
Physics and Philosophy of Nature in Greek Neoplatonism. Proceedings of the European Science Foundation Exploratory Workshop (il Ciocco, Castelvecchio Pascoli, June 22–24, 2006) edited by Riccardo Chiaradonna and Franco Trabattoni

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This volume contains some very interesting material on philosophy of nature in late antiquity. As the editors point out in their introduction, recent decades have seen a reevaluation of the Neoplatonic physics and philosophy of nature, as opposed to the earlier slighting of these subjects because of the supposed purely metaphysical and theological character of Neoplatonism. The main aim of *Physics and Philosophy of Nature in Greek Neoplatonism* is to contribute to this reevaluation in a very concrete way by discussing some of the abundant material on the topic.

The editors chose to include both ‘physics’ and ‘philosophy of nature’ in their title in order to distinguish between the Neoplatonists’ understanding of nature and the place of that understanding in the overall philosophical system or discourse. Although this distinction does not figure as such in the book, it does serve to indicate the broadness of the topic thereof as well as to emphasize an important aspect of Neoplatonic thought about the natural world. As the editors point out in their introduction, the strong metaphysics of the Neoplatonists did not suppress other branches of philosophy but instead formed their conceptual framework.² ‘Accordingly, it would not be wrong to speak of a Neoplatonic “metaphysics of nature”,

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² I do not agree, however, with the editors’ suggestion [14] that besides the shared metaphysical character or approach, the Neoplatonists shared a single

“metaphysics of fate and providence”, or “metaphysics of science and knowledge” [14]. And accordingly, it does not suffice to discuss Neoplatonic views of natural phenomena in isolation: they must always be considered within their metaphysical context. As we will see, this is what the papers in the volume do.

The editors pose two general questions:

- (1) ‘Did Neoplatonic authors ever prove capable of developing a unified conception of physical reality?’, and
- (2) ‘Was such an overall conception capable (at least in principle) of providing rational explanations concerning natural phenomena in all their complexity?’

The first question does not receive a straightforward answer but is used to create a contrast between the unity of the metaphysical framework used [see, however, 25n2 above] and the absence of a unified conception of nature. Different philosophers come up with different theories, each with its own problems and attractions.

Neoplatonic philosophy of nature cannot be compared to contemporary theories, as it is more interested in tracing back physical phenomena to their metaphysical causes and generalizing than in analyzing empirical detail. Therefore, according to the editors, the answer to the second question is ‘No’. However, I would counter that that answer is given from the perspective of contemporary theory, as a Neoplatonist would no doubt reply that, of course, the only good rational explanation of natural phenomena in all their complexity is a theory which explains those phenomena in terms of their transcendent causes.

The 10 papers are presented in chronological order of subject matter. In a nutshell, the volume contains the following papers: we find [Marwan Rashed](#) (in French) analyzing the truth behind the Neoplatonic presentation of Xenarchus, Ptolemy, and Plotinus as all three criticize Aristotle’s theory of the natural motion of the elements; [Riccardo Chiaradonna](#) (also in French) reconstructs Galen’s *De demonstratione*; [George Karamanolis](#) defends Plotinus’ notion of quality and more generally his ontology of the sensible; [Robbert van](#)

conceptual framework. As is clear even in the volume here discussed, e.g., in Russi’s paper, there are important variations in the metaphysics of the Neoplatonists as well.

den Berg distinguishes two kinds of common notions on the basis of Plotinus' and Proclus' (and Augustine's) concepts of time; Christian Wildberg scrutinizes Plotinus' puzzling remarks on 'nature's contemplation'; Chiara Russi shows that there are a number of differences between Plotinus' and Proclus' views on causality in the natural world; Alessandro Linguiti describes Proclus' views on the relation between nature and fate; Jan Opsomer analyzes Proclus' theory of motion in the *Elementa physica* and shows how Aristotelian and Platonic material interact therein; Gerd Van Riel traces the many layers in Proclus' notions of matter and necessity, and their sources in different Platonic dialogues; and finally Carlos Steel presents Proclus' theology of the Earth.

After this very brief and general overview, let us dive a little deeper into the papers one by one (or skip straight to the [Conclusion](#)).

Marwan Rashed presents a clearly written but very dense 'background check' of Simplicius' claim that Ptolemy, Xenarchus, and Plotinus all rejected the Aristotelian theory of the natural rectilinear movement of the four elements and replaced it with the theory that the elements either are at rest or have a circular movement, in order to render a fifth element superfluous. Rashed's main aims are to reconstruct the actual positions of these three philosophers and thereby to emphasize that one should not disconnect philosophical theories from their contexts. His method is that of meticulous textual analysis (unfortunately, without always quoting the Greek passages involved) combined with some speculation where evidence is lacking.

Rashed starts from Xenarchus' well known position that a fifth element is not required because fire, in its natural place, moves in circles; and assumes what he calls the 'naïve' [18n5] position, namely, that Xenarchus' aim is to present the Aristotelian system in as good a way as possible—which fits his epithet 'peripatetic'. The method Rashed ascribes to Xenarchus is rather Ockhamist/modern, as it includes the reduction of principles through the experimental verification of a theory with empirical data. The downside of that approach, according to Rashed, is that the eternity of heaven, the second argument for the fifth element, is 'left dangling' ('un flottement') [19].

In the case of Ptolemy, things are less straightforward because of textual issues. After analyzing them, Rashed first concludes that in *Alm.* 1 Ptolemy proposes a cosmological model which distinguishes

between two static relations: on the one hand, there is a homeomerous element,³ which by its relative inertia dominates and ‘holds back’ (i.e., keeps in place) the non-homeomerous sublunary realm; and on the other hand, there is Earth, which is immobile and ever more compact due to the external pressure of heavy (composite) bodies.

On the basis of five known testimonies and one ‘new’ testimony concerning Ptolemy’s *Περὶ τῶν στοιχείων* and *Περὶ ῥοπῶν*, which Rashed argues are one and the same work, Rashed then goes on to introduce Ptolemy’s notion of ‘inclination’, that is, the tendency of composite bodies to move to their natural place. Once they have reached it (a low place for heavy bodies, and a high one for light bodies), they become immobile.

Rashed distinguishes two views of heavy bodies, namely, as bodies which tend to the center of the cosmos (as opposed to light bodies which tend to the periphery) and as bodies which, in their own place, are not prone to move (as opposed to light bodies which are easily moved). The eventual circular motion of fire and air are explained as the result of the ‘sweeping’ of aether’s motion.

While emphasizing that not all details in Ptolemy’s doctrine on the elements are clear, Rashed suggests by way of conclusion that Ptolemy’s aim is to unify Aristotle’s kinematics while maintaining the supremacy of the heavens. He refined Aristotle and used Xenarchus to plead for the fifth element: by emphasizing the immobility of the other elements, he reinforced the circular movement of the fifth.

About Plotinus, finally, Rashed states that he says neither that the elements move rectilinearly to their natural places nor that they are at rest or move in circles once they get there. Moreover, by ascribing such positions to Plotinus, Simplicius betrays Plotinus’ representation of the sensible, according to which certain phenomena in the sensible world can only be explained by causes that transcend the corporeal. On the basis of *Enn.* 2.2 [14] and 2.1 [40], Rashed argues that at first (in 2.2) Plotinus maintained that the circular movement of heaven is a result of the combination of the rectilinear movements of the elements and the non-local reversion of soul. Later, however

³ Rashed interprets this as corresponding to the fifth element but it is not clear to me what his arguments are.

(in 2.1), Plotinus took circular movement to hold the middle between rectilinear and intelligible motion.⁴

Rashed's analysis of the positions of the three philosophers grouped together by Simplicius as opponents of the Aristotelian theory of the fifth element shows that the supposed unity does not exist (Ptolemy staying closest to Aristotle, and Plotinus being most critical). Rashed suggests that the Neoplatonist's reason for presenting a not quite accurate unified opposition to Aristotle was that in doing so he wanted to create a front against the anti-Platonic traits of Aristotle's cosmology.

Riccardo Chiaradonna's paper is the one that fits the overall topic of the volume least. Its aim is to reconstruct the epistemological project of Galen's *De demonstratione* and to place the work in the context of the philosophical debates of the second and third centuries. In order to reach that goal, Chiaradonna reconstructs the structure and general sense of the lost treatise, then considers some traces of its posterity, and finally places the whole in the broader context of the transition from post-Hellenistic philosophy to that of late Antiquity. Galen, it turns out, is quite conservative in that we do not find in his epistemology the far-reaching 'ontologization' which is the core of that transition. Another aspect of Galen's thought that is emphasized by Chiaradonna is his general interest in epistemological debates and especially in questions regarding the foundation of knowledge.

So how does this paper on epistemology in the mid-second century fit a volume on philosophy of nature and physics in Greek Neoplatonism? With respect to physics, I guess the answer is that, as Chiaradonna shows, *De dem.* contained some, at first sight irrelevant, discussions of all kinds of issues relating to time, space, generation and corruption, matter, the elements, and so on. With respect to the Neoplatonic aspect of the volume, the connection is a bit more forced: to some extent, Galen is a Platonist—he himself states that Plato is

⁴ I do not agree entirely with Rashed's analysis of *Enn.* 2.2.1 [36]. I would say that providence explains not so much why fire moves in circles in its natural place (the presence of soul explains that) but why fire stops moving in a straight line, which prevents it from dispersing entirely. That is, soul explains the kind of motion but providence explains the presence of soul and, hence, circular motion as opposed to dissipation.

one of his main sources. However, since Galen does not ‘ontologize’, he is certainly not a Neoplatonist.

In the longest section of his paper, the reconstruction of Galen’s ‘applied epistemology’, Chiaradonna brings up the role of the digressions concerning non-medical issues. He points out that the purpose of *De dem.*—teaching doctors the method of demonstration, the use of which gave medicine a scientific status—does not sit well with those digressions. Chiaradonna reviews the different solutions given to that problem and comes up with an answer of his own: for Galen, logic is no more than the method of invention in science. It allows the scientist to gain general and structured knowledge of axioms and theorems, and to apply this knowledge in his own discipline. This goes for the physician as well, as medicine is an applied science founded on exact and verifiable theorems. Now, since logic is no more than a method of science, a treatise on logic cannot but contain specific examples of the application of that method. Thus, a digression on vision teaches us about natural criteria as the foundation of knowledge; the discussion on the eternity of the world is to be understood as part of the distinction between problems of which we can have scientific knowledge and problems of which we cannot;⁵ and the discussion of time is presented in order to explain that some objects are primitive and cannot be defined.

Chiaradonna elaborates quite a bit on the digression on time. Simplicius and Themistius report Galen’s view that time has no relation to motion. Instead, motion comes in when we think about time, since we do not think by ‘immobile thought’. Moreover, Galen, as is well known, rejects Aristotle’s definition of time as circular. Chiaradonna briefly distinguishes two strands in current discussions on Galen’s view of time: those who place it in the context of the ancient debate on Aristotle’s *Physics* and argue that Galen adopts the *Timaeus*’ notion of time as a substance, and those others, notably, S. Fazzo, who maintain that Galen did not really have an anti-Aristotelian view. Chiaradonna partly sides with Fazzo and suggests that Galen was trying to give a satisfactory explanation of Aristotle’s

⁵ Or, as Chiaradonna states later [54], the discussion on the generation of the world was part of a discussion on the relation between truths of reason and truths of experience.

theory.⁶ It seems to me, however, that there is something of a tension between this suggestion which implies intrinsic interest in the question discussed and the aforementioned role ascribed to the digressions as merely exemplifying epistemological issues. Galen could have tried to come up with examples from the discipline to which the logical method was to be applied, namely, medicine. Instead, however, he chose traditional discussions from physics and tried to contribute to those discussions.⁷

After reconstructing *De dem.* and the role of the digressions therein, Chiaradonna moves on to characterizing the philosophy presented in the treatise. He points out that the epistemology (the theory of definition, of its epistemic function and limits, and of the immediate evidence of primitive terms) is not founded on an ontology—thus, when Galen describes immanent universals, he presents a taxonomical, not an ontological, realism. As a consequence, the relation between logic and physics is not mediated by ontology. I am not entirely sure what that means. Should we understand that Galen was not interested in making explicit his ontological assumptions? Or rather that he thought that in the context of logic and physics there are no relevant ontological assumptions? Chiaradonna seems to prefer the latter but his careful formulation, ‘il n’est peut-être pas trop hasardeux de reconnaître’ [64], shows that the evidence is thin.

Chiaradonna ends by addressing the transition from the post-Hellenistic era to Neoplatonism. Pointing out once more that Galen is not interested in metaphysical speculation, Chiaradonna emphasizes that there are nonetheless interesting parallels between Plotinus and Galen, e.g., in their discussions of time, which might reveal, not necessarily that Plotinus read Galen, but rather that both took up currents that were common in their time.

Chiaradonna concludes that, although we have only fragments of *De dem.*, they do allow us to grasp the general character of Galen’s

⁶ But he admits that Galen’s attitude to Aristotle was at least ‘ambivalent’ [58].

⁷ By way of a tentative suggestion: Could it be that *De dem.* contains examples that do not find a home in the other works on method, *On the Doctrines of Hippocrates and Plato* or *On the Therapeutic Method*?

epistemology and to determine that Galen is on the conservative side of the ontologization occurring in the mid-second century.

Like its subject, the paper contains some digressions which seem irrelevant, such as that on Galen's dealings with Aristotle's theory of time and Themistius' replies to Galen. However, it is in those digressions that the paper is closer to the topic of the volume. Chiaradonna's paper is at times a bit messy, at others a bit bold in its conclusions, which are necessarily based on scarce evidence; but it addresses interesting issues relating to an important text.

George Karamanolis' contribution addresses the very complex issue of the notion of 'quality' in Plotinus and presents an interesting analysis of different aspects thereof. Karamanolis sets out to show that Plotinus has a coherent and quite distinct theory of quality, using primarily *Enn.* 2.6 [17] and 6.1–3 [42–44]. The main threat to coherence in the case of Plotinus' theory is the problem of the status of immanent forms: Are they qualities like any other?

Substances are found only on the level of the intelligible and they are the causes of qualities in the sensible world. The sensible contains aggregates of matter and qualities, no more. As a consequence, immanent Forms cannot be substances but have to be qualities like any other—there is no distinction in Plotinus between accidental and substantial qualities. Nonetheless, he does consider the immanent Form to have both a causal role in bringing along other qualities and an epistemic role in our recognizing a sensible entity as a specific thing.

Karamanolis maintains that Plotinus is not inconsistent here. So how does he reconcile the two sides of the story? He starts by bringing together two other aspects in addressing what is sometimes called 'the integration challenge': the epistemological and ontological roles of the Forms should not clash, in the sense that their epistemological role cannot involve ontological presuppositions which do not match their supposed ontological role and *vice versa*. Karamanolis presents the main problem of Plotinus' theory of quality, i.e., that of the status of the immanent Forms, as an example of the integration problem; but I think he is partly wrong in doing so. According to Karamanolis, the epistemic role of immanent Forms cannot be matched with the ontological claim that they are qualities like any other. In fact, however, both the epistemic role and the ontological role ascribed by Plotinus to immanent Forms, i.e., that of bringing

along qualities such as weight, are problematic. It is perhaps better to separate ontology and epistemology in this case and to say that, just as the ontological role of the immanent Forms does not match their nature of being a quality like any other, so the epistemic role of the immanent Forms does not match the fact that our only information regarding sensible entities is a collection of perceptions.

Plotinus' answer to the epistemological problem, according to Karamanolis, is that we humans cannot perceive without the use of reason. We perceive a collection of images and resort to our contact with transcendent *λόγοι* to construct what the sensible object in question is. Do the immanent Forms play a special role in this process? Karamanolis thinks that they do not. Or to be precise, since perception relies on awareness of Forms in the soul, the initial stage of perception plays 'hardly any role' [89]. In that case, the epistemological side of the problem is resolved. This is not a satisfying conclusion, I would say, as it relies on not really answering the question whether or not the immanent Forms guide us to the transcendent *λόγοι*.

How about the metaphysical problem? Is the immanent Form an accidental quality or is it instead the source of such qualities but itself of a different nature? Karamanolis presents a discussion of the relation between substance and quality and different kinds of qualities in Plotinus. Substances are found only on the level of the intelligible. Those substances have substantial qualities, which are in their subject. Since there is no intermediary between substance and quality, and since substances can only produce lower entities, on the level of the sensible we only find qualities—of what kind? In 2.6, Plotinus distinguishes between two kinds of qualities: intelligible (i.e., the *λόγοι* which are the activities of the intelligible) and sensible (i.e., the manifestations of those activities in the sensible realm). Intelligible qualities are qualities only homonymously. This discussion contains some obscurities, such as the nature of the substantial qualities: Are they identical to the intelligible qualities (i.e., the activities of the substance)? If not, then there are intermediaries between substances and (sensible) qualities after all, namely, the intelligible qualities.

A further distinction is made in the sensible realm between qualities which complement a sensible 'substance' (i.e., which separate kinds) and qualities which are merely accidental (i.e., which differentiate entities of the same kind). The latter are pure qualities, the

former are called ‘properties’ (the existence of which is denied by Plotinus at 6.2—but Karamanolis thinks this is no problem). According to Karamanolis, the source of the pure qualities cannot be found in the *λόγοι*.

In order to answer the question whether immanent Forms are qualities like any other, Karamanolis proposes a wide and a narrow sense of ‘quality’: wide when all features of a sensible are called qualities, narrow when only accidental features are called qualities. Obviously, this answer does not really solve our problem: claiming that a notion is sometimes used in one sense and sometimes in another does not render a theory coherent. More importantly (as coherence is not the be-all and end-all of philosophy), it leaves many questions unanswered: it does not tell us what exactly the difference is between an immanent Form and other qualities, whether the former indeed brings along the latter, and how we tell them apart when identifying some *x* as an elephant. Also, the status of the transcendent forming principles or *λόγοι* remains unclear. Something Karamanolis does make clear is how Plotinus’ view on quality can shed light more generally on the relation between the intelligible and the sensible. All in all, this is a thought-provoking but not entirely satisfying paper.

Robbert van den Berg presents us with a well known problem of the notion of ‘time’: the definition of that notion is always put in terms of time. Van den Berg uses this problem to discuss an interesting epistemological issue, namely, the nature of the so-called ‘common notions’ and, more specifically, the common notion of time in Plotinus, Proclus, and Augustine. Although in all three we find the Epicurean sense of common notions as deriving from sense perception and coinciding with the meaning of words, they also distinguish another kind of common notions, namely, those based on intuitions of transcendent principles.

After an overview of Phillips’ and Strange’s views on common notions in Plotinus as criteria of truth and as either a comprehensive grasp of an innate idea (P) or a vague concept, early reminiscence, and idea of the many (S), van den Berg partially sides with Strange but points out that for Plotinus the ideas of the many can never be a criterion of truth. Van den Berg concludes that it was crucial to know the source of a common notion: perception or intuition. In the case under discussion, the notion of time, Plotinus follows Epicurus

to quite some extent but also Plato's *Timaeus*: we do not have an inborn notion of time as of eternity but develop it on the basis of empirical reasoning. Thus, although he does mention a common notion which cannot be gathered from perception, namely, that of the omnipresence of god, we cannot conclude that for Plotinus all common notions are innate.

So what does this mean for the use of such non-innate notions in philosophical argument? According to van den Berg, Plotinus [*Enn.* 2.4 [12] 1 and 3.7 [45] 1] uses the Aristotelian distinction between a conceptual definition (the meaning of a word which coincides with the sense-derived notion) and a substantial definition (giving an account of the essence). Since time has a sense-derived common notion, we cannot use it to understand the essence of time. For that, we need to ascend to the metaphysical principles of temporal phenomena. That does not mean, however, that the common notion is useless in philosophy: any essential definition of time will have to accommodate the common notion. Something that remains implicit in van den Berg's discussion, but may be a problem for the use of conceptual definitions, is the fact that 3.7 [45] 1 suggests that we have a conceptual definition both of sense-derived notions (time) and intuitive notions (eternity) [113]. That is, a conceptual definition does not necessarily coincide with a sense-derived notion.

Proclus, van den Berg shows, does not agree with Plotinus on the definition of time; but he does use the same method of explaining physical phenomena through metaphysical principles, starting, however, from a 'shared sensation' of time. Interestingly, unlike Plotinus, Proclus also mentions a notion of eternity that is grasped only by wise men. According to van den Berg, both notions are derived from sense perception and Proclus 'obviously thinks little of them'. The latter statement is hardly warranted, I would say, considering that Proclus ascribes one of them, namely the notion of eternity, to wise men (*οἱ σοφοί*).⁸ What Proclus does think little of—as van den Berg goes on to show—is people who refuse to look beyond the common notions derived from perception.

Like Plotinus, Proclus assumes that we also have another kind of common notions that are not derived from perception but from

⁸ The passage that van den Berg adduces in 116n56 does not support his statement as it contains no value-judgment.

contact with the transcendent gods. And like Plotinus, Proclus also thinks that sense-based notions are useful for testing a theory: we should not ‘destroy the phenomena’ but accommodate them in our metaphysical theory.

About Augustine, van den Berg is quite brief. He points out that Augustine’s well-known paradox of time points to the above-mentioned distinction between a conceptual and an essential definition. Augustine’s *communes notitiae* are not so much like Stoic common notions as they are like those of Plotinus, as they reveal only accidental features. And like Plotinus and Proclus, Augustine wants to move beyond the common notion to an explanation of the essence of time.

Throughout his paper, van den Berg discusses many details of the Neoplatonic theories of time. I have chosen not to include them in this summary, as van den Berg’s conclusion concerns only the epistemological side of his paper, which I therefore take to be its core. Of the two types of common notions—those based on sense perception and revealing accidental features *versus* those resulting from contact with the intelligible and revealing the essence—it is the former which we will find most of all in philosophy of nature and their function may be to test the validity of our theories.

Interesting issues that remain after reading this paper are the relation between the common notions of images (e.g., of time, the image of eternity) and those of their paradigms (eternity),⁹ and the nature and function of sense-derived notions of things of which there is also an intuited notion (e.g., eternity according to Proclus).

Christian Wildberg gives us a clear and beautifully written description of Plotinus as philosopher of nature, paying special attention to the philosopher’s cryptic remarks on ‘the contemplation of nature’. Starting from the first lines of 3.8 [30], Wildberg sets out to show that Plotinus is not the hardcore metaphysician that he is made out to be but also a natural scientist—albeit an idiosyncratic one and, therefore, hard to interpret. The heart of his theory of the natural world is that it is not a realm in its own right, but ‘the external and derivative aspect of an ideal world’.¹⁰ It is physically manifest

⁹ Cf. also 3.7.1 where Plotinus suggests that our understanding of eternity will help us to understand its image.

¹⁰ Cf. the papers by Karamanolis and Russi.

as opposed to spiritually productive. The images and traces of the transcendent that the natural world contains are due to Nature's engagement in quiet contemplation of real entities.

Wildberg analyses this aspect of Plotinus' philosophy of nature not only for its content but also for its methodology, by pointing out how Plotinus prepares the reader for the notion of non-rational contemplation. After 'playing around', as Plotinus calls it, we understand that contemplation involves 'the beholding of a concept or an intellectual reality in such a way that one aims at, and gradually succeeds in, understanding it' [128]. When applied to Nature, such contemplation would probably have to be non-propositional, and a combination of introspection and expression—i.e., action. There are many natural things which in their actions actually aim at contemplation. According to Wildberg, Plotinus 'boldly asserts' that all the actions of human beings, too, are a form of contemplation.¹¹

With regard to the 'somewhat obscure' last lines of 3.8.1, Wildberg addresses some problems of the notion of Nature's contemplation after giving a convincing analysis of the Greek. He discerns in this passage the answer to four different questions, the most interesting of which relates to the distinction between two kinds of *θεωρία*, one which Nature does and one which it does not have. The activity of Nature, like any activity, both begins and ends in contemplation. As an artist starts out with a plan, so Nature starts from *λόγοι* or forming principles, the activity of which is a kind of *θεωρία* appearing as perceptible phenomena. The 'ontological quantum leap' from the mental to the phenomenal, Wildberg maintains, is facilitated by matter. How that works, however, unfortunately remains rather implicit in Wildberg's analysis.

The question of the role of the obscure 'contemplation nature does not have' turns out to be fairly simple: nature's own contemplation (i.e., the contemplation which it does have), is inferior to another kind of contemplation which is causally involved in the former's coming to be. As Wildberg points out, the presupposition here is that action is the by-product of or weaker substitute for (real) contemplation.

¹¹ What Plotinus actually says, however, is that this is *probably* the case (*κινδυνεύει*) [*Enn.* 3.8.1.13].

Wildberg ends by pointing out that the view of the mental or conceptual as necessarily evolving to something external to it, an expression of itself, explains that the phenomenal world can be understood as a lower variety of a higher contemplation. Such a ‘world of thoughts’, Wildberg proposes, could be considered ‘the apex of Greek speculation about nature’, as completely doing away with a true material substrate.

An aspect of this paper that bothers me is the ‘quantum leap’ from the mental to the phenomenal. Either there is a quantum leap or there is a world of thoughts. Since matter is none other than a correlate to form and a necessary consequence of the process of emanation, I guess that we should say that for Plotinus there is in fact no quantum leap between the intelligible *λόγοι* and the form-matter aggregates which make up the phenomenal world: the latter are merely lower forms of the former.

In Chiara Russi’s paper, there is something of a discrepancy between the professed aims and what is actually delivered: Russi wants to show that the hypothesis of a smooth progression of a homogeneous Neoplatonism from Plotinus to Proclus is untenable, that Plotinus’ Platonism constitutes an integral and consistent theory, and that Plotinus occupies an exceptional position in the Neoplatonic tradition. In order to reach these ambitious aims, however, she takes Proclus as the paradigm of the Neoplatonic tradition as a whole,¹² and systematically shows with respect to different aspects of specific—but crucial—elements of his thought that these principles cannot be found *in nuce* in Plotinus. Russi focuses on productive causality, nature and fate, and space and physical objects. Despite the fact that her analysis does not allow her to support her strong claims, and despite the fact that I do not always agree with her, Russi does present an interesting comparison of Proclian and Plotinian causality. Her conclusions regarding Plotinian causality are:

- (1) Plotinus’ ‘dualism’ is not one of formative principle and substrate but of increasing separation of the activities of an immaterial cause;

¹² Although we do find some references to other Neoplatonists in the section on space.

- (2) production is a necessary precondition of actualization of power, not a perfection; and
- (3) sensible objects have a phenomenal, non-ontological nature.

The most interesting part of Russi's paper is the section on 'the interaction of *dunameis* in the generation of living beings'. In causal processes in general, including those constituting the physical world, Proclus distinguishes two kinds of *δύναμις*: an active, perfect one and a receptive, imperfect one. Plotinus also distinguishes two potencies in the constitution of the natural world but they are both active, the difference being that one of them is more universal. Secondly, for Proclus, the emanations of the highest causal principles provide the substrate for emanations from lower principles—Russi forgets to mention here that those lower principles emanate from those same higher principles—whereas, for Plotinus, the producing causes are always the lowest in the ontological hierarchy. And finally, according to Proclus' causal principles, the most universal proceeds first and dries up last, whereas the most specific causal agent proceeds last and dries up first; for Plotinus, instead, the lower and more partial potency remains longer.¹³

Russi concludes that whereas in Proclus we find a dualism in monism (in the combination of a substrate and an ordering principle), in Plotinus we find instead a productive principle which comes forth from a connective principle (i.e., connecting the product with its transcendent cause).¹⁴ Moreover, for Proclus, production is a sign of power (causes can produce) but for Plotinus it is merely a lower necessity (causes cannot not produce).

Russi's discussion of Nature and Fate in Proclus and Plotinus is somewhat disappointing.¹⁵ It oversimplifies Proclus' problematic notion of Nature [see [Martijn 2010](#)] and the relation between Nature and Fate.

The main differences between their notions of Nature and Fate, according to Russi, are that, for Proclus, Nature is a hypostatic level, whereas, for Plotinus, it has no formal content or self-apprehension.

¹³ I find Russi's argument [154] for this opposition unsatisfying as it obfuscates a distinction between the formedness of (dead) matter and the identification of a dead body as either what it was when alive or mere matter.

¹⁴ Russi [161] describes this as the separation of two formerly united faculties.

¹⁵ On these topics, see the paper by Linguiti in this volume.

Further, for Proclus, Fate is identical to Nature and coordinates bodily beings in their own realm while connecting them to a higher realm; whereas, for Plotinus, Nature cannot reconnect lower being with the higher or endow it with ‘horizontal’ order and is, moreover, not identical to Fate, which instead is the name of external causes.¹⁶

In the section on space (also place), Russi concludes that, whereas for Proclus space is a formal and active potency, and even a kind of body or vehicle¹⁷ which serves as an intermediate between the intelligible and the sensible, for Plotinus space is merely a consequence of the ‘existence’ of bodies. Moreover, Plotinus does not consider space to be an active potency or something which receives the forms but as something that merely reflects them.

A problem in this section, which to some extent pervades the paper as a whole, is that Russi overemphasizes the supposed dualism of Proclus by maintaining that the substrate is an antagonistic factor in the causal system. This may be inspired by the image of Necessity limiting the Demiurge’s options in the *Timaeus* but is otherwise a bit too Gnostic. Like everything else, Proclus takes the disorder of the substrate to be an emanation from higher principles—as we read in Gerd Van Riel’s paper in this volume.

The same tendency is found in the conclusion, where Russi states that ‘behind Proclus’ monism lurks a dualism of antagonistic *δυναμεις*’. Instead of ‘antagonist[ic]’, perhaps ‘incompatible’ would have been better: as Russi herself points out, the sensible world cannot be directly formed by the intelligible. Mediators are required (nature, place) to bring the two together but both ultimately derive from the

¹⁶ Note that the texts adduced in favor of this interpretation of Plotinus are not apposite: the texts on p. 163 concern the plurality of causes and the immanent *λόγος* *versus* external influences, where the latter are not identified with Fate. Moreover, in the text on p. 164, fate (or actually destiny, which is the translator’s choice for «*εἰμαρμένη*») does occur but is importantly in a qualified (‘perhaps’) and *conditional* (‘at least for those who think’) statement.

¹⁷ Russi here refers to Simplicius, *In cat.* as stating that Proclus calls space the ‘first body’. This cannot be right. *In cat.* is probably *In phys.*, where, however, we do not find such a remark. Maybe she’s thinking of *In phys.* [Diels 1882–1895, 616] on the first corporeal cosmos.

same source. For Plotinus the sensible world is more emphatically the product of three external activities of one and the same essence.

One of Russi's important conclusions is that due to the fact that physical entities are the perfections of their causes, Proclus can maintain his interest in physical entities as such. The same, I think, can also be said of Plotinus, if we replace 'the perfections of' with 'lower manifestations of'.

If anything, despite itself, this paper points out mainly that, yes, the differences between Plotinus' and Proclus' notions of causality are many and, no, they are not merely skin-deep but are also too subtle to speak of a 'deep opposition' between the two thinkers. The most interesting distinction between the two is probably that between Proclus' symmetrical system in which the lowest effects result from the highest cause and Plotinus' pyramidal structure in which every level causes only the next. But against Russi, I should like to maintain that Proclus is no more of a dualist than is Plotinus.

Alessandro Linguiti addresses the complex relation between Fate and Nature, Necessity, and Providence in Neoplatonism, taking his cue primarily from Proclus' *De providentia* and subsequently from *Theologia Platonica* and *In Timaeum*. Neoplatonic Nature is a somewhat problematic entity, as (by the principles of 'vertical causation') it has to transcend its product, the natural world, and yet it cannot be transcendent because it is intimately connected to the corporeal. Platonic Nature is a universal principle which presides not only over individual entities, but also over the physical world as a whole. Whether it is transcendent or not does not become entirely clear in this paper, but it does not become entirely clear in Proclus' writings either [cf. [Martijn 2010](#), esp. ch. 2].

In many cases, Neoplatonic (but also Peripatetic) Nature seems to be identified with Fate as 'a universal principle ruling the whole of the sensible world' [175] as well as single events, but not exceptional ones. Linguiti states that, in a Stoic fashion, in Proclus' *De prov.*, Fate is the transcendent cause of the connection of events. However, as is clear from his sequel, Fate does not in fact connect events (as the term εἰμαρμένη suggests) but *bodies*. That is, it not only moves them but also maintains their constitution and binds them together into a

whole. Fate is, thus, very similar to Nature.¹⁸ Further support for this reading of Proclus is found in his dealings with Peripatetic material. Although Proclus uses Aristotelian terminology and equates ‘against Fate’ with ‘against Nature’, he criticizes the Alexandrian theory that Fate is either individual soul/nature or the revolutions of the cosmos. According to Proclus, neither is powerful and encompassing enough.

Providence is closely related to Fate but not identical to it: as it is directly related to the Good, Providence is superior to, and in fact the paradigm of, Fate. The Necessity of the *Timaeus*, on the other hand, should not be identified with matter or the goddess of *Resp.* 10 but is instead what Sebastocrator calls ‘natural necessity’, and as such is identical to Fate.

When we turn to the *Platonic Theology* and *In Tim.*, matters become a bit confusing. Linguiti shows that in these works Proclus takes Fate to exceed Nature and not be identical to ‘Nature simpliciter’. Instead, it is qualified Nature, where the qualifications emphasize the divine essence of Fate: ‘Nature in its proper divine manifestation’. Linguiti proposes that they are one reality viewed in different ways. He goes on to adduce further evidence in support of the claim that Nature and Fate (and natural necessity) are identical, namely, Proclus’ description of Nature transmitting properties to bodies in a way that recalls Alexander’s description of Fate. Apart from ordering the natural world, Nature transmits properties to bodies which will manifest themselves in those bodies in a manner appropriate to the ontological level in question, namely, as secondary properties.

This difference between how properties appear in cause and effect leads to Linguiti’s conclusion, which resembles those of Russi and Wildberg: the natural order is not independent of the transcendent causes. Instead, ‘it is a necessary aspect of the divine order in its corporeal appearance.’

Jan Opsomer’s paper on Proclus’ theory of motion is a very rich piece of work. Besides an analysis of the relevant material, mainly from the *Elem. phys.*, Opsomer also presents a critical evaluation.

¹⁸ An interesting aspect of this theory is that due to the analogy between macrocosm and microcosm, the cause of our being a unity, our soul, can also be called Fate.

What shows most of all from both Opsomer's analysis and evaluation is that Proclus uses predominantly Aristotelian material in his theory of motion but that his arguments rely heavily on implicit Neoplatonic metaphysical principles.

As Opsomer shows, Proclus combines the Aristotelian and Platonic solution to the infinite regress of motion (something setting something else in motion): the notion of an unmoved mover and the notion of self-movers, thus obtaining a series with unmoved mover, self-mover, and externally moved.

The movers are not limited to the physical realm, as in Aristotle; but instead, as in Plato, we find motion or dynamism also in the spiritual realm (soul and up). Proclus does, however, accept Aristotle's theory of motion for the physical world.

Both sides show in Proclus' combination of an efficient causal role for the first mover on the one hand, and the necessity of continuity in space and time for motion to be possible on the other. The first efficient cause must be incorporeal, so there must be active motion in the intelligible. But is there also passive motion? And continuity?

From the first book of the *Elem. phys.*, we gather that in order for movement to be possible, time, space and body have to be continuous. So, the quantitatively indivisible is unmoved. Moreover, everlasting motion can only be topical and circular. In the second book, Proclus opposes this divisibility with the indivisible and unmoved first efficient cause of motion—establishing the necessity of which is the aim of the *Elem. phys.* Opsomer clearly shows that the arguments which Proclus adduces are flawed to the extent that they rely quite heavily on a number of tacit assumptions and, as Opsomer points out at a later stage, the method chosen in the *Elem. phys.*, i.e., the deductive method, should exclude tacit assumptions. Opsomer also discusses a number of other objections that one could make against Proclus' arguments and answers most of them. The core of these objections is what I would call a 'physics' version of the biggest Platonic problem: the gap between the transcendent and the immanent or, in this case, the puzzling relation between an infinitely powerful source of motion and the limited capacities of the universe. Both the tacit assumptions and the answers to possible objections show that Proclus' account of Aristotle's kinematics reveals a strong presence

of Neoplatonic metaphysics. That Proclus nonetheless bases his account of motion on Aristotle, Opsomer explains from the fact that Aristotle simply gives a fuller account than Plato.

A notable difference between Aristotle and Proclus is the prominence in the latter of the self-movers, which he uses among others to argue the difference between intellects and souls. There are problems involved in this argument, among them that Proclus does not prove that a self-mover cannot be the beginning of a causal chain and that the necessity of self-movers is not argued for. Or, more generally, there is the problem that we now have two efficient causes of motion. Opsomer proposes as a solution, not that self-movers are moved extrinsically by the unmoved mover (because souls need to be autonomous) but that they depend on higher principles for their existence. And at a later stage, Opsomer comes up with an ingenious argument for the necessity of self-movers: since they are the first moved entities in the hierarchy, they are the origin of the passive capacity of being moved—where in the case of the soul, which is indivisible, passive motion cannot be locomotion but seems to be the activity of thinking. The soul is indivisible in its essence but divisible and moved in its activities.

Combining the notions of moved by another, moved by itself, unmoved, self-mover, mover of others, and non-mover, Proclus reaches a hierarchy consisting of:

- (1) the unmoved movers (intellects),
- (2) the primary self-movers (souls), secondary self-movers (ensouled bodies),
- (3) things moved by another and also moving others (enmattered forms), and
- (4) things moved by another but not moving others (bodies).

An interesting element in this hierarchy is that of the enmattered forms or qualities which are moved from without and move bodies. Sometimes, this category is equated with Nature, the source of the *φυσικὰ λόγια*. According to Proclus, when body *A* hits body *B*, it is not *A* but the incorporeal qualities of *A* which move *B*.

The most problematic part of the hierarchy, obviously, is that of spiritual motion, i.e., the motion of everything which is not divisible. In order to explain how we are to understand that, Opsomer presents a section on mathematical being that is at first sight irrelevant.

Mathematical being, which is the soul's way of grasping higher objects, is intermediate between divisibility and indivisibility: geometric figures, for example, are not extended but they do have shapes. So, it is possible to distinguish parts of figures such as lines, and so on—I take it this is more than a merely external conceptual division—but the figures as such are indivisible in form. Likewise, mathematical being is unmoved in that it is invariable but moved in that figures can be generated by what Proclus calls a 'living motion', e.g., of lines. Moreover, there is a whole hierarchy of geometrical figures, with material artifacts at the low end and the 'hidden' figures of the gods at the high end.

When it comes to the geometer's practice, extension and, with it, divisibility are required, in order to bisect a line, for instance. That extension is available in our *φαντασία*, where particularized and pluralized images of the figures are produced.¹⁹ It is clear how all this is relevant for Proclus' analysis of motion: since geometrical objects have their existence in soul, we may now understand better how divisibility and extension work on a spiritual level.

There is no mathematical continuum in the rational soul or the intellect. Nonetheless, Proclus ascribes—opposite kinds of—motion to these levels. On the basis of the first hypothesis of Plato's *Parmenides*, Proclus distinguishes alteration, which concerns internal changes, and locomotion, which concerns external relations. Interestingly, Opsomer shows that both kinds of motion are ascribed to both soul and intellect. Souls alter when they assimilate to the intelligible in their activities and they experience locomotion when moving about in intelligible space (whatever that is). Intellect alters in that it comes to participate in the intelligible and once actual it prefigures sensible motion *κατ'αίτιαν*. In other words, the notion of motion is stretched by Proclus in order to cater for spiritual motion, which is beyond time and space but does require some kind of (discrete) multiplicity.

Spiritual motion, Opsomer concludes, is the cause of physical motion but is essentially different from it due to the absence of an isomorphic continuum. This conclusion is warranted, I think, but

¹⁹ It seems that different kinds of motion are involved in geometry, then: the motions of the figures themselves on the intellectual level and the motions of the geometrical operations on the level of *φαντασία*.

at the same time disappointing. Is Proclus' analysis of motion in the spiritual realm a mere scholastic exercise? Or if not, does the 'essential difference' between physical motion and spiritual motion reduce the continuity between the two realms to one of equivocity?

Some of the most puzzling concepts of Plato's cosmology are those of necessity and the disordered substrate. In his lucid yet complex paper, Gerd Van Riel discusses the interpretation of these concepts found in Proclus, who, along with Syrianus, Damascius, and Simplicius, maintained a literal reading of Plato's receptacle and its pre-existent traces of the elements [*Tim.* 52b–53d], and linked it with the 'necessity' introduced at *Tim.* 47e–48a. Van Riel asks how, according to Proclus, the ordering divine agent and the disordered substrate interact, how divine order translates into laws for the lower realm, what the substrate looks like, and what necessity it imposes on the 'legislator'. The result is a hierarchy of the lowest parts of Proclus' world, which turns out to have an unexpected analytic complexity. By delivering this, Van Riel offers a convincing justification for Dodds' suggestion that Proclus' reality is symmetrical: its bottom mirrors its top in structure.

The first notion analyzed by Van Riel is that of necessity. Damascius ascribes to Proclus three kinds of necessity: divine, material (both categorical), and aim-directed necessity (hypothetical, i.e., if you want to reach aim x , y is necessary). Van Riel points out that there are more kinds of necessity and that Proclus' notion of material necessity is more problematic than it might seem.

Although Proclus accepts Plato's characterization of the disordered lowest level of reality, he does not identify formed matter with ἀνάγκη. On the other hand, he does locate ἀνάγκη in the substrate as the lowest element of a chain of Ἀνάγκη, which starts from the 'mother of the three Fates'. Van Riel suggests that this move aims at preventing a dualistic reading of the *Timaeus* (which I think is a more plausible reading of Proclus than Russi's).

Material ἀνάγκη works as follows. The dynamic of the substrate determines which power is needed to keep it under control. The substrate itself does not actually do anything other than being passive, i.e., not easily 'persuaded' by form. It is, thus, primarily a weakness,

which however also implies a receptivity.²⁰ Dualism is again prevented because material necessity is by nature receptive to operations from higher realms.

When we take a closer look at the substrate, it appears to fall into a stratification of many different kinds. As opposed to matter ($\upsilon\lambda\eta$) as the substratum of forms, i.e., which is already formed, the receptacle is entirely without determination. In between these two, Proclus moreover distinguishes ‘the visible’ or ‘corporeal’ which ‘has received traces’ and the ‘second substrate’. To find out which substrates these are Van Riel turns to a passage from *In Parm.* in which Proclus describes the different kinds of $\pi\acute{\epsilon}\rho\alpha\varsigma$ and $\acute{\alpha}\pi\epsilon\iota\rho\acute{\iota}\alpha$. The relevant kinds of lowest $\acute{\alpha}\pi\epsilon\iota\rho\acute{\iota}\alpha$ (matter) are:

- (2) body without quality or the first extended thing,
- (3) qualities and
- (4) genesis.

Of $\pi\acute{\epsilon}\rho\alpha\varsigma$, most interesting are:

- (7) permanence due to enmattered forms,
- (8) material quantity,
- (9) body without quality [cf. $\acute{\alpha}\pi\epsilon\iota\rho\acute{\iota}\alpha$ (2)], and
- (10) enmattered form.

Van Riel suggests that what Proclus calls ‘the second substrate’, the $\acute{\alpha}\pi\omega\iota\omicron\nu$ $\sigma\omega\mu\alpha$ or three-dimensional substrate of elementary qualities, (which is just above the completely unqualified substrate and just below the layer bearing traces of the forms) is $\acute{\alpha}\pi\epsilon\iota\rho\acute{\iota}\alpha$ (2) or $\pi\acute{\epsilon}\rho\alpha\varsigma$ (9). This ‘second substrate’ is not without properties altogether, as it does have $\omicron\delta\sigma\acute{\iota}\alpha$, $\epsilon\acute{\iota}\delta\omicron\varsigma$, $\acute{\epsilon}\tau\epsilon\rho\acute{o}\tau\eta\varsigma$ (dimension), and $\tau\alpha\upsilon\tau\acute{o}\tau\eta\varsigma$ (continuity), $\kappa\acute{\iota}\nu\eta\sigma\iota\varsigma$, and $\sigma\tau\acute{\alpha}\sigma\iota\varsigma$. That is, Proclus ascribes the Sophist’s greatest kinds to it and identifies it with the ‘discordant and disorderly moving thing’—but not with $\acute{\alpha}\nu\acute{\alpha}\gamma\chi\eta$.²¹ The traces of the forms

²⁰ The analysis is not entirely clear here: it seems that Van Riel takes the necessity to be the lack of and need for form, though at times he sees it instead as the resistance to form [e.g., 239]. In itself, this combination is not problematic. However, the resistance (or devouring or corrupting, as Van Riel 2001, 132 terms it) does not sit well with the passivity of matter—unless we take them to be mere metaphors for the receptivity’s being limited.

²¹ Van Riel locates $\acute{\alpha}\nu\acute{\alpha}\gamma\chi\eta$ below the second substrate but his arguments are not very clear [245].

are to be located in ‘the visible’, i.e., the third substrate, which has body and qualities. This is the last unordered level before the forms enter.

One might wonder whether these levels aren’t merely conceptual distinctions as opposed to ontological layers. Van Riel shows, however, that the different substrates²² are all engendered and, moreover, engendered by different non-physical causes—causes which transcend the Demiurge. For example, where pure matter is caused by ‘the Father alone’ (One Being), the third substrate is caused by the ‘Father and Creator’ (third intelligible triad). Each of these causes has its own *modus operandi*, which Van Riel [251] presents in an insightful scheme.

As Van Riel points out, two things are noticeable about that scheme. First, the second substrate is not included by Proclus in his overviews of the causes and substrates. Van Riel suggests that Proclus subsumed it under the causative power of the first Father. Yet, if it has no non-physical cause ‘of its own’ and given that that was the criterion for being an ontological layer, I would say that the distinction of the second substrate turns out to be merely conceptual. Second, matter is shown by Van Riel to be brought about not only by the ἀπειρία of the One Being (which is responsible for its potentiality), but also by the ineffable ἀπειρία that is beyond the first intelligible being (and is responsible for its utter indeterminacy).

The hierarchy as a whole shows that for Proclus reality consists of an ontological order in which the lower reflects the higher, reversing the order and with decreasing generative power. Proclus builds this order starting from the *Timaeus*, adding the greatest kinds of the *Sophist*, πέρας and ἄπειρον of the *Philebus*, Plato’s criticisms of monism, and the hypotheses of the *Parmenides*, and finally some nuances of his own(?) invention.

At the end of his paper, Van Riel briefly addresses the question why Neoplatonists felt the need to hold on to Plato’s confusing account of matter. The answer, he proposes, is that Aristotle’s view of

²² Van Riel also speaks of ‘stages of the material substrate’ but it is not clear how ‘stages’ is to be understood here.

matter is not straightforward either, as it does not explain receptivity to form—in other words, because Aristotle does not have a clear theory of *prime* matter.

Carlos Steel closes the volume, very appropriately, with a paper on Proclus' veneration of the Earth, a topic which, before reading this volume, may seem an oxymoron. His main focus is Proclus' interpretation of Timaeus' hymnic description of the Earth in *Tim.* 40b–c. He starts from the interesting paradox that, although the Earth is not a heavenly body, it is nonetheless traditionally a divinity in Greek culture.

When studying Proclus' reading of the hymn, we have to take into account that he supposed Timaeus of Locri's treatise to have been Plato's source. Steel's brief juxtaposition of the relevant passage of the treatise with that of the *Timaeus* shows that the Neopythagorean Timaeus was more interested in the veneration of Earth as the most divine element than in the Earth as the center of the cosmos. Although Proclus focuses primarily on the latter, the distinction between element and sphere is not always clearly maintained.

For Proclus, there are many reasons to praise the Earth as the most venerable god 'within the heaven', despite its mass and compactness: for example, its creative power and its position in the center of the cosmos. Like the heavenly bodies, the Earth is praiseworthy as a living being, with a visible body, an ethereal body, a divine soul, and a transcendent intellect. Because particular living beings have these properties, the Earth must have them *a fortiori*. The most interesting aspect of Earth's being a living being, in my view, is its vital force, which shows in the variety of organisms it sprouts and harbors and explains what looks like spontaneous generation.

From among the predecessors in venerating the Earth, Steel highlights Plotinus, who also identifies a 'vital rational principle' at work in the Earth, a rational soul, and an intellect. The latter two he identifies as Hestia and Demeter. Proclus, in turn, picks up on this unexpected theological remark in Plotinus and elaborates on it by discussing the different divinities of the Earth and by describing the Earth as a corporeal counterpart of the monad of Being.

Steel discusses several other issues related to the Earth, such as the question whether it moves around its axis (Proclus says it does not). He also considers the Earth's role as guardian, as maker

of night and day, and as nurse ‘perfecting our intellect’—a function which unfortunately remains quite cryptic.

In a very interesting section, Steel presents the ‘symphony between Earth and heaven’, which consists in Earth’s providing a center for the celestial spheres, in the winds and rains as intercourse between heaven and Earth, in the four elements’ being present everywhere ‘in the appropriate manner’, and in Earth’s spherical shape. It is this role of Earth and its cooperation with heaven which make it ‘the most venerable of all the gods within the heaven’.

By way of conclusion, Steel summarizes the general properties of the Earth which make it a divinity, as well as the particular chthonic divinities which live within the Earth. The harmony between heaven and Earth, as Steel shows by quoting Proclus’ *Sacrificia*, is what makes theurgy work.

Two questions that deserve some further attention, I think, concern the nature of Earth’s ethereal body and the influence of Earth’s soul and intellect on us. The ethereal body (or vehicle) connects the visible body of the Earth with its divine soul [266, on *In Tim.* 2.135.8–23] and animates the Earth. This means that it cannot be an ordinary body. Instead, it has to be either a kind of soul or perhaps nature. As for the influence of Earth on us humans, the soul of the Earth perfects our souls and the intellect ‘arouses’ (not ‘perfects’, *pace* Steel) our intellects. What does that mean? Steel’s suggestion that this could be a reference to the gods as teachers, a point mentioned by Plato in the *Menexenus*, deserves elaboration. The role of intellect is more easily explained than that of soul in this case. As Proclus says elsewhere [3.136.28], Earth sets our intellects in motion. This could mean that our intellects are aroused to curiosity for all that lives and grows on the Earth and are thus provided with a starting point for learning. Perhaps Proclus is thinking of *Tim.* 44b–c, which speaks of the right food (ὀρθὴ τροφή) for the soul. Once we are fully grown and have undergone the influences of physical nourishment, it is time to reestablish the circular movement of the soul through ‘the right nourishment of education’ (ὀρθὴ τροφή παιδεύσεως). Proclus explains this as πολιτικὴ ἀγωγή which perfects the natural capacities of the soul by providing (metaphorical?) nourishment for the irrational soul, so that it will obey the rational, and philosophical education for our intellect.

Conclusion

Although it is in the nature of conference volumes to present as a unified whole quite diverse material, this volume is a pleasant exception in that the papers both cover an extensive range of topics and authors, and display a thematic unity²³ without sliding to the other extreme of overlap and redundancy. Despite its length, this review cannot do justice to the amount of detail and analysis presented in the volume.

Apart from the comments on the separate papers, mentioned above, I have some small nits to pick with the volume as a whole. It could have benefited, I think, from some more explicit interaction between the papers which address the same or related topics—but of course the process of editing does not always allow such interaction. Also, it is something of a pity that, in a predominantly English volume, the first two papers are written in French. However, fortunately both Rashed and Chiaradonna have a very clear style. And finally, in such an expensive volume, one should expect flawless copyediting.²⁴

In general, however, this is a very valuable volume, which contains a wealth of interesting material and, even if one may not agree with everything in it, a great number of thought-provoking discussions. With one or two exceptions, the papers presuppose familiarity with Neoplatonic philosophy and will, therefore, be suitable reading primarily for specialists. Them it will serve well both to give an impression of the richness of Neoplatonic philosophy of nature and to elicit further discussion.

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²³ The notable exception being the paper of one of the editors: as said above, Chiaradonna's paper covers some aspects of physics (esp. theories of time) and of Neoplatonism, but its main focus is Galen's epistemology.

²⁴ Lists of editorial mistakes are quite pointless in reviews, so I will satisfy the pedant in me by stating that I found at least 50 typos or similar mistakes in the volume.

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