

A CASE OF (GALENIC?) NATURAL ΠΝΕΥΜΑ IN A LATE-ANTIQUÉ HOMILY OF JOHN CHRYSOSTOM?

Chris L. de Wet (University of South Africa)

The purpose of this article is to investigate evidence for a possible case of (Galenic?) natural πνεῦμα in John Chrysostom's 39th homily on 1 Corinthians and its significance for tracing the development of a tripartite physiological pneumatology in late antiquity. The article starts with an overview of the contention surrounding natural πνεῦμα in Galen's thought and the problems of the tripartite physiological pneumatology. Thereafter, the reference in John's homily is examined in detail, with special reference to John's own holistic understanding of πνεῦμα in his medical-theological framework. The article ends with some conclusions and proposals for better understanding and approaching natural πνεῦμα and the problems of the tripartite physiological pneumatology.

Keywords: John Chrysostom; *pneuma*; natural *pneuma*; Galen; tripartite physiological pneumatology.

Galen, natural πνεῦμα, and the rise of a tripartite physiological pneumatology

One of the most common, yet also, most commonly misunderstood, concepts in ancient and early modern medicine is the so-called tripartite physiological pneumatology. This medical framework suggests that human physiology is divided into three, interrelated and interconnected parts, with each part having a specific organ as its primary or governing mechanism. The primary part has the brain at its centre, then we have the second part in which the heart lies, and finally, the third part, in which the liver is central. Each of these parts with their respective organs is also a waypoint for a specific type of spirit or πνεῦμα. Πνεῦμα, in ancient Graeco-Roman thought, was more than just air taken in by an individual. It is in fact a very difficult and elusive concept to define, and it often carries different meanings depending on the genre of literature in which it occurs. Even when we limit ourselves to the medical genre, the concept remains complex. While πνεῦμα was, first and foremost, the air we took in, it had an animating and invigorating, almost mystical, quality to it. It played a role in cognition, motion, pulse, sensation, and numerous other human faculties.¹ For some time it was believed that there were

¹ For the manifold meanings and uses of πνεῦμα, see several essays in Fuller, Saunders, and Macnaughton (eds.) 2021. Long's chapter in this volume (2021:37–54) is especially illustrative for the background of this study.

three classes of πνεῦμα, namely psychic, vital, and natural πνεῦμα. It was further surmised that each of these πνεύματα corresponded to one part of the human tripartite physiology, with psychic πνεῦμα being associated with the brain, vital πνεῦμα with the heart, and natural πνεῦμα with the liver. This then represents the tripartite physiological pneumatology.

The question of where this influential physiological model originated from, however, is an entirely different and contentious matter. Julius Rocca's (2012:629–660; 2021:268–291) meticulous analyses of physiological pneumatologies, in this case, is illustrative and helpful, and I will rely first on Rocca's observations here (2012:629–660) before moving on to my own finding and proposal.

The first and earliest occurrence of what *may appear* to be a tripartite physiological pneumatology is found in the imperial physician Galen's (129–216 CE) famous and influential work, *De methodo medendi* 12.5, which reads:

τοῦ μὲν δὴ ψυχικοῦ πνεύματος ἐναργῶς ἐδείξαμεν οἷον πηγὴν τινα οὖσαν τὸν ἐγκέφαλον, ἀρδομένου καὶ τρεφομένου διὰ τε τῆς εἰσπνοῆς καὶ τῆς ἐκ τοῦ δικτυοειδοῦς πλέγματος χορηγίας. τοῦ δὲ ζωτικοῦ πνεύματος οὐχ ὁμοίως μὲν ἐναργῶς ἢ ἀπόδειξις ἦν, οὐ μὴν ἀπίθανόν γε κατὰ τε τὴν καρδίαν αὐτὸ καὶ τὰς ἀρτηρίας δοκεῖν περιέχεσθαι, τρεφόμενον καὶ τοῦτο μάλιστα μὲν ἐκ τῆς ἀναπνοῆς, ἤδη δὲ καὶ τοῦ αἵματος. εἰ δὲ ἐστὶ τι καὶ φυσικὸν πνεῦμα, περιέχουσιν ἂν καὶ τοῦτο κατὰ τε τὸ ἥπαρ καὶ τὰς φλέβας.

Of the psychic pneuma, we have clearly demonstrated that for instance, the brain is its well-head, and it is watered and nourished both by inspiration and by the retiform plexus. But in respect of the vital pneuma, the demonstration was not equally as clear, yet it appears at any rate not unlikely for it to be encompassed by the heart itself and the arteries and that it is especially nourished from respiration but also by blood. And if there is also a certain natural pneuma, it should be confined to the liver and the veins.²

It should be noted that this is the only instance where Galen speaks of φυσικὸν πνεῦμα and so the only instance where we have what resembles a type of tripartite physiological pneumatology. However, the general scholarly consensus is that we do *not* have here, in Galen, enough evidence to conclude that he subscribed to a tripartite physiological pneumatology. The problem is that we have no other reference to φυσικὸν πνεῦμα in Galen in such a context, and even here, as the reader would observe, Galen seems to be uncertain about the existence and occurrence of

² Galen, *De methodo medendi* 12.5 (Kühn 10.839–840); as is customary for Galen's works I use the edition of Karl G. Kühn (ed.), *Claudii Galeni opera omnia* (Leipzig: C. Cnobloch, 1821–1833) unless otherwise indicated. Translation here is from Rocca 2012:632.

φυσικὸν πνεῦμα. In this passage, he also seems unclear about vital πνεῦμα, but there are many other references to it in other texts of Galen which may be used to fill the gaps. The same is not true for φυσικὸν πνεῦμα. He neither defines nor gives it a specific purpose or role. He assigns it to the liver and veins, which might be his logical inclination based in the fact that he did subscribe to the Platonic tripartite division of the soul (which should be distinguished, of course, from the tripartite physiological pneumatology). Galen also refers to the teachings or opinions (δόγματα) of Plato and Hippocrates in the line just after speaking of φυσικὸν πνεῦμα. Already in 1895 Max Wellmann, in his *Die pneumatische Schule*, questioned the attribution of a tripartite physiological pneumatology to Galen based on this pericope.³ This view was later supported by Morris Cohen and Israel Drabkin (1948:486) and in a very important and influential essay by Owsei Temkin (1951:180–189), entitled ‘On Galen’s Pneumatology’. Rocca (2012; 2021) also affirms this point. Few historians of medicine today would concede that Galen advocated a tripartite physiological pneumatology.

Galen understood physiology as a system of powers or capacities that is functional through structures of organs and other accompanying systems. Along with πνεῦμα, the four humours (blood, phlegm, black and yellow bile) are central in all physiological functions.⁴ Galen was very eclectic in his medical philosophy, incorporating ‘the Platonic conception of the tripartite division of the soul [although the uncertainty about the role of natural πνεῦμα and the status of the liver in relation to it may prove problematic for this point], the Stoic notion of the governing principle (ἡγεμονικόν), as well as a syncretic adaption of the Aristotelian and Stoic concept of *pneuma*’ (Rocca 2021:268). In this system, both psychic and vital πνεύματα have important roles to fulfil, and Galen frequently elaborates on these roles in numerous writings. In *De usu partium* 7.8, for instance, Galen explains how the outside air is absorbed by the arteries in the lungs, then transported to the heart, and then finally to the ventricles of the brain.⁵ In this way we see the transformation of the outside air first into vital πνεῦμα and then into its highest form, psychic πνεῦμα. The rational soul, located in the brain, operates through psychic πνεῦμα and is essentially what constitutes the human subject as a rational being. Nothing is said about natural πνεῦμα.

So why does Galen mention natural πνεῦμα in *De methodo medendi* 12.5? As Temkin (1951:186–187) reminds us, it is important to read the statement in its broader context: Galen refers to these types of πνεῦμα in the discussion of syncope.

³ See Wellmann 1895:65–84; also Rocca 2012:631.

⁴ For more detail about Galen’s physiology, see Siegel 1968; Rocca 2003; West 2014:L121–128. For a useful overview of the reception of Galenic physiology into the late Renaissance, see Bigotti 2019.

⁵ Kühn 3.541–542; Rocca 2012:633.

Syncope is commonly understood as fainting or becoming unconscious, or ‘an acute collapse of the faculties’ (Temkin 1951:186). As with many diseases, to avoid syncope, the humours and πνεῦμα need to be kept in proper quantity and quality. Unhealthy humoral imbalance and also polluted air can affect the quality of πνεῦμα, along with emotional and physical pain, excessive activity or movement, sleeplessness, and so forth. This affects breathing and hunger, which in effect inhibits the proper activity of πνεῦμα (Temkin 1951:186). Thus, to avoid or treat syncope, the physician needs a comprehensive approach that accounts for internal and external factors and always acts in accordance with preserving πνεῦμα. But even if the context is fully understood, the role of natural πνεῦμα is not entirely clear. If we take into account Rocca’s (2021:268–269) recent findings about πνεῦμα as a holistic concept in Galen, we might surmise that Galen was inclined to, in some way, connect πνεῦμα also to the liver because of its important nutritive attributes. It would have been a useful and supportive premise in his broader argument about the broad approach to managing syncope. I quote Temkin’s (1951:188) conclusion about natural πνεῦμα which is still relevant for the discussion at hand:

The term ‘natural spirit’ was current at Galen’s time. Tradition even had it that the ancients had assumed two spirits, the psychic and the natural. He himself believed in the existence of pneuma in the venous blood. Thus he mentioned the natural spirit as a possibility at least. If it existed, it had to be assigned a centre. The liver, as a compact organ, was not altogether a suitable seat for any pneumatic substance. However, it was the seat of the concupiscent soul and of the natural faculty, and the origin of the veins. If a natural spirit existed, it should have its seat in the liver. But the canonization of the three spirits came later.

We should remember, therefore, that Galen allows for the *possibility* of a natural πνεῦμα that resides in the liver, a point he allows possibly due to his preference for a Platonic tripartite division of the soul. The text of the pseudo-Galenic *Definitiones medicae* does refer to natural πνεῦμα, but in a somewhat different context and physiological framework.⁶ Although some assume this work to be the labour of a member of the so-called pneumatic school of medicine, Vivian Nutton (2006) warns that ‘the theoretical standpoint of its author cannot be explained by membership of an individual school.’ The *Definitiones medicae* was generally attributed to Galen, but already in late antiquity the imperial physician Oribasius questioned its authenticity (Nutton 2006). Wellmann (1895:66) dates it to toward

⁶ *Definitiones medicae* 73–74 (Kühn 19.365).

the end of the first century CE. In other words, the possible influence of this text and its use of natural πνεῦμα in late antiquity is contested.

The first proper schematisation of a tripartite physiological pneumatology may be found in the ninth-century Nestorian Christian physician and translator, Ḥunayn Ibn Ishāq, and then, ‘it passed, in an abridged, truncated form known as the *Isagoge*, to Constantine the African, and filtered throughout the West via the influential School of Salerno. It was Ḥunayn who, expanding a single citation from Galen, where three pneumata are mentioned but only the psychic form unambiguously referred to, formally welded a completely tripartite pneumatic template ...’ (Rocca 2012:631). This influence, as Rocca demonstrates, persisted well into the early modern period, as seen, for instance, in Robert Burton’s (1577–1640) *The Anatomy of Melancholy* (1621) (Rocca 2012:630). With reference to Ḥunayn Ibn Ishāq, Rocca (2012:631) is careful and conscientious to state that the ‘scheme was formally laid down, *albeit not created* [my italics]’ by Ḥunayn. It is this point that will be explored further in this essay. I will suggest that we already find the seeds of a tripartite physiological-pneumatological scheme in late antiquity, particularly in a homily preached by one of the period’s most prolific Greek homilists.

A case of natural πνεῦμα in a late-antique homily of John Chrysostom?

John Chrysostom (ca. 349–407 CE) was born in Syrian Antioch to a wealthy family. His father, Secundus, an influential civil servant in the office of the military commander of the Orient, passed away while John was still young. He was raised by his mother Athusa, a Christian. His mother ensured he had a liberal education (Mayer and Allen 1999:4–7), and it is possible that the famous Antiochene sophist, Libanius, was one of his teachers.⁷ John sided with the pro-Nicene Christian group of Antioch, and was baptized by the bishop Meletius. It then seems as if John spent some time in ascetic pursuits, first joining the ascetic school of Diodore and later living a solitary life as a monk in the mountains (Mayer 2006:451–455; Illert 2000; Kelly 1998:19–20). John’s monastic sojourn was short-lived, possibly due to health reasons, and he soon returned to the city. He was ordained in 381 as a deacon by Meletius, and later, in 386, as a priest by Flavian. At this time, John was very active as a preacher and most of his extant sermons seem to date from this period (Mayer and Allen 1999:6–7). A major turning point in John’s life occurred in September 397, when he was nominated and eventually consecrated as bishop of the imperial capital of Constantinople (Kelly 1998:104–106). John’s tenure as bishop lasted for six years, after which he was eventually ousted and exiled after a trial at the Synod

⁷ We are not sure whether Libanius was in fact a teacher of Chrysostom; see Malosse 2008; Nesselrath 2015.

of the Oak in 403. The reasons for John's political difficulties in Constantinople are notoriously difficult to determine and unravel (Mayer 2013; Van Nuffelen 2013). It was most likely an array of political and ecclesiastical factors that led to John's exile. John died in exile in September 407 CE in the region of Pontus. John's reputation was posthumously rehabilitated in the fifth century, and he later received the nickname 'Chrysostomos' or 'Golden-Mouthed' because of his renowned eloquence.

Several recent studies on John's social, philosophical, and theological thought highlight his reliance on medical discourse and, especially, what is known as psychic therapy (Mayer 2015a:11–26; 2015b:337–351; Wilson van Veller 2015; Wright 2019:361–410; De Wet 2019b:410–463; 2019a). Medical discourse is quite common in John's works, and it has proven quite helpful to approach John even as a type of lay medical philosopher (de Wet 2019b:413–415). John subscribes mainly, but not exclusively, to a Galenic framework of anatomy and physiology, a phenomenon that was especially common in the Greek East.⁸ John uses medical concepts, such as anatomy, physiology, hygiene, and pathology, in many of his sermons to support the specific argument he is making. His use of medical discourse ranges from the metaphorical use of medicine and health to the referencing of health conditions, disabilities, and illnesses as being directly related to psychic matters, matters of the soul. We do not have in John a formal medical expert or physician, such as we find in Basil of Ancyra (d. 362 CE) or Nemesius of Emesa (350–420 CE); both were church leaders whose works display advanced medical knowledge of the expert kind. Basil may have been a physician (Shaw 1997:579–596) and Nemesius, although not a physician proper, was a medical philosopher and astute reader of Galen and other medical writers (Dusenbury 2021; De Wet 2021:206–232). But John does display advanced knowledge of often complicated medical concepts, and he does not hesitate to use them in his sermons. The occurrence of this type of lay medical expertise, especially among heads of households and monasteries, was commonplace in late antiquity. It is also in this context, then, that John provides us with an interesting and illustrative glimpse into the reception of natural πνεῦμα, whether Galenic or not, in late antiquity.

A possible short reference to natural πνεῦμα is present in one of John's homilies on 1 Corinthians, in which he speaks about the dangers of gluttony. John states:

Ἐγὼ δὲ καὶ ἰατρῶν ἤκουσα λεγόντων, ὅτι πολλοὺς καὶ πρὸς ὕψος ἀναδραμεῖν ἢ τρυφή μάλιστα ἐκόλυσε. Τοῦ γὰρ πνεύματος ἐγκοπτομένου τῷ πλήθει τῶν καταβαλλομένων καὶ περὶ τὴν τούτων ἐργασίαν

⁸ Temkin 1973, esp. 64; Merideth 1999; Samellas 2002; more generally, see Walzer 1949.

ἀσχολουμένου, ὅπερ εἰς αὐξήσιν ἔδει προχωρεῖν, τοῦτο δαπανᾶται εἰς τὴν τῶν περιττῶν ἐργασίαν.

Furthermore, I have heard a physician say that many have been bound from reaching their proper height by nothing so much as luxurious living, since the breath (πνεύματος) is obstructed by the multitude of things which are swallowed and being used in the digestion of such things, that which should assist with growth is spent on this digestion of excess foodstuffs.⁹

As we discuss this short reference (although slightly longer than Galen's reference in *De methodo medendi*), it is important to note, at the outset, that John does not use the technical term φυσικὸν πνεῦμα. This does pose a challenge to our reading. However, when one examines the sense and context in which John uses the word πνεῦμα—namely with reference to the *nutritive* qualities of πνεῦμα—it could not refer to any other form of πνεῦμα, neither psychic or vital, and therefore it is highly likely that it could be an informal reference to the natural πνεῦμα. If we further consider Rocca's (2021) point about πνεῦμα as a holistic concept in ancient medicine, it is not surprising that a non-expert like John would simply use πνεῦμα as an umbrella term for the various manifestations of πνεῦμα. I will elaborate further on these points below. As is evident from the pseudo-Galenic *Definitiones medicae* and Temkin's (1951:188) conclusion cited earlier, if natural πνεῦμα was a current concept in Galen's time, it most likely did not disappear in John's time—quite the opposite, it may seem, if it was in the process of being schematised in the East.

What did John know about the medical use of the term πνεῦμα? John does seem to grasp the difference between and functions of psychic and vital πνεῦμα. In his eleventh homily on Ephesians, Chrysostom again speaks of πνεῦμα in a general sense, as a non-expert. Yet, he says that the heart receives πνεῦμα, and he also refers to psychic πνεῦμα being distributed by the brain. In this homily, Chrysostom explains:

Καθάπερ γὰρ ἐπὶ τοῦ σώματος ἐστὶν ὄργανα τοιαῦτα δεκτικὰ, οὕτως ἐστὶ καὶ ἐπὶ τοῦ πνεύματος, τῆς ρίζης ἄνωθεν οὔσης πάσης· οἶον ἢ καρδία, τοῦ πνεύματος· τὸ ἥπαρ, τοῦ αἵματος· ὁ σπλὴν, τῆς χολῆς καὶ ἄλλα ἄλλου· πάντα δὲ ταῦτα ἀπὸ τοῦ ἐγκεφάλου τὴν αἰτίαν ἔχει· οὕτω καὶ ὁ Θεὸς ἐποίησε, τὸν ἄνθρωπον σφόδρα τιμῶν, καὶ οὐ βουλόμενος αὐτοῦ ἀπέχειν, τὴν μὲν αἰτίαν αὐτὸς ἀναρτησάμενος, συνεργοὺς δὲ ἑαυτῷ καταστήσας.

⁹ John Chrysostom, *Homilia 39 in epistolam ad I Corinthios* 9; the Greek text is taken from Field's edition (1847:2:505). Translations of John's homilies are from the *NPNF*, which in some cases I have only slightly revised or adapted.

For as there are in the body such recipient organs, as we have seen, so is it also with the [Holy] Spirit (τοῦ πνεύματος), the whole root/source being from above. For example, the heart is the recipient of the breath (τοῦ πνεύματος), the liver of the blood, the spleen of the bile, and the other organs, some of one thing, others of another, but all these have their source from the brain. So also has God done, highly honouring humanity, and being unwilling to be far from them, He has made Himself indeed the source of his dependence, and has constituted them fellow-workers with Himself.¹⁰

Earlier in the same homily, he states:

Καθάπερ τὸ πνεῦμα τὸ ἀπὸ τοῦ ἐγκεφάλου καταβαῖνον, τὸ διὰ τῶν νεύρων [τὸ] αἰσθητικὸν οὐχ ἀπλῶς δίδωσι πᾶσιν, ἀλλὰ κατὰ ἀναλογίαν ἐκάστου μέλους, τῷ μὲν δυναμένῳ πλέον δέξασθαι, πλέον, τῷ δὲ ἐλάττω, ἔλαττον (τοῦτο γὰρ ἐστὶν ἡ ρίζα, τὸ πνεῦμα)· οὕτω καὶ ὁ Χριστὸς· καθάπερ γὰρ μελῶν τῶν ψυχῶν εἰς αὐτὸν ἀνηρητημένον, ἡ πρόνοια αὐτοῦ καὶ ἡ χορηγία τῶν χαρισμάτων κατὰ ἀναλογίαν ἐν μέτρῳ τὴν ἐνὸς ἐκάστου μέλους αὔξησιν ποιεῖται.

In the same way as the spirit (or vital principle), which descends from the brain, communicates the sensitive faculty which is conveyed through the nerves, not simply to all the members, but according to the proportion of each member, to that which is capable of receiving more, more; to that which is capable of less, less (for the spirit is the root or source), so also is Christ. For the souls of men being dependent upon Him as members, His provident care, and supply of the spiritual gifts according to a due proportion in the measure of every single member, effects their increase.¹¹

There is a clear overlap between physiological dynamics in the human body, especially with regards to πνεῦμα as breath, and the dynamics of the church, the body of Christ and the role of the Holy Πνεῦμα (with reference to 1 Cor. 12:12–27). These two conceptual structures reflect one another in Chrysostom's thought; the *ordo naturalis* is (or should be) a reflection of the *ordo Dei*. At times it is even difficult to ascertain whether Chrysostom is referring to πνεῦμα as breath or as the Holy Spirit, because they are so inextricably related. What we seem to observe here is another rather holistic understanding of πνεῦμα in John's medical-theological thought. He seems to directly link the πνεῦμα that the body absorbs with the Holy Πνεῦμα, God's Spirit, thereby expanding the range of pneumatic activity and linking God's Πνεῦμα to the life-sustaining functions of πνεῦμα more generally.

¹⁰ John Chrysostom, *Homilia 11 in epistulam ad Ephesios 4* (Field 1852:221).

¹¹ John Chrysostom, *Homilia 11 in epistulam ad Ephesios 3* (Field 1852:220).

Chrysostom therefore clearly and in detail understands the role of psychic and vital πνεῦμα, so much so that he is able to structure these in a holistic framework that conceptually and metaphorically links the different types of πνεῦμα and their functions with ecclesiological dynamics (see also Wright 2019:361–410, who has written extensively on this in John’s works). This resembles what we have in Galen, where there is also a complex and detailed elaboration of the nature and functions of psychic and vital πνεῦμα, but less of natural πνεῦμα. Let us now return to the possible allusion to natural πνεῦμα in the homily on 1 Corinthians.

The context in which natural πνεῦμα is referenced relates to the threat of gluttony and resultant obesity. We should keep in mind that gluttony was a grave sin in the early Christian hamartiological imagination. For some early Christian thinkers, it may even have been the original sin that Adam and Eve committed (Shaw 1998; De Wet 2019b, 422–424; Robinson 2020, 1–21; Kitchen 2010, 49–63). In the context of this pericope, John explains the pulmonary and cardiovascular dangers of obesity, especially the lethargy it causes.¹² He most likely witnesses the typical breathing difficulties caused by obesity—today known as Obesity Hypoventilation Syndrome (OHS).¹³ Since the glutton (who to John is recognisable by his or her obese state), has breathing difficulties, there must be physiological problems related to the transmission and distribution of πνεῦμα in the body.¹⁴

The notion that the πνεῦμα referenced by John aids in digestion and growth, supports an association with the liver (because of the complex structure of the vascular system in the liver, Galen was more hesitant to make this link explicit.)¹⁵ The πνεῦμα John mentions here in the homily on 1 Corinthians appears then to be a reference to the nutritive natural πνεῦμα, which assisted in physical growth. It is ambiguously linked to the blood of the liver, which John does mention in the homily on Ephesians. General distinctions between that which is psychic, vital, and natural are, of course, very common in ancient medicine (but without reference to natural πνεῦμα). In Galen, the natural is always related to the nutritive faculty and, thus, the liver, while the vital, for example, is always related to pulse.¹⁶ Christian authors, however, were known to adapt Galenic and other medical principles and frameworks. Nemesius, for example, also from the Roman East where John was

¹² On the history of coronary disease in late antiquity and the middle ages, see Leibowitz 1970:41–48; Aird 2011:118–129.

¹³ For more on the nature, diagnosis, and treatment of Obesity Hypoventilation Syndrome, see Masa et al. 2019:1–14.

¹⁴ In another homily, *De stultis* 2.8 (PG 49.44.54–45.7), John refers to the breathing problems gluttons experience during sleep, that is, sleep apnoea.

¹⁵ See Galen, *De anatomicis administrationibus* 6.11 (Kühn 2.575–577).

¹⁶ Galen, *De praesagitione ex pulsibus* 4.12 (Kühn 9.424); *Synopsis de pulsibus* 21 (Kühn 9.492); see also Sharples and Van der Eijk 2008:145.

based, classifies pulse and nutrition (and also reproduction) into the realm of nature rather than soul, as Galen did.¹⁷ So, John is not alone in adapting medical knowledge to suit his moral-theological agenda. Over-eating inhibits the intake of this form of πνεῦμα, resulting in developmental deficiencies, such as stunted growth. In the theological sense, as we have seen, just as the different forms of πνεῦμα in the body sustain it and make it grow, so the Holy Πνεῦμα sustains and nourishes the body of Christ, which is the church, also making it grow. In other words, the Holy Πνεῦμα is both nutritive and animative in the ecclesiastical sense. Although John does not explicitly reference psychic, vital, or natural πνεῦμα, their functions are holistically ordered and physiologically and ecclesiologically structured into John's own pneumatic schematisation.

Furthermore, if the doctor who possibly advised Chrysostom was referring to natural πνεῦμα, it is evidence of a possible misinterpretation or a different development of Galenic (or pseudo-Galenic) pneumatology (and natural πνεῦμα) by some individual doctors already in late antiquity. It comes as no surprise that John, who was not a doctor or medical expert per se, connected natural πνεῦμα to the nutritive powers of the liver, especially after his talk with this unknown doctor. I argue that this is evidence of a move already in late antiquity toward a tripartite physiological pneumatology; a case in which natural πνεῦμα is not only alluded to but incorporated in John's complex medical-theological pneumatology.

Conclusions

From our reading of a possible reference to natural πνεῦμα in John's homily, we may now propose some conclusions. First, although John does not refer to natural πνεῦμα explicitly, the link between πνεῦμα or breath and the nutritive and developmental capacities of the individual, presupposes that John here thinks of natural πνεῦμα (since no connotation between nutrition and vital or psychic πνεῦμα exists). This has serious implications for the study of the social and cultural history of medicine in antiquity, since it means that if we are to trace the development of medical concepts and ideas, we need to also consider sources that are not, strictly speaking, of the conventional medical genre. It complicates the work even more since non-experts may refer to a medical concept without using technical terminology, as we have here. To address this challenge, there must be a call for social, cultural, and religious historians of antiquity to work more closely with medical historians, and vice versa. This would enable us to better grasp and account for the popular dissemination of medical ideas in antiquity.

Second, we do have traces in this homily from John of some type of pneumatological schematisation in late antiquity. It is not yet the formal tripartite

¹⁷ Nemesius, *De natura hominis* 22–23; Sharples and Van der Eijk 2008:145–150.

physiological pneumatology we would find in Ḥunayn Ibn Ishāq and the *Isagoge*, but it remains a complex and, in some ways, holistic and tripartite, scheme that incorporates not only accounts for πνεῦμα as breath, but directly links the psychic, vital, and nutritive or natural qualities of πνεῦμα with the action of the Holy Πνεῦμα. If we consider John's scheme we have outlined here, as also noted by Wright (2019:361–410) and, for instance, Nemesius's adaptation of Galen's thought, a more cautious approach to the practice of schematisation, more generally, should be followed. Rather than starting with a well-known schematisation for the ninth century, we should account for the possibility that there were already various schematisations present in late antiquity, many of them even popularly disseminated through the early Christian preaching and teaching of moral philosophy.

Third, and related to the point above, we most likely had late antique pneumatological schematisations among physicians from whom we do not have a literary remnant. These physicians may too have had an eclectic and adapted pneumatology that was influenced not only by conventional medical ideas, like those of Galen and later Galenists, but also by Christian theological principles. The point is therefore that the direction of influence may have gone both ways. Christian teaching would have favoured and sustained any tripartite schematisation, not only because of conceptualisations of God as a Trinity, but also because of early Christian tripartite anthropologies that approached the human subject as body, soul, and spirit. A tripartite physiological pneumatology may have been inevitable, in the end. Ḥunayn, after all, was also a Christian and deeply shaped by Christian beliefs and practices.

It is true that such a conclusion complicates the task of writing a social history of medicine but, after all, as the renowned historian of religions, Jonathan Z. Smith (1993:290) so eloquently remarks: 'The historian's task is to complicate not to clarify. He [sic] strives to celebrate the diversity of manners, the variety of species, the opacity of things.'

BIBLIOGRAPHY

- Aird, W C 2011. Discovery of the cardiovascular system: From Galen to William Harvey. *Journal of thrombosis and haemostasis* 9:118–129.
- Bigotti, F 2019. *Physiology of the soul: Mind, body and matter in the Galenic tradition of the Late Renaissance (1550–1630)*. Turnhout: Brepols.
- Burton, R 1621 [1903]. *The anatomy of melancholy*. London: George Bell and Sons.
- Cohen, M R and Drabkin, I E 1948. *A source book in Greek science*. Cambridge, MA: Harvard University Press.

- De Wet, C L 2019a. The formation of masculinity in John Chrysostom's medical-theological discourse. PhD Dissertation, Radboud University Nijmegen.
- 2019b. The preacher's diet: Gluttony, regimen, and psycho-somatic health in the thought of John Chrysostom. In De Wet, C L & Mayer, W (eds.), *Revisioning John Chrysostom: New approaches, new perspectives*, 410–463. Leiden: Brill.
- 2021. Nemesius of Emesa on desire, pleasure, and sex: A case of the medical making of an early Christian sexual culture. *Religion and Theology* 28:206–232.
- Dusenbury, D L. 2021. *Nemesius of Emesa on human nature: A cosmopolitan anthropology from Roman Syria*. Oxford: Oxford University Press.
- Field, F 1854–1862. *Ioannis Chrysostomi interpretatio omnium epistularum Paulinarum*. 7 vols. Oxford: J H Parker.
- Fuller, D, Saunders, C and Macnaughton, J (eds.) 2021. *The life of breath in literature, culture and medicine: Classical to contemporary*. London: Palgrave Macmillan.
- Illert, M 2000. *Johannes Chrysostomus und das antiochenisch-syrische Mönchtum. Studien zu Theologie, Rhetorik und Kirchenpolitik im antiochenischen Schrifttum des Johannes Chrysostomus*. Zürich: Pano.
- Kelly, J N D 1998. *Golden Mouth: The story of John Chrysostom—ascetic, preacher, bishop*. Ithaca, NY: Cornell University Press.
- Kitchen, R A 2010. The lust of the belly is the beginning of all sin: A practical theology of asceticism in the *Discourses* of Philoxenos of Mabbug. *Hugoye: Journal of Syriac Studies* 13:49–63.
- Kühn, K G (ed.) 1821–1833. *Claudii Galeni opera omnia*. Leipzig: C Cnobloch.
- Leibowitz, J O 1970. *The history of coronary heart disease*. Berkeley: University of California Press.
- Long, A A 2021. Pneumatic episodes from Homer to Galen. In Fuller, D, Saunders, C and Macnaughton, J (eds.), 37–54.
- Malosse, P-L 2008. Jean Chrysostome a-t-il été l'élève de Libanios? *Phoenix* 62:273–280.
- Masa, J F, Pépin, J-L, Borel, J-C, Mokhlesi, B, Murphy, P B and Ángeles Sánchez-Quiroga, M 2019. Obesity Hypoventilation Syndrome. *European Respiratory Review* 28:1–14.
- Mayer, W 2006. What does it mean to say that John Chrysostom was a monk? *Studia Patristica* 41:451–455.
- 2013. Media manipulation as a tool in religious conflict: Controlling the narrative surrounding the deposition of John Chrysostom. In Mayer, W and Neil, B (eds.), *Religious conflict from early Christianity to the rise of Islam*, 151–168. Berlin: De Gruyter.

- 2015a. Medicine in transition: Christian adaptation in the later fourth-century East. In Greatrex, G and Elton, H (eds.), *Shifting genres in late antiquity*, 11–26. Farnham: Ashgate.
- 2015b. The persistence in late antiquity of medico-philosophical psychic therapy. *Journal of Late Antiquity* 8:337–351.
- Mayer, W and Allen, P 1999. *John Chrysostom*. London: Routledge.
- Merideth, A E 1999. Illness and healing in the early Christian East. PhD dissertation, Princeton University.
- Migne, J-P (ed.) 1857–1886. *Patrologiae cursus completus: Series graeca* [PG]. 162 vols. Paris: Migne.
- Nesselrath, H-G 2015. Der Heide Libanius und der Christ Johannes Chrysostomos—Lehrer und Schüler? In Georges, T *et al.* (eds.), *Bedeutende Lehrerfiguren: von Platon bis Hasan al-Banna*, 155–177. Tübingen: Mohr Siebeck.
- Nutton, V 2006. Definitiones medicae. In Cancik H *et al.* (eds.), *Brill's Pauly online*. Leiden: Brill.
- Robinson, D 2020. *Food, virtue, and the shaping of early Christianity*. Cambridge: Cambridge University Press.
- Rocca, J 2003. *Galen on the brain: Anatomical knowledge and physiological speculation in the second century AD*. Leiden: Brill.
- 2012. From doubt to certainty. Aspects of the conceptualisation and interpretation of Galen's natural pneuma. In Horstmanshoff, M *et al.* (eds.), *Blood, sweat and tears: The changing concepts of physiology from antiquity into early modern Europe*, 629–660. Leiden: Brill.
- 2021. Pneuma as a holistic concept in Galen. In Thumiger, C (ed.), *Holism in ancient medicine and its reception*, 268–291. Leiden: Brill.
- Samellas, A 2002. *Death in the eastern Mediterranean (50–600 AD). The Christianization of the East: An interpretation*. Tübingen: Mohr Siebeck.
- Sharples, R W and Van der Eijk, P J (trans.) 2008. *Nemesius: On the nature of man*. Liverpool: Liverpool university press.
- Shaw, T M 1997. Creation, virginity and diet in fourth-century Christianity: Basil of Ancyra's *On the true purity of virginity*. *Gender & History* 9:579–596.
- 1998. *The burden of the flesh: Fasting and sexuality in early Christianity*. Minneapolis, MN: Fortress.
- Siegel, R E 1968. *Galen's system of physiology and medicine: An analysis of his doctrines and observations on blood flow, respiration, humors and internal diseases*. Basel: Karger.
- Smith, J Z 1993. *Map is not territory: Studies in the history of religions*. Chicago: University of Chicago Press.
- Temkin, O 1951. On Galen's pneumatology. *Gesnerus* 8:180–189.

- 1973. *Galenism: Rise and decline of a medical philosophy*. Ithaca, NY: Cornell University Press.
- Van Nuffelen, P 2013. Theophilus against John Chrysostom: The fragments of a lost *Liber* and the reasons for John's deposition. *Adamantius* 19:138–155.
- Walzer, R 1949. *Galen on Jews and Christians*. London: Oxford University Press.
- Wellmann, M 1895. *Die pneumatische Schule. Bis auf Archigenes*. Berlin: Weidmann.
- West, J B 2014. Galen and the beginnings of Western physiology. *American Journal of Physiology: Lung Cellular and Molecular Physiology* 307:L121–128.
- Wilson van Veller, C 2015. Paul's therapy of the soul: A new approach to John Chrysostom and anti-Judaism. PhD dissertation, Boston University.
- Wright, J 2019. Brain, nerves, and ecclesial membership in John Chrysostom. In De Wet, C L and Mayer, W (eds.), *(Re)visioning John Chrysostom: New theories and approaches*, 361–410. Leiden: Brill.