

Gregory of Nyssa on the creation of the world

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Introduction

The Church Fathers hold by and large that God created the world from nothing, by an act of will, at a particular time.¹ This is a radical departure from the Greek paradigm that there is no *ex nihilo* creation; and furthermore, an apparent violation of the causal principle, widely held in antiquity, that 'like causes like' (for brevity from now on, the LCL principle).² The general idea that the LCL principle captures is that causation is 'transmission' from x to y of a condition, say F , which x has to have already, in order to be able to transmit it to y . By passing F on to y , x makes y be what y is not yet, and x is already, namely F . That is, x causes y to be like x itself (with respect to F). Thus the shorthand reference: like causes like. Aristotle for example expresses the principle this way in his *Physics*: 'it is that which is hot that produces heat, and in general that which produces the form possesses it' (257b9–10). The LCL principle holds not only for cases of alteration, but also of substantial generation; thus Aristotle: 'man begets man' (*Metaph.* 1070b34).

Divine creation appears to be a direct contradiction of the LCL principle. Something non-material, God, causes something material, the world, to come into existence. The Church Fathers, committed to the creation of the world by God, have to address a philosophical dilemma, that is: are they to think that *causation* is different from what they thought it was, or that the *world* is different from what they thought it was? On the

former line of thinking, if the LCL principle does not govern causation, then it is acceptable to think that the world is material even if created by a being with no materiality; on the other hand, if the LCL principle does govern causation, the world has to be somehow immaterial.³

The debate on the metaphysics of divine creation was lively in late antiquity. Gregory of Nyssa (c. 335–c. 395) is a particularly interesting player in this debate. He is acutely aware of the philosophical conundrum the LCL principle generates for the Christian believer in divine creation; he writes, for example, that

If God is in His nature simple and immaterial, without quantity, or size, or combination, and removed from the idea of circumscription by way of figure, while all matter is apprehended in extension measured by intervals, and does not escape the apprehension of our senses, but becomes known to us in colour, and figure, and bulk and size, and resistance, and the other attributes belonging to it, none of which it is possible to conceive in the Divine nature, – what method is there for the production of matter from the immaterial, or of the nature that has dimensions from that which is unextended? (*De hom. op.* 23; Schaff and Wace 1892: 770)

You can hear people saying things like this: if God is matterless, where does matter come from? How can quantity come from non-quantity, the visible from the invisible, some thing with limited bulk and size from what lacks magnitude and limits? And so also for the other characteristics seen in matter: how or whence were they produced by one who had nothing of the kind in his own nature? (*Ap. in hex.*, trans. at Sorabji 1983: 290)

In this chapter I investigate Gregory's views on the metaphysics of divine creation, addressing the conundrum he raises in the quotations above (and elsewhere). Is Gregory committed to the view that what the immaterial God causes to come into existence is immaterial, too? Does Gregory allow matter at all in his ontology? If not, is he perhaps the first idealist in the history of philosophy, as has been suggested? But if on the other hand Gregory does admit material objects in his ontology, how does he account for the causality of their creation? It is timely to offer a fresh take on these questions, as they have been addressed with widely diverging answers in the recent philosophical literature. Yet there is much at stake in gaining a full understanding of Gregory's thought. In one camp, as we will see, are

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² This was at least the prevailing belief after the second century; Tatian is the first person to state it explicitly and Tertullian had to argue for it against Christians who thought otherwise.

³ For an excellent discussion of the philosophical background to the Church Fathers' discussion of the creation of the universe see Sorabji 1983: ch. 13.

³ An alternative option is that God be material. Arguably, Tertullian thought so (influenced by Stoicism) and so did the 'anthropomorphites' in the fourth century. The fact that some theologians such as Origen devoted time to arguing for God's immateriality indicates that not everyone accepted it. Overall, however, the notion of God being material was a minority position, not seriously entertained by many philosophical theologians (and certainly not Gregory).

those who argue that Gregory solved the philosophical conundrum of how an immaterial being could create material things by eliminating material things altogether from his ontology. On this interpretation, in full adherence with the LCL principle, Gregory would have held that God creates immaterial things, and the universe contains these only. Some argue that from this it follows that Gregory holds a form of idealism à la Berkeley, or, even more strongly, that in Western thought idealism originated with Gregory. Powerful arguments have, however, been made in the literature against this interpretation, to the effect that not only is idealism absent from ancient philosophy, but that it could not even have arisen at that stage of Western thought.⁴

Making a departure from these received lines of interpretation, I understand Gregory of Nyssa as being concerned to address a metaphysical puzzle of *categorical incompatibility*, of which divine creation is in fact only one instance. To the question of how something immaterial can generate material objects, Gregory's answer is that the immaterial generates intelligible qualities, from which bodies are made up. It is on this basis that Gregory has been interpreted as an early idealist. I argue that Gregory is not an idealist; that his qualities are not thoughts in a mind; and that his matter, which results from the combination of the qualities, is concrete. On my reading, Gregory develops an early account of the metaphysics of *abstract objects*. The qualities are physical aspects of material objects, singled out by abstraction, and having a definition. The definition shows them to be intelligible, but not thoughts in a mind. Being intelligible and immaterial, they can be generated by an immaterial being. Being physical aspects of objects, they can combine to give rise to material body. As I will argue in what follows, the key to Gregory's account is that there is a sense in which physical predicates 'are' true of abstract objects. Being definable abstractions, they are intelligible; being physical, they can constitute matter. This is how Gregory resolves his categorial puzzle of the material resulting from the immaterial.

Does Gregory admit material bodies in his ontology?

As I mentioned, views diverge regarding Gregory's metaphysical commitments: was he an eliminativist about matter, or not? Additionally, did he think of substances as bundles (of instantiated qualities, or of ideas?); or

did he posit a substratum (of what nature?) to which qualities or ideas somehow belong? A brief review of the existing alternative interpretations will enrich our understanding of Gregory's position.

On what I call the eliminativist interpretation, for Gregory the world does not contain matter; so there is no violation of the LCL principle. So, for example, think Arthur Hilary Armstrong (1962), Richard Sorabji (1983 et al.), Johannes Zachhuber (forthcoming) and others. Sorabji has articulated the eliminativist interpretation in a few core theses he attributes to Gregory, most significantly that 'a body, or a piece of matter, is a bundle of thoughts or concepts' (1983: 292–3); hence in this world 'there is nothing corporeal – in the sense of possessing a nature fundamentally different from that of minds – at all'.⁵ On this view, there is no metaphysical work left undone that would require positing a substratum; and indeed Gregory does not posit one. From this, Sorabji concludes that Gregory and Berkeley have the same idealist account of reality (although Gregory develops it as an answer to a completely different question from that of Berkeley).⁶ Additional, albeit indirect, support for this interpretation comes from Mark Edwards, who draws attention to interesting evidence (for example from Origen's *De principiis*) that he interprets as showing that at the end of the second century after Christ there was an intellectual environment where idealist views were somehow in circulation.⁷ A philosophical assessment of this evidence, and particularly Origen's, falls outside the scope of this chapter. Also, the evidence only speaks in favour of the existence of an intellectual environment where idealist ways of thinking might have been circulating; Edwards' considerations about the historical context, as well as Sorabji's proposed idealist interpretation of Gregory, have to be weighed up against the fact that plausibly Gregory (as well as his predecessors and contemporaries) was aware of an important argument by Plato against idealism. In the *Parmenides* (132b–c) Plato argues that if all were thought, objects would be thinking, in the sense that objects would be thought processes; and he deemed this conclusion absurd.⁸ It is plausible, I submit,

⁵ Hill 2009: 656. ⁶ For the arguments and a fuller statement of Sorabji's views see his 1983: ch. 13.

⁷ Edwards writes: 'Thus, we may be confident that there were Christians at the end of the second century who did not regard matter, or even the creation of matter, as a desideratum for the existence of concrete particulars. This departure from the Greek tradition was a corollary of the doctrine of creation out of nothing and a clear anticipation of a thesis that we commonly associate with Berkeley' (2013: 578).

⁸ But, Parmenides, maybe each of these Forms is a thought. Socrates said, and properly occurs only in minds. In this way each of them might be one and no longer face the difficulties mentioned just now. . . . And what about this?, said Parmenides. Given your claim that other things partake of forms, won't you necessarily think either that each thing is composed of thoughts, and that all things

⁴ Richard Sorabji offers a lucid discussion of the arguments, which were put forward by Myles Burnyeat first in 1978, in 1983: 287 and ff.

that Gregory would have known this argument, directly or indirectly, and would have wanted to avoid its conclusion, presented by Plato as absurd. I take here a conservative approach as it were; unless compelling contrary evidence is produced, I find it plausible that Gregory wanted to avoid a view that Plato had deemed absurd and thus did include matter in his ontology.

A different version of the eliminativist interpretation takes Gregory to hold that objects are constituted of qualities inhering in a substratum – where the latter is assumed to be of mental nature. Thus for example Jonathan Hill writes:

[Gregory's] strategy [is] to remove matter from the picture altogether and reassign its function to God. On this view, it remains the case that there has to be something 'underlying' the qualities of *physical* objects – but rather than posit some distinct thing called 'matter' to do it, God can do it himself. (Hill 2009: 666)

Thus 'For Gregory, *hylē* no longer denotes some entity or principle distinct from God; it describes one of the things God does' (Hill 2009: 675); Gregory 'uses the term in a functional way: to express God (or his activity) acting in the way matter was traditionally supposed to do' (Hill 2009: 666). On Hill's interpretation, God performs the metaphysical function of holding things together – unifying qualities into the things there are in nature. I take this interpretation to be aimed at showing that Gregory does not require matter in his ontology, because there is something else that can play (at least one of) the metaphysical role(s) that matter is often in antiquity introduced to play, that is to be an ultimate substratum. But even if one granted that God's activity plays the role of being the ultimate substratum in Gregory (which is a line of thinking I do not find in Gregory), Hill's interpretation does not offer an account of matter as physical body. And yet, Gregory ponders about this problem, and ever reports it, as we have seen, as an aporia of his philosophical times: 'How can quantity come from non-quantity, the visible from the invisible, some thing with limited bulk and size from what lacks magnitude and limits? And so also for the other characteristics seen in matter: how or whence were they produced by one who had nothing of the kind in his own nature?' (*Ap. in hex.*, trans. at Sorabji 1983: 290). This remains to be explained in Gregory's system even after positing

think; or that although they are thoughts, they are unthinking? That isn't reasonable either; Parmenides, he said' (*Parm.* 132b–c).

an immaterial ultimate substratum. This is why I find Hill's interpretation ultimately unsatisfactory.

Yet another version of the eliminativist interpretation is by Johannes Zachhuber, who writes that

What Gregory means . . . must be that matter is not part of the first creation, but only a result of further development. . . . The first creation is that . . . of a kind of intelligible being which is tied to the corporeal world. . . . So, since it must first be in their nature [sc. in the nature of things which have completely existed in the beginning] to develop into corporeal being, and secondly their initial perfection is only a 'potential' one as that of a germ, an imagery popular with many philosophers and resounding in Gregory's account, i.e. they find their full realization only inside the sensible realm. I should thus conclude that what is created fully in the beginning are the principles of corporeal being which, however, are not bodies themselves, but the lowest level of intelligible being. (Zachhuber 2000: 150–1)

Zachhuber concludes:

In summary then God created, according to Gregory, 'in the beginning' a *plēroma* of *logoi*, of intelligible being, which, however can actualise itself only under the conditions of space and time in order to reach the perfection which is only germinally provided in it. This temporal and spatial development of those forming principles constitute sensible being in the first place. (Zachhuber 2000: 154)

Zachhuber presents every initial being, which Gregory lists, as a *potentiality* that can 'actualise itself only under the conditions of space and time'. But there is a circularity that results from this conception, in view of Gregory's account of the initial beings, which includes space (*διδότῃνα*, extension) amongst the 'potential beings' (*Ap. in hex.*, trans. at Migne 1857: 69). The condition of actualisation that is set for the potentialities, namely coming to be in space ('spatial development'), presupposes the actuality of space, which begs the question regarding the actualisation of space in potentiality (which presupposes its own actuality in order to be actualised).

The *non-eliminativist* interpretation, on the other hand, appears more promising in terms of fit with the textual evidence, even if it does commit Gregory to a *prima facie* violation of the LCL principle. On this interpretation Gregory's world includes material bodies. This view has been defended for example by Darren Hibbs, who argues that for Gregory material objects are combinations of qualities, which are themselves concepts:

Gregory proposed a solution that explained the creation of material bodies as resulting from a commingling of immaterial, incorporeal qualities that

are themselves concepts. . . . The relevant point is that material bodies are brought into existence by a creative act; they are real items in an inventory of the universe. Gregory's theory is an application of a standard thesis of Platonic metaphysics: the intelligible features of an object are ontologically prior to their material instantiations. (Hibbs 2005: 432)

But although the challenge that Gregory was addressing was how to explain the derivation of a material nature from an immaterial one, on this issue Hibbs tells us that Gregory's solution is silent: 'Exactly how this process [of the creation of material bodies from concepts] is supposed to work, and the status of the concepts after they are brought together in the act of creation, is not made clear by Gregory' (Hibbs 2005: 432). Yet this is where we want the interpretation of Gregory's solution to enrich our understanding. In conclusion, I submit, no one of the existing interpretations of Gregory's views reviewed above as representative of the recent scholarship delivers an account that is philosophically fully satisfactory as well as fitting with the textual evidence.

The challenge of the immaterial generating material bodies, without violating the LCL principle

In this section I will argue that Gregory's solution to the conundrum of the world's creation is this, in a nutshell: in creating the natural qualities, God *thereby*, without any additional act, created all that was needed for the constitution of material bodies too. But does the creation of the natural qualities respect the LCL principle? Are God and the qualities of the same nature? And if they are, what is that nature, and how could material bodies be constituted by entities of such a nature? In what follows I first offer a reconstruction of the logic of Gregory's argument that accounts for God's creation of the world; I then focus on the metaphysical considerations that Gregory introduces to account for how material bodies come about when immaterial qualities bundle together. In the structured representation of the argument below, the convention I follow is to indent under the conclusion the premises or the sub-arguments pertinent to the support of that conclusion. The premises justifying a conclusion are grouped at the same level of indentation.

C. God created both immaterial qualities and material bodies, with no violation of the LCL principle

1. God created immaterial qualities.
 - 1.1 God is the source of creation.
 - 1.2 Creation is governed by the LCL principle.

- 1.3 God's nature is intelligible.
- 1.4 The qualities' nature is intelligible.
 - 1.4.1 Qualities are definable.
 - 1.4.2 The definable is intelligible.
- 1.5 The qualities are immaterial.
 - 1.5.1 The qualities are definable.
 - 1.5.2 What is material is not definable.
 - 1.5.2.1 [Because (presumably) the combination of the qualities in material things is not determinate and expressible in ideas.]
2. Material bodies *are* bundles of immaterial qualities.⁹
 - 2.1 Body dissolves into abstracted immaterial qualities.
 - 2.2 The substratum in material bodies is a logical subject, rather than an additional undefinable entity.¹⁰

There are many questions that arise from this line of argumentation. In this chapter I focus on what I take to be the most serious philosophical challenge the argument presents us with, that is, that the qualities of *material* bodies are *immaterial*, and nevertheless their combination results in the constitution of material bodies. I aim to show that this is what Gregory is proposing, and that there are both historical and theoretical considerations that can help us make sense of his position.

I should like to begin with a methodological note. Although I believe, with others, that Gregory of Nyssa was mainly influenced by the views of Plato and generally the Neoplatonists, there are many elements of his reasoning that exploit Aristotelian doctrines or arguments.¹¹ As we shall see this is often explicit in Gregory's content; but even further, in crucial passages Gregory uses philosophical terminology *coined* by Aristotle. Still, Gregory's reasoning is not anti-Platonic. Rather, he uses Aristotelian

⁹ The metaphysics underpinning this claim will be discussed shortly.

¹⁰ My premise 2.2. derives from *De hom. op.* 2.4.212–13: 'For we shall find all manner to be composed of (*summatant ab*) qualities (*ποιαισι*) and if it were stripped bare of these on its own, it could in no way be grasped in definition (*λογῆς*). On an alternative way of reading this quotation (particularly the wording 'if it were stripped bare of these [qualities] *on its own*' (my emphasis)), one may want to argue that Gregory posits a substratum underlying material objects (cf. Hill's interpretation above, p. 98). But now this substratum, not being a quality, and qualities being the only items that God creates, would be ungenerated by God. Then who generated it? If this substratum existed, it would generate a clear problem for Gregory's doctrine of divine creation. Rather, I submit, what remains after stripping away the qualities is their logical subject, which has no being of its own.

¹¹ For a recent discussion of this issue see Rist 2000. The existing evidence to the effect that Gregory voiced negative feelings about Aristotle (see e.g. C. *Ennom.* 1.6) does not preclude or make less plausible that Gregory could make use of Aristotelian views and arguments, in service of his own line of thinking.

arguments to explain further, and make fit for his own purposes, theses that would be thoroughly 'respectable' Neoplatonic and even Platonic positions.¹²

Gregory is clear about the challenge he is facing, which he expresses and frames in metaphysical terminology. He says that

no one should still be cornered by the question of matter, and how and whence it arose. You can hear people saying things like this: if God is matterless, where does matter come from? How can quantity come from nonquantity, the visible from the invisible, something with limited bulk and size from what lacks magnitude and limits? And so also for the other characteristics seen in matter: how or whence were they produced by one who had nothing of the kind in his own nature? (*Ap. in hex.*, trans. at Sorabji 1983: 290)

How can the immaterial give rise to the material? What is being questioned is not the power of God to generate, but the *metaphysical compatibility* between God's nature and what God generates when matter is created. The problem Gregory poses has the makings of a thoroughly 'recalcitrant', if not hopeless, philosophical puzzle. It is the type of problem that has dominated philosophical thinking for millennia and continues to drive research in present metaphysics. We can think of it as the problem of *categorical incompatibility*. Gregory engages with an instance of it, which is divine creation; in the modern era the problem took the form of the causal gap between the physical and the mental, which still exercises us today. In what follows I engage with the solution that I take Gregory to offer to the version of the puzzle he is concerned with.

How the immaterial generates the material

As we saw, the general problem at stake is the categorial compatibility of the cause and the effect. The LCL principle requires that like generates like – as Aristotle said, man begets man. But the difference between the immaterial and the material is so fundamental that any other likeness between them pales into insignificance. Gregory restates their difference, in order to frame the puzzle vividly and precisely:

The *corporeal* creation is thought of in terms of properties which have nothing in common with the *divine*. And in particular it produces this

¹² The Aristotelian positions and arguments that Gregory uses are so central to Aristotle's metaphysics and epistemology that they became fundamental tools in the philosophical teaching of succeeding generations.

great difficulty for Reason (*logos*). For one cannot see how the visible comes from the invisible, the solid and resistant from the intangible, the limited from the unlimited, or what is in every way circumscribed by quantitatively conceived proportions from what lacks quantity and magnitude, and so on for everything which we connect with corporeal nature. (*De an. et res.*, trans. at Sorabji 1983: 290, emphasis added)

The puzzle is framed in terms of the violation of the LCL principle. A clarification is in place here. Aristotle held that change is from opposite to opposite, e.g. from being hot the object comes to be cold. This describes the *before and after* conditions in an object – and these two conditions are not related as cause to effect; while the LCL principle is concerned with the relation of the *cause with the effect*. We should not be misled by the terminology of, for example, tangible and intangible, or corporeal and incorporeal, into thinking that Aristotle's principle that opposites come from opposites would apply here too. The corporeal and incorporeal are not two states of a single entity, but the natures of a cause and an effect, which is not what Aristotle is describing in his principles of opposites. Furthermore, Aristotle's dictum does not apply to such distinctions as the corporeal and the incorporeal, but to opposite qualities. Opposite qualities fall under a single genus, e.g. the thermal, for hot and cold; or texture, for rough and soft. But the corporeal and the incorporeal do not share a common genus of any generality. They are not opposites, but the one expresses the privation of the other, designating the two corresponding entities into different categories of being. Here, LCL tells us that generation may occur only between entities that can share the same type of being (that is, that can be like one another).

Thus, there is only one way for Gregory to resolve this predicament: the creator and the created need to be shown to be the *same type* of being. And this is exactly what Gregory undertakes to show. He argues that both God and what God creates are *immaterial and intelligible*. By contrast, objects are *material and perceptible* but *not intelligible*. Yet, he argues, material objects are constituted by the qualities created by God. I will suggest that the qualities 'are' indeed physical, despite their immateriality and intelligibility.¹³

¹³ This is a tacit reference to the special sense in which qualities are true of abstract objects in such Neo-Aristotelian theories of the metaphysics of abstraction as those of Kit Fine (2002), and Edward Zalta (2006).

In order to understand how Gregory resolves the creation puzzle, we can look at its ancestral thought experiment that was famously carried out by Aristotle — stripping qualities off a body:

When all else is taken away [from a body] evidently nothing but *matter* remains. For of the other elements some are affections, products, and capacities of bodies, while length, breadth, and depth are quantities and not substances. . . . But when length and breadth and depth are taken away we see nothing left except that which is bounded by these. . . . By matter I mean that which in itself is neither a particular thing nor of a certain quantity nor assigned to *any* other of the categories by which *being* is determined. For there is *something* of which each of these is predicated, so that its being is *different* from that of each of the *predicates*. . . . Therefore the *ultimate substratum* is of itself neither a particular thing nor of a particular quantity *nor otherwise positively* characterized; *nor yet* negatively, for negations also will belong to it only by accident. (*Metaph.* Z 3 1029a1–26, trans. Barnes in Aristotle 1984: 1625, emphasis added)

This is a thought experiment which concludes that matter, in itself, has no being, nor privation of being, where the kinds of being and its privation are depicted in an ontology such as that of the classification system of Aristotle's *Categories*. Gregory says, in his turn: 'We shall find all matter to be *composed of qualities* and if it were stripped bare of these on its own, it could in *no way* be grasped in *idea*' (*De hom. op.*, trans. at Sorabji 1983: 291, emphasis added). Just as Aristotelian matter in itself cannot be described by any of the predicates of language (i.e. by any general term), the Gregorian bare matter cannot be described by any idea.

This conclusion is important to Gregory because he wants to show that what is distinctive about matter is that its nature cannot be described by ideas. Although this raises a question about the nature of matter, it does give Gregory what he needs: matter in itself — bare matter — stripped of its qualities, is *not intelligible*. The thought experiment of abstracting away the qualities of a material body shows, both for Aristotle and for Gregory, that what remains does not, in itself, have any type of being. Both Aristotle and Gregory discover, through this thought experiment, not an enigmatic pure potentiality — as some interpreters of Aristotle think, but rather the metaphysical function of subject-hood. This is not a type of being, but a logical role that is played out for every material object. How it can be played out can vary metaphysically, from system to system, and I will not engage with those differences here, but will only note that this interpretation of the ultimate substratum in Gregory, namely of a function to be dispensed with, rather than of an entity (e.g. a bare particular), suits

Gregory's ontology, where there is no space for un-generated un-intelligibles. This is because he will attempt to argue that 'there is an opinion about matter which seems not irrelevant to what we are investigating'. It is that matter arises from the intelligible and immaterial' (*De hom. op.*, trans. at Sorabji 1983: 291). So positing a primitive (un-generated) un-intelligible substratum would run counter to the whole endeavour of deriving matter from the intelligible. But how can matter arise from the intelligible immaterial? Gregory tells us how, but this account will need to be supplemented with Aristotelian insights to make it metaphysically 'robust'.

So far we have seen that matter is composed of qualities, and that there is no further being than this in matter. That matter is *composed* of the qualities is shown by Gregory through the stripping-off thought experiment, where all the qualities of matter are abstracted away from body and no being remains. Gregory argues in reverse that 'if we find the absence of these things causes the dissolution of body, we must suppose their *combination* is what generates material nature' (*De hom. op.*, trans. at Sorabji 1983: 291). It is not clear here whether Gregory sees the qualities as being merely composit or as composing; but either way, they are the sole constituents of material body that possesses them as qualities. This line of reasoning directs our interest to these qualities. What types of entity are they, and whence do they derive? Gregory tells us that

By his wise and powerful will, being capable of everything, he established for the creation of things all the things through which matter is constituted: light, heavy, dense, rare, soft, resistant, fluid, dry, cold, hot, colour, shape, outline, extension. All of these are in themselves thoughts (*ennoia*) and bare concepts (*psila noemata*); none is matter on its own. But when they combine, they turn into matter. (*Ap. in hex.*, trans. at Sorabji 1983: 290)

All the ways in which matter is characterised, namely all the qualities that constitute matter, are said to be in themselves thoughts and bare concepts. This and other statements to this effect have been the basis of interpretations in the literature that attribute a form of idealism to Gregory. But the question arises, how then does the combination of the thoughts turn them into matter? One might think that Gregory is offering a theory of the *supervenience of matter on the mental*. But there is nothing in Gregory or his classical sources that would make such an account plausible: on the contrary, recall Plato's 'damning' comment that we encountered earlier, that if Forms are thoughts and things partake of them, there then follows the absurdity 'that each thing is composed of thoughts, and that all things think; or that although they are thoughts, they are unthinking'

(*Parm.* 132b–c). We would expect Gregory to remark on this type of objection from a prominent predecessor, if he held that objects are made of thoughts. This is why it is more promising to explore a different interpretative direction, which finds foundations and rationale in Platonic and Aristotelian metaphysical positions.

My understanding of the ontological status of the qualities is grounded in this claim of Gregory's, that 'each type of quality is *separated in account from the substratum* [*logoi tou hypokeimenou chorizetai*], and an idea is an intelligible, not a corporeal way of looking at things' (*De hom. op.*, Sorabji's translation, modified, at 1983: 291). Being *separate in account or definition* (*choriston logos*) is a technical term that Aristotle introduced (see e.g. *De an.* 413b14–15). It is related to abstraction and indicates that we can individuate by conceptual division what is not physically separable. Thus, a definition or an account of what something is separates it out conceptually from its physical manifestation. For instance, defining the blue of the sea individuates a colour which is manifested in the blue sea. What type of entity exactly is individuated by abstraction can vary; e.g. the colour of this particular sea (that is, a colour trope); or this particular tint of blue (i.e. a specific universal); or as blue (a generic universal). The level of discrimination in individuating a quality within Gregory's ontology will not concern us, as he does not engage with the particularity of the qualities that make up matter. What is significant for our investigation is that separating in account (or definition) allows for the *division by abstraction* of objects into the qualities they are composed of, without requiring their physical division even in principle.

What is it that is being separated in account? The answer is straightforward, namely, what is separated in account is what is described by the account. The account is a definition of a quality and describes *what it is* to be that quality. Thus Gregory says: 'For the explanatory formula envisaged for each of these [qualities] is quite individual according to *what it is*, and has nothing in common with any of the other qualities which we connect with the substratum' (*De hom. op.*, trans. at Sorabji 1983: 291, emphasis added). The account may be given in terms of the species and genera of that quality, or through peculiar characteristics of the quality. For example, Aristotle defines colour as that which can move what is actually transparent (*De an.* 418a31–b1); this is what colour *is*, wherever colour is in objects. The definition of a quality abstracts that quality away from its manifestations in objects; Gregory writes that 'each type of quality is separated in idea from the substratum' (*De hom. op.* 24). What the definition describes is an abstract entity, e.g. colour. Colour is found in nature, not separately as an

entity of its own, but embedded with other qualities in objects. So, speaking metaphorically, the definition sets out as if 'in relief' a quality that is embedded in an object.

This is the key to my understanding of Gregory's ontology: each *physical* quality of an object, described by the *definition* of that quality, is an *abstract* entity. The qualities are mixed in the object, but their definitions single each of them out in abstraction. That is, the definition of each of the qualities that belong to the object separates *each quality* by abstraction from the other qualities, all of which in combination compose the object. Thus, the qualities, which are the various aspects of the *physical* constitution of an object, are, *qua* definable, *intelligible* abstract entities. Gregory did *not* think that the abstract intelligible entity is a thought in a mind. It is intelligible in so far as it is fully describable by the definition, through concepts expressed by the general terms of the definition. But what is abstracted and singled out through the definition is a *physical* aspect of an object. That aspect is not separate, distinct in the object, but integrated with the other qualities of the object to which it belongs.

When Gregory talks of *concepts* (*ennoiai* or *noemata*) he uses concepts impersonally, *not* to refer to the content of a consciousness, but to refer to an *abstract* entity, a quality, which is *definable* and hence *intelligible*. This quality is individuated by abstraction, separated in definition from the object that it characterises, and of which it is *truly predicated*. We read:

By a process of *mental division* we recognize many things *connected with the substratum* and the idea of each of them [the abstracted qualities] is not *mixed up* with the other things we are considering at the same time.¹⁴ For the ideas of colour and of weight are different, and so again are those of quantity and of tactile quality. Thus softness and two-cubit length and the other things *predicated* [of the substratum] are not conflated with each other, nor with the body, in our idea of them. (*De hom. op.*, trans. at Sorabji 1983: 291, emphasis added)

Following the process of abstraction in reverse with Gregory, one is led from the abstract entity to its *embedding* in the object: 'For a thing is not a body if it lacks colour, shape, resistance, extension, weight and the other properties, and each of these properties is not body, but is found to be something else when taken [*by abstraction*] separately. *Conversely*, then,

¹⁴ I take it that it is this 'mixing up' of the abstract qualities in a material object that makes the object undefinable, and hence unintelligible, and merely perceptible. Gregory offers no account of an *interaction* between the qualities, but only a suggestion of the *indeterminacy* of the matter due to the way the qualities come together in an object.

when these [abstracted] properties combine they produce material reality' (*De hom. op.*, trans. at Sorabji 1983: 291). What Gregory is describing is a thought experiment of dissolution and re-composition of material objects. He dissolves the objects into their qualities, which he describes with the definitions of the qualities, and then recomposes the objects from these qualities by abstraction in reverse.¹⁵ The *converse* process to abstraction (let us call it 'intraction') is precisely recombining the abstracted, and re-composing the object out of its qualities. Each quality picks out the physical nature of an aspect of the object, which is singled out by abstraction. The combination of these physical natures (qualities) makes up matter – physical matter. Gregory does not think of matter as a concept, an image or a perception of ours; for him matter is as concrete as we believe it is.

Crucial to understanding that it is matter that results from 'intraction' is the sense in which the qualities 'are' physical; for example, the sense in which it is true of the abstracted quality of redness that it 'is' red.¹⁶ Gregory does not himself develop a distinction between the way that an object is red and the way that the abstracted colour of that object 'is' red; but he does assume that for example the quality red is the redness of the colour. At the same time, the quality red is definable and, hence, intelligible. The quality of red is not perceptible for Gregory because it is not concrete, that is, it is not combined with the other physical qualities. So, in so far as qualities 'are' the physical natures they pick out from an object, to that extent the qualities 'are' the constituents of that material object. Gregory thought that the abstracted qualities literally *are* the physical natures of aspects of objects, exactly the natures that the definitions of the qualities specify, and thereby, for Gregory, the combined qualities literally *are* matter; so matter is composed of intelligible physical qualities. Gregory of Nyssa built *material objects out of the abstracted physical qualities* of the material objects.

The challenge Gregory undertook to address is: 'if God is matterless, where does matter come from?' (*Ap. in hex.*, trans. at Sorabji 1983: 290) His answer was that God does not create matter. God creates the abstract

intelligible qualities which are the physical natures that compose matter. When these qualities are combined with the other qualities that belong to a subject, a material object is constituted. God's nature is non-material, and so are the abstract qualities God creates. These entities are non-material and intelligible, in that they are fully described by definitions. Hence, 'if the conception of these properties is intelligible, and the divine is intelligible in its nature, it is not strange that these intellectual origins for the creation of bodies should arise from an incorporeal nature, with the intelligible nature establishing the intelligible properties, whose combination brings material nature to birth' (*De hom. op.*, trans. at Sorabji 1983: 291). The sense in which these abstract entities 'are' physical is the sense in which the definitions 'are' truly predicated of them. Gregory does not engage with the question of how the definitions of the qualities 'are' true of them, despite their abstractness. How, for example, 'is' the abstracted quality of Socrates' weight a weight (heavy)? Gregory writes:

But we can say this much on the subject: none of the things we connect with body is on its own a body – not shape, not colour, not weight, not extension, not size, nor any other of the things classed as qualities. Each of these is an idea [i.e. an abstract intelligible entity], but their combination and union with each other turns into a body. (*De an. et res.*, trans. at Sorabji 1983: 290)

Clearly more metaphysical distinctions and theory are needed to fill in the gaps of, on the one hand, the relation between the nature of qualities in abstraction and embedded qualities and on the other, the difference in ontological status of qualities in abstraction and embedded qualities. A metaphysical theory of abstract entities would be needed to offer full explanations of the differences between them. What I have tried to do in this chapter is to explain how Gregory builds the ontology of his system, assuming that such a theory of abstract entities is available, for example from Aristotle's categorial scheme of properties. In so doing I have tried to indicate what metaphysical distinctions would be needed to enable us to follow Gregory's train of thought in claiming that abstract ideas combine into material body.

Conclusions

Gregory makes use of the philosophical heritage of his era with ingenuity, in addressing the metaphysical problem of how an immaterial God could create a material world, given that like causes like. He exploits what he in

¹⁵ Aristotle's relation of an abstracted entity, separated by definition from an object, is a metaphysically *more complex* account than the one offered above in explaining Gregory's ontology. What gives rise to the further complexity is Aristotle's Homonymy Principle, according to which dividing an object generates entities that are not as such in the object, because division severs and deprives the divided part of the object from its role and functionality in the whole object. I have not used this principle in my account of Gregory's views because I see no evidence that Gregory employs it in his ontology.

¹⁶ Contemporary metaphysical theories of abstract objects have advanced developments of this idea that abstract entities can be physical.

some sense takes to be a hybrid entity, delivered to us by our power of abstraction, namely qualities: he derives qualities from material objects, separating them from the objects by abstraction, thereby individuating physical aspects of the material objects as definable, intelligible entities. His solution, in sum, is that the immaterial God created immaterial qualities of objects, which are physical aspects of objects, and which compose with one another to give rise to material bodies. He needs more metaphysical tools to fill in his account – some of which were developed by Aristotle, but not fully exploited by Gregory. Some further tools of abstract predication have been formulated in recent theories about the metaphysics of abstract objects.¹⁷ Possibly even with these new tools Gregory's account might still be wanting. Thus Gregory has taken us into the very demanding domain of the metaphysics of abstraction, where 'still wanting' may even be a term of praise.

¹⁷ I cannot develop this point further within the scope of the present chapter.