

Avicenna

The Physics of The Healing: A Parallel English-Arabic Text, 2 vols., trans. Jon McGinnis.

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Despite the considerable progress that study of Arabic-Islamic philosophy has made over the past decades, there is still little scholarship in the field of natural philosophy. Jon McGinnis is one of the rare specialists, and thus it is a particularly lucky happenstance that Brigham Young University's 'Islamic Translation Series' succeeded in gaining him as translator for Avicenna's *Physics*. In addition to his expertise in Aristotelian physics—ranging from Aristotle himself through the late-ancient commentators to Avicenna—McGinnis has extensive experience translating classical Arabic philosophical texts into English. This twofold asset is impressively apparent in his translation of Avicenna's *Physics*: within the limits dictated by the technicality and complexity of the subject matter and Avicenna's style, McGinnis's translation excels for its natural flow and comprehensibility. In contrast to many other translations of classical Arabic texts, it is intelligible even to those who do not know Arabic and therefore are not able to consult the facing Arabic text.

Even though the quality and impact of Avicenna's philosophy have now been generally acknowledged, a few remarks regarding the specific and ongoing contribution of his *Physics* to the history of philosophy are in order. In the translator's introduction, McGinnis also tackles this question, triggered by the observation that '[u]nlike Avicenna's metaphysics, philosophical psychology, and even logic', his natural philosophy has attracted almost no scholarly interest to date (xxi). McGinnis argues that this lack of contemporary scholarly interest in Avicenna's *Physics* stands in stark contrast to the significance of this work. For this text is not only crucial for understanding core issues Avicenna presupposes and applies in other of his writings, but also constitutes a unique example of the integration, critical evaluation, and further development (or rejection) of ancient Greek, early Arabic philosophical, and contemporary Islamic theological theories. Moreover, it belongs to the most influential pre-modern contributions to general physics, as evinced by its reception (both East and West).

The *Physics* consists of four books and is part of *The Healing*, Avicenna's encyclopedic masterpiece composed in the Aristotelian tradition. Even though the individual treatises of *The Healing* loosely follow their counterparts written by Aristotle, they are no commentaries, but rather original contributions to the broader tradition. Arguably one of the most compelling examples of Avicenna's re-shaping of the Aristotelian tradition is his discussion of causes and principles, covering the entirety of Book 1. As is clear from Avicenna's theory of science (ultimately based on Aristotle's *Posterior Analytics*), the causes and principles of any branch of knowledge whatsoever transcend this very branch and must be derived from a more profound, superior science. In the case of natural philosophy, this superior discipline is metaphysics. Accordingly, it

is metaphysics that establishes the causes and principles of physics, to the effect that Avicenna's two accounts in the *Healing—Physics*, Book 1, and *Metaphysics*, Book 6—are intricately linked and complement one another. Hence, it is in the course of this first book of the *Physics* that Avicenna introduces notions such as common things (*al-umūr al-āmma*) and nature (*tabī'a*), his take on hylomorphism and the four causes, and the relation of causality to luck and chance—core concepts of his *Metaphysics* whose basic analysis, however, is given here.

A comparably important notion is at the center of Book 2: motion, and thus the chief topic of physics. Motion, according to Avicenna, is the most general accident of natural things, along with time and place, 'its necessary concomitants' (xxvii; read, however, 'It loosely follows the first part of book 3 of Aristotle's *Physics*... and book 4', instead of '...and book 3'). This book offers some fascinating innovations, such as Avicenna's invention of a fourth kind of motion (related to position, as distinguished from place) and his theory of motion at an instant. With its argument against the existence of the void and proof of the existence of time, Book 2 moreover elaborates on topics already present in and hotly debated by both Aristotle and Avicenna's immediate Arabic predecessors.

Book 3 of the *Physics* affords particularly deep insight into ongoing discussions not only in philosophy proper but also in Islamic theology (*kalām*). Here, Avicenna's focus is on the infinite, an issue at the core of fierce debates about the eternity versus generated nature of the world ever since Aristotle. Thus, John Philoponus famously rejected Aristotle's theory of the infinite allowing for the existence of an infinite past, and instead argued for the temporally limited existence of the world. His proof against the world's eternity soon became one of the principal *kalām* arguments. The theologians' (*mutakallimūn*) rejection of Aristotle's notion of the infinite and of his theory of the eternity of the world was backed by a peculiar form of atomism developed in early *kalām* (not to be confused with Democritus' or the Epicureans' atomism). Whatever there is, according to the *mutakallimūn*, ultimately consists of indivisible atoms, arranged and held together, not by secondary causality, as the Peripatetic philosophers would have it, but by God himself. Siding with Aristotle, Avicenna therefore not only had to argue against Philoponus and the *mutakallimūn*'s concept of the infinite, but also against the latter's atomism. As a consequence, nearly one half of Book 3 consists of a careful analysis and refutation of this theory, providing a unique catalogue of a range of positions and arguments defended in early *kalām*.

While Book 3, with its concentration on quantity, tackles a further chief property of natural things (second only to motion, cf. Bbook two2), Book 4 is dedicated to various less general accidents, and hence at first glance appears to lack coherence. In effect, however, it returns to motion, albeit this time studied from another angle. In contrast to the second book, Avicenna now zooms in on motion as it actually occurs in natural things, for example, as quantitatively determined motion, as concerted versus non-concerted motion, or as motion distinguished by contrariety. In his introduction, McGinnis suggests (xxx) that the most theoretically intriguing topics of Book 4 are probably the issue of medial rest (4.8) and the problem of inclination and projectile

motion (4.12). Nonetheless, as he himself emphasizes, there are still many aspects to be discovered and examined. With his careful translation and semi-critical edition—about which more in what follows—McGinnis has prepared the ground for efficiently revealing and exploring the various facets of Avicenna’s natural philosophy.

The translation proper of the *Physics* is preceded by a concise introduction, already referred to above, supported by annotations (fortunately using footnotes instead of endnotes as in previous books of this series), and supplemented by a glossary and index. While the glossary—consisting of Arabic technical terms, McGinnis’s rendering of them, and the passages in which they occur—is an extremely useful tool and a great new feature of the series, it is somewhat annoying that no bibliography is included. Given the current state of the art, one could have imagined integrating an almost comprehensive list of secondary literature here. A further slight critique concerns the annotations—not their accuracy, that is, but rather their scarcity. McGinnis is, as mentioned, one of the few experts in classical Arabic physics, so the novice in this field might have wished for more explanations of the concepts and theories discussed by Avicenna, which are at times fairly complicated. Similarly, someone familiar with Avicenna’s other writings would have appreciated occasional remarks concerning key terms and the way McGinnis chose to translate them (such as, e.g., ‘privation’ for ‘*adam*’ in 1.2; ‘account’ for ‘*ma’nan*’ in 1.15). However, these are minor problems compared with the achievements of this face-to-face translation as a whole.

The significance of McGinnis’ work consists not only in providing the first translation of Avicenna’s *Physics* into a modern Western language, but also in considerably improving the Arabic text itself. Even though McGinnis advises his reader that this is not a critical edition, it is in fact an emendation of al-Yāsin’s 1996 edition on the basis of ‘Zāyid’s [1983] edition, as well as the Arabic edition of the text found in the Tehran lithograph of *The Healing* and the available medieval Latin translation of Avicenna’s *Physics*’ (xxxii). The practice of including a medieval Latin translation into the emendation of an Arabic text might surprise at first glance. However, since the available Latin translations of Arabic texts were often made from manuscripts contemporary to or even predating the earliest extant Arabic codices, they tend to contain valuable or even superior variants. (Thus, the consideration of medieval Latin translations has proved highly successful, for example, in the case of Avicenna’s *Metaphysics* of *The Healing*; see the list of corrections established by Bertolacci 2006, Appendix A.) That McGinnis applied this method along with the other techniques to improve the Arabic text commends this work as the standard reference of the *Physics* for the future, until a truly critical edition becomes available. With the natural flow of the translation, improved Arabic text, and useful tools (particularly the glossary), it will likewise be useful for the student who has not (yet) mastered Arabic as well as the advanced researcher seeking a reliable edition.

Nadja Germann

Loyola University Maryland