



## Book Review

*In the Grip of Disease: Studies in the Greek Imagination* by G. E. R. Lloyd.  
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Reviewed by Devin Henry

Thinking about health and disease has the potential to afford important insights into the values of the society concerned. At least that is the promise of G. E. R. Lloyd's new book, *In the Grip of Disease. Studies in the Greek Imagination*. The purpose of the book is

...to explore Greek ideas about disease not just in the narrow sense of what doctors thought was happening to their patients, but also in the broader one of how those and other people's ideas influenced Greek thinking about such questions as causation and responsibility, about the self and the relation between mind and the body, about purification and pollution, about authority and the expert, about reality and appearance, about good and evil. (1)

The book is intended to contribute to a growing body of scholarship by social anthropologists and historians of medicine on ideas about disease and what it affects. What Lloyd offers, however, is a novel approach. The back cover promises "for the first time an overview of the influence of Greek thought about disease on the Greek imagination" through analysis of a

wide selection of textual evidence drawn not only from Greek medical theory but from other fields such as philosophy, politics, religion, historiography, and different genres of Greek literature. This comprehensive survey promises to reveal "the full extent" of the grip that disease had on the ancient Greek collective imagination, something Lloyd claims previous studies, which often focussed on individual authors or genres, failed to achieve. Lloyd combines history of medicine with philosophy and literary criticism in a way that is wonderfully enjoyable to read. The arguments themselves are clear and quite easy to follow. While philosophers may not find the arguments of the book very engaging, *In the Grip of Disease* has a good deal to offer those with a limited background in the history of medicine. (In fairness to Lloyd only the second half of the book is intended to be philosophical.)

By far the most interesting chapter is "Secularization and Sacralization" (Chapter 3) in which Lloyd challenges the traditional view of the history of medicine offered by positivist accounts. These positivist accounts tend to represent the history of medicine as a clear progression from religious-based to science-based approaches to health and disease: *first* came the

cults of healing-gods; *then* came the naturalistic accounts of disease and cure which replaced (or rather displaced) religion-centred accounts as the basis for medical practice. Against this Lloyd points to the concurrent rise of two sharply contrasting ideologies concerning disease and cure in the fifth century BCE. On the one hand, there was the naturalisation of disease by the Hippocratic tradition. And yet, at the same time the ancient world witnessed the rise of “temple medicine” in the form of the cults of Asclepius and other healing gods and heroes. Lloyd’s account of this period is exceptional, and the evidence he provides seriously undermines the linear view of historical progress offered by the positivist tradition.

There are three main areas that I want to examine in the remainder of this discussion: Lloyd’s use of texts, his main philosophical argument, and the organisation of the book.

**Use of Texts.** The inclusion of the main texts (both the original Greek and English translation) at the end of each chapter is an extremely attractive feature of this book. However, on some occasions the reader may find that there are better texts available that provide much richer illustrations of the points being made; in other cases important texts seem to have been entirely neglected. Two examples that immediately spring to mind are Plato’s *Protagoras* and the Aristotelian *Problems*. [1]

A major theme of Lloyd’s book is the analogy between physical disease and diseases of the soul. Lloyd argues that two of the most striking claims Plato puts forward in respect to this are the claim that diseases of the soul are objectively verifiable conditions and that experts exist who can both diagnose and cure them. Nowhere is this theme more salient than in Socrates’ warnings to Hippocrates (whose namesake we are told is the famous doctor!) about consuming the teachings of Protagoras without having first consulted “a physician of the soul” [2]. Socrates’ argument here is extremely rich in medical imagery and surely has direct relevance to Lloyd’s project. Indeed, it

seems to me to be a much more fruitful passage than some of the other texts Lloyd chose to focus on instead (e.g. *Gorgias* 447E7-478C7; *Republic* 5, 459C2-E3) [3].

My second example is Lloyd’s failure to engage with the Aristotelian *Problems* [4]. This is a more serious omission and can only be considered a major shortfall of Lloyd’s analysis of the Aristotelian tradition. The *Problems* contains an impressive body of medical knowledge; almost every one of the 38 books has something to say about health and disease. In the first book alone [5] (which is aptly titled “Problems Connected with Medicine”) I counted in excess of 50 pieces of medical knowledge ranging from the nature and causes of health and disease, to diagnoses and cures, to the use and effectiveness of different treatments. Several questions immediately present themselves: What is the status of the medical knowledge we find in the *Problems*? What is the origin of that knowledge? Is this merely a gathering of conventional wisdom about health and disease and its cures (folk-medicine) or do we have a collection of what was taken to be authoritative medical knowledge drawn from doctors and medical writings? If the latter, what is the significance - with respect to issues of authority and claims to knowledge - of the fact that medical knowledge about the causes, diagnoses and treatments of disease is presented in the manner of dialectical problems? [6] It seems to me that these and similar questions are extremely relevant and go to the very heart of many of the central themes of Lloyd’s book. At the very least the first book of the *Problems* (“Problems Connected with Medicine”) warrants close attention and promises to reveal an enormous amount of insight into the Aristotelian approach to health and disease.

**Philosophical argument.** I want to turn now to what seems to be the central philosophical argument of Lloyd’s book. One of the interesting lines taken in the book is the idea that the Greek philosophers were guilty of “conceptual bootstrapping” when it came to employing the

medical analogy. Lloyd summarises this line of argument in the epilogue:

What was presumed to be good was the healthy state of the body.... That was then taken as the basis for representations of what is good ethically and in the political domain. ...Everyone could see that physical disease was painful and to be avoided.... If you could successfully attach the term *nosos* ['disease'] to other things you disapproved of, you were halfway to getting people to agree to your disapproval of them. Yet that depended on a remarkable feat of conceptual bootstrapping. Doctors and health and disease were good to think with—they were the assumed knowns by means of which the unknowns could be apprehended, from political disruption, to madness, to the emotions themselves. Except that doctors and health and disease were *not* knowns, but themselves highly problematic and contested. (p. 240)

The basic structure of Lloyd's argument is this. Physical disease was assumed to be unproblematic, both in its nature and in the doctor's ability to diagnose it, and thus provided the basis for making similar claims in other fields such as ethics and politics. For example, health in the body, which was assumed to be objectively good, was used as a model for a healthy polis. This had two advantages. First, if you could successfully show that a certain political situation was a "disease" of the state, you were halfway to getting people to agree with your disapproval of it [7]. Second, the medical analogy was an effective philosophical tool because health and disease were the "assumed knowns" that everyone could agree on so that through these the unknowns (e.g. the nature of the soul) could be understood. The problem, Lloyd argues, is that in reality health and disease were not knowns and proved to be highly problematic and highly contentious issues; ap-

plying the medical analogy to other domains thus "depended on a remarkable feat of conceptual bootstrapping".

One of the positive aspects of this argument is that it raises an extremely important question. It challenges us to consider carefully the move from the medical domain to the moral, political and psychological domains that we find so often in Plato and Aristotle. However, Lloyd does not consider carefully enough the complex issues surrounding the use of analogy, which is critical in the second half of the book. Thus, the first thing we need to do here is unpack Lloyd's argument by supplying this missing analysis.

Lloyd's charge of conceptual bootstrapping depends on the assumption that what the Greeks were doing was employing the strategy of *reasoning by analogy*. According to David Hull, in reasoning by analogy the functioning of a poorly understood target system (domain *B*) is assimilated to a well-understood paradigm system (domain *A*); the principles that govern the paradigm system are then extrapolated to the poorly understood system [8]. Analogy functions in this strategy as a justification for assimilating *B* to *A* and thus for drawing a conclusion about *B* based on considerations of *A* [9]. According to Lloyd, the medical domain was *assumed* to constitute the well-understood paradigm system defined by its objectivity and authority. What the Greeks are doing in employing the medical analogy is attempting to extrapolate from this paradigm system to the more contentious, less well-understood domains of ethics, politics and psychology. In the above quotation Lloyd suggests that there is "conceptual bootstrapping" going on here because the issues surrounding health and disease were not objective and unproblematic, and doctors did not possess the kind of absolute authority envisioned by the Greeks: in reality matters of health and disease were highly problematic and highly contested. In other words, the paradigm domain of medicine did *not* possess the features that the Greeks attempted to extrapolated to the target domains of politics, ethics,

and psychology.

However, this alone is not sufficient to show that the Greeks were guilty of bootstrapping. In order to prove this Lloyd would have to establish that they attempted to extrapolate *back* from, say, the political domain in order to show that the medical domain has the features it was originally assumed to possess (those extrapolated from it in the first place) [10]. And it is not clear that Lloyd has shown this in any of the cases he examines.

Having unpacked Lloyd's argument by supplying the missing analysis of reasoning by analogy and revealing under what circumstances this constitutes bootstrapping, we are now in a position to test his charge. I will look at an example from Plato and ask whether there is any evidence of conceptual bootstrapping in the cases Lloyd examines. As we shall see, Lloyd's charge ultimately fails because extrapolation only ever takes place in one direction (from domain *A* to domain *B*) whereas the charge of bootstrapping requires extrapolation in *both* directions (from *A* to *B* and then back from *B* to *A*) [11].

In the *Republic* Plato uses the medical analogy to justify his claims that disease in the state is objectively verifiable and that there are experts in diagnosing sickness in the body politic whose judgements must be accepted on authority. Lloyd argues that there is a paradox here stemming from the disanalogies between medicine and politics (147-9). In particular, Plato constructs his account of the expert in moral and political matters on the model of the doctor; yet, in real-life the Hippocratic doctors disagreed, not just on whether apparently healthy people were really so, but on what health itself consisted in and what the primary causes of disease were. According to Lloyd, *these* doctors were "far from being all the confident authorities that Plato's ideal would have us believe" (149, cf. 147) [12]. Now even if this were a genuine paradox, it does not amount to conceptual bootstrapping. For Plato does not attempt to show that the paradigm system (medicine)

possesses those features it was originally assumed to possess by extrapolating them *back* from the target system (politics/ethics).

Lloyd does provide an argument that comes close to bootstrapping at the end of chapter 6:

We should not say that those ideas [sc. about health and disease] arise in *one* of those fields [sc. medicine, ethics, politics], then to be applied to others. Rather, their power and relevance in each field get to be strengthened and confirmed by their use in others. The *Republic* and the *Laws* insist on order in the state and order in the individual's psyche, and they associate the opposite, disorder, in each case with what no one would desire, namely disease. But conversely, when it comes to an account of health and disease themselves, we find that they are described in terms that draw heavily on the political sphere. (156-7)

Lloyd's argument here seems to be the following. In the *Republic*, for example, Plato argues that disease in the state is disorder by drawing an analogy with physical disease. Conversely, in the *Timaeus* physical disease is (partly) described in political terms. Lloyd calls these the "medicalization of the city" and the "politicization of the body", respectively. Let us grant for the sake of argument that in each case Plato is reasoning by analogy: in the *Republic* he attempts to show that disease in the state is disorder by extrapolating from physical disease (which is assumed to be disorder); conversely, in the *Timaeus* he attempts to show that disease in the body is disorder by extrapolating from disease in the state (which is there assumed to be disorder). The question is whether this amounts to bootstrapping: do the medicalization of the city in the *Republic* and the politicization of the body in the *Timaeus* reciprocally support one another? [13]

Lloyd offers what seems to me to be a fairly radical (though interesting) interpretation of the

*Timaeus* account of disease, namely that the views expressed there are actually Plato's own views and not those of other doctors. If I am reading Lloyd correctly, the implication is that the account of physical disease in the *Timaeus* forms the basis for Plato's views in other dialogues. More specifically, Lloyd is suggesting that the *Timaeus* account makes up the paradigm system for the medicalization of the city in places like the *Republic* (see esp. p. 153). What Lloyd argues is that the reverse move in the *Timaeus* (the politicization of the body) closes the circle: Plato's justification for saying that disease in the body is disorder is the fact that disease in the state is disorder [14].

There are two major problems with Lloyd's argument. In the first place, even if Lloyd can successfully show that the *Timaeus* account of disease forms the paradigm system in the *Republic*-that the *Republic's* claim that disease in the state is disorder is extrapolated directly from the *Timaeus'* account of physical disease-this may not be enough to show that there is bootstrapping going on here. He must also show that the *Timaeus'* claim that disease in the body is disorder is in turn extrapolated directly from the *Republic* account of political disease so that *the same feature* is extrapolated back to the paradigm system. And this would be extremely difficult to establish, I think [15].

In the second place, I am sceptical about Lloyd's claims about the politicization of the body in the *Timaeus* account of physical disease. Plato's use of political imagery there is extremely limited (83A3-6, 83B1-2, 85E-86A). It is certainly not enough to show that the *Timaeus'* claim that disease in the body is disorder is *justified* by the analogy with political disease. In other words, Plato does not appear to be *reasoning* by analogy in these passages at all. This seriously undermines Lloyd's argument. Lloyd assumes that Plato's grounds for saying that physical disease is disorder in the *Timaeus* are not independent of the political analogy but are in fact justified by it [16]. However, there is good reason for thinking the

*Timaeus* account of physical disease *is* established independently of the political analogies employed there.

For example, at *Timaeus* 82C ff. Plato describes the composition of flesh, bone, etc. out of elements; he then says that disease is *the reverse* process: de-composition, i.e. the loss of order and structure. This idea of disease in the body as disorder could easily be arrived at without employing complex political analogies. One need only look at a limb stricken with gangrene or observe a rotting tree or decomposing corpse or any other processes of decay to come to the idea that disease is disorder, disorganisation, the breakdown of structure. From here (as Plato does in the *Republic*) one can go on to talk about the breakdown of order in the state as "disease" - whether metaphorically or not. Alternatively (as Plato seems to do in the *Timaeus*), if one already believes that disease in the city is disorder, then the observation that physical disease is also disorder would lead one to form the judgement that disease in the body is analogous to disease in the state, although in this case neither would be *derived* from the other.

The problem with Lloyd's philosophical analysis is that he fails to adequately address the subject of analogy. What is the purpose of a given analogy? How does the analogy work, that is, how does it do what it is intended to do? Lloyd generally assumes that Plato and Aristotle employed the medical analogy in order *to justify* their claims about objectivity and authority in the ethical or political domains. However, not all use of analogy is a case of reasoning by analogy. For example, the so-called politicisation of the body in the *Timaeus* seems to be no more than a metaphor; the analogy with warfare and political discord is simply an effective way for Plato to explain difficult medical ideas to a non-medical audience [17].

While not every analogy employed by Plato and Aristotle is metaphorical, they are not always reasoning by analogy. For example, Lloyd argues that in the *Ethics* Aristotle appeals to the

medical analogy “to justify his different claims to objectivity” (p. 185). According to Lloyd, Aristotle’s argument runs as follows: ethics is analogous to medicine; medical judgements are objective; *therefore*, ethical judgements are objective (domain *A* → domain *B*). However, this seems to get things the wrong way round. Aristotle thinks that moral judgements are objective and authoritative and in this sense the judgements of the *phronimos* are analogous to those of the doctor (the doctor’s judgements are equally objective and authoritative). In other words, ethics and medicine are analogous *because* both involve objectivity and authoritative not that *since* ethics and medicine are analogous the former involves objectivity and is authoritative because the latter does [18].

**Organisation.** Lloyd sets out to explore how ideas of health and disease influenced Greek thinking with respect to seven major themes: 1) the self; 2) causation and responsibility; 3) purification and pollution; 4) authority and the expert; 5) diseases of society; 6) soul-body analogy; 7) evil (pp. 5-8). The first and last chapters of the book are especially useful here, for they help the reader to organise the various ideas encountered in each chapter. However, this is also one of the book’s major problems: the reader *needs* these chapters (especially the first) to collect together the intermittent discussions into a unified picture of the grip of disease on the ancient Greek imagination.

The reader is asked to think about how ideas of health and disease influenced ancient Greek thought on seven major themes. Yet, because the chapters are organised around individual authors and genres rather than the main themes themselves, the book ultimately reads like a collection of short essays on how ideas of health and disease influenced the thinking of different individuals on each of the seven themes. For example, chapter two explores the ways in which these ideas influenced Homer’s and Hesiod’s thinking about issues of causation and responsibility, purification and pollution, authority and the expert, while chapter three

examines many of these same themes in the imagination of the writers of tragedy. Likewise for the other chapters. However, on the very first page of the book Lloyd suggests that previous studies failed to reveal “the full extent of the grip that disease had on the ancient Greek imagination” precisely because they only focused on “individual authors and genres”.

This is ultimately a problem with organisation. By organising the chapters around individual authors and genres the only way for the reader to appreciate the ways in which ideas of health and disease influenced Greek thinking on any given theme is to go through each chapter and pull out the relevant bits of discussion. Then, using these bits as raw data, she must piece them together into a more complete picture [19]. Only then would she see the “full extent” that the grip of disease had on the *collective* imagination of the ancient Greeks. To see this consider the reverse scenario. Suppose the chapters were organised around the seven different themes: one chapter explores the ways in which ideas of health and disease influenced ancient Greek thinking on the self, another chapter looks at causation and responsibility, and so forth for each of the seven themes. Now suppose the reader wanted to know how ideas of health and disease influenced Aristotle’s thought. In this case she would have to go through and pull out all the relevant bits of discussions on Aristotle from each chapter and then piece them together to form a comprehensive picture for herself. Only by doing this could she reveal the full extent that the grip of disease had on *Aristotle’s* imagination.

*In the Grip of Disease* promises an overview of the full influence of Greek thought about disease on the Greek collective imagination through a comprehensive analysis of a wide range of sources. In the end, however, what we are given are virtually independent analyses of a wide selection of Greek thought about disease from medical theory (ch. 3), different genres of Greek literature (ch. 2, 4), historiography (ch. 5), and philosophy (ch. 6-8). While a more co-

hesive approach could have been accomplished through a different organisation, in its present form Lloyd's book does offer a series of very readable and insightful studies.

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### Footnotes

1. While it is certainly true that one cannot deal with everything in the corpus the seven chapters that comprise the main argument of Lloyd's book (the other two being the introduction and epilogue) only total 121 pages. As such, considerations of space cannot have been the reason for omitting these and other extremely relevant texts.
2. *Protagoras* 313Aff. It goes without saying that the physician of the soul is the philosopher.
3. I am not suggesting that Lloyd should have used the *Protagoras* text *instead of* the texts he does use; rather, it should have been included among his focal texts.
4. Although this treatise is not generally believed to be by Aristotle himself (which is not to say that some bits of it may not be), it is clearly the work of those close to him. So it would not be hard for Lloyd to find a place for them in his discussion, either in the chapter on Aristotle or in the post-Aristotelian chapter.
5. Note that we are only talking about a few pages of text here: book one only runs from 859a1-866b5.
6. The final chapter of Book 1 (866a31-b5) is a curious exception to this rule. It is not presented as a dialectical problem (it is not introduced by the usual phrase, "Why is it that...") but as a genuine piece of medical knowledge: "In quartan fevers the patient must not be allowed to get thin, and heat must be introduced and engendered in the body. Exercises must also be employed. On the day on which the attack is expected he must bathe himself and avoid sleep. A heating diet is beneficial, because a quartan fever is weak; for if it were not so, it would not occur only every fourth day. For, mark you, where there is a great fire, a flame cannot burn; for the great fire attracts and absorbs the little fire. For this reason it is necessary to engender great heat in the body, because fever has but little fire in it. The daily treatment consists in introducing at one time heat and at another time moisture into the body. Some diseases are caused by heat, others by moisture; those which are caused by heat are cured by moisture, and those which are due to moisture are cured by heat, for heat dries up moisture." (866a31-b5, Forster transl.)
7. This is equally true of modern times: witness the propaganda against communism in the United States during the 1950s (and indeed the extension of the rhetoric of "terrorism" employed by the current Bush administration to some left-wing revolutionary groups). Communism was portrayed as a disease 'infecting' the Soviet Union that threatened to 'spread' to the rest of the world.
8. Hull, David. *Philosophy of Biological Science*. (New Jersey: Prentice-Hall, Inc., 1974) p. 105.
9. It is controversial how this is achieved and whether it is legitimate. For example, some argue that merely adding up points of analogy between *A* and *B* is not enough to justify reasoning from '*A* is *F*' to '*B* is *F*'.
10. The image here is a person trying to pull himself up off the ground by his own bootstraps. In conceptual bootstrapping you assume *X* in order to prove *Y*; then, having proven *Y*, you discharge the assumption *X* by deriving it from *Y*. The faulty reasoning should be obvious here.
11. Although I only look at one example here, the same conclusions apply (as far as I can tell) to all the cases Lloyd examines. Showing that a given application of the medical analogy is bootstrapping is made more diffi-

cult by the fact that (as Hull points out) often the relation between two domains is reciprocal. At first knowledge of the paradigm system is extrapolated to the target system to aid in the understanding of certain features of the latter. However, additional information acquired about the target system can then be used in further understanding the paradigm system. As we have said, it is only when the *same* knowledge originally extrapolated from the paradigm system is used that it constitutes bootstrapping. (Compare Lloyd's treatment of Aristotle, pp. 180ff.)

12. This argument is unconvincing, since Lloyd himself recognises that the target of Plato's analogy is the *ideal* doctor not the real-life doctors who might fall short of this ideal. In that case, it is not clear why the disagreements and self-confessed ignorance of the latter should generate a paradox, since there is no reason to suggest that Plato's medical analogies depend on there being any actual doctors corresponding to the ideal. It is enough that medical knowledge is *in principle* objective and unproblematic. We can ignore this for the sake of argument.
13. Although I have chosen to focus on the political application of the medical analogy, we could also examine whether the charge of bootstrapping is valid for the psychological application. Here we would have to show that Plato first shows that some property *F* is true of the soul by first drawing an analogy with the body (which is assumed to possess *F*) and then extrapolating from body to soul. To be bootstrapping, the body's possessing *F* must then be established by extrapolating *back* from the soul.
14. It will help to formalise this here. Let *A* = the body, *B* = the state, and *F* = the principle that disease is disorder. Lloyd claims that the

argument from the *Republic* looks like this: *A* and *B* are analogous; *A* is *F*; therefore *B* is *F*. The argument from the *Timaeus* is then supposed to be: *A* and *B* are analogous; *B* is *F* (the conclusion of the *Republic* argument); therefore *A* is *F* (the starting point of the *Republic* argument).

15. Moreover, it would be extremely unwise to make judgements across dialogues like this.
16. If the claim that disease in the body is disorder (*A* is *F*) was not extrapolated from the *Republic's* conclusion that disease in the state is disorder (*B* is *F*), then we would not have the circular reasoning necessary for the charge of bootstrapping.
17. Lloyd's hostility towards the suggestions that every use of medical language is simply metaphorical (see esp. 8ff.) appears to have forced him to the other extreme, namely that every instance of the medical analogy - at least in Plato and Aristotle - is reasoning by analogy.
18. It may help to formalise these two readings of the medical analogy in Aristotle's *Ethics*. On Lloyd's reading Aristotle's argument is: *A* and *B* are analogous; *A* is *F*; therefore *B* is *F*. (Note this would only be bootstrapping if Aristotle then argued that *A* is *F* because *B* is *F*.) On my reading Aristotle's argument is: *B* is *F*; *A* is *F*; therefore *A* and *B* are analogous. Here *B* is judged to be *F* independently of *A's* being *F*. The fact that *A* is *F* is the reason for its being analogous to *B*.
19. How difficult it would be to arrive at an answer to this question can be seen by looking up "causation" and "responsibility" in the index. What we find are nothing more than sporadic discussions of how ideas of health and disease influenced the thinking of *individuals* on this theme.