SOME INSIGHTS ON THE RECEPTION OF SEXTUS EMPIRICUS IN A MEDICAL TEXT IN ARABIC LANGUAGE

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Abstract: This paper advances the hypotheses that (1) there is a *pars construens* in the thought of Sextus Empiricus (c. 2nd century) that can be glimpsed in his praise of the empirical method found in *Against the Astrologers* (= M5) 103–104, yet (2) this aspect is not developed in the remainder of the extant Sextian corpus. However, as M 5.103–104 clarifies, the empirical method praised by Sextus is that of the physicians of the Empiricist school of medicine—a school to which he appears to have adhered at some point in his life. With this in mind, I argue that it is possible to reconstruct this *pars construens* of Sextan philosophy by drawing on other primary sources stemming from the context of the debate between medical schools—a debate documented by authors such as Galen (129–c. 217), Pseudo-Galen (c. 3rd century), and, above all, Hunayn ibn Ishaq (808–873), who serves as a source for an already established medical curriculum.

Keywords: Sextus Empiricus; Pyrrhonian Skepticism; Galen; Empiricist Medicine; Hunayin Ibn Ishaq.

Resumo: Este artigo avança as hipóteses de que (1) há uma *pars construens* no pensamento de Sexto

Empírico (c. II) que pode ser vislumbrada a partir de um elogio ao método empírico que ocorre em *Contra os astrólogos* (= M5) 103-104, porém que (2) não é desenvolvida no restante do corpus sextiano que a nós chegou. Mas, como M 5.103-104 esclarece, o método empírico elogiado por Sexto é aquele dos médicos da Escola Empírica de medicina, a qual parece que ele teria aderido em algum momento de sua vida. Tendo isso em vista, argumento que é possível reconstruir esta *pars construens* da filosofia sextiana utilizando outras fontes primárias, emanadas do contexto do debate entre as escolas de medicina, documentado por autores como Cláudio Galeno (129- c. 217), pseudo-Galeno (c. III) e sobretudo Hunayin Ibn Ishaq (808-873), que serve como fonte para um currículo médico já consolidado.

Palavras-chave: Sexto Empírico; Pirronismo; Galeno; Medicina Empírica; Hunayin Ibn Ishaq.

1 Introduction

On March 20, 1979, as a result of a compilation of a series of lectures and debates on topics related to Hellenistic epistemologies, Malcolm Schofield, Myles Burnyeat, and Jonathan Barnes edited *Doubt and Dogmatism*, a book published by Clarendon Press[2]. For skeptical studies, what is known as the Rustics vs. Urbanites controversy began with this publication, whose articles specifically addressing the limits of skepticism formed the *offprint* that gave rise to the collection titled *The*

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[2] See SCHOFIELD; BURNYEAT; BARNES, 1980.

Original Sceptics: A Controversy, published only in 1997, edited by Burnyeat and Frede, and which still occupies the minds of those who study skepticism[3].

However, despite the significance of the publication of *Doubt and Dogmatism*, we must never forget that also in that year of 1979 the first edition of Richard Popkin's *The History of Skepticism* was released, which at the time covered the period from Erasmus to Spinoza. Over the next 24 years, Popkin revisited the original text and made some corrections, but above all expanded the work's historical scope, so that by 2003 it covered the period from Savonarola to Bayle[4]. But despite the changes between the 1979 and 2003 editions of *The History of Skepticism* one thing seems to have remained unchanged for Popkin: the realization that

> The two skeptical positions (i.e., the Academic and the Pyrrhonian) had very little apparent influence in the post-Hellenistic period. The Pyrrhonian view was little known in the West until its rediscovery in the late fifteenth century, and the Academic view was mainly known and considered in through St. Augustine's treatment of it. Prior to the period I shall address, there are some indications of a skeptical motif, principally among the anti-rational theologians—Jewish, Islamic, and Christian. This theological movement, which culminated in the West in the work of Nicholas of Cusa in the fifteenth century, employed many of the skeptical arguments in order to undermine confidence in the rational approach to religious knowledge and truth. (POPKIN, 2003, p. XIX).

To a certain extent, Popkin is correct in making these statements, which appear at the beginning of the introduction to his final version of *The History of Skepticism*, the 2003 edition. But only "to a certain extent," because, in the specific case of Pyrrhonism—which interests me here—while it is true that its principal representative was Sextus Empiricus and that his skepticism had little impact in the Middle Ages, we can only say this because we consider as "his philosophy" that which corresponds to the specifically skeptical content we recognize in his surviving works. In other words, to put it more directly: what we identify as the content of the Sextian *corpus* does indeed seem to have had little or no impact in the Middle Ages. But what if Sextan philosophy is more than what we identify and recognize in his surviving works?

In this regard, Sextus himself gives us indications that he wrote a text *On the Soul* and one *On Medicine* (and it is even possible that the former was part of the latter). Furthermore, if we take seriously the mirroring between sections of *Otlines of Pyrrhonism* and the books that make up *Against the Dogmatists*, perhaps there should be an additional volume in *Against the Dogmatists*, preceding the first book of *Against the Logicians*, which would correspond to an expanded version of the first book of the *Outlines*[5]. Now, setting aside this question of correspondence, what seems evident—if Sextus is not lying when he says he wrote one or more books on medicine—is that his work as a physician was just as important as his work as a philosopher; and if we consider other examples of ancient philosopher-physicians, such as Galen, we could even say that, in fact, the roles of physician and philosopher are complementary.

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[3] See BURNYEAT; FREDE, 1997.

[4] See POPKIN, 2003.

[5] For an inventory of Sextus Empiricus' works, including the lost ones, see BROCHARD, 2009, p. 318-324.

Thus, if it is possible that Sextus's philosophy is a composite whole, roughly consisting of two complementary parts—one corresponding to the Pyrrhonism we identify in his surviving texts and the other corresponding to Sextus's conception of medicine— then might there not have been authors in the post-Hellenistic period (including the Middle Ages) who were influenced by this second component—Sextian philosophy of medicine—even though they were not influenced by Sextan Pyrrhonism? If the answer to this question is yes—and I intend to show that it is—then perhaps Sextus's influence on later thinkers was not so small or insignificant after all, though not stemming from the Pyrrhonian component of his philosophy, but rather from the medical component. But to answer this question, we must first reconstruct this component and its transmission.

2

When it comes to the figure of Sextus Empiricus, beyond his own writings, little is known. It is known that he was a physician, as he himself states, and as Diogenes Laertius[6] also notes. Since Diogenes' mention is quite brief, it may imply that Sextus predated Diogenes—though not by much—and that Diogenes would not have had time to become thoroughly familiar with his work; thus, Diogenes' date could serve as *a terminus ad quem*. However, the dating of Diogenes himself is a problem in its own right, although there is some consensus that his *floruit* occurred in the 3rd century. On the other hand, Diogenes corroborates Sextus's affiliation with the Empiricist school of medicine during the period when it was led by Herodotus of Tarsus, active in the 2nd century and himself a disciple of Menodotus of Nicomedia, active in the early 2nd century. Little is known about Herodotus and Menodotus, but both are said to have been Pyrrhonists, in addition to being empirical physicians; Menodotus, in particular, is said to have written books in which he refuted the Dogmatists—that is, those who adhered to the dogmatic or rationalist school of medicine, which was opposed to the empirical school[7]. Their

[6] Cf. DL, 9.116.

[7] It is necessary to remember that Sextus argued (in PH 1.236-241) that he was not a member of the Empiricist school. As I have argued before (BRITO, 2022, p. 94): "according to Sextus, because of its philosophical position of non-assenting to some statements, the Methodist sect would be much more closer to the Pyrrhonism than the Empiricist sect, since Empiricists gave assent to some statements on the impossibility of apprehending things which are non-evident. So, the Empiricists are criticized with the same arguments that Sextus displayed against the Academics: while the dogmatists assert that they actually discovered the truth on a particular issue, Academics assert that the truth cannot be discovered at all, the Skeptics keep on searching. But maybe the criticism made by Sextus towards the Empiricist sect can be much more than an unfathomable puzzle, since we can face the parts of the criticism as elucidatory clues, in this way:

1. Sextus criticizes the Empiricist sect because of its negative dogmatism, this is the very reason why the Empiricists look like Academics, instead of Pyrrhonists. This criticism would not be so problematic if this approximation between the Empiricist sect and the philosophy of the Academics was not some kind of "desertion", for the Empiricists – since Aenesidemus and the very revival of the Pyrrhonism – developed their arguments in a symbiotic way with the arguments of the Pyrrhonist philosophy.
2. It is precisely because of this symbiotic development with the Empiricist sect that the Pyrrhonic approach on epistemology was misinterpreted as if it was parallel to the Empiricist one, in a moment when the Empiricist doctors were starting to turn to negative dogmatists. This misinterpretation is the reason why Sextus Empiricus endeavors to establish a dividing line between Pyrrhonists, on the one hand, and Academics and Empiricists, on the other hand.
3. The constant debates between Empiricists and Rationalists lead the first ones to a radical non-theoretical approach on medicine which started to become a self-contradictory obstacle to their

doctrines are difficult to reconstruct, and since their works have been lost, we must rely primarily on Galen—to whom we will return—as a source.

Another source for reconstructing the figure of Sextus is the *Suda*, a monumental Byzantine encyclopedia, which, among its 30,000 entries, includes one on Sextus, though it states that he was the same person as Sextus of Chaeronea, Plutarch's nephew and one of Marcus Aurelius's teachers, whom Marcus Aurelius highly praised in his *Meditations*[8]. Although the hypothesis that Sextus Empiricus and Sextus of Chaeronea were the same person is not taken very seriously today, there are some puzzling similarities between the two figures, such as the fact that both were empirical physicians and both were disciples of the aforementioned Herodotus of Tarsus. From this, it follows that, even if one rejects the idea that the two Sextus were the same person, one cannot reject the fact that they were contemporaries of Marcus Aurelius, active in the 2nd century, nor their Roman citizenship—whether by birth or granted—as attested by their name of Latin origin, Sextus. Furthermore, having been a contemporary of Marcus Aurelius, our Sextus, the Empiricus, was also a contemporary of Galen, who may served as the Emperor's personal physician.

Galen, in turn, could be a good source for reconstructing the figure of Sextus, both due to their chronological proximity and their geographical and thematic similarities, since both were philosophers and physicians. But he never mentions Sextus even once, although in some works—particularly *On the Medical Schools for Beginners*[9]—he provides a reconstruction of the epistemological and

own science. Meanwhile, Pyrrhonism kept on developing itself till it turned to one coherent possibility for approaching the philosophy.

4. Even if Sextus was trained as an Empiricist doctor by Menodotus, it is because of his Skeptical behavior that Sextus was able to develop his criticism against his own Empiricist sect. And after following Menodotus as the head of the sect, Sextus could link it more with Pyrrhonism, avoiding the negative dogmatic assertions made his master. It is with this in mind that we should interpret the pseudo-Galen's statement that Sextus lead the Empiricist sect of medicine to perfection, for Sextus gave to it the coherence that it was missing under Menodotus' leadership. 5. As well as Sextus did with the Empiricist sect, he also tried to lead the Pyrrhoniststo a more coherent approach on philosophy, linking it with the threefold way by which the Empiricists conceived their medical epistemology.

Now, by the five arguments above we can rebuild the links between the Skeptic attitude and the Empiricist sect, and we can also think them as two kinds of approaches on philosophy and crafts, respectively, that can be performed together."

On the other hand, albeit Sextus arguments in PH 1.236-241 against the Empiricists, he seems quite favorably disposed toward the Empiricists in M 5.103–104, as can be perceived by the large use of the Empiricists vocabulary in a short passage – συμπαρατετηρηκέναι, ἐτηρήσαμεν, παρατηρήσαντες, παρετηρήθη – terms derived from the verb τηρέω and the substantive τήρησις which are also used to name the Empiricist school as Observative/ Τηρητική: "(103) But, in general, since it is said that the stars do not indicate them differences in people's lives, but rather that they themselves have observed such differences in conjunction with the positions of the stars, I maintain that, for a reliable prediction to be made, the position of the stars must be observed not just once in relation to one person's life, but a second time regarding a second person, and a third regarding a third; then, from the consistency of all the resulting effects, we would learn that when the stars display such a configuration, the outcome is certainly such-and-such; (104) just as in medicine we observe that a wound to the heart is fatal—having observed this not only in the death of Dion but also in those of Theon, Socrates, and many others—so too in this science [i.e., astrology], if a certain stellar configuration is believed to indicate a specific life situation, then this must certainly have been observed not merely once, but many times and in many cases."

[8] See BRITO; MATSUI, 2022.

[9] See GALENO, 2022.

methodological foundations of the Empiricist School of medicine, to which Sextus is said to have adhered (even though he dabbled with the Methodics).

Interestingly, "Galenic writing" became a sort of literary fad during Galen's own time, to the point that he had to write a work titled *On My Own Books*, which begins with a story telling us that Galen once went to the market and saw "his" books being sold—books he had never actually written[10]. This collection of spurious works, which also includes other books written after Galen, is nowadays called *Pseudo-Galen*. And in one of the books in this collection—which tradition refers to as *Introductio seu medicus* (= *Introduction, or Physician*)—in passage 14.683.18, there is, in fact, an explicit mention of Sextus, linked to the physician Menodotus—Herodotus's teacher—and to the empirical school of medicine, which Sextus is said to have refined to perfection[11].

Although Galen does not mention *Introductio seu medicus* among his own works—which casts doubt on its authorship—the tradition immediately following him, that is, the early days of Galenism, did not suspect its inauthenticity and added it without reservation to the authentic Galenic *corpus*. In fact, it was not until the 19th century that it became an academic consensus that *Introductio seu medicus* is pseudo-Galenic, a point that can be observed, for example, in Brochard's references to the work *as* pseudo-Galenic when he attempts to reconstruct the figure of Sextus Empiricus[12].

But rather than simply accepting *Introductio seu medicus* as authentic, in the early stages of Galen's reception, thinkers of the first Galenist period also believed that this work would be useful as a supplement to *On the Medical Schools for Beginners*. The idea was that *Introductio* would contain a history of the medical schools—the Logic or Dogmatic; the Empiricist, Observative or Rememorative; and the Methodist—along with a list of their leaders, and that it would serve as an introduction to the debates regarding the foundations of the medical art, as well as the methods and epistemology of discovery presented in *On the Medical Schools*.

And it doesn't stop there… For Galen, in his efforts to contextualize and organize the arguments at stake in the debate between Dogmatic, Empirical, and Methodical physicians, actually intended to refute Methodism once and for all and put an end to it (which he succeeded in doing) and also to highlight the complementary theoretical and methodological aspects of the Dogmatists' and Empiricists' conceptions of medicine, creating an eclectic fusion between these two schools of thought, augmented by a more robust philosophical foundation, corroborated by experiments that resulted in treatises on practical medicine. This, then, constitutes his legacy: the resolution of an unending debate among different schools of thought, the formation of a universally accepted consensus among physicians of subsequent generations, an unprecedented theoretical contribution to the newly formed discipline, and an equally unprecedented experimental contribution, grounded in theories and generating further theories. Not surprisingly, we could say that Galen provided a paradigm, in the very Kuhnian sense, for medicine.

Nevertheless, it fell to subsequent generations of Galenists to formalize the medical curriculum, centered on Galen's works, which were to be read gradually, accompanied by experiments when appropriate. There was an established reading order for these works, beginning with the autobiographical ones—which were of general interest and not restricted to physicians—followed by the historical works,

[10] See Galen's *On My own Books* in: MANZANO (*trans.*), 2008, p. 153.

[11] In: Kühn, 1827, vol. 14, p. 674.

[12] BROCHARD, 2009, p. 318-324.

intended for students entering medical schools (which would eventually spread throughout North Africa, Asia Minor, Mesopotamia, and India, with traces of their presence even in China), then the theoretical-methodological works, and finally the practical ones[13].

In this regard, there are two points of interest here: the first is that, although Galen emphasized the interdependence between theoretical aspects (inherited primarily, though not exclusively, from the dogmatic school) and practical aspects (inherited almost entirely from the empiricists), the later Galenic tradition seemed to increasingly favor the practical/empirical aspects over the theoretical ones, as can be seen in the medical works of Avicenna, Maimonides and Averroes[14], for example, who possessed theoretical knowledge but, as practicing physicians in contexts quite different from Galen's, relied on a predominantly empirical approach to develop new theories on, for instance, sexual intercourse or the plague. The second point of interest is that the empirical approach relied upon by Avicenna and Maimonides was taught through a formalized curriculum that used *Introductio seu medicus* and *On the Medical Schools for Beginners* as introductory texts, merged as if they were a single work. Consequently, the empirical bent that flourished in Arabic-language Galenism was treated as the result of a collective work by a specific school of medicine that was refined, developed, and brought to perfection by a man named Sextus, nicknamed the Empiric. This can be clearly seen in the writings of the philosopher/translator, grammarian, and ophthalmologist Hunayin Ibn Ishaq, a 9th-century Nestorian Christian of Persian origin who was fluent in Farsi, Greek, Arabic, and Syriac, and who bequeathed to us, among many other things, an Arabic version of the Alexandrian Epitome of *On the Medical Schools for Beginners*[15], which is said to have been commissioned by the Caliph himself to serve as a source for a new school of medicine and as part of the collection of *the House of Wisdom*, *the* Bayt al-Hikman—none other than the Great Library of Baghdad, the largest academic center and public library of its time. In Hunayin's version of *On the Medical Schools*, the leaders of the Dogmatists, the Empiricists, and the Methodists are listed and named, after which the doctrines of these schools are presented in their final forms. There we read the name of Sextus in Arabic, to whom is attributed the development of an empirical medicine whose theoretical-methodological approach is presented in detail.

Now, I would like to conclude this historiographical section with twon caveats. First, one might argue that the merge of *Introductio seu medicus* and *On the Medical Schools* occurred due to an error or mistake by one or more copyists, and that, in this case, the presentation of the Empiricists' doctrine as the result of Sextus's refinement and final completion of this doctrine is merely the result of a chance error. Although at first glance this argument is not implausible, it proves unacceptable upon closer examination. This is because the merging of the texts appears to have been intentional; apparently, whoever merged them realized that *On the Medical Schools* contains a series of details that complement others already found in *Introductio*. To be more precise, in *Introductio*, in addition to the list of the

[13] See WALBRIDGE, 2014, p. xix-xxxi. Also SINGER; ROSEN, 2024.

[14] On Avicenna, see both his *Treatise on the Canon of Medicine* (GRUNER (*trans.*), 1973) and *The Physics of Healing* (MACGINNIS (*trans.*), 2009). On Averroes, see his "Colliget" (cf.: https://dare.uni-koeln.de/app/works). I used the manuscript "Biblioteca Apostolica Vaticana, Pal. Lat. 1255": https://dare.uni-koeln.de/app/manuscripts/BOOK-DARE-M-VA-VAT-BAV-Pal.lat.1255. The medical works of Maimonides are easier to find since they were translated to English and published by Brigham Young University Press. For my purposes, Maimonides' *On Rules Regarding the Practical Part of the Medical Art* (BOS (*trans.*), 2014) is his most important work.

[15] WALBRIDGE, 2014, p. 7-49.

leaders of the three schools of medicine, there is an explicit mention of which figures were the most important for each school, and, most importantly, there is also a description of their doctrines. Thus, the empiricist doctrines—which would constitute Sextian's legacy—are already present there; what the editors did by merging it with *On the Medical Schools* was simply to use this work to supplement and corroborate information that already exists in a more succinct form in *Introductio*, and this applies not only to the empiricists but also to the Dogmatists and Methodists, whose writings—particularly those of many of their leaders—eventually disappeared (hence the need for supplementation, as judged by the copyists, editors, and translators).

The second caveat concerns the strictly "historiographical" nature of the research. I do not consider research on the history of philosophy to be any less philosophical for that reason; in fact, I believe this dichotomy has long since been overcome. Nevertheless, I would like to emphasize that attempting to reconstruct positive aspects contained in Sextus's philosophy—aspects that complement his skepticism and are linked to the performance of *téchnai*—can provide a fruitful source of philosophical insights for conceiving a skepticism that might go hand in hand with everyday practices, such as those related to the world of work—as a way to overcome the aporetic horizon established since 1979 by the dichotomy of "rustics versus urbanes," while respecting the skeptical necessity of having a *téchne* (as Sextus himself argues) and engaging in a contemporary discussion on how to be skeptical and act today.

Having made these caveats, in the following section we will systematize the ideas somewhat, providing a sort of chronological framework for the information presented earlier, for the sake of precision. We will also offer a reconstruction of *the Syllabus* of the Alexandrian school of medicine.

3 Tables

a) Chronological Table:

2nd century	**Sextus Empiricus** (?)		**Marcus Aurelius** (121–180). Could Sextus Empiricus be the Sextus of Chaeronea mentioned in the Meditations? Galen, physician to Marcus Aurelius (Danube campaign?)	**Claudius Galen** (129–217) Author of "On the Medical Schools for Beginners." In "On My Own Books" he complains about works falsely attributed to him.		**Pseudo-Galen** (?) Sextus is regarded as someone who "brought the Empirical School of Medicine to perfection" in "Introductio Seu Medicus".
3rd century	**Medical and skeptical texts** have survived.	**Diogenes Laertius** (?)		**Gradual prevalence** of Galenism over other schools of medicine	**Merging** of "Introductio Seu medicus" and "On the Schools of Medicine for	

		Brief mention of Sextus, linked to other Empirical Physicians.			Beginners".	
4th century	Medical texts begin to **disappear**			**Galenism establishes itself as a "paradigm"** (in the Kuhnian sense)		
5th century	Since Sextus is considered the one who "brought the Empirical School of Medicine to perfection," the idea arises that **what is regarded** as **mature Empiricism may be his work** (as seen in the merger of "Introductio" and "On the Medical Schools").			**The development of the Alexandrian medical curriculum** (the leading school of medicine at least since the time of Galen himself) into a Galenic curriculum, based on a hierarchical arrangement of 16 works by Galen	The fused version of "Introductio" and "On the Medical Schools" became **the first "Galenic" work in the strictly medical portion of the Alexandrian medical curriculum**	
6th century				**Galen's works are abridged** to facilitate copying and memorization. Notable epitomists: * **Gesius of Petra** (520), of whom a Latin version of his commentary on "On the Medical Schools" survives; * **Anquelau or Nicolaus** (?), of whom a Greek commentary on "On the Medical Schools" survives. He may also be the same person as Agnellus of Ravenna; * **Archelaus** (?); * **John Philoponus** (also known as John the Grammarian, John of Alexandria; 490–570): Arabic versions of his	**Epitomes and commentaries on the consolidated version**, in which Sextus is listed as the author of what is described as the mature form of the Empiricists' medical doctrine.	

				commentaries on the Alexandrian curriculum have survived; * **Palladius of Alexandria** (550–600): an Alexandrian iatrosophist who commented on Hippocratic treatises and the works of Galen. A fragmentary version of his commentary on "On the Medical Schools" survives.		
7th century				***Stephano of Athens or of Alexandria** (?): there are three people with the same name, but this is likely the same individual. He wrote about the Alexandrian medical curriculum, as well as a commentary on Galen's "Therapeutics for Glaucon" and on Aristotle's "On Interpretation."		
8th, 9th, and 10th centuries				***Theodosius** (?); ***Marinus** (?) ***Hunayin Ibn Ishaq** (808–873), a Nestorian Christian who lived in Iraq. He translated or abridged 130 works by Galen into Arabic and/or Syriac, as well as 8 works by Plato—including "Republic" (on which he wrote commentaries)—and 3 Galenic or pseudo-Galenic commentaries on	**Hunayn's translations of the Greek epitomies**, of which at least six manuscripts containing the epitomies of the Schools survive	

				Aristotle, in addition to "Categories". He also published a treatise on ophthalmology, the most comprehensive of its time.		
11th century				* **Abu al-Faraj ibn al-Tayyib** (d. 1043): Islamic period of reworking on the medical curriculum; * **Ibn Sina (Avicenna; 980–1037)**: reorganized the curriculum in his monumental "Canon of Medicine", in which the curriculum is arranged into five books with an empirical focus, corresponding to five stages of learning: 1—medical theory, 2—simple drugs, 3—diseases of specific organs, 4—systemic diseases, 5—complex drugs. In the first volume (General Matters, al-Umur al-kulliyah), there is a paraphrase of the first section of "The Medical Schools".		
12th century				***Ibn Rushd** (Averroes; 1126–1198): publishes his "On General Matters" (al-Kulliyat fi al-tibb), which follows the Avicennian program, though omitting the sections on elements, temperaments, and humors;		

				***Moishe Ibn Maimon** (Maimonides; 1138–1204) adheres to the Avicennian medical program, with all its practical emphasis. He writes commentaries on Hippocrates, on poisons, and on asthma, among other medical works.		

b) *Syllabus* of the Alexandrian School of Medicine:

To reconstruct the curriculum of the Alexandrian School of Medicine, we followed *al-Kitab al-nafi* by Abul Hassan Ali ibn Ridwan al-Misri, an Egyptian physician and astronomer who lived from 988 to 1061 CE, corroborated by the opening of *Firaq al-tibb* by Hunayin ibn Ishaq[16]:

> 1) liberal arts (intermediate knowledge of grammar, mathematics, and astrology); basic knowledge of pharmacy (simple and compound drugs);
> 2) Aristotelian Organon: *Categories*; *On Interpretation* (on propositions); *Prior Analytics* (on syllogisms); *Posterior Analytics* (on demonstration).

1 and 2 were preparatory courses. Afterward, there was an intermediate phase between the preparatory and Galenic courses, consisting of the reading of Hippocratic treatises, namely:

> 3) *Aphorisms*; *Prognostics*; *Regimen for Acute Diseases*; *Airs, Waters, Places.*
> 4) The Galenic curriculum, divided into seven grades or levels:
> 4.1—First level: *Schools of Medicine for Beginners*; *The Small Art of Medicine*; *On Pulse for Teuthras*; *Therapeutics for Glaucon* (in 2 books);
> 4.2—*On the Elements According to Hippocrates*; *On Temperament* (in 3 books); *On the Natural Faculties* (in 3 books); *On Anatomy for Beginners* (in 5 books);
> 4.3—*On Diseases and Symptoms* (in 6 books, compiled from *On the Differences Between Diseases*; *On the Causes of Diseases*; *On the Differences Between Symptoms*; *On the Causes of Symptoms*, all by Galen);
> 4.4- *The Diagnosis of Diseases of the Internal Organs* (in 6 books); *The Major Pulse* (in 16 books);
> 4.5- *The Types of Fevers* (in 2 books); *On Crises* (in 3 books);
> 4.6- *On the Method of Cure* (in 14 books);
> 4.7- *The Regimen of the Healthy* (in 6 books).

4

Finally, we can proceed to an analysis of what the Sextan doctrines regarding the methodological foundations of empirical medicine would be, according to the

[16] This reconstruction is based on WALBRIDGE, 2014, p. xix-xxxi.

editors of the "consolidated" version of *On the Medical Schools* (the one merged with *Introductio*)[17]. Since Greek manuscripts containing this version have disappeared, our source will be Hunayin Ibn Ishaq's Arabic version of *On the Medical Schools*, *Firaq al-tibb*.

The work begins by mentioning the possibility that medicine can be divided into two parts—one theoretical and the other practical—with further subdivisions, but soon after assumes that it can also be divided in other ways, such as into five parts. This divergence already prepares the reader for the realization that there are disputes in medicine. The disputes, in turn, are attributed to differences among the three main schools of medicine: "first, the Empiricists, whose adherents rely solely on experience; second, the sect of the Rationalists, whose adherents employ both experience and inference; and third, the sect of the Methodists, who employ neither experience nor inference" (Walbridge, p. 10). Here, this entire introduction to *On the Medical Schools* is taken from *Introductio seu medicus*, and it goes on to list the members of each school. We will focus on the mention of the members of the Empiricist school, which is of most direct interest to us here: "The prominent adherents of the Empiricist sect were Acron of Agrigento, Philinus of Cos, Serapion of Alexandria, Sextus ⌜Empiricus⌝, and Apollonius ⌜Empiricus⌝."

Next comes a list of definitions of medicine, on which there is no disagreement, since everyone agrees that it consists, broadly speaking, of restoring health when it is absent and maintaining it when it is present. Disagreements arise, however, regarding how to do this—that is, it is a methodological disagreement—but there are also, curiously, disagreements regarding "the existence of the things through which health can be obtained and how they can be known" (p. 12). Afterward, there is a quick shift in topic, in which the alternative names of the schools are given. In the case of the Empirical school, it is also known as the Observative school and as the Rememorative school; in the case of the Rationalist school, it is also known as Dogmatic; the former employs experience, observation, and memory; the latter employs syllogisms and aims, through them, "to ascend from the apparent thing to the sensations and on to the thing that is understood by the mind" (p. 13)—that is, they aim to move from the evident to the non-evident.

In turn, as Hunayin explains, medical experience has five parts: (p. 14)

1- natural (nosebleeds, sweating, "bladder relief," and vomiting);

2- accidental (drinking cold water and wine);

3- voluntary (occurring as a result of a dream or omen);

4- imitation (when the physician imitates something "whether by nature, by accident, or by incident");

5- transition to the similar (whether from organ to organ, from disease to disease, or from drug to drug).

Hunayin then considers that the composition of medical experience can also be viewed as fourfold: "first, incidence, both with respect to nature and with respect to accident; second, the volitional; third, the imitative; and fourth, the transition from one thing to another similar to it" (p. 15).

[17] All the quotations made in this chapter are based on WALBRIDGE, 2014, with a few modifications. Also, the page numbers are based on Walbridge edition of the Arabic text.

Initially, he focuses on the fourfold division of medical experience, stating at the outset that, within this fourfold division, the first two components—namely, the natural or voluntary nature of the provocation of incidents—relate to the starting points of the experience. On the other hand, the tools for deduction (it would be more accurate to say: inductive inference) regarding the restoration of health are imitation and transition to the similar.

However, apparently, the disagreement over whether there are five or four types of experience is artificial, since if, according to the fivefold division, there are "natural; accidental; voluntary; imitative; transition to the similar," those who advocate the fourfold division merely treat "natural" and "accidental" as species of the genus "incidental."

Five-part version:	**Four-part version:**	**Method:**
Natural; Accidental;	} → Incidental;	} → Starting point;
Voluntary;	→ Voluntary;	
Imitative;	→ Imitative;	} → Drawing conclusions.
Transition to the similar.	→ Transition to the similar.	

As for the methods of drawing conclusions, inferences would work in the following ways. First, with regard to the transition to the similar, there would be three possibilities:

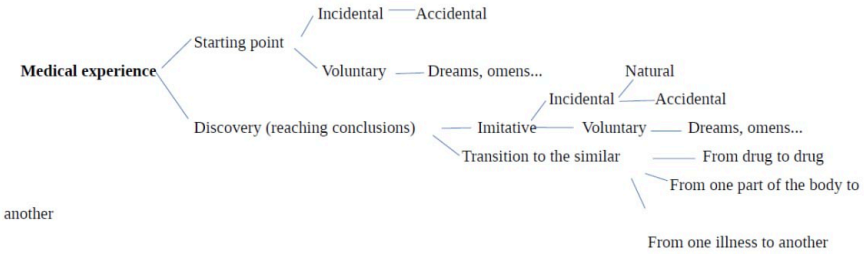
> 1- when drugs are "transferred" from a disease X to another disease Y similar to it; e.g., "when antipyretic drugs are transferred from the sweating condition known as erysipelas to the disease known as herpes, since these are two diseases that resemble one another in terms of heat and red color";
>
> 2- when drugs are "transferred" from an organ X to an organ Y similar to it; e.g., "when something is transferred from the arm to the thigh, since each of these two organs resembles the other in nature and form";
>
> 3- when treatment is "transferred" from a drug X to another drug Y; e.g., "when loquat is used in place of quince in the treatment of diarrhea, due to the fact that these two drugs resemble one another in the cause of constipation." (All quotations here, p. 15).

With regard to imitation, it too is threefold, for "in what he does, the [empirical] physician follows an example, [provided] either by nature, by chance, or by volition" (p. 15). And let us recall here that, to a certain extent, "nature" and "chance" are kinds of "incident." Thus:

> 1a—by nature, e.g.: "when one observes that someone afflicted with blood fever has a nosebleed and that this nosebleed is beneficial." Hence, when the empirical physician encounters someone with blood fever, he induces bleeding through phlebotomy;
>
> 1b—by accident, e.g., "when one observes that someone suffering from a blood fever for some reason bleeds from a cut they have

> [accidentally] sustained on some part of their body and is helped by this." Hence, the empirical physician, when encountering a person with a blood fever, performs phlebotomy;
>
> 2- by volition, e.g.: "when one sees a man in a dream, if one is moved by an omen in one's soul, or is told by a soothsayer that one must let the blood flow." Hence, the empirical physician performs phlebotomy. (pp. 15–16).

This division above (into 1a, 1b, and 2), according to Hunayin (p. 17), also applies to the starting point of the empiricist conception of medicine. Thus, we could propose the following addition to the table immediately above:



Finally, regarding the method outlined above, Hunayin states that what is discovered constitutes the "history," which is a kind of collection of accounts to which doctors must return and review. This return is called an "autopsy." Furthermore, "history" is associated with listening, and "autopsy" with seeing (p. 16).

5 Conclusion

In conclusion, there is still much work to be done to reconstruct the epistemology of discovery among the Empiricist Physicians and their methodology. However, based on the sources, we can be certain that their philosophical foundation corresponds to some extent to Pyrrhonian elements[18].

We can also be relatively certain that the tradition was correct in asserting that the mature version of Medical Empiricism is a Sextian legacy, and that this mature version (and thus this Sextian legacy) survived and is present in the medical thought of Avicenna, Averroes, and Maimonides, for example.

Among other things, it remains to be seen which Pyrrhonian elements are present in Medical Empiricism—and vice versa—since both were part of the broader framework of Sextan philosophy.

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[18] See BRITO, 2016; BRITO, 2022, p. 91-96.

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