Galen's Computation of Medical Weeks:
Textual Emendations, Interpretation History,
Rhetorical and Mathematical Examinations

Stephan Heilen

Universität Osnabrück

Viro doctissimo Wolfgang Hübner octogenario d.d.d.

Abstract

The seven steps of Galen's unit-fractional computation in *On Critical Days*, pp. 932.5–933.12 Kühn, which presents corruptions in the manuscript tradition, are here for the first time ever presented in a satisfactorily emended Greek version with English translation. Moreover, this paper provides a survey of the history of scholarly engagement with Galen's computation from antiquity through Syriac, Arabic, Hebrew, and Latin sources to the 17th century. This survey covers, but is not limited to, the medical school of Alexandria, Sergius of Rēšʿaynā, Ḥunayn ibn Isḥāq, Qusṭā ibn Lūqā, Ibn Sīnā, Ibn al-Nafīs, al-Nasawī, Gerard of Cremona, Pietro d'Abano, Niccolò da Reggio, Pierre d'Ailly, Giovanni Pico della Mirandola, Luca Gaurico, Jean Lalamant, Jean Guijon, Giovanni Manardi, Girolamo Cardano, and Antonio Magini. Two further sections are devoted to Galen's Platonizing rhetoric of mathematical accuracy and ten questions that arise from his computation. Thus, Galen's complex motives, his astronomico-mathematical education, his astrological development of a new chronometric concept, the single steps of his computation, and the merits (and limits) of his interpreters are comprehensively elucidated within a perspective including Egyptian, Greek, and Roman mathematics. The results are summarized in the final section.

I. Introduction

While many works of the vast Galenic corpus have, since the late nineteenth century, been made available in splendid critical editions,[1] the situation is still bleak in the case of one of Galen's most influential works, *On Critical Days* (Περὶ κρισίμων ἡμερῶν).[2] This is particularly true with regard to the unique computation of so-called 'medical weeks' in chapter 3.9.[3] By 'unique' I mean that the entire Galenic corpus seems to lack a parallel (that is, any similarly complex sum of unit fractions) whose treatment could elucidate the present case. In the most recent and supposedly authoritative edition by Kühn (1825, henceforth 'K.'), Galen's computation (pp. 932.5–933.12) is unintelligible, in both the Greek text and the

---

[1] Mostly in the *Corpus Medicorum Graecorum* (CMG), section V.
[2] For a summary of its contents, cf. Cooper 2011a, 11–12.
[3] Information on its purpose will be given below.