive soul . . . The goal of the appetitive soul is the [preservation of the] life of the body, and the pleasures of food and sexual intercourse are like the bait that is placed in the trap in order to snare the animal' (*ibid.*, 249). Finally, in *On Affected Parts* (*Loc.Aff.*) VIII 417–21, he notes that, while the retention of semen and menstrual fluid, even in small amounts, can have serious pathological effects, and hence that regular sexual release is a good idea for purposes of regimen, this doesn't mean one should do it for fun. Indeed, he praises the example of Diogenes the Cynic for relying on masturbation rather than loose women for such purposes 'as all moderate men should'. It is hard to resist the temptation of essaying a Freudian 'explanation' for all of this.

At all events, from his father's example (and in horrified reaction against that of his mother), he learned to despise the siren lures of wealth and reputation, and to treat the slings and arrows of fortune with indifference (*ibid.* 42–5, = 32,11–35,3). Nicon also looked after his son's physical health, prescribing him a regimen that kept him free of the sort of illness that attacked his more acratic friends (*On Good and Bad Humours* [*Bon.Mal.Suc.*] VI 755–6, = *CMG* V 4,2, 392,21–393,11). At *Ord.Lib.Prop.* XIX 59, = *SM* 2, 88,7–15, Galen praises his father for having given him an excellent grounding in grammar and mathematics, and he says that he began to study logic at fourteen. He learned philosophy from leading adherents of the major schools, Platonic, Aristotelian, Stoic and Epicurean, carefully selected by his father for their moral and intellectual virtues (cf. *Aff.Dig.* V 41–2, = *SM* 1 31,23–32,11), although as he later tells us he was less than impressed with some of their arguments. Indeed he seemed well on his way to a career as a philosopher when his father,

moved by a dream, decided that he should take up medical studies as well (*Ord.Lib.Prop.* XIX 59, = *SM* 2, 88,13–17).[11]

This he did with equal determination and drive, seeking out instruction from a variety of different doctors. At Pergamum he studied with Satyrus (whom he accuses of peddling misleading interpretations of Hippocrates: *Ord. Lib.Prop.* XIX 57–8, = *SM* 2, 87,8–19), but on his father's death in AD 149, at which he no doubt came into a considerable fortune (notwithstanding his protestations of asceticism and indifference to money; his father had been a landowner: *On the Properties of Foodstuffs* [*Alim.Fac.*] VI 552–53, = *CMG* V 4,2, 261, 6–24; *Bon.Mal.Suc.* VI 755, = *CMG* V 4, 2, 393, 1), he travelled first to Smyrna to study with Pelops, a leading Rationalist physician[12] (he wrote some early works here, two of which survive: *On the Anatomy of the Uterus* [*Ut.Diss.* II 887–908, = *CMG* V 2,1], and *On Medical Experience* [*Med.Exp.*, = Walzer, 1944]: *Lib.Prop.* XIX 16–17, = *SM* 2, 97,6–23) where he also attended lectures by the Platonist Albinus (*Lib.Prop.* XIX 16–7, = *SM* 2, 97,6–98,11; cf. *On Hippocrates' 'Nature of Man'* [*HNH*] V 136, = *CMG* V 9,1, 70,8–15), and then to Corinth and finally Alexandria and elsewhere in search of the leading anatomist of the day, Numisianus (*On Anatomical Procedures* [*AA*] II 217–8;[13] cf. *On Black Bile* [*At.Bil.*] V 112, = *CMG* V 4,1,1, 75,17).

He returned to Pergamum in AD 157 where he was offered the job of physician at the gladiatorial school 'even though I was young, only 28', a job which naturally afforded him the best possible on-the-job training in orthopaedic surgery, and in which, by his own account, he was unprecedentedly successful: although many had died under his predecessors, he hardly lost a single patient. Thus his initial contract was renewed four successive times, and he held the post for four years, until the autumn of 161.[14]

Shortly thereafter, he left Pergamum to seek his fortune in Rome, motivated in part apparently by the political unrest which had broken out there (which he characterizes with the loaded, Thucydidean term '*stasis*': *Praen.* XIV 622–3, = *CMG* V 8,1, 92,6–10; cf. 648, = 116,27; this is one of several episodes that reveal Galen to be of a somewhat timid disposition, at least as far as his own physical safety was concerned). But before arriving in Rome he travelled extensively around the eastern Mediterranean to investigate local herbal and mineral remedies, and he frequently reports on what he

observed.[15] He recorded the local names for grain-plants in Thrace and Macedonia (*Alim.Fac.* VI 513–14, = *CMG* V 4,2, 236,13–27). He visited Cyprus in search of useful minerals (*SMT* XII 171, 227, 229, 231–8, etc.), even going down a copper mine in search of ore (*On Antidotes* [*Ant.*] XIV 6); and he ventured as far as Palestine in search of bitumen and other medicinally useful substances to be found around the Dead Sea (*SMT* XII 171, 203).

In Rome, at any rate by his own account, his rise, both social and professional, was meteoric and, again by his own account, entirely due to his own brilliance. The various cases recounted in *Praen.* afford our most important, if evidently partial (in both senses of the word) evidence for this; but I begin with a tale told in the relatively late *On Affected Parts* (*Loc.Aff.*) VIII 361–6. At the very beginning of his first Roman sojourn, he tells us, his superior knowledge and ability at differential diagnosis won him the admiration and support of the philosopher Glaucon, whom (or so at least he says) he came upon by chance in the street, and who asked him to visit a patient who was suffering from a diarrhoea of the sort often, apparently, mischaracterized by incompetent doctors as dysentery. Glaucon, as a philosopher, is keen to test whether Galen really can perform correct diagnoses and prognoses 'which seem more akin to divination than medicine'. Galen duly obliges, and makes several crucial observations, including that of bloody serum in the stool which is, he says, a clear sign of liver disease, a diagnosis he verifies by palpation of the patient's abdomen, and which is confirmed by observation of the pulse and other signs which lead him to conclude that the liver is not merely weakened but actually inflamed. In this case the patient was also a doctor; and Galen infers from a preparation of hyssop and honeywater that he sees by the window that he had diagnosed himself as suffering from pleurisy. This good fortune allows him to impress Glaucon all the more, as he is now able to tell the patient where he is feeling pain; Glaucon, wrongly supposing that Galen has made this determination from the pulse alone, is all the more astonished, an astonishment compounded when Galen is able to predict that he will feel the desire to cough, and will in fact cough at very long intervals. Again by chance this prediction is vindicated almost immediately. Next he is able to make further predictions and retrodictions of the course of the illness which are also, as he admits, partly due to good fortune (although these are not simply lucky guesses),

which the patient confirms. Finally, he is able to reveal the patient's own mistaken diagnosis, much to the latter's surprise:

> And from this time onwards, Glaucon held both myself and the entire medical art in the highest regard, whereas previously he had not esteemed it highly, simply because he had never come across men worthy of respect who were versed in it. (*Loc.Aff.* VIII 366)

The moral of the story, Galen tells his readers, is that doctors need to remember how important it is to know which symptoms are proper to particular diseases and which common to several, which are always associated with a particular ailment, which for the most part, which half of the time, and which rarely.[16] But they also need to be able to grasp opportunities offered by good fortune, such as happened in this case: 'for while good fortune often provides many opportunities for achieving a great reputation, still most people are unable to avail themselves of them on account of their ignorance' (*ibid.*).

That story exemplifies in a particularly clear manner several features of Galen's autobiographical style. Most obviously, Galen was able to move with relative ease in the highest social circles almost as soon as he arrived in Rome. Although he invariably portrays his success as the result of his own ability, integrity and industry, as well as his talent for unmasking the baseless pretensions of his rivals, it is evident that he availed himself of both his own social standing and of various connections with his family at Pergamum.[17] The first case he recounts in *Praen.* was the cure of a fellow Pergamene living in Rome, the Peripatetic philosopher Eudemus, who had apparently known Galen's father: at any rate he knew of the dreams that had made Nicon turn him towards medicine, although apparently he also thought that for Galen this was merely a sideline, considering him rather to be a philosopher like himself (*Praen.* XIV 608, = 76,26–78,2 Nutton).[18]

But while it was important for Galen that philosophers should accept him as one of their own, he was equally concerned to be taken seriously as a doctor, in both theory and practice. This accounts for the centrality of a philosopher, Glaucon, in the story from *Loc.Aff.* Glaucon is evidently already known to him, but in what circles and for what reasons it is not clear – in any event, he is at least presented as not yet having first-hand knowledge of Galen's clinical prowess.

Philosophers might be expected to understand the true reasons for successes of this sort, and not to dismiss them as mere divination, or, worse, as witchcraft. In the characteristic polemic against the degeneracy of the times with which he begins *Praen.*,[19] Galen rails at the pseudo-doctors who make their way by flattery and insinuation, who gain pupils by making the art out to be easy (XIV 599–601, = 68,3–70,1 Nutton).[20] But worst of all, when a good man makes a sound prediction on the basis of methodical understanding, proper training, long experience, precise observation and rational deduction, far from receiving the acclaim he deserves he is suspected of sorcery (which is a good deal worse than the mere slur that scientific prognosis is nothing but fortune-telling),[21] and will incur the malicious enmity of the others, who will conspire against him, as they did against Quintus ('the best doctor of his generation') and force him either into silence or exile on trumped-up charges (*Praen.* XIV 601–3, = 70,1–72,12 Nutton). Good men are compelled to abandon the fray, 'leaving it to the scoundrels to obtain a reputation'; this is caused by the materialism and hedonism of their rich clients who value nothing unless it leads to pleasure ('geometry and arithmetic they need only in calculating expenses and improving their mansions'); worst of all, they abandon philosophy for sophistry; 'at any rate, as Plato says somewhere, in a contest between a doctor and a cook before a jury of children or fools, the cook would win by a wide margin' (*Praen.* XIV 603–5, = 72,13–74,11 Nutton).[22]

All of this is couched in lurid and at times barely coherent terms; Galen was never one to pull his polemical punches. But it betrays a depth of feeling which is hard to gainsay; and it is, as I said, entirely characteristic of the man and his work (although one may discern a certain mellowing in his attitude that comes with increasing age and security). It comes as no surprise to discover that another work of autobiography (and no doubt of self-promotion, not to say autohagiography, as well as moral philosophy) was entitled *On Slander.*[23]

At any event, Galen presents the cure of Eudemus, which was certainly not his first clinical essay in Rome, and perhaps post-dated the Glaucon episode (*Praen.* XIV 605, = 74,12–15 Nutton), as a turning-point in his career, but also in his worldly education.[24] Having no idea, as a naive provincial, of the wickedness of the big city, he simply went about his business, oblivious of the malicious gossip he was incurring. The case is described in unusually precise detail, even

for Galen (it occupies *Praen.* XIV 605–19, = 74,12–88,13 Nutton). The details are designed to emphasize the complexity of the case, and also how the other doctors involved failed to measure up to them. It is a feature of medicine as it was practised at the time (at least the medicine of the elite) that several doctors were often summoned to the patient's bedside, where they made competing diagnoses and prognoses, leaving the patient, or his representatives, to choose among them.[25]

As Galen presents the case, he was regularly at odds with the advice of the other doctors; and he was regularly proved right. He suspects that the illness is more serious than the others (and indeed the patient himself) suppose: it may be an incipient quartan fever (XIV 606–7, = 74,17–76,8).[26] In due course, Galen's forebodings are borne out; and Eudemus comes to rely upon him, particularly as 'fortuitously, at the same time' Galen was able to make a similarly successful prognosis (XIV 607–9, = 76,8–78,10). Even so, the other doctors demur, prescribing a strong drug (theriac),[27] which Galen says will be worse than useless (XIV 609–11, = 78,10–80,1). And so indeed it proves, particularly when the other doctors administer a second dose (XIV 611, = 80,1–5). Galen makes further predictions on the basis of the pulse and examination of urine (XIV 611, = 80,5–15). Eudemus is then joined by Sergius Paulus, shortly to become the prefect of the city, and Flavius Boethus, an ex-consul and future governor of Palestine, who will subsequently help Galen in his ascent, both of whom happen to be students of Aristotelian philosophy, and he tells them too of Galen's past successes and latest prognostics. When these, too, are vindicated, 'Eudemus was amazed, and revealed my predictions to all his visitors, who included almost all of the social and intellectual leaders of Rome' (XIV 611–12, = 80,15–25). Boethus, it turns out, had heard of Galen, and had invited him 'to give a demonstration of how speech and breath are produced and by what organs' (XIV 612, = 80,25–7); of which more later. At this point, things begin to get ugly; Galen now says that he will be able to cure Eudemus, a position ridiculed by the other doctors, who now accept that their patient has been stricken three times with quartan fever (and hence suppose the case to be hopeless). Here for the first time, Galen says, he becomes aware that his enemies are motivated by jealousy, and that they seek to win over the lay-people present (XIV 613–14, = 82,8–31). Of course, his opponents' slanders are exposed for what

they are, even though they continue to accuse him of practising divination (XIV 614–15, = 84,1–10); and Galen triumphantly predicts the successful outcome of the disease, much to their discomfiture (XIV 615–17, = 84,10–86,7). Eudemus, being a philosopher, asks for a complete account of how Galen arrived at his opinion, which Galen duly does; and Eudemus, confident now in the final result, says: 'you have reasoned out your discovery of what is to come as a logician should' (XIV 617–28, = 86,7–30): high praise indeed from a philosopher.

It is worth briefly relating this case, and Galen's presentation of it, to the previous one. Here again a philosopher figures, although in this case one with excellent social and political connections. He is thus disposed to appreciate the rigour of Galen's methods, and to see through the sophistry of the other quacks. As Galen presents it, it is this fact, allied to Galen's evident practical success, which tips the balance. Galen not only gets things right; he can explain how it is that he does so, at least in general terms and at least to the logically literate. The logically illiterate, of course, hate him all the more for that. There is, however, one obvious difference between the two cases. In the first, Galen emphasizes how good luck helped him make a good impression; and he conceals, at least for a time, the basis for some of his predictions. In the second, everything is presented as being above board. It is not that Galen exactly engages in sharp practice in the first; but his *modus operandi* at least seems somewhat at odds with the persona of openness adopted in the second. All of which should put us on our guard when faced with Galen's very considerable rhetorical and persuasive skills. He is invariably the hero in his own drama; but just what kind of hero – a cunning Odysseus, a frank Achilles – varies from drama to drama. For all that, we should not allow such observations to take us too far into cynicism. Galen's extraordinary industry is irrefutable. He did make a big splash, if not perhaps invariably for precisely the virtuous reasons he would have us believe; and there is no evidence to suppose that he was a mere charlatan.

We have looked at length at two cases from the beginning of Galen's Roman career. *Praen.* lists several more striking successes that took place over the next few years. They are carefully chosen (confected?) to illustrate different aspects of Galen's expertise, as well as different stages in his social ascent; and they differ widely in tone. Two of them illustrate Galen's ability to diagnose psychological

causes of distress, and one involves inference from psychological disturbance to a diagnosis. In the best known, Galen recounts how he diagnosed love-sickness in the wife of Justus.[28] He was called in to see the woman, who was suffering from insomnia and despondency, although without other physical symptoms (*Praen.* XIV 630–1, = 100,7–22). Galen's preliminary diagnosis is that she is suffering either from a physiologically based depression caused by black bile,[29] or some more directly psychological malaise (XIV 631, = 100,22–102,2). He visits her on successive days, but finds her unwilling to receive him or talk about her complaint (a fact which is in itself diagnostically relevant), but by interrogating her maid he reinforces his provisional conclusion that she is suffering from a kind of grief (XIV 631–2, = 102,2–9), the source of which he discovered 'by chance', when someone happened to enter while he was consulting with the patient, and mention that he had just seen Pylades dancing in the theatre. The woman evinced signs of distress, and Galen immediately took her pulse and found it 'irregular in several ways', a sure sign of mental disturbance. Galen then contrived to check his diagnosis (the woman is hopelessly in love with a dancer) by having the names of other dancers mentioned apparently at random (they produce no effect) and then finally having Pylades' name brought up again, with the same discombobulating results. The diagnosis (although presumably not the cure, which Galen does not mention) is now secure (*Praen.* XIV 632–3, = 102,9–28).

Galen again relies upon a variety of diagnostic observations, and his ability to profit from a lucky chance; also noticeable is his attempt to confirm the initial diagnosis by an empirical test.[30] The case is, as Galen admits here and elsewhere, very similar to a celebrated diagnosis made by the third-century BC Alexandrian doctor Erasistratus (and the story falls squarely within a clear romantic tradition).[31] Galen does not seek to take credit for originality where none is deserved. Indeed, he sees himself as championing (and reviving) the great tradition of medical and scientific explanation that stretches back to Hippocrates, Plato and Aristotle.[32] As noted earlier, his association with Peripatetics (although how seriously these upper-class thinkers took their philosophy is another matter) is hardly adventitious, since he himself adopts a version of the Aristotelian account of method and science.[33] Indeed part of what he thinks responsible for the degeneracy of contemporary medicine is

its cavalier disregard for the careful and methodical determination of the essential natures of things on the basis of which (and only on the basis of which) can a secure, explanatory scientific practice be erected,[34] and only thus can the sorts of diagnosis and prognosis which Galen recounts in *Praen.*, and to which he attributes his great success, be achieved.

The events just related may all be dated to Galen's first year in Rome,[35] as may also his public debate with leading Stoic and Peripatetic philosophers in the course of making good on his promise to Boethus to demonstrate 'how speech and breath are produced and by what organs' (XIV 612, = 80,25–7). Public demonstration, or demonstration before an influential invited audience, of either scientific or argumentative skill (or, as in this case, both) was a standard feature of the intellectual life of the times (it also served as a rather cruder form of entertainment, at any rate in the case of the vivisectional demonstrations).[36] Boethus was to become a major patron for Galen; and Galen dedicated the first six books of *On the Doctrines of Hippocrates and Plato* (*PHP*), his major exploration of the relations between philosophy and medicine, and his attack upon the Stoics' unitary psychology, to him, as well as the first book of *On the Utility of the Parts* (*UP*), his great work of functional anatomy: 'Boethus left Rome . . . with these works in his possession. His destination was Syria Palestina where he was to serve as governor [in AD 165], where too he died [in AD 169]' (*Lib.Prop.* XIX 16, = *SM* 2, 96,19–24).[37] Galen also dedicated to him *On the Causes of Breathing* (*Caus.Resp.*),[38] the lost *On the Voice*, all of which are obviously relevant to the topic of his demonstration, as well as six books on *On the Anatomy of Hippocrates* and three on *On the Anatomy of Erasistratus*, both composed 'in a rather combative vein', in response to the aging but cantankerous anatomist Martialius, with whom Galen has several public confrontations (*Lib.Prop.* XIX 12–14, = *SM* 2, 94,16–96,1).[39] In addition, we learn from *AA* II 215–18 that he also dedicated the lost texts *On Vivisection* and *On Dissection of Dead Bodies* to him, as well as a short set of anatomical notes. Moreover, he says that he sent the rest of *UP* to him when it was completed. He made 'many anatomical demonstrations' for him (*AA* II 218). Boethus was clearly the most important figure in Galen's early career.

The public disputation described in *Praen.*[40] also took place in the first year of Galen's first stay in Rome, although as I said it was

only one of many; in fact, Galen was making public demonstrations almost on a daily basis (*On Bloodletting Against the Erasistrateans at Rome* [*Ven.Sect.Er.Rom.*] XI 194).[41] Boethus was taking tutorials in Aristotelian philosophy from one Alexander of Damascus 'who was expert too in the doctrines of Plato, but inclined more to those of Aristotle' (*Praen.* XIV 627, = 96.6–9 Nutton).[42] The idea was for Galen to make his demonstrations of the sources of the voice on his usual live subjects (in this case kids and pigs): 'before dissecting, I said that would show what was revealed by dissection, and that I rather hoped that Alexander could be my guide, indeed the guide of all us, in drawing the logical conclusions from what transpired' (*Praen.* XIV 627–8, = 96,19–23). Before the demonstration can even begin, however, Alexander questions whether we should accept the evidence of the senses. Galen walks out, saying that he doesn't wish to associate with rustic Pyrrhonists (*Praen.* XIV 628, = 96,27–98,8).[43] Not an auspicious start; but Galen is persuaded to return at a later date and make the promised demonstration, which he does to great acclaim (XIV 629–30, = 98,9–100,6).

This demonstration, which he repeated many times, was a theatrical *tour de force*; it also served to demonstrate Galen's greatest anatomical discovery, that of the function of the intercostal muscles in breathing and voice-production. Galen is scrupulous about indicating what he himself had discovered as opposed to what he has learned (and confirmed) from others. On his return to Rome in 169, he discovered some juvenilia of his in circulation, including *The Movement of the Chest and Lungs*, which he had

> written as a favour to a fellow student . . . The books remained in the possession of certain other individuals . . . Then someone added his own preface and tried to pass it off as his own; but was found out. I added a passage to the end of the third book, advertising my own subsequent discoveries; for what I had written in the three books were the doctrines of my teacher Pelops. (*Lib.Prop.* XIX 17, = *SM* 2, 97,23–98,10)[44]

Galen devotes most of Book 8 of *AA* (II 661–90) to describe an exhaustive series of experiments and observations regarding the effects of ligature and section of a wide variety of nerves in the thoracic region, as well as to the effects of various spinal chord sections.[45] In chapter 4 (II 667–75) Galen describes a sequence of experiments on live animals involving isolating and ligating key nerves:

For a demonstration, it is better to put the threads under all the nerves without tying them. Then you can show that the animal cries out when struck, but that it suddenly becomes silent after the nerves have been tied. The spectators are astonished. They think it wonderful that voice is destroyed when small nerves in the back are tied. Have several assistants to help you in such demonstrations so that the loops may be put round all the nerves quickly. If you do not want to loosen them, it does not matter how you bind, but if you want to loosen them again to show that the animal recovers its voice – for this surprises the spectators even more – do not bind the loops too tightly so that it is easy to loosen them quickly. (*AA* II 669; trans. after Singer, 1956)

The theatricality of the spectacle is apparent. Galen's aim is to astonish – but it is also to teach and to demonstrate, and he is rightly proud both of his practical skill in isolating the structures, and in the theoretical conclusions, regarding the nature and function of the nervous system, that he can draw from them. Observation alone is not enough: science requires that the observations be systematized and structured into a properly explanatory system; and only someone gifted and practised in logic can do that.

All of this took place in Galen's evidently hectic first year in Rome. His success was immediate, as was the enmity of his inferior opponents. Things reached such a pitch that within a couple of years Galen gave up public performances in order 'to concentrate on healing the sick', and letting his therapeutic achievements speak for themselves (*Lib.Prop.* XIX 15, *SM* 2, 96,7–16).[46] Shortly thereafter, he left Rome and returned to Pergamum, under somewhat peculiar circumstances. He had told Eudemus that he intended to return as soon as he could, disgusted as he was with the degeneracy of Rome (*Praen.* XIV 622–3, = 92,6–10). Moreover, after another spectacular cure (this time of Boethus' wife), he says both that the malice of his enemies had increased (it was not helped by a gift of 400 gold sesterces from the grateful husband), while he also feared that the praise of his friends would lead to his being drawn into the imperial circle (*Praen.* XIV 647, = 116,16–23). As he tells the story, it seems as though he almost immediately made to leave, and in secret, fearful of being detained by 'one of the influential men in Rome, or even by the emperor himself . . . like a runaway slave' (*Praen.* XIV 648–9, = 116,24–118,8). And yet his departure took place in the summer of 166, while the cure of Boethus' wife must have occurred at least

one, and probably two, years earlier.[47] Whatever we are to make of this (and it does not reflect well on Galen's candour), he escaped Rome by pretending to go for a country holiday, then slipping off to Brindisi, across the Adriatic to Corinth, and thence by sea again to Asia Minor. Perhaps he genuinely feared for his life. Perhaps he was, as he claims, averse to a high-profile public career in imperial service. Perhaps. The brief mention in *Lib.Prop.* notes that his departure happened shortly after an outbreak of plague (XIX 15, = *SM* 2, 96, 17–19).

The next couple of years are veiled in obscurity. Galen merely says that on his return home 'I did what I usually did' (*Lib.Prop.* XIX 17, = *SM* 2, 98,11–12), which presumably means treating patients, writing and research, although he does not explicitly date any of his texts to this period. It is conceivable that he also visited Lycia and Cyprus in search of medicinal plants (*SMT* XII 203, 220, 226–7).[48] About two and a half years later, Galen received a summons to join the Emperors (Lucius Verus and Marcus Aurelius) in their camp at Aquileia, where they were preparing to campaign against the German tribes on the Danube, his name having been mentioned in the course of 'a discussion about those who had demonstrated medicine and philosophy by deeds as well as words' (*Praen.* XIV 649, = 118,18–19). This self-characterization (adroitly placed in the mouths of others) is pointed: for Galen frequently castigates his medical opponents for their reliance on book-learning and lack of serious clinical practice (he calls them '*logiatroi*', word-doctors; *On Hippocrates' 'Nature of Man'* [*HNH*] XV, = *CMG* V 9,1, 81,23–4) and he also takes philosophers to task for failing to live up to their precepts, and preferring the appearance of wisdom to its reality ('we have not found even five people who actually want to be wise instead of merely appearing to be so': *On the Therapeutic Method* [*MM*] X 114). At *Praen.* XIV 655–6, = 124,14–22 he lumps them both together, and charges them with having brought both disciplines into disrepute by their malice, incompetence and moral laxity. He is particularly scornful of Methodist doctors and Cynic philosophers, both of whom he abominates as offering a fraudulent simulacrum of the truth, and for neglecting, indeed despising, the proper training in logical and analytical methods (*On the Diagnosis and Cure of the Errors of the Soul* [*Pecc.Dig.*] V 69–72, = *SM* 1, 53, 23–56,9).[49]

At all events, Galen travelled up the Ionian seaboard to the Troad, where he found a ship bound for Thessalonika. He persuaded the captain to make a stop in Lemnos, where he was hoping to procure a supply of the famous branded medicinal earth, the terra sigillata. Unfortunately they landed at the wrong port on the wrong side of the island; being unable to persuade the captain to wait, he was unable to make his purchase. Some twenty years later, he succeeded in buying 20,000 stamped cakes, which he used for a variety of conditions; Galen was not a man to do things by halves (the whole story is told at *SMT* XII 169–75). Next he crossed to Thrace and travelled to Macedonia on foot (*SMT* XII 171), arriving at Aquileia in the winter of 168–9, just in time for an outbreak of the plague, 'which caused destruction on a scale previously unknown'. The emperors both rapidly set off for Rome (although Lucius Verus died suddenly on the way), leaving Galen and other doctors to cope as best they could with the disease and the rough winter weather (*Lib.Prop.* XIX 18, = *SM* 2, 98,23–99,3). Some time in the spring, Galen rejoined the surviving emperor Marcus Aurelius in Rome; and from now on, in spite of his earlier reservations, his professional life was intimately linked with that of the Imperial family. It may have been at this time that he treated the boy Sextus Quintilius, an associate of the young prince Commodus (*Praen.* XIV 651–7, = 120,16–126,15); although this may have taken place later, during Marcus' absence on the prolonged German wars, or even after his return in 176. Marcus asked Galen to accompany him on the campaign; no doubt still scarred by his experience of military life the previous winter, Galen contrived politely to avoid the invitation by letting it be known that he had received instructions from the god Asclepius not to go (*Lib.Prop.* XIX 18–19, = *SM* 2, 99,6–13); this was a clever move, since Asclepius was Marcus' patron deity, and as such he could hardly go against his wishes.[50] Once again, there is a suggestion that Galen, for all his vaunted concern with virtue, lacked a certain amount of physical courage.[51]

Galen says that Marcus at least believed that the campaign would not be a long one (*Lib.Prop.* XIX 19, = *SM* 2, 99,13–14; cf. *Praen.* XIV 650, = 118,27); but in the event he was away from Rome for seven years, during which time Galen attended to the medical needs of the young Commodus, curing him of a fever and tonsilitis in less than three days, in a manner utterly contrary to that recommended by the

Methodist doctors in the entourage of the Emperor's cousin, Annia Faustina,[52] who had visited the boy out of concern for his welfare.[53] Once again, Galen remarks that his diagnosis and cure caused great wonderment, although it was in reality nothing exceptional, at least for anyone who knew what they were doing (*Praen.* XIV 661, = 130, 11–12). As he explains to Commodus' tutor Peitholaus, all one needs to know about diagnosis and prognosis is contained in three treatises he had recently written, *On the Differences of Fevers* (*Diff.Feb.*), *On Crises* (*Cris.*) and *On Critical Days* (*Di.Dec.*), which demonstrate that almost all the basic information was already to be found in the works of Hippocrates:

> I only added the theory of pulses, which was all that he had not worked out, just as his successors . . . have made various additions . . . Indeed, a knowledge of the dispositions (*diatheseis*) of the body depends on this theory, just as in turn the prognosis of future events depends upon accurate knowledge of these dispositions.[54] (*Praen.* XIV 665, = 134,38)

Galen did indeed consider his development of pulse doctrine his greatest contribution to diagnostic medicine, and his sphygmological skill is emphasized both in these case-histories and throughout his clinical works, and given detailed exposition in a series of treatises dedicated to the subject. But even in this field he does not claim complete originality, acknowledging the pioneering role of the great third-century BC Alexandrian Herophilus (*Diagnosis by Pulses* [*Dig.Puls.*] VIII 911, 956; *Causes of Pulses* [*Caus.Puls.*] IX 22; *Prognosis by Pulses* [*Praes.Puls.*] IX 278), and recognizing, albeit sometimes somewhat backhandedly, the contributions of later theorists.[55] All these texts, along with *Differences of Pulses* (*Diff.Puls.*), were probably written at around this period (although *Diff.Puls.* may be earlier), and together they constitute a formidable body of text,[56] not much less than 1,000 pages of the Kühn edition (although this includes the Latin translation).[57] His approach consisted of a rigorous classification of pulse-types, according to their size (the extent of the dilatation of the vessel, specified in each of the three dimensions of length, breadth and depth), their speed (how rapidly the diastole is accomplished), their strength, the hardness or softness of the vessels themselves, frequency (interval between pulses), and whether the pulse is consistent or not, and if not whether even in its inconsistency it exhibits some regularity (*On the Pulse for Beginners* [*Puls.*]

VIII 455–8); moreover, recurrent types of pulse are given evocative names: the 'gazelle-like', the 'ant-like', the 'worm-like' and suchlike (*Puls.* VIII 459–60).[58] Evidently, there is a very large number of possible permutations among these variables, although not all of them are diagnostically and therapeutically relevant. But, Galen thinks, it is possible with long practice (which is necessary in order to hone one's sense of touch to detect minute variations: Galen tells us how he trained himself to be able to perceive the faint trace of the arterial systole, which others had said was indiscernible: *Diagnosis by Pulses* [*Dig.Puls.*] VIII 786–806) and experience to discern which particular pulses are associated with what physical conditions, how they vary with age, gender, physical condition and season, how they are affected by emotional states and how various environmental and ingestive factors typically affected them[59] (*Puls.* VIII 462–77), which in turn leads to being able to use them as early warning signs of determinate unhealthy states (*Puls.* VIII 477–92).

But, as his diagnostic practice as already exhibited in some of the histories we have been looking at would indicate, this on its own is not enough: for different patients have different natural constitutions, and hence different healthy states; and in order to make the best possible diagnosis and prognosis in a case of illness, it helps enormously to know what the individual's diagnostic signs looked like when in health. But of course that is not always possible; and in those cases the doctor must fall back on what he can infer about the patient's constitution on the basis of age, gender, general state of health, mode of life and so on (*Puls.* VIII 462–3). There is a good deal of common sense in all of this; and some of Galen's observations are valid enough (indeed his general diagnostic categories in regard to the pulse are by and large compatible with modern clinical practice, even if the baroque complexities of the theory are largely fantastical); on the other hand, they are underpinned by, and taken by Galen to stand in relations of mutual support with, an utterly exploded set of physical and physiological theories.[60]

Some time after the winter of 169, and probably after the emperor's return to Rome in 176,[61] Galen performed a cure on the imperial person which he describes as 'truly remarkable' (*Praen.* XIV 657, = 126,16). His regular doctors, and indeed Marcus himself, all believed a paroxysm[62] had begun, but none such transpired over the succeeding two days. Galen is then called in:

Three doctors had already examined him at dawn and at the eighth hour [i.e. early afternoon]; they had taken his pulse; and they agreed that this was apparently the beginning of an attack of illness. When I stood by in silence, the emperor looked at me and asked why, when the others had taken his pulse, I alone had not done so. I replied that since they had already done so twice and the peculiarities of the pulse were probably known to them through their experience on their travels abroad with him, I expected they could obtain a better diagnosis of his present condition than I. On hearing this, he commanded me to take his pulse. It seemed to me that his pulse, compared with the general norm for each age and constitution, was far from showing the beginning of an attack, and so I said that there was no attack of fever but his stomach was overloaded with the food he had taken, which had turned to phlegm before excretion, and then manifested itself. (*Praen.* XIV 658–9, = 128,1–13)

The emperor immediately recognizes the plausibility of Galen's diagnosis, and asks for advice. Galen is a little reticent to prescribe his usual treatment of peppered wine, 'since doctors should employ the safest remedies in the case of kings', and so Galen prescribes instead a woollen pad for the stomach impregnated with nard. It turns out that the emperor had been wont to use this very remedy himself in similar circumstances. He then had his feet massaged, and ordered the peppered wine (a heating and drying agent to counteract the cold moisture of the phlegm) in any case (*Praen.* XIV 659–60, = 128,13–25). 'As you well know', Galen says, 'he was always speaking of me as the first among physicians and unique among philosophers', in sharp contrast to 'the many avaricious, quarrelsome, proud, jealous and spiteful he had already experienced' (*Praen.* XIV 660, = 128,27–30). This cure was remarkable, in Galen's view, because he was able to determine that the specific sign[63] of the onset of an illness was not present in this case, a specific sign which it was notoriously difficult to perceive. Galen, on his own account was going out on something of a limb here:

Having tested my own diagnosis of the beginning of a paroxysm long and carefully, I dared tell the emperor, a little rashly perhaps, but still I insisted on telling him, as soon as I had touched his pulse, an opinion contrary to what he had conjectured himself and had been told by his doctors. (*Praen.* XIV 661, = 130,7–10)

Here again we may see signs of a certain timidity of disposition lurking behind the bluster and the self-confidence, which sometimes

appear, to Galen's admirers as well as to his detractors, as vainglorious arrogance. For contrary to the rather unattractive image he often seems to be consciously trying to project, Galen was capable of intellectual modesty, of avowing frankly areas of his own ignorance (even if he was still excessively confident in some domains where that confidence was less than fully justified); and he was also capable of changing his mind.[64] But Galen must have felt that everything was going his way: to secure the patronage of the wise and humane philosopher–emperor by means of a brilliant piece of rational diagnosis. And while his autobiographical self-presentation is no doubt both romanticized and self-serving, as autobiographies generally are, there is no reason to doubt that the account has a firm basis in fact. Galen did enter the imperial orbit; and he was indeed a star.[65]

During the emperor's absence, and when he was seeing to the health of Commodus with a success for which history may perhaps not judge him kindly, Galen continued to produce writing at a prodigious rate. In this time, in addition to the works already mentioned, he finished his great work of functional anatomy, *On the Utility of the Parts* (*UP*),[66] as well as completing his major work of medico-philosophical doxology, *On the Doctrines of Hippocrates and Plato* (*PHP*).[67] In this period, too, he wrote *On Anatomical Procedures* (*AA*),[68] and probably the first six books of his therapeutic masterpiece *On the Therapeutic Method* (*MM*)[69] as well, along with several shorter works. In fact this may have been the most productive period of his life (*Lib.Prop.* XIX 19–20, = *SM* 2, 99,25–100,18). Indeed it was the success of *UP*, and the consequent envious slander it aroused among his unworthy opponents, that eventually induced him (at the urging of his friends, he says) briefly to come out of performing retirement and undertake a last series of public demonstrations (*Lib.Prop.* XIX 20–2, = *SM* 2, 100,18–102,10).

Hereafter, our evidence for his life becomes a lot sparser. *Praen.* was probably published in 178; his other (partially) biographical writing, *On slander*, has not survived. Marcus Aurelius died in 180, and the purple was taken by his son Commodus, whose capricious, cruel and deranged reign lasted until his assassination in 192. The empire was then offered to Pertinax, a self-made man who had risen to senatorial rank, and who had a distinguished record of public service. He tried to undo the harm wrought by his predecessor, as well as offering clemency to his own enemies; and sought to restore public finances by, among other things, selling off the luxury goods acquired

by Commodus, and attempting to undo the web of corruption which had stifled trade and ruined the economy. He lasted eighty-six days before the Pretorian Guard, seeing their power threatened, marched to the palace and killed him. Gibbon paints an affecting portrait of his futile appeal to their better nature and his courageous death. Galen wrote a book *Public Pronouncements in the Presence of*[70] *Pertinax* (*Lib.Prop.* XIX 46, = *SM* 2, 122,4), listed among his works relevant to moral philosophy. We know nothing of its content; but it is a safe bet that he honoured the memory of the murdered emperor, the only one named in the title of any of his books.

There followed a period of chaos, with the Pretorian guard first auctioning off the empire to the highest bidder, one Didius Julianus (his principate lasted sixty-six days), which precipitated the three-way civil war from which Septimius Severus would eventually emerge victorious and restore a certain measure of order and dignity to the empire (Galen uncharacteristically flatters him, and his co-emperor, the unworthy Caracalla, in a late work as 'the greatest of emperors': *On Theriac to Piso* [*Ther.Pis.*] XIV 217). Galen was presumably in Rome for most if not all of this period, although he seems to have made a trip back to Pergamum at some time, probably in the 190s, stopping again at Lemnos to replenish his supplies (*SMT* XII 171).[71] He may also have had his library finally brought back with him at this time; at any rate he says that when he started to write commentaries on Hippocrates' texts (probably in the 170s; the task occupied him, on and off, for at least twenty years),[72] he had to reconstruct the errors of the other exegetes from memory, since he did not have his books with him in Rome (*Lib.Prop.* XIX 34, = *SM* 2, 112,5–7). At all events, Galen certainly spent his first period at Rome without his own library, a fact which lends credence to his claims that he had not intended to settle permanently there, even if that was precisely what he did, although always conscious of his status as an exile, albeit one of a large and privileged expatriate population.[73] He writes 'for Greeks and for those who aspire to Greek pursuits even though barbarian by birth' (*On the Preservation of Health* [*San.Tu.*] VI 51, = *CMG* V 4,2, 24,22–5); and while the context concerns the inadequacies of German child-rearing, 'barbarian' is still traditionally, and pointedly, contrasted with 'Greek' and with Greek alone.

At all events, the mature (if that is the right word) Commodus hardly figures in Galen's extant writings; and it seems reasonable to

suppose that Galen either distanced himself as far as possible from him as the emperor's excesses and paranoia became more and more apparent, or that at least he later had the grace to elide any such connection. He does mention treating members of the terrorized senatorial class for anxiety induced by their (justified) fear of being poisoned (*On Hippocrates' 'Epidemics'* [*Hipp.Epid. VI comm.VIII*], = *CMG* V 10,2,2, 494,2–25). It may perhaps be not too fanciful to see a veiled reference to him in his contention in later works that all people are not born equally gifted with basic virtue, and then made or unmade by their upbringing: rather, some are naturally so virtuous as to be able to resist corrupting influences, while others are so vicious by nature that no amount of decent moral education and example can make them good (cf. e.g. *The Faculties of the Soul Follow the Mixtures of the Body* [*QAM*] IV 768–9, 814–21, = *SM* 2, 32,14–33,16, 73,3–79,9).[74] Furthermore, his admiration for the fortitude of the slaves of Perennis[75] under judicial torture may also contain a coded expression of distaste for the tyrant, as well as giving a brief taste of Galen's moral and political views.[76] The story is preserved in the Arabic epitome of *On Moral Character* [*Mor*]:

> this [sc. courage under torture] was observed in the case of the slaves of Perennis and their attitude to their late master; although they had not been educated, they acted like freeborn men, since they were free by nature. This indicates that love of nobility exists in some people by nature. (reported by Walzer, 1947, = 1962, 158 n. 2)[77]

One further reference to Commodus is to be found in *On Antidotes* (*Ant.*)[78] XIV 65: when he became emperor, he saw no use for theriac and cinnamon, and had all the precious store of *materia medica*, laid up since the time of Hadrian, destroyed, so that when Galen was asked by the emperor Severus (193–211) to prepare his imperial theriac again, he had to go back to materials stored in the time of Hadrian and Trajan (cf. 64: Galen discovered these stores when preparing theriac for Marcus).[79] This passage, if genuine (see n. 78), shows that Galen continued to serve in the imperial orbit.

Immediately prior to the assassination of Commodus, Galen suffered a serious personal loss. In 192, a great fire burned down the Temple of Peace and many other buildings in the neighbourhood. The temple was a meeting place for intellectuals, and also served as a book repository and store. Galen lost all his copies of his own books in it, some of them irretrievably. He refers to the fire in several

places. At the beginning of *On the Composition of Drugs according to Kind* (*Comp.Med.Gen.*) XIII 362–3, he says that the two first books of the treatise had been published and deposited there when the fire destroyed them; and as none of his friends had copies, he was forced to rewrite them. But he thought he should point this out in case anyone later should happen to come across a copy of the earlier version and wonder why it had been written twice. At *Hipp.Epid. VI comm. VIII*, = *CMG* V 10,2,2, 495,2–12, he says that *On Prognosis* 'along with many other books' had been lost, and while he still hoped one would turn up, he had not yet found any other copy in existence. He also lost a valuable store of medicaments, made in part from precious materials from the imperial stores, which he deposited there in wooden boxes (*Ant.* XIV 65). Indeed, much of the fruits of his period of intensive research and writing while Marcus was on campaign were also lost (*Lib.Prop.* XIX 19, = *SM* 2, 99,23–5). Some texts were recovered in other copies (some of them after Galen's death: he never knew that *Praen.* had survived); others he rewrote. But it is remarkable that he never seems to treat this as a great personal disaster (unlike the grammarian Callistus, who also lost his books in the fire, and died of a fever brought on by grief and insomnia: *Hipp.Epid. VI comm.VIII*, = *CMG* V 10,2,2, 486,19–24). If, as seems likely, *Aff.Dig.* was written after this episode,[80] it is striking that no mention is made of it in the passage (43–5, = 33,11–35,3) where he discusses equanimity in the face of loss (although this is a record of a much earlier exhortation, to a rich man in Pergamum). Perhaps Galen really was able in the face of adversity to cultivate the philosophical calm he sought to induce in others.

The last years of Galen's life are shrouded in obscurity. We do not even know when he died, although it now appears overwhelmingly likely that he lived well into the third century. *On Antidotes* must have been written in the third century, and *On Theriac to Piso*, which Nutton argues to be genuine,[81] no earlier than 204 (it reports an equestrian accident that befell Piso's favourite son at the Secular Games of that year), and probably later than 207.[82] We do know that Galen carried on writing and working almost until the end, finishing the treatises on drugs and remedies, among others, and completing his therapeutic masterpiece *MM*, as well as the *Ars Medica*, his compendium of diagnostics and therapeutics which was to become the fundamental medical text of the late Middle Ages and

Renaissance, and his treatment of differential diagnosis, *On Affected Parts* (*Loc.Aff.*). If *Prop.Plac.* was not quite written on his death bed, as Nutton romantically suggests (1999, 217–18), it cannot have predated it by much.

Galen, as we have seen, sets great store by moral virtue, believing (or at any rate professing to believe) that it is only by systematically curing oneself of the tendency towards luxury and vice that we have any prospect of doing anything worthwhile in life (*Opt.Med.* I 59–61, = *SM* 2, 6,4–7,24); and *Aff.Dig.* is almost entirely devoted to laying out and exhorting us to follow a plan of constant moral self-improvement. But it has long been noted that Galen seems in certain very obvious respects to fail to live up to his own ideals – and, worse, he seems altogether unaware of these failings. Was he in need of what he recommends to others (*Aff.Dig.* V 8–14, = *SM* 1, 5,24–11,2), friends of unimpeachable candour to point out his faults? He prescribes mildness of demeanour and imperviousness to the slanders of others, and yet he attacks those he perceives as his enemies with relentless ferocity, even while praising his own calmness. He censures others for contentiousness and squabbling, but his texts are packed with polemic; he attacks other doctors for being *arrivistes*, seeking to flatter their way into the best society, yet he too was an immigrant from the provinces with an eye for making a name for himself in the best society; he scorns the money-grubbing greed of others as being unworthy of a liberal mind, and yet he flaunts the gift of 40,000 sesterces he receives from his consular friend Boethus for curing his wife (*Praen.* XIV 647, = Nutton 116,16–19). Nutton (1979, 180) refers to 'Galen's inconsistency'; Ilberg (1897, 617) is particularly upset by his contentiousness, describing him as 'a low character'.

Is this fair? Is Galen nothing more than a bullying hypocrite, a perfect example of the type he regularly and mercilessly excoriates? I think a less negative assessment is in order. If he came from the provinces, that does not show that he was motivated by the desire for wealth (which in any case he had no need of), and neither does his acceptance of gifts from grateful patients. Moreover, if he is contentious, it is in pursuit of the truth, rather than of spurious fame or gain. At the beginning of *MM*, in the course of one of his finest excoriations of the degeneracy of the times, (X 1–10), Galen distinguishes between two sorts of competition (or rather strife: *eris*): the healthy type between colleagues genuinely desirous of the truth (X 5–7) and

its degenerate modern sibling (X 7–9), as exemplified by Thessalus, the upstart doctor from a family of wool-carders, uncouth and uneducated, who dares to profane the sacred art by saying that it can be taught in six months and 'has no need of geometry, astronomy, logic, music, or any of the other noble disciplines' (X 5).

Abstracting (if we can) from the snobbish tone,[83] and making allowances for the fact that Galen is evidently a partisan here, there is still no reason to doubt the fundamental sincerity of his belief that truth can only be won by the sort of diligent application allied to natural talent developed by a liberal education that he himself exemplifies, nor about his belief that many, perhaps most, of his opponents are quacks and charlatans, who are not really concerned with the truth. If nothing else, Galen's vast literary output, over a period of perhaps seventy years, when he was constantly engaged in other activities, is testament to his prodigious energy and industry; while his undoubted rhetorical excessiveness, so grating to many modern ears, is none the less characteristic of its times. There is no doubt that Galen's texts are rhetorical; no doubt that he is the hero of his own story; and no doubt that Galen sometimes misrepresents the positions of his opponents in order to sharpen his critique and to emphasize his differences from them. But rhetorical extravagance does not imply falsehood, as some apparently suppose; nor is exaggeration invariably a cardinal sin. Galen saw himself, no doubt in self-aggrandizing terms, as a man on a heroic mission to rescue medicine, and science in general, from their degenerate decrepitude. Desperate times called for desperate measures. And if he was often mistaken, and in general unjustifiably over-confident of the truth of his position and the security of his first principles,[84] he was not incapable of changing his mind, and of learning from his errors, when he cared to admit to them.

Indeed, one can detect a softening of his doctrinaire and polemical tone in later works such as *On the Formation of the Foetus* (*Foet.Form.*), *The Powers of the Soul Follow the Mixtures of the Body* (*QAM*) and *On His Own Opinions* (*Prop.Plac.*). Alexander of Aphrodisias, who was no great fan of Galen's philosophy, was yet moved to call him '*endoxos*', a man of justifiable standing (*in Arist.Top. CIAG* II 2, 549,23–4); and his jibe that Galen had spent eighty years coming to the conclusion that he knew nothing is surely an unfair spin on the agnosticism regarding some issues in philosophy and cosmology