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RESEARCH ARTICLE

REVISED Revisions of Theophanes Chrysobalantes De Curatione

[version 2; referees: 4 approved]

Barbara Zipser [©]

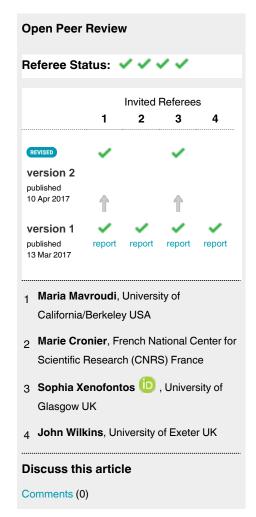
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v2

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Abstract

Background: Theophanes Chrysobalantes' *De curatione* is a little known but highly relevant therapeutic manual dating to the tenth century AD. The text has come down to us in an unusually large number of manuscripts, most of which transmit a mainstream version of the text. **Methods:** In the present article, three versions deriving from the mainstream text are being examined. For this, these versions are being compared to the mainstream text, in order to understand the aim behind the alterations and additions they were subjected to. The overarching goal is to understand, why these changes were made, and how skilled the editors were. It is a rather unusual approach, as divergent versions are usually not examined in research literature, since they are secondary to the original text. **Results and conclusions:** The results clearly show that the text was redacted several times, but not by highly sophisticated editors. The general aims of the redactions were to make the text easier to understand.



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REVISED Amendments from Version 1

In this second version, I incorporated some clarifications, two additional bibliographical references, and I fixed some minor matters. The two substantial changes are: I clarify the relationship between the Florence and the Wellcome manuscript and I add some content on the word I translate as "yellow". These changes were prompted by the reviews. Some other matters, not the very least the question of diglossia in the Middle Ages, are addressed in a comment.

See referee reports

Introduction

It¹ is not unusual for Byzantine medical texts to be revised by editors – but mostly, these were revisions of texts that were corrupted in the course of transmission, for instance if a manuscript was damaged². Here, the main aim of the editor was obviously to restore the text to its original form. This article focusses on a completely different type of revision, namely a rephrased, augmented or otherwise heavily altered text. These are not that common as far as standard medical manuals are concerned, and they are not usually the focus of scholarly analysis.

The samples that are going to be discussed below come from manuscripts transmitting Theophanes Chrysobalantes *De Curatione*, a little known but highly relevant therapeutic manual that was in its mainstream form composed in the tenth century AD³. This work contains a substantial collection of therapeutic instructions arranged in a head to foot order, along with some miscellaneous material at the end. During my research on the transmission of the work I found that four manuscripts transmit a significantly altered text compared to the mainstream text. These are in alphabetical order⁴:

- Escorial, Real Biblioteca, T III 1, 16th century, f. 1r-141v⁵.
- Florence, Biblioteca Laurenziana Plut. 75, 6, 14^{th} century, f. 1r- $54v^6$.
- London, Wellcome Library MSL 135, 16th century, f. 1r-86r⁷.

Palermo, Biblioteca Centrale della Regione Siciliana XIII C 3, 16th century, f. 121r-149r⁸.

The manuscripts from Florence and the Wellcome Library present a near identical text, and are therefore closely related and probably siblings⁹. So in total, we are dealing with three versions of *De Curatione*, which differ significantly from the mainstream tradition. In the following, I am going to describe these three versions very briefly. The main research question to be addressed is, what purpose these alterations served.

Sources

Starting, or rather collating, from the beginning of *De Curatione*, the first chapter showing significant discrepancies from the mainstream text is chapter 4 (Bernard). As it is common for Byzantine therapeutic texts, the chapter starts with a heading and a brief description of a disease, which is then followed by several alternative recipes for medical treatment. Generally, in this genre, the descriptive part of the chapter tends to have a stable transmission, whereas the transmission of the recipes is notoriously unstable¹⁰. In this case, however, the descriptive parts also show significant differences, and since this is unusual, these will form the basis for this article.

Below, I present a comparison of the mainstream text as edited in the Bernard edition, and two versions, the Florence/Wellcome group and the Escorial version. The Palermo manuscript will be discussed at a later point in the present article, as it does not show any significant variants against the mainstream version in this part of *De Curatione* as far as the text itself is concerned. Rather, it is the selection and organisation of excerpts that is of interest.

Edition of the mainstream text (Bernard)

4. Περὶ πιτυριάσεως. ἡ πιτυρίασις λεπτῶν καὶ πιτυροειδῶν σωμάτων ἐκ τῆς ἐπιφανείας τῆς κεφαλῆς καὶ τοῦ ἄλλου σώματός ἐστιν ἀπότηξις χωρὶς ἐλκώσεως. γίνεται δὲ καὶ κακοχυμίας ἀνενεχθείσης παρὰ τὴν κεφαλὴν ἢ φλέγματος ἀλμυροῦ ἢ χολώδους καὶ μελαγχολικοῦ αἴματος. καὶ δεῖ κενοῦν πρῶτον τὸ

First of all I would like to acknowledge all those who supported me in my research leading up to this publication. The manuscript work for this article was carried out during a Wellcome Trust University Award (091648/Z/10/Z). Dionysios Stathakopoulos and Petros Bouras-Vallianatos invited me to give a presentation at the Byzantine Studies conference in Belgrade, where this paper was presented. Moreover, I am grateful to the libraries who provided scans of manuscripts, and in particular if the material appeared open access on the internet. The same applies to any journal or archive that published primary and secondary sources in an open access format. In this revised version of the article, I am also able to thank the reviewers for their helpful comments. Some clarifications have been added to the main article, and other matters are addressed in a comment.

²There are numerous examples for this practice throughout the field. Just one such occurrence would for instance be the preface of Ioannes archiatrus as discussed on p. 31 Zipser, B. 2009. *John the Physician's Therapeutics. A Medical Handbook in Vernacular Greek*. Leiden/Boston: Brill.

³The date is indicated in the title of the work, where it is dedicated to emperor Constantine Porphyrogenitus. The best edition available is: I. Bernard 1794–95.

Theophanis Nonni Epitome de curatione morborum graece ac latine. 2 vols., Gothae/ Amstelodami: C.W. Ettinger. http://www.biusante.parisdescartes.fr/histoire/ medica/resultats/?intro=nonnos&statut=charge&fille=o&cotemere=32590 An older edition: H. Martius 1568. Noni medici clarissimi, De Omnium particularium morborum curatione, ed. Martius. Argentorati: Josias Rihelius.

⁴The main basis for the present article was Sonderkamp's comprehensive catalogue of the manuscript tradition of Theophanes, where you will also find detailed information on catalogues and relevant secondary literature: J. Sonderkamp, J. 1987. *Untersuchungen zur Überlieferung der Schriften des Theophanes Chrysobalantes (sog. Theophanes Nonnos)*. Bonn: Dr. Rudolf Habelt. Some, but very few updates have appeared on the Pinakes database published by the IRHT Paris. http://pinakes.irht.cnrs.fr

⁵See the respective entry on the Pinakes database, and these catalogues for further information: Miller, E. 1848. *Catalogue des manuscrits grecs de la bibliothèque de l'Escurial*. Paris: A l'Imprimerie Nationale, 132. This book has been digitized. https://archive.org/stream/bub_gb_iiIDAAAAYAAJ#page/n1/mode/2up Revilla, Alejo, *Catálogo de los códices griegos de la Biblioteca de El Escorial*, vol. 1, Madrid: Imprenta Helénica, 1936, p. 506-507.

όλον σώμα διὰ φλεβοτόμου καὶ καθάρσεως τοῦ πλεονεκτοῦντος χυμοῦ. ἔπειτα κιμωλίαν ἀποβρέξας ὕδατι, μίξον σεύτλου χυλὸν καὶ κατάχριε.

Translation: On pityriasis. Pityriasis is a melting of smooth and bran like bodies from the surface of the head or of the rest of the body, without rupturing. It happens when bad humours are brought up around the head either consisting of salty phlegm or bilious and melancholic blood. And one first needs to empty the whole body through blood letting and evacuation of the superfluous humour. Then rinse earth from Cimolus with water, mix with beet root juice and apply.

8. Περὶ ἀλωπεκίας καὶ ὀφιάσεως. Ἀλωπεκία ἐστιν ὅταν αἱ τρίχες ἀποπέσωσι τῆς κεφαλῆς διὰ χυμὸν θερμὸν καὶ διαβρωτικὸν κόπτοντα τὰς ῥίζας αὐτῶν. Διαφέρει δὲ ἡ ὀφίασις τῷ σχήματι. Ἡ γὰρ ὀφίασις λειοτέρα ἐστὶν ὥσπερ οἱ ὄφεις. Ἡ δὲ ἀλωπεκία τραχυτέρα πολλῷ. Στοχάζου δὲ ἀπὸ τῆς χροιᾶς τοῦ δέρματος τὸν πλεονάζοντα χυμὸν καὶ τούτου τὴν κάθαρσιν πρῶτον ποιοῦ. Εἰ μὲν ἐπὶ τὸ μελάντερον ἢ λευκότερόν ἐστιν ἡ χροιὰ διὰ τῆς ἱερᾶς ἀντιδότου καθαίρομεν. Εἰ δὲ ἐπὶ τὸ ἀχρότερον (κίτρινον Ro112) τὰ διὰ τῆς ἀλόης καὶ τῆς πικρᾶς...

On alopecia and ophiasis. Alopecia is when the hair of the head falls out because of a hot and corrosive humour cutting off the roots. Ophiasis has a different form. For ophiasis is smoother like snakes. Alopecia is far more rough. Assess the superfluous humour from the colour of the skin, and first remove it. If the colour is towards more black or white, we purge with the holy (antidote). If it is paler ¹³ (yellow Ro1), the aloe- and bitter [remedies]...

Transcription of the Florence/Wellcome group

The text given below has been transcribed from Plut. 75, 6 (MSL 135 presents an almost identical text with just a few additional

minor mistakes, which are irrelevant to the argument, and has therefore not been included)¹⁴:

4. Περὶ πιτυριάσεως. Ἡ πιτυρίδα γίνεται μὲν ἐπὶ πλέον εἰς τὴν κεφαλήν. Γίνεται δὲ καὶ εἰς τὸ ἄλλο δέρμα τῆς σαρκὸς τῆς λευκῆς καὶ πιτυροειδοῦς χωρὶς ἑλκώσεως. Γίνεται δὲ ὅταν ἀνέλθη ὕλη τις εἰς τὴν κεφαλὴν ἢ ἀπὸ φλέγματος ἀλμυροῦ ἢ χολώδους καὶ μελαγχολικοῦ αἴματος. Καὶ πρέπει πρῶτον ἴνα κενώσης ἀπὸ τοῦ ὅλου σώματος τὸν πλεονάζοντα χυμὸν καὶ διὰ φλεβοτομίας καὶ ἐτέρας καθάρσεως. Ἔπειτα κιμωλίαν βρέξας ὕδατι μίξον καὶ σεύτλου ζωμὸν καὶ ἄλειφε.

Translation: On pityriasis. Pityriasis happens mainly on the head. It also happens on the other white and bran like skin of the flesh without rupturing. It happens when some matter goes up into the head or from salty phlegm or bilious and melancholic blood. And first you should empty the superfluous humour from the whole body both through blood letting and other removal. Then rinse earth from Cimolus with water, mix also beet root juice and apply.

8. Περὶ ἀλωπεκίας καὶ ὀφιάσεως. Άλωπεκία ἑστίν, ὅταν αἱ τρίχες ἀποπέσωσι τῆς κεφαλῆς ἀπὸ αἰτίας θερμῶν χυμῶν καὶ διαβρωτικῶν τρωγόντων καὶ κοπτόντων τὰς ῥίζας τῶν τριχῶν. Διαφέρει δὲ καὶ ἔχει ἐναλλαγὴν ἡ ὀφίασις κατὰ τὸ σχῆμα. Ἡ γὰρ ὀφίασις λειοτέρα ἐστι καὶ ὀμαλωτέρα ὥσπερ οἱ ὄφεις. Ἡ δὲ ἀλωπεκία ἐστι τραχεῖα. Στοχάζου δὲ ἀπὸ τοῦ χρώματος τοῦ δέρματος τὸν πλεονάζοντα χυμὸν καὶ ποίει πρῶτον τούτου τὴν ἐκβολὴν καὶ τὴν κάθαρσιν. Καὶ εἰ μὲν ἔστι τὸ χρῶμα πρὸς τὸ μελανώτερον ἢ πρὸς λευκώτερον ποιοῦ μὲν τὴν κάθαρσιν διὰ τῆς ἱερᾶς ἀντιδότου. Εἰ δὲ πρὸς τὸ ἀχρότερον καὶ κιτρινώτερον καθαίρομεν διὰ τῆς ἀλόης καὶ τῆς πικρᾶς...

Translation: On alopecia and ophiasis. Alopecia is when the hair of the head falls off because of an aetiology of hot and corrosive eating away humours that cut off the roots of the hair. Ophiasis differs and

⁶This manuscript has been digitized along with its catalogue entry, which appeared in: Bandini, A.M. 1770. Catalogus Codicum Graecorum Bibliothecae Laurentianae. Vol. 3, Florentiae: Typis Regiis, 147–151. A digitized version of this catalogue can be found on the Laurenziana website and in other locations. Some insights in the provenance of the manuscript can be found in Speranzi, D. 2010. 'Michele Trivoli e Giano Lascari. Appunti su copisti e manoscritti greci tra Corfü e Firenze', Studi Slavistici 7, 263–297. This article is available open access. http://www.fupress.net/index.php/ss/article/view/9212/8710

⁷This manuscript has been digitized. http://wellcomelibrary.org/item/b19620214# ?c=0&m=0&s=0&cv=0&z=-0.6713,-0.0736,2.3426,1.4715 A detailed catalogue entry can be found in: Bouras-Vallianatos, P. 2015. 'Greek Manuscripts at the Wellcome Library in London: a Descriptive Catalogue', *Medical History* 59, 2, 275–326. This article is available open access. http://journals.cambridge.org/abstract_S002572731500006X Sonderkamp was not aware of this manuscript.

⁸For a detailed catalogue entry see the Manus Online website. http://manus.iccu.sbn.it//opac_SchedaScheda.php?ID=171784 This manuscript was not known to Sonderkamp, and it was first pointed out to me by Irene Calà, to whom I am very grateful. It has since also appeared on the Pinakes database of the IRHT. See also: Garzya, A. 2003. 'Pour l'édition des *iatrosophia* démotiques', in A. Garzya, J. Jouanna (eds.), *Trasmissione e ecdotica dei testi medici greci. Atti*

del IV Convegno Internazionale Parigi 17-19 maggio 2001, Napoli: D'Auria, 165-171.

⁹The Wellcome manuscript contains a substantial amount of mistakes, which are not extant in the Florence manuscript. While a number of these could be corrected by a scribe, this would certainly not be possible for all mistakes. The Wellcome manuscript also contains a pinax, or table of contents, which is not extant in the Florence manuscript. Notably though, this pinax reflects the text as it presents in the Florence and Wellcome version, which is, compared to the mainstream version, missing the preface. The Florence manuscript on the other hand is almost entirely free of mistakes, let alone serious mistakes, and it does not contain a pinax. For these reasons, I described the logical relationship between the manuscripts as "siblings" in the first version of the present article. In theory, it would be possible for the scribe who copied the Wellcome manuscript to copy its text from the Florence manuscript and to compile a pinax from scratch based on the main text body, however, given the low quality of the Wellcome manuscript, one is at least left wondering whether the scribe would have been able to do so. The possibility that the Florence manuscript once contained a *pinax*, which was then ripped out can be discounted. In conclusion, there is evidence to assume that the manuscripts are siblings rather than that one descended from the other. Because of the absence of substantial mistakes in the Florence manuscript, which would be the ultimate proof, I decided to change the main text of my article to "closely related and probably siblings" as suggested by a reviewer, and instead added this explanatory footnote.

diverges according to its form. For ophiasis is smoother and more even like snakes. Alopecia is rough. Assess the superfluous humour from the colour of the skin, and first expel and remove it. And if the colour is more towards black or towards white, remove it through the holy antidote. And if it is more towards paler and yellower, we remove it through the aloe- and the bitter [remedy]...

Transcription of T III 1, the Escorial manuscript:

4. Περὶ πιτυριάσεως. Ἡ πιτυρίασις λεπτῶν καὶ πιτυροειδῶν λεπιδίων ἐκ τῆς ἐπιφανείας τῆς κεφαλῆς καὶ τοῦ λοιποῦ σώματος ἀπότεξις ἐστὶν ἄνευ ἐλκώσεως. Γίνεται δὲ ἐκ κακοχυμίας ἀνενεχθείσης περὶ τὴν κεφαλὴν ἢ φλέγματος ἀλμυροῦ ἢ χολώδους καὶ μελαγχολικοῦ αἴματος. Καὶ πρῶτον δεῖ τὸν ἰατρὸν κενοῦν τὸ σῶμα ἐκ τοῦ πλεονεκτούντος χυμοῦ διὰ φλεβοτομίας ἢ καθάρσεως προσηκούσης τῷ χυμῷ. Εἶτα χρῆσθαι ἀλείμμασιν. Ἔσεται δὲ ἄλειμμα ἡ κιμωλία προσβραχεῖσα ὕδατι καὶ τεύτλῳ χυμῷ μιχθεῖσα ἀλειφομένη.

Translation: On pityriasis. Pityriasis is a melting of smooth and bran like scales from the periphery of the head and the rest of the body without rupturing. It happens from bad humours that are brought up around the head or from salty phlegm or bilious and melancholic blood. And first the doctor has to empty the superfluous humour from the body through blood letting or a form of purging that is appropriate for the humour. Then to use salves. The salve will be earth from Cimolus rinsed with water and mixed with beet root juice applied.

8. Περὶ ἀλωπεκίας καὶ ὀφιάσεως. Άλωπεκία ἐστι μάδησις τριχῶν κεφαλῆς, ἀποπίπτουσι δὲ αἱ τρίχες διὰ χυμὸν θερμὸν καὶ διαβρωτικὸν τὰς ῥίζας αὐτῶν ἀποσπῶντα. Διαφέρει δὲ ἡ ὀφίασις τῷ σχήματι. Ἡ γὰρ ὀφίασις λειοτέρα ἐστὶν ὤσπερ οἱ ὄφεις. Ἡ δὲ ἀλωπεκία τραχυτέρα πολλῷ. Στοχάζου δὲ ἀπὸ τῆς τοῦ δέρματος χροιᾶς τὸν πλεονάζοντα χυμὸν καὶ τούτου τὴν κάθαρσιν πρῶτον ποιοῦ. Εἰ μὲν γὰρ ἐπὶ τὸ μελάντερον ἣ λευκότερον ἐστὶν ἡ χροιὰ διὰ τῆς ἱερᾶς καθαίρομεν. Εἰ δὲ ἐπὶ τὸ ἀχρότερον διὰ τῆς ἀλόης καὶ τῆς πικρᾶς...

Translation: On alopecia and ophiasis. Alopecia is baldness of the hair of the head. The hair falls off because of a hot and corrosive humour that detaches their roots. Ophiasis has a different form, for ophiasis is smoother like snakes. Alopecia is much rougher. Assess the superfluous humour from the colour of the skin, and first remove

it. For if the colour is more towards blacker or whiter, we clean it through the Holy [remedy]. If it is towards the paler, through the aloe- and the bitter [remedy]...

Discussion

In the samples presented above, the transmission of the mainstream text is fairly consistent, and also sufficiently consistent with the Bernard edition. As it is to be expected, a number of manuscripts show minor variants, but except one which will be discussed later on, these variants are irrelevant for the argument. This gives us an ideal backdrop for our analysis.

First, a comparison of the mainstream text versus the Florence/ Wellcome group. In the chapter on pityriasis, the editor rephrased the text, making it easier to understand, and slightly more vernacular¹⁵. This is not an uncommon occurrence in medieval manuscript transmission - in fact, the two main principles a textual critic has to work with are lectio brevior potior and lectio difficilior potior, the shorter variant is the more likely (original) one and the more difficult variant is the likely (original) one¹⁶. They also replaced a word that is slightly difficult to understand, namely άνενεχθείσης "brought up", along with a preposition referring to it¹⁷. This word forms part of a sentence explaining that pityriasis is caused by bad humours being "brought up around the head". This sentence is not easily understood without any knowledge of ancient medical terminology, and it may at first sight give the impression that it was somehow corrupted in the course of the transmission. However, it was already extant in an important source of Theophanes, Paul of Aegina¹⁸. The word used in Paul in the majority of manuscripts is ανενεχθείσης, with one witness reading ἀναχεθείσης "poured up".

In the mainstream version, and in Paul, the phrase essentially means that bad humours are being excreted through the scalp, which then manifests in bran-like deposits forming on the surface of the skin. The editor of the Florence/Wellcome version rephrased this, stating that pityriasis is caused by "matter" going into the head. This makes the text easier to understand, but also fairly vague. The "bad humours" become neutral "matter", and it is not clear that the matter is ultimately excreted through the skin. Even more problematic is that the editor then abruptly reverts to readings close to the mainstream text a few words later, saying that alternatively

¹⁰This is easily explained; firstly, recipes are more likely to be corrupted in the process of copying. For instance, one can easily skip an entire recipe, or leave out a part of it by mistake, because these recipes are mostly lists of ingredients along with measures. So for instance one could skip from one mention of "two ounces" to the next leaving out text in between. Then, it was quite common for scribes or users of the book to add alternative recipes in the margins of the manuscript. These could then be included into the main text by a consecutive scribe. One can find examples for these phenomena in the transmission of any Byzantine therapeutic text.

¹¹Very few manuscripts transmit ἀνεχθείσης or similar, for instance the Palermo manuscript discussed in this article, which is clearly a misreading. Bernard prints this reading as well.

¹²For the sake of clarity, Sonderkamp's sigla are used. Ro1 stands for Vat. gr. 292, 1-68v.

 $^{^{13}}$ The specific challenges in translating Greek colour adjectives will be discussed later on in this article. In the following, $\dot{\omega}\chi p\dot{o}v$ will be translated as "pale" and

κίτρινον as "yellow", as these are very widely used standard translations of these words.

 $^{^{14}}$ For instance, he calls pityriasis πιτυρίδα, which is the vernacular form of the word

¹⁵In the transcription of manuscript sources, the original spelling was kept as far as this was practicable.

¹⁶There are a number of introductory works on the methods of textual criticism available. A very sharp and useful one would be West, M. 1973. *Textual criticism* and editorial technique applicable to Greek and Latin texts. Stuttgart: Walter de Gruyter.

¹⁷This preposition, $\pi\alpha p\dot{\alpha}$, is somewhat prone to be corrupted in the course of transmission, as two other prepositions use a similar abbreviation.

¹⁸Paul of Aegina III 3, 1 (= I 134, 18). Heiberg, I. 1924. *Paulus Aegineta*. Vol. 2, Lipsiae/Berolinae: In aedibus B.G. Teubneri (= CMG IX 2). http://cmg.bbaw.de/epubl/online/cmg_09_01.php

pityriasis may also be caused by two different humours, which obviously does not make sense¹⁹. In the remainder of the passage discussed in this article, the editor just rephrases the text without any major changes to the content.

In the second paragraph, the editor of the Florence/Wellcome version made a number of changes to the text, which do not have any bearing on the content. For instance, they added a synonym, e.g. in the phrase $\delta\iota\alpha\beta\rho\omega\tau\iota\kappa\tilde{\omega}\nu$ $\tau\rho\omega\gamma\acute{\nu}\tau\omega\nu$, two words meaning "eating away". Otherwise, the text is slightly simplified, but not remarkably so. On two occasions, however, the editor makes decisive changes. At the beginning, they use the word $\alpha \dot{r} t\alpha$ "cause", to clarify that they are moving on from a description of the symptoms to an analysis of the causes of the disease. This is certainly correct, but not strictly necessary, as this would have been evident to a medically trained reader anyway. The second intervention is of a more drastic nature.

After a brief outline of the aetiology of this type of hair loss, i.e. an abundance of three possible humours, the mainstream version advises to assess the colour of the skin to determine which humour it is, and then administer the correct treatment. A colour resembling black or white would necessitate one specific treatment, a more pale colour another. Here, the editor of the Florence/Wellcome version adds another option after "more pale", namely yellow. Here, they use a late, and somewhat vernacular, word to describe yellow, κίτρινον²⁰. This word is not extant in the corresponding passage in Paul of Aegina²¹, which was the source for the mainstream version. It is, however, extant in one of the manuscripts transmitting the mainstream version, Ro1, which replaces the word "paler" with "yellow". But, to complicate matters, Ro1 comes from an entirely different end of the stemma of the Theophanes tradition than the Florence/Wellcome version, and none of the manuscripts within its branch share the reading κίτρινον²². Therefore, Ro1 cannot be the source for the Florence/Wellcome version, unless one assumes some form of contamination23.

Consequently, this small detail turns out to be quite significant, as it appears in two ends of the transmission independently. Curiously, it is absent from both the source of Theophanes and some other texts that are connected to *De Curatione*: neither of the two versions of Ioannes archiatrus talk about yellow skin²⁴. This text goes back to a source that was very close to Theophanes. Moreover, the chapter on alopecia in Leo medicus (another text somewhat related to Theophanes) does not discuss the colour of the skin at all²⁵. Alexander of Tralles, whose *Therapeutics* share some links with the wider transmission of Theophanes, discusses skin colour in his chapter on alopecia, but does not mention any yellow²⁶. The source for all these authors, including Theophanes and Paul, is, directly or indirectly, Galen's vast and influential work *Method of Healing*, who equally does not mention yellow²⁷.

Next, I am going to examine the relationship between the mainstream transmission and the Escorial manuscript. The first part of the chapter on pityriasis is almost identical, except for one synonym. However, the editor suddenly adds some important information further on. Rather than just saying that "one" should remove the offending humour from the body, the editor specifies that this should be done by a "doctor". The editor then adds a sentence to clarify the structure of the chapter, and the final sentence of the excerpt is rephrased, but without any major changes to the content covered.

In the second chapter, the editor of the Escorial manuscript rephrased the first part of the text, again without making any major changes to the meaning. As a result of these changes, the Escorial version is easier to understand than the mainstream text. The remainder of the text is almost identical to the mainstream.

The final manuscript to be discussed, Palermo XIII C 3, is of a different nature. It is not so much a rephrased text than a rearranged one. According to its title on f. 121r, the section of the manuscript

¹⁹The problem is that according to the Florence/Wellcome version pityriasis is caused either by matter going into the head, or by some specific humours. This leaves the reader wondering what this "matter" may have been. The mainstream version talks about bad humours, which are then specified as two, or three, depending on how one reads the text, possible alternatives. Only the mainstream version makes sense.

²⁰A full text search on the Thesaurus Linguae Graecae database for κττρινyields only one text that can confidently be dated to Classical times, namely the third century AD, Cassius Dio 61, 10. Here, it is used to describe wood of a lemon tree. The word means "yellow" in modern Greek. Because only very few vernacular sources from Byzantine times have been edited, and because of the general difficulties in identifying colours, our analysis will have to come to an end here. The precise identification of the plant, from which this colour adjective derives is equally problematic. It could either be a lemon or a citron, both of which look extremely similar. The word λεμόνι *lemoni* from which the modern Greek word for lemon derives, is only very poorly attested. Various forms or derivates of κίτρον *kitron* are, on the other hand, much better attested. However, we cannot be sure whether the authors were consistent in naming these plants.

²¹Paul of Aegina III 1, 1 (= I 129, 14 Heiberg).

²²A comprehensive analysis of the transmission of *De curatione* will be published in my forthcoming edition of the text. It was not included in this article as it would take up a significantly disproportionate amount of space.

²³This would be rather unlikely, given that there is no other evidence to suggest contamination, neither here nor in other chapters that were examined to establish the stemma of the mainstream version. On the contrary, the transmission of the mainstream version neatly falls into subgroups that ultimately form a clear bipartite stemma.

²⁴Ioannes archiatrus ω 90, 2 and 74, 1 respectively. Zipser, B. 2009. *John the Physician's Therapeutics. A Medical Handbook in Vernacular Greek.* Leiden/Boston: Brill.

²⁵Leo medicus Synopsis Iatrik\(\bar{e}\)s VII 20 (= 213–215 Ermerins). Ermerins, F. 1840. Anecdota Medica Graeca. Lugduni Batavorum: Apud S. et J. Luchtmans, 81–221. https://archive.org/stream/anecdotamedicag00graegoog#page/n100/mode/2up

²⁶Alexander of Tralles *Therapeutics* I 1 (= I 441 Puschmann). Puschmann, Th. 1878. *Alexander von Tralles, Original-Text und Übersetzung*. Vol. 1, Wien: Wilhelm Braumüller. https://archive.org/details/b24755990_0001

²⁷Galen *Method of Therapy* XIV 18 (= X 1016 Kühn), as referenced by Puschmann in his notes on Alexander's *Therapeutics*. C. Kühn 1825. *Claudii Galeni Opera Omnia*. Vol. 10, Lipsiae: Prostat in officina libraria Car. Cnoblochii. http://www.biusante.parisdescartes.fr/histoire/medica/resultats/?cote=45674x10&do=chapitre Aetius Amidenus VI 55 (= II 199 Olivieri) also follows Galen in this respect. Oliveri, A. 1950. *Aetii Amideni libri medicinales*. Vol. II, Berolini: In aedibus Academiae Litterarum (= CMG VIII 2). http://cmg.bbaw.de/epubl/online/cmg_08_02.php

contains an *iatrosophion*. The title is followed by a pinax, or table of contents, and then by the beginning of Theophanes' *De curatione*. On f. 145v to 146r, respectively, it contains the chapters on pityriasis and alopecia discussed in this article without any major alterations. This is then followed by some more chapters from Theophanes, roughly up to chapter 18 (Bernard) and f. 148v respectively. From f. 149r the text has been taken from another source. So in essence, an editor excerpted some chapters from Theophanes and used them to form part of a new handbook²⁸.

Results and conclusions

Overall, what does the analysis of these three versions contribute to our research question? What was the motivation behind these changes? As for the first two versions discussed, a general trend was quite clearly to simplify the text, which could manifest in a slightly more vernacular wording. It is not difficult to guess the motives behind a mere simplification: the editor tried to make the text more accessible. Adding redundant synonyms had the same purpose. If a user did not understand one way of phrasing something, then perhaps he would have been able to understand the other. All this could be done while remaining well within the syntax and lexicon of the learned elite of the time. The motive to adjust the text a bit more to the vernacular does, on the other hand, raise a number of important questions. First of all, one is left wondering who the intended audience of these versions was. And then, it also raises the question of the date at which these changes were made.

As for the date, Theophanes lived, according to his own words²⁹,in the first half of the tenth century, which we can confidently use as a terminus *post quem*³⁰. The terminus *ante quem* is the fourteenth and sixteenth century respectively, as this is the date of the manuscripts. During this period, the Greek vernacular was already in existence; this can be determined from a few vernacular words transmitted in other sources, such as for instance Leo medicus on the medical side³¹, but we are not in a position to reconstruct the development of the vernacular fully because of a lack of sources³². Overall, though, it is safe to say that a slight adjustment towards the vernacular fits well into the general linguistic background of the time.

A slightly simplified and slightly more vernacular version would be more accessible to users who are literate, and educated enough to understand the classicising learned Byzantine idiom that was used in writing, but who were more comfortable with an idiom that was closer to the Greek spoken in everyday life. It is, however, well worth bearing in mind that the idiom was indeed just very slightly adjusted towards the vernacular. The editor did not translate the text.

Both editors had at the very least basic medical training along with some philological skills. Even though the process of redacting the text seems basic and straightforward to us, it does actually take some confidence and determination to prepare, in the eyes of the editor, an improved version of a text. As far as their medical training is concerned, both the editors of the Florence/Wellcome and the Escorial version add some new information – the former the word *aitia* "cause", and the latter "doctor". This shows at least a basic understanding of medicine and a familiarity with the structure of medical handbooks.

We cannot be certain where the word "yellow" originated, which was added in the Florence/Wellcome version. Perhaps it was already in existence in the manuscript that was used by the editor; alternatively, it may have come from a common, possibly even oral source such as an oral teaching tradition³³. In any case, the addition of an identifiable colour such as yellow – the word κίτρινον means "lemon coloured" – makes the text more precise. In Classical Greek, names of colours are notoriously difficult to interpret, and in many cases we can only guess what they may have referred to. In Galen's description of the scalp colour in alopecia patients, the words black and white are used – this much is clear – and then the rather unspecified "pale". This terminology was very much the state of the art in Galen's time. We cannot be entirely certain about the Greek Middle Ages, as more basic research needs to be carried out on the development and characteristics of this idiom.

The Palermo manuscript presents a somewhat different picture, as far as the use and modification of sources is concerned. Here, someone compiled a text using more than one manuscript, and we cannot be certain about the reasons behind this decision. It is equally possible that the editor only had fragmentary sources at their disposal and then decided to stitch it all together to form a manual³⁴. Alternatively, they may have made a conscious decision to select certain passages from one source and others

²⁸This practice is not uncommon in Byzantine medical literature, and this is by far not the only instance where excerpts from Theophanes have been used to build another collection, see for example Iviron 214. Yet, the Palermo manuscript presents the most refined and systematic approach to this end, which is why I decided to include it in my argument.

²⁹Theophanes dedicates his work to Constantine Porphyrogenitus, who reigned in the first half of the 10th century AD. See p. 4 Bernard.

³⁰All versions described here clearly go back to the mainstream version directly, as they are dedicated to Constantine Porphyrogenitus. The only manuscript that does not preserve this piece of information is MSL 135; but since it is extant in its sibling, this is clearly secondary.

³¹See for instance Leo medicus *Synopsis Iatrik*es VII 23 (= 215 Ermerins). This text has been transmitted in a tenth century manuscript, the Par. Suppl. gr. 446. Leo sometimes adds vernacular synonyms to his text.

 $^{^{32}}$ The most extensive evidence on the medical side is transmitted in the ω version of Ioannes archiatrus, amongst others in an early 14^{th} century manuscript, MSL 14, which gives us a neat and reliable time stamp. At this point, the vernacular was definitely in existence.

³³A few Byzantine medical texts that have come down to us give the impression that they may have been meant to be memorized. These are for instance a medical compendium in verse form attributed to Ideler, I. 1841. *Psellus: Physici et medici graeci minores*. Berolini: Typis et impensis G. Reimeri, 203–243. And a brief description on haematology on p. 293 of the same volume. Snippets of these rather formulaic texts could have been transmitted orally as well. For the latest state of research on Psellus see: Bouras-Vallianatos, P. 2015. 'A New Witness to Michael Psellos' Poem "On Medicine" ("De Medicina")'. *Jahrbuch der Österreichischen Byzantinistik* 65, 9–12.

³⁴This would be supported by the fact that the manuscript contains *lacunae* on f. 153v, 154v, 157v, 160v, 189r and 209v.

from another source. In any case, the way it was done reveals that we are yet again dealing with an editor who had at least basic medical training – they knew how to structure a therapeutic handbook – and who also had some philological skills.

So altogether, the analysis has shown that three different people with similar skill sets worked on and with Theophanes' text. They were confident handling the material, yet they were not part of the top range of brilliant scholars of the time. What we can see here is a more intermediary layer of abilities. Their attitude towards an author such as Theophanes was very different from the attitude of ordinary scribes who aimed to preserve the works of earlier authorities as accurately as possible.

Data availability

All data is presented in the main text.

Competing interests

No competing interests were disclosed.

Grant information

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Sophia Xenofontos (1)

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Competing Interests: No competing interests were disclosed.

I have read this submission. I believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Referee Report 11 April 2017

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Maria Mavroudi

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Competing Interests: No competing interests were disclosed.

I have read this submission. I believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Author Response 11 Apr 2017

Barbara Zipser, Royal Holloway, University of London, UK

To all four referees:

First of all many thanks for your input. I would like to address a few points from the reviews in a comment rather than in the main text body of my article.

The question about the historical context of the transmission is a very good one, and MC already provided all there is to say in her review.

The reason why I kept my discussion of the Palermo manuscript brief, and focused on the Theophanes passages in question is because a PhD student in Germany is working on this

manuscript. We divided the topic between us so that there is not going to be any undue overlap.

The "vernacular":

I use the word "vernacular" to describe the medieval, and to a certain extent also early modern, idiom (that was mostly) spoken in the Greek world. This term is generally understood in anglophone scholarship, but it is far from ideal for all the reasons outlined by the reviewers. However, until a more fitting term is found, I shall continue to use "vernacular".

We have only very few edited testimonies of texts that are solely written in the vernacular, but many more exist. Some more evidence can be extracted from other sources, such as for instance Leo medicus, as referenced in my article. The pronunciation of the vernacular is for instance described in Latin in some lemmata of Simon of Genoa's *Clavis Sanationis*.

There are indeed a number of major studies in the history of the Greek language. However, these studies all use different terminology to describe what I call the vernacular. Here are some samples:

- R. Browning 1969. *Medieval and Modern Greek*. Cambridge: CUP. On p. 55, he talks about informal, living speech and subliterary texts representing an uneasy balance between the purist ideal and the speech of the people.
- G. Horrocks 1997. *Greek. A History of the Language and its Speakers.* London: Longman. On p. 153-155 he talks about vernacular Greek.
- F. Rodriguez Adrados 2005. *A History of the Greek Language. From its Origins to the Present.* Leiden: Brill. On p. 245 he talks about popular texts.

A good analysis can be found in: D. Holton, I. Manolessou, "Medieval and Early Modern Greek", in E. Bakker (2005). *A Companion to the Ancient Greek Language*, Chichester: Blackwell, p. 539-563. Many thanks to Petros Bouras-Vallianatos to pointing this out.

The general debate about the nature of modern Greek is also ongoing, which is certainly going to have an influence on the discussion on the medieval vernacular.

Altogether, it is quite clear that the question of diglossia in the Middle Ages cannot be resolved here, but perhaps the matters raised in the reviews might help further the discussion.

The "mainstream" version:

I use the word "mainstream" to describe the most frequently transmitted version of a medical text.

The odd παρά and the syntax of the versions:

I have thought about this a lot, when I wrote the article, and then again when I read the review, and I came to the conclusion that I shall leave it as it stands, and also in particular as we would need a better understanding of the medieval grammar and lexicon to resolve this.

The syntax has indeed been simplified in the versions.

The colour κίτρινον kitrinon:

It is notoriously difficult to identify colours in ancient or medieval texts. This is in particular the case as only very few sources have even been edited. Surprisingly, a TLG search did indeed yield one good source. It is transmitted in the Par. gr. 2329 f. 184v, a 17th century manuscript (starts from line 3 of the second paragraph). http://gallica.bnf.fr/ark:/12148/btv1b10722308m/f189.item The language of the text could very well be consistent with an earlier, medieval date.

Κα κρόκον βάλε κα κορκουμν, κα μέλι, κα λλα κίτρινα· νόει κρόκους ν κα χολν βος κιτρίνου ξηράν. - And add saffron and turmeric and honey and other things that are *kitrina*. Consider egg yolk and the dry bile of a *kitrinou* bull.

This recipe is mentioned in connection with a procedure to make a metal appear like gold, and it is fairly clear that the colour the author had in mind was yellow.

Citron or lemon:

These modern English words designate two distinct types of fruit. However, it would be problematic to assume that these two words consistently described two distinct types of fruit in Classical and Medieval Greek as well. Citrons and lemons look very similar indeed, and it is certainly possible that these names were not used consistently. This would also be supported by the fact that the word for lemon is derived from the Greek word for citron in at least two different European language that immediately come to my mind, German and Polish.

We would need to gather more Greek textual evidence to address this question. What is currently available on the TLG does not suffice, and the situation may be complicated by regional dialects as well.

But perhaps it is worth pointing out that both words are relatively rarely attested on the TLG, which in turn raises a lot of questions.

Theological texts:

For some reason, theological scholarship does not have a problem with texts that were augmented later on, for instance *catenae*. For this reason, I adopted some editorial methods from the Nestle Aland edition of the New Testament for my edition of loannes archiatrus.

Competing Interests: No competing interests were disclosed.

Version 1

Referee Report 27 March 2017

doi:10.21956/wellcomeopenres.10767.r20944



John Wilkins

Classics and Ancient History, University of Exeter, Exeter, UK

This is a valuable and well researched article of a proper scientific standard. Title, abstract and structure are fine. Conclusions are well drawn.

It concerns the history of medicine in the Byzantine period, a rich but seriously under-researched period, apart from the history of manuscripts, which is the topic of the article.

The article shows that the scribes in certain parts of the tradition were modifying the text and simplifying it for their own purposes, in contrast with the accurate reproduction of the text in the scholarly branch of the tradition. This process is to be expected in Byzantium and throughout the other cultures - Syrian, Arabic, Hebrew and Western European - which adopted the Greek medical corpus.

Minor suggestions I would have for the author are:

Check the use of kitrinon in texts of the period. The citron is the citrus plant most likely to be familiar in Byzantium, more so than in texts in the time of Theophrastus or Galen. Its taste and flavours are not lemony any more than an apple tastes like a pear, nor is the colour lemon-yellow. I think it is more green-yellow and quite different from standard yellow words in Greek.

In the first extract, the author might add, by way of explaining the simplification of the text, that a clause has replaced a genitive absolute. Is it a grammatical simplification as well as a muddled scientific modification?

I very much like the conclusion that the scribes were medically literate and had a scientific interest in where or not a 'doctor' was needed, whether or not 'bad humour' was the medical term that was appropriate, and whether or not a Galenic 'cause' should be inserted into the text. These findings need to filter through to the medical and social history of Byzantium.

Competing Interests: No competing interests were disclosed.

I have read this submission. I believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Referee Report 21 March 2017

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Sophia Xenofontos (ii)



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This is an interesting article, which has a persuasive argument revolving around the transmission of sections from Theophanes Chrysobalantes' De curatione. It is an important piece of work not only for the useful insights it offers into the different versions of the mainstream text but mostly for its observations on the working methods of different editors, their intellectual background and intended audiences. It will hopefully (re)emphasise the need for similar research which must be conducted in this significant area of study focusing on the circulation and reception of Byzantine medical works.

The article is suitable for publication in its current form. Some suggestions are provided below, which the author may want to consider and/or address:

- Page 2, paragraph 2: I think it might be worth clarifying how the term "mainstream" is used throughout. Does this refer to the most widely circulated version of the text?
- Page 2, paragraph 2: is De curatione a therapeutic manual only, or important for its value as a diagnostic manual as well?
- Page 2, paragraph 3: What are the exact folio numbers preserving Theophanes' text in the Palermo manuscript?
- Page 2, note 3: Constantine Porphyrogenitus' name needs to be referred to consistently (compared to its occurrence in notes 27 and 28). Also, it is worth consulting and citing the useful article by Joseph A. M. Sonderkamp (1984)¹, who provides a lengthy discussion on the addressee of Theophanes' work.
- Page 2, note 3: Is Bernard's edition the only available edition of the text? If not, it would be worthwhile to refer to earlier[?] editions.
- Page 2, "Transcription of the mainstream text": Why "transcription"? It is stated above that the mainstream text is printed in line with Bernard's edition. So why not just say "edition of the mainstream text"? Furthermore, it would be helpful to provide references to page number and lines in Bernard's edition for all the passages commented upon in the article.
- Page 2, passage 4 On pityriasis: Since the name of diseases (here and below) are transliterated, they should be given in italics for the reader's convenience.
- Page 2, passage 4 "It happens when bad humours are brought up around the head": παρά + accusative denotes movement towards a person or a thing, so maybe "to"/"into" the head (see Demetrakos s.v. παρά, 12 and LSJ s.v. παρά C.I.1).
- Page 2, passage 4, "...cleaning of the superfluous humour": Better: "evacuation"
- Page 2-3, passage 8: The translation for "Ε μν ... καθαίρομεν" is missing.
- Page 3, passage 8, "the hair of the head falls out": maybe "the hair falls out from the head"
- Page 2, passage 8, "and first remove it": perhaps "and the first thing you should do is to purge it"
- Page 2, passage 8, "the aloe- and bitter": rather "by means of aloe and bitter..." in line with "δι τς ερς ντιδότου" of the previous sentence.
- Page 3, Transcription of the Florence/Wellcome group, passage 4 "on the other white and bran like skin of the flesh": "on the rest of the skin of the white and bran-like flesh"
- Page 3, Transcription of the Florence/Wellcome group, passage 4 "...or from salty phlegm...":
 "...consisting either of salty phlegm ..."
- Page 3, note 7: it is worth mentioning that the Wellcome manuscript is not listed in Sonderkamp's sigla.
- Page 6: How do you define the term "vernacular"? Any relevant literature? See, for example, Robert Browning (1983)².
- Overall, do we find similar editorial "alterations" in other sections of Theophanes' *De curatione*? Please consider adding some further examples.

References

1. Sonderkamp J: Theophanes Nonnus: Medicine in the Circle of Constantine Porphyrogenitus.

Dumbarton Oaks Papers. 1984; 38. Publisher Full Text

2. Browing R: Medieval and modern Greek. Cambridge University Press. 1983.

Competing Interests: No competing interests were disclosed.

I have read this submission. I believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Referee Report 20 March 2017

doi:10.21956/wellcomeopenres.10767.r20945



Marie Cronier

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This article considers in a concrete way the thorny question of the revisions medical treatises of the Byzantine era may have undergone. It takes as an example a treatise composed in Byzantium in the 10th century by a certain Theophanes Chrysobalantes, the *Epitome de curatione morborum*.

Its approach is relevant. It takes two concrete examples, namely two chapters devoted respectively to the diseases *pityriasis* and *alopecia*, and compares their text as given by the reference edition (published at the end of the 18th century) and by three different revised versions, which B. Zipser identified. She shows that in these three versions, the text has been rewritten - on the one hand to adapt it to the linguistic evolutions of Greek language, and on the other hand to become easier to understand. The analysis is well conducted and well argued. The results are convincing.

However, I have some remarks, which do not detract from the value of the conclusions but aim to make the article more precise:

- 1. Concerning the question of the evolution of Greek language in the Byzantine period and the birth of the so-called "vernacular" Greek, there must exist a bibliography in the domain of linguistics. I do not know it personally (being not at all competent in linguistics), but I presume it would be useful, in order to ensure the credibility of this argument, to mention some basic publications in this field. I can not conceive that no one has ever studied the evolution of Greek language in medieval time.
- 2. Concerning the dating of the revised versions and the conclusions of the article, it seems to me that the three revisions discussed here should be clearly distinguished.

Generally, moreover, it would be interesting to provide the readers with some context on the manuscripts that contain these versions. This would help to find some data to answer to the important question asked by B. Zipser: "[...] one is left wondering who the intended audience of these versions was."

Even without depth research, one can get information by taking into account the basic bibliography of the manuscripts. For example :

- The ms. Escorial T.III.1 was copied towards the middle of the 16th century by lakobos Diassorinos (as indicated in Revilla's catalog, see detailed remarks below). Given the biography of the copyist, it is probable that this took place in Western Europe; there may be information about this in the Masters thesis of P. García Bueno, *Los manuscritos griegos de El Escorial copiados por Jacobo Diasorino: estudio paleográfico y codicológico*, Madrid, Univ. Complutense, 2011 (which I have not read)¹

Now, Diassorinos is well known as a forger of texts; also, he was quite interested in medicine. There is therefore a good chance that the revised version transmitted by the Escorial manuscript would be from Diassorinos himself. We can at least ask the question, especially as we do not find this version in any previous manuscript.

- The Palermo manuscript comes from Crete, where it was realized in the first half of the 16th century, probably around 1525 (as said in the manuscript description of ManusOnline, cited by B. Zipser). This manuscript is a huge medical compendium (more than 1000 folios!), gathering material from many different sources. No other manuscript resembles it. Could we make the hypothesis that it was its own copyists who did the editing work? We can at least ask the question, since these men already seem to have accomplished a sort of editorial work, by gathering scattered information.
- As for the Florence manuscript, it was copied towards the beginning of the second half of the 14th century in Constantinople (one of its copyists was identified as Crateros, one of the collaborators of the great scholar Nicephorus Gregoras see D. Bianconi, 2008², mentioned in the bibliography of the Biblioteca Laurenziana website). The London manuscript MSL 135, which contains a version very similar to that of the Florence manuscript, was copied in the East, in the middle of the 16th century (as indicated in the catalogue of P. Bouras -Vallianatos, mentioned by B. Zipser). Except if it descends from the Florence manuscript (a fact which must be stated clearly), it must go back to a common model. This common model, which must have been prior to the second half of the 14th century, was therefore still in the Orient towards the middle of the 16th century. The London manuscript therefore confirms that the revision it preserves, together with the Florence manuscript, goes back to the middle of the 14th century at the latest, and that it circulated in Constantinople and its region, where it may have been made. One could make this hypothesis for the origin of this revised version even if, actually, nothing proves it.

There are therefore three versions which clearly differ from each other, both in a geographical and chronological point of view (Western Europe in mid-16th century; Crete in the first half of the 16th century; Constantinople and its region in the middle of the 14th century). The article would benefit from distinguishing them.

These remarks are only suggestions for further researches; they do not call into question the quality of the article.

Remarks concerning details:

- The first mention of the Escorial ms.: one could add the Library's name: Escorial, <u>Real Bibioteca</u>, T
 III 1.
- Note 5: There exists a more recent catalogue: Revilla, Alejo (O.S.A.), Catálogo de los códices griegos de la Biblioteca de El Escorial, vol. 1, Madrid: Imprenta Helénica, 1936, p. 506-507.
- The first mention of the Palermo ms.: add the end folios of the text (as indicated in the online catalogue mentioned at note 8): f.121r-238v (unless this indication is erroneous).

- "The manuscripts from Florence and the Wellcome Library present a near identical text, and are therefore siblings": one could imagine that the Wellcome ms. may be a copy of the Florence ms. Is this impossible?
- Note 6: it could be useful to add the link to the digitized images: http://mss.bmlonline.it/s.aspx?Id=AVg6Otf3ADdoerJpI7oR&c=VIII#/book (where one can also find a bibliography about the ms.).
- Note 11: since Sonderkamp's book is not easily accessible, the reader would benefit from the indication of the exact shelfmarks of the manuscripts corresponding to Sonderkamp's sigla (for example: which ms. is "Ro1"?).
- "Transcription of the Florence/Wellcome group": chap. 4: read (or say that you reproduce the ms.'orthography) μελαγχολικο; αματος; κενσς; chap. 8: λευκτερον.
- "Transcription of T III 1": chap. 4: read (or say that you reproduce the ms.'orthography) πιφανεας;
 πτηξις; μελαγχολικο; chap. 8: Ε δ.
- Paragraph beginning with "After a brief outline [...]": one could imagine that the replacement of the classical χρτερον by the more recent κτρινον can have occurred independently in many different manuscripts. It could be just a sort of linguistic update. So B. Zipser is right in presuming no special relation between the Florence/Wellcome version and the Ro1 ms.
- Paragraph beginning with "The final manuscript [...]": Are Theophanes' *Therapeutics* the same book as *De curatione*?
- Note 29: the reader would appreciate a few more explanations (namely that Leo explicitly quotes a "vernacular" word?). One can not understand this without having a look at Leo's text.
- Last phrase: "Their attitude towards an author such as Theophanes was very different from the attitude of ordinary scribes who aimed to preserve the works of earlier authorities as accurately as possible": this is not entirely true for all texts. While sacred texts and, in general, texts from famous and most known authors were (mostly) transcribed with respect, it is obvious that scientific and technical texts, above all those attributed to little known authors (to tell nothing about anonymous texts), were much more subject to changes and rewordings. Alas, Theophanes is not the only medical author in this case.

References

- 1. Garcia-Bueno C: Los manuscritos griegos de El Escorial copiados por Jacobo Diasorino: estudio paleográfico y codicológico. *Complutense Madrid University (Thesis*). 2011. Reference Source
- 2. Bianconi D: La controversia palamitica. Figure, libri, testi e mani. Segno e Testo. 2008; 6: 337-376
- 3. Revilla A: Catálogo de los códices griegos de la Biblioteca de El Escorial, vol. 1. *Madrid : Imprenta Helénica*. 1936.

Competing Interests: No competing interests were disclosed.

I have read this submission. I believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Referee Report 14 March 2017

doi:10.21956/wellcomeopenres.10767.r20941



Maria Mavroudi

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This is a solid and useful article, analyzing how and why revisions were introduced to a widely diffused medical text authored in the tenth century. Although the article's conclusions are drawn on the basis of a specific text and its versions in concrete manuscripts (as is appropriate), they can be applied more broadly to the manuscript transmission of other medical (and more broadly technical) texts.

The article is acceptable as is, but would gain in interest and depth if the author could add some discussion on the following:

- 1. In the four manuscripts under examination, what other texts is Theophanes Chrysobalantos copied with? Do these other texts present characteristics similar to the revised versions of Theophanes Chrysobalantos? In other words, can these manuscripts as integral objects (and not as vehicles for single texts) be construed as professional manuals for practitioners with a particular profile, perhaps reflected in the register at which most of the texts they contain is pitched?
- 2. In the Escorial manuscript, could the specification that a doctor has to empty the superfluous humor etc, help us understand anything at all about a possible division of labor between doctors and medical assistants? Of course, this one mention of a doctor is not enough. The manuscript could, perhaps, be scrutinized for more clues (which it may or may not contain).
- 3. What can physical characteristics of the codices (e.g. one or many hands, types of paper, date and type of binding, possessor's notes, etc), tell us about the post-Byzantine reception of Byzantine medicine (especially given that three of the four are sixteenth-century manuscripts)? Do these sixteenth-century manuscripts appear to have been created within an Ottoman or early modern European context? What does this tell us about the role of Byzantine medicine in early Ottoman or early modern European practice?

Inquiry in the above three directions may allow a more detailed sociology of the redactors, scribes, and users of Theophanes' text.

An issue that does not affect the argument and overall scholarly contribution of the article, but one that the author may wish to address if she chooses to introduce revisions is the following: the article's current discussion of what a vernacular register is and when it is introduced into writing is somewhat old fashioned (predicated on aligning developments in Greek with developments in other European languages and the rise of the European "vernaculars"). All languages with long written traditions have multiple written registers (closer or more remote from the high brow canon). When vernacularisms become manifest in written literature largely depends on how long the surviving written record is. Vernacularisms in written Greek are evident since the translations collectively known as the Septuagint, the compilation of the Christian gospels (canonical and apocryphal), the publication of the acts of the church councils, or the composition of best sellers of monastic literature, such as the Spiritual Meadow by John Moschos—in other words, considerably earlier than the tenth century. Given that the earliest surviving Greek medical manuscripts are from the tenth century (e.g. Paul of Aegina now in Paris) and that, in their overwhelming majority, date from the twelfth century and later, our ability to discern vernacularisms in the medical texts earlier than these dates is limited. But this does not mean that a linguistic vernacularization of medical texts was not part of earlier medical practice and training.

Competing Interests: No competing interests were disclosed.

I have read this submission. I believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.