BARHEBRAEUS’S ANALYTICS: MEDICAL ANALYTICS

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Summary

Among Barhebraeus’s Butyrum sapientiae, both Prior and Posterior Analytics, whose editions are being prepared by the author, are related to medicine: the Prior, since it comprises the fourth syllogistic figure, which is used indiscriminately for both categorical and modal syllogisms throughout; the Posterior, since it illustrates matters by many medical examples, often with rare Greek-stemming words. Some medical examples are also employed in the Prior. This fourth figure’s first formulation is commonly ascribed to Galen, primarily known as a physician. However, this ascription is doubted since many years. Therefore, a first investigation is carried out whether there is a connection between Barhebraeus and Galen as a possible source, and whether new evidence for the figure’s ascription to Galen can be found.

Yet it turns out that most of the examples are taken from Avicenna, others, and seemingly the Greek-stemming words also, from Syriac sources. However, Avicenna is not the primary source for Barhebraeus’s syllogistic figures and their moods. His logical source is Fakhr al-Dīn al-Rāzī’s al-Mulakhkhas, which is still unedited. Further, there is a certain similarity with Gersonides’s Correct Syllogism, which could favor Gersonides’s knowledge of Arabic and usage of the same or contemporary Arabic sources. Barhebraeus’s text even helps to better understand a part of Gersonides’s text.

In addition, a comparison of the syllogistic figures with geometrical objects, which is also given graphically by Barhebraeus, and the notation of the premises (major premise mentioned first, predicate mentioned before the subject, which is similar to Greek habit) that is used by Barhebraeus in that particular part only, seemingly go back to Philoponus’s commentary on the Prior Analytics and, possibly, also to illustrations in scholia in (Greek) manuscripts. There is no parallel in Arabic logical texts seen so far.

Thus, Barhebraeus’s Analytics are, as many parts of his Butyrum, a fascinating combination of very different sources, yielding a unique result.
Both the Prior and Posterior Analytics of Barhebraeus’s (died 1286) Cream of Wisdom (Butyrum sapientiae, Ḫēwath hekhmēthā) are ‘medical’ in two respects. Firstly, Barhebraeus employs an extraordinary amount of medical illustrative examples, especially in the APo., and he uses Greek-derived medical technical terms in them. Secondly, the fourth syllogistic figure, that is, a figure usually defined as having the middle term as subject in the minor premise and predicate in the major premise, whose ‘invention’ (first express formulation) is usually ascribed to Galen, primarily known as a physician, is used throughout the APPr.

At first sight, one could assume a certain connection between (lost) works by Galen and both the medical examples and the fourth figure.

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1 I want to express my sincere gratitude to the Huygens Instituut, to the organizer of the Congress, Aafke van Oppenraay, and her colleagues, for their kind invitation and hospitality. I am also indebted to the editors and the participants for valuable suggestions.

2 Aristotelian works are henceforward abbreviated following H.G. Liddell/R. Scott/H. St. Jones/R. McKenzie, Greek-English Lexicon, 9th ed., Oxford, 1996. For the Syriac text, the following manuscripts have been used: Bibliothèque Orientale (Beirut), syr. 4079; British Museum, or. 9380; and Bodl. (Oxford), Hunt. 1 (122). I am indebted to Hans Daiber for providing me with copies of the manuscripts. For further extant manuscripts, see N.P. Joosse, “Bar Hebraeus’ Butyrum Sapientiae”, Le Muséon 112 (1999), 417–458, 420ff. and H. Takahashi, Barhebraeus, Piscataway (NJ), 2005, 248–251. The Syriac text is divided by Barhebraeus into chapters, sections, and theories. It is referred to here as (x.y.z.) with their respective numbers. References to the Greek text of Aristotle are to W.D. Ross (ed.), Aristotle’s Prior and Posterior Analytics, Oxford, 1949 (reprint, 2001).

3 K. Ierodiakonou, “Aristotle’s Use of Examples in the Prior Analytics”, Phronesis 47 (2002), 127–152, notices a high number of examples in Aristotle’s APPr., among them many biological ones (137; 139). St. Harvey, “Averroes’ Use of Examples in his Middle Commentary on the Prior Analytics, and Some Remarks on his Role as Commentator”, Arabic Sciences and Philosophy 7 (1997), 91–113, pays particular attention to Averroes’s use of the world’s createdness as an example and also Gersonides’s remarks on its legitimateness, and he gives a survey of other places for that example (especially, 103n.39). It should be added that also Barhebraeus employs createdness of the world in his APPr., though in a different manner. A discussion of the world’s eternity is mentioned by Barhebraeus in 6.13.1, while in 7.3.1, on the paradigm, he presents a conclusion from the heavens’s similitude with a curtain to their createdness. The latter seems to be his own example, obviously influenced by the Bible, Psalms, 104:2. However, both places in Barhebraeus are apparently (a further look into their sources will be given in my forthcoming edition) not influenced by Averroes, but could reflect a personal interest or debates that he had witnessed during his lifetime.

4 See E. Chauvet, La philosophie des médecins grecs, Paris, 1886 (reprint, Charleston, SC, 2010) 109–169 for a methodological approach connecting medicine and logic. (The fourth figure is mentioned, but only with regard to Galen’s Introduction [114], see below.)