

The Hippocratic Aphorisms in the Arabic Medical Tradition

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Extreme bodily fitness is dangerous in the case of athletes. For when they have reached the highpoint in their fitness, they are unable to preserve and maintain this state. Since they are unable to maintain it, they cannot become fitter. It therefore only remains for them to slip into a worse state.

–A Hippocratic aphorism (i. 3) in Arabic translation

How does one teach medicine? And more specifically, how does one remember what to do in particular cases? These are age-old questions that have preoccupied medical practitioners from antiquity until today. In antiquity, an ingenious solution

to this conundrum was the invention of the medical aphorism in the so-called *Hippocratic Corpus*. These aphorisms are pithy and memorable sayings that convey important insights in abbreviated form. For instance the first and most famous Hippocratic aphorism says, “Life is short, the art is long, the [right] time is fleeting, experience dangerous and decision difficult” (i. 1); or to take a more typical example, “If a pregnant woman suffers from a lot of diarrhoea, then there is the danger that she will miscarry” (v. 34). These aphorisms are attributed to Hippocrates, the ‘father of medicine’ and became incredibly popular in the Arabic medical tradition, as the opening

quotation shows. In the present article, we explore how the *Hippocratic Aphorisms* became so popular in Arabic that more than 20 authors between the 10th and 16th century wrote sometimes quite long commentaries on them. To understand the Arabic interest in aphorisms, we first have to look at their history in antiquity.

HIPPOCRATIC CORPUS

The famous figure of Hippocrates is mostly known to doctors today because of the *Hippocratic Oath*. Like the *Oath*, the *Aphorisms*, together with more than 50 other works attributed to Hippocrates, form the so-called *Hippocratic Corpus*, a group of



Image: Hippocrates (460-370 BC) {{PD-USGov-DHS-CGAUX}}

of medical texts mostly written in the late 5th and early 4th centuries BC. In the past, scholars have endeavoured to determine which of the works in the *Corpus* were really written by Hippocrates; this has been known as the 'Hippocratic question'. They cannot have *all* been written by Hippocrates, because they are too different in style and content. For instance, the work *On the Nature of Man* argues for the theory of the four humours, black bile, yellow bile, phlegm and blood, each of which has two of the four primary qualities, hot or cold and dry or moist. The treatise *On Ancient Medicine*, however, fiercely criticises such theories as unworkable and irrelevant. Scholars nowadays agree that it is impossible, on the

present evidence, to answer the 'Hippocratic question'.

THE GREAT GALEN TRANSLATED INTO ARABIC

Although Hippocrates is considered as the best known physician of the ancient world, Galen of Pergamum (ca. 129-216) is arguably the most influential one. He wrote many books on various medical treatises, among them a number of commentaries on works in the *Hippocratic Corpus*, including the *Aphorisms*. Many works by Galen were translated into Arabic in the course of the 9th century. The most prominent translator was Hunayn ibn Ishaq (d. ca. 873), who gave an account of how he rendered Galen into

Arabic in his *Epistle about the Books by Galen Translated into Arabic and Those that Were not Translated*. Regarding the 'Commentary on Hippocrates' *Aphorisms*', he said:

The commentary on the *Book of Aphorisms*. He [Galen] composed this book in seven sections. Ayyub [ar-Ruhawi, i.e., Job of Edessa, d. after 832] had translated it badly. Jibril ibn Bukhtishu' wanted to improve it, but he only corrupted it further. Then I compared the Greek [text] with it and corrected it in a way that amounted to retranslating it. [...] Ahmad ibn Muhammad, known as Ibn al-Mudabbir, had asked me to translate it for him. I translated one section of it into Arabic. Then he asked me not to begin with the translation of another section before he had read the one that I had translated. Yet, the man was too busy and therefore, the translation was interrupted. When Muhammad ibn Musa saw this section, he asked me to complete [the translation] of the book. Therefore I translated it completely.

The above quotation demonstrates how important patronage was for scientific and medical progress. Only because members of the 'Abbasid elite sponsored the translations did Hunayn embark on this task. It also shows, incidentally, that when sponsors are busy or lose interest, a project can stall and come to a standstill. Be that as it may, Hunayn ended up translating Galen's

whole commentary on the *Aphorisms*. Since this commentary first quotes the Hippocratic aphorism and then explains it, both the Hippocratic text and the Galenic explanations became available in Arabic.

THE FIRST COMMENTARIES

As soon as Arabic-speaking physicians had access to the *Aphorisms*, they began to write commentaries about them. For instance, Abu Bakr Muhammad Zakariya' al-Razi (d. ca. 925) wrote a substantial commentary that only survives in fragments today. We have one such fragment from his explanation of aphorism v. 48, "Male embryos are usually on the right [side of the uterus], whereas female ones are on the left." Al-Razi argued here that both male and female semen contribute to the formation of the foetus and that the way in which they mix is also important (using a chemical analogy). He thereby went against the Aristotelian idea that male semen provides the form of the foetus and that the role of the woman in reproduction is reduced to supplying the matter into which this form

is impressed, namely the menstrual blood.

The most famous early commentator was Ibn Abi Sadiq (d. after 1068), known as the 'second Hippocrates (*Buqrat al-thani*)'. His commentary survives in more than 40 manuscripts today. When explaining the various aphorisms, Ibn Abi Sadiq often drew on Galen, but he also develops his own ideas. Let us take the opening aphorism as an example. In it, the Hippocratic author makes the sensible point that extreme bodily fitness is dangerous, as one can only decline from there. Ibn Abi Sadiq draws a general principle (*qanun 'amm*) from this aphorism, saying, "Each great amount is the enemy of nature and corrupts the body."

A generation or two after Ibn Abi Sadiq, Tahir ibn Ibrahim al-Sinjari wrote not one, but two commentaries on the *Aphorisms*. He offers a beautiful metaphor in the context of aphorism i. 3 about athletes. He says that "Hippocrates likened the [human] body in this aphorism to a garden." When a garden is left unattended, bad weeds grow and the canals in the garden become blocked. Therefore, not all parts of the

garden are irrigated as they should be and the fruit trees and other useful plants wither away. Therefore, "if the body grows excessively plump, one ought to reduce it to an amount where the blood is not impeded in its course [...]", so that it can reach all the parts of the body.

LATER COMMENTARIES

During the 12th and 13th centuries, we see a true proliferation of commentaries on the *Aphorisms*. In Muslim Spain, Ibn Bajja (known as Avempace in Latin, d. ca. 1139) wrote one, in which he tackled problems of medical epistemology: how one should use experience and reason to arrive at the correct diagnosis and treatment. Another native of Muslim Spain also wrote a commentary, namely Musa ibn 'Ubayd Allah al-Qurtubi al-Isra'ili, better known as Maimonides (d. 1204). He was not only an accomplished physician, but also arguably the greatest Jewish thinker of the Middle Ages. Musa wrote nearly all his works in Arabic, even those dealing with purely Jewish subjects, with the exception of his *Repetition of the Law (Mishneh Torah)*. In the preface to his commentary on the *Aphorisms*, he remarked that even school children knew them by heart. Finally, the physician and philosopher 'Abd al-Latif al-Baghdadi (d. 1231) penned a commentary, in which he displayed his philosophical interests.

In the 13th century, the Muslim doctor and theologian Ibn al-Nafis authored a commentary on the *Aphorisms*. He is famous for having discovered the so-called pulmonary transit, namely the fact that the blood moves from the right to the left ventricle (or chamber) of the heart via the lungs and not through an aperture in the septum, the wall separating the two ventricles, as Galen and others had thought. Another author of a commentary on the *Aphorisms* is the Christian physician Ibn al-Quff, a native of Syria who died in 1286. In his massive commentary, he investigated each aphorism from various vantage points.

In addition to the commentaries already mentioned, four others from later centuries survive today in manuscript. They were

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written by al-Minfakhi from the 13th century, al-Siwasi from the early 14th century and al-Kilani and al-Kishi, both from the mid-14th century. Moreover, we know of at least five other medical authors who composed commentaries on the *Aphorisms*.

OTHER APHORISTIC MEDICAL WRITINGS

This brief overview shows that generations and generations of physicians engaged with the Hippocratic *Aphorisms* by writing commentaries on them. The aphorisms also led to a new genre in Arabic medical literature. A number of physicians wrote aphorisms of their own: two famous examples include Abu Bakr al-Razi, who penned a *Book of Aphorisms (Kitab al-Fusul)*, also called *The Guide (al-Murshid)*; and Musa ibn 'Ubayd Allah (Maimonides) authored his own *Book of Aphorisms (Kitab al-Fusul)*, in addition to writing a commentary.

The *Aphorisms* were not, however, merely school texts or aids to remember medical theory, an example from al-Razi's *Doubts about Galen* illustrate this. In one of the Hippocratic *Aphorisms*, there is talk of 'dry dropsy'. Galen explains this as 'drum-like dropsy', "because when one knocks against the epigastric region, it gives out a sound like that of drums". Al-Razi first criticised Galen and then explained that he had seen this condition "more than once in the hospitals [*bimaristanat*] in Iraq and in my home in Rayy". Al-Razi went on to explain that in order to prevent drum-like dropsy, he developed a treatment consisting of enemas and putting the patient in warm sand. He also records a success rate of this treatment of two thirds. This illustrates that a Hippocratic aphorism could serve as the basis for the development of new treatments that also involved challenging an important previous medical authority such as Galen. After all, al-Razi had written an important work entitled *Doubts about Galen*. Likewise, we find a critical attitude to previous medical authorities also in the *Book of Aphorisms* by Musa (Maimonides). It contains a whole final chapter in which he criticised Galen. Therefore Arabic-speaking physicians clearly displayed a critical

distance towards the Greek heritage, and were capable of innovation.

CONCLUSIONS

The *Aphorisms* show how Arabic-speaking authors of the medieval period critically engaged with the Greek heritage in Arabic translation. Generation after generation of physicians adapted, adopted, abridged, explained and engaged with the *Aphorisms* in Arabic. Today, more than a dozen Arabic commentaries on them survive in more than 100 medieval and early modern manuscripts. These rich sources contain many insights that could help us better understand how medicine developed from 10th to the 16th centuries. Their potential therefore still remains largely untapped, although a project to study them is currently underway at The University of Manchester, UK. They contain interesting material regarding the theoretical, educational, practical, clinical and social aspects of the history of medicine in the medieval Islamic world.

The Hippocratic *Aphorisms* in the Arabic medical tradition also have a powerful lesson to teach us today. They were translated in the 9th century into the scientific language of the day, Arabic. The Muslim 'Abbasid elite sponsored these translations, which were largely carried out by Christians such as Hunayn ibn Ishaq. But the medical discourse that they helped shape was not limited to Arabs, nor to Muslims and Christians. It transcended the confines of country and creed. We see this clearly from the commentaries on the *Aphorisms*. The commentators included Muslim theologians such as Ibn al-Nafis, Jewish thinkers such as Musa ibn 'Ubayd Allah (Maimonides) and the Christian Ibn al-Quff. The commentators came from an equally wide variety of places such as Muslim Spain, Egypt, Syria and Cappadocia (in modern Turkey).

The lesson then is this: when a society is tolerant and openly adopts and adapts the scientific, medical and philosophical legacies of other cultures, it thrives best and is capable of advancing human knowledge.

Further Reading

1. Pormann PE, Savage-Smith E. *Medieval Islamic Medicine. New Edinburgh Islamic Surveys*. Edinburgh University Press, Edinburgh 2007.
2. Pormann PE. *Islamic Medical and Scientific Tradition. Critical Concepts in Islamic Studies*, 4 vols. Routledge, London 2011.
3. A first overview of the rich tradition of the Hippocratic *Aphorisms* in Arabic is provided by: Pormann PE, Peter Joosse N. *Commentaries on the Hippocratic Aphorisms in the Arabic Tradition: The Example of Melancholy*. In Pormann, ed. *Epidemics in Context: Greek Commentaries on Hippocrates in the Arabic Tradition, Scientia Graeco-Arabica 8*. Berlin: De Gruyter 2012. p. 211-249.

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