

**Dmitry A. Balalykin, *Galen on Apodictics*,  
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*Quod optimus medicus sit quoque philosophus.*

If I were to express with a single sentence the merits and the moral of the book by Dmitry Alekseevich Balalykin, *Galen on Apodictics*, it would be this one: *The best doctor is also a philosopher*. This is the title of one of the most popular writings of the eminent Roman philosopher and physician Galen, the successful personal doctor of three emperors: Marcus Aurelius, Commodus and Caracalla. The book is the seventh volume in the series *Studies in Medical Philosophy* and includes an elucidating Foreword written by Alexander L. Gungov. The scope of the book is much larger than its title suggests. In fact, this is an excellent and comprehensive history of the philosophy of medicine in antiquity from the Hippocratic tradition to Galen, including a narrative of the main developments both in the theoretical field and the practical application of the art of healing.

In the introduction, Balalykin imparts to readers the meaning implied in a range of terms and concepts having a general epistemological character. For instance, his “simplified definition” of “science” is “an organised collection of verifiable paradoxes and corrected errors.”<sup>22</sup> Another important clarification concerns the term “protoscience.” According to Balalykin, the latter embraces certain works by ancient scholars, whose ideas are ontologically very close to modern ideas and are partially commensurable with them. Ancient medicine is in a better position than many other branches of knowledge, having been engendered and fully elaborated in the Greek and Roman worlds. To begin with, the

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<sup>22</sup> Dmitry A. Balalykin, *Galen on Apodictics* (Stuttgart: *ibidem*-Verlag 2020), 14.

number of the texts in the *Hippocratic Corpus* is impressive, and Balalykin reminds us that nothing similar is at the disposal of researchers studying the birth of other disciplines. Galen was an astonishingly prolific author, leaving 500 writings of which 111 have reached us. Fewer than half of them have been translated into English, 30 into Russian, and an even smaller number into Bulgarian.

This paucity is a consequence of many ungrounded prejudices, unquestioned assumptions and bad educational practices, rooted in decades-old university curricula: students and academics, concerned with philosophy, should study *only* the ancient thinkers; students and academics, focused on history, should read the historiographers of the past, but not other prose texts; the departments of classics should concentrate on the great masterpieces of the literary heritage, but are free to ignore the sources of the exact sciences, etc. Such established routines distort the knowledge of the past. The most enjoyable part of the book was the historical outline: the views of Hippocrates, Empedocles, Democritus, Plato, Aristotle, the Epicureans, many of the Stoics, and above all Galen are analyzed. All of them were philosophers, and the greatest practitioners and scientists among them attained the peaks of the knowledge of their time because of the theoretical foundations of their endeavors. Concerning Galen, Balalykin's book is irrefutably convincing as he explains the phenomena of medical theory and practice in the language of philosophy.

What is health? disease? body? soul? What is the soul's connection to the body of man? How many parts and/or functions, or powers, does the human soul possess? What is a cause? an effect? a purpose? a sign? To these and many other important questions, Galen not only provides answers, but builds these answers into an imposing theoretical system, founded on the most powerful abstract philosophical concepts, and, at the same time, given successful expression in his own therapeutic practice. This is why Galenism remained dominant for more than a millennium. Balalykin stresses that it is a minor matter to debate whether it took 50 or 150 years for this philosophy-and-practice to triumph. What matters is that it dominated till the seventeenth century and was regarded as relevant until the early nineteenth century.

The first chapter of the book presents Galen as a historian of philosophy, of the theory and practice of the art of medicine. Indeed, everything starts with Hippocrates and his associates and co-authors, whose

writings are included in the *Corpus*. Some of these authors claimed that medicine should not be built on theoretical concepts about human nature, a view initially expressed by natural philosophers. Others believed that the human body consists of a single element. Galen holds the opposite view: the body is a mixture of the four elements (earth, air, fire and water) and the balance of the four liquids (blood, phlegm, yellow and black bile). The purpose of medicine, according to Hippocrates, is “to do away with the sufferings of the sick, to lessen the violence of their diseases, and to refuse to treat those who are overmastered by their diseases, realizing that in such cases medicine is powerless.”<sup>23</sup> Balalykin rightfully qualifies this goal and the definition of health, which follows from it, as apophatic: “health is the absence suffering.”<sup>24</sup> At the same time, from the Hippocratic tradition, Galen borrows one of his definitions of health, which is cataphatic: health is due to the good balance or the good mixture of the three tetrads. Balalykin highlights the most useful conceptual tool formulated by the authors of the Hippocratic circle and Alcmaeon of Croton:

Galen subsequently employs the concept of the “good mixture” to describe health. Consequently, “disease” is defined as the antithesis of health, i.e. as the suffering of the human body through the disruption of the dynamic equilibrium of the three tetrads (elements, liquids, essences). Here we see the continuity of Hippocrates’ idea and the preceding rationalistic theories about health and disease. According to Alcmaeon of Croton (the first in the history of medicine to attempt to construct a rational theory of general pathology), “isonomy” (ἰσότητα, i.e. “equilibrium” of the properties wet, dry, cold, hot, etc.) is indicative of “health”, whereas “monarchy” (μοναρχία, i.e. the “dominance” of one of these properties) shifts the equilibrium and, as a result, leads to disease.<sup>25</sup>

Other key notions of the Hippocratic medical school to which Balalykin draws attention are: the opposite of balance, change, “transition” (μετάβαση); the influence of external factors such as climate, diet, etc.; timely detection of the first symptoms; the relativistic view of

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<sup>23</sup> Ibid, 35.

<sup>24</sup> Ibid, 35.

<sup>25</sup> Ibid, 35.

health (“health can be more or less”<sup>26</sup>); the proper start of treatment (“[i]f disease and treatment start together, the disease will not win the race”<sup>27</sup>); the fundamental principle of curing the “opposite with the opposite”<sup>28</sup> – the elimination of the excess of one and deficiency of the other.

Balalykin also points to the humble Hippocratic recognition of the limits of medicine and the confession of the “relativity of recovery”.<sup>29</sup> Full recovery from sickness is *not always* possible. To summarize, this part of the book elucidates the theoretical framework of the Hippocratic art of healing and its empirical method. This stage led to two types of generalization: ideas about the anatomy, physiology and general pathology of the human being as a whole and, secondly, the understanding of the individual peculiarities in the progression of any disease.

The next section of the first chapter of the book discusses the impact of the doctrines of Plato and Aristotle. One of Galen’s principal treatises is entitled *On the Doctrines of Hippocrates and Plato*, in which he focuses upon the dialogue *Timaeus* – Plato’s encyclopedia of the philosophy of nature. Cosmogony, cosmology, the creation of the four elements out of perfect triangles, anthropogony, embryology, anatomy and physiology, all are covered in the speech of the Pythagorean of Locri. A certain part of this speech could be read as a lecture by Plato on the generalities of medicine. According to the summary given by Balalykin, Plato suggests that there are three types of diseases. The first group is defined by the disruption of the equilibrium of the four primary elements – earth, air, fire and water. The second group is associated with disturbances in the nourishment of some parts of the body. Diseases of the third group are due to the imbalance of humors and primarily arise from the disturbance of the breathing process.

Balalykin points out two significant components of Platonic physics and philosophy of nature: 1. the primary elements are transformable into each other; 2. the description of their properties is given in the language of mathematics, through geometry and stereometry. He also pays

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<sup>26</sup> Ibid, 36.

<sup>27</sup> Hippocrates, “The Art” in *Hippocrates Volume II* (Massachusetts: Harvard University Press, 1923), 211.

<sup>28</sup> Ibid, 37.

<sup>29</sup> Ibid, 38.

attention to the influence of the Pythagoreans and Empedocles on the formation of Plato's cosmology, and the crucial role played by the Demiurge in the construction of the beautiful and eternal cosmos. He also stresses that Plato disagrees with Empedocles: the center of rational activity, the higher control of the functions of the body, according to *Timaeus*, lies in the brain. Balalykin notes the fundamental concept of the mutual influence of the spiritual and the corporeal. Nowadays this is called the psychosomatic integrity of the human body. He insists on the congruence between the views of Plato and the authors of the *Hippocratic Corpus* because, in his opinion, the right approach to the essence of medicine is its treatment as a theoretico-practical system that progresses on the path of the accumulation of knowledge and its generalization. Balalykin praises Galen for further developing Plato's fundamental ideas, especially the explanation of the process of breathing, the topography of the human body, and above all the idea of the tripartition of the human soul. Balalykin quotes Galen, who states in his *Commentary on the Timaeus*:

Reason resides in the brain, from which it controls the nerves and movements, as well as the five senses. The appetitive part of the soul is located in the liver and is responsible for the blood, veins, and also has the ability to differentiate substances necessary for the nourishment of the body. The spirited source, which is located in the heart, monitors the arteries, the natural temperature, pulsation of the blood, as well as the animal part of the soul.<sup>30</sup>

Balalykin's next interpretive task is perhaps the most difficult, because when writing on Plato's natural philosophy, on his ideas of the body and soul of the cosmos, and their interrelations, imitated by every living creature, it is possible to concentrate on just one dialogue, the *Timaeus*. However, in the Aristotelian *Corpus*, one third of the treatises, or better, one third of the *notes for* and *from* his lectures in the Lyceum, are engaged with ontological and physical principles and causes, the structuring of the cosmos as a whole and of all the living organisms in it. It is almost impossible to decide what to select and what to skip. In the panoramic survey of the ideas of Galen's predecessors, inherited and en-

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<sup>30</sup> Quoted in Balalykin, *Galen on Apodictics*, 52.

riched by him, Balalykin chooses several Aristotelian tenets: the four primary elements and their natural places in the eternal, imperishable and uncreated world, and the problem of coming-to-be and passing-away, treated differently in three texts. One solution to this problem is found in the two books bearing the same title (*On Coming to-Be and Passing-Away* and *Book Alpha and Beta*); a second is in his biological writings; and a third is in the *Physics*. Also important here is the reduction of the contrarities in his explanation of living creatures. This matters, because in the four cosmological books of *On the Heavens* there are three constitutive couples of contrarities (heavy and light; hot and cold; moist and dry). Balalykin stresses the fact that in the explanation of ensouled creatures, Aristotle excludes the couple heavy-and-light because they are neither active nor susceptible.<sup>31</sup>

The great difference between Plato and Aristotle concerning the identification of the most important organ in the human body preoccupied Galen. Is it the heart or the brain? Balalykin comments that Aristotle followed Empedocles and believed the most important to be the heart. This question provoked ardent debates through the centuries, and was recorded mostly in the text *On the Doctrines of Hippocrates and Plato*, which discussed the views of Hippocrates, Empedocles, Plato and Aristotle. Galen's criticism gradually increased and reached its utmost height in the polemic against the Stoic Chrysippus of Soli. Balalykin summarizes the result of Galen's survey of the Roman philosopher and physician: "Galen points to the extremely speculative nature of the ideas of the Stoics and Aristotle, attributing that to their 'ignorance of anatomy'. He proves that the centre of the motive power is in the brain and this energy is transmitted to the whole body through the spinal cord and nerves."<sup>32</sup> Balalykin also emphasizes the difference between the Aristotelian *History of Animals* and the treatise *On Fleashes* by Galen concerning cardiac anatomy. At the same time, he correctly clarifies that, for Aristotle, there is a considerable difference between the cardiovascular system of mammals and the anatomy of the animal and human heart. This is evident in the Aristotelian texts *On the Parts of Animals* and *Historia Animalium*.

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<sup>31</sup> Ibid, 56.

<sup>32</sup> Ibid, 60.

After this historical outline of the main conceptions of the greatest antecedent Greek philosophers and physicians from different schools of thought, Balalykin analyzes the doctrine of *homoiomereia* as the foundation of Galen's view of the microstructure of tissue. The term and the notion of *homoiomereia* were coined by Anaxagoras of Clazomenae (500-428 B. C.), and literally means "particles similar to other particles." These particles are ontologically responsible for the birth and evolution of the material cosmos and are ruled and governed by the immaterial divine *Nous*. Aristotle makes great use of the concept in his biological writings and Galen further implements it, enriching its compass. This part of the book is extremely dense, including the testimonies from various ancient thinkers alongside the work of many contemporary scholars. He sums up the main points of "The Art of Medicine" with the obvious positive conclusion that the human body consists of various organs and tissues, observed by the physician during surgical intervention. In the discourse on the pathological processes, which are the real challenge for the art of healing, Galen, according to Balalykin, insists mainly on the following: 1. The mechanisms of development of a disease may be realized at the level of *homoiomereia*; 2. It is particularly at the level of *homoiomereia* that pathological states associated with the imbalance of essences may manifest themselves; 3. The classification of the states of the human body along the scale of the "normal and pathological" begins at the level of the particles similar to others; 4. Galen defines specific tissues as a collection of homogenous *homoiomereia* and the spaces between them.

In brief, in the first chapter, the reader encounters Balalykin's interpretation of the critical reception in Galen's writings of the ideas expressed mainly by the famous pre-Socratics and the two giants of classical Greek thought: Plato and Aristotle. The second chapter turns to a discussion of Galen's clinical experience and apodeixis, starting with a theoretico-philosophical consideration of the semiotics of diseases. Several complex conceptual problems are debated here. Obviously, the first is the thematic circle around the questions: What is a sign? What is a signifier? What is a signified? What constitutes medical and pathological semiotics? The most intriguing answers to these questions were proposed in the logic of the Stoics and the writings of some of the later Skeptics, but there are few authentic fragments from the oldest Stoics or Skeptics prior to Sextus Empiricus. Moreover, Galen dislikes and criticizes the doctrines of the Stoics in almost all their ramifications, and also opposes the negative skeptical attitude.

Before properly dealing with the polemic between the representatives of the Hellenistic schools and Galen, Balalykin opens this chapter with Galen's contemplation of the education most necessary and required for any person who wishes to become a good physician. Geometry, as the highest branch of mathematics, astronomy, "and particularly logic, which have been created by human genius, help us to find sources of harmony and consistency in nature and to discover its ideal beauty."<sup>33</sup> Galen's fundamental educational and didactic credo is expressed by his high appraisal of the study of philosophy. Even the title of his writing-manifesto is telling: *The Best Doctor is also a Philosopher*.

With respect to the problematic circle of the nature of the sign, Balalykin demonstrates Galen's pragmatic approach:

Galen's teachings on "the external signs" combine philosophical investigations and practical observations. The very term "sign" in Galen is highly individualised. The symptoms (or signs) of a disease and features (or signs) of the patient's unhealthy condition and behaviour make it possible to draw a conclusion pointing to a particular diagnosis and methods of treatment.<sup>34</sup>

At the same time, he again underlines the philosophical and logical dimensions of the concept of the sign in Galen's theory:

For Galen, the identification and analysis of the signs of an illness is a process of establishing a logical relationship or inference (the one follows from the other in line with a certain rational principle). Usually, there is a cause-and-effect relationship between the internal changes in the body and the external sign of the disease (the one is a prerequisite of the other). Galen looks for the causes of the disease using logical constructs, by analysing external signs. Only after doing this and determining the cause can one find the correct remedy.

A sign being observed exists in itself, without being studied, but needs to be studied when the relation between the evident and the non-evident can be established.<sup>35</sup>

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<sup>33</sup> Ibid, 85.

<sup>34</sup> Ibid, 90.

<sup>35</sup> Ibid, 91.

Balalykin's conclusions are grounded in his understanding of Galen's treatise *On the Sects for Beginners*.

Another key thematic field discussed in the book is Galen's etiology, i.e. his philosophical theory of causality, applied to the art of medicine. Balalykin notes that 'etiology' in Galen's system means teachings on disease in general. Today 'etiology' refers to a combination of ideas about specific conditions under which diseases arise in particular nosological forms."<sup>36</sup> Galen's reasoning in this aspect is far from the crude, hopeless and merciless Stoic determinism, and more akin to the teleology of Aristotle. Balalykin says that "cause" for him is rather a combination of external factors that are "healthy" or "unhealthy."<sup>37</sup> From this follows his definition of "disease:" some condition contrary to nature and harming function.<sup>38</sup> In turn, this leads to the concept of a "disease symptom" as an observable phenomenon.

Galen's ambition was to be the best possible doctor. To achieve this he attempted to construct a universal system, by considering the nature of functional impediments. The human body in its normal state performs the functions of the soul and the functions of nature. As Balalykin recalls, the most important ingredient, inherited from Plato, is the tripartite structure of the human soul. The functions of the soul, writes Galen, can be divided into the sensory, the motor and the authoritative. The sensory function of the soul is manifested through the five senses: sight, smell, taste, hearing and touch. The motor function has one instrument and one mode of movement, diversified in the various organs, a job performed by the muscles. The authoritative function is manifested through imagination, memory and reason.<sup>39</sup>

All these considerations are included in "The Art of Medicine" but a new ingredient is added to them – a polemic against the Methodic doctors, who fancied that there are eternal chaotically moving indivisible particles, or atoms, existing in the form of a "healthy" essence. According to this curious theory, the status of the body is determined by the proportions and combination of "good" and "bad" atoms, "health-

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<sup>36</sup> Ibid, 112.

<sup>37</sup> Ibid, 253.

<sup>38</sup> Ibid, 113.

<sup>39</sup> Galen, "On the Differentia of Diseases," in *On Diseases and Symptoms* (Cambridge: Cambridge University of Press, 2006), 131-156.

bearing” and “disease-bearing” atoms, and these are randomly connected. The atomistic substratum of this view is beyond doubt. Balalykin demonstrates Galen’s struggles against this physical theory as the basis for medicine in his treatise *On Hippocrates’ On the Nature of Man*. In the latter, he establishes three main states of the body: healthy, sick and neutral. In contrast to the atomistic theory, Galen holds that the material structure of a specific part of the body is a combination of homogenous *homoiomeres* and the space between them.

In this context, Galen defines medicine as the “knowledge of those things that are healthy, those that are diseased, and those that are neither.”<sup>40</sup> In the paragraphs of this excellent epitome of the synergy between philosophical theory and medical practice, a synergy for which every decent physician should strive, there is one more idea: the hierarchy of the parts of the body. According to Galen, there are four parts: 1. The principals (brain, heart, liver and testicles); 2. The parts that grow out of the principals (nerves, spinal cord, arteries, veins and spermatid ducts), but do not engender others; 3. The parts that do not grow out of others, but have functions inseparable from the other organs (cartilage, bones, ligaments, membranes, glands, fat and simple flesh); 4. Those that are both related to others and grow out of others (everything else). In a quick comment here, we may say that the influence of Aristotle’s philosophy is undeniable in this doctrine of the principals in the body and everything else is dependent on them. There is one huge difference: for Aristotle, the brain is a kind of a refrigerator (*sic*) and its task is to cool the excessive heat coming from the intense work of the heart. On the contrary, Galen states that the brain is the most important *arche* in the human body.

The final part of the second chapter raises again the issue of the unity of mind and body, this being substantial and essential according to Galen. In his reasoning on this eternal problem, he combines notions from Plato and Aristotle, and, exceptionally, the Stoic demand to lead a virtuous life. Balalykin clearly presents the Platonic ideas of the two spheres of being: the visible and the invisible, or the upper level of the unchangeable and eternal (essences and ideas), and the realm of change

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<sup>40</sup> Galen, “The Art of Medicine,” in *On the Constitution of the Art of Medicine. The Art of Medicine. A Method of Medicine to Glaucan* (Massachusetts: Harvard University Press, 2016), 223.

and flux. It is clear to which the soul belongs and in which the body is destined to abide. Nevertheless, Galen is not a dualist. In his philosophy, the statements about harmony and interaction are much more numerous than those depicting an irreconcilable struggle between the two sides of human nature.

After this, Balalykin moves to the topic that stood at the head of all philosophical concern and inquiry for all Hellenistic schools and thinkers in late antiquity: ethical teaching about what is good and bad, which are the principal virtues and which are the worst vices. As in many other cases, Galen is much closer to Plato and Aristotle, and opposes the Stoics and the atomists. A curious note here, but not ungrounded, is the parallel which Balalykin draws between some of Galen's convictions and the pious exhortations of several early Christian apologists.

The third chapter is entitled "Anatomical dissections as evidence in a philosophical polemic" and begins with an analysis of Galen's method of investigation. This chapter deals with the same authors, philosophers and physicians, and often the same texts discussed in the first and the second chapters, but here the focus and the perspective are different. How do all previous questions look when they are posited in the realm of the history of medicine, in the context of the history and methodology of science? Balalykin's overall ambition is to defend the value of the ancient medical-and-philosophical authorities, and to oppose some contemporary derogations of ancient knowledge and protoscience.

In this chapter, the focus is on the intersection of three important writings by Galen: again *On the Doctrines of Hippocrates and Plato*, the self-reflective *On my own opinions*, and the polemical survey *On the Sects for Beginners*. Serious statements emerge from tackling the problem: were there real *scientific experiments* in medical practice from Hippocrates to Galen, or were there mainly pure and simple *descriptive observations*? Balalykin studies the history of the art of healing in these centuries, as perceived and assessed by Galen, through the lens of the logic and methodology of science. One example of Galen's implementation of his theory's logical toolkit will suffice, as it relates to his descriptive anatomy. In the meticulous reasoning on the obsessive problem about the priority of the heart or the brain as the most important organ in the human body, Galen does not reprimand, but understands and explains to readers whence comes the mistake made by Aristotle, whose other ideas he shares almost entirely:

In my opinion Aristotle here used two correct premises, the first, that some considerable strength is needed for voluntary actions, and the second, that the brain does not possess any such strength. But when he adds to these as a third, taken from sense-perception, the large number of nerve-like ligament in the heart, he no longer had the patience to concern himself with the particulars of anatomy and to inquire how a nerve proceeds from the heart to each part of the body; he asserts it as if it were directly entailed in the passage that I cited ... So I think that Aristotle was also misled when he posited two true premises and a third plausibly close to the truth.<sup>41</sup>

As stated before, Balalykin proves that Galen rightly considered himself to be a follower of Hippocrates, Plato and Aristotle, which made him a good example of the late antique heterogeneous eclectic in the best sense of the term "eclecticism." When he had to choose between two mutually exclusive solutions to a fundamental problem, he just skipped it. For example, he confesses that he will not state anywhere whether he believes the soul to be immortal or not. He reaches almost impossible levels in his mingling of Platonic and Aristotelian ideas, and critically approaches the views of the three major Hellenistic schools, especially their notions of nature and human cognition, which have laid the philosophical foundations of the other medical schools: the Empiricist physicians, the Methodic physicians and the Pneumatic physicians, to whom he was more lenient. Balalykin is convinced that, for anyone interested in the history of the methodological debates between the medical schools and their pertinent philosophical affiliations, Galen's *On the Sects for Beginners* is indispensable. Balalykin devotes a considerable part of his survey to the analysis of the Empirical school as an opponent of the Hippocratic tradition, mainly due to the fact that "the Empiricist doctors provided theoretical substantiation of the pointlessness of studying anatomy."<sup>42</sup> Here, a controversial issue comes to the fore: were these physicians entirely Stoics or forerunners of the Skeptics? Balalykin's selection and interpretation of passages from Galen inclines more to the first option.

A key section of the book is the one that discusses apodictics. The history of the application of the method of dissection and vivisection begins

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<sup>41</sup> Quoted in Balalykin, *Galen on Apodictics*, 175.

<sup>42</sup> *Ibid*, 188.

with the authors of the *Hippocratic Corpus*, more precisely with the treatise *The Sacred Disease*, in which the features of the pathologic damage in the brains of cattle and goats, suffering from epilepsy, are paralleled to the ones in human patients. From these remote times to the practice of Galen the method progressed gradually, facing resistance mainly from the doctors of the Empiricist creed. Balalykin substantiates the narrative with a profound analysis of Stoic tenets, responsible for their antipathy: the nature of *lekton* and *pneuma*, the *cataleptike phantasia*, the four ontological concepts, the hypothetical syllogism, their inclination to use emotive literary quotations rather than anatomical observations and research.

The last two sections of the book summarize the most valuable ideas expressed by Galen in his numerous writings and are supported by his experience of anatomical investigations and surgical practice. On many occasions, Balalykin stresses the teleological principle not only as the basis of Galen's apodictics, but as a holistic understanding of the organic body's vital functions, resulting in health or disease. Here, this conception is reinforced and exemplified by references to the embryology and gastroenterology of the great Roman physician, and by many respectful links to the champion of teleological reasoning in the philosophy of life, Aristotle. In the concluding part, focus turns to Galen's clinical work and physiological experiments. Noteworthy is the importance of Rufus of Ephesus, convincingly depicted by Balalykin as a leading figure in the diagnosis and treatment of diseases, traumas, animal bites, etc.

I have only one serious terminological disagreement with the author. In several places, when mentioning the three principal tetrads, whose balance results in a healthy condition, Balalykin labels the pairs cold-hot and moist-dry "essences" or "substances"; rather, they are *properties* or *contrariedades*. Some other hesitations arose concerning the predominance of the Stoics as tutors of the Empiricist doctors, but these became an occasion to look more attentively into the ancient sources and into the commentaries on them made in the last few decades.

The synoptic impression of the book is delightful: this is a precious study, which builds bridges over abysses. These abysses do not belong to the ancient world of knowledge and cognition. They were excavated and deepened in the last two centuries by the ever-increasing distance between the natural sciences and the humanities, and by the compartmentalization of academic education and research. Dmitry Balalykin's *Galen on Apodictics*, rewards the careful reader longing for real acquaintance with the history, philosophy and logic of medicine in the European past.