



## Galenus Christianus? The Doctrine of Demonstration in *Stromata* VIII and the Question of its Source

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### Abstract

The article is a source-critical study of the doctrine of demonstration in the so-called eighth book of *Stromata* by Clement of Alexandria. After an overview of the doctrine, as presented in *Str.* VIII 3,1-15,1, it examines parallels in philosophical literature, especially in the writings of Galen. This examination brings to light correspondences (not all of which have been previously noted) whose number and proximity opens the question of the relation between Galen and the source of *Stromata* VIII. After considering three explanations to account for these similarities, the article proposes that Galen's lost writing on demonstration could be Clement's source.

### Keywords

Clement, Galen, demonstration, method of discovery, embryology

### 1. The problem of *Stromata* VIII

The collection of texts preserved in Codex Laurentianus V,3 under the title *στρωματεὺς ὄγδοος* has always puzzled Clement's readers. It seems that even in antiquity people were not quite sure where the book ends, the possibilities ranging from mere sixteen paragraphs of Stählin's edition to a version which included at least the *Eclogae propheticae*.<sup>1</sup> In the Laurentianus, the manuscript on whose testimony modern editions of *Stromata* depend, the end of the eighth book is not indicated either. But in scholarly debate it is usually placed after a series of philosophical discussions regarding the problems of proof, inquiry, sceptical *ἐποχή*, division,

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<sup>1</sup> Cf. the evidence collected by Theodor Zahn, *Forschungen zur Geschichte des neutestamentlichen Kanons*, Bd. III: *Supplementum Clementinum* (Erlangen 1884) 28f.

definition, categories and causes, before the start of a completely different section introduced as compendia of Valentinian doctrines.<sup>2</sup>

The uncertainty about the scope of the book is partly due to the fact that the text of *Stromata* VIII is obviously a fragment or rather a series of fragments whose interconnecting link or continuity with the preceding *Stromata* is neither explicit nor clear. There have been different explanations of the origin of the text. Out of several solutions proposed since the 17th century we will mention just two that set the outlines of the contemporary debate.<sup>3</sup> In a discussion covering all material placed after *Stromata* VII in Codex Laurentianus, Theodor Zahn suggests that these fragments are abbreviations and excerpts made from Clement's finished work, the continuation of the extant *Stromata*.<sup>4</sup> In the first study focused on the philosophical contents of *Stromata* VIII, Hans von Arnim proposes a different view, according to which the material consists partly of an elaborated, but unfinished text of the eighth book, or excerpts made from it, and partly of excerpts made by Clement himself from other sources in preparation for the planned continuation.<sup>5</sup>

<sup>2</sup> In this sense, too, we will speak about *Stromata* VIII in this paper. For a detailed description of Codex Laurentianus V,3 cf. Otto Stählin in *Clemens Alexandrinus*, Bd. I (GCS 12, Leipzig 1905) xxxix-xlii.

<sup>3</sup> A precise overview of the various explanations is provided by Antonio Servino, "Clemente Alessandrino: il problema di Stromata VIII," *Quaderni del Dipartimento di filologia, linguistica e tradizione classica «Augusto Rostagni»* 17 (2001) 97-104.

<sup>4</sup> Zahn, *Forschungen*, 104-130, esp. 117-119. Zahn's hypothesis is taken up and developed by Pierre Nautin, "La fin des *Stromates* et les *Hypotyposes* de Clément d'Alexandrie," *Vigiliae Christianae* 30 (1976) 268-302. The main difference of Nautin's approach is the following: Whereas Zahn derives all the fragmentary material after *Stromata* VII in Laurentianus from the eighth book of *Stromata*, Nautin suggests that the excerpts from the eighth book end with *Str.* VIII 24, i.e., before the start of the section on causes, while what follows in Laurentianus comes from the lost *Hypotyposes*. This part of Nautin's thesis is criticized by Alain Le Boulluec, "Extraits d'œuvres de Clément d'Alexandrie: La transmission et le sens de leur titres," in *Alexandrie antique et chrétienne. Clément et Origène* (Paris 2006) 115-117, who, apart from presenting textual arguments, shows that there is a thematic continuity between the chapter on causes (*Str.* VIII 25-33) and the preceding paragraphs 17-24, which, in turn, are thematically linked with the rest of the book (§§1-16). Details of Nautin's thesis and arguments produced in its favour cannot be discussed in this paper. For the present state of the debate cf. Bogdan G. Bucur, *Angelomorphic Pneumatology. Clement of Alexandria and Other Early Christian Witnesses* (Suppl. to *Vigiliae Christianae* 95. Leiden/Boston: Brill, 2009) 10. Cf. also Andrew C. Itter, *Esoteric Teaching in the Stromateis of Clement of Alexandria* (Suppl. to *Vigiliae Christianae* 97. Leiden/Boston: Brill, 2009) 59-76.

<sup>5</sup> Hans von Arnim, *De octavo Clementis Stromateorum libro* (Rostock 1894) 9, 11-12. Von Arnim seems to locate the end of the finished part of the book at §16. Stählin, while

The intricate cobweb of issues called “the problem of *Stromata* VIII” may be summarized by two questions: (1) What is the role of this text in the context of Clement’s extant writings? (2) What are its philosophical sources? The following paper is an attempt to reenter the debate from the perspective of the source-critical approach. It focuses on the discussion of the doctrine of demonstration in *Str.* VIII 3,1-8,3 and a closely related exposition of the method of inquiry in 8,4-15,1, sections that together comprise more than one third of the book.<sup>6</sup> After an overview of their contents, the paper explores parallels that might help us characterize, or possibly determine, the philosophical source of these sections.<sup>7</sup>

## 2. *Str.* VIII 3,1-15,1: Overview

### a. *Christian prooemium* (*ch. I, 1,1-2,5*)

Clement’s elaboration of the theory of demonstration is preceded by two paragraphs in which he outlines the project of scientific research as inquiry of questions “based on the Scriptures” (κατὰ τὰς γραφάς).<sup>8</sup> Here Clement describes “scientific demonstration” as a method by which the

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accepting von Arnim’s assessment about the second part of the book, suggests that even the first part consists of Clement’s own excerpts (GCS 12, xli-xlii). Von Arnim’s distinction between the two parts is criticized by Wilhelm Ernst, *De Clementis Alexandrini Stromatum libro VIII. qui fertur* (Göttingen 1910) 52. Servino, “Clemente,” 97, note 3, 100-102, accepts von Arnim’s distinction, but locates the breaking point between the two parts at the end of 5,5 (GCS 17: 82,26).

<sup>6</sup> The first commentary on the section of demonstration is provided by Ernst, *De Clementis*, 11-13, 15-24. Cf. also Reginald E. Witt, *Albinus and the History of Middle Platonism* (Cambridge 1937) 32-35; Salvatore R.C. Lilla, *Clement of Alexandria. A Study in Christian Platonism and Gnosticism* (Oxford: OUP, 1971) 120-136; Friedrich Solmsen, “Early Christian Interest in the Theory of Demonstration,” in W. den Boer (ed.), *Romanitas et Christianitas* (Amsterdam 1973) 281-291; Silke-Petra Bergjan, “Logic and Theology in Clement of Alexandria. The Purpose of the 8th Book of the *Stromata*,” *Zeitschrift für Antikes Christentum* 12 (2008) 396-413. *Str.* VIII 9,1-15,1 is discussed by Jaap Mansfeld, “Doxography and Dialectic. The *Sitz im Leben* of the ‘Placita,’” *ANRW* II 36.4 (1990) 3184-3193.

<sup>7</sup> This paper is a partial outcome of a research conducted at the University of Crete, Rethymno, in the Summer Semester of 2009. I am grateful to A.S. Onassis Public Benefit Foundation for supporting the visit and to the staff of the Department of Philosophy and Social Studies at UOC for their hospitality. I greatly benefited from comments made on earlier drafts of this paper by Alain Le Boulluec, Orna Harari and Giorgos Karamanolis.

<sup>8</sup> Cf. *Str.* VIII 2,1.

Christian researcher, relying on the Scriptures on the one hand and the “common notions” on the other, may discover the truth.<sup>9</sup> The discussion is framed by a polemic against eristic and sceptic opponents.<sup>10</sup>

b. *What is demonstration?* (ch. II, 3,1–III, 8,3)

Having noted that research is conducted by means of demonstration, Clement advances to discuss the problem of demonstration itself. Despite this thematic continuity, there is a clear break between the second and the third paragraph. Starting with the third paragraph, Clement’s Christian interests recede to the background, only to come to the surface again much later in the text in the form of brief marginal comments.<sup>11</sup> Also, the beginning of the third paragraph presupposes some earlier discussion that is missing in what precedes it in our text.<sup>12</sup> Clement starts by proposing a

<sup>9</sup> *Str.* VIII 2,4-5. By “common notions” (κοινὰ ἔννοιαι) Clement presumably means consensual views of Christian community, such as befit even simple-minded believers; cf. *Str.* VII 95,9, where Clement compares the distinction between simple believers and gnostics to that between laymen (ιδιωταί) and specialists (τεχνίται) who “create shapes whose beauty surpasses the common notions” (παρὰ τὰς κοινὰς ἐννοίας ἐκτυποῦσι τὸ βέλτιον). In this comparison, the common notions apparently correspond to the “concord” or “confession” (ὁμολογία) of the believers (cf. *Str.* VII 90,1-2; Le Boulluec, *La notion d’hérésie dans la littérature grecque II<sup>e</sup>–III<sup>e</sup> siècles, II* [Paris 1985] 367-70), i.e., to a standpoint Clement also describes as “common faith” (κοινὴ πίστις); for the latter concept cf. Lilla, *Clement*, 136f.; Le Boulluec, in Clément d’Alexandrie, *Stromate V, Tome II (commentaire)*, SC 279 (Paris: Cerf, 1981) [henceforth SC 279], 20f.

<sup>10</sup> Cf. *Str.* VIII 1,1-2; 2,5; Le Boulluec, *La notion d’hérésie*, 382-85.

<sup>11</sup> The only other passages that, in my view, betray a Christian hand are found in the final chapter on causes: a theological comment in *Str.* VIII 29,3-6 (GCS 17: 99,1-12), a biblical gloss in 30,4 (99,25), an allusion to Gen 1:1 in 28,5 (98,14f.) and arguably the pedagogical examples in 25,4 (96,2-5) and 30,2 (99,19f.). Cf. also 5,5 (82,256).

<sup>12</sup> The abrupt beginning of the eighth book (ἀλλ’ οὐδὲ κτλ.) suggests to many a reader that Clement himself had prefaced his text with an introduction that was later lost; cf. von Arnim, *De octavo*, 9, and Stählin’s note ad GCS 17: 80,3. Ernst, *De Clementis*, 53, contests this interpretation by pointing out that the first page is inscribed στρωματεὺς ὄγδοος in the manuscript: “Since the inscription . . . is preserved, it would be strange if the beginning of the treatise was corrupt.” Although it is undoubtedly true that the beginning of the eighth book is abrupt (against Zahn, *Forschungen*, 115f.), it could also be interpreted as an indication that the text designated as chapter one in modern editions was already composed as a fragment, perhaps a note on Clement’s antisceptical source. *Str.* VIII 1,3-2,5 (GCS 17: 80,11-81,8) may be described as a commentary on Matt 7:7 (quoted in 1,2 [80,9f.]); cf. Nautin, “La fin des *Stromates*,” 268, 291. The quotation of this verse, so important for Clement (cf. Le Boulluec, *La notion d’hérésie*, 385-89), could have been prompted by a sentence or two in his source, possibly by the initial clauses of 1,1 and 1,2 (GCS 17: 80,3-4.6-8).

method to arrive “at the starting point of such a doctrine” (μέθοδος εἰς ἀρχὴν τῆς τοιαύτου... διδασκαλίας), namely “to explain the proposed word by an account so clear that all who speak the same language will follow” (3,1). It becomes apparent soon that “the proposed word” (τὸ προβληθὲν ὄνομα) is the word ἀπόδειξις (“demonstration”),<sup>13</sup> and so the διδασκαλία whose starting point is looked for is presumably a doctrine concerned with the topic described by “the proposed word,” namely a theory of demonstration.<sup>14</sup>

By making the starting point of this theory an explanation of the word by which its subject matter is called (i.e., the word ἀπόδειξις), the author follows a method of inquiry that, as he tells us, should be applied to any object of investigation. It consists of three successive stages: first, we must define “what people of the same nation and language agree to be the meaning of the name by which the problem is called”; second, “having started from this point, we must inquire whether the signified thing, with which the definition is concerned, exists or not.” And finally, “if it is shown to exist, we must precisely investigate its nature, what it is like, and never transgress the given order.”<sup>15</sup>

These guidelines have a distinctly anti-sceptic overtone. The possibility of arriving at the starting point of the doctrine in question is defended on the grounds that the word ἀπόδειξις means something, and something existent, to those who use it, be it philosophers, rhetors or judges (3,2). This observation meets with a more general demand for a possibility to confirm (πιστώσασθαι) statements made about the subject matter of inquiry. As long as a statement is merely what “seems to be the case” (τὸ δόξαν), “an opponent can, with equal force, show whatever he wants to the contrary.” It is therefore necessary to confirm the statement; but “if the judgment about it were based on something doubtful as well, and the

<sup>13</sup> Cf. von Arnim, *De octavo*, 9.

<sup>14</sup> For ἀρχὴ τῆς διδασκαλίας cf. *Str.* VIII 4,1. The expression also appears in *Str.* VII 95,3; cf. Ernst, *De Clementis*, 14; Itter, *Esoteric Teaching*, 96. However, in the latter passage, διδασκαλία does not refer to the doctrine of demonstration, but to the teaching of Christ who is himself believed to be the starting point of the doctrine; cf. e.g. *Str.* VII 5,1; 57,3.

<sup>15</sup> 3,3-4 (GCS 17: 81,17-24): περὶ παντὸς τοίνυν τοῦ ζητουμένου εἴ τις ὀρθῶς διαλαμβάνοι, οὐκ ἂν ἐφ’ ἑτέραν ἀρχὴν ὁμολογουμένην μᾶλλον ἀναγάγοι τὸν λόγον ἢ τὸ πᾶσι τοῖς ὁμοεθνεῖσι τε καὶ ὁμοφώνοις ἐκ τῆς προσηγορίας ὁμολογούμενον σημαίνεσθαι. εἴτα ἐντεῦθεν ὀρμηθέντα ζητεῖν ἀνάγκη, εἰ ὑπάρχει τὸ σημαίνόμενον τοῦτο π<ερί> οὐ ὁ λόγος εἶτε καὶ μή· ἐφεξῆς δέ, εἴπερ ὑπάρχειν δειχθεῖν, ζητητέον τούτου τὴν φύσιν ἀκριβῶς, ὅποια τις ἐστὶν καὶ μή ποτε ὑπερβαίνει τὴν δοθεῖσαν τάξιν.

judgment about the latter again on something else that is also doubtful, [the account] would go on infinitely and would be unprovable. But if conviction about that which is not agreed is derived from that which is agreed by all, the latter should be taken as the starting point of the doctrine" (4,1).

Clement then presents a definition of demonstration that supposedly meets the above mentioned standard: "All human beings would agree that demonstration is an account that provides convincingsness (τὴν πίστιν) to that which is doubtful on the basis of that which is agreed (ἐκ τῶν ὁμολογουμένων)."<sup>16</sup> This definition is a starting point of a subsequent inquiry of the essence of demonstration, in the course of which Clement further clarifies the concept and distinguishes it from other scientific methods, such as indication (ἔνδειξις) or analysis.<sup>17</sup>

The "agreed" definition is broad enough to include two kinds of demonstration: (1) demonstration "in the most proper sense" (κυριώτατα) and (2) the one that is merely based on opinion (δοξαστική).<sup>18</sup> According to Clement, a similar distinction holds for conviction (πίστις), and though he does not say it explicitly, it must also be applied to "that which is agreed" (τὰ ὁμολογούμενα), i.e., to the premises on which demonstration broadly speaking is based. That there are two kinds of agreed premises is confirmed in 6,2 where Clement makes a distinction between a conclusion drawn from agreed premises on the one hand, and a conclusion drawn from true premises on the other. While the former procedure is called deduction, the latter is called demonstration. In this passage, "deduction" and "demonstration" are obviously not used as complementary terms, nor are the "agreed" and the "true" premises complementary. Rather, demonstration (in the proper sense) is presented as a kind of deduction whose premises, apart from being agreed, are also true.<sup>19</sup>

<sup>16</sup> 5,1 (GCS 17: 82,12-14): Ὁσαύτως δὲ καὶ τὴν ἀπόδειξιν πάντες ἄνθρωποι ὁμολογήσαιεν <ἀν> λόγον εἶναι τοῖς ἀμφισβητούμενοις ἐκ τῶν ὁμολογουμένων ἐκπορίζοντα τὴν πίστιν.

<sup>17</sup> For the essence of demonstration cf. *Str.* VIII 7,6 (οὐσία ἀποδείξεως). For ἔνδειξις (6,1) cf. below, note 113; for analysis (8,1), cf. below, note 98.

<sup>18</sup> 5,3.

<sup>19</sup> S.-P. Bergjan, commenting on Clement's distinction between deduction and demonstration, suggests that Clement attempts to separate the two as far as possible. According to Bergjan, Clement's discussion is "misleading" at this point, since he fails to mention that "this distinction is in Aristotelian terms a distinction between two subclasses of syllogisms." Bergjan further contends that in response to the objection that both demonstration and dialectical syllogism are syllogisms "Clement turns to a Stoic line of thought

There seems to be an analogous relation between convincing and evident principles in Clement's account. If infinite regress is to be avoided and the possibility of demonstration preserved, there must be, according to Clement, some principles of demonstration that are convincing by themselves.<sup>20</sup> Every demonstration is derived from undemonstrated conviction (ἐπὶ τὴν ἀναπόδεικτον πίστιν...ἀνάγεται). However, Clement suggests that beyond conviction (μετὰ τὴν ἐκ πίστεως πηγὴν) there are other principles of demonstration, namely "that which appears clearly to sense perception and intellection" (τὰ πρὸς αἴσθησίν τε καὶ νόησιν ἐναργῶς φαινόμενα).<sup>21</sup> An argument that starts from these first principles, rather than from merely "reputable" premises (ἐξ ἐνδόξων μόνον), and draws an appropriate conclusion from them, creates knowledge in the souls of the auditors, rather than mere persuasion.<sup>22</sup>

In the preceding section the method of demonstration was applied to the problem of demonstration itself. In what follows, Clement describes the demonstrative method as applicable to any subject matter of inquiry and further explains it by means of an example of a specific research question.

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where he finds the needed distinction between two valid conclusions, one a syllogism and the other non-syllogistically concludent." ("Logic and Theology," 406). I find Bergjan's comments unconvincing for two reasons: (1) The fact that demonstration is a kind of deduction is clearly shown in *Str.* VIII 6,4 where Clement says: "By drawing an appropriate conclusion from the premises we only make a deduction. But if each of our premises is true, we make *not only* a deduction, *but also* a demonstration (οὐ συλλογίσασθαι μόνον, ἀλλὰ καὶ ἀποδεχεῖναι)." (2) I fail to see any indication in our text that Clement turns to the Stoic line of thought mentioned by Bergjan. She refers to the distinction made in Diogenes Laertius, *Vitae* VII 78, between two kinds of valid arguments, those that are "non-syllogistically conclusive" (also described as "valid in the specific sense") and those that are called "syllogistic." But Bergjan does not explain how this passage is relevant to Clement's distinction between deduction and demonstration.

<sup>20)</sup> 7,1.

<sup>21)</sup> 7,2-3. Again, the distinction between convincing and evident principles does not indicate that the two terms are complementary. Rather, the concept of evident principles helps Clement to explain the difference between two kinds of πίστις, introduced in *Str.* VIII 5,2 and 7,7.

<sup>22)</sup> 7,7-8.

c. *Method of discovery* (ch. III, 8,4–V, 15,1)

Von Arnim correctly observes that the next thematic unit starts at 8,4, rather than at 9,1, as indicated by William Lowth's chapter division.<sup>23</sup> It is concerned with a method by which the researcher, basing himself on some previous knowledge of the problem he investigates, proceeds to the discovery of something he has not known.

To start with, the researcher must get hold of different premises that are appropriate (οἰκεία) to the problem he investigates and he must also reformulate the problem itself by means of an account that is agreed by all. In everything we investigate there is something we already know, something convincing by itself which we believe without proof, and this should become the starting point of research and the criterion of every supposed discovery.<sup>24</sup> Sometimes this previous knowledge, Clement goes on to specify, may be the knowledge of the essence of the thing under scrutiny, accompanied by a complete ignorance concerning its activity, like, for example, in the case of "stones, plants or animals whose activities or states or faculties, or generally speaking attributes, we ignore." Or we may know some of these faculties or states or other attributes, but ignore and investigate the essence, like in the case of the soul. Or we may have knowledge of both the activities and the essences, but inquire to which of the essences the activities belong. Finally, of some things we know their activities and essences, but do not know their states.<sup>25</sup>

In a lengthy and eloquent section, Clement illustrates the method of discovery<sup>26</sup> by means of an elaboration of a specific research question, namely "whether the embryo is an animal." Again, the context of this discussion is distinctly polemical. Clement introduces the question as an example of a "form of expression" which is potentially misleading, since its terms can be used in different ways. In order to answer it properly, we must "recognize the problems" (γνωρίζειν τὰ προβλήματα), and this we can do by a semantic analysis of its terms.<sup>27</sup> It is done by the method of

<sup>23</sup>) von Arnim, *De octavo*, 10. Chapter division of the *Stromata*, proposed by William Lowth, was first introduced in John Potter's edition in 1715.

<sup>24</sup>) 8,4-6. Although this is the only place where the word κριτήριον is mentioned in the eighth book, the concept already seems to be implied in *Str.* VIII 4,2, where Clement says that the agreed definition of the proposed word "shows the way to the discovery of what is sought" (ἐξηγησόμενον δὲ τὴν τῶν ζητουμένων εὕρεσιν).

<sup>25</sup>) 9,1-5.

<sup>26</sup>) Cf. 9,6: ἡ μέθοδος τῆς εὕρέσεως.

<sup>27</sup>) Cf. 9,6-10,1.

“questions and answers” (κατ’ ἐρώτησίν τε καὶ ἀπόκρισιν): We ask our opponent what he means by the words “animal” and “embryo” and inquire whether the meaning he provides is doubtful or whether it is agreed by all.<sup>28</sup> If he refuses to answer the question, he is shown to be an eristic person. In that case we should choose the method of “exposition” (κατὰ διέξοδον) instead and elaborate on the problem ourselves, while giving our opponent an opportunity to answer our exposition point by point when it is finished. If he attempts to interrupt our investigation by his questions, it becomes clear that he is not even willing to listen.<sup>29</sup>

Now, to reach an agreement regarding the meaning of our terms, one should identify what we have already known. We have already had a certain notion of what the embryo is and what the animal is (i.e., we have known the essence) and seek to find out whether the activities and states of the embryo are such as belong to the animal.<sup>30</sup> For example, if we define the animal as that which is nurtured and grows, it remains to be shown that the embryo is nurtured and grows (which is obviously the case).<sup>31</sup> Or, if the animal is defined as that which perceives and sets itself to motion by an impulse, it is also clear what the matter of investigation should be.<sup>32</sup> But, as mentioned above, it is also necessary to determine what we mean by the embryo.<sup>33</sup> Again, in the face of those who are “shuffling about names,” the author makes it clear that we do not investigate the word embryo nor its (incorporeal) meaning, but rather the nature of the thing under scrutiny.<sup>34</sup> Although the semantic analysis of the terms of our question is a necessary prerequisite of research, we can only discover the answer by investigating the nature of the subject matter itself.

Clement then outlines the course of such investigation by proposing the definition of animal as “that which is capable (τὸ δυνάμενον) to perceive or be moved by an impulse.” This definition comprises both a present condition (“already is able”) and a prospective condition (“will ever be

<sup>28</sup>) In this context the views of Plato, Aristotle and the Stoics on the meaning of the word “animal” are compared (10,3-11,1).

<sup>29</sup>) 11,3-12,1.

<sup>30</sup>) Cf. 9,8-9.

<sup>31</sup>) Cf. 11,2; Clement does not explain this implication in so many words, but this is obviously what he means when he says: “If our opponent says that the animal is that which is nurtured and grows, he has an answer [to his question].”

<sup>32</sup>) 11,2.

<sup>33</sup>) 12,2. Cf. below, note 73.

<sup>34</sup>) 12,7-13,2.

able”). That the prospective condition holds for the embryo is evident and need not be investigated. What remains, then, is to consider whether the present condition holds of it as well, either potentially (as in the case of an animal that is at rest or sleeping), or actually.<sup>35</sup> Unfortunately, the text does not specify how the researcher should proceed in order to answer this last question, which is probably due to the fact that the main goal of the whole discussion is merely to illustrate how to “recognize the problems.”

The relevance of this section to the problem of demonstration is explicitly shown in its last paragraph which, as von Arnim observes, should include 15,1, a passage mistakenly placed at the beginning of the next chapter by Lowth.<sup>36</sup> After the outline of the method of discovery summarized above, demonstration is described as “a common [method] applied to everything claimed to be discovered.” It is an argument by which we confirm something on the basis of something else, and that on the basis of which we confirm it must be agreed and recognized by the student (on the grounds of being evident to sense perception and intellection). In this connection Clement recalls the different types of research questions mentioned above, e.g. when the essence is known but activities or states unknown, or when we all know the activities and states, but do not know the essence, like in the case of a question “in which part of the body is the ruling part of the soul.”<sup>37</sup>

### 3. The source: Preliminary observations

The theory of demonstration developed in *Stromata* VIII was hardly invented by the Christian writer himself. It is true that in his extant writings Clement is interested in demonstration; the little he tells us about it, however, is always firmly imbedded in the context of Christian thought.<sup>38</sup> As we have seen, Clement’s religious interests are still clearly present in

<sup>35</sup>) 13,3-5. The argument is summarized in 13,6-8.

<sup>36</sup>) Cf. von Arnim, *De octavo*, 10-11.

<sup>37</sup>) 14,1-4.

<sup>38</sup>) Cf. esp. *Str.* II 9,6; 25,3; 48-49; VII 95,3-96,1. Cf. Harry A. Wolfson, *The Philosophy of the Church Fathers*, Vol. I (Cambridge, Mass. 1956) 122f.; Lilla, *Clement*, esp. 137-39; Elizabeth A. Clark, *Clement’s Use of Aristotle* (New York/Toronto 1977) 16-26; Georgia Apostolopoulou, *Die Dialektik bei Klemens von Alexandria* (Frankfurt a.M. etc.: Peter Lang, 1977) 87-98, esp. 92-98; Le Boulluec, *La notion d’hérésie*, 398f.; Ugo Schneider, *Theologie als christliche Philosophie. Zur Bedeutung der biblischen Botschaft im Denken des Clemens von Alexandria* (Berlin/New York: De Gruyter, 1999), 290f.

the first chapter of *Stromata* VIII, but this line of thought is abandoned, and what is developed instead is a scholastic introduction to the doctrine of demonstration that, in the way it is presented, has no obvious relevance to the project outlined at the beginning of the book. This observation seems to suggest that, starting with chapter 2 and at least within the extent of the material discussed above (3,1-15,1), the text of *Stromata* VIII draws from a scholarly work concerned precisely with this topic, the doctrine of demonstration.<sup>39</sup>

Is it possible to characterize Clement's source more closely? The history of the theory of demonstration starts with Aristotle's *Posterior Analytics* and there are indeed many allusions to this work, as well as to other writings of the *Organon*, in the sections discussed above. The most obvious examples are the distinction between deduction and demonstration in 6,2-4 and the postulation, as a way to avoid the infinite regress, of the first premises of demonstration, characterized as "convincing by themselves" and "indemonstrable" in 6,7-7,2.<sup>40</sup> The division of the three stages of inquiry in 3,3-4 (quoted above, note 15) could be derived from *Posterior Analytics* II 10, 93b30-33.<sup>41</sup> Terminology of the section is largely Aristotelian, as the author seems to recognize when he notes that what he calls συμπέρασμα ("conclusion")—an Aristotelian term—, "others" (namely the Stoics) call ἐπιφορά (8,3). The distinction made in 5,2-3 between the two kinds of demonstration, one that provides the "scientific conviction" and one "based on opinion," is not strictly Aristotelian, as Aristotle reserves the term "demonstration" for the "scientific" deduction only.<sup>42</sup> But it may well correspond to Aristotle's distinction between demonstration and the dialectical deduction based on reputable premises.<sup>43</sup> Other elements reflect post-Aristotelian epistemology too, most notably the

<sup>39</sup> It may be regarded as a consensual view that in 3,1-15,1 (as well as in some other parts of the book) Clement draws from one and the same philosophical source; cf. von Arnim, *De octavo*, 10-11, who refers to this source as *liber dialecticus* or *introductio dialectica*.

<sup>40</sup> Deduction and demonstration: cf. *An. post.* I 2, 71b23-24; *Top.* I 100a27-29; Ernst, *De Clementis*, 17; Bergjan, "Logic and Theology," 405f.; "indemonstrable" premises: cf. *An. post.* I 2, 71b27 and Jonathan Barnes, *Aristotle's Posterior Analytics* (Oxford: Clarendon Press, 1975) 99, with other references; "convincing by themselves": cf. *Top.* I 100b18-21.

<sup>41</sup> Cf. the discussion of the latter passage by David Charles, *Aristotle on Meaning and Essence* (Oxford: OUP, 2000) 23-56 *et passim*.

<sup>42</sup> Cf. above, note 40.

<sup>43</sup> *Top.* I 100a27-30. Alternatively, δοξαστική ἀπόδειξις in *Str.* VIII 5,3 could include Aristotle's "rhetorical deduction" as well. Cf. *Str.* II 49,2 where both the dialectical and the rhetorical deductions are classified as δοξαστική ἀπόδειξις. The passage is quoted by Ernst, *De Clementis*, 17.

characterization of the first principles of demonstration as “that which appears clearly to sense perception and intellection.”<sup>44</sup>

The Stoics were also preoccupied with demonstration, and at least the definition of demonstration in 5,1 (quoted above, note 16) bears a trace of the Stoic influence.<sup>45</sup> Stoic terminology is occasionally used.<sup>46</sup> It is clear, however, that the author sympathizes more with the Aristotelian tradition and even distances himself from the Stoics (cf. 4,3; 8,3).

These preliminary notes create a vague picture of a source grounded in the Aristotelian tradition and elaborating the doctrine of demonstration in a syncretistic manner. But as we start looking for terminological and methodological parallels in post-Hellenistic philosophy, the picture becomes much sharper. Not surprisingly perhaps, the most significant parallels are found in the writings of another syncretistic author of Clement’s time who was occupied with the doctrine of demonstration, namely Galen. Exploring them will help us determine the doctrinal background of Clement’s source with more precision.

#### 4. Clement and Galen

Galen’s interest in logic in general and demonstrative method in particular is well known. His early treatise *On Demonstration* is now lost, but his views about this matter can partly be reconstructed on the basis of his extant writings.<sup>47</sup> In 1910 Wilhelm Ernst already noted some terminolog-

<sup>44</sup> Cf. Sextus, *M.* VII 217, referring to Theophrastus; cf. Pamela Huby, *Theophrastus of Eresus: Sources for his Life, Writings, Thought and Influence, Commentary, IV: Psychology* (Leiden etc.: Brill, 1999) 93-95. For other Aristotelian elements cf. below, notes 64 and 65; Solmsen, “Early Christian Interest,” 283.

<sup>45</sup> Cf. Cicero, *Ac.* II 26; Diogenes Laertius, *Vitae* VII 45; Sextus, *M.* VIII 314; 422f. (parallels noted by Ernst, *De Clementis*, 15f.).

<sup>46</sup> Cf. esp. Clement’s distinction between the (corporeal) voice, the (incorporeal) meaning (also called “the thing”) and the nature of the investigated matter in *Str.* VIII 12,7-13,2, which employs the Stoic concept of the incorporeal λεκτόν, also described as the signified thing itself (αὐτὸ τὸ πρᾶγμα... δηλούμενον) by the Stoics; cf. Sextus, *M.* VIII 12, noted by Stählin in his GCS edition, *ad* p. 87,23-25. For πρᾶγμα as meaning cf. Pierre Hadot, “Sur divers sens du mot *pragma* dans la tradition philosophique grecque,” in P. Aubenque (ed.), *Concepts et catégories dans la pensée antique* (Paris: Vrin, 1980) 309-319.

<sup>47</sup> Cf. Iwan von Müller, “Über Galens Werk vom wissenschaftlichen Beweis,” in *Abhandlungen der königlich-bayerischen Akademie der Wissenschaften, phil.-philol. Kl.* 20 (1897) 405-478; Barnes, “Galen on Logic and Therapy,” in F. Kudlien—R.J. Durling (edd), *Galen’s Method of Healing* (Leiden etc.: Brill, 1991) 50-102; Riccardo Chiaradonna, “Le

ical correspondences between Clement and Galen's works *Introduction to Logic*, *On the Therapeutic Method* and *On the Doctrines of Hippocrates and Plato*.<sup>48</sup> In an important article published in 1973 Friedrich Solmsen remarks that if we examine the fragments of Galen's treatise *On Demonstration* with Aristotle's *Analytics* as well as *Stromata* VIII in mind, "we are struck by the number of tenets they have in common."<sup>49</sup> And in a study published in 1996 the list of parallels between *Stromata* VIII and the writings of Galen is further extended by Teun Tieleman, who also considers their number and coherence "striking."<sup>50</sup> And striking indeed it is. In what follows I list the most important correspondences, including many that, to my knowledge, have not been previously observed.

#### a. *On the Therapeutic Method*

In the first book of *On the Therapeutic Method* Galen introduces the method by which he will proceed in the treatise. In this connection he recalls the methodological discussion in his work *On Demonstration* in which it was shown that "the first principles of every demonstration are things clearly apparent to sense perception and intellection" and "with every subject matter of inquiry we must replace the name with an

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traité de Galien *Sur la démonstration* et sa postérité tardo-antique," in R. Chiaradonna, F. Trabattoni (eds.), *Physics and Philosophy of Nature in Greek Neoplatonism* (Leiden/Boston: Brill, 2009) 43-77.

<sup>48</sup> Ernst, *De Clementis*, 11-24, indicates the following parallels: (1) *Str.* VIII 6,1 and Galen, *Inst. log.* 11,1: the definition of ἐνδειξις; (2) *Str.* VIII 6,2 and Galen, *Inst. log.* 11,2: the description of demonstration as a conclusion drawn from true premises; (3) *Str.* VIII 7,2 and Galen, *Inst. log.* 1,5; 8,3; 16,6-7; 17,7: the description of the first premises as that which is convincing by itself; (4) *Str.* VIII 7,3; 14,3 and Galen, *MM* (Kühn X 39,7-9); *PHP* IX 7,4 (CMG V 4,1,2: 586,19f.): the description of the first premises as "clear to sense perception and intellection"; (5) *Str.* VIII 8,2 and Galen, *PHP* II 3,12 (CMG V 4,1,2: 112,4f.): indifference concerning names by which premises are called; (6) *Str.* VIII 8,4 and Galen, *Inst. log.* 1,2: on the necessity of having premises "appropriate" to the demonstrated matter. Ernst quotes these passages along with parallels from Aristotle, Alexander of Aphrodisias and other sources in order to show that the background of Clement's discussion on demonstration is chiefly Peripatetic.

<sup>49</sup> Solmsen, "Early Christian Interest," 285. Apart from the correspondences detected by Ernst, Solmsen refers to "verbatim agreement" between *MM* (Kühn X 39,9f.) and *Clem. Str.* VIII 4,2.

<sup>50</sup> Cf. Teun Tieleman, *Galen and Chrysippus on the Soul* (Leiden etc.: Brill, 1996) 127. The parallels are mentioned on pp. 20, 24f., 30, 104.

account.”<sup>51</sup> Galen then goes on to search for “the starting point of a true doctrine” (ἀρχὴ τῆς ἀληθοῦς διδασκαλίας) concerning the therapeutic method. As his project in this book is to discover therapies for all diseases, it is necessary for him to distinguish different kinds of disease. But one cannot find either differentiae or species without a secure knowledge of “that what is divided,” i.e. the genus in question. “Therefore,” concludes Galen, “in our case, too, we must explain by an account what disease is (χρῆ... ὅ τί ποτέ ἐστι νόσημα τῷ λόγῳ διελθεῖν), so that we may perform its division correctly.”<sup>52</sup> But how shall we do that? “How else,” says Galen, “than in the manner described in *On Demonstration*? First, we must agree on the notion of the thing proposed without which it is impossible to discover its essence. And, as we said [in *On Demonstration*], this notion must be taken as something agreed by all, for otherwise it would not be proper to call it a starting-point. What, then, is the notion of being ill that is agreed by all human beings? And to what underlying thing do they most often refer with this word ‘to be ill?’”<sup>53</sup>

Galen’s procedure described above is very similar to the method Clement employs in *Str.* VIII 3,1-4,2 in order to find the starting point of the doctrine of demonstration. According to Clement, there is no “better or clearer method to arrive at the starting point of such doctrine (εἰς ἀρχὴν τῆς τοιαύτης... διδασκαλίας)” than “to explain the proposed word by an account (τὸ προταθὲν ὄνομα λόγῳ διελθεῖν) so clear that all who speak the same language will follow.” (3,1) This conforms with a general rule we should apply to every subject matter of inquiry, namely that our argument should not be based “on any agreed starting point other than the following: what people of the same nation and language agree to be the meaning of the name by which the problem is called.” (3,3).

As we know, according to Clement, arriving at the agreed definition of the proposed word is the first stage of inquiry which should be followed by a question concerning the existence of the thing signified and finally by research concerning its essence (3,4). In the passage discussed above,

<sup>51</sup> Galen, *MM* (Kühn X 39,7-10).

<sup>52</sup> X 40,2-11.

<sup>53</sup> X 40,11-41,1: πῶς δ’ ἄλλως ἢ ὡς ἐν τοῖς περὶ ἀποδείξεως ἐλέγετο; τῆς ἐννοίας πρότερον ὁμολογηθείσης, ἧς χωρὶς οὐχ οἶόν τέ ἐστιν εὑρεθῆναι τὴν οὐσίαν τοῦ προκειμένου πράγματος· αὐτὴν δὲ τὴν ἐννοίαν ὁμολογουμένην ἅπασιν ἐλέγομεν χρῆναι λαμβάνειν, ἢ οὐδ’ ἂν ἀρχὴν δεόντως ὀνομάζεσθαι. τίς οὖν ὑπὸ πάντων ἐστὶν ἀνθρώπων ὁμολογουμένη περὶ τοῦ νοσεῖν ἐννοία; καὶ κατὰ τίνας μάλιστα φέρουσιν ὑποκειμένου πράγματος τοῦτ’ ὁ ῥῆμα τὸ νοσεῖν;

Galen distinguishes between the first and the third stage of this scheme when he asks, first, about “the notion of being ill that is agreed by all human beings” and, second, “to what underlying thing” the word usually refers. According to Galen, it is necessary to agree on “the notion” (έννοία) of the proposed thing in order to discover its “essence (οὐσία).”<sup>54</sup>

The similarity of methods is joined with the similarity of terms. Even Galen’s phrase “we must replace the name with an account” (εις λόγον χρή μεταλαμβάνεσθαι τούνομα) has a close parallel in *Str.* VIII 4,2 (πάν οὖν τὸ προβληθὲν ὄνομα μεταλαμβάνειν χρή εις λόγον).<sup>55</sup> The main difference between the two descriptions is that Galen is concerned with the doctrine of therapeutic method and the proposed word is “to be ill,” whereas Clement is concerned with the doctrine of demonstration and the proposed word is “demonstration.”

Clement’s question about the existence of the subject matter of inquiry (3,4) is not addressed by Galen in the passage quoted above. But later in the treatise, in the context of a polemic against the Empiricist view that general terms always refer to particulars, Galen asks a rhetorical question about the meaning of the word “disease” and the existence of the thing signified that, again, reminds us of Clement’s (presumably anti-sceptic and equally rhetorical) question concerning the meaning of the word demonstration and the existence of the thing it signifies. Says Clement: “Is the name ‘demonstration’ of such kind as ‘blituri,’ a mere sound that means nothing? (...) At any rate, philosophers provide demonstration as something existent, each party in a different way.”<sup>56</sup> Compare Galen: “Do the words ‘animal’ and ‘disease’ seem to you to signify nothing, but have a sense similar to that of ‘blituri’ and ‘scindapsus’? Or is it the case that they signify, but yet there is no object underlying the words, as is the case with ‘Scylla’ and ‘centaur’?”<sup>57</sup>

Other conceptual and terminological correspondences between the two texts may be observed. After discussing the way people normally use the words “health” and “illness,” Galen suggests that throughout the present

<sup>54</sup> *MM* (Kühn X 40,12-41,1).

<sup>55</sup> Galen, *MM* (Kühn X 39,9f.). Cf. Solmsen, “Early Christian Interest,” 285; Tieleman, *Galen and Chrysippus*, 24f. and note 69.

<sup>56</sup> *Str.* VIII 3,1-2.

<sup>57</sup> *MM* X 144,9-14, translated by Robert J. Hankinson, *Galen On the Therapeutic Method* (Oxford: Clarendon Press, 1991) 72. In the last quoted sentence Galen, like Clement, makes a distinction between the meaning of the word and the existence of the underlying object.

treatise “we shall derive our interpretation of words from ordinary Greek usage (ἐκ τῆς τῶν Ἑλλήνων συνηθείας), as we have said in the treatise *On Demonstration*.” “However,” continues Galen, “discoveries, investigations and demonstrations concerning the actual essence of the thing will not be derived from the opinions of the multitude (ἐκ τῶν τοῖς πολλοῖς δοκούντων) but from the scientific premises (ἐκ τῶν ἐπιστημονικῶν λημμάτων) the manner of whose discovery was elaborated in that work.”<sup>58</sup> Here Galen again makes a distinction between what appears as the first and the third stage of Clement’s scheme and indicates that the premises employed in the first phase—the commonly accepted meanings of words—may not yet be the scientific ones. A similar line of thought can be discerned in Clement. The premises established in the first stage are meanings agreed by “people of the same nation and language” (3,3). However, as we have seen above, when discussing the nature of demonstration Clement distinguishes between two kinds of agreed premises, those that correspond to an opinion and those that are true and evident (5,1-2; 6,2-4; 7,3). This distinction, of course, does not mean that the premises established in the first stage, apart from being agreed by all, may not also be true. Indeed, according to Clement, when replacing the proposed name with an account, the researchers ought to make sure that the account is not merely what “appears to be the case” (τὸ δόξαν), “for an opponent could, with equal force, show whatever he wants to the contrary.” Instead, they should find an account that is “agreed and clear” to them all (ὁμολογούμενόν τε καὶ σαφῆ τοῖς κοινωνοῦσι τῆς σκέψεως) and that will “show the way to the discovery of what is sought” (ἐξηγησόμενον δὲ τὴν τῶν ζητουμένων εὔρεσιν).<sup>59</sup> But it seems that (for Clement as for Galen) the truth of the matter can only be established when the researcher investigates its essence and discovers an account that is firmly based on “that what appears clearly to sense perception and intellection.”

#### b. *The embryo question*

In *Stromata* V 5,3 Clement mentions the question “whether the embryo is or is not an animal” (εἰ ζῷον τὸ κατὰ γαστρὸς ἢ οὐ ζῷον) in connection with the so-called “convertible” statements (τὰ ἀντιστρέφοντα), that is to say, statements “that can equally be proposed by those who argue for the

<sup>58</sup>) *MMX* 41,17-42,9.

<sup>59</sup>) *Str.* VIII 4,1-2.

opposite thesis” (ἄ καὶ τοῖς τὸν ἐναντίον χειρίζουσι λόγον ἐπ’ ἴσης ἔστιν εἰπεῖν).<sup>60</sup> This reflects a view that the arguments *pro* and *contra* the statement “the embryo is an animal” are equally convincing.

However, in *Stromata* VIII Clement holds a different view.<sup>61</sup> He introduces the question εἰ ζῶον τὸ κυούμενον as an example of a “form of expression” (τὸ τῆς λέξεως σχῆμα) that “confuses and disturbs our mind, so that it is not easy to discover the differences it involves.”<sup>62</sup> It is questions like these that show why the researcher must first of all “recognize the problems.” (9,6-7). “The differences” that the question involves presumably correspond to the various ways in which the words “animal” and “embryo” are used. First Clement discusses different meanings of “animal” and then of “embryo” (10,1-12,2), which enables him to formulate the research question in the clearest possible manner and open the way to its solution. No doubt that the aim of the whole discussion is to show that with the correct method of discovery even the paradigmatically “confusing” question about the embryo can be resolved in a scientific manner.

The section concerned with “the method of discovery” (*Str.* VIII 8,4-15,1) again contains many elements that recall the writings of Galen. According to Clement, “with every subject matter of inquiry we must establish different premises corresponding to each problem that are appropriate to what is proposed (οἰκείων . . . τῷ προβληθέντι).”<sup>63</sup> This reminds us of a passage in the second book of Galen’s treatise *On the Doctrines of Hippocrates and Plato* where the author censures the Stoics for using premises that are “not appropriate to the question proposed” (οὐκ οἰκεῖα τοῦ προκειμένου σκέμματος).<sup>64</sup> What he means by that is explained at the

<sup>60</sup> For convertible statement cf. Aulus Gellius, *Noct. Attic.* V 10f.; IX 16,7; Le Boulluec, SC 279, 34-36.

<sup>61</sup> Cf. Mansfeld, “Doxography,” 3186, note 623, who points out that in book eight the example derives from another tradition than in book five. Cf. also Marie-Hélène Congourdeau, *L’embryon et son âme dans les sources grecques (VI<sup>e</sup> siècle av. J.-C.-V<sup>e</sup> siècle apr. J.-C.)* (Paris 2007) 180. The incompatibility of the two passages is indicated by the fact that in the fifth book (5,3) Clement includes the embryo question among things unfit for inquiry (ἀλλ’ οὐδὲ τὰ ἀντιστρέφοντα [ζητεῖται]).

<sup>62</sup> For σχῆμα λέξεως cf. Aristotle, *Soph. el.* 165b27 *et passim*; Tieleman, *Galen and Chrysippus*, 17-18, 20.

<sup>63</sup> *Str.* VIII 8,4: περὶ παντὸς τοῦ ζητουμένου καθ’ ἕκαστον πρόβλημα διαφορῶν μὲν δεῖ τῶν λημμάτων, οἰκείων δὲ τῷ προβληθέντι.

<sup>64</sup> *PHP* II 2,2 (CMG V 4,1,2: 102,20-22). Galen adds that he dedicated a lengthy section to these premises in his treatise *On Demonstration* (II 2,3 [CMG V 4,1,2: 102,25-27]). The concept of the “appropriate premises” is probably based on Aristotle, *An. post.* I 2,

beginning of book three where Galen presents a four-fold classification of premises, describing the first two classes as follows: (1) premises “taken from the attributes . . . according to the essence of the problem” (κατὰ τὴν τοῦ προβλήματος οὐσίαν) and (2) premises “taken from the attributes, but not according to the proposed matter of inquiry” (οὐ μὴν κατὰ τὸ προβεβλημένον τε καὶ ζητούμενον).<sup>65</sup> In order to establish appropriate premises, it is therefore necessary to have some knowledge of the essence. This explains why, in Clement’s account, the researcher not only ought to have “different premises in respect to each problem,” but he must also “change the problem itself into an account,” no doubt basing himself on what is “previously known” about its essence.<sup>66</sup> This previous knowledge does not necessarily extend to the essence of the problem as a whole. But “if premises are taken that are not appropriate to the problem,” says Clement, “it is not well possible [for the researcher] to discover anything, since the nature of the problem, also called the question, remains unknown as a whole.”<sup>67</sup>

In the next paragraph Clement explains that in some cases we actually may have previous knowledge of the essence of the problem as a whole (τοῦ ζητουμένου παντὸς . . . τῆς οὐσίας), while being completely ignorant

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71b23; cf. also 72a6 and other passages quoted by Tieleman, *Galen and Chrysippus*, 13, note 23.

<sup>65</sup> *PHP* III 1,4 (CMG V 4,1,2: 168,15-17). Cf. Paul Moraux, *Der Aristotelismus bei den Griechen*, Bd. II (Berlin/New York: De Gruyter, 1984) 719f. and note 151, who refers to Aristotle, *An. post.* I 4, 73a34-73b24.

<sup>66</sup> *Str.* VIII 8,4-6.

<sup>67</sup> *Str.* VIII 8,5 (GCS 17: 84,27-30): τῶν δὲ λημμάτων μὴ οικείων τῷ προβλήματι λαμβανομένων οὐκ ἐνδέχεται καλῶς \*\* οὐδὲν αὐτῷ ἐξευρεῖν ἀγνοουμένης ὅλου τοῦ προβλήματος, ὃ καὶ ζήτημα καλεῖται, τῆς φύσεως. Following Eduard Schwartz, Stählin indicates a lacuna between καλῶς and οὐδὲν, but the phrase οὐκ ἐνδέχεται καλῶς οὐδὲν ἐξευρεῖν is probably correct. Compare the following expressions in Galen: οὐκ ἐνδέχεται περὶ σωτηρίας οὐδὲν ἐξευρεῖν (Kühn IX 729,2); οὐτ’ ἐνδέχεται καλῶς εὐρεῖν χρεῖαν οὐδεμίαν (Kühn III 308,10; cf. 700,9-10); cf. also Kühn X 172,14-15: οὐκ ἐνδέχεται τάληθες ἐν οὐδενὶ τῶν ὄντων ἐξευρεῖν. The dative αὐτῷ could be linked to ἐνδέχεται and refer to the researcher, last mentioned in 8,3 (GCS 17: 84,21: τὸν ἀποδεικτικόν); hence my translation above. The difficulty of this solution might lie in the fact that the nearest possible referent of αὐτῷ is placed rather far in the text. This problem could be avoided by reading αὐτοῦ [scil. τοῦ προβλήματος] instead of αὐτῷ (“it is not well possible to discover anything about it [i.e., the problem]”). (My thanks are due to Professor Alain Le Boulluec who, in a personal communication [August 2010], agrees that the Galenic parallels listed above allow us to avoid the supposition of a lacuna and suggests to retain the dative αὐτῷ.)

of its attributes, for example activities, affections or faculties. In other cases, we have knowledge of some of these attributes (for example desires and affections of the soul), but do not know and investigate the essence (9,1-2). He returns to this division in 14,4, where he adduces a question that corresponds to the case when we all know the “activities and affections” (τὰ ἔργα καὶ πάθη) but do not know the essence, namely “in which part of the body is the ruling part of the soul.” As noted by Tieleman, this question corresponds to the subject matter of the second book of Galen’s *On the Doctrines of Hippocrates and Plato*.<sup>68</sup> In the sixth book of the same treatise Galen dedicates a lengthy discussion to the distinction between “activities” and “affections” of the soul (VI 1,5-27), a distinction made, in a similar context, in *Str.* VIII 14,4. Moreover, the view that the essence of the soul is unknown is characteristically Galenic.<sup>69</sup>

For the sake of completeness, we may add that the “doxographic” section where Clement compares the opinions of Plato, Aristotle and the Stoics concerning the difference between animals and plants (10,3-11,1) contains several correspondences with Galen, *PHP* VI 3,7.<sup>70</sup> In *Str.* VIII 13,3 Clement introduces a definition of the animal as “that which is capable of perceiving and moving by impulse (τὸ δυνάμενον αἰσθέσθαι τε καὶ κινηθῆναι καθ’ ὁρμήν).”<sup>71</sup> This recalls a formulation in Galen’s treatise *On My Own Opinions* where the author answers the question “why animals are superior to plants” by pointing out two things, “perception and movement by impulse (τὴν τε αἴσθησιν . . . καὶ τὴν καθ’ ὁρμήν κίνησιν).”<sup>72</sup>

<sup>68</sup> Cf. Tieleman, *Galen and Chrysippus*, 30. However, as Mansfeld, “Doxography,” 3092-3108 *et passim*, shows, the question is a commonplace philosophical theme associated with the doxographic tradition.

<sup>69</sup> Cf. *Prop. Plac.* 3,1 (CMG V 3,2: 60,3f.) and the reference collected by Vivian Nutton *ad loc.* in Galen, *On My Own Opinions* (Berlin: Akademie Verlag, 1999), 60. Cf. also Pierluigi Donini, in Hankinson (ed.), *The Cambridge Companion to Galen* (Cambridge: CUP, 2008) 185f., 203, note 9.

<sup>70</sup> Cf. *Strom.* VIII 10,3-4 and *PHP* VI 3,7 (CMG V 4,1,2: 374,14-19). Cf. Tieleman, *Galen and Chrysippus*, 24, note 67. Parallels in doxographic literature are discussed by Mansfeld, “Doxography,” 3187-3190.

<sup>71</sup> The definition is already implied in 9,8.

<sup>72</sup> *Prop. Plac.* 13,7 (CMG V 3,2: 108,12-14). Cf. *Nat. Fac.* I 1 where Galen says that the specific feature of the animals is “to perceive and move by choice” (τὸ αἰσθάνεσθαι τε καὶ κινεῖσθαι κατὰ προαίρεσιν). The latter passage is noted by Tieleman, *Galen and Chrysippus*, 30, note 93a, as “closely similar” to *Str.* VIII 9,8. Cf. also Ps.-Galen, *Definitiones medicae* (Kühn XIX 452); Gougeon, *L’embryon et son âme*, 291.

However, the most striking (and, to my knowledge, hitherto unnoticed) parallel is the one related to Clement's didactic example itself, namely to the embryo question. In *Str.* VIII 12,2, having discussed the various meanings of the word "animal," Clement proceeds to ask his virtual opponent what he means by the word "embryo," literally "the thing conceived" or "the thing in the womb" (τὸ κρούμενον ἢ τὸ κατὰ γαστρός): "Does he take the expression 'the thing conceived' or 'the thing in the womb' to signify already that which is not formed, and even the seed deposited in the womb, or just that which is differentiated and formed already? (ἢ μόνα τὰ διηρθρωμένα τε καὶ ἤδη διαπεπλασμένα), that is, the so-called ἔμβρυον?"<sup>73</sup> In this passage Clement indicates that the word ἔμβρυον specifically designates the developed foetus.<sup>74</sup> Twenty lines later he says: "As regards the nature of the thing we are investigating, namely τὸ ἔμβρυον, we have clearly shown what it is like."<sup>75</sup> This sentence apparently refers to the description of ἔμβρυον in 12,2, or perhaps to some more detailed discussion not preserved in our excerpts. In any case it shows that in order to solve the embryo question, Clement narrows the matter of investigation to the developed foetus.

This observation brings us back to Galen who in his writing *On the Utility of the Parts* gives us the following testimony: "That the thing in the womb is already an animal, at least when all of its members are formed (ὅταν γε διαπεπλασμένον ἅπασιν ἢ τοῖς μορίοις), we said in the treatises *On Demonstration* and *On the Doctrines of Hippocrates and Plato*."<sup>76</sup> This passage is interesting not only as evidence that Galen based his solution of the problem on the same distinction between the levels of the develop-

<sup>73</sup> *Str.* VIII 12,2 (GCS 17: 87,4-7): πάλιν ἐρωτητέον ὅ τι ποτὲ αὐτῷ σημαίνει τὸ κρούμενον ἢ τὸ κατὰ γαστρός, εἰ τὰ <μὴ> διαπεπλασμένα ἤδη καὶ τὸ σπέρμα αὐτὸ <τὸ> καταβεβλημένον τὸ κατὰ γαστρός αὐτῷ σημαίνει βούλεται ἢ μόνα τὰ διηρθρωμένα τε καὶ ἤδη διαπεπλασμένα, τὰ ἔμβρυα καλούμενα.

<sup>74</sup> This corresponds to a medical usage also attested by Galen; cf. Véronique Boudon-Millot, "La naissance de la vie dans la théorie médicale et philosophique de Galien," in L. Brisson, M.-H. Congourdeau, J.-L. Solère (edd.), *L'embryon: formation et animation* (Paris: Vrin, 2008) 84-87. I follow the author's suggestion to translate τὸ κρούμενον as "embryo" and ἔμβρυον as "foetus" (87f.).

<sup>75</sup> *Str.* VIII 13,2 (GCS 17: 87,26f.): ἐναργῶς γὰρ ἐδείκνυτο τοῦ πράγματος αὐτοῦ τοῦ ζητουμένου, λέγω δὲ τοῦ ἐμβρύου τῆς φύσεως ὅποια τίς ἐστιν.

<sup>76</sup> Galen, *UP* XV 5 (Helmreich II 357,24-28 = Kühn IV 238,19-239,4): περὶ δὲ τοῦ ζῶον ἤδη τὸ κατὰ γαστρός ὑπάρχειν, ὅταν γε διαπεπλασμένον ἅπασιν ἢ τοῖς μορίοις, ἔν τε τοῖς *Περὶ ἀποδείξεως ὑπομνήμασιν* εἴρηται κἀν τοῖς *Περὶ τῶν Ἱπποκράτους τε καὶ Πλάτωνος δογμάτων*.

ment of the embryo that we encounter in Clement.<sup>77</sup> It is interesting especially because it shows that Galen was occupied with the embryo question in his treatise *On Demonstration*. The fact that this unexpected item is on the list of the contents of the treatise has, to my knowledge, never been sufficiently explained.<sup>78</sup> However, the role that this question plays in Clement's discussion of the demonstrative method might give us a clue.

### c. Four more parallels

More parallels may be added that indicate the proximity between the sections of *Stromata* VIII discussed above and the writings of Galen. I will complete the list with the following four.

In *Str.* VIII 5,2, having made a distinction between two kinds of demonstration and conviction, Clement also distinguishes two kinds of knowledge, "but also foreknowledge, one scientific and sure (ἐπιστημονική τε καὶ βεβαία), the other merely based on expectation (ἐλπιστική)."<sup>79</sup> Now it is not very clear what Clement means by "foreknowledge" in this passage. One immediately thinks of "previous knowledge" in Aristotle's theory of demonstration,<sup>80</sup> but the specification of the deficient kind of πρόγνωσις as ἐλπιστική suggests that Clement uses the word "foreknowledge" in the sense of the knowledge of future events. Von Arnim thinks

<sup>77</sup> Cf. Congourdeau, *L'embryon et son âme*, 309f. In *Str.* VIII 12,2 Clement describes the less developed phase of "the thing in the womb" by two expressions: a) τὰ μὴ διαπεπλασμένα, b) τὸ σπέρμα αὐτὸ τὸ καταβεβλημένον. These expressions seem to correspond, in a chronologically reverse order, to the first two stages of development of "the thing conceived," as outlined in Galen's writings *On Semen* and *On the Formation of the Phoetus*. Cf. esp. *Sem.* (Kühn IV 542) where the initial stage called γονή, in which "the form of the seed is dominant" (ἡ τοῦ σπέρματος ἰδέα κρατεῖ), is succeeded by the stage of κύημα, in which the main organs (heart, brain and liver) are "not differentiated and formed yet" (ἀδιάρθρωτα μὲν ἔτι καὶ ἄμορφα). Next is the stage of ἔμβρυον, which further develops into παιδίον (543). Cf. Boudon-Millot, "La naissance de la vie," 85-87.

<sup>78</sup> Von Müller, "Über Galens Werk," 465, suggests that Galen elaborated the embryo question in connection with an inquiry concerning the essence of the soul, which in turn was intended to show the limits of the demonstrative method (cf. 460-64). However, it is unclear how the solution of the embryo question Galen proposed in *De demonstratione* would have helped him convey his sceptical message concerning the soul's essence.

<sup>79</sup> *Str.* VIII 5,2 (GCS 17: 82,14-16): οὐ μόνον δὲ ἀπόδειξις καὶ πίστις καὶ γνῶσις, ἀλλὰ καὶ πρόγνωσις λέγεται διχῶς, ἥ μὲν ἐπιστημονική τε καὶ βεβαία, ἄλλη δὲ μόνον ἐλπιστική.

<sup>80</sup> Cf. Aristotle, *An. post.* I 1, 71a1-2; I,2, 72a34-36.

that Clement introduces a Christian element here,<sup>81</sup> but it is not necessarily so. The ancients already knew the difference between layman and expert opinion about future events<sup>82</sup> and Aristotle even (perhaps half-mockingly) describes divination as ἐπιστήμη τις ἐλπιστική.<sup>83</sup> The distinction gained in importance for doctors who tried to base medicine (of which prognosis is an important part) on firm scientific foundations. In his *Commentary on Hippocrates' Prognostic*, Galen distinguishes two meanings of the word πρόγνωσις, comparing them with two ways in which the word γνώσις is normally used, one being "sure" (βεβαία), as when we say that "after winter there will be spring, then summer and then autumn," and the other "not sure" (οὐ βεβαία), as when Aratus says that if the upper horn of the moon leans forward, we should expect a storm from the north, and if it inclines backwards, a storm from the south (*Phaen.* I 794f.). Though it does usually (ὡς τὸ πολὺ) turn out to be so, sometimes it does not.<sup>84</sup> A few lines later Galen says that "people normally use the word 'foreknowledge' to designate both the expectation that future events will happen as usually, and the one that is certain."<sup>85</sup> He adds that a good doctor should not care about such distinctions, but rather try to make predictions that turn out to be correct as often as possible.<sup>86</sup> Nevertheless on another occasion he does indicate that some medical predictions may be regarded as "sure" (namely when they are concerned with necessary consequences)<sup>87</sup> and he even uses the term πρόγνωσις ἐπιστημονική as a description of a sure prediction.<sup>88</sup>

Clement's rare collocations ἐπιστημονική πίστις (5,2) and ἀποδεικτικὸς ἀνὴρ (8,2) can also be found in Galen.<sup>89</sup> More importantly, in the latter passage Clement recommends to the "demonstrative man" that he should not worry about names by which premises are called "whether people wish to call them axioms or propositions or assumptions" (εἴτε ἀξιωματά

<sup>81</sup> Von Arnim, *De octavo*, 10.

<sup>82</sup> Cf. Plato, *Thet.* 178c-179a; Aristotle, *Met.* IV 1010b11-14.

<sup>83</sup> *De mem.* 449b12. I owe this reference to Miroslav Šedina.

<sup>84</sup> Galen, *Hipp. Prog.* (Kühn XVIIIb 12,14-13,13).

<sup>85</sup> Galen, *Hipp. Prog.* (Kühn XVIIIb 14,10f.): εἴθισται δὲ καὶ τὴν ὡς τὸ πολὺ περὶ τῶν μελλόντων ἔσεσθαι ἐλπίδα καὶ τὴν ἀφαλή καλεῖσθαι πρόγνωσιν.

<sup>86</sup> Kühn XVIIIb 14,12-15,5.

<sup>87</sup> Cf. *CAM* (Kühn I 289,15-293,17).

<sup>88</sup> *Hipp. Off. Med.* (Kühn XVIIIb 636,14f.).

<sup>89</sup> ἐπιστημονική πίστις: Galen, *Ut. Resp.* (Kühn IV 492,11); cf. *SMT* (Kühn XI 636,12-16); ἀποδεικτικὸς ἀνὴρ: Galen, *Sem.* (Kühn IV 649,7); cf. *PHP* II 3,17 (CMG V 4,1,2: 112,30).

τις ἐθέλοι καλεῖν εἴτε προτάσεις εἴτε λήμματα); this recommendation not only corresponds to Galen's self-professed tendency of using philosophical terms he regards as synonyms interchangeably,<sup>90</sup> but specifically recalls the following passage in *PHP* II 3,12: "The ancients wrote about all these kinds [of premises], whether you want to call them propositions or axioms or statements (εἴτε προτάσεων ἐθέλοις ὀνομάζειν εἴτε ἀξιωματῶν εἴτε λόγων), it makes no difference for our present purpose..."<sup>91</sup>

#### d. Differences?

Can we detect any specific differences between the concept of demonstration recorded by Clement and Galen's views? Tieleman proposes two such points of dispute, but on closer examination one proves disappointing and the other inconclusive.

When discussing Clement's distinction, in *Str.* VIII 7,7-8, between two kinds of demonstration (the one based on evident premises and the other on reputable ones), Tieleman notes that "in this context Clement also refers to the requirement that premises should be appropriate (οἰκεῖον), but quite unlike Galen presents this as a prerequisite for syllogistic (including endoxic) reasoning *tout court*."<sup>92</sup> However, this supposed difference is based on mere oversight. It is true that in the passage concerned Clement uses the word οἰκεῖον in relation to both kinds of deduction. But unlike in 8,4, where the word refers to the "appropriate premises" (precisely in the Galenic sense), in the passage discussed by Tieleman the word οἰκεῖον refers to an appropriately drawn conclusion (τὸ οἰκεῖον συμπέρασμα).<sup>93</sup> Clement's point is that both kinds of deduction are still deductions (valid arguments), provided that their conclusions are appropriate to their premises.<sup>94</sup> In this sense the word οἰκεῖον is also used by Alexander of Aphrodisias and, indeed, by Galen.<sup>95</sup>

<sup>90</sup> Cf. Ben Morison, in *Cambridge Companion to Galen*, 148.

<sup>91</sup> Cf. Ernst, 23, note 1; Tieleman, *Galen and Chrysippus*, 24-25 and note 69.

<sup>92</sup> Tieleman, *Galen and Chrysippus*, 20.

<sup>93</sup> *Str.* VIII 7,8 (GCS 17: 84,2-8): εἰ μὲν οὖν ἐκ τῶν πρὸς αἴσθησιν καὶ νόησιν ἐναργῶν ἄρξαιτό τις, κάπειτα τὸ οἰκεῖον ἐπενέγκοι συμπέρασμα, ὄντως ἀποδείκνυσιν, εἰ δ' ἐξ ἐνδόξων μόνον, οὐ μὴν πρῶτων γε, τουτέστιν οὔτε πρὸς αἴσθησιν οὔτε πρὸς νόησιν ἐναργῶν, εἰ μὲν οἰκεῖον ἐπιφέρει συμπέρασμα, συλλογιεῖται μὲν, οὐ μὴν ἐπιστημονικῆν γε ποιήσεται τὴν ἀπόδειξιν, εἰ δ' οὐκ οἰκεῖον, οὐδὲ συλλογιεῖται τὴν ἀρχήν.

<sup>94</sup> The point is already made in 6,4. Cf. Bergjan, "Logic and Theology," 405.

<sup>95</sup> Cf. Alexander, *In Top.* (CAG II.2: 14,2); Galen, *Hipp. Elem.* (Kühn I 445,14f.); *Ven. Sect. Er. Rom.* (Kühn XI 230,2).

Tieleman's second observation is more interesting. In a chapter dedicated to Galen's scientific method Tieleman recalls a passage in Galen's treatise *On the Diagnosis and Cure of the Errors of the Soul* where the author argues for the utility of mathematical methods (particularly analysis) for healthy life. In this context Galen elaborates his point by means of an example of the way these methods are used in architecture, namely in the construction of a sundial.<sup>96</sup> Having indicated how the logical methods of analysis and synthesis are employed in this case, Galen proceeds to discuss ways by which the accuracy of the sundial can be tested empirically.<sup>97</sup> According to Tieleman, this example illustrates a more general point about Galen's demonstrative method, namely that the logical method of inquiry should be tested by experience: "The addition of empirical testing to the logical method (i.e. analysis/synthesis) reflects a familiar Galenic scheme, viz. the duo reason/experience." In this respect Galen differs from "the Platonist account of philosophical method offered in Clement, *Str.* VIII, which is closely similar to this and other Galenic passages in all other respects." Tieleman notes that Clement agrees with Galen insofar as analysis is concerned.<sup>98</sup> Unlike Galen, however, Clement identifies demonstration with "the downward route from the axioms," which coincides with what Galen calls synthesis.<sup>99</sup> In Galen's view as presented by Tieleman, analysis and synthesis "lead to some amount of clarification" of the subject matter of inquiry. Nevertheless, "definitive and clear confirmation that what is looked for has indeed been found is only provided by the subsequent empirical test. Only when the later stage has been added do we have proof or demonstration in its proper sense."<sup>100</sup>

But is Clement's description of proof ("when we reach what we are looking for from the first premises through all the middle terms") really a

<sup>96</sup> Galen, *Pecc. Dig.* 4-5,16 (CMG V 4,1,1: 53,9-59,8).

<sup>97</sup> Cf. Tieleman, *Galen and Chrysippus*, 34f.

<sup>98</sup> Cf. *Str.* VIII 8,1 where Clement describes analysis as a procedure by which we ascend from demonstrable premises to that which is evident to sense perception and intellection. Cf. Galen, *MM* (Kühn X 33,14-18), where the author provides a description of the procedure which is closely similar to *Str.* VIII 8,1. On Galen's concept of analysis cf. Barnes, "Galen on Logic and Therapy," 67; Tieleman, *Galen and Chrysippus*, 33f.

<sup>99</sup> Tieleman refers to *Str.* VIII 8,1: "Demonstration takes place when we reach what we are looking for from the first premises through all the middle terms" (ἀπόδειξις δέ ἐστιν, ὅταν ἀπὸ τῶν πρώτων <τις εἰς> τὸ ζητούμενον ἀφικνῆται διὰ πάντων τῶν ἐν μέσῳ).

<sup>100</sup> Tieleman, *Galen and Chrysippus*, 35f. On the importance of empirical verification for Galen cf. Hankinson, in *Cambridge Companion to Galen*, 169-178.

point of a specific difference from Galen's theory? In his opusculum *On the Best Method of Teaching* Galen refers us to his treatise *On Demonstration* where it is written "how, by starting from the elements and principles in each case, a man may best demonstrate whatever can be demonstrated."<sup>101</sup> Thus the demonstrative method is described as the axiomatic method,<sup>102</sup> and the need for empirical testing is not a part of its definition. It is true that in the writing discussed by Tieleman Galen also says: "When we find a demonstrative method that leads us to what we are looking for and is clearly confirmed by the thing itself, we have an excellent test of its truth."<sup>103</sup> Here, as in Clement, the demonstrative method leads us to "what we are looking for." The confirmation of the method comes from "the thing itself," no doubt provided that the premises of the inquiry are "appropriate" to the thing's essence. But if our method is to be confirmed "by the thing itself," such confirmation must necessarily be based on something more evident than the premises on which we have based our investigation so far. What Tieleman calls "the addition of empirical testing" seems to be an example of such confirmation. It provides the researcher with new, more evident premises for his argument about the subject matter.<sup>104</sup>

Now as we know, Clement derives the first premises from "that which appears clearly to sense perception and intellection." This formulation allows for the possibility that when it comes to matters that can only be demonstrated on the basis of sensory evidence, Clement's "demonstrative man" will seek the same kind of empirical data as Galen's. There is no direct indication of that in *Stromata* VIII. Nevertheless the whole discussion about the embryo culminates in the insight that in order to find out whether the embryo is an animal, we must inquire whether it is actually able to move and perceive. But this question can hardly be dealt with by a method other than empirical research.

<sup>101</sup> *Opt. Doct.* 5,3 (CMG V 1,1: 106,19-108,1 = Kühn I 52,12-14); I follow the translation of Barnes, "Galen on Logic and Therapy," 66.

<sup>102</sup> Cf. Barnes, "Galen on Logic and Therapy," 66.

<sup>103</sup> Galen, *Pecc. Dig.* 3,5 (CMG V 4,1,1: 47,4-7 = Kühn V 68,4-7). The passage is quoted by Tieleman, 35, note 116. Cf. also Hankinson, in *Cambridge Companion to Galen*, 169.

<sup>104</sup> A good example is the famous argument from dissection described in Galen, *PHP* II 3,4-8 (CMG V 4,1,2: 110,1-14). Cf. Donini, in *Cambridge Companion to Galen*, 190f.

## 5. The question of source

The number and coherence of similarities with extant writings of Galen and especially the close correspondences with passages that refer to his lost treatise *On Demonstration* allow us, I believe, to identify the source of *Stromata* VIII, at least as far as the passages discussed above are concerned, as a writing specifically dedicated to the doctrine of demonstration whose philosophical background, method and vocabulary is extremely close to those of Galen. But then obviously the question arises whether there might be any genetic relation between Clement's source and the writings of Galen, and if so, of what kind. Here, equipped with the evidence from the previous section, we are entering the realm of the plausible. Within this realm, we may distinguish three lines of interpretation.

- (1) There is no direct relation between Clement's source and the writings of Galen, but both draw from the same scholastic tradition where the parallels noted above are common.
- (2) Clement's source is a source of Galen.
- (3) Clement's source is Galen.

The first line of interpretation is chosen by Solmsen who thinks that "the doctrines common to Clement and Galen reflect the philosophical syncretism (alias eclecticism) which prevailed in logic as much as elsewhere" and describes Galen as "representative of a trend."<sup>105</sup> In a similar vein, Tieleman regards *Stromata* VIII as a document of the "Platonist scholastic tradition" and as an indicator of "traditional" elements in Galen's concept of demonstration.<sup>106</sup> Tieleman agrees with Jaap Mansfeld, according to whom "the source or sources" of *Stromata* VIII "belong with the traditions of the Middle Platonist scholastic literature."<sup>107</sup> Mansfeld bases this assessment mainly on his elaboration of *Str.* VIII 17-21, a chapter dedicated to the problem of division and definition that contains parallels with the Middle Platonist sources, especially the fifth chapter of Alcinous' *Didascalicus*.<sup>108</sup> Some of these parallels were already noted by R.E. Witt

<sup>105</sup> Solmsen, "Early Christian Interest," 286. As a possible source of the trend represented by both Galen and *Stromata* VIII Solmsen suggests Gaius (290, note 36).

<sup>106</sup> Cf. Tieleman, *Galen and Chrysippus*, 20, note 47; 24; 104.

<sup>107</sup> Mansfeld, "Doxography," 3184f. Cf. also Mansfeld, *Heresiography in Context* (Leiden etc.: Brill, 1992) 62f.

<sup>108</sup> Cf. Mansfeld, *Heresiography*, 78-109, esp. 80-84.

who traces them, as all the philosophical material in *Stromata* VIII, to Antiochus of Ascalon, or rather to some “Peripatetic authority” influenced by Antiochus, for example Aristocles of Messene.<sup>109</sup>

However, these explanations underestimate the fact that the source (or one of the sources) of *Stromata* VIII is specifically concerned with the problem of demonstration. Moreover, neither Witt nor Mansfeld take into consideration the Galenic parallels noted above. According to Mansfeld, “Clement’s possible sources are a manual or more than one and possibly (...) include the logico-epistemological section of a substantial work dealing with systematic philosophy in the manner of Alcinous.”<sup>110</sup> But we have seen that “the logico-epistemological section” discussed above can be characterized more precisely as an introduction to the doctrine of demonstration. We may add that the chapter on division and definition (*Str.* VIII 17-21) neatly coheres with this theme. It is impossible to analyze this chapter in detail within the framework of the present study. Suffice to say that the text abounds with allusions to the *Organon*, especially the *Posterior Analytics*, which apart from its critique of division also includes chapters where division is presented as a useful scientific method, notably as a tool for finding definitions.<sup>111</sup> Another point of convergence with the two earlier sections of *Stromata* VIII is the fact that the chapter on division and definition covers topics that are often discussed by Galen and were certainly elaborated in his treatise *On Demonstration*.<sup>112</sup> Thus the source of the logico-epistemological material in *Stromata* VIII may be more adequately characterized (to paraphrase Mansfeld) as “a substantial work dealing with the demonstrative method in the manner of Galen.”

Having described the topic and style of our source more narrowly we can focus our inquiry on the following question. Is it possible that the

<sup>109</sup>) Witt, *Albinus*, 31-41.

<sup>110</sup>) “Doxography,” 3184.

<sup>111</sup>) *An. post.* II 13-14. By emphasizing the Aristotelian content I do not mean to deny that the framework of the discussion is probably Platonist; cf. Witt, *Albinus* 36-38; Mansfeld, *Heresiography*, 80-84. Cf. also J. Mansfeld—D.T. Runia, *Aëtiana. The Method and Intellectual Context of a Doxographer*, Vol. III (Leiden/Boston: Brill, 2010) 63f.

<sup>112</sup>) Cf. Barnes, “Galen on Logic and Therapy,” 68; 72-76; Chiaradonna, “Le traité de Galien,” 45. For Galen’s interest in division and definition cf. also Tieleman, in *Cambridge Companion to Galen*, 59f.; Hankinson, *ibid.*, 167f. Cf. also Mansfeld, *Heresiography*, 330, who quotes Galen, *PHP* IX 9,43-46 (CMG V 4,1,2: 608), as another parallel to Alcinous, *Did.* 5. The passage recalls Clement’s distinction of three kinds of division in *Str.* VIII 19,3-8. However, in this instance Galen is closer to Alcinous than to Clement, as he introduces not three, but five kinds of division. Cf. Mansfeld, *Heresiography*, 81.

parallels we have detected in the method and vocabulary of *Stromata* VIII on the one hand and Galen's treatise *On the Therapeutic Method* on the other reflect a scholastic tradition where this particular method and vocabulary was common? Possible it is. After all, the topic and much of the vocabulary is Aristotelian, though elaborated in a distinctly "eclectic" manner, and many isolated motifs can be found elsewhere. But as far as I am aware, we have no indication of a similar treatment of the demonstrative method, any testimony or fragment to support this explanation. This could still be ascribed to an "optical illusion" created by the exceptional number of Galen's writings that have been preserved in contrast to the number of philosophical documents of the same period that have been lost. But the curious detail that both Clement and Galen employ the same research question, "whether the embryo is an animal," in the context of an exposition of the demonstrative method, and solve it in a similar fashion, using similar words, supports a different view, namely that the relation between the two texts is somehow more exclusive.

This view is further supported by the following consideration. If our interpretation of the word *prognosis* (5,2) is correct, we have a reason to believe that the context of Clement's discussion of the theory of demonstration is specifically medical. There is another medical term used in the same section, namely ἔνδειξις (6,1).<sup>113</sup> It is worth mentioning in this connection that the source from which Clement draws in the last chapter on

<sup>113</sup> ἔνδειξις was a technical term in the Methodical school of medicine; cf. Michael Frede, "The Method of the So-Called Methodical School of Medicine," in *Essays in Ancient Philosophy* (Minneapolis 1987) 263-66. It was extensively used by Galen in both medical and logical contexts; cf. Barnes, "Galen on Logic and Therapy," 98-100; Fridolf Kudlien, "'Endeixis' as a Scientific Term," in F. Kudlien—R.J. Durling (edd), *Galen's Method of Healing* (Leiden etc.: Brill, 1991) 103-111; Hankinson, *Galen On the Therapeutic Method*, 202-206; Philip J. van der Eijk, in *Cambridge Companion to Galen*, 292f. Galen's use of ἔνδειξις is often compared with the concept of an "indicative sign" (ἐνδεικτικὸν σημεῖον) known to Sextus (*PH* II 99-101; *M.* VIII 151-6), a concept that is probably of medical origin itself; cf. David Sedley, "On Signs," in J. Barnes, J. Brunschwig, M. Burnyeat, M. Schofield (edd.), *Science and Speculation* (Cambridge: CUP, 1982) 241f. and note 8; James Allen, *Inference from Signs* (Oxford: OUP, 2001) 87-146, esp. 106-122. There does not seem to be any evidence of a similar use of ἔνδειξις outside the medical literature. Is it noteworthy that in *Inst. log.* 11,1 Galen makes a distinction between ἔνδειξις and ἀπόδειξις on the grounds that the former does not proceed by the rules of syllogism (cf. Phillip de Lacy, *Galen on The Doctrines of Hippocrates and Plato* [CMG V,4,1,2, Berlin: Akademie Verlag, 1984, 3 vols.] 658). Effectively the same distinction is made by Clement in *Str.* VIII 6,1.

causes (25-33) is most probably medical.<sup>114</sup> It does not seem unthinkable that a substantial work dedicated to the problem of demonstration would include a section on causes.<sup>115</sup> Considering how much attention Galen pays to the problem of causes in his extant writings, we might entertain the possibility that he discussed it also in his treatise *On Demonstration*. Be it as it may, the indications mentioned above suggest that the doctrinal framework of Clement's source could be specifically medical. But if this is a sound conclusion, the hypothesis of a "scholastic tradition" so narrowly specified, of which there is no trace in our sources, would seem rather arbitrary.

If we reject the idea of a scholastic tradition in which the similarities between *Stromata* VIII and the writings of Galen were common, we are left with two options. Either Galen draws his theory of demonstration from a non-Galenic source which is also the source of Clement, or Clement draws his theory of demonstration from a lost writing of Galen. Again, the problem with the first explanation is that it posits something of which we have no evidence. As for Galen, he does not appeal to any

<sup>114</sup> Cf. Jean-Joël Duhot, *La conception stoïcienne de la causalité* (Paris: Vrin, 1989) 211-235, who argues that the character of some passages in this amalgam of Stoic and Aristotelian elements is "indisputably" medical. Cf. *Str.* VIII 28,7; 30,1; 31,4-5; 32,7; 33,1-9; Duhot, *La conception stoïcienne*, 221, 224, 226, 232-4, 235. We may add two observations: (1) In *Str.* VIII 25,2, having explained that procatarctic causes provide the occasion for something to happen, Clement adduces the following example: beauty, when seen by an incontinent person, creates in him the "erotic condition" (τὴν ἐρωτικὴν διάθεσιν) but does not necessitate its fulfilment. This is often explained as a Stoic description. However, the word διάθεσις is not used in the sense attested for the Stoics, namely as "an enduring state which additionally does not admit of degrees" (Anthony Long, David Sedley, *The Hellenistic Philosophers*, vol. I [Cambridge: CUP, 1987] 376), but rather describes a transient inner condition. This usage might be labelled as Aristotelian, but the description of the procatarctic cause as an external factor that provides for some διάθεσις has closer parallels in medical literature, particularly Galen; cf. *MM X* 242-9; *Caus. Puls.* IX 2-3; Hankinson, "Galen's Theory of Causation," *ANRW* II 37.2 (1994), 1766f. (2) In *Str.* VIII 32,4, Clement makes a distinction between pre-evident and non-evident causes and adds that while the former are grasped ἐπιλογισμῶ, the latter are grasped ἀναλογισμῶ. Again, the distinction between ἐπιλογισμός and ἀναλογισμός, and the way it is applied here, closely corresponds to the medical usage attested by Galen; cf. esp. *SI* 11 (Kühn I 77,14-78,6); for the context cf. Frede's introduction to Galen, *Three Treatises on the Nature of Science* (Indianapolis 1985) ix-xxxiv. For the history of the concept of *epilogismos* cf. Malcolm Schofield, "Epilogismos: An Appraisal," in M. Frede, G. Striker (edd.), *Rationality in Greek Thought* (Oxford: OUP, 1996) 221-237.

<sup>115</sup> Cf. Aristotle, *An. post.* II 11; Clem. *Str.* VIII 18,1. Cf. Le Boulluec, "Extraits," 116.

authority on the demonstrative method later than Aristotle and Theophrastus. He regards their *Posterior Analytics* as the best accounts written about this topic so far, and claims to have clarified some of their “rather unclear and brief statements” in his work.<sup>116</sup> It is true, he tells us that from his young age he was interested in what philosophers, “all the famous Stoics and Peripatetics” of his time, had to say that could be used for demonstrations. But he claims to have found “very little” (ὀλίγιστα), and even this was controversial, if not downright absurd.<sup>117</sup> He gives credit to his father for introducing him to geometry, mathematic and arithmetic. These disciplines saved him from scepticism by providing the geometrical method of proof. He presents his own work *On Demonstration* as a development of this method, to be used by those already trained in the “linear” proofs of geometry.<sup>118</sup> Galen might have exaggerated his achievement. But I wonder if he could have claimed so much originality for his work on demonstration if there were in circulation an earlier treatise on the same subject, elaborated, at least to some extent, in a similar manner, and possibly written by a doctor, a work wide-spread enough to reach Clement of Alexandria sometime around the turn of the 2nd and 3rd century. At any rate, neither Galen nor anyone else indicates that such treatise ever existed.

## 6. The Galen hypothesis

It remains to explore the possibility that Galen himself is the source of the passages in *Stromata* VIII discussed above. Surprising as it may sound, this explanation should not be dismissed too lightly.<sup>119</sup> Chronologically it is

<sup>116</sup> Cf. *PHP* II 2,4; II 3,1 (CMG V 4,1,2: 104,3-5; 108,22-25).

<sup>117</sup> *Lib. Prop.* (Kühn XIX 39,17-40,4).

<sup>118</sup> Kühn XIX 40,5-41,12. On geometrical (“linear”) proofs in Galen cf. Barnes, “Proofs and Syllogisms in Galen,” in *Galien et la philosophie* (Genève: Fondation Hardt, 2003) 1-24.

<sup>119</sup> Solmsen, the only scholar known to me who considers the possibility that Galen might be Clement’s source, quickly dismisses it as “dramatization,” preferring to look upon Galen as “representative of a trend.” According to Solmsen, “to think of Clement as working his way through 15 technical books about [demonstration] puts a strain on the imagination.” (“Early Christian Interest,” 286). However, Solmsen is not aware of the full scale of parallels, including some characteristic details that render the hypothesis of a “trend” unlikely. Of course, the explanation that Galen is Clement’s source does not necessarily imply that Clement worked his way through all the fifteen books of Galen’s treatise *On Demonstration*, nor even that he possessed them all.

possible. It is true that there are not many dates in Clement's career that can be fixed with certainty. But we know that he wrote the first book of *Stromata* after the death of Commodus (192)<sup>120</sup> and it is reasonable to suppose that the *terminus post quem* for the text known as *Stromata* VIII is not earlier than that.<sup>121</sup> As far as Galen is concerned, his voluminous work *On Demonstration* was written before 162.<sup>122</sup> We know that he later composed numerous treatises in which he elaborated various aspects of his theory of demonstration and two of them—*On the Demonstrative Discovery* and *Summary of the Theory of Demonstration*—seem to have been occupied with the theory of demonstration in general.<sup>123</sup> The dates of these later writings are unknown, but the date of *On Demonstration* suffices to allow for the chronological possibility of Clement's acquaintance with Galen's method of demonstration.

Do we have any evidence that Clement was acquainted with Galen? Not to my knowledge. But there are reasons to believe (1) that Clement *could* have heard about Galen, and (2) that he *could* have been interested to acquire Galen's work on the demonstrative method. That Galen was famous among his contemporaries is attested by Alexander of Aphrodisias who flourished in approximately the same time as Clement. In an oft-quoted passage Alexander mentions Galen as an example of a "man of repute" (*endoxos*) alongside with Plato and Aristotle.<sup>124</sup> An important passage in Eusebius, quoting an anonymous heresiological source, indicates that sometime at the beginning of the 3rd century there were Christians in Rome who held Galen in such high esteem that, according to Eusebius'

<sup>120</sup> Cf. *Str.* I 144,3-5.

<sup>121</sup> In order to date *Stromata* VIII more precisely, we must examine the question of its chronological relation to other books of *Stromata* (especially those where parallel motifs are found), as well as the role of *Stromata* VIII in Clement's overall project. Both these questions are controversial and cannot be addressed here. Modern discussion of the dates of Clement's writings is well summarized by Carl P. Cosaert, *The Text of the Gospels in Clement of Alexandria* (Atlanta 2008) 15-18.

<sup>122</sup> Cf. von Müller, "Über Galens Werk," 411-14.

<sup>123</sup> *Lib. Prop.* (Kühn XIX 44,17; 45,4). For the list of Galen's "books useful for demonstrations" cf. Morison, in *Cambridge Companion to Galen*, 66f.

<sup>124</sup> Alexander, *In Top.* 8,5 (CAG II.2: 549,24). For Alexander's acquaintance with Galen cf. Nutton, "Galen in the Eyes of His Contemporaries," in *From Democedes to Harvey* (London: Variorum, 1988) III, esp. 318-320. Alexander's date is determined on the basis of a dedication to the emperors Septimius Severus and Caracalla in the first lines of his *De fato* (CAG suppl. II.2: 164,3); the dedication must have been written sometime between 198 and 209; cf. Pierre Thillet, *Alexandre d'Aphrodise, Traité du destin*, Budé : Paris 1984, vii.

source, “some of them perhaps even worshipped him.”<sup>125</sup> Eusebius describes them as the followers of Theodotus the Shoemaker who was excommunicated by the Roman church in the last decade of the 2nd century.<sup>126</sup> One of the main errors of this group, as perceived by the church authorities, was their tendency to interpret the divine Scriptures by means of syllogistic figures. In order to improve their exegetical abilities they studied geometry, especially Euclid, and the writings of Aristotle, Theophrastus and Galen.<sup>127</sup> As Nutton observes, “modern scholars are agreed that what these Christians were doing was erecting a defence of Christianity (...) by the use of scientific, demonstrative logic.”<sup>128</sup> We can safely assume that Galen was popular among them because of his logical writings, especially the writings on the demonstrative method. Their choice of Galen may have been motivated by the fact that he wrote the most well-known, most elaborate and most accessible account of the topic that was available at that time. In addition, it may also have been provoked by the famous doctor’s interest in Christianity and his criticism of its demonstrative impotence.<sup>129</sup> We have seen that Clement, too, tried to employ the demonstrative method as a tool of biblical exegesis.<sup>130</sup> And he responds to similar objections against Christian faith as were those formulated by Galen.<sup>131</sup> Had Clement ever heard of Galen’s works on demonstration, he would have been intrigued to read them for precisely the same reason as the Theodotians were. But if around Clement’s time Galen’s reputation

<sup>125</sup> Eusebius, *Eccl. hist.* V 28,14 (Bardy).

<sup>126</sup> 28,9.

<sup>127</sup> 28,13f.

<sup>128</sup> Nutton, “Galen in the Eyes of His Contemporaries,” 316.

<sup>129</sup> Cf. Hermann Schöne, “Ein Einbruch der antiken Logik und Textkritik in die altchristliche Theologie,” in T. Klauser—A. Rucker (edd.), *Pisciculi: FS F. J. Dölger* (Münster 1939), 262: “Die Achtung des Galenos vor der im Leben bewährten Überzeugungstreue der Christen auf der einen Seite und auf der anderen Seite seine missbilligende Verwunderung über ihre Unzugänglichkeit für Deduktionen machen es begreiflich, dass gebildete Christen im Anfang des 3. Jh. die Mängel auszugleichen versucht haben, die der berühmte Logiker an ihnen empfunden hatte.” For Galen’s attitude to Christianity, cf. the classic study by Richard Walzer, *Galen on Jews and Christians* (London 1949).

<sup>130</sup> *Str.* VIII 2,1.4. Cf. Apostolopoulou, *Dialektik*, 93: “So ist der Beweis, wie ihn Klems versteht, die Methode der Interpretation der Bibel.” At least on one occasion (*Str.* VI 121,2) Clement detects a demonstrative syllogism in the Bible itself; cf. Apostolopoulou, *Dialektik*, 87.

<sup>131</sup> Cf. e.g. *Str.* II 8,4-9,6, where Clement tries to explain to the Greeks in their terms why faith cannot be proved. Cf. also II 24,2-3; V 18,3, and references listed above, note 38.

was already of such good standing as to be compared with that of Plato and Aristotle, we have a reason to think that Clement could have heard about him too.

These considerations, I believe, allow us to propose the following thesis: the parallels between Clement's account on demonstration and the writings of Galen are due to the fact that *Stromata* VIII 3,1-15,1 draw from a lost writing of Galen about the doctrine of demonstration. I leave open the question whether this lost writing is a part (presumably the first book or more) of Galen's treatise *On Demonstration*, or whether it is some later compendium concerned with the same topic. Its solution partly depends on another question, which I leave open too, namely whether and to what extent the remaining chapters of *Stromata* VIII could be aligned to the same source. This as well as other problems, with which the puzzling bequest of the Alexandrian teacher confronts us, must be reserved for another inquiry.