

The ‘Bundle Theory’ in Gregory of Nyssa’s *In hexaemeron*

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Abstract:

In the *Apologia in hexaemeron*, as well as the *De anima et resurrectione* and *De opificio hominis*, Gregory of Nyssa is well-known for proposing that sensible particulars are each merely a combination of qualities and properties without an underlying substrate—i.e. in the Platonist sense of prime matter as a formless substrate. While recent scholars have drawn comparisons of Gregory’s framework to those like Plotinus and Porphyry, who maintain a similar, ‘bundle theory’ conception of sensibles, few have looked at the broader context and language of Gregory’s framework, namely where Gregory argues for the immanent existence of natural kinds from the first day of creation. In this light, I argue in this chapter that Gregory’s ‘bundle theory’ should be understood as approximating an Aristotelian notion of matter, i.e. as determinate potencies in relation to a defined, immanent *ousia*.

Keywords:

Gregory of Nyssa, particulars, bundle theory, matter, Aristotle, Middle Platonism, Plotinus

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1. Introduction

One notable feature of Gregory of Nyssa’s *Apologia in hexaemeron* is his description of the various kinds of created, physical beings as composed out of a plurality of *logoi* (i.e. ‘reasons’ or, as in this case, ‘principles’)² without any underlying substrate, whether something like prime matter or (apparently) Aristotelian primary substance (πρώτη οὐσία).³ We see this in the beginning of the text, when in his exposition on Genesis’ account of the first day of creation, Gregory claims that matter (ὕλη) is constituted from:

the light, the heavy, the dense, the rare, the pliant, the resistant, the liquid, the dry, the cold, the hot, shape, surface, extension—which are all in themselves mere ideas and concepts (ἐννοιαί ψιλαί καὶ νοήματα). For none of these on its own is matter, but when they combine with one another, matter comes into being.⁴

¹ I would like to thank Johannes Zachhuber, Anna Marmodoro, and Andrew Radde-Gallwitz for inviting me to present an early version of this paper for a workshop on Gregory of Nyssa’s *Apologia in hexaemeron* on June 3–5, 2022, and with special thanks to the other participants of the workshop for their feedback. I also wish to thank Jan Opsomer, Gerd Van Riel, Peter Adamson, Alberto Kobec, Mareike Hauer, Denis Walter, Alan Brown, John Whitty, and George Karamanolis for discussing the various early drafts leading up to this final chapter. Finally I wish to thank the Fonds Wetenschappelijk Onderzoek (FWO), within the framework of the project, ‘Substance and the Sensible World between Pagan Platonism and Early Byzantine Christians’ (grant ref. 3H210442), for their generous support in the preparation of this article.

² The multiple senses of *logos/-oi* are well-known in the literature: see e.g. Van Riel and Wauters, ‘Bundle Theory’, 406–408, 418. For a discussion of *logoi* in Gregory, see Johannes Zachhuber’s chapter [[xxx]] in this volume.

³ See below, page [[9]], n. 58.

⁴ Gregory of Nyssa, *In hex.* 7, 16.6–9. (Unless otherwise noted, all translations from *In hex.* by Radde-Gallwitz.) It should be noted in this passage that Gregory does *not* use the term λόγος/-οι for each property, but rather ἐννοιαί ψιλαί καὶ νοήματα, whereas in *De an. et res.* 94.8–12 properties like ‘extension’, ‘shape’, and so on are each described as a λόγος: cf. below, n. 33. It

Gregory argues that matter has no existence, taken by itself, but results from the composition of these distinct properties. This fits his description of other sensible kinds and individuals that result from the composition of different elements elsewhere in the *Apologia*. Furthermore, Gregory describes body and ‘corporeal nature’ (τὴν τοῦ σώματος φύσιν) in other texts, like the *De anima et resurrectione*, in similar terms. From a contemporary philosophical perspective, this is reminiscent of a ‘bundle theory’ of substance, according to which particulars are each nothing but a composition of distinct properties without a substrate immanent within the thing to anchor those properties: in other words, there is no distinct ‘nature’ or ‘substance’ corresponding to ‘man’, ‘ox’, or, in the case of the examples above, matter and body.

Yet in what sense does Gregory hold a bundle theory? Certain scholars have, for instance, noted parallels between Gregory’s formulation and Plotinus’ version of the bundle theory,⁵ as seen in texts like *Ennead* VI.3.8, according to which the sensible particular is a conglomerate (συμφορησις) of matter and qualities: ‘substance’, for sensible particulars, is then simply ‘the whole out of all the properties’ (τὸ ὅλον τὸ ἐκ πάντων), rather than the Aristotelian notion of a distinct substrate (ὑποκείμενον) which anchors the conglomerate of matter and properties.⁶ The lack of a substrate would suggest that there is no substantial nature or quality which orders the other qualities and properties making up the conglomerate—and indeed, Plotinus affirms as much: ‘there is no need to object if we make sensible substance (τὴν οὐσίαν τὴν αἰσθητήν) out of non-substances, for even the whole is not true substance but imitates the true substance’.⁷ Though Plotinus denies substancehood to sensible particulars, he does not rule out substance *as such*, but rather maintains that the conglomerate making up particulars ‘imitates’ substance, i.e. as the intelligible Platonic Forms that exist in Intellect. One could construe Gregory’s version of the bundle theory in a similar way to Plotinus’: even though (as we will see) matter (ὕλη) itself for Gregory is also characterized as a bundle of properties, in contrast to Plotinus,⁸ the sensible particular mirrors its respective substance, or *logos*, as it exists in the mind of God.

might well be that Gregory is intentional in using ψιλός/νόημα, rather than λόγος, to indicate each property in matter, where the λόγος could indicate the immanent *ousia* in matter, rather than the qualities (special thanks to Johannes Zachhuber for the suggestion). On the other hand, whether Gregory implicitly uses ‘mere ideas and concepts’ in the same way as the correlative *logoi* in the *De an. et res.* passage is unclear. This possible interpretation bears further reflection in comparison with the parallel arguments that use λόγος/-οι in *De an. et res.* 94.8–12 and *De hom. opif.*, PG 44, 212.46–213.29 (cf. n. 34), unfortunately beyond the confines of this chapter.

⁵ See e.g. Van Riel and Wauters, ‘Bundle Theory’, 407, and Karamanolis, *Early Christianity*, 86. I plan to discuss this connection in more detail in a later paper (see also n. 78, below).

⁶ Plotinus, *Enn.* VI.3.8.30. On Plotinus’ ‘bundle theory’ of sensible particulars, see Kalligas, ‘Structure of Appearances’; Chiaradonna, ‘Substance’, 224–225; and Chiaradonna, ‘Plotinus on sensible particulars’, esp. 57–60. It should also be noted that there is still dispute in the literature over how to interpret Plotinus’ ‘bundle theory’ in texts like *Enn.* VI.3.8 in comparison with other texts where he seems to affirm a hierarchy between essential and non-essential properties in particulars (e.g. *Enn.* II.6.2.20–26): on the latter see Karamanolis, ‘Plotinus on Quality’.

⁷ Plotinus, *Enn.* VI.3.8.30–32 (trans. Armstrong).

⁸ In this, my chapter follows and builds on the thesis of Van Riel and Wauters, ‘Bundle Theory’, for a two-fold ‘bundle theory’ in Gregory: between (1) that of matter as a substrate underlying the individual, and (2) that marking out the sensible individual—the latter of which Sorabji and other scholars have mostly focused on. See more below.

Indeed, certain scholars, like Richard Sorabji, take up a version of this reading when they construe the properties making up sensible particulars as identical to, or at least directly continuous with, the *logoi* in the mind of God.⁹ If the properties constituting the particular are divine thoughts, it would suggest a kind of Berkeleyan Idealism, i.e. that what are perceived are divine ideas in their combination outside the divine nature.¹⁰ This would suggest that the particular's unity, resulting from the combination of its properties, as *logoi* in God's mind, is ultimately grounded in the mind of God, and is hence not immanent within the particular.

Given these readings, I think Gregory's notion of sensible particulars as 'bundles' of properties needs a more careful reconsideration, especially when he raises the argument in the *Apologia in hexaemeron*. As I will argue in this chapter, Gregory's emphasis on the concrete existence of all the natural kinds of beings on the first day of creation implies that the conglomeration of properties presuppose an immanent essential nature, or substance, which orders those properties. The 'bundle' of properties in a physical being alone does not, then, describe its nature or *ousia*, but instead indicates the matter of a specific kind of being—a view which tracks closely with an Aristotelian notion of proximate matter.¹¹ In this sense, Gregory's position runs counter to Plotinus', even though Gregory borrows his formulation for the bundle of properties from Plotinus. And as we will see, Gregory's emphasis on the immanence of the natural kinds of beings on the first day of creation implicitly refutes an Idealist reading of his bundle theory.

2. Matter and Body Between *In hexaemeron* and Gregory's Other Texts

To understand the context of *In hex.* 7, where Gregory introduces the bundle theory, we should begin with his interpretation of the first verse of Genesis, 'In the beginning God made the heaven and the earth'. One curiosity in Gregory's preface to his interpretation is that 'in the case of the divine nature, the power (*δύναμις*) is coincident (*σύνδρομος*) with the decision (*βουλήσει*),¹² and the will (*θέλημα*) becomes the measure (*μέτρον*) of the power of God'.¹³ Gregory here attempts to connect the three aspects of power, decision/will, and measure, which we could reduce to two relatively opposed terms: between power and measure. Yet one might ask, why worry whether these

⁹ See e.g. Sorabji, *Matter, Space and Motion*, 52–56; Sorabji, *Time, Creation, and the Continuum*, 290–294; and Karamanolis, *Early Christianity*, 86–88.

¹⁰ As Sorabji, *Matter, Space and Motion*, 54 concedes, this is unlike Berkeley, for whom 'the Creation takes the form of God making the ideas in his mind perceptible to others, whereas, according to Gregory, it consists at least partly in God's bundling the ideas together into a concurrence (*sundrome*)'. See Hibbs, 'Berkeleyan Idealist', who critiques the association.

¹¹ Here I use 'proximate matter' in the sense of indicating the immediate, material components out of which a thing is composed (e.g. the proximate matter of human being includes bone and blood, or that of a box includes wood ready for a wooden box); this is in juxtaposition to the issue of 'prime matter' in Aristotle, on which see below, pages [[9–12]].

¹² Here I diverge from Radde-Gallwitz's translation, 'determination', opting for a more literal reading of *βουλήσει* in this context.

¹³ Gregory, *In hex.* 7, 14.15–18. Cf. a notable parallel in Proclus' paraphrase of Porphyry's (and Iamblichus') critique of Atticus in *In Tim.* II, 251.5–8 (= I, 391.17–20 [Diehls]); Porphyry *via* Proclus argues that positing a temporal creationist reading of Plato's *Timaeus* results in doing away with either the Demiurge's boniform will (*ἀγαθοειδὴ βούλησιν*) or productive power (*τὴν γόνιμον δύναμιν*): 'For if both coincide (*συντρεχουσῶν*), the cosmos must have been eternally produced by him [*scil.* the Demiurge]' (lines 7–8). By contrast, while using this form of argument, Gregory uses this in an *anti*-eternalist context.

two aspects could be potentially separate, and why does Gregory insist that these are ‘coincident’ (σύνδρομος) in God?

One motivation may be a common concern, held by other philosophical contemporaries of Gregory, such as Plotinus and Porphyry,¹⁴ whether there was one, or more than one, first principle of all beings. It was, in fact, a common Middle Platonist position on the existence of two primary principles, namely God and matter, which goes back to the early Platonic Academy maintaining the One and indefinite dyad as principles of all things.¹⁵ On this view, the ‘decision’, or determination, is brought about by God (or the Demiurge), while power and indeterminacy, moulded by that determination, is facilitated by matter. Gregory, like other early Christians, is perhaps attuned to this background when he argues that we cannot conceive of God (i.e. as responsible for order and determination) as separate from pure power or indefiniteness, and *vice versa*, in the way the Middle Platonist position held.¹⁶ In this, Gregory’s claim reflects his implicit affirmation of the principle of causal synonymy: God’s power, wisdom, and will are seen together in creation, since those characteristics also coincide in the creation’s cause: *a fortiori*, they are not the result of two (or more) separate causes.¹⁷

This becomes a central premise in Gregory’s argument for matter’s nature, when he next responds to an unspecified group of people who raise the question:

‘If God is immaterial, where does matter (ὕλη) come from? How does the quantitative come from that which is without quantity, and from the invisible, the visible, and from that which is without magnitude and infinite, that which is entirely defined by some volume and size? And all other things seen in connection with matter, how or whence did the one who has no such thing in his own nature produce them?’¹⁸

At first glance this follows a similar difficulty raised by those like Porphyry¹⁹ (and indeed, Gregory’s language directly parallels Porphyry’s) on the premise that causation involves the same essential trait between cause and effect: man comes to be from man as heat comes from what possesses heat, and so forth.²⁰ This is indeed one factor, but it is also important to see how Gregory establishes the difficulty in the immediate context of God’s

¹⁴ For Plotinus, see e.g. *Enn.* V.1.9.15–25; on this passage, see Noble, ‘Principle Monism’, 193–208. For Porphyry, see e.g. Proclus’ paraphrase of Porphyry’s critique of Atticus in *In Tim.* II, 270.21–278.23 (= I, 391.6–396.26 [Diehl]), and the Syriac translation of Porphyry’s *On Principles and Matter*, esp. sect. 37 in Arzhanov, *Porphyry*, 98–99; I discuss these passages in more detail in a forthcoming article on the two causes/principles in Porphyry’s *On Principles*; see also Michalewski, ‘Arzhanov’.

¹⁵ On the three (or two) principle-view in Middle Platonists like Atticus, see Boys-Stones, *Platonist Philosophy*, 86–90; Dörrie, ‘Die Frage’, 205–210; and Michalewski, *La puissance*, 47. On the Old Academy position, see Tarán, *Speusippus*, esp. 32–47.

¹⁶ One sees Gregory making this worry explicit in *De an. et res.* 92.16–93.6, in connection with the Manichean heresy of an evil, material principle, separate from God: see n. 25, below. On the broader history of early Christian responses to the problems raised with matter and God as principles, see Karamanolis, *Early Christianity*, 61–88.

¹⁷ Gregory, *In hex.* 7, 15.6–8. This would fit with Gregory’s emphasis on simultaneous creation by God: on this see Benjamin Gleede’s chapter in this volume.

¹⁸ Gregory, *In hex.* 7, 15.9–15.

¹⁹ See e.g. Porphyry *apud* Proclus, *In Tim.* II, 277.20–278.22 (= I, 396.3–26 [Diehl]).

²⁰ Marmodoro, ‘Gregory of Nyssa’, focuses on this causal principle as the main motivation behind Gregory’s bundle theory, but conceives the problem as an epistemological one, such that we can grasp material bodies as abstract objects, which are composed of qualities produced by God. While granting this point, I follow Van Riel and Wauters, ‘Bundle Theory’, 405–406 in responding that Gregory’s problem remains providing an ontological account of matter.

power and determination as potentially distinct traits. Here I suggest there is a parallel between the concepts of ‘determination’ and ‘power’, as they relate to God, and the determinate attributes Gregory relates with matter (i.e. quantity, visibility, delimitation by volume and size, above)²¹ and the indeterminate and, ultimately, non-existent concept of matter considered apart from the properties. We saw this in our central, opening quote above where matter is said to come into being when the properties ‘combine with one another’ (συνδραμόντα πρὸς ἀλλήλα ὕλη γίνεται),²² and we also see it implied in Gregory’s earlier phrasing of ‘all other things seen in connection with matter’ (καὶ τὰ ἄλλα πάντα ὅσα περὶ τῆν ὕλην ὁράται).²³ I take Gregory’s point here to be that, just as we cannot conceive of God’s power apart from God’s will and determination, matter cannot be understood as pure potentiality apart from the determinative qualities with which it is associated: matter involves both indeterminacy (e.g. either hot or cold, liquid or dry, and so on) and determinacy together (determination in extension, size, etc., as well as specifications of the opposite properties). Framed this way, ‘matter’ for Gregory already implies determinations that are made manifest in the substances that come to be from matter, as we will shortly see.

One might wonder what motivates Gregory to insist on the non-existence of matter apart from the bundle of properties—properties which also imply ‘corporeal nature’ besides matter as a substrate.²⁴ Although only implied in the *In hexaemeron*, Gregory makes his worry more explicit in the *De anima et resurrectione*, when he asks how created beings, whether intelligible or corporeal, come to be from God and rules out two options: that all created things are either (1) ‘of the same kind’ (ὁμογενῆ) as God or (2) come to be from ‘a material nature outside the divine substance’ (τις ὑλικὴ φύσις ἔξω τῆς θείας οὐσίας).²⁵ It is especially this latter option (2) that we can see reflected in Gregory’s philosophical predecessors who maintained that all beings are derived from the two first principles of God and matter. The worry for Gregory might then be this: positing matter as a distinct substrate without any qualities would necessitate the notion of matter as an eternal principle, co-equal with God.²⁶ While theologically this is reason enough, a second motivation for Gregory may be a more basic, philosophical point, following from the premises of power and determination we saw above: if matter does not involve determination,

²¹ We can include with this list the properties Gregory later lists positively with matter (ὕλη) in *In hex.* 7, 16.6–8: the opposites of light/heavy, dense/rare, pliant/resistant, liquid/dry, and cold/hot, alongside the (non-opposite-conditioned) properties of colour, shape, surface, and extension.

²² Cf. Gregory, *In hex.* 7, 16.10.

²³ Gregory, *In hex.* 7, 15.13–14.

²⁴ More on this distinction, below.

²⁵ Gregory, *De an. et res.* 92.16–93.6 (= PG 46, 121.39–124.5): ‘Thus, since the cause of all beings is one, while the things brought into creation because of that cause are not of the same kind (ὁμογενῆ) as the superior nature, the absurdity is equal in each of the [two] theories, both [in the case of] one who supposes that the creation is derived from God’s nature and [in the case of] one who supposes that all [beings] are constituted from some other nature: for either [1] the divine shall be considered as existing in the unique properties (ιδιώμασιν) pertaining to creation, if [creation] were indeed to imply that all beings are of the same kind as God; or [2] a material nature (τις ὑλικὴ φύσις) outside the divine substance will be introduced, made equal to God as unbegotten since it exists everlastingly (ἀϊδιότητι). Such is in fact what the Manichaeans fantasized and some who collected equivalent theories from Greek philosophy, and they have made this fantasy their doctrine’ (trans. Silvas, modified; numbers added). On the background of creation *ex nihilo* in Gregory, esp. in response to the Manicheans, see May, *Schöpfung aus dem Nichts*, esp. 120–150.

²⁶ Needless to say, this was no problem for Porphyry, who nevertheless critiqued the idea of matter as a principle co-equal with the Demiurge—or rather, ultimately, the One: cf. n. 13 above.

at least on some level, while created things imply the combination of power and determination, then it does not exist by itself.²⁷

Still, Gregory's rejection of this notion of matter—together with his predecessor, Basil of Caeseria, who first asserted the thesis—might baffle in light of previous Christian interpretations of the creation of the world.²⁸ Origen, for instance, argues for the existence of matter as a substrate distinct from the qualities that make up body, such that body comes to be from the combination of matter and the qualities.²⁹ Matter, so conceived, cannot be an uncreated principle co-equal to God, but can only be understood as the first created entity, based on which God produces the qualities for bodies and all subsequent physical beings.³⁰ Why Gregory ends up implicitly disagreeing with Origen remains unclear. One could, however, speculate that Gregory sees Origen's quality-less matter as conceding too much to Platonists and others who assert matter's uncreated nature, even if Origen asserts that matter is created.³¹ An extra motivation may also be found again in Origen, when the latter concedes that matter is never seen without the qualities, even though it maintains 'its own proper account' (*proprium rationem*).³² Following Gregory's train of thought, one could ask: if matter is always associated with the qualities, what prevents equating the two? Indeed, Origen mentions an unnamed figure or group who maintained this position, although he does not explicitly endorse the position himself.³³ Gregory appears to take the idea seriously as a more formidable way to affirm the created nature of matter—i.e. as always associated with the qualities.

In connection with this, one might further ask whether Gregory distinguishes between matter and body, since he implicitly elides the difference between the two terms.³⁴ In the *De anima*, Gregory gives a bundle theory formulation for body (σῶμα) as the combination of shape, colour, weight, extension, and size,³⁵ which is similar to his formulation for matter (ὑλη) in *In hex.* 7. In *De opificio hominis*, Gregory again gives a similar bundle theory formulation, at first speaking of 'all matter' (πᾶσα ὑλη), which is not being grasped by *logos* in contrast to an intelligible (νοητόν); but then later in his analysis he juxtaposes seeing in a bodily way (σωματική θεωρία) with seeing in an intelligible way (νοητή θεωρία), where the former implies all the qualities together, while the latter

²⁷ At least if we take matter's determination in the sense of exhibiting the 'decision' (βουλή), implicitly from God, in *In hex.* 7, 15.2–3.

²⁸ On Basil's denial that there is a substrate (ὑποκείμενον) underlying the qualities of bodies, see *Homiliae in hexaemeron* 1.8, 15.8–13; on the relation between Basil and Origen, with this background, see Armstrong, 'Non-Existence of Matter', 427–429.

²⁹ Origen, *Princ.* II.1.4.71–89, esp. lines 85–87; cf. *Princ.* IV.4.6.

³⁰ Origen, *Princ.* II.1.4.90–18.

³¹ On other early Christians who posit matter, and the question of its created or uncreated status, see Karamanolis, *Early Christianity*, 61–65.

³² Origen, *Princ.* II.1.4.87–89: 'Yet, although this matter, as we have said above, exists according to its own proper account (*proprium rationem*) without qualities, it is however never found without qualities' (trans. Behr, slightly modified).

³³ Origen, *Princ.* IV.4.7.183–191; Origen notably uses this position to show how, despite not maintaining this position, it proves his point that matter is created. As Van Riel and Wauters, 'Bundle Theory', 409–410 note, there is currently no good guess as to who specifically held this position, except likely an unknown Platonist.

³⁴ Cf. Van Riel and Wauters, 'Bundle Theory', 402, n. 24.

³⁵ Gregory, *De an. et res.* 94.8–12 (= PG 46, 124.38–43): 'None of the things we perceive as connected with body is on its own a body—not shape, not colour, not weight, not extension, not size, nor any other of the things we perceive in [any] quality, but rather each of these is a rational principle (λόγος), and their concurrence (συνδρομή) and union (ένωσις) with each other becomes a body' (trans. Sorabji, modified).

only refers to each quality taken by itself.³⁶ It is this apparent equation of matter and body that leads those like Richard Sorabji to presume that Gregory maintains a ‘bundle theory’ for corporeal individuals only, while simply denying the existence of a notion of matter as a substrate distinct from body.³⁷

Yet, as Gerd Van Riel and Thomas Wauters have recently argued, Gregory does not deny the notion of a *kind of* substrate—what they term Gregory’s ‘bundle theory of matter’, as distinct from a bundle theory of corporeal individuals. They point to *In hex.* 16, where Gregory refers again to the opening line of Genesis, with God making the heavens and the earth in the beginning (ἐν ἀρχῇ), and interprets this to signify the ‘aggregate nature of the constitution of beings’ (τὸ ἀθρόον τῆς τῶν ὄντων συστάσεως),³⁸ wherein all beings exist only in potentiality (δυνάμει) and not yet in actuality (ἐνεργεία).³⁹ In chapter 17, Gregory refers to this as a ‘substrate’ (ὑποκειμενον) in which ‘neither colour, nor shape, nor volume, nor weight, nor size, nor any other such thing’ are observed, since none of the qualities pertaining to the other kinds of beings, such as the element, earth, exist yet in actuality.⁴⁰ On the one hand, as Van Riel and Wauters among others have noted,⁴¹ this seems to contradict Gregory’s claim in *In hex.* 7 that matter (ὑλη) possesses those properties, whereas the language of *In hex.* 16–17 seems to imply the opposite—presuming one equates ‘substrate’ and similar language in *In hex.* 16–17 with ‘matter’ in *In hex.* 7. Van Riel and Wauters address the difficulty by arguing that Gregory posits two ‘bundle theories’: (1) the ‘bundle theory of matter’, relating to the substrate which is the ‘aggregate nature’ containing the qualities pertaining to bodies only in potentiality; and (2) the ‘bundle theory of individuals’, or specifically individual bodies, which are composed of the qualities in actuality, presupposing in turn substrate (1).⁴² Based on this, they use Gregory’s exegesis of Genesis’ account of the earth as ‘invisible and unformed’ (ἀόρατος καὶ ἀκατασκευάστος) as a central key in their interpretation, when Gregory claims that ‘there is no other quality to be observed in connection with [the element, earth], and by naming it unformed, it allows us to understand that it was not yet compacted by bodily properties’.⁴³ Unlike Origen who considers the earth’s formlessness to refer to prime matter,⁴⁴ Gregory, for Van Riel and Wauters, refers this instead to the element of earth itself, which ‘has not yet been developed, as the qualities have not yet

³⁶ Gregory, *De opif. hom.*, PG 44, 212.46–213.29; see esp. 212.53–213.1: ‘By a process of conceptual division (κατ’ ἐπίνοιαν διαίρεσει) we recognize many things connected with the substrate and the account of each of them is not mixed up with the other things we are considering at the same time’ (trans. Sorabji, slightly modified). Gregory’s ‘conceptual division’ argument mirrors common late antique arguments by analysis/synthesis, where analysis moves from posterior to prior: see e.g. Aristotle’s ‘stripping’ argument in *Metaphysics* Z.3, 1029a10–19 (discussed below, n. 63), and Porphyry, *On Principles and Matter*, sections 24–28 [= Arzhanov, *Porphyry*, 92–95]. On this kind of argument, see Chase, ‘Notes on analysis and synthesis’.

³⁷ See e.g. Sorabji, *Matter, Space and Motion*, 52.

³⁸ See *In hex.* 16, 26.18–27.1. Here I interpret τῶν ὄντων as referring to ‘beings’ rather than ‘universe’, as in Radde-Gallwitz’s translation (although this is also a possible interpretation), in order to highlight Gregory’s discussion of the specific kinds of beings that come to be after this ‘aggregate’.

³⁹ Gregory, *In hex.* 16, 27.11–14.

⁴⁰ Gregory, *In hex.* 17, 28.17–29.6; cf. *In hex.* 16, 28.5–11.

⁴¹ Van Riel and Wauters, ‘Bundle Theory’, 411–413. See also, among others, Köckert, *Christliche Kosmologie*, 432–433.

⁴² Van Riel and Wauters, ‘Bundle Theory’, 421: ‘The individual presupposes a material upon which the individual qualities will be imprinted—and this material itself is composed of qualities. The most basic shape this material can take is that of the elements, which are themselves bundles of basic qualities (hot/cold, wet/dry)’.

⁴³ Gregory, *In hex.* 16, 28.8–11. Cf. Van Riel and Wauters, ‘Bundle Theory’, 416–417.

⁴⁴ See e.g. Origen, *Princ.* II.1.4.90–95.

reached their definite and ordered structure’—effectively reinforcing the point of *In hex.* 7—such that ‘matter is no longer a prerequisite for formal (qualitative) determination; it rather is the outcome of it’.⁴⁵ Van Riel and Wauters further point to Gregory’s *De opificio hominis* 26–27 for support, where the restoration of the individual body presupposes the existence of the elements as bundles of qualities, such that the body, once it passes away and corrupts after the soul has left it, still has the remaining effect of the soul’s imprint in it: consequently at the resurrection, the defining qualities that composed our bodies, which are dispersed throughout the material world, will ‘re-materialize amongst the myriad of possible arrangements [of matter]’.⁴⁶ Insofar as this implies that the substrate has its own potential configuration of qualities, which in turn forms the foundation for each body possessing its respective configuration of qualities, this would imply two, distinct ‘bundles’.

Van Riel and Wauters are certainly right to point out two levels at which a bundle theory obtains. Yet, as we will next see, their position should be contextualized alongside Gregory’s emphasis on the immediate production of all beings on the first day of creation. In particular, I would suggest that Gregory intends ‘matter’ in *In hex.* 7 in a sense close to Aristotelian proximate matter—that is, ‘matter’ in the sense that it is always specified in relation to the specific kind of being that comes to be.⁴⁷ In this sense, Gregory’s bundle theory (1), above, should be understood in the sense of the matter specific to the elements as the first, basic bodies which make up particular kinds of beings (corresponding to bundle [2]).

3. The Bundle Theory and Aristotelian Proximate Matter

We should first consider the passages where Gregory discusses the emergence of natural kinds within the context of the creative act. As we already saw, Gregory emphasizes the existence of all beings from the first day of creation, although they only come into actuality in the days that follow. This is already apparent in *In hexaemeron* 9, after the ‘bundle theory’ of matter was proposed in ch. 7, when Gregory asserts that ‘God in an instant (ἐν ἀκαρπεί) sowed the catalysts and causes and powers of all beings collectively, and in the first impulse of the will the substance (*ousia*) of each [kind of] being combined: heaven, ether, stars, fire, air, sea, earth, animals, plants’.⁴⁸ As one can see, Gregory highlights the fact that God created specific kinds of beings in the act of creation, implicitly refuting the idea that God created an intermediate substrate, such as prime matter, which remains its own nature, rather than (as we will see) a substrate that directly becomes the specific kinds of beings that are subsequently produced.⁴⁹

⁴⁵ Van Riel and Wauters, ‘Bundle Theory’, 417–418.

⁴⁶ Van Riel and Wauters, ‘Bundle Theory’, 420–421.

⁴⁷ In this sense—without endorsing a position in the still-alive controversy—I suggest that Gregory’s view is closer to those readings of Aristotle denying the existence of a distinct ‘prime matter’ apart from matter relative to specified kinds of being. See below, pages [[9–12]].

⁴⁸ Gregory, *In hex* 9, 18.9–13; trans. modified.

⁴⁹ Cf. n. 32, above. The juxtaposition is all the sharper when one compares Gregory’s pronouncement that God creates nothing which is ‘without reason/account’ or ‘unaccounted-for’ (ἄλογός τις), in *In hex.* 10, 21.3, with Plotinus’ assertion that matter is completely ‘sterile’ (ἄγονον) and a ‘shadow’ (σκία) compared to sensible substance (cf. *Enn.* VI.3.8.34–37)—what would be ἄλογός in Gregory’s account.

This should remind us of Gregory's interpretation of Genesis' second verse that it is the element, earth, which God created on the first day, together with all beings, although earth and the other elements had yet to be determined by their respective qualities. We should see this in context with Gregory's assertion that the 'power fit for finishing each of the [beings] which come to be is brought to actuality by some principle (λόγω τιμι)':⁵⁰ in other words, amidst the 'bundle' of qualities composing earth and the other elements, there is a *logos* corresponding to each element. In turn, it follows *a fortiori* that there is also a *logos* for each kind of being, which brings the power present in the mixture of the qualities into the actual kind of being.

We can see an example of this in the sun's 'illuminating nature' emerging from the mixture of created qualities in *In hex.* 74.⁵¹ Gregory at first refers to an emulsion of fluids, such as water, olive oil, and quicksilver, which appear as one mixed liquid before each kind of liquid eventually separates from the others, with quicksilver settling at the bottom, olive oil at the top, and so on.⁵² Gregory extrapolates from this:

So then, in the illustration the separation of these fluid items did not create the types of matter through the parting. Rather, after they have already been generated and then poured together with one another, it [*scil.* the emulsion's separation] makes each manifest purely in separation from the other. So too it is not that the sun's illuminating nature and power were generated after the span of three days' time, but that, having been mixed with the whole, it came to be separated on its own.⁵³

Gregory's explanation builds on his previous claim that light first appeared as an 'aggregate' or 'heap' (ἄθρόον), implicitly together with the 'aggregate nature' from the first day of creation.⁵⁴ One noteworthy claim in the passage is that there was no new kind (or 'distinction') of matter (τῆς διαστολῆς τὰς ὕλας) when light emerged by itself, but rather the matter for the 'illuminating nature' was already present at the beginning. We should see this together with Gregory's example of the seed, which is identical by potentiality (δυνάμει) with what is the fully-developed plant in actuality (and implicitly *vice versa*: the plant is identical with the seed from which it came), but differs in terms of 'magnitude, beauty, variation, and shape'.⁵⁵ In other words, the plant's specified properties, just like light's own properties, are already present in the matter for both, albeit in potentiality. It is only when they are brought to actuality that one sees the separation between the two states of the seed and the fully-developed plant or, in the same way, between the emulsion of liquids, where quicksilver's heavy quality isn't present (for instance), and the separation of the liquids, when quicksilver's heavy property becomes manifest. This should also be put together with ch. 16's assertion that 'all things existed by potentiality in God's first impulse towards creation, since a seminal power, as it were, was sown for the generation of all things—though individual beings (τὰ καθ' ἕκαστον) did not yet

⁵⁰ Gregory, *In hex.* 11, 22.11–12; trans. modified.

⁵¹ In turn, this echoes back to *In hex.* 10, 20.1–18, where Gregory refers to the emergence of fire and light from the initial created aggregate: I take it Gregory expands on this here with the emulsion example.

⁵² Gregory, *In hex.* 74, 79.18–80.7.

⁵³ Gregory, *In hex.* 74, 80.16–22.

⁵⁴ Cf. Gregory, *In hex.* 73, 79.9–17. Cf. *In hex.* 16, 26.18–27.2.

⁵⁵ Gregory, *In hex.* 1, 6.9–12. See also Radde-Gallwitz's note in n. [[3]] in the translation. Cf. Van Winden, 'Notiz über ΔΥΝΑΜΙΣ', 147.

exist by actuality'.⁵⁶ Here we see Gregory's seed language encompassed within the terms of potentiality and actuality, which is crucial to note: on the one hand, one 'aggregate nature', which includes the matter of all specified kinds of beings, existed on the first day of creation; on the other hand, when beings 'exist by actuality' (ἐνεργεία), the types of matter corresponding to each kind of being become separated from that 'aggregate nature', and hence from each other. What I wish to point out here is that Gregory is not considering the 'aggregate nature' or the matter of each kind of being in a purely indeterminate sense: instead, both already imply the specifications of the respective kinds of beings and particulars that eventually come to be.⁵⁷

It is here that I think we see an Aristotelian notion of proximate matter come to the fore: matter, in other words, always refers to the matter *of* something concrete, especially primary substance,⁵⁸ even if one refers to 'matter' in general. One can see this succinctly in Aristotle's *Metaphysics* H.1, where in the case of sensible substances (αἰσθητὰ οὐσίαι) Aristotle defines matter as 'that which, not being this something (*tode ti*) by actuality, is this something by potentiality' (ἢ μὴ τόδε τι οὐδ' ἂν ἐνεργείᾳ δυνάμει ἐστὶ τόδε τι).⁵⁹ This also ties into Aristotle's critique in *On Generation and Corruption* II.1 of 'those thinkers [...] who postulate, besides the bodies we have mentioned [*scil.* the elements], a single matter'⁶⁰—here referring to Plato's postulation of the receptacle (ὑποδοχή) as the substratum for the elements in the *Timaeus*.⁶¹ As Aristotle points out, one of the defining features of the matter underlying all sensible bodies is contrariety of properties, such as hot/cold, wet/dry, and so on, which respectively differentiate the elements, as primary bodies, from each other: the matter of the elements, in this case, must be inseparable (ἀχώριστον).⁶² Hence, even when one gets to the level of the elements as primary bodies, matter always refers to the potentiality to be determined as either wet and cold (i.e. water) or dry and cold (i.e. earth), and so on—just as it refers to being a specific concrete being in potentiality. In fact, Aristotle further specifies in *Metaphysics* Θ.7 that the elements are, themselves, 'primary matter' (πρώτη ὕλη).⁶³ Taking this together with the *On Generation* passages, matter for Aristotle always implies some level of determinacy, even as it is relatively indeterminate compared to the substance which it potentially is: even if Aristotle silently accepts the notion of prime matter, i.e. a purely indeterminate substrate (distinct from what he terms 'primary matter').⁶⁴

⁵⁶ Gregory, *In hex.* 16, 27.11–14; trans. slightly modified. Cf. n. 74, below.

⁵⁷ A connected point well made by Zachhuber, *Patristic Philosophy*, 56–58, where he argues (page 57), 'Gregory here indicates how the world is one, not in terms of the abstract unity of a common formula of being but as real, concrete being.'

⁵⁸ Cf. Aristotle, *Cat.* 5, 2a11–14; 3b10–13; and *Metaph.* Z.11, 1037a124–b7.

⁵⁹ Aristotle, *Metaph.* H.1, 1042a27–28. Cf. Aristotle's elaboration of this principle in *Metaph.* Θ.7, esp. 1049a13–b3.

⁶⁰ Aristotle, *Gen. corr.* II.1, 329a8–24.

⁶¹ Cf. Plato, *Tim.* 49a, 51a.

⁶² Aristotle, *Gen. corr.* II.1, 329a28–33. See n. 64 below.

⁶³ See esp. Aristotle, *Metaph.* Θ.7, 1049a22–27; for this reason, Aristotle here denies that the elements are substances (i.e. *tode ti*) properly speaking (1049a26–27).

⁶⁴ This emphasis appears to be missed by Van Riel and Wauters, 'Bundle Theory', esp. 405, following Marmodoro, 'Gregory of Nyssa', esp. 104, when they assume a traditional interpretation of Aristotle (held by the majority of Aristotelian commentators in late antiquity, like Alexander of Aphrodisias; among contemporary commentators, see e.g. Owens, 'Matter and Predication', and Lewis, 'Prime Matter') as endorsing prime matter—i.e. an indefinite, indeterminate, unknowable substratum underlying the elements (in juxtaposition to *Metaph.* Θ.7's πρώτη ὕλη)—and reference the famous 'stripping' argument from *Metaph.* Z.3,

It is with this background that we should assess Gregory's argument on the creation of the heavens and earth between *In hex.* 7 and 16–17, where, I would maintain, Gregory holds more of an Aristotelian view than has been recognised. Once again taking up Van Riel and Wauters' thesis, Gregory's description in ch. 7 of the bundle of qualities and properties that make up matter (= bundle [1]), and which, in turn, underlies body (*sôma*) (= bundle [2]),⁶⁵ is contextualized in his exegesis of 'the heavens and the earth' in ch. 16–17. As we saw above, the formlessness of the earth in Gregory's interpretation of the first day⁶⁶ correlates with the element of earth itself whose qualities have yet to receive a determinate state of actuality. Van Riel and Wauters interpret this to mean the 'receptive or seminal power of the elemental earth (i.e., a bundle of qualities) before its qualities are structured in such a way as to become visible earth' (corresponding to bundle [1]).⁶⁷ At the same time the passage indicates that 'earth was there among beings, just as all the others were too' in the 'aggregate sowing of the cosmos' (τὸ ἀθρόον τῆς τοῦ κόσμου καταβολῆς).⁶⁸ In one sense earth, here, has no special status as an element compared to the other kinds of beings: Gregory considers every possible being, from elements to more complex beings (like animals, plants, etc.), as present in the same way in the aggregate.⁶⁹ The 'power for admitting qualities' (τὴν χωρητικὴν τῶν ποιοτήτων δύναμιν) must then refer to the potentiality of the elements, as well as to that of other, more complex beings.⁷⁰ In addition, Gregory in ch. 17 implicitly refers to the 'substrate' of indeterminate qualities, which have yet to be distinguished, as a 'receptive power':⁷¹ one could understand the latter in the sense of an indeterminate material substrate, where separate, external principles (such as the immanent *logoi*, or the thoughts of God) mould the substrate.⁷² However, this should be understood in light of Gregory's emphasis in chapter 16 on

1029a11–26. But, as commentators like Pfeiffer, *Aristotle's Theory*, 81–83 (esp. n. 26) have pointed out, it is unclear whether the argument represents Aristotle's opinion, especially when he refers the argument to 'those who investigate in this way' (οὕτω σκοποῦμένοις; 1029a19). And furthermore, the argument's conclusion is not relevant for the view of matter we see in *Metaph.* Θ.7 and other passages. In this sense it is unclear if Aristotle needs, let alone endorses, prime matter, as argued by e.g. King, 'Prima materia'; Charlton, 'Prime Matter'; et al. For an attempt to reconcile these two approaches, see Krizan, 'Prime Matter', 542–545, who interprets Aristotle as maintaining prime matter as a 'logical substratum', i.e. as the terminus of analyzing a physical substance, which has no ontological existence as constituting the elements (and thus bodies). Whether or not Aristotle maintained prime matter as a substrate in any sense is irrelevant for our analysis of Gregory, although Krizan's point on page 544, as I will show below, mirrors Gregory's approach: 'Particular finite bodies, including the elements, are the subjects of scientific inquiry; at times, scientific inquiry may require an examination of the metaphysical parts or features of bodies, such as their qualities and quantities. [...] [P]rime matter is the layer beneath even this, the final node of analysis, relevant only in the logical, not the physical, analysis of substances.'

⁶⁵ Cf. Van Riel and Wauters' two-fold distinction in pages [[6–7]] (above) and just below.

⁶⁶ Cf. Gregory, *In hex.* 16, 27.14–28.11.

⁶⁷ Van Riel and Wauters, 'Bundle Theory', 419.

⁶⁸ Gregory, *In hex.* 16, 28.5–6.

⁶⁹ Compare with *In hex.* 31, 46.19–47.13, where Gregory refers to each element as 'complete by beauty' in its own proper principle (ἴδιον λόγον).

⁷⁰ In this sense, I take Van Riel and Wauters, 'Bundle Theory', 419's description as pointing to all beings, not just earth.

⁷¹ Gregory, *In hex.* 17, 29.3–6.

⁷² At least I see this implied in Van Riel and Wauters, 'Bundle Theory', 418: 'The qualities are not just the intelligible characteristics of things, but they are, first and foremost, the ontological structures that are created by God, and upon which God's creative thought can act.' A Berkeleyan-leaning interpretation of Gregory, as in Sorabji and others (see above, page [[2]] and n. 10), suggests that the *logoi* in Gregory's *In hex.* are identified with the thoughts of God, or also the person of the *Logos*, as for Origen and other patristic authors. Yet this misses the predominant concern of Gregory to refute the idea that creation

the potential existence of all beings, including earth, in the aggregate—i.e., as I understand it, the substrate in chapter 17. The substrate’s ‘receptive power’ implies, then, the possibility of the qualities to become actualized in their differing configurations: in other words earth and the other elements. The latter in turn contain the potentialities of all the kinds of beings from which all particulars of the various natural kinds come to be.⁷³

Although Aristotle in the context of *Metaphysics* 0.7 denies that there is any further ‘matter’ underlying the elements, Gregory’s conception is not far off. The substrate in *In hex.* 17 does not contain the qualities in their actuality. However, they remain potentially present all the same, insofar as they are ‘invisible’ and ‘compacted’. In this sense, the substrate simply is the elements *in potentia* (corresponding with bundle [1]), and the elements, in turn, form the substrate for all sensible particulars and the different kinds of beings that emerge (corresponding with bundle [2]). This matches Aristotle’s description of the matter of particular substances as immediately and potentially the substance they come to be: just as a box, in Aristotle’s example, comes to be from wood, so that the box is characterized as ‘wooden’, i.e. by the matter from which it comes to be, so also the qualities that characterize the elements become the ‘matter’ for the elements. Although Aristotle denies a further ontological layer below the elements, even Gregory’s version of the substrate of the elements is similar in some sense to Aristotle’s: for the qualities have no actual existence, except as ‘mere ideas and concepts’, without distinction, and hence merely in potentiality. In the same way, as Mary Krizan has argued, Aristotle does not maintain an ontological version of prime matter, but rather a mere ‘logical substratum’ underlying the elements,⁷⁴ so we could say that Gregory’s bundle (1) is also a kind of ‘logical substratum’ for the qualities, though a substratum that God produced with the *logoi* of the elements and all beings on the first day. In this sense, the substratum possesses *some* ontological being in contrast to prime matter for Aristotle—if Aristotle even held this view.

is ὁμογενῆ with God (cf. n. 24), and furthermore it misses the language Gregory uses for the *logoi* in the text: for instance, Gregory avoids directly connecting the *logoi* with the *Logos*, as well as avoids connecting the *Logos* of John 1:1 with the beginning (ἀρχή) of creation in *In hex.* 9, 18.7–11: see Zachhuber, *Patristic Philosophy*, 56–57 and Walter, ‘Initial Unextendedness’. This implies a separate status for the *logoi*, in this context. (Special thanks to Gretchen Reydams-Schils and Johannes Zachhuber for pointing this out.)

⁷³ At the same time, we should note two senses of ‘potentiality’ at work here: either [a] the capacity to receive different, opposed qualities, which become more determined with subsequent, more developed kinds of beings (e.g. after the element earth (as hot and dry) come plants (with the addition of water, as cold/wet qualities, together with earth, as hot/dry), and so on); or [b] the capacity to become a particular substance or kind of being (e.g. the seed that becomes *this* ear of grain, or Moses’ ‘concise words’ that become elaborated by Basil: cf. *In hex.* 1, 6.9–7.6). To the degree that Gregory affirms [a], this would follow on Aristotle’s notion of matter as a capacity for contrariety of properties in *Gen. corr.* II.1 (cf. n. 60 and 62, above). To the degree that Gregory affirms [b], the relation to Aristotle’s framework is murkier, esp. if the first created substrate pre-contains the essential kinds of subsequent distinct, created beings, even if only in seed-form: in this sense, Gregory’s notion of a ‘certain seminal power’ (σπερματική τι δύναμις) in *In hex.* 16, 27.12–13 suggests a more Stoic influence than one finds in Aristotle’s notion of δύναμις. On this, see Van Winden, ‘Notiz über ΔΥΝΑΜΙΣ’, 148–149, Zachhuber, ‘Once Again’, 91–98, and Gretchen Reydams-Schils’ chapter in this volume.

⁷⁴ In this reading I also follow Louise-Gill, *Aristotle on Substance*, esp. pages 41–82. Cf. n. 64, above.

4. Conclusion: Gregory's Aristotelian Bundle Theory

So far in this chapter we have analyzed Gregory's claim in *In hex.* 7 that all matter (ὕλη) is nothing but the combination of properties and qualities perceived together in all bodies—and, also, in the most basic principles of bodies, the elements. As Van Riel and Wauters noted well, this implies rather *two* sets of bundle theories: that of sensible bodies (bundle [2]) and that of the matter underlying the elements (bundle [1]). Gregory's bundle theories should thus be understood in light of his emphasis that God created all beings, without any intermediary, on the first day of creation: i.e. the potentialities of all particulars (τὰ καθ' ἕκαστον), according to their respective natural kind, were present, but not yet in actuality. With this principle in mind, I argued that Gregory's bundle theory framework should be understood in light of the Aristotelian notion of proximate matter: the qualities (in actuality), as the part of the nature of body, are the proximate matter for particular kinds of natural substances; in the same way, the qualities underlying each of the elements form the proximate 'matter' for the elements—even though the latter does not exist, by actuality, in separation from the former.

Ultimately this is Gregory's answer to the problem of prime matter, especially coming from a pagan Platonist (and, perhaps more proximately, a heretical Manichean) background, where positing it would ultimately suggest an uncreated, eternal material principle co-equal with God—a problem even Neoplatonists like Porphyry had to confront in their Middle Platonist predecessors.⁷⁵ By contrast, Gregory's response is perhaps the closest to a genuine Aristotelian position on sensible beings, despite the similarities to Plotinus' own bundle theory framework.⁷⁶ In juxtaposition to the latter, Gregory's emphasis on matter as composed of qualities that correspond with the nature of body—and in turn, that correspond with the nature of each kind of being—rather reinforces a view of the unity of each kind of being. Given this, one may still wonder why Gregory does not explicitly assert that an immanent *ousia* anchors the bundle of qualities in each created being, if his framework leads this way. If anything, this suggests a tension in Gregory's attempt to bring together the language of the sensible individual as a 'conglomerate' of intelligible properties (hearkening back to a Platonist model of qualities as intelligible forms) with an Aristotelian framework of immanent *ousia*.⁷⁷ Nevertheless, it is clear by considering Gregory's language that he could in no way be a Berkelian Idealist,⁷⁸ or even a Plotinian,⁷⁹ with his version of the bundle theory: for

⁷⁵ Cf. above, n. 13. The concern over the notion of matter as an eternal principle co-equal with God reverberates in later Byzantine thought. One can see this e.g. in Nicholas of Methone's *Refutation of Proclus' Elements of Theology* 72, 75.5–10 [Angelou], where Nicholas cites Basil's *In hexaemeron* against Proclus' position in asserting that God did not create prime matter, i.e. without any form or being, but rather 'the upper and the lower bodies' (τὰ ἄνω καὶ τὰ κάτω σώματα) (i.e. the elements) as 'matter' (ὕλη) on which all the kinds of beings were formed and made. Whether or not Nicholas knew of and/or read Gregory's *Apologia* remains an open question.

⁷⁶ See above, pages [[1–2]].

⁷⁷ Indeed, this issue may be in the background when we look at the later, seventh-century Maximus the Confessor (*Ambiguuum* 17, 6.1–5 (= PG 91, 1225d)), when he critiques the idea that particulars can be conceived as an 'assemblage' (ἄθροισμα) of properties without a substrate (ὑποκειμενον). I plan to talk about this contrast between Gregory and Maximus in describing particulars and sensible substance in a future article. Special thanks to Gerd Van Riel for pressing this question.

⁷⁸ See above, page [[2]], and earlier n. 72.

⁷⁹ Namely in the sense that Plotinus' bundle theory implicitly refutes the immanent presence of substance (*ousia*) as a substrate in sensible beings: see above, pages [[1–2]].

Gregory recognizes the created nature of sensible beings necessitates affirming a view of matter that immanently confirms their nature as such.

Bibliography

Primary Sources

- Aristotle, *Metaphysica* [= *Metaphysics*]. Edited by W. Jaeger. Oxford Classical Texts. Oxford: Oxford University Press, 1957.
- Aristotle, *Categoriae et Liber de interpretatione* [= *Categories*], ed. L. Minio-Paluello. Oxford Classical Texts. Oxford: Oxford University Press, 1949, reprinted 1956, 1961.
- Aristotle, *De la génération et de la corruption* [= *De generatione et corruptione*], edited by C. Mugler. Paris: Les Belles Lettres, 1966, 1–74.
- Basil of Caesarea, *Homiliae in Hexaëmeron*, ed. E.A. de Mendieta/S.Y. Rudberg. Berlin: Akademie Verlag, 1997.
- Gregory of Nyssa, *Apologia in hexaëmeron*, ed. H.R. Drobner. Leiden: Brill, 2009.
- Gregory of Nyssa, *De anima et resurrectione: Opera dogmatica minora, pars III*, ed. A. Spira. Gregorii Nysseni opera, vol. 3, pars 3. Leiden: Brill, 2014.
- Gregory of Nyssa, *De opificio hominis*, in ed. J.P. Migne, *Patrologiae cursus completus (series Graeca) (MPG) 44*. Paris, 1857–1866, 124–256.
- Maximus the Confessor, *On Difficulties in the Church Fathers: The Ambigua, Vols. 1–2*, ed., trans. N. Constas. Dumbarton Oaks Medieval Library. Cambridge: Harvard University Press, 2014.
- Origen, *On First Principles* [= *Princ.*], ed. J. Behr. 2 vols. Oxford: Oxford University Press, 2017.
- Plato, *Opera* [= *Timaeus*], ed. J. Burnet. Oxford: Clarendon Press, 1902, reprinted 1968.
- Plotinus, *Opera* [= *Enneads*], ed. P. Henry, H.-R. Schwyzer. 3 vols. Oxford Classical Texts. Oxford: Oxford University Press, 1964–1982.
- Porphyry, ‘*On Principles and Matter*’, in Arzhanov, *Porphyry*, 81–123.
- Proclus, *In Platonis Timaeum commentaria*, ed. E. Diehl. 3 vols. Leipzig: Teubner, 1903–1904, 1906.
- Proclus, *In Platonis Timaeum commentaria*, ed. G. Van Riel. 5 vols. Oxford Classical Texts. Oxford: Oxford University Press, 2022.

Secondary Sources

- Armstrong, A.H. 1962. ‘The Theory of the Non-Existence of Matter in Plotinus and the Cappadocians’. *Studia Patristica* 5: 427–429. Reprinted in A.H. Armstrong, *Plotinian and Christian Studies*, Collected Studies 102 [London: Variorum Repr., 1979], ch. 8.
- Arzhanov, Y. 2021. *Porphyry, On Principles and Matter: A Syriac Version of a Lost Greek Text with an English Translation, Introduction, and Glossaries*. Berlin: De Gruyter.
- Boys-Stones, G. 2018. *Platonist Philosophy 80 BC to AD 250: An Introduction and Collection of Sources in Translation*. Cambridge: Cambridge University Press.
- Charlton, W. 1983. ‘Prime Matter: A Rejoinder’. *Phronesis* 28: 197–211.
- Chase, M. 2015. ‘Quod est primum in compositione, est ultimum in resolutione. Notes on analysis and synthesis in Late Antiquity’. *Annuario filosofico* 48(1): 103–139.
- Chiaradonna, R. 2014. ‘Substance’. In *The Routledge Handbook of Neoplatonism*, eds. S. Slaveva-Griffin, P. Remes. Abingdon: Routledge, 216–230.
- Chiaradonna, R. 2014b. ‘Plotinus on sensible particulars and individual essences’. In *Individuality in Late Antiquity*, eds. J. Zachhuber, A. Torrance. Farnham: Ashgate, 47–61.
- Dörrie, H. 1960. ‘Die Frage nach dem Transzendenten im Mittelplatonismus’. In *Les Sources de Plotin*. Entretiens sur l’antiquité classique 5. Geneva: Fondation Hardt, 191–223.
- Hibbs, D. 2005. ‘Was Gregory of Nyssa a Berkeleyan Idealist?’. *British Journal for the History of Philosophy* 13(3): 425–435.

- Kalligas, P. 2011. 'The Structure of Appearances: Plotinus on the Constitution of Sensible Objects'. *Philosophical Quarterly* 61(245): 762–782.
- Karamanolis, G. 2009. 'Plotinus on Quality and Immanent Form'. In *Physics and Philosophy of Nature in Greek Neoplatonism*, eds. R. Chiaradonna, F. Trabattoni. Leiden: Brill, 79–100.
- Karamanolis, G. 2021. *The Philosophy of Early Christianity*. Second edition. London and New York: Routledge.
- King, H.R. 1956. 'Aristotle without *Prima Materia*'. *Journal of the History of Ideas* 17: 370–389.
- Krizan, M. 2016. 'Prime Matter Without Extension'. *Journal of the History of Philosophy* 54(4): 523–546.
- Köchert, C. 2009. *Christliche Kosmologie und kaiserzeitliche Philosophie: Die Auslegung des Schöpfungsberichtes bei Origenes, Basilius und Gregor von Nyssa vor dem Hintergrund kaiserzeitlicher Timaeus-Interpretationen*. Tübingen: Mohr Siebeck.
- Lewis, F. 2008. 'What's the Matter with Prime Matter?' *Oxford Studies in Ancient Philosophy* 34: 123–146.
- Louise-Gill, M. 1991. *Aristotle on Substance*. Princeton: Princeton University Press.
- Marmodoro, A. 2015. 'Gregory of Nyssa on the Creation of the World'. In *Causation and Creation in Late Antiquity*, eds. A. Marmodoro, B. Prince. Cambridge: Cambridge University Press, 94–110.
- May, G. 1978. *Schöpfung aus dem Nichts. Die Entstehung der Lehre von der Creatio ex nihilo*. Berlin, New York: De Gruyter.
- Michalewski, A. 2014. *La puissance de l'intelligible: la théorie plotinienne des Formes au miroir de l'héritage médioplatonicien*. Leuven: Leuven University Press.
- Michalewski, A. 2022. 'Arzhanov Y., *Porphyry, On Principles and Matter*'. *Études platoniciennes* 17 [online]. <https://doi.org/10.4000/etudesplatoniciennes.2195>. [Retrieved Nov. 4, 2022.]
- Noble, C.I. 2018. 'Leaving Nothing to Chance: An Argument for Principle Monism in Plotinus'. *Oxford Studies in Ancient Philosophy* 55: 185–226.
- Owens, J. 1963. 'Matter and Predication in Aristotle'. In *The Concept of Matter*, ed. E. McMullin. Notre Dame: University of Notre Dame Press, 99–115.
- Pfeiffer, C. 2018. *Aristotle's Theory of Bodies*. Oxford: Oxford University Press.
- Simons, P. 1994. 'Particulars in Particular Clothing: Three Trope Theories of Substance'. *Philosophy and Phenomenology Research* 54(3): 553–575.
- Sorabji, R. 1988. *Matter, Space and Motion: Theories in Antiquity and Their Sequel*. London: Duckworth.
- Sorabji, R. 1983. *Time, Creation, and the Continuum: Theories in Antiquity and the early Middle Ages*. London: Duckworth.
- Tarán, L. 1981. *Speusippus of Athens: A Critical Study With a Collection of the Related Texts and Commentary*. Leiden: Brill.
- Van Riel, G., and T. Wauters. 2020. 'Gregory of Nyssa's "Bundle Theory of Matter"'. *Journal of Eastern Christian Studies* 28(3): 395–421.
- Walter, D. Forthcoming. 'Creation According to Gregory of Nyssa and the Problem of its Initial Unextendedness'.
- Zachhuber, J. 2005. 'Once Again: Gregory of Nyssa on Universals'. *Journal of Theological Studies*, 56(1): 75–98.
- Zachhuber, J. 2020. *The Rise of Christian Theology and the End of Ancient Metaphysics: Patristic Philosophy from the Cappadocian Fathers to John of Damascus*. Oxford: Oxford University Press.