

TEN GIFTS OF THE DEMIURGE

Proclus on Plato's *Timaeus*



Emilie Kutash

B L O O M S B U R Y

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Plato's Timaeus

Emilie Kutash

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To Jordan and Danielle

Beginning with the body of the world. [Plato relates how the Demiurge grants the cosmos certain gifts]

He first makes it perceptible with respect to the extreme terms of sense perception [viz. sight and touch] (31b). Next – what is more perfect than this – he grants to it a bond which binds together the bodies in it through proportion (31c). Then third, he makes it a whole constituted of the whole of the elements (32c). Then fourth, he makes it a sphere in order that it would be most similar to itself in respect of form (33b). Then fifth, he declares that all things that it undergoes it undergoes by itself (33c-d). Then sixth, he provides it with a motion fitting to intellect (34a). Then seventh, he animates it by means of divine soul (34b). Then eighth, he imparts to it revolution in time (36e-37a). Then ninth, he establishes the sanctuaries of the gods in it who together produce ‘the perfect year’ (39d5). Then tenth, he makes it all-complete (*pantelês*) by producing all the living things in the likeness of the four Forms [included in the Paradigm] (39c-40b).

Through the decad he thus completes the entire creation.

Proclus, *in Tim.* II.5.17-32, tr. Baltzly

Preface

Proclus was first presented to me, brilliantly, by Reiner Schurmann, in the course of my graduate studies at the New School for Social Research. In the years since, Proclus scholarship has proliferated. Proclus is increasingly being discovered as an important philosopher with a permanent place in the history of thought. His most well-known work, *Elements of Theology*, is translated by E.R. Dodds. His Parmenides *Commentary* is translated by Glenn Morrow and John Dillon, and there is now a newly completed translation of this work by Carlos Steel. Proclus' *Euclid Commentary* is available in English translation by Glenn Morrow, and *Platonic Theology* is translated into French by H.D. Saffrey and L.D. Westerink. The *Commentary on Timaeus* is now in English translation by Dirk Baltzly, Harold Tarrant, David Runia and Michael Share. *De Malorum Subsistentia (On the Existence of Evils)* is now translated into English by Jan Opsomer and Carlos Steel, *On Providence* by Carlos Steel and *On the Eternity of the World* by Helen Lang and A.D. Macro, while Proclus' *Hymns* are available through a translation by Robbert van den Berg. As a result of the plethora of active and diligent work of recent years, the student of late antiquity is gaining increased access to the full range of Proclus' thought. At the same time, secondary scholarship has burgeoned, as shown by the growing Proclus bibliography at the DeWulf-Mansion Centre for Ancient, Medieval and Renaissance Philosophy in Leuven.

My intention is to enable the reader of the *Commentary on Timaeus* to contemplate its 'vision of the whole', to recognize it as a system of metaphysics that integrates much of the classic Platonist tradition, and to appreciate the unique historical context, that of the Athenian school of late antiquity. An even greater goal of mine is to allow the reader of Proclus to understand him in his own terms. Making ease of access a priority has required me to focus on the 'bigger picture' and leave the pursuit of detailed exegesis of the text to the translators and scholars who have commented on specific doctrines. I refer the reader to the masterful translation of the *Commentary on Timaeus* mentioned above, recently published with annotations, and to the proliferation of secondary literature springing up in greater and greater richness as scholars recognize the value of this work.

The *Commentary on Timaeus*, an intricately woven fabric of metaphysical doctrine, scientific and mathematical explanation, Platonic exegesis, and Orphic, Pythagorean and Chaldaean lore, can be overwhelming. My

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goal has been to make it less so by accomplishing the following goals. (1) To provide enough passages from the text for the reader to experience the 'flavour' and texture of Proclus' language and thought on key issues. (2) To identify central philosophical themes and *aporiae*, the perennial problems that metaphysics has always addressed. (3) To contextualize, when possible, Platonic, Chaldaean, Aristotelian and scientific contexts for certain themes. (4) To provide a sense of the whole rhythm of this monumental work. (5) To help the reader of Proclus to get an aesthetic appreciation of this exotic fusion of theology and philosophy. (6) To convey a sense of the kind of issues that have been taken up in the contemporary secondary literature. In short, I hope to enable the reader to see that the *Commentary on Timaeus* is a 'cosmos'. As such, it fits Proclus' definition of beauty: that the parts are 'whole parts' and fit together within a 'whole of wholes'. The friendship and sympathy of all its components, fugue-like, synchronically play to the supervening prescient themes of Providence, demiurgic bestowal, super-cosmic causality and the intellectual transparency of nature.

On every occasion that I have reread the *Commentary* and mined it for themes and patterns, I discovered more and more 'gold' concealed in its dense prose. Interpreting this text could be likened to Proclus' most inferior infinity, an endless process of division and dissection. In the words of the Chaldaean Oracles, quoted by Proclus, I have opted, instead, to 'pluck' Empyrean fruits and soul-nourishing flowers and present them to the reader as tempting offerings. I hope this will motivate the reader to study the text itself and to read the extensive scholarship that is now available.

*

In the text that follows I have marked each quoted passage with the initials of the author of the translation used: Baltzly (B), Tarrant (T), Runia and Share (R&S), Fowler (Fowl.), Finamore (F), Siorvanes (S), Steel (St), Sorabji (RS), van den Berg (vdB), Sambursky and Pines (S&P). Whenever there is no initial beside a passage, it is based on my own amended version (by reference to the Diehl text), of the Thomas Taylor translation or my own translation. When using the Baltzly, Tarrant or Runia and Share translations I have taken the liberty of inserting Greek terms whenever I thought it was important for the reader to see the terminology for key concepts, which Proclus very consistently applies throughout the *Commentary*. When referring to notes found in the Baltzly, Tarrant or Runia and Share translations, I have cited the name, *CPT* volume number and note number. I have chosen to capitalize terms that are associated with hypostases: Soul, Intellect, the One, Time (as a Monad) and Eternity, and terms that are principles: *Megista Genê*, Being, Sameness, Difference, Equality, Essence, Existence and Limit/Unlimited. In

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addition I have capitalized Circle of the Same, *Kratêr*, Circle of the Other, *Autozôion* (and all terms referring to it, such as Living-being-itself), Monad, Dyad, Demiurge, Paradigm, Forms, Empyrean, Aetherial, Providence and Fate.

The following abbreviations have been used in the book:

- CPT* = *Commentary on Plato's Timaeus*, 4 vols (Cambridge: Cambridge University Press, 2007-2009).
- De Mal. Subs.* = Proclus, *De Malorum Subsistentia*, tr. J. Opsomer and C. Steel as *Proclus: On the Existence of Evils* (London: Duckworth & Ithaca: Cornell University Press, 2003).
- De Myst.* = Iamblichus, *On the Mysteries*, tr. E. Clarke, J. Dillon and J. Hershbell (Leiden: Brill, 2003).
- De Prov.* = Proclus, *On Providence*, tr. C. Steel (London: Duckworth & Ithaca: Cornell University Press, 2007).
- El. Phys.* = Proclus, *The Elements of Physics, or Institutio Physica*, tr. (German) A. Ritzenfeld (Leipzig: Teubner, 1912).
- El. Theol.* = Proclus, *The Elements of Theology*, ed. E.R. Dodds, 2nd edn (Oxford: Clarendon Press, 1963).
- in Crat.* = *Procli Diadochi in Platonis Cratylum commentaria*, ed. G. Pasquali (Leipzig: Teubner, 1908).
- in Eucl.* = Proclus, *A Commentary on the First Book of Euclid's Elements*, tr. G.R. Morrow; Foreword by Ian Mueller (Princeton: Princeton University Press 1970, 1992 edn).
- in Metaph.* = Syrianus, *On Aristotle Metaphysics 13-14*, tr. John Dillon and Dominic O'Meara (London: Duckworth & Ithaca: Cornell University Press, 2006).
- in Parm.* = *Proclus' Commentary on Plato's Parmenides*, tr. Glen R. Morrow and John Dillon (Princeton: Princeton University Press, 1987).
- in Remp.* = *Procli in Platonis rem publicam commentarii*, ed. W. Kroll, 2 vols (Leipzig: Teubner, 1899-1901).
- in Tim.* = *Procli in Platonis Timaeum commentaria*, ed. E. Diehl, 3 vols (Leipzig: Teubner, 1903-6).
- Meta.* = Aristotle, *Metaphysics*.
- Phys.* = Aristotle, *Physics*.
- Plat. Theol.* = Proclus, *Théologie Platonicienne*, ed. H.D. Saffrey and L.G. Westerink, 6 vols (Paris: Les Belles Lettres, 1968-97).
- Tim.* = Plato, *Timaeus*, tr. R.G. Bury (Cambridge MA: Harvard University Press, 1989).
- V.Procli* = *Vita Procli*, tr. M.J. Edwards in *Neoplatonic Saints: The Lives of Plotinus and Proclus by their Students* (Liverpool: Liverpool University Press, 2000).

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Introduction: The Ten Gifts of the Demiurge

There are those who prefer philosophy, like Porphyry and Plotinus and many other philosophers, and those who prefer hieratic practice, like Iamblichus and Syrianus and Proclus and the adepts of the hieratic school in general. (Damascius, *in Phaed.* I.172)¹

I am all that has been, and is, and shall be, no one has yet raised my veil (*peplos*). (Plutarch, *Isis and Osiris* 354c)

Contemporary scholars are approaching ancient texts with a new respect for historical and intellectual context. The *Commentary on Timaeus* has been newly translated into English by Harold Tarrant, Dirk Baltzly, David Runia and Michael Share, and published by Cambridge University Press. As a result, one of the richest Neoplatonic texts in the commentary tradition of late antiquity is now available to a larger academic readership. Proclus' *Commentary* is a carefully woven fabric of metaphysical doctrine, scientific and mathematical explanation, Platonic exegesis and Orphic, Pythagorean and Chaldaean lore. The work incorporates a fused Platonic-mystagogic doctrine promulgated by Iamblichus and popularized by the Emperor Julian, a compendium of Chaldaean citations and a careful exegesis of lemmas reproduced intact from Plato's dialogue. All these form an amalgam with the Platonism adapted in the Athenian school by Syrianus, Proclus' immediate mentor and influence. At the same time, the *Commentary* incorporates mathematical ratios and hypothetical deductive methods, and subordinates to all of these constituents a supervening and carefully crafted ontology. *Ten Gifts of the Demiurge* (hereafter referred to as *Ten Gifts*) will focus on the theoretical and theological topics that allow the student of the *Commentary* to read it as a philosophical document while at the same time appreciating the fact that it is inextricably hieratic.²

Marinus' hagiographical biography claims that Proclus wrote the *Commentary on Timaeus* when he was a young man, possibly during Syrianus' tenure as head of the Athenian Academy.³ He is reputed to have gone on to write ten or more additional commentaries on Plato's dialogues, as well as on Plotinus' *Enneads*, Euclid's *Elements* and Aristotle's *Physics*. The Athenian Academy, which Proclus led as successor (*diadochos*) for fifty years until his death in 485, was an establishment in and of itself: it was not a direct continuation of Plato's Academy but newly formed and created

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in a city that was one of the last strongholds of pagan religion. Proclus, as a student of Syrianus, his immediate predecessor and revered mentor, studied Plato and Aristotle as well as Orphic hymns and Hermetic writings. He was initiated into the mysteries by Asclepigenia, daughter of Plutarch (first head of the Academy). The theological turn that Platonist philosophy had taken during the tenure of his predecessors had a strong impact on Proclus. Still, there is an independent and highly ‘metaphysical’ character to Proclus’ thought to examine in its own right.

The intricate fabric of the *Commentary on Timaeus* interweaves Platonic metaphysical doctrine, scientific and mathematical explanations and Orphic/Pythagorean/Chaldaean lore, presenting the reader with a doctrinal fusion endemic to the writings of late antiquity. In particular, the work incorporates a doctrine that was originally conceived in its current usage by Iamblichus and popularized by Julian, forming a syncretistic amalgam with the Platonism adopted by the later Neoplatonists. Anne Sheppard points to Proclus’ immediate mentor and influence, Syrianus, as crucial in embellishing this tradition by honing a distinctively *theologikôteron* interpretation of the classical tradition. She claims that Syrianus interpreted a great number of myths along these lines as well, and ‘may well have been the first to allegorize myths in terms of the very highest metaphysical entities’.⁴

The *Commentary on Timaeus* is peppered with theological allusions embedded within scientific and logical arguments about nature. This presents an opportunity for the reader of this text to answer the question raised by Sara Rappe, namely whether ‘Exegesis itself is only a pretext for the creation of something vastly more important than a commentary, albeit Proclus writes in the commentary tradition.’ For Proclus, theology means primarily metaphysics and metaphysics theology. The *Commentary* is an ideal text for finding the boundary between the two discourses. Its agenda is to account for ‘nature’, seen as a laboratory for the creative acts of the gods as they produce tangible manifestations of transcendent idealities. One thing is clear: for Proclus, the wider well of Being and Life goes far beyond the more limited compass of Intellect. The primacy of Being over Intellect and the priority of a Providence connected to an unknowable ‘One’ as final cause, are positions grounded in a belief that there is a divine origin of the physical world. The World Soul, as Timaeus declares at 34b3-4, holds the entire cosmos within its purview, and it is a divine soul. The text, then, must be read in both a theological and a metaphysical register.

The post-Enlightenment assumption that there is a contradiction between so-called irrational and rational modalities or between revelatory and reasoned discourse precludes a truly functional reading of the philosophers of late antiquity. The *Commentary* shows us a way to give theological discourse its proper due, as it accounts for unknown causality and forces in nature, mysterious even to modern physicists. Supervening

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over Proclus' entire project, however, are the perennial philosophical questions that have persisted throughout Western thought. How do ideal objects come to exist in the physical world? Why does nature display a consistent and seemingly inexhaustible repetition of each creature in its kind, genus to species, and paradigm to sensible object? By what agency did the world come to be? Is there any origin that is beyond being itself? What is time in an eternal universe? All these matters are addressed in the *Commentary*. Increased interpretative activity on Proclus' work by contemporary scholars has proven that extracting philosophical doctrine is a project that carries its own weight. The *Commentary on Timaeus* is especially interesting because it endeavours to apply a theology of transcendent entities and a Platonist ontology to the physical world. In doing so, it provides a historically important reserve for the full range of the pagan philosophy and the science of late antiquity. The hybrid imagery of science, metaphysics and theology forms a unique combination that can seem both rich and strange to a twenty-first-century reader.

For Proclus, even the unadulterated Platonism that predated the fusion with oriental theology (characteristic of the Athenian school) was not a Platonism that would be familiar to a student of Platonic philosophy in our time. Proclus regarded Plato's work as being as much a sacred doctrine as the Chaldaean Oracles and as worthy of promoting spiritual enlightenment as the Iamblichean mysteries.⁵ For this reason Proclus devotedly and systematically associates Platonic doctrines with Orphic, Mithraic and Chaldaean influences, as did his immediate predecessors. For the most part, however, he keeps the basic integrity of Platonic doctrines intact, adapting the spiritual flora and fauna of late pagan religious lore to Plato's basic ontology.⁶ A scholar of philosophy and a polymath, he engaged enthusiastically with the extensive mathematical and scientific innovations that formed the intellectual history of late antiquity. These facts demand that readers of Proclus appraise the theological doctrines that permeate the *Commentary* in such a way that due importance is given to the supervening framework supplied by Proclus' scientific interests and systematic metaphysics.

In Neoplatonic schools, reading and writing commentary on Plato's dialogues was the method *par excellence*; exegesis was a ladder to intellectual competence and spiritual perfection. The commentary tradition, as Richard Sorabji's extensive work has brought to light, supplies many missing chapters in the history of Western philosophy.⁷ The Neoplatonic commentator reads Plato as a link in a golden chain of predecessors running back to Pythagoras, who is seen as an Orphic hierophant. Secondly, the tradition cites the lemmas of Plato but treats them largely as launching points for the commentators' own ideas. Proclus in his formative years, under Syrianus' tutelage, studied all the works of Plato and Aristotle. Syrianus ordered the dialogues according to a standard sequence beginning with *Alcibiades I* and ending with *Philebus* followed by *Timaeus*

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and *Parmenides* (considered the culminating works). At least that is how Marinus, Proclus' biographer, reports it (*V.Procli* 12-14).⁸ Proclus composed his *Commentary on Timaeus* early in his tenure at the Athenian Academy, and his new-found loyalties led him to use the *Timaeus* as a showcase for the Chaldaean Oracles whenever he could.

John Dillon points out the inevitable 'tension between philosophy and theology' that can occur in circumstances such as existed during this era.⁹ To unpack a dense and complex text like the *Commentary on Timaeus*, written in a milieu wherein philosophical and theological priorities are equally compelling, calls for a multifaceted approach. Great care must be applied in order to avoid reducing one of these modalities to the other. The ubiquitous theological references and vocabulary are motivated by both political and religious considerations, following the practices and conventions of the Athenian school. At the same time, Proclus is a philosopher who incorporates all the mathematical and scientific developments of his time. Within his work, there is also a core Platonic metaphysical doctrine which stands on its own and does not succumb to Proclus' devout and all-consuming religious soteriology.¹⁰

Compelling questions arise at every turn as to whether the text itself is essentially 'theological' in intention and function. A reader can wonder if the theological allusions are window-dressing for an essentially hard-core metaphysical doctrine or whether the fusion of theology and philosophy is inviolate. The task of appraising the implications of Proclus' ubiquitous theological allusions is enormous. Peter Kingsley contends that there is a crisis in Ancient Studies. He claims that over the last two centuries, a rationalist atmosphere has caused the history of early Greek philosophy to be seen as a 'progressive evolution toward some extremely vague but numinously seductive ideal of rationality'. Decrying this limited approach to ancient texts, he presents a view of Empedocles 'in context': 'Empedocles was a high priest and his writings must be interpreted with this as a crucial determinant. The fate of the soul is an integral part of Empedocles' cosmology, physics is a close relative of eschatology, and in this view cosmic evolution is geared to the suffering or freeing of the soul.'¹¹ Kingsley cautions the modern interpreter to be more accepting of the soteriological nature of many ancient texts. His remarks aptly apply to Proclus and to the *Commentary*, particularly to the discussion of man as a microcosm that concludes the extant books (discussed here in Chapter 11). It would be short-sighted to ignore Plato's own Orphic and Pythagorean underpinnings or his use of myth, and modern scholars are remedying this deficiency. When it comes to Proclus, however, and to late antiquity in general, science, philosophy, theology and politics are so intertwined and nuanced that it is implausible that a single context can be determined. The Chaldaean Oracles, showcased in the *Commentary on Timaeus*, for example, already fuse Platonism and oriental theology.

Scholarship on Neoplatonic philosophers has taken two extremes. Ian

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Mueller, for example, has described the Neoplatonist interpretation of Plato (passages such as that on geometrical number in *Republic* 545e ff.) as a reading that turns Plato's inquiries into 'deep symbolic enigmas'. For Plato these same passages, he remarks, may have been heavy-handed humour or 'mumbo jumbo'.¹² E.R. Dodds remarked that the Chaldaean Oracles contain language and thought he considered 'bizarre and bombastic'.¹³ For scholars who hold reason to be the *sine qua non* of philosophical discourse, theological allusions, particularly those that are pagan in origin, are disturbing and must be explained away or ignored. Many scholars dismiss Proclus' theology and treat his arguments as though they are philosophical doctrines that are matters of pure reason alone. Other contemporary scholars take the opposite tack and consider so-called 'late Mediterranean spirituality' to be a determinate context that cannot be pushed to the margins of exegetical research.

John Bussanich holds a nuanced view when it comes to Iamblichus and 'revelatory experience', and his views can be extended to Proclus. He regards the 'anti-irrationalism' of certain of Iamblichus' interpreters, such as E.R. Dodds, as leading to a 'vitriolic tone' or, as in the case of Hilary Armstrong, a 'backhanded approach'. Bussanich encourages a more balanced treatment when it comes to the 'legitimacy' of theophanic, revelatory experiences. Current literature has recognized so-called 'non-discursive thought', for example, as a concept that mediates the two extremes. Bussanich points out that the distinction between natural reason and revelation is a conceit developed by the Christian Fathers when they uncritically accepted the Stoic symbols of nature and reason as philosophy. He suggests that Dodds and Armstrong, Rist and others interjected this false dichotomy into Neoplatonic studies and that those who adopt this view operate with Christianizing interpretive models.¹⁴ Plato himself, he reminds us, had supernatural features in his own dialogues. He comments as follows: "The fact that Plato is more circumspect, that is to say more "literary" and "mythopoetic" and is identified as such, should not blind us to the fact that his metaphysics and spiritual psychology are just as "supernaturalist" as those of Iamblichus and Plotinus."¹⁵ Proclus frequently situates Plato within the 'golden chain' of predecessors that goes back to Pythagoras and Orphic theology, a practice that is quite common in Proclus' circle and in his predecessors.¹⁶ Luc Brisson points out that Proclus' Pythagorean and Orphic proclivities can be traced directly to Iamblichus who fully promoted the idea that Plato was indebted to Orphic tradition.¹⁷

The extreme position within this approach views Proclus' writings as primarily theological and even themselves a form of theurgy. This approach promotes a view of a soteriological and revelatory Plato and sees the continuity from Pythagoras to Plato to Iamblichus to Proclus as grounded in the sacred Orphic and/or Pythagorean mystery tradition. Sara Rappe is one contemporary scholar who has given considerable

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attention to the hieratic context of Neoplatonism. Her reading of the *Platonic Theology* alerts the reader to the fact that it is possible to view these works through the lens of its 'visionary intentionality'. She gives a detailed coverage to the history of the use of Orphic texts in Platonism and presents a cogent picture of the Proclus of *Platonic Theology* as an invoker of the divine whose text can read as intellectual theurgy.¹⁸ She quotes *Platonic Theology* (I.4.20.1-25):

Those who attempt to reveal the divine speak [in different ways] sometimes [speaking] in a symbolic or mythic mode, making use of images, and among those who expose their own thoughts without veils, some compose their discourses in a scientific manner and others under the inspiration of the gods.

Accordingly, '... the *Platonic Theology* is meant to be a support, not for argument, but for vision'. The text can be viewed 'more like a ritual invocation or theurgic rite than a handbook of metaphysics'. Robbert van den Berg is another contemporary scholar who reminds the reader that Proclus puts the telestic arts over contemplation in achieving union with the One. In his book on Proclus' *Hymns* he depicts Proclus as one who prioritizes the hieratic arts. Iamblichus' *De Mysteriis*, he contends, is a 'manifesto for all the Neoplatonists who valued ritual theurgy over contemplative philosophy, Proclus included'.¹⁹ By a stretch of the imagination, according to van den Berg, one could even see his *Commentary on Parmenides* as a 'hymn'.²⁰ Anne Sheppard points out that for the Neoplatonist the act of studying the Platonic dialogues,

... which were thought to reveal the nature and structure of the world, was not radically different in kind from the acts involved in religious worship: one could show one's devotion to the gods and the truth either by study or by prayer or by theurgic rites or by some combination of these For the Neoplatonists, literary criticism, philosophy and religion are not separate disciplines but simply different facets of one all-embracing *theōria*.²¹

Rappe, discussing *Platonic Theology*, asks where the boundaries lie between philosophical content and 'prayer, talisman, revelation, myth, divine names, initiation and even silence'.²² The modern commentator is able to extract philosophical content that is strictly analyzable according to the criteria of speculative discourse universal to the history of Western philosophy from any of the Neoplatonic texts. Conversely, these theoretical discussions can be read as support for theology. In *Platonic Theology* Proclus presents Plato's dialogues as a sacred scripture that supports an 'exegetical universe comprised by tradition, revelation and interpretation'. Rappe suggests that even the work of a commentary, for Proclus, may itself be in the service of creating something vastly more important. Proclus, and other members of this tradition, are committed to a form of

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exegesis that invites vision, 'precisely because for them these texts are the best and even sole guarantee that this doorway can and will remain open'.

Proclus may very well, as the title indicates, be writing a theological work in the *Platonic Theology*. The question of whether the commentaries are to be read in a similar manner does not automatically follow. Certainly works of Proclus such as *Elements of Theology* and *Elements of Physics* display his dexterity in employing deductive modes of argument. In these works, Proclus supplies ample precedent for the contemporary scholars who extract Proclus' logical and scientific premises and perhaps regard the theurgic and theological allusions as marginal. A.C. Lloyd's examination of the logical structures of Neoplatonic discourse in his book *Anatomy of Neoplatonism*, John M. Martin's work on the logic of Proclus, Leo Sweeney's work on participation and the structure of being, and Robert Brumbaugh's on Cantor's set theory and Proclus' wholes, concentrate on the formal infrastructure of the arguments.²³ Although these are valuable analyses, the kind of focus that they represent could misguide the reader toward a view of Proclus that suggests that he is a cryptic logician in disguise, trapped by the theological milieu of his surroundings.

In the *Commentary on Timaeus*, Proclus employs stringent reasoning and cites the *more geometrica* he so admires as an operative strategy. In his comments on the Proemium, he utilizes hypothetico-deductive methodology and considers it suitable to a study of nature.²⁴ At one point in the *Commentary*, Proclus advocates starting points to the investigation that are 'like a geometer' (II.236.8-19). The reader does not have to wait too long, however, to find superlunary and sublunary gods populating every step of the *Commentary*, taking the place of efficient causality and performing as agents of creation. Proclus' ease in combining hypothetical deductive methodology and Orphic theology can be best understood by accepting his assumed premise that *nous* and *epistêmê* are levels of understanding within a divinely inspired and agented hierarchy that goes beyond *nous* all the way to divine sources. That assumption underwrites an organic interconnection between logic and theology.

Anne Sheppard and others have noted that Proclus' commentaries are difficult to date. Praechter, she points out, suggests that the cross-references in the *Commentary on the Republic* and the *Commentary on Timaeus* indicate that the *Commentary on Timaeus* precedes the one on the *Republic*. Following Marinus (31), it is generally presumed that it was written when Proclus was 28, i.e. in 439/40.²⁵ The *Commentary on Timaeus*, then, demonstrates that Proclus' driving interest in addressing perennial problems that are at the heart of philosophical inquiry was present from the outset. It supervenes upon all of his works, making them contiguous rather than developmental in doctrine. According to Marinus (26), it was not until after Syrianus' death²⁶ that Proclus made any extensive study of the works of Porphyry and Iamblichus on the Chaldaean Oracles and associated writings.²⁷ Still, the soteriological and

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theurgic rhetoric that is ubiquitously present in Proclus' later texts is found in the *Commentary on Timaeus* as well. A 'One' that is extracted from all Being and is only accessible to theurgy and prayer, supercelestial and sublunary 'gods', with their extramundane interventions, emanative energies and other such phenomena, permeate the *Commentary*. They perform functions that range from remote and inaccessible unification to paradigmatic, efficient and final causality. Reason and epiphanic knowledge, divine and scientific causality are inseparable throughout.

Many of the Neoplatonic commentaries go to great lengths to harmonize Homer, Plato, the Chaldaean Oracles and even Aristotle. It does not follow that Chaldaean and other such influences imply that Proclus subordinates metaphysics to theology or that he is merely following the cultural practices of his time. The influence of exotic theologies seems to give licence to Proclus to widen his metaphysical vocabulary and its Platonist and Aristotelian terminology to expand its semiotic purview (its meaning horizon, if you will) and take on a range of extra reference related to theology. Many of Proclus' terms possess alternate significations that oscillate between concept and deity. This is a fascinating process in the history of philosophy, illustrating the ability of language to acquire alternate meanings in historical contexts. In Proclus' case, he associates Orphic tropes and Platonic ideas but still exploits a conceptual apparatus that addresses more fundamental issues of ontology and metaphysics, one that goes beyond even Plato. Plato was indebted to the Orphic and Pythagorean traditions but still designed his conceptual apparatus to address fundamental issues of metaphysics and ontology. The most compelling argument to the effect that philosophy was a priority is that neither Plato nor Plotinus nor their successors abandoned their purely philosophical vocabulary for theological terminology. Plotinus, for example, as O'Cleirigh points out, avoids using the word *theologia* for his philosophical theology, and 'he evidently prefers to deal with a One and a Mind, which are divine, than with gods who can be called by these names'.²⁸ The bifurcation of a One and One Being, the analysis of Time and Eternity and that of dialectic, are not, in the Neoplatonists, discussed as theology, but in specifically philosophical terminology. The terms for deities and concepts in late antiquity were in any case rather fluid in connotation. The name of the god Aion (shepherd of time) equivocates upon the term for eternity, for example, giving the conceptual structures of time a supervening theological referent. The coinage of a language for metaphysics was, after all, a work in progress from the Presocratics to Plato. Proclus reads Plato in a way in which the One is seen as independent of Being, and as the clear *ground* of all form in the cosmos and of all knowledge about it, including mathematics, spherics and geometry. From its physical infrastructure, constructed according to the theorems of geometry, to the political structure of the ideal state, conforming to ratios, everything in the cosmos is unified according to noetic patterns.²⁹ For the Neoplatonist,

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however, the radical foundational ontology that grounds metaphysics is not only noetic, but identifies a source in the objects of desire, which are the aim of theurgic ritual. Proclus posited an ineffable and utterly unknowable ultimate cause, a doctrine that makes the One's transcendence more extreme than that of Plato's Good. Proclus' 'One' is not only *epekeina tês ousias* but *exêrêmenos*, radically removed from the universe and Being and thus the object of longing for a mystical theology whose object is both desired and unknown.

The ambidextrous nature of Proclus' conceptual apparatus allows Alain Leroi-Gourhan and others to see the *Commentary* 'as demonstrative and less geometrical than dialectical'.³⁰ Some scholars place it within the *theologikôteron* interpretation of the classical tradition, while others see Proclus as a precursor to the logic of set theory. Theological terminology – the naming of a plethora of gods, their familial relations, the mechanics of ascent and descent of souls, and other such hieratic mythological discourse – for Proclus seamlessly attaches itself to ideas about being and the One, making them readable in both a philosophical and a theological register. Iamblichus' world of demons and angels is as real to Proclus as the ratios that organize the sensible world. Cryptic mysteries and transparent, reasoned arguments are co-present throughout and augment each other to complete the picture of nature. The world is intelligible, but Being is grounded in a higher hypostasis that is not. The unknowable 'mysteries' of the One, a cause of the possibility of reason, are excluded by the very limits that reason dictates. Even negative dialectic, according to Proclus in his *Commentary on Parmenides*, cannot remedy this.

Stephen Gersh's masterful discussion of 'spiritual motion' is an example of a useful analysis that is able to discuss the Neoplatonist philosopher within the purview of metaphysics but is ambidextrous enough to extend its parameters to take spiritual entities into account as well. As Gersh explains, for Proclus, 'spiritual entities exercise a causal function by spontaneous and unwilled creativity'.³¹ Although he concentrates on ontological categories in this book, he identifies characteristics of spiritual motion that are relevant to both ontological and theological discourse. In a later article, Gersh proposes a 'contextual' reading of Proclus, a nuanced and subtle approach, the kind that is required in order to adequately decode the complexities of late Neoplatonist texts. Gersh, quoting Proclus, has elaborated on the four separate signifying structures (*tropoi*) in Proclus' opus: symbolic, iconic, entheistic and dialectical. All four levels of discourse that Proclus names in the introduction to the *Platonic Theology* intersect in all the works of Plato and Proclus. For Plato, according to Proclus, the *Phaedrus* is entheistic, the *Sophist* and *Parmenides* dialectical, and the *Gorgias*, *Symposium* and *Protagoras* symbolic. In the *Politicus* and *Timaeus*, finally, one sees the 'iconic' mode of discourse. In Proclus' *Commentary on Timaeus*, the fact that the iconic mode is most prominent does not preclude dialectical and symbolic as well as entheistic modes of discourse.³²

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Entheistic discourse, then, coexists with dialectical discourse in the *Commentary* and cannot be marginalized if one is to appreciate the full range of Proclus' vision. The Chaldaean Oracles, the so-called 'bible of late antiquity', expands Proclus' palette, providing the colouring and shading necessary to render his bare-bones metaphysical interpretation of Plato into the complete panoramic philosophy of nature that includes divine sources. An example will suffice here to illustrate the practice of calibrating Plato's lemmas, his own metaphysics and the visionary theosophy of the Oracles that can be found throughout the *Commentary*. Commenting on Plato's composition of the world out of the four elements with no part or power of any of them external to it (32c5-8), he brings into the discussion the Oracles' division of the universe into Empyrean, Aetherial and Material regions and calls only the visible region 'material'. Baltzly adds: 'The Oracles divide the universe into three regions: the Empyrean is associated with the intelligible realm and the outermost of the world circles, the Aetherial is identified with the fixed stars and the planets, while the sublunary realm is what is called material.'³³ This is a prime example of the fusion of concept and mystagogic 'lore' that appears throughout the *Commentary*.

Gersh gives an example of the kind of 'contextual' reading that is helpful. He explains that the principle of binary structure that Proclus identifies might be understood in an Orphic, Pythagorean or Platonic manner. In Proclus' treatment of the Olympian/Titan opposition in the Introduction to the *Commentary*, he suggests that the opposition could be viewed as that between the Olympians and the Titans where the former dominate the latter. It could also be treated as that between parallel series extended from the highest to the lowest level. The opposition could finally be viewed as that between Limit and Infinity in the *Philebus*.³⁴ Proclus' reading of the allegorical accounts in the Prologue of *Timaeus* interprets them in all of these registers.³⁵ According to Gersh, the way this works is that 'Intelligibles, mathematical and physicals, are simultaneously physical and theological since the middle and the lower are present paradigmatically in the higher while the higher and the middle is present iconically in the lower'.³⁶ The presumption is that the One itself is unknowable; its effects are knowable in appearances. There is a continuity in the chain of being. The world is suspended from the gods but knowable by epistemological concepts.

Book 1 (discussed here in Chapter 3) is an elaborate example of how Proclus construes the war between Athens and Atlantis (I.75.27-191.13) that is recounted in the *Timaeus* Prologue. Proclus interprets it along the lines of a struggle between matter and form, Limited and Unlimited. Numerous other examples of contextual treatment of issues can be found in Proclus, but here it will suffice to give one more illustration. It demonstrates the elaborate process by which Proclus construes mythology to conform to philosophical categories. Proclus is discussing the *Timaeus*

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lemma concerning the brotherhood of Ocean and Tethys to Kronos and Rhea and at the same time their parenthood (*Tim.* 40d7-e6). Proclus configures this to signify the presentation of the rule of the triadic through its conversion of the dyadic through the intervention of the infinite and indefinite. Names of gods and functional concepts are similarly interwoven in the *Commentary* and in the general tradition that it represents. A more general example of this practice and a Neoplatonic mainstay is the Demiurge, whose function throughout the *Commentary* is to be the intelligence that generates the intelligible world, and the efficient cause of the physical creation. He is identified with Zeus.³⁷

Contemporary Proclus scholars are still engaged with resolving Proclus' seemingly bipolar interpretation of nature. Marije Martijn, for example, characterizes her own approach as presupposing a 'fundamental and crucial continuity between the world of generation and the intelligible realm' as well as the theological.³⁸ John Dillon is correct in stating that the relationship between philosophy and theology in Proclus is complementary, without subordination or tension.³⁹ It is best to appreciate the symbolic, iconic and dialectical and entheistic registers of the Procline text simultaneously, without the need to reduce one to the other or to justify their fusion. The reader, in addition, must learn to appreciate the semiotic extension that is given to Platonic categories when they are viewed in a theological register. The dialectical Proclus is squarely positioned as predecessor and successor of the Western metaphysical tradition; the theological Proclus as one who appreciates the symbolic potential of the categories of the tradition to represent the workings of divine causality and Providence. *Ten Gifts* holds to the conviction that one must be even-handed in appreciating Proclus' multifaceted approach. Theological, scientific and metaphysical categories all have logographic necessity within his larger scheme. All can be shown to be both functional and necessary to his arguments and to his overall 'vision of the whole'.

The logic of simultaneity

There is one prescient category in Proclus that makes common cause out of physics, metaphysics and theology, and that is the Limited/Unlimited distinction that Proclus regards as central in importance and ubiquitously present in all of reality.

... one should postulate this rivalry everywhere – as it is in gods, intellects, souls, and bodies. At that [first] level it is Limit and Unlimited, in intellects it is sameness and otherness; in Soul, it is Same and Different and in bodies heaven and generation. The second ones are always drawn up in dependence on the better ones. (I.132.11-16) (T)

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That divided things receive their limits from undivided hypostases, parts from wholes; becoming from being, is basic Neoplatonist metaphysics and had been given its philosophical development by Plotinus. In this tradition, Proclus subordinates all multiplicity to transcendental hypostases. The fact that the highest of hypostases includes the Unlimited solves many of the *aporiae* that arise when continuities and discontinuities both stem from an overriding unity. In Proclus' scheme, by elevating Infinity to a position above even Being itself, the continuity between undivided and infinite oneness, and divided material, temporal, and spatial phenomena, is stabilized.⁴⁰ The prototype of this all-important opposition clearly is Syrianus, who regarded this division as fundamental: 'Sameness (*tautotês*), Equality (*isotês*), similarity (*homoiotês*) derive from ... the all-good nature of the One.' On the other side, 'othernesses, unlikenesses and inequalities, as well as contrarities and prior and posterior ... derive from the Dyad' that is 'infinite in power' (5.9ff.).⁴¹ Throughout Proclus' *Commentary*, Sameness, Equality and likeness will be essential categorical distinctions, and Limited/Unlimited cosmic principles of the highest order will replace Monad and Dyad as supreme *archai*. They come immediately after the One and are constituents of all the lower levels of the hypostatic hierarchy and the created universe except matter, where only the highest principle, the One itself, is operative.⁴² Assuming the primacy of this duality is a premise that allows Proclus to deny the evil nature of uncolonized matter. The presence of multiplicity, the co-presence of Time and Eternity, and the inexhaustible fecundity of creation are given legitimate grounding principles within Proclus' ontology.

In one guise or another, most of the central themes of western metaphysics are at play in the *Commentary on Timaeus*. 'Divine gifts' is a trope that captures the core conceptual strategy of Proclus' ontology. Finite beings receive the bounty of infinite oneness at all levels of being down to the very existence of the physical world. As Siorvanes and others have noted, Proclus' writings are deeply imbued with the principle that 'all things are in all things but appropriately' (*panta en pasin all' oikeiôs en hekastôi*)⁴³ (*El. Theol.* 103). This principle, when combined with the general idea that the One gives with undiminished reserves, that there is an 'undiminished bestowal of the One', supports the premise that continuity exists between the continuous and discontinuous, between the invisible, unified world and the multiplicity of nature. These assumptions reconcile *aporiae* such as how proceeding and remaining can be simultaneous or how the henads which proceed from the One can remain unconfused with respect to themselves or to the one principle of them.⁴⁴ The 'all in all' principle allows that things that exist in their own right and are self constituted, as are the gods/henads, are not obliterated by unity. There is a simultaneous presence of the One, Being and at the material level, Existence. None of these levels can reduce to their higher hypostasis, continuity and discontinuity are reconcilable. The transcendence of the

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first principle and the simultaneous autonomy of the gods do not mean subordination in the sense of a class structure to its principle but the simultaneous co-presence of principle and manifest reality.

There is a sober methodological side to Proclus, which is as omnipresent as the above-mentioned metaphysical/'metalogical' assumptions. Proclus himself provides a guide to reading the *Commentary* as a dialectical exercise in his commentary on the 'Proemium' of *Timaeus*. Proclus devotes no less than 150 pages (I.205-366) to commenting on it, as Runia points out. Runia explains that traditionally a proemium has the function of a 'methodological preamble'. 'The chief task of the dialectic (implicit in the Proemium) is to determine the ontological status of the universe as an object of inquiry ...'. Proclus uses it to this end and takes up the prime metaphysical questions that he intends to expound in his *Commentary*.⁴⁵ 'Just as there are principles for geometry and music and medicine', he claims, 'so there are also principles for natural science' (I.236.11-20). Plato, in the same manner as geometricians, employs definitions and hypotheses prior to demonstrations and Proclus will adopt the same strategy. Dmitri Nikulin has identified Proclus' reliance on *more geometrico* demonstrated in the structure of his *Elements of Physics* as well.⁴⁶ In Proclus' view, the physical world is a legitimate object of science, nature and the cosmos are as important an object of inquiry as anything else. Runia explains that Proclus, in this light, proposes principles that determine the investigation, referring to them as *axiōmata*.

The basic questions, however, which compel the dialectical enquiry, are anything but 'scientifically' answerable, at least by modern analytical standards. Proclus takes up prime metaphysical questions. These are articulated in Plato's *Timaeus* but they are questions for all time. The question that is articulated in the lemma at 27d6-28a1 is fundamental metaphysics. 'What is that which is always Being but is without generation and what is that which is generated but is never Being?' Or the question posed by Plato at 28b7-8, concerning whether the universe always was, having no beginning or generation, or whether it was generated and came from a beginning. In answering these queries, Proclus' dialectical and epistemological approach is very quickly swallowed up by his ontological realism. The categories and objects of inquiry are granted hypostatic and independent being. The door to theology is opened wide and the objects of enquiry, whether physical or mathematical, by this assumption, are transformed into icons, symbols and analogues to true being. The invisible and transcendent is given the prime status as true reality and the lower rungs of the world (physical things) are reflections of the higher hypostases. The intelligible patterns and arrangements discoverable in nature are signs of higher ontological presence. In fact, the entire methodological discourse of Book 2 of the *Commentary*, which delineates axioms of causality, culminates by giving the place of honour to the final cause; the Good. Book 2, then, provides a preamble to the first of the

'invisible' gifts, that of the hypostasis: Soul. When reading the *Commentary*, methodological considerations and dialectic cannot be disconnected, for very long, from ontology and theology.

Mathematical and scientific analogies

If the analytical and metaphysical fusion does not introduce enough complexity to the reader of the *Commentary*, Proclus' interest in pure mathematics, Aristotelian physics and astronomy certainly does. Proclus is especially agile in alternating discourses as he calibrates theological lore to mathematical and astronomical models. One can see this effort in full play in the *Euclid Commentary*. Mueller presents an analysis of the similarities and differences between the treatment of Neopythagorean material in Proclus and Iamblichus. Neopythagoreanism dominates the prologues to Proclus' *Euclid Commentary*, while a mathematically sophisticated treatment of geometrical axioms and proofs can be found in the main body of the work.⁴⁷ Proclus frequently turns to scientific and mathematical analogues to support doctrines of pure metaphysics. His systematic use of Aristotle's *Physics* is a prime example. Proclus dismisses Aristotle in favour of the *Timaeus* when it comes to the physical world. When Platonist principles do not accomplish certain of Proclus' goals, though, he admits that Aristotle 'offers a useful treatment of matter and form, the efficient causes of motion, motion itself, time and place'.⁴⁸ Proclus, after all, wrote the *Institutio Physica (Elements of Physics)*. In it, he reiterates key propositions stemming from the Aristotelian discussion of motion. He utilizes these principles in support of his own treatment of the unmoved mover, eternity and time and his theory of the soul. Proclus uses Aristotle's principles of continuity, motion and time to supply the missing premises that make Platonic doctrine more coherent. The distinctions made in Book 6 of Aristotle's *Physics*, for example, allow Proclus to elevate the distinction between the continuity, contiguity and succession of motion to metaphysical significance in describing the continuity of Intellect, Soul and physical reality. Proclus' terminology applied to systematic distinctions in his complete 'anatomy' of types of time and eternity in the *Commentary* benefits from Aristotle's *Physics* as well.

Geometrical innovation flourished after the early Academy and was augmented by the innovations of ancient astronomy. Harmonics, as a science, also grew in early and late antiquity. Carried on in the Platonic tradition, they were a strong influence on Proclus' ontology. All commentators agree, for example, Eudoxus was the first Greek astronomer who fully understood and worked with the concept of the celestial sphere, as well as the mathematician who made considerable advances in the theory of proportions. He made a definitive impression on Platonists by finding a way to use the theory to treat the impossible problem of incommensurable magnitudes. His attempt, further, to construct a mathematically based

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system to explain apparent irregularities in the motions of the celestial bodies, carried out a Platonic injunction to account for the phenomena within a coherent *logos*. Proclus' extensive treatment in the *Commentary of analogia* (proportion), even making it one of the ten gifts the Demiurge bestows on the cosmos, reflects his admiration for this tradition. Proclus displays his admiration for the tradition of Greek astronomy, as well, by using the 'sphere' and circular motion as an explanatory paradigm.⁴⁹ Proclus, who was both a critic and a careful student of Ptolemy, wrote a commentary on the *Almagest*. Spherical motion, for Proclus, reflected the Platonic admiration for equality and symmetry. Plato's emphasis on spherical motion as the epitome of Being, with circularity as the highest form for thought, led to explanations of observed phenomena which aimed at commensurating irregularities.⁵⁰ Circular motion was elevated to meta-physical importance, and it became the pervasive 'model' for both natural processes and intellectual processes aimed at the truth. Proclus' respect for dialectic, his 'circular' vision of procession and reversion, his elevating of the circular over the straight and discursive, reflects both a Platonic ideal and a mainstay of astronomy. Uniform circular motion is analogous to the eternal truth and was even seen by some Neoplatonists as a means to assimilate to the One. Procession and reversion as a process of spiritual descent and ascent to and from an occult and eternal One are replete with figures of speech having to do with circularity. In the fourth and sixth gifts of the Demiurge, 'sphericity' and circular motion, the amalgam of geometry, Platonism and post-Platonic astronomy is easily seen.

The ten gifts of the Demiurge

Proclus' own idea that the Demiurge confers ten gifts upon the world, each one progressively closer to the true causes of the completion of the creation of the physical world, provides a ready-made way to organize and sort through the densely packed and complex material that is presented in the *Commentary*. The gifts are given in order of their importance along the culminating hierarchies of organization to which the physical world is subject. Each gift allows Proclus to give ample play to Platonic concepts and to the discoveries of mathematics, astronomy and physics. In the final analysis, however, it is not scientific causality but 'Providence' that determines the ultimate completion of the created universe. The sanctuaries of the gods, apparent in the heavens, are established in the cosmos. Theological agency reigns supreme. Mathematics, perceptibility, motion, wholes, completion, Soul and Time are all features of the psychical world. At the same time, they are divine 'gifts' to a real world that operates within scientifically understandable parameters. The source is and always will be transcendent.

'Gifts' is a trope that relies on two very basic premises that Proclus promulgates throughout his work: (1) a transcendent 'One' that guaran-

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tees continuity between the visible world subject to scientific analysis and the noetic world which renders it subordinate to intellectual causes, and (2) bestowal on the part of transcendent causes and deities which give of their bounty to the world. 'Gifts' also carries the idea of undiminished bestowal (the One gives without diminishing itself) and the 'all in all' principle that the overflowing of power bestows gifts to all things but remains faithful to the highest principles. Everything is in everything but appropriately. The presumed presence of an analogical pattern (One to the One Being and to the All-perfect-living-being and then to Intellect and Soul and finally to the physical sensible world) is granted by a hypostatic hierarchy of unifying 'sympathetic' causes. Each level of reality receives what the Demiurge offers according to its receptive powers.⁵¹ In the course of the *Commentary*, these gifts appear from the bottom upward, first to final gift. This strategy affords Proclus the ability to build the *Commentary* from the ground upward, from nature to transcendent causes (while the ontological status of the bestowal of the gifts comes from the top down). The analogical structure that operates from the highest to the lowest, from transcendent to immanent causes and from lowest to highest demonstrates the 'sympathy' that exists on all levels of the universe and beyond. In summary, 'gifts' presumes a giver, the Demiurge, who bestows them upon the cosmos without diminishing the source; they are distributed on every level in the form of that level's capacity to receive them. In this figure of speech there is also an echo of the archaic Greek notion that the gods 'give' of their bounty to earthly creatures.

This book follows the structure of the *Commentary* as far as it is possible to do so while calibrating the sections to the progression of gifts which Proclus stipulates: lesser to greater gifts. Runia and Share suggest that the *Commentary* may not have any kind of structure beyond the sequence of cited lemmata and the comments made on them, which is in turn determined by both the method used by Proclus and the subjects raised by the text.⁵² Proclus may, indeed, have restricted his overall scheme to conform to the lemmata on which he is commenting. A case can be made, however, that despite the constraint that the successive lemmata put on Proclus' priorities, a supervening structure to the *Commentary* does emerge and calibrates roughly with the progression of the ten gifts. In any case, it is a useful interpretive device to contain an apparently unruly proliferation of theological, metaphysical and mythological material. Proclus actively assimilates Plato's text with his own ontology and theology and this imposes its own structure. It is clear that Proclus finishes his discussion of the visible world and its generation at the end of Book 4 and turns to a discussion oriented to the sublunary gods and to mankind as a microcosm, which he elaborates in Book 5. Since the ten gifts span the creation of the physical world and culminate with its completion, at least as far as this overriding theme is concerned, the five extant books form a coherent and systematic treatment as a self-contained sequence. Book 4

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(which covers III.1-160) places the sanctuaries of the gods in the cosmos and the culminating tenth gift, the greatest of all, that of the most perfect 'similarity' (*homoiôsis*) of all that is to the 'Living-being-itself' (*Autozôion*) (III.98.10-12). Book 5, the last of the extant books, discusses the gods and the fate of the mortal soul and its potential to assimilate to its leader gods, and so parallels this concluding arc.⁵³ Whether or not Proclus continued to comment past the lemma 44c5-d2, concerning the disposition of the soul and its reconciliation with its fate, is not relevant here. A complete cycle that begins in Book 1 with a vision of universe as a microcosm of higher causes and ends in Book 5 with mortal souls as microcosms of the universe, provides textual support for an analysis of Proclus' *Commentary* as roughly following the progressive theme of the ten gifts.

Summary of the book

Chapter 2 provides the reader with the facts about the political and social context of the Athenian school. It serves to introduce yet another lens with which to examine Proclus' theological allusions. The historical and political situation, which influenced Proclus and the Athenian school, may have had some influence on the form and quantity of theological allusions in the *Commentary*. Polytheism was endemic to Hellenic culture and had to be defended in the wake of increasing Christian hegemony. Neoplatonic academies in the late empire, Hellenic in orientation and educating sons of the senatorial class of Rome, were an opportunity for pagan scholars to promulgate their own unique ideology. The Athenian school held to the ideals of Emperor Julian and had not given up on the possibility of renewing the pagan cause. Theological allusions, apart from their function in the philosophic text, had a second life as appeals to interlocutors who were engaged in ideological struggles. They functioned, like myth in Plato, as Luc Brisson conceives it, as 'a message by means of which a given collectivity transmits that which it preserves in memory of its past from generation to generation'. Brisson points out that 'Even though myth is an unfalsifiable discourse ... it is all the more effective in that it transmits a basic knowledge which is shared by all the members of a community' (and so) 'can play the role of an instrument of persuasion ...'.⁵⁴ Pagan religiosity was the identity marker for a rapidly fading culture, and therefore served a political function. The forged identity of Orphic/Pythagorean ideology and Platonism had a history dating from Julian's use of it as an organizing tool for political and educational survival in a world that was increasingly hostile to Hellenism and pagan theology. Proclus, like others of his circle, reached far back into the cultural memory of the Hellenics, fusing it with oriental religion and using it to forward pagan ambition.

The first substantial discussion of the *Commentary* itself, which comments on the allegories of Atlantis and the Constitution of Athens, the content of the Prologue to Plato's *Timaeus*, constitutes Chapter 3 of *Ten*

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Gifts. It is useful to associate these allegories with the first gift of the Demiurge, ‘perceptibility’. In Book 1, Proclus construes these myths as representative of the resistance and struggle between the material world and the imposition of form upon it. Here the reader sees the first ‘vision of the whole’, that the world of nature is a microcosm as opposed to chaos.

Chapter 4 of *Ten Gifts* explores Proclus’ elaborate mathematical treatment of the second gift of the Demiurge, that of *analogia* (geometrical proportion). Plato mandated that the divisions of the World Soul in *Timaeus* are in the proportions and ratios of the musical canon. Chapter 4 will discuss how Proclus treats mathematics, particularly his affinity to Euclid and his thoroughgoing belief in the universal application of theories of proportion. During Plato’s lifetime, there was intense intellectual activity in a polymathic environment. Multidisciplinary exchanges of ideas proliferated and a language for metaphysical constructs developed separately from the inherited wisdom and religious lore of the cultural surround. Sophisticated mathematicians, astronomers, and musicologists (particular to this discussion of mathematics) thrived apart from theological influence. Proclus honoured this background and devoted a considerable portion of his career to studying the history of mathematics, commenting on Euclid and integrating mathematical concepts with his metaphysics. Eudoxus, for example, did research on the theory of proportion, a study which Proclus claims was begun by Plato. Geometry during Plato’s time was being perfected by Plato’s friend Menaechmus, pupil of Eudoxus, and his brother Dinostatus, as well as Philippus. Early Academy scholars, Speusippus and Xenocrates, gave mathematical interpretations of Plato’s metaphysical doctrines, etc.⁵⁵ All these influences, especially that of Euclid’s *Elements*, bear upon the *Commentary*’s reverential and detailed exposition of Plato’s musicological description of the cutting of the canon in the creation of the World Soul. For Proclus, Plato’s ratios and proportions have the status of a universal mathematics and are an impressive way to unite the intellectual and physical world of nature.⁵⁶

Chapter 5 takes up the theme of the third gift (and second book of the *Commentary*), that of making the world a ‘whole of wholes’, and focuses on the methodology that Proclus establishes as a preamble to more substantive issues. In a lengthy exposition, Proclus constructs axioms out of principles that he considers necessary to connect the existence of wholeness and whole things to their causes. In this chapter Plato’s influence on Proclus can be seen quite clearly. While Syrianus, Iamblichus and Plutarch of Athens, Proclus’ more direct predecessors, were an important influence upon him, his Platonism wins the day when it comes to basic principle. The core Platonic doctrine he promulgates stems directly from the written dialogues. Proclus often adds Plato to Plato, augmenting the *Timaeus* with doctrines extracted from other dialogues, particularly the

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late ones, *Philebus*, *Sophist* and *Parmenides*. Platonic categories, such as the *Megista Genê* of *Sophist* and the Limited/Unlimited dichotomy of *Philebus*, are used as core-organizing strategies. *Parmenides* and *Timaeus* are crucial reserves for Proclus' ontology. The way he construes and combines the concepts distilled from these and other dialogues is unique to Proclus. Stephen Gersh remarks that for Proclus the *Parmenides* summarizes the whole intelligible world and the *Timaeus* the whole intermundane world, and this is a helpful way to situate the *Commentary*. Analogies can be found between the two dialogues supporting the analogies that Proclus finds in the metaphysical, intellectual and physical worlds. In the *Parmenides*, for example, everything is related to the One, and in the *Timaeus*, everything to the Demiurge.⁵⁷ Following Gersh's discussion, one can situate the *Commentary on Timaeus* as the world at the level of the demiurgic creation and the realm of the encosmic gods. The gift of wholes is related, then, not to the One, but to the One Being, the second hypothesis of the *Parmenides* dialogue. The *Autozôion*, a whole of wholes, is a living being for Proclus as for Plato, and to augment this premise Proclus adds the *Sophist* citations regarding 'Life' as a parameter of Being and Intellect and, in turn, nature.

The seeming self-sufficiency of the heavenly bodies suspended in space and held by their own equilibrium, the spherical containment of the *to pan*, the universe, and the perfect uniform spherical motion of the heavenly bodies, were constructs deeply entrenched in the Platonist canon. These features became the foundation of an ideal that held the universe to be all-perfect and rational, even divine. Chapter 6 discusses the three gifts that are based on these constructs: 'he makes it a sphere', self-sufficient and in perfect circular motion. A review of the history of cosmology and astronomy will show how these iconic images are related to astronomical developments that were discussed in the Academy by Eudoxus and others, and later by Ptolemy. Plato's two-sphere model of the cosmos in *Timaeus*, as a model for the whole of wholes, encouraged a strong connection between astronomy, the physics of motion and the geometry of the sphere. For the Platonists these were all connected to Intellect and the higher causes and so contribute to Proclus' particular 'vision of the whole' as intelligible and intellectual.

The gift of Soul, the seventh gift, is treated in Chapter 7, which corresponds to much of Book 3 of the *Commentary*. Chapter 8 covers Proclus' complex and nuanced treatment of time, the eighth gift. Chapter 9 gives full due to Proclus' theology by explaining that the ontological status of the encosmic gods is one that cannot be denigrated or marginalized within Proclus' ontology as a whole. For him the gods serve mediating functions that cannot be replaced by concepts alone. The Demiurge is Zeus, for example. Principles alone are not capable of activating cosmic creation, a process relying on 'Life' and Being. The gods fill this gap, between Being and efficient causality, as creative agents. The first Demi-

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urgy (I.355.16-458.11) and the second Demiurgy, Proclus explains, are due to the work of the encosmic gods.⁵⁸

For Proclus, transcendence is more radical than ever before in the history of Platonism. His usage of the verb *exaireô* in relation to transcendence supersedes the *epekeina tês ousias* used by Plato to designate a 'beyond Being'. Chapters 9 and 10, following the fifth book of the *Commentary*, take up the gods, their transcendence and the possibilities for mortal souls to achieve union with transcendent causes. Proclus carefully distinguishes between mortal and immortal souls and describes the many distinctions that the bifurcation immortal/mortal suggests. In Book 5 of the *Commentary*, the universe has now reached a completed whole and mortal souls, as all souls, have a predetermined place and purpose. Chapter 9 discusses the intermediating role of the superlunary and sublunary gods. Chapter 10 discusses the large obstacles to transcendence that preclude mortal souls from full union with the gods. Plato's famous expression in *Theaetetus* (17b1f.) admonishes us to 'become like God to the extent possible' (*homoiôsis theôi kata to dunaton*). Proclus takes a highly nuanced position on assimilation: the human soul is, after all, inescapably mortal and subject to the consequences of its descent into the physical world in creation. While for Plotinus, the rational part of the soul stays in touch with the beyond, for Proclus, the soul descends in its entirety; rational and irrational parts in tandem. The gods, on the other hand, possess an 'unknown transcendency' suggesting that, for mortal souls, the afterlife that includes becoming unified with the One is not only unknowable but unattainable. After all, it is 'not lawful for anything imperfect to touch the all-perfect'.

Chapter 11 describes further premises which make up Proclus' solution to this problem of assimilation for the human soul, in light of the universe as a microcosm of the divine living being and man as a microcosm as well. 'He possesses intellect and reason, a divine body and a mortal body just as the universe and is divided analogously to the universe' (III.355.7-11). Ignorance, said Plato (III.352) is the greatest disease of the soul, burying and blinding its eye, and if remaining ignorant the soul will pass into Hades imperfect and destitute of intelligence. Proclus admonishes that those who proceed through the path of life in this manner will remain under the sway of fate and not be able to give perfection to his intellect. These lost souls will be like the living from the dead: only he who has purified himself will know what is wholly pure and incorruptible. Proclus reminds the reader, at the end of this book, that despite the fact that the mortal soul is created under the auspices of younger gods, and in descent to the earthly coil they fell under the sway of fate, in the final determination they are still under the more ultimate rule of Providence. The mortal soul need only find the means to make contact with a leader god and be led upward toward higher causes.

Conclusion

Scholarship is finally giving careful consideration to non-discursive thinking. In doing so, it is finding common ground for what used to be strictly bifurcated into separate realms of 'rational' and 'irrational' discourse. The very idea of non-discursive thinking points to an alternative logic that goes beyond dialectic and which can treat sweeping totalities such as is Being and the One under rules of 'symmetry' instead of the 'asymmetrical' assumptions of finite logics. Revelatory thought has its own rules of logic and does not necessarily have to be dismissed on purely positivist grounds. Matte Blanco gives an account of symmetrical as opposed to asymmetrical discursive logic, based on axioms of infinity, which can be used to describe the logic of an infinite object.⁵⁹ The logic of dialectic breaks down before metaphysical 'visions of the whole', but this does not mean they have to be totally bracketed out of philosophical discourse. Non-discursive thinking can be conceived as a kind of 'thinking' that would be possible should one be able to think the logic of infinity. This can only be a speculative exercise; obviously the human mind cannot think except in terms of finite and limited concepts and operations. The idea of assimilation to the One by 'thought' is not feasible for the very reason that the finite cannot comprehend the infinite in any kind of conceptual parameters. Still, following the torch-bearing Proclus into the mysteries of theurgy, one can at least consider that there may be realms of experience that lie outside of the purview of a logic based on the law of non-contradiction.

Theurgy, as strange as it may seem to Western ideologies, can be recognized as the Neoplatonist means to bypass an exhausted discursive, or dialectical, knowing. For the theurgic philosopher this type of practice transcends the limits of dialectic and even negative dialectic, as a means to unify with ultimate causes. It can reach or touch a mode of experience that is technically unreachable by the normal avenues of human reason. An 'action' of some sort, such as eliminating the particularity of individual 'ego' through purifications, on technical grounds, is more equipped to do the job of assimilation and revelatory apprehension than discursive thinking. Theurgy will be seen in the later books of the *Commentary* to hold the promise of unification.

The *Commentary on Timaeus* offers an account of nature as a construction that is entirely dependent on self-constituted supernatural causes. For the Neoplatonist, the most ultimate of these causes, the One, remains unknown and inaccessible. Proclus, however, recognizes that the gifts that are bestowed on this universe are fathered and bestowed without limit upon a physical world. To study it, therefore, is to learn the secrets that lie behind nature's 'veil'. This world and its inexhaustible bounty are as mysterious to the modern cosmologist as they have ever been. For Proclus, Plato's *Timaeus* has gone some of the way toward solving that mystery by revealing the series of gifts that flow freely from nature's hidden source.

The Prevailing Circumstances: Theological Rhetoric and the Athenian School

Proclus was fearful that the truly Golden Chain of Plato might abandon our city of Athens ... (Damascius, *Life of Isidore* 8.98)¹

The primary focus of *Ten Gifts* is Proclus' metaphysical doctrine as it applies to the *Commentary on Timaeus* and to nature as a divine bestowal. Chapter 9 will make a case for the functional and logographic necessity of theological entities within Proclus' system. They perform creative functions within the ontological superstructure as it supervenes on physical being. Proclus' ubiquitous evocation of the gods, however, has social and political implications as well. Perhaps it is the sheer volume of the theological rhetoric, coexisting alongside more serious doctrine, that suggests that Proclus' allusions are motivated by extra-systemic considerations. Proclus, for example, takes every opportunity to give the Pythagoreans authority as originators of doctrine, even when he is clearly aware that this is not the case. He finds confirming passages of many of his key doctrines in quotations from the Chaldaean Oracles. It is because of these quotations, in fact, that there is a record of many of the oracles. These allusions, within a philosophical text or commentary, are very typical conceits of the fourth- and fifth-century educational curriculum of Neoplatonist academies. Attribution of Plato's *Timaeus* to a more original Timaeus Lokros, at the outset of the *Commentary*, is a good example of the use he makes of a 'golden chain' of theological and philosophical predecessors who are meant to give legitimacy to the Neoplatonist doctrine.²

Athanassiadi reminds us that the Chaldaean Oracles were called the Bible of the Neoplatonists and their canonical status dates back to Iamblichus' massive commentary on this work.³ The Amelius whom Proclus cites in the *Commentary*, Athanassiadi tells us, documents a direct connection between the Chaldaean Oracles and some of the predecessor figures that Proclus cites who met in Apamea, Iamblichus' gathering place for students from all over the Mediterranean world.⁴ It is also important to keep in mind that the fragments that are extant from the Chaldaean Oracles constitute four-fifths of what we can document as extant quotes from the purported authors, Julian the Chaldaean and his son Julian the Theurgist. The fact is that this work had a political role dating from the time that the Emperor Julian syncretized Chaldaean, Iamblichean and

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Platonic philosophy and used it to promote the pagan cause. One can surmise that the *Commentary on Timaeus* itself is a political and social document, as well as a philosophical commentary, insofar as it preserves remnants of a culture that came under increasing attack in the late empire. This backdrop of political context and the social realities of the late empire and their impact on the Athenian school, then, must be taken into account as a prelude to proceeding with a more substantial interpretation of the text.

Proclus, in Baltzly and Tarrant's words, was 'a powerful man in a delicate political position'.⁵ The Athenian school was intent upon preserving the syncretic fusion of Platonism and oriental theology that originated in late antiquity and came to prominence during the Julian period. The marginalizing of the pagan tradition and the suppressed political aims of the pagan philosopher in the late empire had an impact on the amount and the nature of theological allusion in the *Commentary* text. The question concerning the extent of this influence on metaphysical doctrine and how it is construed is an open one. Difficult as it is to pursue with textual evidence, this question must be raised if one is adequately to contextualize these writings.

The phrase 'prevailing circumstances' (*tois parousin*) is one that can be found in the work of Damascius, Proclus, Simplicius and Olympiodorus. Interestingly, it appears in Plato's *Republic* (509c9-10) after the mention of the One beyond Being when Socrates states that he will give an account of these matters, 'insofar as is possible at present' (*hosa g'en tōi paronti dunaton*). This phrase, now embedded within the philosophical works of the Neoplatonist philosophers, seems to refer to a general consciousness of the Christian threat and Christian milieu of late antiquity. It may have been used to mark adaptations of doctrine due to Christian influence. Certainly, it is an indication that pagan philosophers had to exert a certain amount of caution in promulgating their philosophy in a hostile milieu. This formula, used by later more politically involved successors of Proclus, was employed by him as well, in his tenure as head of the Athenian Academy until his death in 485.⁶ Marinus refers to difficulties that Proclus experienced during a year in which Proclus left Athens for Lydia, 'when he was critically harassed by certain giant birds of prey'. He had 'entered into the billowing tempest of affairs at a time when monstrous winds were blowing against the lawful way of life'.⁷ Saffrey speculates that the problem may have been the closing of the temple of Asclepius and its conversion to a place of Christian worship.⁸ Proclus can be presumed to have a political side to his role as *diadochos* of the leadership of the Athenian Academy.

While it is not obvious in the extant literature that Proclus was any more actively subversive than the reported incident, his successors seem to have been more politically active. In 529 Damascius, in his *Life of Isidore* (also known as *The Philosophical History*), promoted a pagan restoration, beginning his story with Julian and ending with an account of

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the conspiracy against the Emperor Zeno. Proclus' successor's use of similar expressions pinpoints some of the themes which were present in Proclus' writing. These allusions suggest that the struggle to resist Christian authority was ongoing. Forty-five years after Proclus' death Simplicius is more overt in his negative expressions alluding to Christian tyranny in the epilogue to his commentary on the *Encheiridion* of Epictetus. This is a work that Cameron suggests was written between 529 and 531, not during Simplicius' Alexandrian period as other scholars have contended.⁹ Simplicius expresses his satisfaction in being able to write such a commentary *en prosêkonti kairôi ... turannikês peristaseôs* (at the present moment, a time of tyranny and crises). He ends the work with a prayer appropriate to *tois parousin oikeian* (prevailing circumstances). He discusses at some length the role of the philosopher in what he calls corrupt states (*mochthêraîs politeiaîs*), using a phrase that Julian himself used when alluding to Christians and Christianity, as did Proclus.¹⁰ Proclus' use of anti-Christian allusions in his writings was a practice that continues with his successors and which may indicate that he was more subversive than is apparent in his writings. Here in the *Commentary on Timaeus*, it will suffice to examine the passage that Cameron alludes to more closely. Proclus does not mention Christianity *per se*, but states that "The multitude (*hoi polloi*) often confuse the state of affairs (*ton pragmatôn*) not distinguishing between the "always being things" (*ton ousi*) and "the coming to be things" (*tois gignomenois*). However, in a particular manner, the ignorance (*agnoia*) concerning eternal things (*ton aiôna*) and those that are temporal (*ton chronon*) produces "heaven forefend" unlawfulness (*paranomía*)" (III.44.2-6). It certainly seems that Proclus is making use of common code phrases alluding to the Christians and suggests that one can ascribe anti-Christian double entendres to at least some parts of the *Commentary* text. The use of the word 'ignorance' will be later attributed to souls who are doomed to pass into Hades unredeemed. Though this is open to other interpretations, I would suggest that the accrual of evidence does suggest that attention should be paid to the thesis that anti-Christian allusions are present as well.

A closer examination of Julian II and his political and philosophical programme will serve here to provide the historical background necessary to understand the post-Julian academic institutions. There is some continuity between Julian's pagan political agenda and the educational curriculum of the academies that arose and survived the stressful period that followed Julian's demise. A mini history of the events from Constantine to Proclus' time can serve to underline the political realities and their impact on a marginalized culture in the milieu of the Athenians in Proclus' time. Constantine, emperor from 306 to 337, is known by future historians largely from having been a follower of the sun god until a vision of Apollo led him to henotheism. After the battle of the Milvian Bridge, a second vision brought about a dramatic conversion to Christianity. His sub-

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sequent attack on pagan practices was an intensely political phenomenon involving confiscations of temple possessions and the destruction of paganism's economic power. Following his death, his sons succeeded him: Constantine II took charge of Gaul, Britain and Spain, Constans of Africa, Italy and Illyria, and Constantius II of the East. Constantius survived the deaths of the other two, and during his rule the attack on pagans continued. Constantius banned sacrifices and closed certain temples. In 360, after Constantius' death, a relative, Julian, attained the sole succession. Called Julian the Apostate by the Christians, he was a devotee of theurgy and a worshipper of the solar divinity. He made great efforts to restore pagan religious practices and attacked Christianity.

The brief reign of Julian the Apostate (360-363) was a crucial juncture for pagan political survival in the wake of the increasing hegemony of Christianity. The return of a pagan regime after Constantine brought about a revival of pagan forms of worship. Julian turned to Platonist philosophy to embellish his political aims and crystallized a syncretic ideology that served to further the pagan cause. It glorified the Hellenic past and wove together remnants of classical philosophy with oriental theology and theurgy. By following this course, Julian and those that followed him were able to have an impact on a wide range of pagan religious sycophants, aristocrats and intellectuals. Julian's syncretism remained influential in the generations to come. The rhetoric which evolved from this syncretism, which Athanassiadi describes as the 'spiritual commonwealth' of late antiquity, fused pagan theology and Neoplatonic philosophy, serving as a source of inspiration and a guide for the followers of Julian. It constituted a new ideology that could presumably counter the theo-political forces that were actively influencing the Roman citizen and particularly the pagan senatorial class. It also found a willing host in the academies of the fifth and sixth centuries. This was a period that produced extensive Platonic and Aristotelian commentary and pedagogical innovations that determined the curricula of both Athenian and Alexandrian Neoplatonist academies.

James O'Donnell points out that the fourth century marked a watershed in the historical role of the senatorial aristocracy.¹¹ Romans of high social standing still valued their ancestral links to the great Roman past, and pagans were still quite numerous among the upper aristocracy. Whoever became emperor still needed the political support of the partly pagan ruling class. Still, in 379, with the accession of Theodosius I, a mere twenty years after Julian's rule, Christian hegemony was restored and the persecution of pagans intensified. In 391 Theodosius banned pagan worship and prohibited the performance of pagan rites. One can observe a certain vacillation in loyalties, one example being the continued attempts to restore the Altar of Victory, which had been removed in 382 under Ambrose. Gratian had removed the altar and abolished the age-old subsidies to the priesthood during his reign. Symmachus in 384 was still arguing in

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Relatio 3 for restoration of the Altar of Victory to the senate house and the practice of tolerance. O'Donnell points out that in the late fourth century there was a genuine revival in the ranks of the senatorial aristocracy, as a by-product of the growing external crisis faced by the imperial government. The emperors and their entourages had to spend their time exclusively on the military fronts and, as a consequence, the aristocrats won positions in the central administration of the empire. In the fifth and sixth centuries the transfer of civil authority into senatorial hands continued. Aside from the excessive zeal of Ambrose, O'Donnell feels that the legislation against paganism had a matter of fact quality. He points to some examples of tolerance, as in the case of Themistius, a pagan sophist thriving at the Constantinopolitan court, Claudian, the Egyptian poet at the side of the zealously Christian Stilicho, and Synesius of Cyrene, a Christian bishop who displayed tolerant affection for his pagan teachers, including Hypatia.

Conversions during this period were often opportunistic: the upper-class Roman selected pagan religion during Julian's period and Christianity when that choice was the opportune one. They were often stronger in their allegiance to class and culture than to creed. O'Donnell points out that it is not strange, then, that they would strive to attain a Greek education for their sons. Praetextatus, the respected senatorial aristocrat, is a well-known example; proconsul of Julian, possibly a leader of a pagan party, his speech is documented in Macrobius' *Saturnalia* 4.31. He died in 384, not too long before the persecution of 391, but his speech, whose dominant theme is solar syncretism, cites Plotinus and mentions a whole range of oriental and Roman deities. The speech obviously was allowed, as was his use of public office, to advance the cause of older religions. The deities he mentions in his speech all roughly fall under the Sun or Sol Invictus as a single ruling principle reflecting the solar theology promulgated by Julian the Apostate and most popular pagan religions.¹²

The last overtly militant paganism occurred in open political rebellion during the reign of Theodosius I, when Flavianus, praetorian Prefect of Italy, attempted to lead a movement to restore and rededicate temples and to celebrate mystery cults.¹³ His son Nicomachus became prefect of Rome and rededicated a temple to Venus. One of the most sweeping attacks on paganism occurred in February 391. The 'senatorial cause' was vigorously asserted and reached its height at Rome in the spring of 394. There was even an oracle who had written that 394 was a 'great year' (Plato's providential astronomically predictable year when all destinies are resolved) and that a new non-Christian destiny would assert itself and Christianity be vanquished. By the fall of 394, however, Theodosius launched an attack that defeated the pagans once and for all, resulting in the suicide of opposition leaders such as Arbogast and Flavianus. O'Donnell considers Nicomachus Flavianus' appointment as praetorian prefect and Symmachus' appointment as consul not significant as a full-blown

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pagan revival, but as a fleeting phenomenon. From the time of their defeat and afterwards conversion to Christianity was actively enforced, the pagan philosopher was under increased pressure to convert to Christianity, and resistance became more and more difficult.

Philosophers against the Christians

It is interesting that it was the philosophers and pagan theologians who opposed Christian hegemony as early as the second century. The role of the philosopher in the Roman empire had diminished considerably by Proclus' time and had evolved from that of a respected figure who had the ear and the allegiance of many an emperor to one that was merely academic. In general, the Hellenist in the Roman empire was on an increasingly insecure footing. Origen's refutation of Celsus in eight books, written in the second century, foreshadows the threat that Christianity will pose to Hellenism. The *Contra Celsum* documents the concerns of the Platonist Celsus, in his famous attack on Christianity. Frede points out: 'we can only understand this attack if we see that Celsus thinks that Christianity poses a threat to Hellenism and, thereby, the Empire'. Frede asks why Celsus was so threatened in a time when all the different nations of the empire were able to pursue their own traditional religions without undue interference. Celsus contended that the Christians had their own God and made it clear that it was their intention to convert the whole empire, including the emperor (8.71). It seems that the political danger that Christianity posed to other ideologies was known to Hellenists quite early in the Christian rise to power. In the later third century Celsus' mission was taken over by Porphyry, who was equally vehement in his opposition to Christian hegemony and ideology.¹⁴ Dillon and Hershbell suggest that Porphyry's *De Vita Pythagorica*, for example, regards Pythagoras as a competitor of Jesus and sees parallels with the Gospels, e.g. Pythagoras' miracles.¹⁵

When Constantine converted to Christianity, he was still confronted by an educated class of nobles, officials and soldiers with Hellenic loyalties. Even though Christianity became the *religio licita* (legal religion) during his reign, Constantine attacked pagan religion on a limited basis, banning sacrifices only in the East. Philosophers, such as Iamblichus, were not touched. Eunapius describes Iamblichus as surrounded by adoring disciples, documenting that Hellenic intellectual life still prevailed in an atmosphere of relative tolerance. Iamblichus' commentary on the Chaldaean Oracles gained increasing status as a canonical text, probably through Porphyry and Amelius.¹⁶ Maximus of Ephesus, a famous theurgist and follower of Iamblichus, was the prime influence on the pagan emperor Julian who found the pagan 'holy man' and philosopher an important interlocutor. He used Iamblichus, as Clarke, Dillon and Hershbell point out, to guide himself and non-Christians to a greater understanding of their

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ancestral gods.¹⁷ It is recounted that Julian on his deathbed discussed the immortality of the soul with Maximus and Priscus. Maximus was executed in 371. Proclus was familiar with *De Mysteriis* as well, as confirmed by his comments in the *Commentary* (I.386.9-13), and it is well known that he regarded the Oracles as a work that it is unlawful to disbelieve (III.63.24).

Julian's diatribe against the Christians and his other anti-Christian measures were a crucial turning point in pagan politics. The amalgam of Hellenic cultural tradition and pagan religious lore was an effective organizing tool. (As we have experienced in our own time, it is possible to organize a following by kindling hopes for religious redemption and thus fuse religious fervour and political ambitions.) When Julian was 23 years old he studied in Athens with the Neoplatonists and was initiated into the Eleusinian Mysteries. Julian encouraged Iamblichus' writings to be read by all his subjects, with the exception of the Christians, who were considered intellectual pariahs. He emphasized *paideia* and philosophical wisdom, which he thought led to perfect knowledge and religious illumination. In his mind this was associated with a theocratic political agenda. Hellenic education, Mithraism and Chaldaeanism merged as Julian adopted the philosophical ideals of Porphyry, Iamblichus' teacher, and Iamblichus himself to reinforce the political goals of non-Christian citizens. When they took up the cause of Julian the Chaldaean and his son, eighty years after their time, it was a ready-made ideology easily compatible with Platonic philosophy and powerful enough to constitute a theology for these difficult times.¹⁸ Bowersock points out that it was Julian and not the general pagan worshipper who opposed Christianity; in fact, pagans were relatively tolerant of all other groups.¹⁹ Julian's imperial acts reinstated pagan temples and proclaimed religious toleration, but Burr points out that he actively discriminated against Christians in certain official contexts. In June 362, he promulgated an education edict authorizing the emperor to oversee teaching appointments, following which he prohibited Christians from teaching classical literature on the grounds that they disbelieved what they taught.²⁰ Julian's *Against the Galileans* was composed in Antioch, a city where half of the citizens were Christian, and had treated him with disrespect during his eight-month stay there. The treatise is extant in fragments preserved by Cyril of Alexandria's refutation, which was written during the 430s under Theodosius II. Julian's treatise succeeded Celsus' *True Doctrine* from c. 180 and Porphyry's *Against the Christians* and *Philosophy from Oracles* from the later third century, all of which were anti-Christian. Burr points out that Julian reuses the majority of Celsus' arguments. One argument of this treatise is that the creation account in Plato's *Timaeus* proves the necessity of a plurality of lesser 'national gods', each dedicated to the welfare of its people.

O'Meara raises a very pertinent question when he asks, 'Ought Iamblichus' project to be seen in the light of the political success and increasing

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theoretical sophistication of another revealed truth, Christianity?' He suggests structural parallels between Iamblichus' figure of Pythagoras' divine authority and Christ. Moreover Julian, as John Finamore points out, opposes Asclepius and other such pagan saviour-figures to Christ, to show the superiority of the pagan tradition.²¹ This syncretism gave new vigour to the Hellenic tradition and gave pagan loyalists the tools needed to make a scholastic tradition into a theology.

A question has been raised about just how opposed Iamblichus himself was to Christianity. Theodore Hopfner (in the introduction to his German translation of *De Mysteriis*) proposed the theory that Iamblichus resorted to the pseudonym 'Abamon' in order to conceal from the Christians dissent among Platonists such as Porphyry and his disagreement on certain matters, but Clarke, Dillon and Hershbell in their introduction to *De Mysteriis* find this far-fetched. They claim that Iamblichus, unlike Porphyry, took little notice of the new religion. Nowhere does he specifically mention the Christians, although they concede he might be alluding to them at *De Myst.* III.31.179-80 where he berates 'the opinion of atheists that all divination is accomplished by the evil daemon'. The authors point out in that the charge of atheism was frequently levied against the Christians because of their refusal to worship the ancestral gods or acknowledge the divinity of the emperor.²² At *De Myst.* X.2 Iamblichus does refer to 'certain inept preposterous people' who 'mock those who worship the gods'.

Eunapius, who chronicles the period up to his own death in 414, exemplifies the anti-Christian struggle. His lost work, *Universal History*, which idealizes Julian, is partly a polemic against Christianity. Certainly his choice of figures for his *Lives of the Sophists* is an encomium, as Photos calls his work, on the last heroes of the pagan world. These figures became an idealized part of the pagan past whose memory was kept alive through the assertion of spiritual genealogy with which later pagan figures shored up their identity and the continuity of their traditions.

The Athenian school

Educational institutions in the late Roman empire were the last refuges of marginalized groups determined to preserve the Hellenic past. Kristeller describes education in the late empire.²³ In Rome and Italy and throughout the western Latin-speaking provinces of the Roman empire, there was a dense network of schools of rhetoric, which supplied the only form of higher education available beyond the level of grammar school. These schools offered the rhetorical and literary education that trained future lawyers, administrators and public officials. In Athens, Alexandria and Antioch and other large cities of the East, a person who wanted to study philosophy learned Greek and studied in Greece or under Greek tutors or at Hellenic academies. After the rise of Christianity these schools

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remained under pagan auspices and constituted the last repositories of Greek wisdom.

Even though Julian's programme had failed, and Flavianus' rebellion was quashed, the pedagogical paganism embodied in the late academies survived very long periods relatively undisturbed. Athens was the last stronghold for the pagan philosopher. At the end of his funeral oration for Julian, Libanius (*Or.* xviii.306) remarked that though he was buried near Tarsus, a more appropriate resting place '[was] Athens ... so that he too might receive the honours paid to Plato by successive generations of students and teachers'. Fowden points out that 'Julian's spirit undoubtedly did make its abode in Athens', where devotees even adopted the practice of calculating the era from the date of Julian's accession. There is a surviving letter from Julian to the Athenians in which he describes Athens as the last stronghold and refuge of justice in a collapsing world (V.269b).²⁴ Ephesus and Sardis were ancient centres of Hellenism, but the impression that Eunapius gives, according to Fowden, is that Christianity had achieved a certain amount of hegemony in these cities while Athens seemed to remain a 'living temple of Hellenism'. For generations students, including Julian himself, had flocked there from all parts of the empire for education in rhetoric and philosophy. Further, pagan cults remained entrenched in the central area around the Acropolis, while, in other centres of paganism, such as Sardis and Ephesus, it became increasingly difficult to practise pagan religions.²⁵

It is not surprising that the Athenian scholarchs chose this milieu to found a thriving academy. The Academy in Athens was founded by Plutarch and organized by Proclus and his followers. Proclus was born in 410, and his *floruit* coincides with the reign of Theodosius II (408-450). It was an institution with little continuity with the original Academy of Plato and one that embodied an ideology that could potentially pose a powerful challenge to Christian dogma. Specifically, its members theologized philosophy much as had Julian. Proclus and his followers incorporated the oriental gods and theurgic practices, and promoted Platonic theology with a new resoluteness. The sons and associates of the senatorial aristocracy of Rome were the class of people who were likely to be educated by the Athenians.

The Athenian philosophers upheld allegiance to the pantheon of gods revered by both Hellenic tradition and the oriental cults. Proclus, the revered *diadochos* of the Athenian teachers of Damascius' time as a student, certainly followed suit. It is this very same oriental theology that was an identity marker for Julian, the militant anti-Christian pagan emperor, and many of the figures who played a role in the senatorial cause in an earlier overt pagan uprising in 394. Matthews questions whether there was a difference between those figures who followed the traditional Roman pantheon such as Symmachus and those who were 'oriental' in their allegiances to specific gods.²⁶ Notably, the last openly political rebel-

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lion during the reign of Theodosius I, on the part of Flavianus, involved attempts to restore and rededicate temples, celebrate mystery cults, and so on.²⁷ Flavianus was involved in the cults of Vesta, Sol, Mithras, Hecate, Isis, Serapis and others.

Many direct links connect the Athenian school and its prominent teachers to Julian's followers. Maximus and Chrysantius, high priest of Lydia, taught Julian the fundamentals of philosophy and theurgy, and then sent him to Nestorius the Hierophant of Eleusis for initiation into the Mysteries of the Great Mother. Nestorius is the father of Plutarch, the founder of the Athenian school, and Asclepigenia's grandfather (she indoctrinated Proclus into the Orphic mysteries). Hans Lewy mentions that knowledge of Chaldaean theurgy was transmitted to the Neoplatonist Plutarch by Nestorius, who was chief priest of Eleusis in 375 and probably the link between Iamblichus' school and the Athenian Neoplatonists.²⁸ Plutarch transmitted the Chaldaean doctrines to his disciple Syrianus (Proclus' mentor) who authored the *Harmony of the Doctrines of Orpheus, Pythagoras and Plato with the Chaldaean Oracles*, a programmatic text for the Athenians. These connections suggest a strong link with Iamblichus' school, of which Chrysantius' successors, named by Eunapius as Epigonus and Beronicianus, continue the tradition. When Proclus left Athens to escape political problems, he visited a Pericles in Lydia. There has been speculation that this Pericles might have been a friend of Beronicianus' or Epigonus' school. Thus an active pedagogical community was known and survived Julian's reign, with important links to the Athenian school.

Proclus' absence ended with his return to Athens, which seems to have coincided with Theodosius' death (Theodosius I, Christian Emperor of the East, died in 450, around the middle of Proclus' tenure). Proclus was not only an active promulgator of Academic philosophy, but a practising pagan actively pursuing his religious beliefs. According to Cameron, he used to worship openly in the temples that had been ordered closed fifty years before. As previously mentioned, Proclus uses the word *mochthêraîs* (corrupt) of Christians (as did Julian), and calls Christianity *paranomia* (transgressing the law) (III.44.6).²⁹ Cameron tells us further that other Athenian figures, such as Proclus' immediate predecessor Hegias, aroused hostility by openly parading his paganism, having come from a rich and noble Christian family in Athens.

The golden chain

A mythological reworking of self-identity can be an important strategy on the part of a threatened group. It would be difficult to claim that the Athenian school was openly attempting to form a catechism as compelling as Christianity, or that they were overtly politically contentious. The newly refurbished Platonic philosophical academy in Athens, initiated by

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Plutarch, supplemented classical pedagogical aims with a theurgic pagan mystique. Gucker has successfully debunked the idea that there was ever anything like any real continuity spanning the centuries, between the Athenian Academy of late antiquity and Plato's original one. The myth of a golden chain (*seirê chruseiê*) of succession (*diadochos*), a Homeric metaphor of a golden chain stretching from heaven to earth, was promulgated by the Athenians in an effort to re-establish the legitimacy of Platonism on the basis of a spiritual if not actual genealogy of inaugural and successor figures. The continuous line of descent from Plato and Pythagoras, then, was a myth promoted in order to establish irrefutable authority for the Athenians.³⁰ Gucker contradicts the opinions of many influential scholars of the past who had insisted that there was an actual unbroken continuity, Plato to Justinian. One of these scholars, Zumpt, as Gucker mentions, exemplifies the tradition that alleges unbroken continuity. According to Gucker, the School of Athens actually came into being when early Neoplatonic writings, imported to Athens by Longinus and preserved there, fell into the hands of Plutarch of Athens. Alan Cameron fills in this history, providing another important piece by arguing for an Iamblichus II, who propagated the views of Iamblichus I in Athens during Plutarch's tenure. Plutarch, the founder of the late Academy at Athens, actually had no predecessor as leader of the school, as far as is known, and nowhere is Plutarch himself known as *Platônikos diadochos*. Proclus describes him and other teachers of the period as *kathêgêtai* (*in Remp.* II.64.6-7), masters or founders of a school. Proclus and his successors, on the other hand, were called *diadochoi*. The Athenian school, active in Athens in the fourth and fifth centuries CE, had its own property and no connection with original Platonic property or succession. The use of the word *diadochos* was a deliberate attempt, as Gucker points out, 'to create something like Plato's school, not a natural continuation of a living tradition'. It was part of a working myth to shore up legitimacy.³¹

Julian syncretism was only one aspect of the Platonic theology of the Athenian school. It took upon itself a legendary history that aggrandized both founders and their *diadochoi*. Plotinus' philosophy was touted as a divine revelation to men, and Plato as the hierophant of the truest rites (*teletai*) into which souls are initiated when they are separated from the earthly regions. Platonism for Proclus is a divine philosophy that had been guarded by the gods themselves and then brought to light from concealment by true priests and exegetes of Platonic mysteries. By these attributions, figures such as Amelius, Porphyry, Iamblichus and Theodorus, right down to Plutarch of Athens and on to Proclus himself acquire a priestly character. Here we see another component of a theology, the aggrandizement and elevation of predecessors to canonized authority.³² As Dillon and Hershbell point out in their introduction to Iamblichus' *De Mysteriis*, the official attribution of philosophical religious and magical texts to various divine authors was a conceit, and the ancient readers

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knew it to be so. Iamblichus, they point out, for example, was aware that Hermetic and Pythagorean works were attributed to Hermes and Pythagoras and were inspirational attributions rather than assertions of direct authorship.³³ Proclus follows this general practice and consistently elevates the figures of Platonic philosophical history (from Pythagoras through Plato to Iamblichus, etc.), rendering them links in a golden chain of divinely inspired successors.

Allusions to the illustrious chain of Platonic predecessors in Proclus' texts, prominent throughout the *Commentary*, serve a dual purpose as genuine historical citation and as an identity marker for the pagan and soteriological heroes of a mythological academic history. A genealogy that provides an unbroken lineage from an original founding figure down through a series of enfranchised and empowered leaders is an ancient principle for inherited leadership. In the Neoplatonic world, establishing a spiritual genealogy is an acceptable way to aggrandize Platonic authority and divinize the doctrines of enlightened predecessors. To assert at every possible juncture Pythagorean 'origins' for various doctrines reinforced the openly stated position held by Proclus that the philosophical insights of these figures are revelatory. Proclus will categorize souls in the later books of the *Commentary* and consider some types of mortal souls less mortal and more divine than others. This elevation of his Hellenic predecessors almost to the status of demigods may have worked its way into his genuinely believed hierarchy of soul types. The idea that there are superior souls, even in the presence of a genuine conviction that there are superior and inferior souls, can be read as an elitist ideology; one that aggrandizes the Hellenic philosophical nobility.

The post-Julian Athenian 'theology'

Proclus devotedly worshipped the pagan gods. There is no doubt that his ubiquitous mentions of them and their functions in his texts were in the service of genuine beliefs and doctrines. His texts, however, are inundated with theurgic and Chaldaean rhetoric, and he may have a separate rationale for using them in the light of the political situation. Siorvanes points out, rightly, that when it comes to the *Platonic Theology* there are both complex formulae and subtle arguments of the sort encountered in the commentaries, but its intention was 'to show Platonists to be in possession of a theology which was as good as that of the Chaldaeans and other theologians'. He suggests that the book might have been directed at the special interests of the influential pagan religious society that flourished in mid to late fifth-century Alexandria (and Athens).³⁴ Notably, the gods that Proclus mentions throughout are the Orphic pantheon revered by Julian (and used by Plato in *Timaeus*). Proclus concentrates the fifth book of the *Commentary on Timaeus* on the so-called sublunary or lesser gods. These gods are associated with the physical world, the topic of *Timaeus*.

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The tenth gift of the Demiurge to the world is the greatest gift of all, the completion of the world by the producing gods that rule the circle of generation. Deeply embedded throughout Proclus' writing are references to these gods. In the *Platonic Theology*, for example, the intellectual group of triadic principles is comparable to the triad of Kronos-Rhea-Zeus etc. (*Plat. Theol.* V.ii-iii). Also notable is Proclus' extensive practice of writing hymns, particularly one to Helios, recalling Julian's own 'Hymn to King Helios'.

Proclus, like Julian, considered the Christians unworthy of Neoplatonist ideas. Anne Sheppard mentions Proclus' reluctance to make Athenian ideas accessible to Christian readers when he stipulates that his work is not for an outside audience and insists that the Homeric myths he defends could be harmful if not understood rightly, making the work unsuitable for any chance reader. She suggests, as does Saffrey, that *hoi polloi* (the common people) is one of the code phrases that Proclus uses to refer to the Christians.³⁵ Westerink suggests that there are coded anti-Christian messages in Proclus, and cites Proclus' *Commentary on Alcibiades* (I,111A-DK) where Proclus repeats the phrase *hoi polloi* and refers to his contemporaries who do not believe in the gods. Segonds in a note to his edition of Proclus on *Alcibiades* takes *hoi polloi* as code for Christians as well. E.R. Dodds also points out that direct criticism of the established religion was exceedingly dangerous in the fifth century and cites a series of passages where Proclus comes very near to doing just that.³⁶

There is no overt discussion of any of these matters in the *Commentary on Timaeus*. Certain of Proclus' discussions, however, could be seen as political innuendo, if not overt negative criticism. Proclus frequently discusses one of his favourite subjects, the descent of souls and the descent of certain souls into irrational animals and men who lead brutal lives. In one particular discussion, early in the *Commentary* in Book I, commenting on 22c3, Proclus provides an exegesis of the myth of Phaethon, son of Helios, whose demise came about when he was unable to steer his father's course as driver of his father's chariot and it burnt up on earth and perished in a bolt of fire. Proclus discusses the idea that there are both divine and daemonic souls enlisted under secondary leaders: Earth, Moon, Helios, Zeus and Ares, resulting in an assortment of different types of souls with lives determined according to their leaders (I.110.28-31). Some remain immaculate, while others descend into generation, 'and are filled with the vice of producing generation' (I.111.15-114.20). The worst of these forget their special gods and make a range of choices (not all of them for the good). Proclus stipulates that among the types of souls – divine, demonic etc. – some are destructive (*lumantikón*) (I.77.10-15). In late books of the *Commentary*, there is another discussion of types of souls. Proclus describes souls that are bound by sympathy to brutal nature (III.294ff.). It is possible that by implication, Christians, the very 'birds of prey' that Marinus says were after Proclus when he was forced to leave

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Athens for a period, were precisely that kind of brutal soul. Cryptic references, for example, may have to do with the 'brutes' as oppressors and may indicate evil and brutish non-pagans. Another obvious example that can be taken to refer to an inferior and more brutish class of people arises in the references to the Giants and the Titans, beasts who are ruled by passion, in many a Neoplatonist document (e.g. Damascius, *Vita Isidori* fr. 30a; Proclus, *in Remp.* I.74.12-16, II.176.14). Proclus comments on the triumph of the Athenians over the Atlantines: it is evident that Athens is code for a superior culture and its ultimate triumph.

The dual meanings and inter-translatability of terminology between dialectical and entheistic vocabulary, is a study in its own right. Proclus, for example, has an elaborate 'light metaphysics' (light is the intermediary between levels of Intellect, Soul and material reality). While there is certainly a legitimate and logistical necessity for the use of this figure in Proclus' metaphysics (as a form of energy unifying the universe and coming from above) its association with Julian's 'Hymn to King Helios' and the ubiquitous light metaphysics that pervades Neoplatonist figures of speech are also at play. Iamblichus' extensive discussion of Helios, light and its relation to soul is notable. Equivocation between god and concept is omnipresent in Neoplatonist literature. If one examines the chart of Hans Lewy, one sees in his 'Synopsis of the Three Theological Systems of Proclus' that the Platonic System, Orphic System and Chaldaean System have corresponding designations. *To hen*, for example, in the Orphic System corresponds to Kronos and in the Chaldaean System to *to arrêton hen* (the unspeakable One).³⁷ *Aiôn*, the Classical Greek term for eternal time, is a good example of the interchangeability of religious figure and philosophical concept. The *Aiôn* of the Chaldaeans is not only a divinity but also a noetic hypostasis. For the Platonist it is fused with the idea of eternity and for the Chaldaeans it is the offspring of the primal being and forms the primal measure of all temporality. In Proclus' work, there is a double use of *Aiôn* as god and as category of the discussion of time and eternity. In Book 4 of the *Commentary*, for example, in a discussion of time and eternity (*aiônos*) he discusses the eternal intellect: 'the most consummate of theurgists celebrate it as a God, as Julian (the author of the Oracles) in the seventh book of his treatise *On the Zones*, and venerate it by those names though which it is unfolded into light in its participants' (III.27.10-12). This and many other examples demonstrate how Proclus can equivocate and elide reference to the Oracles at the same time as positing ontological schemes. For Proclus, Hecate-Psyche is equivalent to the Cosmic Soul, while Zeus is equivalent to the demiurgic Monad, etc.³⁸

As well as adopting the full Hellenic and oriental pantheon and promoting a 'golden chain' of spiritual genealogy for key figures, the Athenian Neoplatonists showed other indications of Julianic allegiance. They counted the years starting from Julian's accession, alluding to events that

had occurred 'After Julian'. The attempt to put Hellenic theology on the same footing as Christianity, at least as far as revered figures is concerned, is evident too. The hagiographical books that present the lives of Neoplatonists can be compared to contemporary literature on saints' lives. Bowersock points out that in the fifth and sixth centuries Christian hagiographies such as the *Lives of Ephraim*, *Zacharias' Life of Severus* and *John of Ephesus' Saints' Lives* found a mirror-image in the Syrian lives of pagan holy men such as *Porphyry's Life of Plotinus*, *Marinus' Life of Proclus* and *Damascius' Life of Isidore*.³⁹ The Athenian school, a living repository of Hellenic culture and wisdom, in and of itself constituted a political stand on the importance of preserving the pagan past. An added conceit was the effort, certainly on Proclus' part, to make frequent Chaldaean citations and quotes in otherwise serious academic commentaries, extended over and beyond the systemic role of the gods in his system.

Political insurgency?

As we know from our own time, a theology can regard itself as a political force and actively aim to subvert a competing ideology. Was the pagan theology newly-minted out of Neoplatonic philosophy seen by its followers as a counterforce to the political agendas that were actively impacting on the empire and on the pagan senatorial class? How active was the insurgency? A brief excursus into the fate of the Athenian school after Proclus' death reveals that active hostility towards the Christians became more and more overt as time went on. Placing Proclus within the compass of this later development can help to show that theological rhetoric served a political function and was possibly motivated in part by hostile competition with Christian authority. Proclus died in 485 and was succeeded by an elderly Marinus and then by Isidore from Alexandria, one of the defectors from the Alexandrian school during their time of persecution. Damascius took over in 515. It is a mere thirty years from the time of Proclus' death to the ascension of Damascius as Athenian successor. It is reasonable to assume that the conditions that reached a peak in the early sixth century were already operating in the late fifth century. Damascius was fiercely anti-Christian and brought the Athenian school to a new peak. He was the author of *Philosophical History* which included a vivid description of the persecution of pagan philosophers during his Alexandrian years. Damascius escaped persecution himself by leaving Alexandria with Isidore.⁴⁰ Justinian's edict to ban teaching in the Athenian school in 529 documents the fact that the struggle enacted earlier in Alexandria was an ongoing political conflict in the late empire.⁴¹

It would be hard to produce documentation of active subversion during Proclus' tenure, as the writings of the Athenian Neoplatonists were deliberately cryptic when it came to subversive intentions. The use of the

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phrase 'prevailing circumstances' itself documents the necessity for indirect reference to the tyranny they experienced at the hands of the Christians. While the Athenian scholars could not afford to provide textual evidence of active political intentions or an anti-Christian agenda, they were in a position to exert political influence on the senatorial class through the young men and others who came to Athens to study Hellenic philosophy. The role of educational institutions in fostering insubordination and insurgency through teachings that expose the students to revolutionary ideologies may have played a significant role in the late Academy. Proclus, after all, had stipulated that philosophers should show social concern by finding persons prepared to become politicians and directing them as a coach does a runner (*V.Procli* 14-17).⁴² Asclepiodotus, who had studied in Athens during his formative years,⁴³ became senator. Proclus had groomed Plutarch's grandson Archiadas and urged him to lead Athens. He encouraged him to take part in the government and exercised influence by using him as an intermediary.⁴⁴ A Severus, according to Damascius who was his teacher in rhetoric, had gone to Athens in his youth, studied under Proclus, and later joined the imperial service. As governor, according to Athanassiadi, he led a conspiracy against the Emperor Zeno with the aim of reviving paganism but was unsuccessful. He later became prefect of the east on condition of conversion to Christianity. A patrician son-in-law of Marcian (the future successor of Theodosius II), Procopius Anthemius (emperor 467-472), a companion of Severus, had also attended Proclus' classes.⁴⁵ Anthemius was a militant pagan, as was Severus (Athanassiadi 1993: 17). In 479, Procopius Anthemius' son Marcian contested Zeno's rule. The rebellion continued in 482 with Illus, master of the eastern army, who raised Pamprepicus, a Neoplatonist disavowed by Damascius, to the post of principal palace minister. It is not possible to trace a direct influence of the Athenian school on the political aspirations of these men. The facts do suggest the possibility that students who studied at Athens were exposed to the influence of a militant paganism during their formative years.

A tale of two cities

While the Athenian school suffered no persecution prior to the date when Damascius took over, the Academy at Alexandria had suffered a period of persecution. Damascius had gone to Alexandria to study rhetoric in the early 480s. At this time the Alexandrian school, as Athanassiadi describes it, was an exclusive college of higher education where the most famous rhetors and philosophers taught a mixed audience of pagan and Christian students from all over the Mediterranean world. Horapollon, who was later called 'soul-destroyer' (*psuchapollon*) by Christians, was leader of the school at that time, and his father, Heraiscus, was a prominent figure at the school dedicating hymns to Egyptian gods and composing a treatise on the

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accordance of the Egyptians to their curriculum.⁴⁶ This treatise had been addressed to Proclus and was a popular handbook among the pupils, Isidore among them. Isidore was one of the brilliant philosophers of the younger generation in Horapollo's establishment. In the years before the persecutions of the late 480s, the Alexandrian intellectual atmosphere allowed for animated theological discussions among the Christians and Hellenes frequenting the school, as Athanassiadi documents.

The revolt of Illus against Zeno (484-488) was the turning point in the demise of academic freedom in the Alexandrian school. Illus was represented by his Egyptian associate Pamprepicus as a defender of paganism, a figure whose crudity embarrassed fellow, more intellectual, pagans. Pamprepicus was touring Egypt in the early 480s disseminating his own prophecies about the restoration of paganism and implying that he was associated with the philosophers, and this Damascius abhorred, calling him a beast. Large sections of the *Philosophical History* (V and VII) are spent denouncing him as the incarnation of the forces of evil, harming philosophy from within. Athanassiadi points out that heresy is a greater danger to the pagan community than any attack from outside and consequently politically incorrect figures of Hellenism are criticized for even minor deficiencies. As we have seen, the rebellion had begun in 479 with Procopius Anthemius' son Marcian and continued in 482 with Illus, who raised Pamprepicus to the post of principal palace minister. He was a leading Alexandrian pagan Neoplatonist who may have studied at Athens under Proclus, although this is not certain. Subsequently he was denounced as a traitor by his own pagan followers. Zeno indiscriminately attacked the associated philosophers, particularly Isidore, who was suspected of conspiracy. He was one of the later heads of the Athenian school and a close associate of Damascius, who hid from persecution at Damascius' home before their defection to Athens.

In the mid-480s, in and around Alexandria, there was an anti-pagan operation beginning with the destruction of a secret shrine of Isis hidden in a house at Menuthis-Abukir, where cultic objects of great symbolic significance and antiquity were hidden. The Coptic patriarch Peter Mongus had twenty camels loaded with the most valuable of the sacred objects found in Menuthis and paraded them in Alexandria to a chorus of imprecations against Horapollo, the so-called 'soul-destroyer'. There were anti-pagan speeches and derision of the priest of Isis. Idols were burned at a public feast, according to the testimony of Zacharias of Mytilene, an eyewitness. A large investigation was conducted into the state of paganism in Horapollo's school. Nicomedes, summoned to an interview, went into hiding, but Ammonias of Hermias, who himself had had Athenian training and joined Horapollo's establishments, survived the persecution unscathed. Ammonias disliked the theological approach to philosophy and favoured the scientific, differentiating him somewhat from his colleagues.

Aside from Ammonius, the other scholarchs of Horapollo's school suf-

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ferred death, exile or professional ruin. It is generally assumed that Ammonius made a deal with the bishop that he would concentrate on interpreting Aristotle rather than Plato, which would be less offensive to his Christian pupils. Athanassiadi notes, however, that this supposition is not borne out by the evidence.⁴⁷ Zacharias' dialogue *Ammonius* shows that Ammonius continued to expound unChristian doctrines such as that of the eternity of the world, to the distress of his Christian audience. Horapollo, Heraiscus, Asclepiodotus and Isidore, on the other hand, did not survive professionally: Asclepiodotus returned to Aphrodisias, Isidore sought rescue in the house of the young Damascius, while Horapollo and his uncle were arrested and tortured to disclose the hiding-place of Isidore and the others. Only Ammonias, 'being sordidly greedy and seeing everything in terms of profit of any kind', came to an agreement with the then-overseer of the prevailing doctrine.⁴⁸ It was this Ammonias who was Philoponus' teacher, and it was, of course, Philoponus who challenged Proclus' views on the eternity of the world in a later text. It does seem that some sort of compromise must have been made. According to Sorabji, Ammonius and three of his pupils, Philoponus, Elias and even the Athenian Simplicius, gave an unusual interpretation of Aristotle which made him appear to be close to Christianity.

Justinian banned public teaching by pagans in an imperial edict in the year 529. Damascius, now an Athenian philosopher, Simplicius and five other scholars departed the thriving academy where they were teaching in Athens and left the Roman empire altogether, seeking to continue teaching at the court of the Persian emperor Chosroes. One could easily assume that these events occurred because the Neoplatonic doctrines taught at the school were anathema to the Christian emperor. The fact that the Athenian school suffered no similar persecution prior to the date when Damascius took over suggests that there may have been more compelling reasons for Justinian's decree. It was not pagan philosophy *per se* that led to the ban on teaching. The pagan teacher Olympiodorus continued to teach in Alexandria, unscathed, surviving late persecutions of 545/6 and 562. Cameron speculates that the fact that students were flocking to the Academy at Athens because of Damascius' energetic leadership is what caused Justinian to act out of anxiety about the burgeoning popularity of the Athenian institution. The mere fact of the popularity of the Athenian school, though, may not have been sufficient reason to censor its teachers. Damascius' leadership may have been the source of the problem. Damascius and Simplicius, after all, were survivors of the purge of Alexandria and this may have been one of the prime factors in the Justinian persecution.

These professors who defected from Alexandria and actively disapproved of an academy which had sold out to the Christian authority may have been seen as still posing a threat to the Christian establishment. Damascius, for example, reports a Lucius, who was a master of the army

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and a pagan under the reign of Anthemius, a Christian praetorian prefect who ruled in the name of the emperor in the east, who ‘attempted to assassinate Theodosius II in order to restore the “indissoluble faith”, and become a new emperor Julian’.⁴⁹ Damascius and Simplicius were militant pagan philosophers whose experience with the Christian authorities in Alexandria had left them enraged.

The scholars who left Athens in 529, then, can be identified with the same group of people who were considered political enemies in Alexandria during the earlier persecutions of the 480s. It was the Athenians, not the Alexandrians, who, by 529, represented the last of the voices for pagan power. When Justinian forbade teaching ‘so as to prevent them under the guise of teaching those who by misfortune happen to attend their classes, from in fact corrupting the souls of those they pretend to educate’,⁵⁰ he may have been concerned about their ability to incite insurgent activity. When Justinian banned all public teaching by pagans in 529, it seems this was aimed solely at the Athenians. Interestingly it brings to mind Emperor Julian’s own admonition regarding Christian teachers: ‘I do not say that they ought to change their opinions and then instruct the young. Rather ... either not to teach what they do not take seriously or ... to persuade their pupils ... [that] these writers whom they expound and have declared to be guilty of impiety, folly and error in regard to the gods are [not] such as they declare.’⁵¹ As mentioned above, Cameron’s revised history of the late Academy gives credence to the fact that it was the Athenian school academicians and not Hellenic-oriented academies in general who were barred by Justinian’s so-called closure of the school in 529. Sorabji also points out that in Alexandria Neoplatonism and Christianity were able to coexist, and that though Ammonius was a pagan, three of his pupils, Philoponus included, were Christians.⁵² By 529 the Alexandrian school had been purged of its more radical figures. They did not seem to harbour a passionate commitment to anything like the Julianic syncretism adopted by the Athenians.

The fact that Philoponus, the Christian philosopher educated at the Alexandrian school, wrote his *Contra Proclum* arguments regarding the eternity of the world in 529 could be taken to mean that the ban on the Athenians had to do with doctrine. The discussion by Lang and Macro, however, convincingly argues that the *Contra Proclum* was not written as a Christian apologia. These arguments appear to attack Neoplatonic philosophy in an area of particular interest to Christian doctrine but probably were written with purely philosophic interlocutors in mind.⁵³ Recent literature on this subject citing systematic comparisons between the writings of the two schools, particularly by Ilsetraut Hadot, has shown that the two schools differed much less in doctrine than used to be thought.⁵⁴ Further, the general principle advocated by Cameron and discussed with approval by Bowersock, suggests that there is no need to see conflict or tension between paganism and Christianity, at least when it

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comes to an allegiance to classical culture. They may not have been as at odds with each other as is commonly assumed.⁵⁵ In addition we recall that Platonic philosophy *per se*, at least Middle Platonism, played a quite positive role for Christianity in the centuries before. Further, there were Alexandrian figures such as Olympiodorus who continued to teach the eternity of the world. It seems that the attack on the Athenians was not so much the outcome of a theological dispute as an attack on an institution with a long history of anti-Christian insubordination and now the kind of leadership that could take this insubordination to the next level.

Conclusion

According to Stanley Rosen, 'Every hermeneutical program is at the same time itself a political manifesto or the corollary of a political manifesto'.⁵⁶ While this may appear to be an extreme statement, the political and social context of the Athenian school must be given its due importance when evaluating the theurgic and soteriological discourse that is so ubiquitous in the *Commentary on Timaeus*. This digression into the later history of the Athenians and their earlier retreat from Alexandria under the scourge of persecution serves to establish, in retrospect, the continuity of the pagan cause. The consistency of the cryptic terminology in some of the writings of both earlier and later figures gives witness to ongoing themes of rebellion. One can only speculate about the kind of rhetoric that was more freely expressed in classroom teaching. The Athenians, under Damascius' leadership, may not have differed in doctrine in very significant ways from the Alexandrians, but may have had a radically different political agenda holding up the torch of Julian even to the end. Whether they still harboured hopes of political revival through indoctrinated students cannot be documented, but their long-standing animosity towards Christian authority can be. Leaving Athens for a more sympathetic milieu might have been a necessary survival tactic for the Athenian scholarchs who were known to fly so directly in the face of the 'prevailing circumstances'.

The *Commentary on Timaeus* is, for one thing, a testimonial to the Hellenic pagan past. While I cannot agree that it is a 'hymn', it is certainly a panegyric to the gods and their rule at every single level of reality and on almost every page of the *Commentary*. The Athenian school was a living repository of Hellenic culture and wisdom. Its very establishment and continuation in itself constituted a political message about the importance of preserving the pagan past. An added conceit was the effort, certainly on Proclus' part, to make frequent Chaldaean citations and quotes in otherwise close textual readings of Platonic dialogues.

There are considerations intrinsic to the Proclean ontology that make the necessity of mediating deities a genuine philosophical endeavour. Mediation and agency are necessary features of Proclus' explanations of the workings and creation of the physical world out of metaphysical

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causes. The ubiquitous equivalence that Proclus makes between metaphysical constructs and theological personification, however, sustains a pagan theistic rhetoric throughout the *Commentary*. The practice of alluding to the pantheon of deities is a long-standing tradition in ancient texts. Examples are found in Plato and Xenocrates, and are very prominent in Porphyry and in Neoplatonic writing from then onwards. While theologizing metaphysics is a genuine belief system of the pagan philosophers of late antiquity, theurgic, soteriological, Chaldaean and Mithraic rhetoric has another function as well. Its use to embellish philosophical texts indicates a cultural practice that carries social and political overtones. Proclus makes sure to preserve pagan intellectual syncretism and shores it up by grounding it in the superstructure of metaphysical concepts. This practice, make of it what you will, is found on almost every page of the *Commentary on Timaeus*, often in the absence of any logographic necessity to do so.

Contrariety and Perceptibility: Athena, Goddess of Wisdom and of War

The One is everywhere present, inasmuch as each of the beings derives its existence from the gods and even though they proceed forth from the gods, they have not gone out from them rather are rooted in them ... They have not been cut off from the gods. If they had been cut off, they would not even exist, because all the offspring once they are wrenched away from their fathers, would immediately hasten towards the gaping void of non-being. (I.209.22-210.1) (R&S)

... they call her (Athena) **wisdom-loving**, and ... **war-loving**. For she who embraces all the Father's wisdom is **wisdom-loving**, while she who has uniform authority over all rivalry could with good reason be called war-loving. (I.166.17-21) (T)

Baltzly and Tarrant point out that the *Commentary on Timaeus* is a progression from the lowest ranks of material reality to formal and transcendent causes. Lernould suggests that the *Commentary* begins with a materialistic analysis (the Presocratics) and then progresses to the formal cause (Aristotelian science) and culminates in dialectic.¹ This trajectory encompasses the Platonic Pythagorean study of the causes: efficient, final and exemplar. Proclus' own suggestion, that the ten gifts that the Demiurge confers upon the cosmos are progressive and follow a sequence from lower to higher realities, supports this view. The method of sequencing follows a more general ontology of increasingly 'exempt' causes. A paradigmatic example of this is succinctly encapsulated in the propositions leading up to and including Proposition 20 of *Elements of Theology* (Beyond all bodies is the soul's essence, beyond all souls, the intellective principle and beyond all intellective substances, the One).²

For Proclus, then, the history and myth in the first part of the *Timaeus* are symbolic/iconic vehicles which serve to allow the reader to anticipate the real account, that of the metaphysical infrastructure of the creation. Specifically, the allegories that the prologue to *Timaeus* recounts are an iconic or symbolic rendering of the turmoil and destructive potential of materiality in conflict with powerful organizing forces. Material reality, *per se*, is located at the bottom rung of the ontological hierarchy and its potential destructive nature is rivalled by the divine causes that mediate and govern it. Proclus uses the Prologue to *Timaeus* as an occasion to address the philosophical issues that pertain to this issue. It is both a

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commentary on Plato's prologue to the *Timaeus/Critias* and a prologue to the account of the organizing structures that create the physical world, the ten gifts that provide arrangement and intellectual cogency to nature. The myths introduce the dangers of a world without these gifts. Book 1 of the *Commentary*, then, contains an exposition of the recapitulation of the *Republic* and the myth of Atlantis.³ Proclus treats these histories and myths as reflections of the universe as an analogical whole and construes them as a narrative mirror of the presence of higher realities in lower phenomena. Proclus gives a capsule summary of this approach at the beginning of Book 2. The recapitulation of the constitutional government of Socrates in *Republic* is related to the ordering of the heavens. The narration of the battle of the Athenians against the Atlantines and the ensuing victory of the Athenians is a symbolic rendering of cosmic rivalry (I.205.4-12) between the formal and material causes respectively. Strife is manifest throughout these histories, exemplified by the battles against the Titans and the Giants, the war between Atlantis and Athens and destructive natural disasters such as the disappearance of Atlantis (due to a tsunami and consequent diffusion of expanding waters with no limits). All tell of the alarming potential of matter to careen out of control if divine forces do not prevail at every turn.

For the Eleatics, material reality was always the prime challenge to the oneness of being. In late antiquity this topic remained one of the pivotal launching points for Proclus' *Commentary*. Matter's disturbing non-compliance with intelligibility creates the demand that reality be grounded through the infrastructure of hierarchical hypostases. For Proclus, it seems, matter is not simply a passive *hupokeimenon*, a recipient of form prior to its activation, but an active component and even opponent of form. This view will be the basis for interpreting the narrative of Atlantis and of the constitution of Athens as mythic analogues to the basic principles of physics, where matter and form struggle before the hegemony of formal principle is fully established. Early in the *Commentary* Proclus cites the physicists before Plato and the fact that they spent time on matter, concerned about what might constitute the substrate (*hupokeimenon*) of physical nature and trying to relate it to higher causes. Anaxagoras, despite citing Intellect as the cause, makes no use of it and, like Plato in *Phaedo*, Proclus sees this as something to be remedied (I.2.10-29).

With these considerations as a backdrop, Proclus finds that the myth of Atlantis and the constitution of the *Republic* are 'instances of the study of the cosmos through images' (I.4.13). Both of the narratives are analogical and have to do with the primary subject of the *Commentary*, the study of nature: '... for indeed myths in general tend to reveal the principles of reality through symbols' (I.30.15-16). '... the constitution summarized by Socrates is the image of its unification [of the cosmos], ... while the war between Atlantis and Athens ... is the image of its division, particularly of the opposition implied by the two columns' (I.4.15-20).⁴ Proclus later

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makes the further distinction that the summary of *Republic* is studied through the medium of an image while the story of the Atlantis acts as a symbol (I.30.6-18). John Dillon regards these instances, as well as many others in Proclus, as relating the surface meaning of the text, or of the characters, things and actions mentioned in the text and the metaphysical truths of which they are the expression.⁵ Athens possesses a constitution that is assimilated to a paradigm that is founded in the heavens, while 'the Atlantine war is likened to generation, which subsists through opposition and change' (I.4.24-5). The oppositional potential of unruly matter is analogous to a misgoverned city-state, though ultimately both are subordinate to form, or to constitutional laws. Both instances exhibit the fact that there exist forces alien to form that can promote conflict.

Proclus makes the claim, at the outset of his commentary on Plato's account of the physical world, that matter is not equivalent to a mindless substrate. In this view, he follows a line of development in the history of Platonic theories of matter that has traditionally opposed pure materialism. Plato's view that matter's most primitive constituent is the triangle, and Nicomachus' view that 'a divine artisan' or 'Demiurge' models matter after ideal patterns (the forms) in his mind, follows this tradition.⁶ Proclus agrees with Plotinus to the extent that 'matter does not exist as a pure substratum but always in conjunction with form'.⁷ He introduces another factor, however, in his treatment of the material substrate, its potential unruliness.⁸ The unruly nature of material reality lies in its pure plurality. Matter, *qua* indeterminate or infinite '*plêthos*', means that between matter and Form there can never be a determinate ratio. Iamblichus, in remarks such as the following, sets the precedent for Proclus to regard the opposition of Form and matter as one between an inequality and indeterminateness and number: 'matter has the indefiniteness and inequality of the Dyad just as the Monad has a formal function in constituting numbers'.⁹ Several supporting texts of Proclus make it clear that pure plurality is infinite and unknowable while number is a discrete multiplicity (*plêthos* ... *diakekrimenon*) (*Plat. Theol.* IV.81.4-6). In *Elements of Theology* (Proposition 1), Proclus imagines a manifold (*plêthos*) that does not participate in unity. Were it not colonized by Form, matter could expand to become an 'infinity of infinities'. In the very first proposition of Proclus' most systematic work, then, he identifies the '*apeirakis apeiron*' (the infinity of infinities) as a peril (should the many not be one). By reference to this alarming spectre, Proclus evokes the horrifying prospect of a material world unrestrained by transcendent unity.¹⁰ A pure plurality, he claims in *Platonic Theology* (II.1), would be *apeiron*, unknowable and unreal. In the *Commentary on Parmenides*, it is clear that, for Proclus, matter is principally characterized by its Unlimitedness and the interminable iterability of which it is capable (1116.18-1120.25).

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Unlimitedness, then, if we start from below, may be viewed in matter because it is unlimited and shapeless and formless of itself, whereas the forms and shapes are limits of matter. It may be seen also in unqualified body in respect of division; for this is the entity which is primarily divisible to infinity, in so far as it is the first which is extended ... due to the endless division that is possible with no limit at all ... it may also be seen throughout the whole of the realm of generation ... (*in Parm.* 1119.4-14)

Proclus goes on to suggest that it includes 'quantity and bulk' and the like, which are infinite either because they cannot be enumerated or traversed or else by the 'indetermination of the essence'. From the outset of the *Commentary*, Proclus asserts that matter is never without higher influence and so never subject to the dangers of unlimited expansion. He objects to the 'sea of dissimilitude' of *Statesman* (*Pol.* 273d). Unlike the position taken by Plotinus, matter is not ever totally unadulterated or an autonomous source of evil.¹¹ A supportive premise for the claim that matter is never without higher influence is the fact that any productive cause of everlasting things originates from higher levels than the substrate. Proclus criticises those who might claim that 'Something bodily can be self productive' (I.2.25-8). The highest of hypostatic levels reach all the way to the remotest bounds of the universe regardless of how unstructured these last things may be. If the hylic infinities proposed by atomists and earlier cosmologists were allowed to be determining principles, on the other hand, all form could disseminate towards total destruction. Eleatic philosophers counterpose material infinities and their runaway iterative potential with principles. Proclus secures the lowest strata of reality not only with principles, but with those that stem from an elaborate hierarchical ontology. All things are 'suspended from the back of the goddess' and matter is no exception. There are causes 'by which a thing is produced, in relation to which it has been fashioned by the father of all, and for the sake of which it has come into being' (I.3.13-14). Creation is never random. It is notable, then, that with these stipulations so firmly in place, Proclus regards matter as asserting a dangerous potential toward destruction.

When Proclus differentiates between structure (*logos*), form, and the part of reality that acts as substrate, he uses the Aristotelian term for substrate, *hupokeimenon*, suggesting that matter is inextricable from Form. (Matter as *hupokeimenon* situates it within the opposition matter/form and implies that it is never independent). What is radically non-Aristotelian, in this account, is that Proclus subsumes Form and matter under the supervening categories of Limit and Unlimited. Proclus cites the *Philebus*' discussion of Limited and Unlimited (*Phileb.* 16ff.) repeatedly in the *Commentary*, hypostasizing them as the '*Autoapeiron*' and '*Autoperas*' and situating them immediately below the One. Being is subordinate to this pair. If matter, then, is grounded in a higher hypostasis that includes Limit as its co-principle, it is difficult to explain how matter can be dissolute and responsible for destruction. Proclus does allow for

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dissoluteness and certain indeterminate and ephemeral things do pass out of existence. Sambursky points out that the triangles, which are the basic components of earth, air, fire and water (for Plato in *Timaeus*) can be broken up and become dissolute, and that is closest to the idea of unformed matter without presumable salvation through form. Proclus endorses this view and accedes to a temporary ‘suspension of triangles in an unformed state during a process of transformation’, for example, as Simplicius reports.¹²

There is something further at play here, however, that does guarantee matter to be necessary to existence and therefore a ‘good’ suspended from the highest of principles. Matter is potentially unlimited as a product of the Unlimited/Limited principle, directly beneath the One in the ontological hierarchy:

But since Plato everywhere derives the [properties] in sensible things which correspond to the intelligible causes from those [causes] – the equal here below (*entautha*), for example, from the Equal itself and likewise all living creatures and plants here below. He obviously also derives the Unlimitedness here below from the First Unlimitedness in the same way he derives the limit here below from Limit there above ... [Plato] placed first Unlimitedness, the [unlimitedness] which is prior to the mixed, at the summit of the Intelligibles and extends its irradiation from that point (*ekeithen*), all the way to the lowest [reaches of being]. (I.385.7-13) (R&S)

Further, ‘matter proceeds from the One and from the Unlimitedness which is prior to One Being’ (I.385.13-14) (R&S).¹³ Herein lies the answer as to how it can be potentially unlimited and in danger of escaping its limits by virtue of its very everlasting iterability. Being, specifically the One Being, as will be explained later in the *Commentary*, is the container that guarantees Limit in nature. As prior to the One Being, the Unlimited is a life in the universe that has a kind of freedom and expansiveness that is not fully under control of intellectual limits. Following Iamblichus, Proclus regards ‘Life’ as an important parameter. Iamblichus described the ‘divine’ Dyad as ‘unlimited power, never-failing progression of life, receiving the measure of the first one (*hupodochê tou prôtou henos metrou*)’.¹⁴ ‘Life’ entails ceaseless production and is driven by unlimited power. Its containment by Intellect, in Proclus’ mind, requires a certain amount of struggle.

In the *Commentary on Parmenides*, Proclus distinguishes as many as three types of infinities. There is an eternal type of Infinity, as the measure of all things, and Limit attached to Being (it is the prototype of eternal containment, sphericity, where beginning and end are the same). There is a type of infinity that is chaotic, solely and primarily unlimited and attached to uncontained matter. The former Infinity is that of Eternity and the measure of all things eternal, the latter the serial interminably iterated infinity that is attached to the material world in its unfolding.

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Proclus further identifies a type of infinity which is beyond Being and is the infinity of the One. This one he describes as unbounded. All three infinities are sympathetic. Matter then, has similarity; Soul has Equality, and Intellect, Sameness (in relation to transcendent hypostases). The three infinities constitute a chain of reflections upon one another. Each level of descent into the hypostases beneath the one above it entails more multiplicity. Finally, in nature every product is a temporal and spatial icon for the causes above it. Spatiality and temporality are infinite in their capacity for iterative expansion but reflect higher levels of being.

For Proclus, Infinity is not an evil, but is the ever renewing source of material fecundity, despite its propensity for troublesome near-chaos during certain ill-fated times and events. The *Commentary on Timaeus*, as Steel quotes Proclus, studies nature 'insofar as it is produced from the gods'.¹⁵ Matter is no exception. If the infinite did not exist, the fecundity of time and nature could not be accounted for. Matter is necessary for creation. There is no unclaimed matter; it depends directly on God and on the One itself (Prop. 57). Proclus criticizes Plotinus for regarding matter as an ungenerated principle in and of itself (I.364.30-385.14). The material level, at the furthest reaches of the universe, is never outside the control of paradigmatic causes. Still, Proclus acknowledges that a 'struggle' is necessary to wrest potential infinity out of chaos and make it assimilate to form.

Myth and narrative: legends of the struggle of opposites

The myths and narratives of the Prologue to *Timaeus* give legend to the struggle of opposites that comes about as form is imposed upon matter. Even the interlocutors of the dialogue provide an occasion for Proclus to exploit the mytho-poetic and narrative features of the prologue and expose the full symbolic importance in relation to his prime metaphysical categories. The missing fourth person, whom Plato mentions at 17a1-3, is a good example of Proclus' interpretive strategy. The missing fourth guest, who was expected to be present for the discussion of nature, invokes the numerical parameters of the tetractys (which ends in a four-part structure). Proclus cites Iamblichus' theory, which explains the absence by the fact that the fourth guest is missing because he is not suited for a discussion of physics, but 'he would wish to join them if they were intending to discuss intelligibles' (I.19.23-4). Proclus does not agree with this interpretation since the person who missed the meeting did not do so voluntarily (I.22.18-20). He offers his own reading of the account of the exclusion of the fourth guest as a move upward in the ascending levels of the tetractys where the number three is higher and contains the lower level, *ergo* the 'others'. The first three levels (persons) will have to give the account that the fourth might have given. In Proclus' words, the pinnacle of the triad subsumes all that comes second and fully supplies what is lacking in them. The higher levels one, two and three can supply the fourth

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(I.23.30-24.1). The missing fourth person represents the important principle that the material world is supplied by higher hypostases and the greater multiplicity of the lowest rung is subsumed by a higher infrastructure (the more unified numbers of the tetractys).

The paradigmatic control of intellectual parameters over images is the underlying theme of this and of related passages. The Pythagorean context in which Proclus places the absent fourth guest (I.16.20-30) reflects the view that all physical creation is held together by numbers and shares in numbers, just as all the forms within the cosmos are shared. In the classic account, the fourth tier of the tetractys represents the dimensions, which means it represents physical reality. Proclus points out that for Plato, as opposed to Aristotle, numbers are not in the sensible realm and the Monad at the pinnacle of the tetractys is associated with the final cause, and the level of the Good (I.17.14-22). The Dyad is associated with the paradigmatic and the starting point of the tetractys, while the triad is associated with the productive cause, also known as Mind and Life. To suggest that the fourth tier (three-dimensional physical reality) is 'missing', then, means that it is subsumed by the first three tiers. The invisible and mathematical causes are the dominant ones. Proclus develops a further analogy: the scene of the gathering itself symbolizes the interrelations among metaphysical categories.

For by analogy, as is monad to dyad, so is being to life, father to power, and intelligible to intelligence. And as dyad to triad, so is life, or power, or intelligence to mind. Moreover all things divine are in all things and they are unified by one another so that all are in one and each is in all, and they are held together by divine friendship. (I.17.28-18. 20) (T)

In this instance, Proclus is commenting on the fact that Socrates makes sharing and agreement the starting point in the discourse. He adds that the feasting and banquet mentioned by Plato alludes to celebrations of the gods as in *Symposium*. Later in *Ten Gifts*, friendship in the *Commentary* will be used as a metaphor for the entire intermediated sympathy of all things in the universe and in the first, second and third tier of the tetractys, a blueprint for creation.

Proclus first puts forward the theme of the potential conflict (between matter and principle) in his comments on the divisions into classes, which Plato had stipulated in *Republic*, and which is referred to in *Timaeus* 17d2-18a3. The Guardians of the city protect it from hostile incursions of both internal and external enemies. Proclus introduces this to raise the question that *Timaeus* raises: what is external to the universe (I.37-8.20) and how can the universe enclose everything? Apparently, there is a potential for disorder within that very containment that is endemic to the presence of matter. He describes the 'restlessness of matter' (I.37.25) (*to astaton tês hulês*) as antagonistic to those divine causes which, he men-

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tions earlier, abolish fault and disorder from the universe (I.23.5). Matter, because of its own indeterminacy (Proclus uses the word *aoristian*) and its extreme subordination, is alien to the powers that bring order to it.

The faulty and disorderly flux of bodies at times comes about through the weakness of the principle of order (*logoi*) and at times through matter's greed for supremacy. The principles are closely linked with the productive causes, but matter, because of its own indeterminacy and its extreme subordination, is alien to the powers, which bring order to it. (I.39.2-5) (T)

The Guardians of the *Republic*, as 'administrators of justice', are justice's analogues in the created universe. They are the ones whose function it is to be tough and try to utterly wipe out disorder and eliminate the greed for material supremacy (I.38.1-3). Justice, after all, is associated with Zeus and the armed guard with which he organizes the universe (I.38.16-28) and holds injustice in check.

Why are guardians needed to impose order? The first gift of the Demiurge, visibility and touchability, implies that everything is organized in such a way as to be able to be apprehended from the outset (matter, on the other hand, we recall from *Plat. Theol.*, is 'unknowable'). The first gift of the Demiurge to the world is that 'He first makes it *perceptible* with respect to the extreme terms of sense perception (viz. sight and touch)' (II.5.17-18).¹⁶ The recipients of this gift are the objects of sense (*aisthêta*) (II.6.6). Limit shores up the world from its earliest creation; the gift that makes things be 'somethings' is given at the very first moment of existence. Perceptibility, after all, involves formal properties on the part of its objects: to be visible and touchable implies visible form and contour, a lower form of intelligibility, and an outcome of the two extremes of elemental form, Fire and Earth.¹⁷ Sight and touch are the corresponding 'mental' *qua* sensing receivers of sensible data. Gersh points out that perceptions are a level of 'truth', the lowest level of which is 'opinion' (*pistis*) (for a Platonist there are two levels of knowledge: *epistêmê* and 'probable discourse' (*eikatalogia*)). Perception which results in opinion, still qualifies perception to be a form of knowing.¹⁸ It is apparent that the elements and the senses are in correspondence as early as the first gift. Things can be apprehended, they are not chaotic and unformed. (Later gifts bestow the bond of analogy, wholeness etc., upon the world, and are present from the outset as well.) At this point one might ask, how is it that that disorder and indeterminacy can in any sense operate autonomously, if the universe is never without order and form is imposed on matter right from the outset? Proclus is not talking about a temporal process.

... matter is not the cause of lack of order (*akosmios*). However, nor, clearly, is the will of God, for he is always good. Therefore, the cosmos was always being set in order and the Demiurge was always ordering the discordant and disorderly element (*phusis*).

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So why exactly has [Plato] hypothesized [a state of] disorder? Because, so that we would be able to see that generation of bodies is one thing, their arrangement once they have come into being another, they had to be portrayed (*bupotheteon*) as [already] existing but moving in a disorderly manner. After all, bodies cannot bring order to themselves. It was then, out of a wish to highlight (*paradeiknunai*) the order which has come to them from another source, that he has shown the disorder which is intrinsic to their movements in the absence of the divine Cause. (I.394.22-31) (R&S)

This passage is a crucial one in understanding the arguments in late antiquity regarding the Eternity of the World, and, in general, is a crucial passage for interpreting the *Commentary*. The indeterminacy and restlessness of the *hupodochê*, as it takes on the character of a *hupokeimenon*, is simultaneous to genesis. Aristotelian terminology, ‘the *hupokeimenon*’, and the Platonic notion of a ‘receptacle’ or mixing bowl in which the world is created, both suggest that there are both disordered and ordered phases of material creation. Solmson explains that in Plato’s scheme the shapeless, indefinite matrix survives as the receptacle; however it cannot produce without being activated by the Forms.¹⁹ For Aristotle the *hupokeimenon* does not appear to have independent existence outside form either. The seeming autonomy or priority of an indeterminate matter, then, is assumed for the sake of an explanation of what occurs and is not a stage in a sequence of development in physical temporal reality. Even with this stipulation in front of him, Proclus envisions that, as the first gift is given, imposed upon a possibly formless substrate, the insubordination of the indeterminate can cause potential trouble. A ‘guardian’ on the cosmic level, in the person of Zeus, mitigates the runaway dissemination that can erupt as matter asserts its presence. These figurative accounts do imply that nature has a troublesome and fulminating life of its own.

Following the sequence of *Timaeus*, and still commenting on the recapitulation of *Republic*, Proclus next discusses Plato’s allusion to the harmony of male and female as they share jobs, etc., and the economy (18c1-4). The opposition, male and female, represents a mediated harmony that takes place at higher levels as well; male and female counterparts form an opposition within the Divine order itself. This opposition is harmonized through the bonding of male and female. The co-relation between male and female gods of the same rank is ‘accomplished in an initial way by the male, and in a subordinate way by the female’ (I.46.24-5). (Hera and Zeus, for example, give birth to all things together with the father; Rhea processes in company with Kronos, and Ge in company with Uranus, etc.) Proclus relates these mythical accounts to the prime categories: Limit and Unlimited: ‘we ... find that everything that proceeds in any fashion into being is generated from both of them’ (I.47.5-8). This process of coupling reflects the coupling of Limit with Unlimited, and form with matter, etc.

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Proclus' strategy throughout the *Commentary*, is to make equivalences and analogies between gods and Platonic categories. He ascribes Divinity to every level of the conceptual order. At the same time, the pantheon of gods is grounded in an ontology that rationalizes their functions within a larger metaphysical picture. Theological and conceptual parameters work in tandem and the identities of each of the separate gods take on the connotations associated with their respective categorical genus. Genealogy has a double significance: reproduction of species in biological contexts and proliferations of superordinate and subordinate ontological levels. Just as concepts generate consequent premises, the gods generate offspring resembling their own status. Both disseminate primary causes throughout secondary manifestations in hierarchical descending series. At I.48.24-7, for example, regarding the passage 18c6-d6 where Plato brings up child-rearing,²⁰ where all offspring are the offspring of all 'and all are in all and all are unified with all in an undefiled purity', Proclus is invoking an allusion to the sympathy that runs through all things, as he will do repeatedly in the *Commentary*. For Proclus the so-called brotherhood of similarity of substance goes forth into a second and third series. It signifies both the class of descendants of the gods (I.49.10-12) and the fact that, 'One and the same receptacle (*hupodochê*) can come about for different formal principles. A single formal principle can be reflected in a plurality of receptacles and pervade a multitude of substrates' (I.49.17-20). Further, excellent women to excellent partners, primary gods to primary gods, there is a distribution according to merit, which is providential (I.50.7-20). In this analogy, Forms correspond to the males and receptacles to the females.

Soul, *polis*, cosmos

As with all things, the fate of souls follows a pattern of progressive dissemination and loss of unity and principle in descent. All human soul has been sliced off from the whole and become separate (I.53.1-23), and

Inssofar as each of us is drawn down towards the part, and becomes isolated and deserts the unified whole, to that extent he is confined to the corresponding life, a life of ungoverned conditions, of unordered order and of undivided division. (I.49.30-50.3) (T)²¹

The fate of the most unordered souls follows that of the least organized matter. The lowest of souls have continuity with the highest of causes, hence possess unity, but are divisible to an indeterminate point, and so potentially disorderly at the same time. What follows is a series of passages on the souls and their descent according to their varied providential destinies, a subject that Proclus will take up later in the *Commentary*. In fact, Book 5, which discusses man as a microcosm, will come full circle and

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take up the disorderly vs. orderly souls according to their respective fates and destiny. At this point, we get a preview of the moral conflict that can take place within the soul, analogous to that in the cosmos. No matter how far divided and disordered, the link to primary causes is never lost and all creation has its own purpose within the whole. It will become clear in Proclus' commentary on the allegories of Athens and Atlantis, that the *polis* has the same options as the soul has; to be ruled by orderly arrangements or succumb to disorder and destruction. It is helpful to refer to Konrad Gaiser's diagram of the cosmos, *polis* and soul of man as concentric circles of containment.²² This confluence of the three, the human soul in the middle, the *polis* around it and the cosmos around that, is an excellent capsule of the theme, occurring throughout the *Commentary*, of the analogous worlds of cosmos, *polis* and man as a microcosm. It also helps one to understand why Proclus finds the analogies to nature in the allegories about the *polis*: the *polis* reflects the wider cosmos.

As a preface to his comments on the account of *Republic* at I.54.20, Proclus reiterates the central thesis that all primary natures employ their energies to complete the universe by employing the 'activities' of secondary natures.

The first things have been separated from the second, and they employ activities of the latter as something necessary for the completion of the All. The second things are organized by the first, and the best of them are harnessed symbiotically with the best of encosmic things, the middle ones with middle things and the last with the last. The same principles penetrate several substrates (*dia pleionôn hupokeimenôn*) and the same receptacles participate in several principles. (I.54.7-27) (T)

This passage, offered early in the *Commentary*, will prove crucial to the concluding arguments in Book 5. The potential salvation of mortal souls, man as a microcosm, contributes to the completion of the universe. This is an intriguing concept. For Proclus, *logos* presides over geographical place and the citizenry of the *polis*, represented by its guiding constitution. *Polis*, like the universe, is founded on higher principles than physical place. The cosmos is founded upon divine intelligence and the receptacle is preprogrammed to receive formal arrangement simultaneous to creation of the physical world: The *polis* receives a plan via the constitution (*politeia*) which provides principles for its proper function, along with the geographical place upon which it is founded. The *polis* is a living being, as is the cosmos, and is 'founded' by an act of demiurgy or artisanship. As Pradeau has pointed out concerning Plato's *Timaeus*, 'Cities are founded ... they are born, grow, acquire limits and they may clash with one another or even disappear in a flood, or succumb to the blows of an enemy'.²³ The constitution is the image of unification and communion, paradigmatic and heavenly arrangement, as opposed to generation, opposition and change.²⁴

There is variety among types of *polis*. The belligerent imperial type of government contrasts with one based on a rational constitution. Athens

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and Atlantis, in the history of their war narrated by Critias, represent the opposing cities and their respective images of types of *polis* (I.4.15-25). Athens, in Plato's *Critias* and *Timaeus*, Pradeau points out, embodies the excellence of equilibrium and lasting unity, while Atlantis embodies the corruption that goes with unbalanced growth.²⁵ Proclus exploits these oppositions in order to put forward his metaphysics of ontological struggle and mediation. The constitution imposes order and the ultimate stasis that a city might reach in an ideal condition. In practice, this is achieved through activity. Struggles in competitions and warfare are in the service of ultimate peace and equilibrium. Proclus, in the name of Porphyry, states that 'it is activities that bring states-of-being to completion, not only those prior to the states of being, but also those that proceed from them' (I.56.16-18). Limit and Unlimited must struggle as opposites, until hierarchical principles ultimately triumph and bring about the completion of the universe. The supervention of principle upon the energized material substrate transfigures the phenomena in space and time, so that all that is proceeds and reverts towards ultimate symmetry, as prescribed by Providence. War between opposing *poleis* is analogous to the war 'between the Forms and enmattered things that must take place in order that the cycle of generation should mirror the heavenly cycle' (I.57.9-11). The lower city is linked with generation and also with political struggle. These analogies are summed up at I.61.27-9: there is 'a paradigm which controls the entire war of generation as it shines through in both physical and intellectual creations'. The summary, later in Book I, is even more comprehensive and reiterates the similarity (*homoiotêtos*) that prevails over otherness on every level of the universe

The great Iamblichus deems rather that we should refer the variety of terms to realities, and see how in nature too the opposites are blended into one unity and how the one is varied, and how great an interchangeability the same principles demonstrate, existing in one way in the Intellect of the universe, in another in Soul, in another in nature, and finally coming to be in matter (*hulê*) and in the realm of matter showing the great multiplicity of otherness (*heterotêta*) that exists alongside similarity (*homoiotêtos*) (I.87.10-14) (T)

The city, then, is as much a living thing as the universe itself; its life is manifest in contests, labours and warlike actions. Life emanates from on high and is responsible for the energies of cosmos, *polis* and the 'restless' nature of matter. All levels are suspended from the highest levels and then spiral upwards and the ultimate triumph of the Good requires mediating energy.

Invoking yet another symbolic history, Proclus now compares the ontological levels that must interact and the main characters of the dialogue. Proclus comments upon the inadequacies for the monumental task of making an account of physics, of both poets and Sophists (I.69.12). He commends Timaeus of Locris who, in so doing, has got 'to the summit (*akron*) of philosophy' (I.62.13-69.11). Timaeus, Critias and Hermocrates,

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the main discussants, are analogous, respectively, to the universal Demiurge, the middle creation and the lowliest of the levels of reality. Hermocrates, a Syracusan general, for example, is analogous to the one who orders the last and most disorderly parts of the cosmic composition, and who 'advances creation to total multiplicity and ultimate partition' (I.71.22-5). Timaeus is linked with the paradigmatic cause; Socrates with the productive, Critias with the formal and Hermocrates (the absent fourth guest) with the material. Subsequently, when commenting on the narrative of Atlantis given by Critias the younger, he once again sees the names of the characters as symbolic. Solon, in that account, is analogous to the cause of stability, Critias the elder, to the one that leads the progression and Critias the younger, the one that gives the account in *Timaeus*, to the cause that turns back what has proceeded and points to its origins (21b1-7) 'which takes care of the enemies and manages the war within it' (I.88.7) (T).

Proclus comments upon the story of Atlantis from I.75.26 to I.91.11, and gives his exegesis of Plato's text on this topic (20d ff.). Quite sophisticated about the process of textual exegesis itself, Proclus begins by examining the treatment of the Atlantis narrative on the part of his predecessors. Crantor, he points out, regarded the Atlantis story as straightforward narrative. Others, Proclus reminds the reader, consider it a myth, though Plato had claimed that it was true (I.76.1-16). True or not true, Proclus finds that its significance lies in the fact that 'it is now adopted as (a series of) images of pre-existing rivalry in the universe. For (they say that) "War is the father of all" as Heraclitus puts it' (B53 DK) (I.76.18-21). Proclus reviews some of the interpretations of his predecessors. One account considers the Athenians analogous to the fixed stars, while the Atlantines are comparable to the planets. The single, original, motion of the cosmos (Athens) resolves the conflict of counter-revolution. Amelius, he asserts, confirms this view by seeing seven circles in the *Critias*. Others interpret the rivalry as a conflict of daemons and souls (Numenius for one). The daemons represent a down-dragging force, while the souls try to come upward. Whatever the interpretation, Proclus endorses the basic principle of cosmic rivalry: across the whole cosmos and particularly among generated things he sees this rivalry at work.

I mean that since everything is from the One and the Dyad that comes after the One, and they are somehow brought into unity with each other and have acquired opposing natures, just as there is also an opposition among kinds of Being, of Same against Other and of Motion against Rest, and everything in the cosmos participates in these Kinds, it would make sense to study the rivalry that runs though everything. (I.78.6-11) (T)²⁶

The opposing gods, Apollo/Poseidon, Ares/Athena (I.76.27-9), carry out this rivalry.²⁷ War is, after all, embedded in the whole of nature (I.78.1-15) and can be seen in the opposition incorporeal/corporeal, intellective/enmat-

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tered. Furthermore, the corporeal itself entails the opposition of heaven and generation, while the heavens entail opposing revolutions. Following a digression at I.83.30-84.7 on genealogical matters regarding Critias and Solon and their relation to Plato, Proclus resumes the predominant philosophical theme that he extracts from these accounts, namely that ultimately unity rules oppositions. He endorses the notion of

...<the> single common principle of the twin columns of opposites in the cosmos and the single conflict that extends through the universe, on the grounds that it holds in an unbreakable unity the entire creation that is founded upon oppositions, upon Limiters and Unlimited as Philolaus (fr. B1 DK) says – and as he says himself in the *Philebus* (30c) when he says that there's much Limit in the cosmos, much Unlimited also, the two being opposites that combine to make up this All.²⁸ (I.83.32-I.84.7) (T)

Proclus reminds the reader that Athena, after all, is the goddess who is 'a lover of wisdom and of war' (24d1). The festivals commemorating her have symbolic import. Proclus treats the festival of the Lesser Panathenaia, celebrated at the same time as the Bendideia, as also symbolic of these struggles. The latter festival signifies the conflict that comes upon the whole from the barbarian surge outside, 'that is brought under control by the gods presiding over the festival ... held in Piraeus', that being most akin to the remotest and closest parts of the universe to matter. The Panathenaia, the setting for the *Parmenides*, signifies the orderliness that comes down into the cosmos from Intellect and the unbinding separation of the opposing cosmic powers. In the name of Iamblichus, then, the theme here is how opposites are blended into the one unity, in Intellect, Soul, nature and finally 'coming to be in matter and in the realm of matter showing the great multiplicity of otherness (*heterotêta*) that exists alongside similarity' (I.87.7-14).

Plato's reference (21b1-7) to the festival of Dionysus pertains to an event in the war between Athens and the Boeotians celebrated by the Festival of the Apaturia, 'according to which the Athenian victory parallels the triumph of all intelligibles over what is enmattered' (I.89.7-9). At I.90.13ff. Proclus asks what reason Plato had for introducing these apparent digressions and concludes that it was in order to establish the extremely wise character of Solon and his serious purpose in passing down the story of the war with Atlantis. All works of nature and the cosmic rivalry are established through imitation, Proclus asserts. 'Solon corresponds to the productive and primary causes, Critias to the secondary ones, and the civil conflict represents a cosmic struggle. Enmattered motions and enmattered disturbance get in the way of the productive principles of encosmic things' (I.93.28-30). Political life is an unstable, historical event, and at certain times it introduces destruction which undermines the creative and productive role of lawgivers such as Solon after he found Athens in a state of civil strife (I.91.28-9). Solon represents

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the wisdom associated with the primary principles, while destruction comes from resistance.

... that discordant and unstable aspect of matter often does not accept the order that comes from more divine causes, but is in too unbalanced a state for the gift that they offer, on which account, secondary or tertiary powers have processed, which are the immediate source of arrangement for its formlessness. (I.91.18-21) (T)²⁹

History and its cyclical process of generation and redemption

History itself is both cyclical and redemptive. The historical rise and fall of civilizations entails a metaphysical struggle just like the one that goes on throughout the entire cosmos. The struggle and alternating triumphs of destruction and formal arrangement are carried out by natural disasters and destructions, as well as the wars that cause the decline of civilizations. Here, again, there is analogy to a kind of disseminating infinity where meaning and constitution cannot succeed in achieving dominance over an indeterminacy which is irreparable. At *Timaeus* 22d2-3, for example, Plato states that, through long periods of time, there is a destruction of earthly things by fire. Proclus comments that 'Bodies, dissemination of souls and destruction as well as the conflagrations of history with copious destructions of the human race' are the events that follow this pattern. Proclus describes floods, as in the overflowing of the Nile, and the dissolution it causes, asserting that 'in the infinity of time every part of the earth is turned to sea and the same place happens to be dry land at one time and sea at another' (I.121.16-19) (T).

Metaphysical history, however, supersedes historical event. The *apokatastasis*, the 'great year' when all the planets and stars are aligned, is the epiphany at the summit of the cyclical pattern of being and coming to be. It is the only point in time that all the heavenly bodies commensurate to a perfect overriding whole. This configuration is the supervening telos of all political events and of cosmic cycles. An event either departs from, or returns to, the oneness of Paradigm.³⁰ Thus, at I.100.30-101, Proclus cites Iamblichus' remarks about the Assyrians, revealing his own view of these types of histories.

... Iamblichus says that the Assyrians did not merely observe over seven thousand years, as Hipparchus records, but also handed down by memory the total times from return to the *apokatastasis*.³¹ (T)

Tarrant confirms that this refers to the time in which all planets return to the starting point and are aligned in an ideal arrangement.³²

At I.110.5, Proclus elaborates on the destructive powers of the elements, water and fire. He comments on 22b8-c3 of the *Timaeus*, the 'many losses

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of people's lives in many circumstances, the greatest by fire and water'. As in *Timaeus* (28a), what is perceptible 'is always coming to be and passing away but never really real' (I.105.5-7). The tendency toward an unnatural state is an outcome of the fact that wholes come about in a natural setting, as the last stage of the outcome. During partial stages of development, during temporal generation, destruction can be part of the natural process. The species, then, are preserved, but instability of motion and partial enactments bring with them destruction on a micro-level. What is unable to conform to the constitution of the all does not endure:

The law of Zeus banishes everything like that from being as if it had lost its civic rights. For while remaining without rights it is altogether unable to exist, and what is altogether deprived of order is without rights. (I.106.26-9) (T)

It is possible that there is political innuendo here: Athens has a constitution that insures the rights of citizens; those societies that have no law are disordered and unable to exist. Further, the greatest destructions occur through *pleonexia* (greed or ambition) of fire or water. Fire, Proclus claims has a vigorous and productive role, but can also divide things through its capacity to pass through them, while water can weaken by dissipation. Partial things are easier to destroy than whole things. Nature must necessarily progress from the indestructible to the easily destructible, via what is hard to destroy; partial things are more easily destroyed.

Proclus situates the preservation of what is permanent within the compass of priests, temples and the recorded history connected with them, as though this were a mirror of the cosmic redemption, enacted during the 'great year'. At I.122ff., commenting on 22e5-23c1, Proclus points out how the priests and temples are the receptacles of the more permanent knowledge that survives the periods of destruction. 'For a race of people to recollect their previous existences perfects their souls.' Knowledge of earlier cycles 'contributes greatly to their perfection in wisdom' (I.124.10-18). These remarks give a very fleeting hint of the reverence with which Proclus must regard the actual architecture and marble inscriptions of his beloved Athens and its Hellenic past (especially under the threat posed to pagan temples and statues by Christian persecutions). 'The cosmos is the most sacred of temples in which the formal principles that conserve the All are eternally fixed' The analogous vehicle for preservation in citizens is historical writing. Proclus discusses the Atlantis myth from I.75.27-191.13, regarding its account as a symbolic presentation of the truth of things, on the part of the Egyptian priests, much as Pythagorean philosophy interprets nature through numbers and shapes (I.130.1-4).

For Proclus, the myth of Atlantis is both a historical study and a prime symbol of cosmic rivalry and the universal order. Opposing powers can be found at all levels of the cosmic hierarchy. The following quotation not only

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explains the symbolism of the myth in so far as the contrariety of limit and unlimited is all pervasive, but is programmatic of the rest of what the *Commentary on Timaeus* will cover.

At the level of the two principles, then, there is a division into Limit and Unlimited or rather into things akin to Limit and Unlimited, because of composite things some are on the former sides some at the latter. At the level after that, which has a threefold aspect, there is a division into things unified and things multiplied, for it is at the point first of all that there is multiplicity in a unified way. At the level of the next triad there is a division into things eternal and things perishable, since for all things the measure of their resistance comes from there. At the level of the third [triad] there is a division into male and female, ... At the level of the first triad of intermediates there is a division into odd and even for that is where unitary number appears. At the level of the second there is a division into whole and partial ... (I.130.18-26) (T)

The predominant theme of Book I, then, is an account, through images and symbols, of the 'contrariety that pervades through wholes ... Bound and Infinity, as Philolaus says, and as Plato asserts in the *Philebus* ...' (I.183.19). Proclus, in the tradition of the Athenian school, regards the Infinite, as Armstrong has described it, as the principle of life, fecundity and creative expansion, which potentiates the diffusion of the Good through all the levels of multiplicity. It is not a dark other responsible for evil, as some theories of indeterminate matter suggest.³³ The coequal principles of Monad and Dyad are not good and evil but sources of continuities and discontinuities that together make up the cosmos in existence. Without the spacing of discontinuities, serial expansion, growth in depth and dimensionality, life as infinite potential could not be realized. Materiality, for Proclus, is not a negative anti-principle that originates in a world of its own. The Good reaches even to the last and outermost limits of the universe. The world is full of gods, and Proclus uses the concept of infinity to account for the limitless bounty that is bestowed upon the physical world.

The source of fecundity in the universe, however, is also responsible for disorder: unlimited creative activity and uncontrolled dissemination are two sides of the same coin. At times, the discordant and unstable aspect of matter often does not accept the order that comes from more divine causes, and it is in too unbalanced a state for the gift that they offer. The world can hover on the edge of formlessness because of the freedom that infinite expansion promotes. Destruction is also a feature of nature and is accounted for by the fact that what is not reined in by wholes passes away into formlessness. Minerva, the goddess of contrariety and of the weaving art, who rules over the project of demiurgic creation, must weave together the three types of infinity. Chaos ensues when the life of the universe somehow resists or escapes this weaving, perhaps through the fact that at

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times the chaotic powers dominate. The narrative of the conflict between Athens and Atlantis allegorizes the struggle that ensues when there is resistance to the process of ordering chaos.

Athens and her goddess

Proclus makes an analogy between the universal laws of the ancient Athenian constitution, as the unifying principle and common bond of the life of its citizens, and the providential cause of the cosmos. Law-giving, as an activity, is a higher order that proceeds to multiplicity and division, saving what could be potentially disordered from falling under the sway of fate and perhaps destruction (I.149.19-22). It acts according to unity and sameness while fate does so according to procession and the otherness of the things being created. The Saitians (Atlantines) participate secondarily in what the Athenians participate in primarily, which means that they are to be likened to the lower levels of creation, to particular things (as is the physical world). The Athenians assimilate to the more universal order (I.150.1-11): they are associated with the Monadic, which has the senior and hegemonic role. The Saitians are associated with a subordinate role (I.160.20-2). Even the geography of the region complies with this ordering. Proclus elaborates the features of space and geography, particularly the balance (*eukrasia*) of the seasons that produces the wise men who predominate in Attica. Wise men can be engendered under the conditions that Athens possesses because 'in extended space itself there are readiesses for the reception of divine illuminations' (I.163.26-7). Athens' laws are the cosmic ones that extend and distribute the intelligence throughout. (Here the reader is reminded once again that there is a political side to Proclus' veneration of Athens, which, in fact, is the last stronghold of pagan worship during the difficult times described in Chapter 2).

The single creative intelligence and the single Providential care that rules the universe and Athens all stem from the goddess Athena (I.150.16-18). She is both 'wisdom-loving' (*philosophos*) and 'war-loving' (*philopolemos*) (*Tim.* 24d and 24b7-c3) and spreads her influence on all levels of the *polis*. Her shield is the invincible and unswerving character of reason and her spear is that which cuts through matter and rids souls of demonic or fate-associated affections. Athena's wisdom, Proclus asserts, manifests itself when she chooses Athens as the location for the production of men similar to herself (24c7-d3). Athena, according to *Timaeus* 34c4-5, imposes upon this whole arrangement and system many structures (cosmos, geometry, astronomy, arithmetic, medicine, etc.) holding together the universe with proportion and with harmonious binding, so that the whole arrangement gives 'indication of the orderly distribution of Athenaic providence' (I.160.12-15). The military class of *Republic* exemplifies the warlike nature of Athena. In the hierarchy of souls and their types (hieratic, guardians, military, hunters, etc.) they are led by the protector-

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gods. The military is concerned with matters of war and in that role 'excises everything enmattered and obliterates error'. It keeps the city protected from external and internal sources of harm while law itself comes from the universal level from the single creative intelligence and is prior to encosmic things. The enactment of the law and its defence, however, are military matters.

The warlike nature of Athena is interpreted by Proclus as having a cosmic function different from that of Ares, the god of war (I.168.14-15). She is said to be war-loving in respect of her unvarying influence, but it is in respect of dividing influence. Athena conserves the rivalries within wholes, and *qua* invincible and unyielding goddess 'has uniform authority over all rivalry' (I.168.1-2). She 'manages the opposing columns in the All and presides over war in its totality ... sets the whole of destiny in motion' (I.169.6-7), etc. She bestows the gift of unity at the lowest of levels, wresting unity out of chaos, surrendering the Titanic to the Olympian, making that which is different similar. (Proclus reminds the reader that one example is the dominance of mathematics over the physical world.)

Atlantis (I.175ff.) is associated with 'all the universal terms of the inferior column of opposites ... the aggression relates to their procession, their division through subordination and their bordering on matter. For that is what true limitlessness and ugliness is, ... [passing] beyond all that is stable, immaterial, true and unified ... into the Atlantic Ocean which is matter itself ... a sea of dissimilarity'.³⁴ For matter receives the names of the inferior column of opposites, being called 'limitlessness', 'darkness', 'irrationality', 'measurelessness', 'principle of otherness', and 'Dyad' – just as the Atlantic Ocean gets its name from Atlantis (I.175.8-25). The Athenaic (Olympian gods) subdues the Atlantine (Titans). Heaven prevails over generation, rational souls over irrational souls, the Olympian under the Monad, the Titanic under the Dyad. Sameness, rest, reason and Form overcome otherness, motion, irrationality and matter. This model narrative of Athens and Atlantis has now prepared the reader for the *eikos muthos* of *Timaeus*, the story of the cosmos itself and the triumph, in creation, of principle over chaos.

In a preamble to later, more hieratically-charged discussions of souls and transcendence, Proclus evokes the sea of dissimilitude (I.179.25), as a stand-in for matter, and perhaps, by association, the more disordered states of the soul. He calls upon Plato's *Statesman* (273d5-e1), where the divine helmsman has to retake the helm for fear that the world, tossed by the stormy sea, would sink into an 'infinite sea of dissimilitude'. Commenting on the navigable sea that existed in front of the Pillars of Hercules, and allowed navigation to islands in that region (24c4-25a3), the harbour at the mouth and its narrow entrance signifies compressed, self-directed and orderly immaterial existence, banishing the extended space and spreading associated with the inferior side of the column of opposites. The harbour is stability that transcends the discordant and

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disorderly motion of enmattered things symbolized by restless, uncontained and open sea. Analogous to the ascent to intellectual and divine levels of reality, the harbour is a symbol of a launching-point for spiritual seekers in their quest for assimilation to the One (I.180.10-12). (Later in the *Commentary*, Proclus uses the harbour as a metaphor for a stage in the ascent to higher hypostases.) Proclus continues his account here by describing the violent tsunami which caused the island of Atlantis to sink beneath the sea and vanish, referring to similar documented earthquakes and floodwaters in coastal cities (I.188ff.). Perhaps this is a harbinger of a spiritual descent into the rough waters of fate should the soul abandon the quest for assimilation and purification.

Discussion

The first gift that the Demiurge gives to the world converts sheer, unadulterated materiality to the level of perceptibility, 'to the extreme terms of sense perception'. Even as first perceived, then, the world is amenable to *logos*. This is the rudiment of a Neoplatonic precursor to a correspondence theory of truth. Nature is intellectual even in its inaugural states. Proclus knows his Aristotle, and does not take the uncolonized infinity, potentially never reaching a limit, lightly, nor does he ignore Aristotle's discussion of generation and corruption. The mutations and incommensurability that ensue when unruly expansion and destruction take the reins, raise the spectre of non-being. *Logos*, however, will always dominate the potential unruliness of nature. God is always good. The misconduct of history is always set straight by reason, just as the Demiurge of *Statesman* eventually takes back the reins after a period of chaos. Athens will triumph over her enemies, just as perceptibility triumphs over indeterminateness in the lowest level of knowing, that of sense perception.

At the bottom rung of the hierarchical ladder of principles which cause the infrastructure of nature to be rational, the threat of disassemblage is most present. The first gift of the Demiurge, perceptivity, ensures that this threat does not get the upper hand. The four elements, when they are arranged in proportion, structure all things and make them intelligible/perceivable, right from the very first moment of creation. The second gift will be *analogia*, geometric proportion, which will take the account of creation from the perceptible to the apprehendable. The path that starts out from material perception and ends with divinity will be now seen to pass through a new level of organization of nature in the form of the mathematical constructs. These too rule over the possibility of existence. Interestingly, the progression of the gifts is in the order of a perceiving subject making his discoveries of the causes of nature from the ground up. (This fact could support an interpretation of the *Commentary* as a spiritual journey, if one were to accept its more extreme implications.)

Book I of the *Commentary*, by way of a prologue to an account of a

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systematic progression of exempt causes, gives legend to the chaos and disorder that matter can potentially produce. Proclus uses the allegories of Plato's Prologue to construct a graphic account of the kind of political and natural disaster that could ensue were it not for the 'gifts' of organizing principles. The rest of the *Commentary* will use *Timaeus* lemmas to enumerate these and fit them into an elaborate ontological scheme. The first gift, 'perceptibility according to the tangible and visible', is one which provides an inaugural and primitive level of organization to nature, forming matter into configurations that make physical reality able to be apprehended by the senses. This requires that fire and earth, the two extreme elements, be mediated by air and water, the 'middles' that are able to weave together these extremes. In the next chapters, it will become clear that the world, as an icon of a paradigm, is a whole of wholes that has been divided according to the strict rule of ratio and proportion. Though form must struggle to establish its hegemony, oppositions do not mean that the world ever succumbs to the rule of chaos. Athena, the goddess who is intellectual and eternal, subdues all opposing forces, not only by her wisdom but also by her might.

Bonded Genesis and Foundational Mathematics

For one science is more accurate than another, as Aristotle says, that is, a science that starts from simpler principles than one whose starting point is more complex ... arithmetic is more precise than geometry, because its principles are simpler. A unit has no position, but a point has, and geometry includes among its principles the point with position, while arithmetic posits the unit. Likewise, geometry is superior to spherics and arithmetic to music, for in general they furnish the principles subordinate to them. And geometry is superior to mechanics and optics, for the latter discourse about objects in the sense world. (Proclus, in *Eucl.* 59.9-60.1)

... Plato ... used mathematical names as a curtain (*parapetasmisin*)¹ hiding (*epikrupsin*) the truth of the matter, like a theologian uses myths and the Pythagoreans use symbols. (Proclus, in *Tim.* II.246.4-7)

The tradition of considering mathematics as ontology goes back to Archytas and Philolaus. Despite Proclus' politically and theologically motivated attributions of mathematical constructs to these Pythagoreans, the sections on the mathematical infrastructure of the World Soul in the *Commentary on Timaeus* can best be understood by considering the influence on Proclus of normative classical mathematics, harmonics and Euclid. Baltzly extensively discusses the specific influence of Plutarch, Crantor and Aristoxenus, Nicomachus' *Manual on Harmonics* and other historical context for the mathematics of ratio and proportion that Proclus deploys. Here the discussion will focus on Proclus' general mathematical ontology. For the daunting and complex details of the 216 pages of text on the ratios, the reader is referred to the detailed notes attached to Baltzly's translation of these passages and his Introduction to Book 3, Part II.²

While the specific ratios that Proclus presents are related to the field of Harmonics, the more general idea that proportion is the *sine qua non* of mathematical physics underwrites Proclus' interest in these ratios. Euclid and the mathematicians he drew upon, especially regarding the theory of proportions, supported Proclus' conviction that there is a mediating engineering that allows the noetic world to impose its structure on the Soul and on the physical world. Euclid devotes two books in his *Elements* to proportion; a mainstay of both numerical and geometrical mathematics. For Proclus this exemplified a far-reaching deductive strategy, one that coincided with Plato's ideology, reasoning from higher principles to their sequelae.³ Proclus' *Elements of Theology* and *Elements of Physics* are both

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modelled upon this esteemed strategy. While Euclid treats ratio and proportion when applied to magnitudes and to number in separate books of the *Elements*, for Proclus the coinciding formulas validated a philosophy that espoused the oneness of being and the sympathy among all things in the universe. Sameness (*tautotês*) on the highest level projects its powers to cause equality (*isotês*), on the next level down, and then finally similarity (*homoioûsis*) in the physical world. Similarity in extended figures depends on equality in proportion, but is sameness of ratio on the highest level.

The claim that mathematics, presumably one of the most transparent and logical of disciplines, is a ‘concealment’ (*epikrupsin*), like many of Proclus’ gnomic statements, is puzzling. This statement becomes less abstruse when it is understood in the context of the sequence of ‘gifts’. The unfolding of nature’s causes can be understood as a progression from the first gift, which renders the world ‘perceptible’, to those which are transcendent hypostases. Each gift is a truer revelation of the higher causes. The first six gifts are to the body of the world, while the first ‘transcendent’ cause, and the seventh gift, is that of Soul. The invisible world, then, the ultimate source of the phenomena of nature, is disclosed only after the sixth gift. The second bestowal is the mathematical bond that gives intelligible structure to nature. The true causes, at this point, are still concealed. Visibility and touchability result from the organization of the most primal elements, fire and earth, the two extremes which, when mediated by air and water, produce perceptible structure (II.6.1-21). The elements alone, while necessary, are not sufficient to bring about a result. They must be united and arranged according to a mathematically determined equalizing ‘bond’. This bond, in the form of ratios, one or two middle terms that unify extremes, combines the elements into ‘the image of divine unification’ (II.13.10). ‘Hidden’ behind the arrangements of natural phenomena, then, is the work of intellect and ultimately even higher causes.

The bond that imparts mathematical harmony, as Plato famously pointed out, is proportion (*analogia*). This gift, the second of the gifts bestowed by the Demiurge, wins the struggle evinced in the sensible world as forms battle to establish hegemony over chaos. It imposes mathematical equalizers upon the opposite elements. In so doing, it is a demonstration of the continuity that the physical world has with transcendent sources. ‘Every multitude’, Proclus states (II.163. 31-3), ‘... which comes out of unity must have harmony, if it ought not to be without order and self-sameness (*asuntakton einai pros hauto*) and indefinite (*aoriston*)’. *Analogia*, the bond that harmonizes the world and which Plato had designated as the infrastructure of the World Soul, commensurates all the diversity of nature and makes all of physical reality ‘sympathetic’. Geometric proportion (*desmos*), specifically, is the image of divine unification (*henôsis*) (II.3.15). It derives from the one cause of wholes imparting union and is present to all things, ensuring their connection with each other and

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their unity, through similitude, to higher causes.⁴ Proclus relates the bond to the *Autozôion* (the Living-being-itself), the source and prime cause of continuity, that being that introduces continuity to all things. Indissoluble and connective, it is the image of the ‘whole of wholes’, the source of communion and unification.

The passages from II.14-36.19 to II.55.2 discuss theories of number, both plane and solid, and their relation to proportion. The passages from II.166 to II.248 comment largely on the creation of the World Soul and its analogue to canonic division (ruled by proportionate ratios) in music theory. Geometrical proportion, as an organizing principle, puts its mark on the cosmos and all its contents simultaneous to their creation. Proclus explains (II.210.9-14) its connection to the Monad and Dyad. *Analogia* ensures that the harmonious relationship between Monad and Dyad is the basis for all mixture and interweaving of *logos* and materiality that results in natural creation. As will be seen throughout the *Commentary*, Proclus acknowledges the Monad and Dyad, the two mainstays of Platonist ontology, but relies more on the more powerful interventions of proportion as a mediator in nature. Separate things are not destroyed (as they are in mixtures such as honey and wine) (II.14.18-29) but harmonized (*sunar-mosthêsetai*) through this bond. It ‘supplies unification to the Dyad that is aligned with generation, procession and difference ... unification to the things that participate in the Dyad’ (II.13.25-14.2) and promotes ‘harmonious association through the bond’. The bond, furthermore, is a source of preservation:

... how the things that have been harmonized in relation to one another endure. For the bond is the cause of preservation to the things that have been bound, not of their common perishing and destruction. (II.14.20-4) (B)

This is an important remark since the whole struggle in nature, as described in the previous chapter, is the battle between forces that threaten to *destroy*, and those that *preserve*. In ‘number’, we see one of the most significant weapons in the war against ‘perishing’, one that serves Being and not becoming. We are not, he contends, examining things that perish together (such as mixtures that obliterate the individuality of their ingredients) but positing a kind of mixing that creates intact entities that endure.

Analogia is ‘a unifying and binding essence and power’ (II.13.24). The reader will find out later in the *Commentary* that it is not in itself that power, but is directly related to the ‘whole of wholes’, the Living-being-itself. At II.16.15-17.8, Proclus, as always, calls upon his essential ontology. The source of the bond of analogy is the ‘font of all unification’, the one cause of whole things, an ultimate cause that pervades all levels – from the One Being (*apo tou henos ontos*) to the All-perfect-living-being (*apo tou pantelous zôion*) and then to the causes of wholes in the physical world.

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Proportion imitates this chain of causality, unifies differences, mirroring the continuity that obtains on these higher levels. Physical things are thus rendered indissoluble by this binding.

The bond of proportion is suspended from the highest principles, Proclus claims, and is a matter of number, hence a matter more original than geometry. 'For one must get comfortable with the originary form (*archo-eides*) and innate character (self-constituted nature) (*autophuês*) of numbers prior to geometric necessity' (II.30.13-15) (B). It is notable that Proclus is giving the priority to number here, in a way that is reminiscent of Plotinus' emphasis on substantial number, against which the Monad and Dyad are somehow derivative, as is quantitative number.⁵ Number, as an originary form, is number in the cosmos whose source is transcendent; quantitative number is a mathematical category based in understanding (*dianoia*). When Monad and Dyad are operative in the world of nature it is only through mediation of formulas like those of ratio and proportion, which Proclus associates with monadic number, not with quantity. It is an *eidos*, a formal structure, that Proclus seems to posit here, within which quantities can be substituted.

As stated at 32a-b3 of *Timaeus*, whenever the natural world is the object of contemplation, three numbers are involved such that the first term is to the middle as the last term is to it. In the case of the plane surface there is one middle, but, in the case of cubics (*ogkai*) or squares (*dunameis*), a three-dimensional solid must be bound by two middles (II.30.16-33.10). Proclus does not mean simply square number or powers by *dunameis* but solid number and proportion in general.⁶ Similar plane numbers call for one middle term, and similar solid numbers require two middles. Proclus claims that these middles 'will prove useful in relation to the study of physical nature' (II.32.1-2). Baltzly follows up on Proclus' remark that things that are most widely separated and in every way opposed and have their sides inconsistent with the sides (of the other) are still proportionate by these means. The powers that correspond to the physical bodies operate in this manner, commensurating that which is opposed. In doing so they signify the higher source of unity that underwrites division no matter what form it takes.

Baltzly points to the relation of proportion to the theory of the four elements as characterized by three powers each. 'Fire is tenuous, sharp and highly mobile while earth is dense, blunt and immobile. These powers are treated as analogous to the three "sides" or factors, in a solid number. Since the powers are utterly opposed, there is a sense in which they are in proportion to one another. Thus fire and earth can be treated as "similar" solids between which we will find two mean terms – air and water' (cf. II.39.24-30.2).⁷ The middle term between earth and fire, for example, is wetness. 'And so the universe proceeded from a dyad to a triad' (Baltzly points out here that the 'dyad' refers to the two extreme terms of the four elements, fire and earth).⁸ Proclus' effort to relate the Monad and Dyad to the four elements displays his intention to apply the consequents of

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‘substantial number’, in Plotinus’ words, to physical realities. It is the physical world, after all, which must be placed firmly under the control of Intellect, and mathematics is the way to achieve this. ‘The Dyad is the thing that supplies both composition and division to all things’ (I.37.10-11) requiring at least two middle terms. In the passages from I.37.15-41.14, Proclus elaborates the contrary motions and qualities of earth, fire, air and water in respect to powers (by which he means here cubic therefore solid square roots) and middle terms.

But *similar solids* are the ones whose sides and powers are in proportion – or if you wish to put it in the physical manner of speaking, *similar bodies* are the ones where the powers that constitute these bodies are in proportion, for the sides are the powers of the areas determined by the sides.

Therefore, since fire and earth are similar bodies and similar solids, two proportional middle terms will all between them and each of these middles [will be a solid] having two sides from the extreme term closer to it and one side from the remaining one. (II.40.18-23) (B)

Proclus goes on to explain how if fire has tenuousness, sharpness and easy mobility, if you take away the middle term, sharpness, and substitute bluntness, you get air. There is a similar process for water, etc. He gives several numerical examples, one of which will suffice here. He says that, in mathematical terms, two cubes like 8 and 27 have a middle between them, if we take the sides of them – 2 and 3 respectively – and multiply these by one another and then multiply the product of each one in turn ($1 \times 2 \times 3 \times 2$ and $2 \times 3 \times 3$) then the middles that connect the extremes will do so through the ratio 2:3, that is the same ratio as between the sides in the cubes that we began with. Proclus concludes that from these considerations ‘from a mathematical perspective (*mathêmatikôs*) it is the case that a single middle term is required between two similar planes and two middles are needed between similar solids’ (I.36.18-20). Because of examples like these, ‘Plato’s beliefs about the physical nature of the elements of the universe are thus in concord with mathematics’ (II.41.12-14).

If the dyadic were not mediated, division in nature would display ‘atomic’ discontinuity. Triadic combining produces the sympathy or continuity that reigns through all things, and the tetrad is the source (four terms are involved hence the tetrad, two extremes and a ‘middle’ constitute the triadic). ‘The tetrad then follows because the things combined are solids.’ At II.52.15-26, commenting on 32b, ‘From these and from that which is like them and four in number, the body of the world was generated and harmonized through proportion ...’. Proclus construes the entire account, then, to allude to the tetractys, which is complete at four. Proclus, in this instance, follows through on his promise of II.18.4, that ‘the tetrad will soon be revealed’. Later (I.432.16) the reader will come to know that the All-perfect Being *is* the tetrad and that there are four kinds of intelligible living things (*Tim.* 39e).

Proclus and foundational mathematics

Jacob Klein points out that, in the context of ancient science, the propositions of the general theory of proportions have a close connection with the theme of the ‘highest discipline’, be this characterized by Plato as ‘dialectic’ or by Aristotle as ‘first philosophy’.⁹ Euclid’s geometry as a model of deductive mathematics drew Proclus’ careful attention and provided a compendium of theories of proportion in Books VI and X. Vittorio Hösle has pointed out that the *Elements* is true for the Platonist neither for mathematical reasons, nor for its being more intuitive, but rather because it is *foundational*.¹⁰ The right angle, for example, is a standard, Hösle claims, because there is only one such angle, therefore it is related to the *hen*: the positive principle in Plato’s theory of principles. The unbounded plurality of acute and oblique angles, on the other hand, is related to the *mega-mikron*, i.e. to the *dyas*. This is classic Platonist mathematics. Geometry is the lowest manifestation of mathematical ‘being’ as it entails ‘images’ and is therefore ‘spatial’, albeit grounded in the highest principles. For these reasons, as Hösle says of Plato, the idea is ‘... to ground the axioms of geometry on theoretical principles, which geometry must presuppose without question and which are unquestionable for it’. Proclus considers the highest level in the ontological hierarchy to be the dialectic between Limit and Infinity (*Peras/Apeiron*), a mainstay of Pythagorean thought. For Proclus it serves an even more heuristic function than the well-known and archical Monad and Dyad of Platonism, although the principle that geometry must be established on higher ground still holds.¹¹ Monad and Dyad are co-principles, while number that is in some sense substantial is a unity with no opposite principle. Number is not defined as multiplicity for Proclus. If ‘number’ is to proceed from the One, the intercession of the Limited and Unlimited dichotomy directly beneath the one establishes a higher ground for the diversity and split from which the Monad and Dyad take their form. Somehow, Limit and Unlimited, for Proclus, represent the more basic principles of number, a position that he may have taken based upon the fact that incommensurable magnitudes, which represent the Unlimited, are commensurated by the mathematics of proportion, which represents Limit. Euclid, who has separate books for the theory of proportions in number and in magnitudes, provides the kind of mathematical ground for higher resolution.

If there were no infinity, all magnitudes would be commensurable and there would be nothing inexpressible (*arrêton*) or irrational (*alogon*)¹² ... features that are thought to distinguish geometry from arithmetic; nor could numbers exhibit the generative power of the monad, nor would they have in them all the ratios, such as multiple and superparticular, that are in things. (*in Eucl.* 6.17-7.4)

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Mathematicals, Proclus argues, are the offspring of Limit and Unlimited and proceed to all things in their variety. 'That is why there are ratios proceeding to infinity but controlled by the principle of Limit' (I.6.11-12).

Proclus considers the study of alternation and the like (geometric proportion), the so-called bond that is the second gift, to belong to an independent science which is far superior in rank to geometry and arithmetic. Its formulas can be found embedded in the objects of both geometrical and physical reality. In and of itself, however, it allows us to 'climb up to the very science of "Being" insofar as it is being'. 'Nous', Proclus points out, specifically dialectic, the purest part of philosophy, 'hovers attentively over mathematics, encompasses its whole development, and of itself contributes to the special sciences their various perfecting, critical and intellective powers ...'.¹³ The approach that Proclus advocates here conforms to Aristotle's description in *Metaphysics* (1077a1-4; 12) of what was later termed a *mathesis universalis*. In his description, numbers, lengths, time and solids can all be analyzed according to general properties. In the *Commentary on Euclid* (7ff., 18ff.), Proclus explicitly mentions the one science (*mia epistêmê*) which gathers all mathematical knowledge into one, and its 'common theorems' (*ta koina theôrêmata*), which can be studied in numbers and magnitudes and motions.¹⁴

Proclus' admiration for Euclid's *Elements*, O'Meara points out, is due to its Platonist nature. He claims that Proclus chose geometry to stand for mathematics much in the way that arithmetic does for Iamblichus.¹⁵ Euclid's geometry includes Book VII on numerical proportionality and an earlier book on proportion in magnitudes. Euclid himself does not relate the two in an overriding *mathesis*, as does Proclus; however, the inspiration for universal mathematics, as well as its relation to dialectic, finds support in the all-encompassing nature of Euclid's work. The books of the *Elements* are evidence that theories of proportion were mainstream mathematics in Greek culture, originating in Eudoxus' innovative mathematics in the fourth century BCE.¹⁶ Klein (1968: 158) points out that Aristotle used the Eudoxian theory of proportions, together with the common notions, as the classic example of a discipline which has a general object and is not bound to a specific realm of objects.¹⁷ Proportion alternando (four-term proportionality) for Proclus is a model formula that has universal application and significance. In general, the *Elements* is a monumental work and can be viewed as a 'whole' composed of a series of 'elements' that form a whole, and, as such comprise 'one science'. This is precisely how Proclus regards it, and though he is expounding the *Timaeus* passages on canonic division, it represents far more to him than the details of Plato's text. Proportion is a universal paradigm within a well-developed science of mathematics. Proclus' infamous claim that the whole of Euclid comprises a build-up to the construction of the five regular solids implies that he is seeing it as a means to construct a mathematical physics. It

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provides a blueprint for the world of nature, which is, in fact, constructed of solids but calibrated by number.

While the technical details of Proclus' mathematical physics are rudimentary, the attempt to unify physics and mathematics is a sophisticated idea that has persisted into the twenty-first century. Proclus contends that Equality underwrites all mathematical regularities and this is true of any mathematical constructs that use equations. For Proclus, however, arithmetic, geometric and harmonic ratios confirm the divine and transcendent workings of the universe. Generation from Equality (II.19.10-20) embodies the assertion, at II.13.20, that divine unification (*henôseôs*) is at work and the Dyad (associated with the two extremes, fire and earth) has a rational way to combine with its intermediaries and proceed into a universe wherein difference can be commensurate with unity (II.25-8). Unification is given by the Monad, while the Dyad assures the infinite progression that the fecundity of creation demands. The Dyad, with its two middles unifying the extremes, is tetradic, as are the four elements. The capacity of the bond, then, to perform physical as well as mathematical feats of unification, makes it an icon and mark of a divine handiwork. Further, it represents a 'single power' which is indivisible but which extends itself to multiple instances. To Proclus this is early evidence (the second gift) of the mystery of the One, revealed in concrete physical reality. The sympathy that prevails among all things starts with the presence of number in the form of proportion.

Since these three are in each body – I mean number, volume and power – proportion or the natural bond surmounts [bodies] from above by means of numbers, volumes and powers. It brings together their impartible essence into one in order to bring about a single cosmos. It introduces communion (*koinônia*) into forms, symmetry (*summetria*) into bodies and harmony (*harmonia*) into powers and in this way it brings it about that all things stand to one another like rational numbers (*rhêta*) and terms in a proportion (*homologia*) (II.25.23-31) (B)¹⁸

Proclus regards all of the proportions, harmonic, arithmetic and geometric, as 'equalities' accounting for the similitude that pervades the cosmos. Only geometric proportion achieves the sameness or identity of relations that reflects the highest metaphysical level. Proportion alternando is an unvarying structure within which quantities can change and endless substitutions can be made. It trumps the other forms of proportion, in fruitfulness and scope and even ontological significance (Proclus cites Nicomachus).

Throughout the *Commentary*, Proclus will repeatedly invoke the three-fold distinction: Sameness or Identity (*tautotês*), Equality (*isotês*) and similarity (*homoiôsis*). These can be understood as corresponding to the three levels of ontology that Proclus alludes to at I.16.15: the One (the one cause of whole things, the font of all unification), the One Being which is

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the very first of beings and causes the bond itself, and third, the All-perfect-living-being, the intelligible universe. Identity, which is characteristic of geometric proportion, is 'superior to the Equality characteristic of arithmetical proportions' and to the *similarity* he attributes to harmonic proportions. This makes it a higher form of mathematical bond than the others. Later in the commentary, 'Sameness' will prove to be the highest type of assimilation to hierarchical causes, in general, not only in mathematics. This threefold set of distinctions Sameness, Equality and similarity are important to bear in mind in reading the rest of the *Commentary*. Similarity (*homoiôsis*) will feature in the discussion of assimilation to the gods, for example, and is a lower form of unification than *henôsis* (here *tautotês*). Proportion in general, whose principle is equality, depends upon Sameness and Sameness upon unification (II.23.3-7). It is closest to sameness (*tautotês*) because of the identity of relations that the middle term produces in regard to the extremes, binding them together, '... Equality is analogous to Sameness (*tautotêti*), the Monad (*monadi*), the Limit (*perati*) and Similarity (*homoiotati*) through which communion is introduced to things' (II.20.3-4). Geometric proportion is specifically associated with Sameness, however, while arithmetic proportion is associated with Equality and harmonic proportion to similarity.

Proclus gives high grades to *Analogia*, specifically because of its broad generalizability, especially when it comes to incommensurable magnitudes. The discovery of incommensurability required mathematicians to establish a ground for treating it within the parameters of an intelligible framework, independent of commensurability. Theory of proportions proved to be such a theory, a discovery attributed to Eudoxus. This discovery served as a powerful confirmation, for Proclus, of a higher commensurating order that subsumes difference with formula.¹⁹ Proclus, with *Timaeus* as textual support, now finds geometrical proportion to be the secret of the harmony of mathematics and physical reality (II.23.13-18). Mathematical physics, he contends, is necessary to bring both aspects together and constantly 'interweave the mathematical with the physical, just as the things themselves are woven together and are of the same kind (*homogenes*) and akin (*adelphos*), in respect of proceeding from Intellect' (II.14-15) (B). Proportion, for Proclus, is the 'life' of nature.

Lernould asks: 'Pourquoi signification mathématique et signification physique sont-elles ici indissociables?'²⁰ Life for Proclus is 'in reality (*ontôs*) proportion' (II.24.20). Nature is those things that compose the Living-being-itself, mathematical equality is its life-blood, and its powering force.

Physical numbers are enmattered forms, the things that are divided around subjects. But the volumes are the extensions of these [the physical numbers] and their spatialization associated with matter. But the powers are [the qualities] that connect bodies and make them have form. But the Form is one thing, but the powers that derive from it is another. The Form is

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impartible (*ameres*) and substantial (*ousiôdes*) but once it has taken on extension and volume, it sends forth from itself the enmattered power, like exhalation (*pnoê*) ... (II.25.2-9) (B)

Proclus draws a sharp distinction between indivisible essence and divisible powers (II.25.18-21), a distinction he will associate with Soul at a later point. Proportion is essentially invisible and intellectual but powerful as it energetically organizes nature. Proclus offers an analogy to fire which is essentially (*ousiôdes*) different from its powers to project heat, etc. The idea of associating life and powers and mathematical structures, to account for nature, is unfathomable to a modern scientific mind. Mathematical formulas to account for nature are considered necessary in constructing scientific theory. Attributing powers or agencies to these formulas is obfuscation that is impermissible on positivist grounds.

For Proclus, however, the all-pervading 'life' of the Soul, and for that matter of Being, is an operative component of mathematical physics. He distinguishes between the souls' indivisible essence, powers and divisible activity. In the case of number and geometry, there is an indivisible and invisible essence (*ousia*) originating in Soul and Intellect, both of which are hypostases associated with powers, Life and activity. Intellect holds the powers, which convert into activity when the Soul applies the ratios it holds within itself (as Intellect is *in* Soul). In *Timaeus* the ratios are built into the construction of the Soul by the Demiurge; in the *Commentary* it is more complicated as the Soul 'projects' the ratios which the Intellect provides to the Soul on to the cosmos. The 'Life' of the Soul consists of imparting these ratios to the physical world. This is 'Life' on all levels. The physical result will not match the perfection of the ideas, probably due to the material substratum to which they are applied, in which case extension in time and space enter the picture. Writing about mathematical *logoi*, Proclus asserts:

Certainly, these reasons are primarily in Soul, having descended from Intellect. Next, they come to be in bodies from being in Soul. But on the other hand, it is also necessary not to dwell [too much] on the mathematical [parts of the dialogue] as some do. For this too engenders false opinions in the audience in as much as they come to think of physical figures being the same thing as mathematical numbers. And it is absurd in another respect too. For the reasons (*logoi*) that govern nature are not receptive of the accuracy or the fixity of mathematical. [This is itself sufficiently absurd without] reference to the canons of demonstration on this matter where it is said that the scientific knowledge gained from one genus may not be carried over to another. Therefore, it is not possible to consider physical things arithmetically. (II.23.24-34) (B)

Baltzly points out that Proclus, in this instance, seems to cite Aristotle with approval (*An. Post.* 1.32). Aristotle argues that it is not possible that all demonstrations should have the same *archai* – units do not apply to

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points, for the former do not have position while the latter do (88a32), etc.²¹ If this were so, it certainly would not support a universal mathematics. Proclus broadens the discussion, however, at II.24.3ff. by claiming the connection and *sumpatheia* of all things ‘guided by one Life and a single nature’ with ‘one reason (*logos*) running through itself and then through all things’. What Proclus may be asserting is that the lower, more image-like level of geometrical objects projected by the material imagination onto the physical world, is of a different order than the invisible ratios they represent. These objects are *similar* (*homoiotêtos*) to their invisible causes but not identical (*tautotês*) to them; they resemble but do not unify with their higher non-spatial or non-temporal causes. Geometric proportionality identifies them with the higher levels of mathematical ideal objects; when embodied and in the dimensions, they are more ‘unresembling’:

Being (*ousia*) is shared among all the ratios measuring out all their processions – for nothing in them is lacking in Being. But Sameness (*tautotês*), since it is itself a genus, leads their extreme terms in particular into single communion. Difference, on the other hand, has differentially measured itself out with their division and procession. Conversely, the communion (*koinônon*) indicates the psychic ratios. For either this communion is perfect or it has been established in virtue of the higher terms alone, or it has come about through a departure into plurality. (II.203.20-7) (B)

And further:

And the one of bodies is not simply one, but the phantasm and image of unity. (II.204.16)

Just as time is a moving image of Eternity, in both Proclus and Plato’s *Timaeus*, objects extant in the dimensions are extended images of substantial number. As will be discussed below (Chapter 5), the more ‘matter’ the more unresembling is the creation. The Demiurge creates unresembling phenomena as well as those which resemble the paradigm. Geometry, as less resembling insofar as it entails material imagination and is extended in space, is not identical to its ratiocinated mathematical formulae: it is an image of them but in distended form.

Proclus and Euclid

Proclus is directly influenced by Nicomachus’ and Iamblichus’ work on mathematics and Syrianus’ adaptations of these accounts, but is in no way limited to these sources.²² Proclus, following Iamblichus, ascribes to Pythagoras mathematical achievements that developed independently of the Pythagoreans. (Iamblichus in *De Communi Mathematica Scientia*, for example, attributes the solution to the problem of squaring the circle to the Pythagoreans.²³) The unreliability of the later tradition about

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Pythagoras and the well-known inclination to attribute later achievements to him has always made the authenticity of Pythagorean allusions doubtful, in the writings of later antiquity.²⁴ Proclus, in fact, refrains from much of Iamblichus' Pythagorizing and favours Plato, Aristotle, Geminus and Euclid when it comes to mathematics.²⁵ The complexity of Proclus' positions on mathematics, whose history he so carefully documents in his Introduction to the *Euclid Commentary*, is a product of normative mathematics. His departure from Syrianus in citing a long list of Ionian mathematicians, as Mueller points out, is a good example of his respect for more 'sober-minded mathematicians'.²⁶ The very fact that he comments on Euclid certainly supports that point.

O'Meara asks why Proclus chooses Euclid's *Elements*, a manual of geometry, rather than the Pythagorean geometry of Nicomachus, and/or Iamblichus, as an appropriate object of study and commentary for a metaphysician.²⁷ For Proclus, geometry embodies his view that mathematics are projections, by the Soul, of innate intelligible principles upon the screen of imagination. The Soul can grasp its own innate principles because they express themselves at a lower more image-like level. O'Meara explains that arithmetic, on a higher level but non-visible, has no recourse to extension. 'Its principles possess greater simplicity, unity, than those in geometry and are a mid-point between metaphysics and the material world.' Geometry applies a discursive demonstrative method that results in images, but is a science that has fundamental mathematical principles that are not image bound.²⁸

There is a debate in the scholarly literature as to whether the Greeks had algebraic geometry. For Proclus, the fundamental principles that underlie the geometrical operations are 'invisible', and can be conceived as real, even in the absence of construction by straight edge and compass. The relations they suggest are logical in essential nature, rather than simply spatial. Further, the *Elements* exhibit the ability of geometry to fulfil Plato's quest in *Republic*, when he calls for a study of 'how all the mathematical sciences are akin'. Problems that are fully developed in Euclid's *Elements*, such as line segments, equality of figures (Books I-IV), similarity of figures (Books VI, IX and XII) etc., express unities that are akin to those which can be understood without geometrical extension. They are demonstrations of the adaptability of the parameters of physical figures to invisible intellectual unities. Euclid XII.18, for example, 'spheres are to one another in the triplicate ratio of their proper diameters', is an operation that can be applied to all spheres, treating them mathematically under one formula. Parts of the universe can be seen as related, all to all, and to the universe as an overriding whole, measurable by one measure. This is precisely how Plato in *Timaeus* describes the cosmos, self-similar and with all parts commensurate to the whole. The possibility of such similarity 'of all things to the whole and therefore to each other', for the mathematician, is concretized when he discovers the

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right formula of conversion of one figure to the other. A mathematical example of this principle, one that Proclus mentions as a confirmation of the self-similarity of the whole cosmos to its parts, is the fact that regular solids can be inscribed in the sphere (II.71.23-4). For Proclus, Euclid's deductive approach is paradigmatic; it is a model that exemplifies the noetic origin of imaginative and material realities. While it may not be legitimate to call Euclid's *Elements* algebra, Proclus clearly saw it as a generalizable mathematics that had formulations that could underwrite physics.

Jacob Klein describes the fifth book of Euclid's *Elements*, which goes back to Eudoxus and contains the so-called general theory of proportions: 'It does not treat the ratios of particular magnitudes, geometrical forms for instance, or numbers or bodily masses or time-segments, but ratios "in themselves", the undetermined bearers of which are symbolized by straight lines.' Klein and other interpreters contend that geometry is the early form of algebra. (An example is application of areas, used to divide a line in extreme and mean ratio, found in Euclid II.2 and VI.30, which can be reinterpreted as the equation $x^2 + ax = b^2$.²⁹) The fifth book of Euclid, Klein points out, 'contains a geometrical algebra that is proximal to Greek ontology'.³⁰ There is also evidence that Euclid's *Elements* can be considered as a coherent logical set of propositions. Mueller's analysis (1981) of the deductive structure of the *Elements* demonstrates that Euclid can be regarded as a prototype of the logical reduction of mathematics to logical foundation. Hilbert's *Foundations of Geometry* lends itself to a mathematical analysis of the *Elements*' axiomatic technique.³¹ Proclus, of course, was not privy to modern logic, but had a sense of the logical coherence of geometry, taken as a whole, which contributes to his perception of mathematics as potentially subsumable to dialectic.

In any case, Proclus was impressed by the miraculous ability of geometrical methods to commensurate incommensurable magnitudes. Euclid's monumental work encompasses the work of Eudoxus and the solutions to this disturbing irregularity in the order of things. Another way to understand the fact that all of the instances of 'division' can be resolved within an intellectual supervening framework is the concept of *anthuphairesis*. Division is a necessary process that ensues in physical creation, as Proclus makes plain. It is endemic to expansion, which must occur in procession into physical realities of time and space. Several contemporary interpreters of Greek mathematics conceive this as a process that, in formula, overrides both commensurable and incommensurable magnitudes and applies to numbers as well. Knorr, for example, discusses literature that identifies the fact that the Pythagoreans initially discovered that *anthuphairesis*³² of two lines in mean and extreme ratio necessarily continues to infinity. Whichever the method, to remediate the alarming fact of serial and iterative infinities such as these, the idea that a 'dialectical' framework can supervene over both commensurable and incommensurable

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magnitudes, is support for the metaphysical idea that Limit works in tandem with the Unlimited.

The controversy about whether Euclidean geometry is geometric algebra is unresolved in the literature.³³ An equation, however, is a model for 'logical' formulaic treatments of geometric data whether conceived in algebraic symbols or as a conceptual conversion of line segments and their invariant relations. In line with Neoplatonist ideals, geometry, then, is a physical/imaginable expression of cryptic intellectual origin. It provides mediating mathematical structures that are evident in physical objects and so is an important key to nature's intellectual organization. The ratios of the musical canon, used in *Timaeus* in the creating of the World Soul, manifest these qualities and consequently are worthy to provide a base for physics in Proclus' view.

Musicology as the model for the Soul's divisions

Andrew Barker tells us that musicology had reached a remarkable level of sophistication in Greece during the fourth century BCE and expanded as a discipline in the first two or three centuries of the imperial period, when a proliferation of writings appeared.³⁴ Harmonic theory impresses the Platonist, as a prime and trusted example of how numerical ratios can unify a phenomenal multitude. Proclus utilizes a framework largely identical to Plato's use of the musical proportions of Archytas in the description of the ratios of the World Soul in *Timaeus*. When Proclus uses Plato's diatonic figures, he is using a system that is accepted as basic normative musicology in his time.³⁵ Euclid's *Sectio Canonis*, Alan Bowen contends, 'elaborates in harmonic science the ontologically reductive thesis that all is number'.³⁶ Euclid's *Data* also displays 'in detail how items in a specific domain, musical sound, are to be construed as number'. Proclus' language in the *Commentary*, describing Plato's distribution of proportionate ratio in the formation of the World Soul, is close to the language of the *Sectio Canonis*. Harmonic sound is a physical manifestation of mathematical ratio, a perfect example of noetic structures imposing on a potentially infinite continuum and producing rational sounds. Barker explains that 'Plato's tetrachords are divided as 9:8 x 9:8 x 256:243, two tones and a *leimma*, and are identical with those of the diatonic system set out in the *Sectio Canonis* and by Thrasyllus'.³⁷ He includes the generalization that 'all things which are composed of parts are said to be to each other in the ratio of a number to a number, so that sounds must also, of necessity, be to each other in the ratio of a number to a number'. This is a model for mathematical physics in general.

Just as formulas for proportion can commensurate magnitudes, the ratios of the diatonic scale produce rational sound by imposing themselves on the otherwise infinite continuum of sound (as exemplified by the monochord, seen as an infinite continuum were it not for the ratiocinated stops that

harmony imposes). Monadic number cannot in and of itself mediate the physical world. Proclus criticizes his predecessor Theodorus. While he compliments him on the elegance of his account and for the fact that he does take into account Plato's delineation of Monadic numbers, he reproaches him for not taking into account the ratios and formulas which are the substance of mathematics. He complains that Theodorus does not look 'to the ratios derived from them in order to grasp everything, viz. the means, the *hêmiolios* and *epitritos*, the *epogdoos* [ratios] and the semi-tone (*leimma*)' (II.218.10-20).³⁸ One gets the sense, from this passage, of the importance Proclus gives to intermediation, as the counterforce to discontinuity, and any possible gaps between the physical world, Soul, Intellect and the One. If coming-to-be is engineered by noetic parameters for production and reproduction, then musical theory provides a heuristic paradigm for world order. The ratios mediate and enable the physical world to have a thorough-going kinship of part to part and to whole.

Proclus, in allegiance to the Pythagoreans who inspired Plato, Philolaus and Archytas, clearly prefers the diatonic scale. According to him, the diatonic presides over the rational life, while other scales elaborated in the musical literature of his time have lesser powers.³⁹ (The enharmonic, he claims, is adapted to the divisible life and the chromatic genus presides over the corporal.) John Curtis Franklin points out that the diatonic scale had been a subject of scrutiny by Philolaus and Plato. Proclus is sophisticated in these matters and is well aware of the innovations in the musical theory of his time. Proclus (II.169.16-26) alludes to Aristoxenes' book *Harmonic Elements* and criticizes him, citing Adrastus, as another musicologist and critic, for claiming that the ancients had no knowledge of the diatonic.⁴⁰ Proclus follows many others in this tradition when he attempts to apply this model to the planetary orbits as well (I.17.4-6).

At II.159 to 160.1-3, Proclus once again invokes the threefold distinction, similarity, Equality and Identity, citing their derivation from Limit/Unlimited. Dissimilitude and inequality stem from Difference (ultimately from the *apeiron*) while Equality, Sameness and similarity stem from Sameness. Proclus remains true to his doctrine of I.170.28 that 'one cosmos is completed having been fitted together from opposites, constituted from limiters and unlimiteds according to Philolaus' (tr. H). In these passages and pertaining to the canon, Proclus cites Plato in *Philebus* and calls Limited/Unlimited divine genera, seeing the Limiters as an active force imposing itself on the Unlimited. (The stops applied to the monochord's unstopped continuum follow this paradigm.) It is quite notable that in the passage citing Philolaus, Proclus uses terminology that Philolaus himself used in fragments pertaining to Limiters and Unlimited as archaic components of the world order. Although Proclus more regularly calls these Limited/Unlimited, as do the Platonists, Huffman points out that this later Platonist usage connotes abstract singulars, not the plurals of Philolaus himself.⁴¹ In the passage where he actually

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uses Philolaus' terminology, it is easier to see the active process he is trying to adumbrate.

'All multiplicity exiting from unity necessarily does so from harmony; if not it is without arrangement to itself and indefinite' (II.163.31-4) Proclus, in the discussion from II.166, elaborates the details of this model. At II.167.27-168.3 he gives this capsule summary:

It is surely necessary, then, if we wish to speak about this part of the dialogue, to have grasped beforehand the things that are typically discussed in works on harmonics: what a note (*phthongos*) is, what an interval (*diastēma*) is; what a system (*sustēma*) is, and that the Pythagoreans did not assume that the concord (*sumphonia*) in harmony results from anything other than number. (B)

He goes on to describe the mechanics of these ratios, for which I here substitute the description given by Carl Huffman. It is as perhaps more readable and pretty much covers the same ground as Proclus, and relates the process to the monochord.⁴² Huffman points out that the discovery of the fundamental intervals of music, the octave, the fourth, and the fifth,

corresponded to whole number ratios of string length. Thus, if we pluck a string of length x and then a string of length $2x$, we will hear the interval of an octave between the two sounds. If the two string lengths are in the ratio 4:3, we will hear a fourth, and, if the ratio is 3:2, we will hear a fifth.

The discovery, he explains, is probably first expressed by Philolaus. Huffman describes the scale that Philolaus and perhaps other Pythagoreans devised (Philolaus fr. B6):

... if we go up the interval of a fourth from any given note and then up the interval of a fifth, the final note will be an octave above the first note. Thus, the octave is made up of a fourth and a fifth. In mathematical terms the ratios that govern the fifth (3:2) and fourth (4:3) are added by multiplying the terms and thus produce an octave ($3:2 \times 4:3 = 12:6 = 2:1$). The interval between the note that is a fourth up from the starting note and the note that is a fifth up was regarded as the basic unit of the scale, the whole tone, which corresponded to the ratio of 9:8 (subtraction of ratios is carried out by dividing the terms, or cross multiplying: $3:2/4:3 = 9:8$). The fifth was thus regarded as a fourth plus a whole tone. The octave can be regarded as two fourths plus a whole tone. The fourth consists of two whole tones with a remainder, which has the unlovely ratio of 256:243 ($4:3/9:8 = 32: 7/9:8 = 256:243$). Philolaus' scale thus consisted of the following intervals: 9:8, 9:8, 256:243 [these three intervals take us up a fourth], 9:8, 9:8, 9:8, 256:243 [these four intervals make up a fifth and complete the octave from our starting note]. This scale is known as the Pythagorean diatonic and is the scale that Plato adopted in the construction of the World Soul in the *Timaeus* (36a-b).

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From the passages which follow all the way to II.193, Proclus works out complex combinations of the ratios. The geometric mean in each progression 1,2,4,8 and 1,3,9,27 with the insertion of intermediate terms (the arithmetic (3:2) and harmonic (4:3) means), generates the basis for any musical attunement in a diatonic scale; that is 4:3 is the fourth; and 3:2 is the fifth. An octave is constituted by two intervals each spanning a fourth and separated by a tone 9:8 (which is the ratio of 3:2 to 4:3). Locating further terms in the *epitritos logos* (4:3), Plato mentions that the divine craftsman fills up the epitritics with the epogdoic kind of interval (9:8) leaving a part of them where the interval of the remaining part had as its boundaries number to number 256:243, etc.

At II.193.7, Proclus initiates a discussion he describes as ‘more important’ concerning the Soul as encompassing the same division according to ratio as physical things. In Chapter 7 below it will be shown that Proclus by no means reduces the Soul to number and he carefully explains what is meant by the soul being regarded as number, when, in essence, it is unified. At this juncture it suffices to point out that Proclus asserts the connection to Soul’s essence in order to underwrite the ‘continuity’ that holds division in the physical world accountable to formula (II.194.15). Barker points out that the principles underlying musical divisions are not specific to music, but belong to the wider domain of number theory in general; their relevance to music is only one instance of the various subordinate domains in which they might be applied.⁴³ For Proclus, Soul as the purveyor of number, while Soul remains constant and undivided in its essence, means that there can be a universal application of the Soul’s numbers. The same patterns that reside in the soul and express themselves in mathematical divisions, extend not only to the physical world but to the orbits of the heavenly bodies and even to law (*Eunomia*). For ‘as Plato says in the *Laws* ... The geometric middle adorns politics, the harmonic middle is an image of justice and the arithmetic middle is related to Peace’ (II.198.14-24).

The tetractys: fountain of life

The expansion of the One into many and into the dimensions, backed by a unified theory such as proportion, accounts for similarity in difference in the physical cosmos. Equation and formula are the cryptic source of all iconic instantiation, mathematics a solid support for ontology, and ratio and proportion the mediation needed to make the physical world commensurate with the invisible causes. The world comes into being, however, not at the command of ratios and proportions, but at the hands of a creator and during a living process. World-creating is the life of the invisible causes, the demonstration in motion of their rule. Without movement, i.e. Life, Monad and Dyad would not interpenetrate, Limit and Unlimited would not combine actively. The periodicity of the heavenly bodies, the

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creation and expansion of solid bodies under universal rules, the cutting of the musical canon, rely on numbers, but these are only dormant when not energized by the agency of the Soul. Potential *logoi* do not come to be without actualizing activity (*energeia*). Physical things are generated; numbers and ratios ‘flow’ into reality. This tetractys, the living fountain of origins, encapsulates this: it is a dynamic and unfolding unity of divisions, which can be described in numerical terms.

Proclus relates the ‘paternal’ to the Monad and the ‘generative’ to the Dyad;⁴⁴ both are at a level of demiurgic creation (as opposed to the Limited/Unlimited, which remains transcendent) and require the mean terms to link the order of henads and everything else in Proclus’ universe.⁴⁵ When Proclus asserts that coming-to-be must be ‘harmonized according to the diatonic genus’, he is conceiving of operations that have infinite potential application, operating under supervening finite principles.⁴⁶ The result is the sympathetic harmony that pervades all things and mitigates indefiniteness and dissolution. This is the Life of the universe. As all-pervasive and creative, the diatonic ratios represent ‘Life’ and Life is analogous to the limitless potential of power (*dunamis*) related to Being itself and transcending Intellect. This can be specifically seen in the idea that the ratios reside in the more universal whole.

The means do more to enable the soul to hold together the plurality of causes in it, [these means] having been extended throughout the soul in a manner that is intellect. The *hêmiosols*, *epitritos* and *epogdoos* [ratios] therefore are specific bonds that are less universal and are encompassed within the means. They don’t differ from the means in terms of the [kind of] relation that they have to the extreme terms on either side – for [in both cases] this is a mathematical relation – but rather they differ in terms of their state (*hupostasis*) in holding causes together, and the extent to which they are universal. ... a greater cause to the Soul, of connectedly containing the multitude, which is in it, since they intellectually hold together through the whole of it. (II.210.11-14) (B)

At the very beginning of the *Commentary*, Proclus calls the tetractys ‘the fountain of ever-flowing nature’. When Proclus states that the ultimate and culminating gift of the Demiurge, the one that completes the creation, is ‘complete at four’, he is alluding to it. For Proclus, it is the alpha and omega of creation. It is able to produce and hold together four-term proportionality due to the eidetic numbers within its infrastructure. Once again, the reader of the *Commentary* has to extend his/her powers of imagination, to allow insight into this seemingly mystagogic allusion. The tetractys is considered to be a uniting and limiting multiplicity; a one in a many. It is a monadic tetrad and a triadic monad. It begins at ‘one’ and is complete at ten; as fourfold it is a tetrad. Its numbers are the invisible scaffolding upon which the three-dimensional world generates and, at the same time, it is able to produce the diatonic ratios. Made up of the first

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four numbers 1,2,3,4, these numbers form the intervals of the octave, the diapente (4:3) and the diatessaron (perfect fourth). The tetractys allows the generation of intermediary *analogia*, by supplying the eidetic numbers, and the potential interactive combinations, they can be made to produce (particularly the geometric harmonic and arithmetic ratios).

There is a very long history from Philolaus to Iamblichus regarding the eidetic numbers, particularly the tradition that the decad epitomizes the nature of number. In the passages that follow from II.204.14, Proclus describes the ratios according to their place on the tetractys as per the hebdomad of ratios corresponding to the hebdomad of parts of the World Soul. (The heptad's very long and complex history in Pythagorean and Chaldaean lore is not reviewed here.) The seven positions representing two progressions, quite simply, look like this in the so-called 'lambda' formation in which they are found.

	1		
	2	3	
4	6	9	
8	12	18	27

Kahn describes the Pythagorean tetractys pattern as follows: 'all three musical ratios: 2:1, 3:2 and 4:3, as successive pairs of lines beginning from any vertex. ... the four integers represented in the tetractys have as their sum the number that the members of the order regard as perfect $1 + 2 + 3 + 4 + 10$. For the Pythagoreans, the tetractys is a complete symbol for the musical-numerical order of the cosmos.'⁴⁷ It has a long history, and for the Neopythagorean it represents the ultimate mathematical paradigm. Proclus, loyal to Pythagorean tradition, once again bridges the gap between science and theology, mystical lore and actual mathematical formulas. As Kahn points out, it was Nicomachus' systematic correlation between the first ten numbers and the Olympian gods that provided Iamblichus and Proclus with the further option to associate it with the gods as well.

The tetractys directly relates to physics. In the tradition that it represents, it is a paradigm for the canonical description of creation as a progression from point to line to plane to solid.⁴⁸ The tetractys encapsulates this idiosyncratic account of geometric creation. It can be found in Plato (*Laws* 893e), who states the classical 'Pythagorean' account of continuity in creation according to geometrical parameters. This passage describes 'coming-to-be':

When a starting-point (*archê*) receives increase and reaches the second stage, and from that the third and so by three stages acquires perceptibility for percipient. (*Laws* 894)

It also appears in Proclus' *Euclid Commentary* (*in Eucl.* 99.10). The point

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is one, the line two, the plane three and the solid four, 'extended in three directions and defined by the tetrad that comprehends all ratio in itself'. Proclus calls this doctrine 'the more Pythagorean doctrine that posits the point as analogous to the monad, the line to the dyad, the surface to the triad and the solid to the tetrad' (*in Eucl.* 97.20-5). The tetrad is the first solid number according to Pythagorean lore, which is four (three dots making the base and one the apex of a triangular pyramid). The numbers 1,2,3,4 yield the most consonant intervals in the musical scale as well.⁴⁹ The world is complete at ten: the decad supplies the completion of the world.

At II.204.14-206.13ff., Proclus describes generative progression in creation according to the hebdomad (seven-ness) as follows:

But the One of the gods is solely one, as the One of the Intellect is especially one, and if this has been made a plurality, then the soul's One is similarly both one and many. Likewise in the case of the things that come after the soul, where it is more many than one – I mean in the case of the Being that is divisible in relation to bodies – where the One that belongs to the bodies is not simply one, but rather a phantasm and an image of one. (B)

This initiates an elaborate, rather baroque description of the multiplication of Monadic and Dyadic principle, through all the divisions that Proclus considers of be intellectual causes of the incorporeal and then corporal life. The sixth and seventh parts of the progression are the causes of bodies and solid masses because these are the numbers of solids. The third partition relates to Soul and is triple the first and in a one and a half tone ratio of the second and has to do with the Soul's conversion, etc. The point of this exercise in progressive multiplication is to demonstrate that harmony prevails from the invisible to the corporeal world and that ratiocinated harmonies can be generated by the numbers of the tetractys. At a later point in Book 3, II.270.5-9ff., Proclus relates these parameters to the Soul:

... according to the Pythagoreans' account, the soul is a hexad. They arrange analogical correspondences between the monad and the point, the dyad and the line, the triad and the plane, the tetrad and the body, the pentad and the qualified body ... the number seven is analogous to that which is intellectual. (B)

The description here is similar to that of Iamblichus.⁵⁰ The details of generating elaborate mathematical structures from the tetractys has been described in the literature.⁵¹ Out of one such method one can derive the formula for golden proportionality, held in high esteem by Proclus, to be the foundation of Plato's mathematics of creation. The tetractys for Proclus is a kind of code or formulaic structure that has the potential to generate all the ratios of harmonics as well as to support the progression from point to line to plane to solid that is the blueprint for physical

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creation. It grounds the physical dimensions in eidetic number, and that is a way to link purely physical phenomena to mathematical origins. The lore surrounding the tetractys, in addition, allows Proclus to invoke divine significance.

A contemporary scholar has no problem comprehending the fruitfulness of a formula such as $E = mc^2$ or the concept of a genetic code. The decad, in comparison, is simplistic, arcane and primitive. The idea that the fecundity of a paradigmatic formula can predict and explain phenomena in the physical world, though, is a common quest. The 'life' that flows from the tetractys supplies the All-perfect-living-being that is the universe with its ubiquitous structures. The power of mathematics, to the contemporary mind, has to do with its productive formulas and their ability to explain a wide range of phenomena. For Proclus, ensconced in archaic language, the 'powers' (*dunameis*) of mathematics allow, he says at 19.6-13 of the *Euclid Commentary*, a movement upward from plurality to unitary and immaterial realities, and downward to physical things.

The cosmic figures; stereometric creation

Proclus considers the goal of the *Elements* to be the construction of the geometrical figures known as the five regular solids (*in Eucl.* 68.21-3). Plato discusses them in his account of the construction of the universe (*Tim.* 49a1-55c6). The account of the construction of the four regular solids out of component triangles, the consignment of the first four to the elements water, earth, air and fire and the fifth, the dodecahedron, to the shape of the world (*Tim.* 55c4), is classic Platonism. For Proclus, the solids are a prime demonstration that generative intellectual formulas that are simpler generate a complex, dimensional physical universe. While all the regular solids can be inscribed in the sphere, Proclus, like Plato, regards the dodecahedron as the closest analogue to the 'spherical shape' that constitutes the universe (based upon its vertices, all of which can be inscribed in the sphere). Proclus remarks on this at II.71.6-22, stating that it is possible to inscribe all the equilateral polygons in the sphere and into no other shape. Even though they do not have a volume equal to the sphere, their shapes are inscribable, proving that the sphere is the most fitting shape for the universe since it can encompass all things. The potential containment by the sphere of 'all that is', by its ruling geometry, demonstrates that all it contains comprises a 'universe' in sympathy with its contents.

The five solids, for Proclus, have a mathematical relevance to physics and to mathematics that goes beyond Pythagorean lore. The features of the solids that impress Proclus are the ones that most likely are based on Theaetetus' influence on Greek normative mathematics.⁵² 'Euclid's entire discourse', says Proclus, 'is concerned with the cosmic figures. He begins with their simple constituents and ends with the complexity of their construction, their inscription in the sphere and their mutual proportions'

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(in *Eucl.* VI.70.15-71.1). Francis Cornford points out that Euclid's *Elements*, as opposed to earlier geometrical works of the Academy, does follow a progression that parallels the stereometrical creation of the cosmos, even if this was not Euclid's original intention.⁵³ Commentators have always expressed scepticism about this connection. Glen Morrow, in the introduction to his translation of Proclus' *Euclid Commentary*, comments that this interpretation of the *Elements* is clearly mistaken, since many of the parts of the *Elements* have nothing to do with the cosmic figures.⁵⁴ Wilbur Knorr asserts that Proclus' surmise that Euclid's goal is the construction of the five cosmic figures of Plato 'may be dismissed as the expected emanation of his own Neoplatonism'. He reluctantly admits, however, 'It is remarkable that so much of the *Elements* comes to bear on the construction of the five solids.'⁵⁵

Are there, in fact, any grounds other than Proclus' Pythagorean allegiances to support this claim? The so-called 'golden section' does bear upon the composition of the world by elementary triangles in *Timaeus*. Heath points out that the dodecahedron is made up of 360 triangles, which are produced when every one of the pentagons is divided into five isosceles triangles, and each of the latter into six scalene triangles of the type described by Plato.⁵⁶ Is it possible to put oneself in Proclus' place and view the *Elements* as a build-up to the creation of the solids and, in particular, to the all-comprehensive dodecahedron? The earlier parts of the *Elements*, those concerning the golden section and the triangles, could be seen as precursors to the last part which discusses the solids. Thomas Heath points out that the problem of Book VI of the *Elements* is the problem of cutting a given straight line in extreme and mean ratio. This is the 'golden section' (which Proclus refers to in his *Euclid Commentary*) and carries on a tradition that Plato began.⁵⁷ Benno Artmann remarks that Book XIII.8 of the *Elements* reduces the construction of the pentagon to the problem of cutting a line in extreme and mean ratio. Artmann explains that the construction of the regular pentagon, using verging lines, has as a by-product, the division of a line in extreme and mean ratio (golden section). Since each side of a dodecahedron is a pentagon, and the dodecahedron is the solid figure which most closely emulates the sphere (most vertices inscribed of all the solids), the premise that Euclid's *Elements* progress in a manner that results in the construction of the solids can, in a rather loose way, be plausibly supported.

The fact that there are only five regular solids has always seemed remarkable to mathematicians and philosophers. Further, they are connected to each other in a subtle way. Matila Ghyka attempts to show the connections between cube, tetrahedron, octahedron, dodecahedron, as did Kepler in his fanciful correlations between planetary orbits and musical intervals.⁵⁸ Proclus remarks (II.70.31-71.22), answering the question he raises concerning what the reason may be that the sphere is akin and fitting to the universe (as Plato claims in *Timaeus*):

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Perhaps it was because the sphere is the regular solid with the greatest volume as is said by those who are clever at mathematics ... Or perhaps it was because it is possible to inscribe all the equilateral polygons in the sphere but not into any other shape. (II.71.2-7) (B)

Plato, he claims:

intends to work up body (*sômatourgein*) from the five regular solids (54d), probably looks to all the shapes that are about to be encompassed by the universe. As a result, it is obvious that he looks not to the considerations about volume, but to the fact that all the shapes can be inscribed in the sphere. (II.71.18-22) (B)

Modern studies of pentagonal symmetry support Proclus' intuition about the kind of repeated 'mathematical' patterns found in nature and art. Investigators have found logarithmic spirals in shell structures, and pentagonal symmetry in marine animals and flower petal structures, as well as in architectural asymmetries, and in ideal face and body proportions in art. These contemporary speculations reflect Proclus' insights regarding the section and its dominance as a ruling and repeating structure. Proclus also contended that the inscription of the fifteen-angled figure in a circle was a key to some of the mathematical measurements found in astronomy and Kepler also was taken by this particular idea.

Take the last theorem in Book IV, which shows how to inscribe the side of a fifteen-angled figure in a circle – what reason can anyone suggest for his proposing it other than the bearing of this problem on astronomy. For by inscribing this fifteen-angled figure in the circle through the poles we get the interval between the poles of the celestial equator and those of the zodiacal circle, which are separate from each other by the length of the side of a fifteen-angled figure. (*in Eucl.* 269.11)

As Proclus puts it in the *Commentary on Timaeus*, 'the universal Demiurge ... mapping out the heavens with the dodecahedron, but generation with appropriate figures' (I.63.11-12) (T).

Proclus' 'superrealist' theory of number

One of the classical perennial problems of philosophy is the ontological status of numbers. Edmund Husserl describes numbers as 'unique relation-concepts which can only be produced again and again and which are in no way capable of being found somewhere ready-made'.⁵⁹ Platonism in mathematics persists into the twenty-first century and the mystery of the apparent a priori status of numbers as universal paradigms is still an intriguing issue for philosophers. Numbers are, or can be thought to be, 'ideal' objects and can be produced inexhaustibly according to universally accepted formulas. This circumstance makes mathematics the perfect

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example of undiminished bestowal for Proclus. It demonstrates that a cryptic, noetic source predetermines the world of becoming. It can proceed under the rule of the One, enacted through the creative life of the Soul imparting mathematical ideas. Production of instances in the physical world is inexhaustible. This is a proof, for Proclus, of the highest of influences: the Limited/Infinite hypostases, which commandeers an infinite production within intellectual limits.

Though it is couched in archaic language, Proclus makes a study of 'mathematical objects' and their mysterious but repetitive existence in space and time. Proclus' innovative use of Syrianus' concept of projection supplies the link that turns his 'superrealism' (John Cleary's expression)⁶⁰ into constructivism on the instrumental level of producing the world.⁶¹ In the case of the circle, for example, when the mathematician is finding a diameter, or tangents or segments, he is studying the universal which is present in imagined circles. The imagination, recipient of the noetic ideas, acts to produce iconic objects in a receptive medium free from sensible matter; a model adapted from Syrianus (*in Metaph.* 91.29-34).⁶² Originating in Nous, mathematical objects are ideal objects; as projections, they are applied by the soul to the physical world, and so are constructions at that point.

Aristotle had raised the question concerning the mode of existence of the objects of mathematics and is critical of the Platonist position. Syrianus uses this as the occasion to refer to Aristotle's own demonstration that the objects of mathematics cannot be in sensible things (*in Metaph.* 134.5-20).⁶³ Numbers are Forms; the number five, for example, is produced by the Form of fiveness which immediately supervenes on the monads. Syrianus treats mathematical number as a kind of higher-level formula of which individual instances are the images. He contends that if there were not only one dyad, triad, etc., and if each of the monadic numbers were many and infinite, there would be an infinite quantity of mathematical numbers (*in Metaph.* 135.32-136.3). The numbers are regarded as a series of forms processing from a monad and forming an ordered sequence which satisfies the condition of falling under one form, that of number. If this were not so, Syrianus cautions, multiplication could proceed *ad infinitum*. Mueller contends that Syrianus has abandoned the Euclidean conception of numbers as arbitrary multiplicities of monads for a conception in which mathematical numbers are forms possessed by multiplicities, generated from an originative monad. This is squarely in the tradition of Plotinus' distinction between substantial and quantitative number, as Slaveva-Griffin points out, along the lines of Numenius. Number is that which is indivisible, corresponding to substantial number, and that which is divisible, corresponding to monadic number.⁶⁴

Mueller points out that, for Syrianus, 'a Euclidean multiplicity of monads is not a number; it is the *matter* of a number and what makes that multiplicity into a number is the presence of a numerical form'. Syrianus

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proceeds to underline the importance of the two principles, monad and dyad, of mathematical number, insisting that they are ‘in our souls’.⁶⁵ Proclus follows suit; both form numbers and geometrical elements are pre-contained essentially in the Soul. As constituents of Soul (II.238.10-239.16) physical numbers, an Iamblichean notion, are immanent formative causes as distinguished from mathematical principles according to which the Soul organizes the world.⁶⁶ What Trouillard has termed ‘La puissance secrète du nombre’ goes beyond its heuristic generativity as paradigmatic formula. Thus at II.215.6-14, Proclus, citing Iamblichus, asserts that ‘the monad is the cause of sameness and unification, the dyad the giver of progression and separation, the triad the leader of regression of the things that have proceeded, and the tetrad contains all the ratios and is the cause of harmony’.⁶⁷ Derived from the Infinite and Limited, then, the monad and dyad possess the power of infinite expansion and limited supervening containment in form. Quantitative numbers, which may derive from these sources, are a different matter, similar but not identical to monadic number, which in turn rests in substantial number. Unlimited seriality and incommensurable magnitudes may attach to quantitative number but be contained by the higher levels.

Syrianus classifies number into ‘formal’ mathematical and physical number. Proclus lists four types of number in the *Commentary*: divine (*theios*) (II.161.25-32), of the order of Ousia (*ousiôdes*) psychic (*psuchikos*) and physical (*phusikos*). Mathematical number, as MacIsaac explains, lies between the Soul’s Ousia and physical number. Mathematical monads are neither of the order of Ousia (*ousioi*) nor are they physical, because physical monads are in an underlying matter (II.164.19-28). Mathematical origins come from on high and transcend the Soul. The Soul is the first harmonized entity but not harmony itself. Harmony itself is uniform (*monoeidês*), separate (*chôristê*), and totally transcendent (*exêrêmenê*). The Soul’s harmony is inferior to intelligible harmony although it transcends sensible numbers (II.161.12-20). Number is divine at the highest level, the second level is essential (and immovable), and the soul, finally, is a third level down (self-moving) and just above the physical. For Proclus number is self-constituted and by its own inherent formulas can generate from its own source.⁶⁸ Monad, dyad, tetrad and decad are ideal entities preceding actual mathematical operations.

It is necessary to think that the numbers that are simpler and closer to the Monad are more originary than the composite numbers. This is so since Plato positioned the single portion prior to all the subsequent ones and described them in terms that refer back to it, Having presupposed this, then, say that Equality and the ratio of Equality has the status of a Monad in relation to other ratios, and the role that the Monad plays with respect to quantity *simpliciter* (*kath’auto*) the equal plays in the case of what exists relationally (*pros ti*). This is because thanks to this ratio, the soul imposes a single look (*idea*) that is an image (*eikon*) of Sameness. But the soul also governs the

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entire series in accordance with the multiple ratio and the submultiples since it encompasses these wholes. In the encosmic things, it exhibits each form in the entirety many times in all of the things that have been enformed in relation to it. (II.201.13-27) (B)

The 'Monad', then, be it a ratio or a number, governs all the series of things and connects them. The ratios are participated by things of a secondary nature and therefore they account for the division in multiplicity that occurs according to formula (II.201.30-202.1-7). It is easy to see where some contemporary commentators have been able to make a comparison between Proclus and set theory, as Giovanni Sommaruglia suggests.⁶⁹

Proclus describes the Monad as a leader of an intellectual multitude, just as language

first assumes the whole object of knowledge collectively ... but afterwards unattaches what was bounded together ... it also divides that which is united afterwards distributes into parts, the progressions which this number contains. For here the intelligible multitude shines forth, where there are the first monads of ideas ... (III.104.26-105.5)

Numbers are not simply numbers but are number forms. Like our own genetic code, monadic and dyadic numbers are a 'code' for subsuming inequality to equality and multiple instances to generic formula. In modern genetic biology each genetic code for a given species is identical to itself and different from others and responsible for determining a very specific pattern of growth and development. It preserves species within individuals. Progression, via mathematical operations such as multiplication and ever-repeating ratios at increasing quantities, is a Neoplatonic physics of growth and expansion under the rule of a single numerical idea. Mathematical operations are a consequence of the 'powers' of number conceived as form and guarantee a unified progression into multiplicity by mathematical number preserving 'equality'.

A code alone, however, is not the efficient or final cause of its own actualization. While modern biology accounts for the activity of the genetic code as 'mechanism', in a Procline world monad, dyad and other eidetic numbers are 'generative': they are life-producing. Iamblichus, for example, discusses 'increase' from the Monad "as from a seed and eternal root, ratios increase reciprocally on either side", i.e. on the one side we have multiple ratios continually increasing and on the other (if the unit is subdivided) submultiple ratios with denominators continually increasing'.⁷⁰ In late antiquity, mathematical theory seems to have a growing sense of the collective nature of sets of numbers and of progression in series. Theon of Smyrna, for example, defines number as 'a collection of units, or a progression (*propodismos*) of multitude beginning from a unit and a retrogression (*anapodismos*) ceasing at a unit'.⁷¹ Proclus in his *Commentary on Parmenides* says,

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... if he (the student) wonders how the many could be in the One, and all in the indivisible, let him think of the Monad and how it is shown that all forms of odd and even are pre-contained in it, the circle and sphere, and the other forms of numbers (*in Parm.* 926.16-29)

These accounts describe expansion without diminution of the monad of origin: which is a formal essence.

Conclusion

Proclus regards geometric proportion, so called four-term proportion, as one would regard a theorem. The transcendence or logical primacy of the generalizable theorem over its instances supports the philosophical idea that the principles of mathematics are transcendent, templates or exemplars under which actual realities can be subsumed. Equations are eidetic structures into which specific quantities can be substituted in given instances. The eternal subsistence of mathematical principles makes them divine: substitutability makes them mundane and able to encompass physical phenomena.

For Proclus, then, geometry was an expression of ideal mathematical principles. Even though the symbolic equipment came later in the history of mathematics, the equalizing formula, such as proportion, functioned like an algebraic equation.⁷² The controversy over whether the Greeks had so-called geometrical algebra remains unresolved. Nevertheless, lines can be symbolic placeholders for unknowns, in relational constructs that are generalizable isomorphisms which militate against the possibility of an infinite that has no limits (such as would be lines with indefinite limits). Infinity is reined in by formulas whose content is transposable (potential infinite substitution) but whose form is fixed. Equation expresses latent Identity (*tautotês*) and is the ultimate commensurator of difference and the foundation of Similarity (*homoiôsis*). Finding a fourth proportional, for example, enables transformation of rectangle to square which in turn allows all diverse shapes to be accounted for (*legein*) through formulas expressing identity. When, later in the *Commentary*, the whole of wholes, which is the universe, is seen to contain all its contents in a kinship to itself, the grounds for this possibility can be seen to be rooted in the commensurating powers of mathematics.

Whether it is the cosmos, the state or the individual, there is no multiplicity that is not ruled by proportional equality. Not only physics but also politics and astronomy are all ruled by mathematical principles. O'Meara points out the political significance of geometrical equality (or geometrical proportion). Neoplatonists, citing *Gorgias* 508a, compared the power of geometrical equality to justice in the political contest. Ratios and equality apply to the ideal *polis*, as presented in *Republic*, when each receives what is appropriate or due to it.⁷³

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Proclus' dialectical approach brings him closer to the type of 'dialectic which underlies axioms' characteristic of contemporary thought about mathematics, as Siorvanes has pointed out.⁷⁴ The formulas for ratio and proportion, whether carried out with line segments and polygonal constructs, musical sounds or planetary orbits, are analogous. They are structures for the production and reproduction of mathematical objects wherever applied. Thus *analogia* contributes to the factors that render phenomena of the physical world an icon of the intellectual causes. This fits nicely with the more mystical notion of Iamblichus that there is 'sympathy' on every level of the universe. Here in the *Commentary*, whether in idea, number, formula or extension, a paradigmatic construct such as four-term proportion is a true gift to the world from the gods.

The Third Gift: 'He Makes it a Whole'

The Neoplatonists saw themselves as doing something radically new (not unlike Renaissance thinkers' view of themselves): casting back over the darkness of more recent times in order to revive and express in its fullest form the depths of Platonic wisdom. 'Platonic wisdom' itself, however, is not always clear.¹

... the sense-perceptible universe is most beautiful of images. The entire intellectual universe is the best of causes ... the intelligible Paradigm is the most divine of Paradigms, and each of them is everywhere. (I.335.13-15) (R&S)

Despite Proclus' enthusiastic support for pagan religious ideology, he often gives Plato precedence over Iamblichus and other more entheistic Neoplatonic predecessors. O'Meara points out that Proclus often adheres to Plato and his dialogues, choosing him over Iamblichus' Pythagorizing programme. In fact, he changed that programme in significant ways.² The dialogues afforded Proclus a reserve of perennial metaphysical questions and supplied him with purely philosophical doctrines that have enduring philosophical importance. His interest in Plato's metaphysical *aporiae* often took precedence over other considerations. Nowhere is this more evident than in Book 2, in which Proclus formulates methodological assumptions based on Platonic dialectic, 'sorting out axiomata and hypotheses and drawing conclusions from them'.³ Proclus augments his endeavour to comment on Plato's dialogue, moreover, by the addition of Aristotelian and Euclidean methods.

Perceptibility and proportionate harmony (*analogia*) are gifts that demonstrate that intellectual infrastructure determines the intelligibility of the 'objects' of the material world. Perceptibility is an indication that matter is construed according to formal parameters that arrange the four elements that comprise it into cognizable objects. *Analogia* signifies the operation of the material imagination and its power to arrange and order nature. In Book I, the first of these two gifts was introduced in the course of allegories that represent the struggle of matter and Form. In the case of perceptibility, the struggle is won by form imposing itself upon matter. The bond of *analogia*, the second gift, supplies mathematical infrastructure that mediates between the hidden intellectual causes and physical phenomena. It may be recalled that simple blends and mixtures, such as honey and wine, do not qualify as constructed whole objects while those

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that are bonded according to ratio and proportion are wholes. From II.16.16 to II.17.7 Proclus connects *analogia* to the cause of whole things (*apo tês mias tôn holôn aitiás*), the One Being (*apo tou henos ontos*) and the Living-being (*apo tou pantelous zôion*). Perception, for a Platonist, is always at the bottom of the 'divided line', as far as knowledge goes. Proclus points out (I.244.20), in the course of ranking forms of *noêsis*, that imaginative knowledge is the sixth and lowest form of intellectual apprehension. It requires the 'help of marks and shapes' making it close to the material world.

Book 2 is devoted to studying what makes the physical world, and knowledge about it, subordinate to higher causes. It establishes the premises that allow perceptibility and *analogia* to be understood to attach to a great and golden chain of causality. The 'whole of wholes', that is the universe itself, supervenes upon all phenomena. The next step in Proclus' overall plan is to ground the connection between nature and its higher causes firmly in axiomatic method. The image-world that is apprehendable everywhere is causally connected to invisible mediating and founding sources. The beauty of nature stems from its formal properties. As a prolegomenon to painting a complete picture of creation, Proclus first lays down the principles that guarantee continuity and which govern his ontology.

The Third Gift of the Demiurge ('he makes it a whole constituted of the whole of the elements' (*Tim.* 32c)) is a Platonist position regarding the physical as a product of invisible causes. The ultimate determining superstructure, through which 'wholes' are whole, is transcendent. Proclus extracts the intellectual principles that govern totalities out of the *Timaeus*' lemmas that establish that the physical world is a derivative of a larger non-physical superstructure. Proportionate ratios unify separate entities, but the sympathetic patterns that the cosmos displays throughout are an effect of ultimate causes. The 'whole of wholes' is the most immediate cause and the one that he will now disclose: it is, in effect, the universe *per se*. Proclus posits a set of axioms he considers necessary assumptions if nature is to be studied according to a 'vision of the whole' (the true picture of the universe from a panoptic perspective). If the perceptible and mathematically bonded physical world is the true image of an intelligible paradigm, it has to be seen as made up of wholes, derivative of the whole of wholes that is the cosmos. Book 2, which ranges from I.214 to 457, is devoted to the project of establishing principles that will make the study of nature 'scientific'.

To understand the universe in the light of scientific knowledge, according to the standards of the Athenian school, following Plato, an epistemological project must be launched by showing the proper respect to its 'sponsors'. Science is not to be separated from its connection to the gods. Before going any further, and following the *Timaeus* lemma at 27c1-3 regarding the inaugural prayer that Plato invokes, Proclus focuses on the

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efficacy of prayer. The entire enterprise, after all, is to account for the universe 'so far as it is produced by the Gods'. As a necessary preamble to inaugurating his methodological project, then, in the passages from I.206 to 221ff. Proclus invokes the gods. The project itself will be 'scientific'. Proclus, however, will not bracket off theology from epistemology as a modern philosopher might do. For him they are inextricably bound together.

It is quite suitable, therefore, that 'the person who is about to produce accounts concerning the universe' (27c4) invokes gods and goddesses from each of whom the universe's plenitude derives and that what is about to be said will be said especially in conformity with the intellect (27c7) of the gods themselves. For this is the supreme end of philosophical speculation, to ascend to the divine Intellect and to organize one's account of the realities in a manner comparable to the unified way in which all things have been grasped in advance in the mind. ... the entire investigation should be conducted in conformity with the human intellect and the light of scientific knowledge. For that which is whole (*holon*) and perfect (*teleon*) and unique (*monoeides*) pre-exists in the divine mind [my italics], whereas what is partial and falls short of the divine simplicity relates to the human intellect. (I.220.28-221.8) (R&S)

In this passage Proclus gives the reader guidance on how to read the *Commentary*, as well as how to conduct the investigation. It is to be studied as it was designed, for the human intellect to apprehend, but its principles originate with the gods. The gifts are in order of partial to increasingly more complete gifts, as they would be under human investigation, whereas in bestowal from the divine mind they proceed from the top down. While the panoptic perspective is not accessible to human inquiry, the assertion that the world is constructed in 'wholes' and the universe is a 'whole of wholes' can be both a *theologikon* and an epistemological premise for this study. Becoming is subordinate to Being: nothing in existence in nature is uncolonized or atomic. Furthermore, since Intellect is the ambassador of Being in the universe and all of creation follows an eternal paradigm, *epistêmê* can be an entrée to knowledge of the Divine. The physical universe is a 'resembling' copy of the Paradigm, and, if the copy resembles the model, a study of nature is a way into discovering divine origins. Proclus iterates his famous principle that 'everything is contained in everything but appropriately' (I.334.30-335.12) in the course of this discussion: '... the Intelligible is the most divine model and each of these is everywhere in accordance with its own rank through relations of participation and enclosure' (I.335.12-20). When one truly knows the lower manifestations of reason and divinity, one comes to know the highest principles as well.

Jan Opsomer discusses the relation of image and model in the *Timaeus* and Proclus' *Commentary* (e.g. 28c5-29a3).⁴ *Timaeus* raises the question:

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after which living being did the Demiurge model the universe? Opsomer quotes 30c5-7: 'the universe resembles more closely than anything else that Living Being of which all other living things are parts', and 30c4-8e: 'the paradigmatic Living Being ... comprehends within itself all the intelligible living things'. The Living-being is the eternal model that guarantees that the copy must be a sound resembling copy, resembling the Intelligible.⁵ A correspondence of model to image and image to model, Proclus claims (I.433.11-15), allows the universal and the particular to be analogous. The Living-being-itself (*Autozôion*), then, is the unique paradigmatic cause of the whole universe.

Citing Proclus' discussion in I.417.32-418.29, Opsomer situates the *Autozôion* as within the third triad. (The first is One, One Being, Limit-Unlimited-Mixture, the second the Intelligible Life or Eternity, the first whole. The third triad consists of the Intelligible, Intellect and Multitude).⁶ The third triad is 'perfect, unique in its kind, infinite multitude, and multitude of all powers and whole of many parts. It encompasses the Intelligible Living things as its parts.'⁷ It is, as are the other higher triads, derived from Unlimited and Limited and mixture. The first term is *monogenês* (singular in genus), the second is associated with everlastingness (*aiônios*) and the third with perfection (*pantelês*). In the *Commentary*, Proclus assigns these three characteristics to the Intelligible-living-being-itself (III.97.5-12). The Living-being-itself possesses the three characteristics in their Intelligible and intellectual oneness, together with the multiplicity of the universe and the powers of eternal being. The physical world is the image of the Living-being and the demiurgic creation based on the Paradigm and is associated with the third triad.

The encosmic world, then, that is the subject of the study of nature, has a very exact position in the hierarchy of causes and divinities. Rappe points out that the successive orders of gods are calibrated along the axis of these orders of ontology.⁸ In *Platonic Theology*, Proclus enumerates six levels after the One: the intelligible, the intelligible-intellectual, the intellectual, the participated intellect, the psychic and individual worlds and nature. The precise point of departure of the *Timaeus Commentary* can be situated just at the level of divinity where *Platonic Theology* leaves off. While the *Platonic Theology* is devoted to enumerating the successive orders of gods, it goes only so far as the level of the participated intellect, or, in the Iamblichean scheme, to the level of the supermundane gods. If these supermundane orders of noetic being are equated with Being, becoming is equated with the psychic and natural worlds and the sublunary gods. This is the point at which higher reason (*noêsis*) as the means of knowledge, gives way to discursive understanding (*epistêmê*) and the sciences become the instrument through which nature can be studied. Wholeness is a gift that leaves its mark on these objects of study and its appearance in whole objects demonstrates that the encosmic universe is constructed by supercosmic principles and is paradigmatically caused. It

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is precisely the physical world, then, in which the ten gifts can be recognized by a human intellect that has *epistêmê* at its disposal and it is through *epistêmê* that the invisible world is accessible to the mortal mind.

The later books of the *Commentary* elaborate a series of gods, both supercelestial and encosmic, that correspond to this hierarchical sequence of causes. The encosmic gods rule and create the physical world and mortal souls. They are connected with the supercelestial gods, therefore their ability to produce the world as an image of wholes stems from this connection. Epistemology and divinity coincide when the productions of a divine mind are realized in a material world. Becoming is related to Being, images and partial phenomena to wholes, and the overall blueprint seated in the Paradigm. Just as the encosmic and supercosmic gods rule the encosmic gods, invariable sameness rules infinite progression and its counterpart mutating images. Both image and reality then, are both arranged under one genus (the Paradigm). The researcher of nature must invoke the source of the unity both in prayer and in science. After all, it is the divine Intellect that is ultimately being investigated.

At I.224.25ff. Proclus exposes the *aporiae* that emerge when a unified source is conceived to be the source of a multiform world. He asks:

How could paradigm and image be constituents of a single formation? How could the always-existent itself be part of anything, when it is undivided and unified and simple? After all, what is without parts is not part of anything unless that consists of nothing but indivisibles. That which is generated, however, is divisible. Therefore, it and the always-existent will never be parts of a single entity. But is it then divided as a single genus into species? How can there be a common genus of these [two categories] when that which is anterior and that which is posterior is involved? ... And how can there be a single genus containing the very first things and the very last? (I.225.1-11) (R&S)

Book 2 will now supply a series of premises that constitute the theoretical underpinnings of Proclus' metaphysics and account for the unity between single cause and multiple effects. Borrowing tactics from Euclid, Proclus provides axioms and concepts derivative from axioms, the principles that enable the gifts to be a series of causes from highest to lowest levels and from objects of greater to lesser ontological significance. Book 2, as Runia and Share describe it, provides a commentary on two central parts of Timaeus' discourse: the section in which he grounds his account in higher principles and preliminary issues (*Tim.* 27c1-29a6), discussed by Proclus from I.205.4-355.15, and the section in which the creation of the cosmos is described in general terms (*Tim.* 29d7-31b3), discussed at I.355.16-458.11. Proclus comments on Plato's lemmas having to do with Being and becoming (28a4-5), the influence of the Paradigm on becoming, the fact of cosmos (28b2-3), the necessity of causality and agency and the constructible process requiring a Demiurge. The reliance of the Demiurge on the ever-

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lasting Paradigm (29a2-4) and the rationality of the Paradigm (29a4-b1) are taken up here as well. Proclus' exegesis renders these lemmas as a foundational metaphysics wherein invisible principles ground, and are reflected by, physical phenomena. These in turn attest to their supraphysical origins. By stabilizing physical phenomena with principles, 'becoming' is cheated of its association with potential destruction even as it proliferates in the course of the creator's expansive production.

Being and becoming; the axioms which found the latter upon the former

Proclus' philosophical scheme posits a chain of causality extending from the One and ending with the physical existent world which gives it legend. In order for Proclus to establish the grounds for adopting this as an epistemologically justifiable sequence, he draws upon a wider Plato than the one that appears in *Timaeus*. Proclus systematizes the principles that he distills from *Timaeus* and backs up the axioms he derives with more generic Platonic doctrine (I.236.8-237.16). The first two of his five 'axioms' are (1) 'There is always existent true being known by intuitive knowledge together with a reasoned account'; (2) 'There is what is generated, grasped by opinion with the help of sense perception.' In these axioms, epistemology and ontology coincide. One of the principal tenets of Platonic philosophy, when considered as doctrine, is that reality is bipolar and consists of 'Truly Existing Being' and becoming (that which is generated), known respectively by intelligence and opinion. This is a theme that runs through the dialogues and is particularly prescient in the divided line of Book 6 of *Republic*. The world of nature has to be accounted for and perishability mitigated if an ontology that poses the presence of stable and permanent realities is to prevail. Becoming creates *aporiae* for the science of being and for Platonist doctrines concerning that science. A study of nature, such as is *Timaeus*, is an ideal, albeit troublesome laboratory to directly examine Platonist premises. For the Platonist reason and permanency take priority over change and sensation. Nature, which can ostensibly be known only through sensing and opinion, is a test case for determining whether, in fact, higher reason rules creation. The mysteries of genesis with its omnipresent tendency towards perishability, in a Platonic universe of stable but invisible realities, require the support of sound epistemological premises. After a brief recapitulation of the First Book, and the commentary on Plato's invocation of the divine and the value of prayer (I.214.17-222.6) commenting on *Timaeus* (27c4-6), from 218.28-223.5, Proclus initiates a direct examination of the question of *Timaeus*: 'is the world generated or is it without generation?' The answer given in *Timaeus*, 'it came to be' (*gegonen*), raises all the paradoxes involved in the Being/becoming dichotomy. This foreshadows the fundamental questions which trouble Proclus: What is that whole which consists of perpetual Being and

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that which is generated? How can Being itself and that which is generated be arranged under one genus?

Plato's claim that Being and becoming are separate is a fundamental claim and one that launches the philosophic discipline known as Metaphysics. It is also the most denigrated idea for critics who see no use for a 'two-world ontology'. In any case, it is the proposition that inaugurates Greek philosophy and reverberates through the whole history of Western Metaphysics. The description in *Timaeus* which elaborates the idea for the first time in the form of a philosophical enquiry, raises the spectre of seemingly unmediated contraposition:

... there is one kind of being that is the self identical form, uncreated and indestructible, never receiving anything into itself from without, nor itself going out to any other, invisible and in all ways imperceptible by sense, it being the object which is the province of reason (*noêsis*) to contemplate; and a second kind is that which is named after the former and similar, an object perceptible by sense, generated, ... perishing, apprehensible by Opinion (*doxa*) with the aid of sensation (*aisthêseôs*). ... And there is another nature of the same name with it, and like to, perceived by sense, created always in motion, becoming in place and again vanishing out of place (52a1-8).⁹

This canonical distinction raises an endless series of *aporiae* for philosophy to address. The separation of Being and becoming has always been a source of controversy for philosophers. It creates a split in the unity of all things between visible and invisible worlds and between epistemological considerations pertaining to the two worlds. It presents an open invitation for a positivist to apply Occam's razor to all ontological considerations that cannot be substantiated by experience. For the metaphysician, on the other hand, Limit and Unlimited, rest and motion; simultaneity and discursive asymmetry; unity and limited individuality; Eternity and temporality, projection and contraction, are all polarities that follow from the Being/becoming opposition. For Plato, the distinction prompts leading questions which the dialogues must solve. In *Parmenides*, *aporiae* pertaining to the conundrums of multiplicity and unity coexisting, pervade the investigation. (If the one is, the one cannot be many ... Is the one in motion or at rest ... can it partake of being in the sense of past present or future? etc.) The Neoplatonic solution to these *aporiae* is to propose a hierarchical relation between becoming and Being and a hypostasis even beyond Being. The split between the One and the One Being which constitutes the first and second hypothesis of *Parmenides* becomes, for the Neoplatonist, a solution to the mysteries of multiplicity in unity. The One is unity itself; the One Being heir to the two-world ontology containing both multiplicity and unity. Placing them in a hierarchical relationship resolves the paradoxes of unity and multiplicity: Being and becoming are two perspectives on the one universe. If the One is a ground of Being, on a whole other and eternal level, Being is stabilized and becoming, as its derivative, is subject

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to that stability. Under the aegis of the One Being, unity and multiplicity coexists: the One is its transcendent source. Existence is derived from essence; becoming and multiplicity are multiple unities which represent the One in the realm of existents (as do the Henads). Proclus makes a further intervention by introducing the Limited/Unlimited hypostasis as a mediate position between the One and Being. By so doing, multiplicity is subsumed, wherever it appears in lower levels, by the highest hypostases that assure its permanent and complete detachment from matter and its evils.

The most fundamental principle: *Apeiron/Peras*

Discontinuities present the greatest challenge to the oneness of Being for a metaphysician. In the *Commentary on Timaeus*, the subject is the extraordinary multiplicity in the superabundance of physical creation, and consequently there is a need to establish the integrity of unity. The One and the Many is a prime philosophical problem inherited from Plato but modified and developed by Academy and Middle Platonists. It is a long-standing problem that goes all the way back to the cosmologists and the confrontation of Parmenidean theorists with atomists and proponents of Heraclitean change. Doctrines that base themselves on countering the dissembling effect of multiplicity range from theories of number to that of the mortal soul's potential assimilation in face of its divided nature. (The latter issue is clear in passages such as III.225.9-30, in which Proclus speculates about the inequality of the mortal soul to the gods on the basis that 'multiplicity' and individuality and mutability render it possibly similar, but not equal or able to unify with, the divine.) Neopythagorean mathematicians are careful to define number as connected to unity not multiplicity, as was discussed in the last chapter. This is another influence on the priority of the issue for Proclus. Slaveva-Griffin discusses Moderatus' view of number. Moderatus defines number as a 'progression' (*propodismos*) to multiplicity from the monad and a 'regression' (*anapodismos*) back to the monad. Nicomachus has something similar (the idea of number as a 'flow' (*chyma*), as Slaveva-Griffin reports). Plutarch describes this too, and all these Platonists are precursors of Plotinus.¹⁰ This history, if no other, creates a pressing demand for Proclus that he find the means to suspend multiplicity from a monogenetic unity.

For Proclus, the presence of multiplicity without ameliorating unifying principles is a particularly pressing challenge. His extensive knowledge of mathematics makes him aware of the potential infinities that numerical serial expansion can engender. Since natural generation follows patterns of serial expansion as well, he devises an absolute principle: the Limited-itself and the Unlimited-itself, to underwrite the claim that multiplicity is a manifestation of unity. Proclus, for example, commenting on the *Timaeus* lemma regarding the distinction between Being and becoming, says:

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Being, with its eternal and unchanging stable nature and as object of intuitive knowledge (*noësis*), is properly aligned with the superior rank of the gods, whereas becoming is aligned with the inferior rank, from which the infinite procession [of creatures] and their manifold variability obtain their existence. (I.224.15) (R&S)¹¹

Multiplicities, be they in number, incommensurate magnitudes, irrational lines, temporality, or demiurgic ceaseless productivity, are infinities. Unlike Aristotle's iterative infinity, Proclus thinks of them as potentially actual infinities which must be brought under the rule of unity.¹² A similar dichotomy can be seen in the Circle of the Same and of the Other in explaining astronomy as the relation between the fixed stars which represent Being and Sameness and the planets and their orbits which display Difference. He asks a core question, one that calls for axiomatic principles that will guarantee continuity between multiplicity and unity. This question additionally prompts him to restate his position that the highest hypostasis beneath the one is the Unlimited/Limited dichotomy. He asks:

What, then, is this division and in what way has it taken place? Has he made the divide (a) as of a whole into parts, or did he divide it (b) as a genus into species, or (c) as a single word into several meanings, or (d) as a substance into its accidental categories or conversely (e) as an accidental composite into its substances? (I.224.17-21) (R&S)

Proclus dismisses the possibilities that this means accident into Essence or Essence into accident, but reframes the inquiry as a challenge to the unity of Being. How can Being-itself and that which is generated be arranged under one genus when it is not lawful that the One should have differences? Proclus cites the *Philebus* as a solution to this problem, using it to elevate the unity/multiplicity distinction to a higher level than that implied by genus and species or one and many. Plato in *Philebus* assumes the genera of the mixed life to be *Peras* and *Apeiron* (Limited and Unlimited) and that which is mingled from them (27d14-15). Socrates stipulates that the first cause is infinite (*apeiron*) and the second limit or finite (*peras*) and the third something generated by a mixture of these two. For Proclus, this pair becomes a hypostasis, a substantial first principle and cause of all that is and follows. *Autoperas* and *Autoapeiron* (the terms for the hypostases) proceed through all beings and in all orders from the intellectual order which is supermundane to the last place which is physical. Eternal Being transcends both genus and species, then, and is grounded in this higher opposition. Unity in multiplicity in nature relies on the substantiality of this distinction and its direct derivation from the One. *Philebus* makes it clear that everything which comes into being must necessarily come into being from a cause (*genesis eis ousian*) and the most primal cause is the pair which is 'the highest of genera'.¹³

Once it is established that the Being/becoming distinction is a deriva-

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tive of this primal pair, many Platonic principles are subsumed by its rule. At every level below the *Autoperas/Autoapeiron*, there is a set of dichotomies that govern multiplicity and difference and a mediating term to unite the polar extremes. Eternity/Time, Being/becoming, Soul/Intellect, Form and matter, are capable of both infinite fecundity and organizing limit. The One and the Limit/Unlimited dichotomy transcend not only nature, but Intellect and Being itself. It follows from the transcendent nature of these two primal principles, that in a world of continuity and interconnecting levels of reality, everything (including limitless matter) comes from a cause and assimilates to a cause. Becoming is assimilated to Being and there is superabundance in both Eternity and its subordinate Time. Motion never exists without Uniformity and Unification is the core of the projection process of Images in creation. Infinity is the cause of time, motion, superabundance, effects without end, while Finitude is a cause of uniformity, Eternity, Form, intelligibility, etc. Interestingly, even circular movement is an outcome of discursive asymmetrical motion which can proceed to Infinity but entails that it be reined in by unity, with circular motion as an asymptote. *Autoperas* and *Autoapeiron* are continually mediated in creation of the physical world. An unbroken hierarchy of causes runs upward from the multiplicity of physical being and its unified wholes to the whole of wholes. These, in turn, run all the way upward to the Limited/Unlimited dichotomy which is the first tier and highest hypostatization following the One. Within this ontology, Proclus can put in place the axioms that underwrite the unity that flows from the highest of causes to those that are directly imposed on physical creation.

The five propositions

Proclus comments on Plato's Proemium (*Tim.* 27c1-29d3) from I.214 to I.254, in the course of which he earmarks five principles essential to the study of physics. (They are essentially a reiteration of Plato's account at 27d6-28b5 and are enumerated at I.236.21-6). In the course of doing so, he remedies Plato's account by raising the status of the enquiry from that of the 'likely story', to which Plato relegates the study of nature, to something established on higher grounds. (He does reflect Plato's use of the phrase in referring to the kind of account possible for human enquirers when at I.353.28ff. he reminds the reader that the gods know these things in a superior manner while humans only have 'iconic' accounts. Plato, for example, calls the account the '*eikos logos*' at 48d ff.)¹⁴ Nevertheless, Proclus, who refers to using the hypothetical method used by Plato, as Runia and Share point out, also explicitly cites the method used by geometry, which first postulates, defines and names the principles and then proceeds to demonstrate them.¹⁵ Proclus stipulates that as a 'likely story', philosophy of nature is not a science in the same sense as purely dianoetic science (like mathematics), but true belief (*doxa*) is possible. It

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does appear that despite Proclus' faithful adherence to Plato's 'likely' account, he is intent upon crafting a 'scientific environment', as Martijn points out. She claims that Proclus follows the 'postulate of order' that says that a science consists of certain primitive concepts from which all other concepts are definable and fundamental propositions, from which the others follow.¹⁶ Thus there is a series of *axiômata*, which Proclus distills from Plato's lemmas, that are now put in place *more geometrica*. Proclus claims that Plato himself adheres to such methods 'by first assuming definitions (*horoi*) and basic principles (*hupotheseis*), which he uses to make the demonstrations establishing them in advance as principles (*archai*) of the whole of natural philosophy' (I.236.16-18) (R&S). Proclus compares these principles of natural philosophy to the basic principles of other disciplines such as music, medicine, arithmetic, and mechanics. They give grounds for the hierarchical relation between transcendent causes, immanent effects and the mediation that provides continuity between ontological levels.¹⁷ In particular, they ensure that causality rules all of becoming and that it originates from the level of Paradigm despite demiurgic efficacy. The first two have to do, as mentioned above, with the difference between knowledge of Being and of becoming, concerning that which is generated and that which is eternal. Proclus' third, fourth and fifth axioms, however, a version of Plato's lemma on 27d6-28a1, are considered by him to be primary principles from which the others follow. These are: 'All that is generated comes into being through a cause; What has not obtained existence from a cause is not generated (28a4-5) (3); That of which the Paradigm is eternal being is necessarily beautiful. That of which the Paradigm is generated is not beautiful (4). Let the whole (of physical reality) be called heaven or cosmos (5)' (I.236.24-7) (R&S). From these principles, Proclus contends, Plato produces all that follows. Proclus associates the third principle with the efficient cause, the fourth with the eternal Paradigm and the fifth with the bestowal of the good and the ineffable (I.237.14-16).

The axiom of causality is the central, assumed principle that guarantees that rampant but necessary infinity will be bound by intellectual limits. Proclus restates the lemma, 'all that which comes into being necessarily comes into being by the agency of some cause' (24a4-5) as his third axiom, at I.236.23. It is this axiom that accounts for the way infinity and undiminished bestowal can result in limited individuality within the cosmic creation. Further, it accounts for how all can be in all, without either singularities losing their identity or the One losing its infinite bounty when it distributes in time and space. The golden chain linking nature to the One is one of causality, the promise that singularities will commensurate as partial wholes within the whole.

Proclus claims that only in so far as something derives from its cause, is its preservation assured.

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... that which comes into being, when separated from the cause, is powerless (*adunaton*) and weak (*asthenes*). For, since it is unable to preserve itself and is not maintained by itself, but both the preservation and maintenance are obtained from the cause and are removed if it is deprived of the cause, it is plain that on its own it becomes powerless and is dispersed into non-existence, which is indicative of the fact that that which comes into being is unable to come into being without a cause. (I.259.19-26) (R&S)

Proclus, then, argues for omnipresent causality, situating causality on several levels of an ontological hierarchy and, at the same time, specifying particular and specific causality corresponding to specific effects. Proclus takes particular notice of the fact that Plato stipulates that generated things are generated from a 'certain' cause (I.258.10ff.). Specificity of cause is equivalent to the predetermined limits that apply to individuated entities. The physical world is dependent on invisible causes; the presence of noetic parameters in material realities is inviolate. This guarantee precludes the possibility that an uncolonized infinity can proliferate; everything of necessity will have 'some' cause and exhibit intellectually apprehensible effects. The emphasis placed by Proclus on the phrase 'some' or 'a certain' cause correlates with the distinction that he makes between demiurgic and paradigmatic causality. Demiurgic causality is directly crafted: 'technology' applied to molding the natural world. Paradigmatic causality is the model or Paradigm, causality that is once removed and provides the Demiurge with a blueprint for his craft. Proclus discusses the split between a demiurgic and paradigmatic cause and produces the following syllogism (264.29-265.2):

The cosmos 'has come into being' (28b7)
All that has come into being has a demiurgic cause.
All that has a demiurgic cause also has a paradigmatic cause.
Therefore, the cosmos has a demiurgic and a paradigmatic cause

The passages from I.264.10 to 272.6 discuss the bifurcation of Paradigm and Demiurge. The first account of a cause is of *some* cause and that *some* cause involves the Demiurge, the personification of the efficient cause. While Soul, or Intellect, or nature can all be causes, in regard to singular effects, there is singular causality relying on direct efficacy. Proclus interprets the 'some' cause then, to refer directly to the efficient cause which is the specific cause of specific effects, 'by the agency of some [cause] but not all of them' (I.262.1-2). In nature, the subject of discussion here, this efficient causality is predominant (I.262.24-5).¹⁸ 'Every demiurgic agent', Proclus asserts, 'is presented in relation to becoming' (27a11-b2). He adds: 'even if there are multiple demiurgic causes, the cause is nevertheless single (*hen*) as well' (see I.260.26-7 and I.63.4-5). Proclus proceeds here in the spirit of his general proposition 'all is in all but to each appropriately'. Proclus always promotes the gnomic concept that the One is the true

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reality of the many and so multiple causes somehow form a unity, or at least assimilate to the one cause. If the reader of Proclus suspends a very literal interpretation of the logic of non-contradiction and accepts the idea that many causes are the same as one cause, these passages become less abstruse. The creation of individual objects within the larger cosmos is the purview of demiurgic agency; he is creating wholes and looking to the 'whole of wholes', which means that there is Oneness in ones. Since becoming is assimilated to Being there is single causality and multiple production is still under the purview of an ultimate One Being or One. The efficient cause then is the occasion for the creation of a singular being which is at the same time connected to paradigmatic causes.

For Proclus, there are actually six causes that can be identified (I.263.19-264.3): the paradigmatic, efficient, instrumental, formal, material and final cause. (Carlos Steel points out that to the history of the concept of the four types of causality distinguished by Aristotle, Proclus adds the paradigmatic cause. It has its background in Plato's Idea or exemplar.¹⁹) The efficient cause is relevant to the universe in so far as it comes into being: the paradigmatic cause is related to the gift of wholeness. This transcends the agency of the Demiurge who looks toward the Paradigm as a model. Paradigmatic causality is linked to the golden chain of Being which itself extends upwards to the *Autoperas/Autoapeiron* dichotomy. The very important premise, here, is that all the multiplicity that the Demiurge effects comes from on high. The Unlimited itself, at the top of the chain of Being, gives formal legitimacy even to multiplicity. This reinforces Proclus' arguments against matter as 'evil' or stemming from any source but the gods. The fact that the Unlimited-itself is established beyond even paradigmatic causality is evidenced by the fact that the Demiurge also creates things that are not beautiful, i.e. those things which do not resemble the Paradigm also come from highest causes.

Proclus' fourth axiom posits the 'beauty' of the things that are created under the inspiration of the Paradigm: 'that which comes into being in relation to an eternal paradigm is completed as something beautiful (*kalon*)' (28a6-8). Beauty in the cosmos is the evidence that the Demiurge produced objects according to paradigmatic causes and that they display noetic origins. The Demiurge itself is, in this case, the 'maker' but not the 'father', in the Platonic figure of speech. Beauty is the criterion of paradigmatic creation which is associated with symmetry, form, proportion and harmony. All of these point to a single cause of all things and a single providence and a single concatenation (I.262.1-29). Ultimately, the father and maker are the same; there is oneness of origin and agency, both proceeding from the highest unity. The consequence of the One, as final ground of being, is the effect on appearances as multiple unities that represent the One in being (as do the henads). The first gift that the Demiurge gives to the world, that of being sensible and visible, can now be understood as the privilege to be 'something'. To be an entity is to be a

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whole; to be touchable and seen is to be endowed with a Formal structure. Even at the bottom rung of creation there is beauty. This is given to all things down to the very last outposts of creation where things cling to being under threat of being nothing at all. The subordination of the many to the One renders the many as many ones and makes the perceptible intelligible. Perceptibility in its full meaning makes sensing 'aesthetic', the presence of noetic parameters can be apprehended. Fire and earth are the two extremes, each with their own triangular infrastructure, until equalized by being combined intelligently. The influence of the ultimate One is present at the very first appearance of the created world. Perceptibility is one step further than atomic random multiplicity, the *plêthos* of a material infinity that is unbounded. Form is present even if in its most primitive manifestation; beauty a quality of the simplest things. With this in mind, the ground is prepared to discuss whether matter is created or uncreated, which Proclus takes up in the passages from I.383.26 to 387.5.

Aside from 'entity-ness', another component of the beauty of the world and proof of divine origin is the *continuity* that all things display despite their individuality. Existence in time and space, with its divisible continuities, makes procession in the direction of existence (as opposed to reversion) open to interminable division.²⁰ Proclus must find a way to reinforce the idea that continuity prevails even at the extremes of existence. In a seminal passage, Proclus describes bestowal as infinite, Intellect as craftsman of the cosmos, and the process of continual creation, through the imposition of Limit on the Unlimited, a never failing source of unity.

From where, moreover, does the cosmos, though itself limited, derive its unlimited motion? After all, as he [Aristotle] says, every body has a power that is limited. From where, then does the universe derive this unlimited power to exist ... In general, if the Intellect is the cause of the unlimited and unwearyingly and single motion, there exists an entity which is the efficient cause of that which is everlasting. If this is the case, what prevents the cosmos from being both everlasting and derived from the paternal cause? For just as is it obtains from the object of desire an unlimited power of motion, through which it moves to infinity, so it will certainly obtain the unlimited power of existence from there in virtue of the argument which states that there can never be an unlimited power in a limited body. (I.267.13-23) (R&S)

Proclus argues against a 'powerless' cosmos. These passages emphasize the relationship between existence and power, and Limit and Unlimited, in terms of power. Power (*dunamis*) is infinite and compressed in higher causes, and infinite and expanded in existence. Life is the common denominator on all levels.

The alternative, then, is that the cosmos does not have a power at all through which it is held together. But how could that be? After all, every divisible entity has something indivisible that holds it together, as he himself [Aristotle] says somewhere, and the universe is a living thing ... Now every living

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thing is held together by the life present in it. Either (a) it has a power which holds it together, but this power is limited. But that is impossible, for it would fail ..., if it was limited. Or (b) it has unlimited power. But then again it would obtain that not from itself. It is another entity therefore, which will give it power of existence, and it will not give it in its entirety at one time, for the cosmos is unable to receive it all at one time. It will therefore give it as a continual gift – and one that continues always – to the extent that the cosmos can accept it. Thus, quite suitably it comes into being always and does not exist [autonomously]. (I.267.24-268.6) (R&S)

In the case of the lines from I.268.2-6, the translation given by Sorabji reflects the use of the verb *epirrheō* which means 'to flow.'

Or as an alternative the cosmos has a power that holds it together, but only a finite one. But that is impossible, for the power would run out, if it is finite. Or it has a power that is infinite, and again it would get this not from itself. Something else then, will give (*didonai*) it the power of existing and will give it not all at once, since it would not be capable of receiving it all at once. It will give it, then, in amounts it can take, in a stream that flows and ever flows on to it (*epirrheon*). No wonder the cosmos is forever coming into being and never has being. (RS)²¹

It is important not to miss Proclus' choice of words here. The verb '*epirrheō*' evokes the Orphic figure of the 'fountain' (related to the tetractys), and in addition reverberates with Proclus' 'sea of dissimilitude' metaphor in Book 1. The figure of speech both captures the general idea of a vast sea (such as in the myth of Atlantis) as dissembling and potentially chaotic and the idea that procession is from an eternal and inexhaustible 'fountain'. The metaphor is a vehicle for evoking both the potential infinity of power and the limited infinity of the cosmos. There is an infinity of perpetual becoming and an infinity of being as power. The danger of an '*apeirakis apeiron*' (an infinity of infinites) that Proclus mentions in Proposition I of *Elements of Theology* is always a potential effect of this process if it is not reined in. Heraclitus' ever changing river and Parmenides' One Being are no longer rival formulations, both operate in creation.

Stephen Gersh discusses the ontological status of power and differentiates between *atelēs* and *teleia* (incomplete and complete) power. One is potentiality and the other is active power, the first is occult power (*dunamis kruphia*) and the other actual power (*hē kat' energeian dunamis*). Infinity manifests itself as complete power whereas in the realm of change, Infinity appears as incomplete power.²² The infinite potency of becoming is dependent on the First Infinity as a prime cause, and being can be finite and infinite at the same time. The premise that the cause is undiminished by the effects relies on this premise. The cause, Gersh points out, has, as a correlate, the premises of an 'overflowing' of the cause to the effect. He cites textual evidence, for example, in 'All that which is perpetual possesses an infinite power'.²³ If Being is *dunamis*, *per se*, the first diminishment of infinity which

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comes before it, 'Life', is a manifestation of power which derives from the One. The split between Being and becoming is the separation between *genesis* and *Ousia* (*Sophist* 2486-7), between complete and incomplete power. 'Life', another salient Proclean category, accounts for all the manifestations that display motion. Since 'Life' is high up in the hypostatic hierarchy, it is a principle that works against any argument against the oneness of Being such as the classic argument against motion of Zeno. Motion is not an 'evil', but, like unlimited infinity, is caused by the highest of principles. Continuity, then, is supported by the infinite potential that powers procession, Life, while beauty is preserved by the creator's adherence to paradigmatic causes.

The fifth and last axiom, 'Let the all (*to pan*) be called heaven or cosmos', is posited at I.272.10-I.274.32. Martijn (2008) points out that 'its being called an axiom and a hypothesis does not match the sense in which the other starting points are axioms and hypotheses'. *To pan*, however, has a generic meaning and is invoked in many contexts from the Parmenides poem and other Platonic and Neoplatonic sources. To call *to pan* 'cosmos' is to make an axiomatic claim.²⁴ Cosmos, or ouranos, has a more restrictive meaning than *to pan*, connoting, among other things, noetic organization. In the case of ouranos (the orbits of the heavenly bodies) and of cosmos (in view of its mathematical structure) derivation from invisible causes creates arrangement according to noetic principles and wholeness. Further, the tradition of relating cosmos to *harmonia* and *arithmos* is a particularly Pythagorean tradition, according to Aristotle (*Meta.* 985b). For Proclus, in this tradition, the soul itself in catharsis is a microcosm. The Stoics, following Aristotle's claim (*De Philosophia* fr. 18) that the cosmos is a visible god, restored the divinity of the cosmos adding another dimension.²⁵ To call the 'all' 'cosmos', then, is to elevate the generic term *to pan* to the status of noetic intelligibility and divine sanctity and to allow it to account for the noetic sympathy which nature displays, as it is its cause.

The constitution of the cosmos (I.355.16-416.5)

The cosmos is not just a Living-being-itself in reflection of an Intelligible-living-being. The cosmos is 'good' through the goodness of the Demiurge. At the top of the causal hierarchy, there is an even greater guarantee than this. The One is the Good. Proclus comments on the lemma at 29d7-e1, 'let us then state on account of what cause he who constructed this universe constituted them' (R&S). From I.355.18 onwards Proclus construes this passage as a declaration of final causality, an idea that can be attributed to Aristotle. In reshaping the Plato lemma to fit with this synthesis, Proclus finds textual support for a radically transcendent 'first and final cause which surpasses the Paradigm in dignity and absolute rule'. The paradigmatic cause, after all, is not responsible for those aspects of being such as matter, which also have the Good as their cause. He says

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Because all things are from the Good: things for which demiurgic intellect is not responsible, for example matter, have the Good as their cause, and things for whose existence the Paradigm is not responsible also derive their existence from that source (*ekeithen*). (I.356.6-8) (R&S)

The Neoplatonic 'One', deployed in relation to the constitution of the cosmos, is a perfect example of how Proclus augments Plato, construing him as the spiritual father of an ontology that Plato may never have intended. It demonstrates Proclus' ease in integrating the accrued meanings in the conceptual history of doctrine from the Old Academy through to Iamblichus and Syrianus. The original and famous passage of *Republic* (Book VI, 509b8), regarding the Good reads: '*tou agathou all' eti epekeina tês ousias presbeia kai dunamei huperechontos* (the Good is beyond Being, surpassing it in power and dignity)'.²⁶ In his *Parmenides Commentary*, Proclus cites Speusippus as a proponent of the One, as separate and exempt from even the status of a principle.²⁷ Plotinus takes up the discussion of the One (*Enneads* X.7.1). After Plotinus, the *Parmenides* dialogue is interpreted as a doctrine: the first and second hypotheses are taken as a split between the One and the One Being. This becomes a mainstay of Neoplatonic doctrine. Proclus, fusing the One and Aristotle's final cause, takes things further and gives the One providential power, helping him to construe the One as a first principle governing nature. The Good and the One are the same. He states this explicitly in Propositions 11 and 12 of *Elements of Theology*, particularly Proposition 12 which states, 'the Good is identical with the One'. This confluence of meaning is the basis for the second part of Book 2 which expands the description of the constitution of the cosmos (I.355.16-416.5) beginning with a discussion of the Good as the ultimate, sovereign, most venerated final cause. The One as Good acquires the characteristics of Aristotle's 'final cause', allowing for the larger issue of the role of Providence to enter the discussion of causality. Now, not only is there a oneness of being throughout the cosmos, and a paradigm for all of creation, there is also, and of even greater importance, a transcendent providential plan.

Runia and Share point out that it does not suffice to argue that the goodness of the Demiurge is responsible for the entire cosmos, as Plato may have intended, but, with an 'exegetical sleight of hand', Proclus puts the Good in the forefront'.²⁸ For Proclus, the Good *qua* final cause is a placeholder for the transcendent One. The sovereignty of the final cause determines the form and function of all the other causes. Proclus' move to augment the One with Aristotle's final cause gives the reader a foretaste of the discussions in the final books of the *Commentary*, which focus on Providence, Fate and the ultimate destiny of souls. For Proclus, the 'One' is totally removed from Being and is radically unknowable. Proclus uses a verb, *exaireô*, when discussing the One's transcendence, a word that is not found in Plato's lexicon. It suggests a total extraction from Being leaving

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the 'final cause' as its ambassador in nature. The 'One', then, can be associated with its only 'characteristic' goodness: the cryptic source of every gift. Though the One remains totally unknown, every bestowal of the Demiurge to physical reality assimilates to it as a final cause. The efficient causality of the Demiurge is limited to a creative function while paradigmatic causality is limited to providing noetic parameters of the universe. Final causality completes the picture and is the highest of causes. The divine creation, Proclus claims, proceeds through Sameness and likeness (I.259.15-16) and the goodness of the Demiurge is not the same as the greatest good, they are two different things (I.259.22-360.4). The 'Good' *per se* is not any particular good but simply good. 'If you call it "demiurgic"', he claims, 'you detract from its simplicity' (I.260.3-5). *Elements of Theology* Proposition 133 states that the One is the Good. Clearly, in the *Commentary on Timaeus* Proclus has a similar view. The One has a simplicity that is so absolute that '*epistêmê*', a form of knowing that relies on discursive reasoning, cannot grasp it in its totality. In the *Commentary on Parmenides* this is a premise that excludes any kind of dialectical understanding of the One, even negative dialect. This will have important implications when it comes to the possibility of the assimilation of mortal souls to transcendent causes in the later books of the *Commentary on Timaeus*.

The Paradigm is that living thing which contains all others

The passages from I.416.6 to 458.11 converge upon the third gift of the Demiurge, that of rendering the universe as wholes in the image of the whole of wholes. This is the 'Living-being-itself'. Proclus consistently labels the whole of wholes the 'Living-being-itself' (*Autozôion*).²⁹ Plato provides the precedent for this doctrine in the lemma at *Timaeus* 33a6-10, which states: 'He fashioned it to be One single while, compounded of all wholes, perfect and ageless and un-ailing.' The Demiurge creates the world after the pattern of the 'living being' which contains within itself all intelligible living beings (*Tim.* 30c and 31b). The Living-being-itself coincides with the 'whole of wholes'. (Plato in *Timaeus* calls this the 'Living-being' (*zôion*) (30c), 'the All-perfect living-being' (*pantelei zôioi*) (31b2), while Proclus consistently adds 'itself' to the formulation, suggesting its autonomy and status as a hypostasis. Each thing in the universe is a whole and all of creation is assimilated to the 'whole of wholes': the Living-being-itself is a cause of causes in a universe of sympathetic causality. Every effect assimilates to a cause. Conversely, every effect grows from, elaborates, diversifies, actualizes its cause. This is guaranteed by the Paradigm (the Intelligible-living-being) and its copy, the Living-being-itself. From I.416.14-25 Proclus identifies the Paradigm with the Living-being-itself (*Autozôion*). Proclus has now firmly con-

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nected the axiom of causality to the primary cause of the cosmos, the Living-being-itself.

Life

One of the more compelling doctrines of Proclus, one that resolves some of the most ancient of *aporiae* in Classical philosophy, is his association of 'Life' with the Paradigm. Intelligible Life is associated with both the Intelligible-living-being and its copy, the *Autozôion*. Proclus finds precedence for this in *Sophist* 9248e7-248a10 where Plato associates life and soul and intellect with Being. The second triad is associated with Intelligible Life while the third triad is associated with the *Autozôion*. 'Living-thing-itself, then, is the third intelligible triad' (I.420.23).

It is neither in the first, because that is prior to Life, nor in the second, because that is Life. Therefore, it is in the third. (I.419.18-20)

Since 'Life' precedes the Living-being-itself as it is in the higher hypostasis, it underwrites the spatial and temporal motion that appears in nature and which proceeds from it.

So, just as the Demiurge is the monad of all of the efficient causes even though the property of efficiency exists in many [other] gods, so too is the Living-thing-itself the Monad of all living things, [and in it] are the most universal paradigms of encosmic [entities] and [in it] pre-exists the unique cause of the whole cosmos. (I.418.25-9) (R&S)

Proclus, throughout the *Commentary*, rejects the idea that the disjointing effect of motion is a source of evil. Motion, like unlimited infinity, has its roots in Life and even disorderly motion has a place in creation. Life associated with the intelligible is distinct from 'that which moves in a discordant and disorderly fashion', and, in fact, is a necessary component of the basic infrastructure of reality. Disorderly motion may be a derivative of motion in general and other influences but is not totally divorced from the Good.

The hierarchical status of 'Life' is key to Proclus' ontology. Proclus' strategic move, in raising it to levels above the visible world, saves motion from being considered disruptive of the oneness of Being and, therefore, an evil. It accounts for a core property of nature and its creatures. For Aristotle, 'nature' consists of those things that have the principle of movement and change in themselves (*Physics* II.I.183.29-31). For Proclus there is a more ultimate *archê*: Life is a higher and transcendent cause. The motion that is found in nature is a consequence of Life, as a self-constituted cause that is able to give energizing power and activity to lower hypostases. This strategy pre-empts many of the *aporiae* that plagued classical philosophy, such as those in the *Parmenides* dialogue concerning the incompatibility of unity and motion.

**The existence of evil, Providence and
the eternity of the world**

With the foregoing premises, three often discussed ancient issues; existence of evil, the rule of Providence and the eternity of the world, have a solution. Without fear that they will counteract any of his basic principles, Proclus addresses questions of origin, predetermination and creation in time in a world of eternal Being. They seem to be issues that were commonly discussed in philosophical circles of the time. Proclus in fact mentions, concerning the question of predetermination and Providence, that it has been discussed 'thousands of times'.³⁰ In the fifth century CE, these discussions are especially prescient as the Judeo-Christian religions invoke canonical doctrines regarding these doctrines based on scripture. Although the likelihood is that Proclus is countering arguments intrinsic to Neoplatonic discourse, the wider context may be an indirect influence.

As far as the topic of 'evil' and its relation to matter is concerned, Plotinus (*Ennead* I.8.51) gave rise to much discussion among Neoplatonic interlocutors. Proclus takes up the substantive discussion of evil from I.379.25-381.21. The split between maker and father, demiurgic and paradigmatic creation respectively, leaves room for disparate and disjointed physical existence, since Proclus allows for demiurgic creation that is not paradigmatic. Both matter and motion, as has been discussed above, are products of the infinite bestowal that is necessary for the fecundity and everlastingness of nature, and in that mode Proclus allows matter and motion full range. When called to account, the unruly manifestations of matter and motion could, and do, for other Neoplatonic philosophers, lead to a concept of evil. For Proclus, on the other hand, matter can be 'non-resembling', but not an evil or corrupt aspect of existence (the Demiurge does not always create according to the Paradigm). 'Beauty or non-beauty, therefore, comes to the image from the Paradigm, whereas its resemblance or non resemblance to the archetype comes from the maker' (I.265.23-6). The first principle, not the goodness of the Demiurge, is the source for primary good. Since there cannot be *two* first principles, one of Proclus' main arguments against Numenius and others, concerning the existence of evil, is the singleness of the true cause. Ultimately, there is a 'single cause of all things and a single Providence and a single concatenation' (I.262.1-29). The father and maker are the same agency and are emanations of the One.

Interestingly, and consistent with the entire discussion of assimilation that permeates much of the commentary, at I.435.10-25 Proclus considers partial things that might not be in accordance with nature such as particulars and accidents; perhaps not everything is constructed as a likeness to the Paradigm. Only the most beautiful is in relation to the whole, and it is only in relation to the whole that it is a part of that something can be called beautiful. The heavenly bodies, for example, are

only truly beautiful in relation to the whole heavenly configuration. For Proclus, as has been explained in the preceding chapters, no aspect of becoming is evil, but a necessary consequence of the fecundity of the One and its eternal and undiminished bestowal.

It is useful to consult *De Malorum Subsistentia* (*On the Existence of Evils*), now in translation by Opsomer and Steel, for further clarification of these matters. Here Proclus cites Plato calling matter ‘the mother’ and ‘wet nurse’ of generation and a co-cause of the fabrication of the world.³¹ Mentioning Plato, Proclus says, ‘it is clear to everyone that he takes matter to be good, since he calls the entire world a blessed god, and matter a portion of the world.’³² Matter, just as everything else in the universe, originates from god and is never evil. Proclus considers, in these passages, that perhaps disorder and evil happen not because of matter, but because of disorderly motion, but rejects this idea as well. Matter can be unadorned and without beauty, just as Unlimitedness can verge on non-being at the extremes of creation, but this is not caused by disorderly motion nor is it evil.

These premises are a backdrop to the argument against Plotinus; matter is basically a necessary consequence of the highest of principles beneath the one. The danger of an infinity of infinities is continually averted and matter, the offspring of the Unlimited, is the rightful source of inexhaustible productivity. There appears to be a certain indeterminacy possible on the lowest levels of existence and a certain freedom from control built into the process of change and creation. Plato leaves it open to posterity and endless commentary to decide whether he thought there is actual chaos either as a precondition or deterioration of Being. For Proclus, all things that cannot assimilate to higher causes are on a track to oblivion.³³

This theme is fleshed out more fully in the discussion of matter in the comments on 30a of *Timaeus* (I.381-5). Proclus argues against those, such as Plutarch and Atticus, who would have a chaotic matter existing prior to the generation of the universe, moved by an evil soul. The world is, after all, thanks to the first and second gifts, brought into the arrangement from the outset. Whereas true reality is invisible and consists of archaic unities, matter never comes into existence at all without the presence of limits imposed by the Paradigm. The generativity of the One is infinite and the Demiurge produces in the whole of time, with no beginning or end, and operates with infinite potentiality. From the very beginning of the *Commentary*, then, through all the levels of hypostatic reality, this theme is played out. The infinite originates from the gods and is responsible for all the inferior coordination preceding multitude and division. There is room for diminished and more chaotic manifestations of creation, but no part of the universe is totally abandoned by the creator, or is cut off from the ultimate sources. The creations of the Demiurge are not confined to paradigmatic parameters but neither are they outside of final causality. Proclus allows ‘Life’ a full expression even when it borders on non-being.

5. *The Third Gift: 'He Makes it a Whole'*

The beginning of the world in time

The preceding discussion in Book 4 of the whole of wholes and its culmination in the identification of the Good/One/final cause, foreshadows a topic that Proclus will elaborate in Book 5: Providence. 'The Demiurge creates for the sake of the Good and the final cause' (I.356.25-6). Everything can be referred to the divine nature of the Paradigm, the goodness of the maker, the perfection of what has come to be, etc. Generation, taking place in time, is equivalent to a movement towards wholeness and perfection, from incompleteness to completeness. Proclus uses the word *telos* here, which is translated 'perfection' but can have the connotation of final cause and ultimately Providence. The reader of the *Commentary* will come to understand that the priority of the final cause, over all other types of causality, casts away any theory that would suggest a beginning of creation in time. The apparent antithetical nature of generation and Being is actually an illusion prompted by the serial and discursive nature of time and the fact that things must reach completion in increments. What is called generation, is actually an intermediate condition between absence of order and cosmos.

... **generation** is a path towards the whole which is in a sense intermediate between the absence of order and the (ordered) cosmos. (I.358.24-6) (R&S)

Proclus reminds the reader that perceptible wholes are secondary to wholes which, in the strictest sense of 'whole', have to do with the immaterial and non-spatial. The wholeness that is gifted to a spatially and temporally constructed generation will come about in stages and not all at once. Eternal presence makes creation in time through the efficiency of the Demiurge a construction aimed at the good, but not a radical beginning out of nothingness.

Lang and Macro³⁴ attribute the version of the theory that the world had a beginning in time, which Proclus counters, to Plutarch. His theory was that the cosmos itself and each of its parts are composed of corporeal being, which is matter or substrate, intelligible being which is shape or form, and Soul which is motion perpetually moved. It is God that fits them together and this is the beginning of time.³⁵ Plutarch, then, according to Lang and Macro, was the main contender in Proclus' theories concerning the eternity of the world. For Proclus, Eternity is always present and so what Plutarch devises as a beginning, for Proclus, is simply a technical construction that goes on infinitely. What Plutarch calls God, for Proclus, is relegated to a function of the arch constructor, the Demiurge. Creation in time occurs in tandem with a continual reversion to Eternity: time facilitates both completion of those things that assimilate and the deterioration of those things that do not.

Conclusion

Book 1 of the *Commentary* was an allegorical capitulation of the perils of becoming. Book 2 introduced the causal chain that allays the dangers associated with nature should it not be colonized by higher principles. Being is the hierarchically prescient father of becoming and, thus, will always dominate chaos. With Intellect as its ambassador, and the Intelligible as a model, the world receives the gift of wholes simultaneous to existence. The axiom of causality guarantees the stability of nature, and, in addition, supports a scientific approach to the study of nature. Nature can be studied and its causes discovered. There is a correspondence between epistemological knowledge and the actual conditions in nature. Proclus' ontological realism is evident. The cosmos is 'cosmos' because of its intellectual coordination with higher causes: it is 'suspended from the back of the goddess'. A theological reading can be extracted from the miraculous co-ordination of invisible and visible causes. The 'whole of wholes' is in governance of the universe and that is a divine bestowal.

The five fundamental propositions that can be extracted from Plato's vision of the whole, as Proclus saw it, can be used as a geometer would use axioms. They are first principles that apply to the creation of the world and establish that nature is to be comprehended by intellectual means. Everything intelligible in the universe is beautiful and perfectly illuminated by reason's light. The principle of continuity, as Sarah Iles Johnston points out, dictates that there can be no gaps or discordances in the universe, physically or theologically, therefore dissimilar entities must be intermediated by a third entity that possesses characteristics of each.³⁶ In such a world, there is no evil. Discontinuity exists for the sake of ultimate continuity and to supply the infinite fecundity of the whole.

In the progression of gifts, the first and most mechanical workings of Intellect in the engineering of the physical world were signified by the perceptible nature of sense objects. Nature conceals its true causes but with the second gift, *analogia*, the intelligence that is behind its veil is disclosed to the astute student of physics. The physical world exists as intelligible by virtue of its mathematical parameters. With the third gift, that of wholes, divinity starts to show its true face. In the fourth, fifth and sixth gifts it will appear as the self-sufficiency, sphericity and uniform circular motion that is apparent in the cosmos. Nature is coherent as well as beautiful and, in addition, it radiates symmetry. These are further signs of a hidden organizing, intelligent and living cause. The observer of nature is now getting to know the 'mind of god'. The wholeness of wholes, sphericity and perfect circular motion are irrefutable signs that can enlighten him or her about true reality: there is a golden chain of causes that will ultimately link nature to the gods.

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Then fourth, he makes it a sphere in order that it should be most similar to itself in respect of form (33b). Then fifth, he declares that all things that it undergoes it undergoes by itself (33c-d). Sixth, he provides it with a motion fitting to intellect (34a). (II.5.22-5) (B)

Unwearied it was borne round in limitless circle. (Orphic fr. 71a) (II.70.10)

The cosmos has ‘participated in many and blessed things from its creator, but has also come into association with body’.¹ It is visible, tangible, temporal and generated. With the three gifts of sphericity, self-sufficiency, and motion, Proclus completes the account of the bestowal of immanent characteristics onto a unique cosmos, one that possesses ‘body’ (as well as soul). The three ‘gifts’ to be discussed at this point in Proclus’ account consist of features that are displayed by the world’s ‘body’ and which commensurate difference and discontinuity and show that the world of nature is also a ‘cosmos’, a beautifully-ordered whole. They are characteristics that give symmetry and external completion to internal constituents. Sphericity is a visible and tangible sign of transcendent wholeness. Self-sufficiency is a sign of the universe’s self-rule, apparent in the feedback loop between it and its parts. Motion, in accordance with intellect, is uniform circular motion visible in the orbits of fixed stars and heavenly bodies. Again, we are progressing from low to high in terms of immanent to transcendent marks of divinity and higher hypostases. Beyond the third gift, the whole of wholes that is the cosmos itself, these three gifts originate from even higher sources of unity. They bear the imprint of divine origins, Soul, Intellect, and Life (the demiurgic triad). The Paradigm determines sphericity, Being determines self-sufficiency, and Intellect, along with Life, determines perfect circular motion. With the seventh gift, the universe will become animated by Soul, the transcendent source of its life. The eighth gift will prove Soul and Intellect to be subordinate to Time and Eternity. These three gifts, then, are the last of the ‘immanent’ manifestations of divine bestowal.

Most of the description of the three physical gifts can be found in Book 3 (II.4-II.314) but is elaborated in various passages in Book 4 (III.1-160). They are related to astronomy, and Proclus elaborates theories concerning the heavens and astronomy at several points in the *Commentary*. The

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three gifts are introduced in Book 3, from II.1-102, the passages on the 'World's Body'.² The fact that it is nature that is being studied requires a Platonist to theorize about the body of the world *qua* 'body'. This can be a daunting fact for an idealist philosopher who somehow has to form philosophic concepts concerning the sheer physicality of the world of nature. Sphericity, then, is a reassuring feature of the physical world that can be accounted for by intellectual parameters thanks to the advances in mathematics. The circle, or sphere, is a figure that has 'geometrical' parameters. At the same time, it is responsible for 'harmony' in the objects of nature and it displays symmetry. It is evident to the observer in the rotations of the heavenly bodies (those bodies which Proclus calls 'the visible gods'); thus it constitutes an empirical confirmation of the correspondence between the world of Forms and that of physics. Further, the sphere is a three-dimensional solid that connotes 'containment'; an outer boundary can hold inner contents in sympathy with itself. Thus for Plato, the fixed stars (the so-called Circle of the Same), are a 'physical' boundary that holds the entire self-perpetuating existence and activity of the cosmos within its purview. Proclus will elevate this to even higher significance, following through on the idea in *Timaeus* that the extension this boundary represents stretches over all of creation and is Soul. The *Commentary* reader will come to realize that Soul is the 'veil' cast over and around the world. Since Soul possesses Intellect, its activities never go on without Intellect's commandeering influence. Body, Soul and Intellect are always intertwined.

Since the cosmos has been exhibited to be an 'ensouled living thing possessive of Intellect', there will be three things in it: body, Soul and Intellect. Now Intellect is entirely ungenerated, having been allowed an eternal Essence (*ousia*) and eternal activity (*energeia*). The world's body is entirely generated since it has been established as temporal through and through. Soul, however has an essence of an intermediate nature. (II.1.9-14) (B)

Soul is the boundary between the generated and ungenerated since the Intellect is partless and indivisible:

And Plato describes too the nature that is going to receive Intellect, showing that it is the nature of soul itself, since the Demiurge himself will place within it the circles of the soul, revealing it without division, because it is indivisible and without shape because it is entirely devoid of shape. (II.2.18-22) (B)³

Proclus is making sure the reader associates sphericity with the higher hypostases, Soul and Intellect. He will now go on to discuss sphericity *per se*. The Circle of the Same and the Circle of the Other, the two parameters of the Soul, are the causes of the sphericity that is apparent in the physical cosmos. Two circles are found in nature in the form of the equator and the

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ecliptic.⁴ For Proclus, following the *Timaeus*, Intellect is the architect, if not the engineer, of sphericity: its presence in the heavens is the sign, above all others, that the universe is intelligible. For both Plato and Proclus, the rotations of the heavenly bodies are a mark of the rotations of reason, and self-sufficiency an example of an encompassing, self-contained and self-sustaining unity. (Transcendent self-constitution is a characteristic of Soul and so this physical feature of the cosmos is a mark of Soul's presence.) Sphericity is a characteristic of body but of a body that is ensouled and noetically endowed.

The discoveries of Greek astronomy exerted an enormous influence on Greek philosophy, beginning with the cosmologists and continuing with Plato and the early Academy. The physical heavenly bodies and the transcendent formal causes are closely associated in ancient thought, and many of philosophy's early formulations arose out of science, technology and other non-philosophical contexts. The evolution of philosophical discourse, in its formative states in Ancient Greece, was given a huge advance by Platonic innovative coinage of a language for metaphysics. Plato, in turn, was influenced by the proliferating sciences of his time.⁵ Plato's famous 'Circle of the Same' and 'Circle of the Other' of *Timaeus* are based on the actual observations of astronomers that the fixed stars appear to have an inerratic rotation while the seven planets have opposing erratic orbital revolutions. Plato construes them as parameters of the Soul thus assigning them a metaphysical significance. The two opposing circles, the Same dominating the Other, are a solution to the one/many problem (how they can coexist in a unified cosmos). In the heavens, stability in the form of the fixed stars dominates the erratic seven-fold motion of the planets. The whole universe is held within noetic limits as a direct consequence of the ruling revolution of the Same while the 'parts' are the sequelae of the revolution of the Other. The iconographic-cum-ontological significance of the two 'circles' had become a mainstay of Platonism by late antiquity.

Proclus' conviction that sphericity has ontological significance, the self-sufficiency of the heavenly cosmos, and the association of circular motion with reason, all arise out of a well-established ancient tradition. Plato's 'Circle of the Same' and 'Circle of the Other' fuse astronomy, cosmology and ontology. By the time that Proclus comments on the *Timaeus* passages that associate the noetic with sphericity, they have assumed metaphysical significance beyond that which Plato may have intended. Plato was presenting views on physical creation recounted by a Pythagorean; and adding the association with reason and Sameness (possibly elaborating the Pythagorean columns of opposites). Proclus is supporting an onto-theology that is far more elaborate. Proclus associates the figures of the oblique circles, demonstrated by the physical equator/ecliptic distinction, raised to signify Same and Other by Plato, with the ubiquitous distinction he makes between the Unlimited and Limited. The orbit of difference means creation in time, while the orbit of the

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same implies participation in eternal noetic immutability. Generation participates both in Difference and in Sameness. Intellectual sameness is associated with Limit while difference is associated with Infinity. For Proclus metaphysical significance clearly predominates over the original physical context:

And of these also [the Circle of the Same and the Circle of the Other], the one is through *intellectual Sameness* (*dia tèn tautotêta tèn noeron*) but the other through *demiurgic Difference* (*dia tèn heterotêta tèn demiourgikên*). And of these, the one is through Intelligible (*noêton*) Limit, the other through Infinity (*dia tèn apeirian*). (*Tim.* 38e6-39a4) (III.74.17-20)

When Infinity and Limit are construed as ontological hypostases, they underwrite the Circle of the Same and that of the Other, and by the fact of their higher transcendence, the two circles become icons of the highest grounding principles. The physical universe becomes a sanctuary for the gods, composed of visible icons that are images of a cryptic, transcendent invisible world that goes far beyond the purview of astronomy or cosmology. The heavenly bodies are '*agalmata*' (shrines or statues of the gods): the physical world is a living god.⁶ With the heavens as an example, it is plain that nothing in the universe is *atomic* in a way that is unrelated to the whole. When Proclus defines beauty, he stipulates that it, specifically, has to do with the way the heavenly bodies fit together in the whole and the overriding unity that is found in the panoptic whole of wholes. These issues are taken up from II.58ff. All things in a 'whole of wholes' are 'whole parts'.

One should say that in the case of the heavens, the other things are both outside and not outside. On the one hand, in as much as they are naturally separated from them, they are outside. But on the other, in as much as they stand in a relation of sympathy to them and are encompassed with them by a single nature because they are the most proper parts, the other things are not outside the heavens. (II.59.26-31) (B)

Were this not the case, there would be isolated things having no sympathy with the cosmos. This would not be permissible in a Proclean universe where everything follows from a cause. If such things did exist, they would lead

... an alien existence and would have been deprived of the life of the cosmos and be cut off by the intervening void. (II.59.33-60.2)

Proclus finds a precedent for the 'physics' of the whole of wholes as 'circular' in Chaldaean lore. Proclus needs to associate the 'geometrical' parameters of circularity and the metaphysical premises regarding self-sufficiency, somehow, with the four elements and, thereby, with the tangible realities of the natural world. The way into this, for Proclus, is to call upon Chaldaean wisdom, a source that to him has an equal pull to that

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of science. Commenting on 32c5-8, Proclus discusses the whole of wholes beginning with the four elements distributed according to the three Demiurges, Zeus, Poseidon, and Pluto. Accordingly, there are three regions in the cosmos: heaven, the region below the moon and the region below the earth (from highest fire to lowest, which, is merely tinged with fiery qualities). These are the Empyrean, Aethereal and Material regions. Only the visible region can be called material and there is a sequence from order to disorder (to that which participates in order to the least degree). All of this, Proclus states, is the universe as a whole and there is no part or power external to it (II.57.2-3). All the elements are included within the whole cosmos and all appear to include a fiery part. Baltzly points out that, as the Oracles stipulate, the Empyrean is an Intelligible realm and is physically associated with the outermost of the world circles, while the Aethereal is identified with the fixed stars and planets. The sublunary realm is called 'material'.⁷ The Aethereal is spherical and consequently is connected with the containment of the world. Arcane as this doctrine is, its saving grace is that it provides a physical account of the unusual circumstances under which the Living-being-itself (or Soul) somehow permeates all that is and thus molds it in kinship to itself. Since this world is sensible, and hence resistant to interpenetration of bodies, and the only interpenetrating substance is light, the evocation of the Aethereal, *qua* fiery, provides 'physical' grounds for formal qualities to saturate the world.⁸ The equivalencies that Proclus draws between hieratic worlds and regions, gods and leaders, and metaphysical parameters, and in this case scientific theories may appear to be esoteric and far-fetched. The idea of an all-pervasive energy of some sort providing continuity in physical phenomena is somewhat more understandable. The sphere of the fixed stars (*aplanes*) is the beginning of the physical *to pan* (II.57.25-9); its Aethereal quality makes it interrelated with the subcelestial world it contains. Still, it takes a somewhat questionable leap of logic to comprehend Proclus' further premises that state the Soul to be proportionate to the Aethereal region and Intellect to the Empyrean region.

Proclus next comments on 32c8-33a6, passages stating that the Living-being-itself is a whole and complete made of complete parts. It is one universe with nothing extra to it, nothing left over and no possibility of destruction through disease and old age. These three qualities: completeness (*teleiotêta*), singularity (*henotêta*) and sempiternity (*aidiotêta*) are inextricably bound to the universe and each other (II.58.20ff.). These are characteristics copied from the Paradigm, which is all-perfect (*pantelês*), uniform (*monoëidês*) and eternal (*aiônios*). The One Being is the cause of the 'one of a kind' (*monogenês*) nature of the cosmos. It is the all-perfect cause of completeness, the uniform cause of uniqueness and the eternal cause of sempiternity (everlastingness) (II.59.18-29). From II.59.25 to 61.14, Proclus analyzes the inference that the absence of things external to the cosmos follows from the fact that it is everlasting. (In Book 4, Proclus

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specifies that Time is subordinate to Eternity and the everlasting secondary to the Eternal.) The One Being is the cause of the Living-being-itself. As such, it is a cause of sphericity, self-sufficiency and the completeness of those things that exist in time. Whole parts reflect the whole of wholes; the everlasting reflects the Eternal. A further discussion, from II.62.1-65.15, examines what is meant by ‘whole’ and ‘complete’ made of complete parts, how disease and age can destroy the proportion between the parts, and the meaning of health. Proclus argues that if, in fact, there were an external body outside the universe, it would destroy the ratios among the elements in the cosmos. Thus, as Plato puts it:

The Demiurge gave it a shape that was fitting and akin to it for the living thing that was to encompass within itself all living things, the fitting shape would be the shape that includes all the shapes within itself. For this reason it is spherical in form, being entirely equal from the middle to the extremes: he made it rounded off into a circle – of all shapes the most complete or perfect and most similar to itself ... (33b1-8) (II.68.6-12) (B)

For this reason, containment must be spherical and completely self similar, ‘since the Demiurge thought similarity infinitely more beautiful than dissimilarity (*nomias muriôi kallion homoion anomoiu*)’.

Sphericity

The fact that the celestial sphere and the perfectly circular orbits of the heavenly bodies, visible to an observer, coincide with mathematical geometry, impressed the ancient astronomers.⁹ Proclus, who read and commented upon Ptolemy and on Euclid, considered the circular form a paragon of the beautiful and complete. (Ptolemy’s first postulate is that the earth is spherical and, of course, he was the champion of spherical orbits.) That the sphericity of the cosmos and the uniform circular motion of the orbits of the heavenly bodies coincided with this most studied and geometrized of mathematical paradigms, was definitive proof, for Proclus, of the connection between this world and noetic principles. Circular symmetry accrued philosophical meanings as the sciences and philosophy developed. First, symmetry as a mark of *noësis* appears in the physical world as the *homoiotatos* that holds the heavenly bodies in place without external force. Secondly, in the internal relations of the physical world, symmetry based on circular wholeness ensures that the outer bound and inner interrelationships constitute one totality. The whole is related to its contents, the *homoiotês* of boundary and what it binds. Thirdly, circular motion, the motion of the outermost boundary, is the mark of the movement of mind. Fourthly, mathematically the shape of a dodecahedron, or sphere, contains all of the regular figures and, thus, is capable of mathematically containing all that is within analogies, and so is self-resembling.

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Proclus claims that, since the figure of the universe contains all figures of every kind and is self-similar, this is because '... it derived from the One, second from intelligible beauty and third from intellectual production'. Since the One is comprehensive of many unities, the spherical figure, which is comprehensive of all figures, is its physical analogue. The spherical figure is allied to the universe, since it is allied to the One (II.69.28-70.1). Proclus adds that the derivation from the beautiful has to do not only with the spherical figure's ability to encompass all other figures, but also that it is akin to Intellect, which is its cause. Intellect, whose thoughts are 'like the sphere moves on the lathe' as Plato says in the *Laws* (8998a-b), arranges it in a manner that is 'regular, uniform, always in the same place and around the same point'. The sphere, furthermore, is akin to the Paradigm and is a progenitor of the cosmos.

It is interesting that here the sphere and the orbit seem fused. (It is not completely clear whether the physical outer limit of the cosmos is a sphere or an orbit in these accounts.) It appears that sphericity implies a figural solid when the point of the discussion is the containment of whole parts, and implies orbital circulation when it refers to the revolutions of reason or the orbits of heavenly bodies. Focusing on sphericity, *qua* containment, Proclus mentions the fact that all figures may be inscribed in the spherical form at II.71.5-10, and adds, at II.72.3ff., the idea that the sphere is perfect, and the end of its motion is the beginning. The most perfect of noetic figures is the figure described by all the *motions* of the heavenly bodies. He reminds the reader that there are demonstrations of this that are both physical and mathematical but he will first consider the Platonic demonstration of its derivation from the One, from Intelligible beauty and from intellectual creation.

Sphericity possesses all the conditions necessary for the world to be eternal and divine. It is uniform and circular, and its limit is infinite; it contains everlasting temporality and is eternal, self-contained, and self-reflexive: in short, it is Intellect *in situ*, i.e. Soul. The self-similarity of the sphere, like dialectical thought, renders all it embraces similar to itself. All of its parts are self-similar (*homoiomeres*). No other polygon or solid is composed of shapes that are self-similar. If this were not enough of a confabulation, Proclus adds that the Aether is composed of similar parts and is spherical as well, and analogous to that which is similar among solids in shape.

To follow the 'moves' that Proclus makes here, it is helpful, again, to look back at the historical context. By Proclus' time, a vision of the whole as spherical was deeply ingrained in astronomy. The Parmenides poem, which Proclus quotes, identified and named the configuration a whole (*holon*) (Fr. 8.1-38), relating it to all that exists (*eontos*), and describing the universe itself as a well-rounded sphere. Was Parmenides referring to the visible cosmos that is the subject of astronomy and cosmology or to a metaphysical totality? Commentators have often speculated about this. In

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any case, this image of a spherical, bounded singularity, a one universe, was variously called 'to hen' (the One), 'to pan' (the all), 'to holon' (the whole).¹⁰ The 'vision of the whole' as a spherical or dodecahedral configuration of a bounded, or limited, universe, embraced by the most all-embracing figure, the circle, which contains all other figures, is understood to be equivalent to 'all that is'. It is graphically depicted in the imagery of the universe in space seen from above in the Myth of Er in Plato's *Republic*. This vision of Greek cosmology evolved into a philosophy of nature (*phusis*) and created a situation wherein anything outside this cosmos must be 'meta'-physical. The sense of a 'universe' in Greek cosmology, in fact, was equivocal enough that physics and metaphysics could both launch their discourse from the same depiction of 'all that is'. Physics had the somatic cosmos as its subject matter, while metaphysics discussed 'Being' (as does Plato in *Parmenides*, where 'Being' is explicitly acknowledged to be connected with the well-rounded sphere of the Parmenides poem). Later, Aristotle (*Metaphysics* IV, 1003a21-5) takes up the question of 'Being qua Being', decontextualizing it and initiating a search for its proper definition as the fundamental quest of first philosophy. The vision of a self-same bounded and integrated whole leads to the question: if the universe contains all that is, is there an outside of the universe? If there is, it must be beyond Being. For Aristotle there is neither place nor void, nor time beyond the heaven.¹¹ Following this line of reasoning, he gave no credence to Plato's transcendent 'Beyond Being'.

With Proclus in the *Commentary* the fusion of cosmology, astronomy and ontology is reinstated and augmented by theology. At II.68.7ff. Proclus makes a definitive association between the one universe, the whole of wholes, and the sphere (the fourth gift which he deems 'the most similar (*homoiotaton*) of all the shapes' (II.68.18). The vision of an eternal simultaneous whole created as a finite but everlasting visible cosmos takes its formal features from a model of the eternal Paradigm as a figured entity, a spherical figure as Plato had stipulated in *Timaeus* 33b1-6. For Proclus, it is the icon that demonstrates the connection of the world's body to noetic causes. This shape is 'most similar (*homoiotaton*) to itself'. Proclus finds verification for this premise in the fact that, it derives from the One first, then from intelligible beauty and finally from intellectual creation (II.68.25). Because of its higher connections, it contains all things in kinship to itself (II.69.28).

For the One is inclusive of many henads, and the Living Being itself includes the intelligible living things, and the single Demiurge is inclusive of many causes, so likewise the spherical shape is inclusive of all the shapes. (I.69.5-8) (B)

Following this analysis Proclus quotes the Parmenides poem: it is 'in every way like the volume of a well-rounded sphere, equal from the centre and

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enjoying a circular solitude' (B) and cites Empedocles. The beauty of the spherical shape has to do with its noetic connection as described in *Laws* (898a).

At II.72.13ff. a further association is made between spherical form and the image of the Soul's self-motion ('it is assimilated to the life-giving shape of the soul'), specifically the intellectual activity (*noêra energeia*) of the soul and the circular motion of bodies. It is also associated with Limit itself (II.73.12) in that it has all sides equidistant. It converges upon itself and is ruled by its centre which renders it one continuous thing. It is clearly associated with Being, specifically with the One Being which Proclus describes in the *Commentary on Parmenides* as 'Intellect itself and intellectual life ... non-transient, and always a totality and present as a whole, and eternal and infinite in power. And unfailing continuity is a mark of an Essence and power which does not give out ...' (1120.2-6).¹² As a projected feature of the physical world, under the direction of the self-moving Soul, it appears, in image, in the form of the circular.

And furthermore, the incessant motion of the universe is similar to unlimited power and the uniform revolution is like the simplicity of Being. The circular motion of the wholes being carried around the same centre in the same manner is similar to rest throughout Eternity. (I.72.20-3) (B)

Proclus next invokes Aristotelian arguments to defend the position that circular motion is the *sine qua non* for the limits of a rational universe. There must be a circular limit to the universe because rectilinear limits would allow for a void.¹³ Many of the arguments put forward by Platonists regarding limit and sphericity are a counterposition to the atomists' posit of a void and atomic parts that are unlimited. Sphericity is sure evidence for Plato and Proclus that the universe is not a formless, infinite and random array of matter, and this is shown by the clear association between the evident spherical form and Intellect. 'For the universe is moved in a circle because it imitates Intellect' (II.77.15ff.). If the sphere contains all things, they are contained by Intellect. In a spherical *holon* that is self-similar and circular in concept, the end is the beginning, just as it is in dialectic. Further, as in intellectual formulations, diversity is contained and equalized by ideas. Similarly, in the circularly contained universe, all difference is supervened by Sameness. In *Timaeus* (28a8), Plato discusses the *kata tauta* of the model of the universe and the kinship (*xuggenês*) (30d4) of all creatures to the whole. The bond of analogy is made possible because the overriding symmetrical whole is a cause, ratiocinating its divisions and accomplishing the kinship of divisions to whole. Affinity means intellectual creation; part is analogous to whole, a condition that is demonstrable in geometrical proportion. It is this condition that makes all singular entities whole parts in sympathy to wholes.¹⁴

Self-sufficiency

'*Autarkês*' is the term Plato uses in the lemma at 33c-d: 'For its builder thought it better for it [the universe] to be self-sufficient (*autoarkês*), than in need of something else besides itself ...'. Propositions 40 to 51 of *Elements of Theology* define and discuss the 'self constituted' (*authupostaton*) as 'self-sufficient either in its existence or in its activity (*autarkês ê kat' ousian ê kat' energeian*). Plato describes the self-sufficiency of the universe in a notably physical manner. He says that the 'smoothness' of the universe without need of eyes or hearing or respiration, or ingesting or evacuating or nourishment, is due to the fact of its own agency in all actions and passions. Displaying only uniform circular motion, it needs no hands or feet for locomotion. It has the power of furnishing its own being and is self-sufficient in respect of its existence. That which is produced entirely by another, on the other hand, is not self-sufficient. The self-constituted is timeless in existence but not in activity. 'Self-constituted', Dodds explains, does not mean self-caused in the sense of being independent of its origins, but rather that it hypostatizes itself; it determines the particular potentiality which shall be actualized in it.¹⁵

Self-sufficiency implies homeostasis; the *xuggenês* (kinship) of all things to each other and to the whole, a self-sustaining sympathy. All the parts get nourishment from the whole: the whole is constituted by synergic parts. Plato made the curious analogy between the universe and the human body, with the difference that the universe has no need of extremities and senses (*Tim.* 33c3-d3). It prompts Proclus to postulate that it is comparable to

a single simple sense which is cognizant (*gnôristikos*) of all things in it: the colors, sounds, tastes, odors, qualities, being themselves the essences of sensible things as they are in an underlying subject. For if the single sense in us makes use of all the particular senses and knows all [the particular sensibles] by virtue of the same thing (*kata tauton*), how much more then must the cosmos know at one time all the various sensible by virtue of one *logos* and a single sense. (II.86.17-24) (B)

It may be somewhat of a stretch to compare this to some sort of Kantian unity of apperception, but the idea of a single sense that encompasses all senses does advance the idea that, in fact, the universe has a 'Soul', or a unified centre of apperception and activity. There is an intriguing and similar passage in the *Parmenides Commentary* (958 3.15). Proclus mentions a faculty of the soul as '... one single unitary thing in us which knew all these, which is over and above the common sense faculty and prior to opinion and prior to desire and prior to will'. The self-sufficiency of the cosmos in more physical terms is shown by the fact that the destruction of some parts is the nourishment of others; it is self-nourishing. Since self-sufficiency is better than being in need, the universe, like the self-sufficient gods, is divine (II.90.15-17).

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The world, the 'whole of wholes' that is the Living-being-itself, is a living statue of the Paradigm. To be 'cosmos' rather than simply 'to pan' it must be an icon of invisible noetic reality, bearing resemblance (*homoiotês*) to it, viz. the self-sameness (*tautotês*) of its cause. External boundary and internal relation commensurate. Self-sameness is an important parameter because it relates, not so much to motion, as to change. All motions are commensurated to the Circle of the Same, but change is commensurated by the rule of self-sufficiency. No changes take place without being related to the homeostasis of the cosmos as a self-sufficient living being. Plato mentions the world of uniform being in *Phaedo*. He stipulates that the uniform, alone by itself, must 'remain unvarying and constant and never admit of any kind of alteration in any respect'.¹⁶ In *Timaeus* (28a8), Plato discusses the *kata tauta* of the model of the universe and the kinship (*xuggenês*) (30d4) of all creatures to the whole. The self-constituted is complete and self-contained. According to *Elements of Theology* Proposition 25, whatever is complete makes secondary existences which both remain and proceed. Thus the self-sufficiency of the cosmos includes its productive activity as well as its containment of all that is. Self-nourishing and self-perpetuating it is a bond of bonds ensuring that all events and changes that occur do so under the rules of the whole, not in a discrete or unconnected way (there are no atomic changes). Proclus states at II.71.24-31: 'A sphere is the shape most appropriate to that what is intended to encompass all things' and

... that which is intended to encompass all things is obliged to rule over everything in it, since otherwise it would not be inclusive of them. And the ruler of all things would assimilate or render all things similar to itself, since nothing is able to rule over that which is foreign and dissimilar. But that which is to assimilate everything to itself will be by a much greater degree similar *to itself* in order that it might communicate similarity to the others. (B)

Inscribing all figures in the sphere

At II.71.23-4 Proclus mentions the fact that the five shapes can be inscribed in the sphere. Self-similarity of the spherical form means 'it is continuous with itself, smooth and evenly ordered' (II.72.4-5). Aside from ruling over change, the spherical rules over Form itself. The most concrete analogy to this, and the one that Proclus favours, due to its connection to the geometry of the five regular solids, is the fact that all figures can be inscribed in the sphere. 'Just as the *Autozôion* includes the intelligible living things ... the one spherical shape is inclusive of all the shapes' (II.69.5-8). The dodecahedron or sphere, as the presumed shape of the container universe (a precedent is in *Phaedo* 110b6, where the whole earth is described as '*hôsper hai dôdekaskutoi sphairai*'), is a figure that, according to Euclidean geometry, allows the inscription of all the other so-called

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'cosmic' figures (the five regular solids). Greek cosmologists and philosophers considered these figures to cause the harmony of the cosmos, and the fact that they can be inscribed in a sphere makes them related to one another and to the whole.¹⁷

Proclus recognizes that if the volume of the solids is taken into account, they will not equal the sphere. Nevertheless he uses the inscription of the shapes in the sphere to support his argument. At II.76.8-21 he elaborates the idea that mathematicians (he mentions Euclid and Archimedes) have demonstrated that the sphere has a greater area than any equilateral and equiangular figure with the same perimeter. From II.72.7 to 73.28, Proclus establishes these characteristics as Iamblichean conceptions and relates sphericity to 'Limit itself'. If Interval (*diastêma*) is the mark of *logos* upon sensible reality, it is a sign that *homoiôsis* rules physical as well as noetic reality.¹⁸ The fact that all interval can be related to an overriding whole makes this construct ideally applicable to the heavenly bodies and their arrangements. The circle, though, has a greater area than any equilateral or equiangular figure with the same perimeter and the spherical figure is greater in volume than any equilateral and equiangular polyhedron. Proclus points out that this seems to contradict the thesis that the figures in the universe are synchronous to the universe as a whole (II.76.15-21). He reminds the reader that these restrictions apply to the circle and sphere as geometrical objects, but in reality they are reducible to intellectual and intelligible parameters (II.77.15-19). The genuine study of astronomy is 'above the heavens'. Presumably, mathematical formula, as opposed to geometrical extension, is best able to represent the parameters of the similarities that supervene upon differences.

All this then being the plan devised by the god who exists eternally for the god who will at some time be, he made it smooth and even all over, at equal distance from the centre, a whole complete body which is itself composed from perfect bodies. (*Tim.* 34a3-8) (II.98.15-17) (B)

The sixth gift of the Demiurge: motion

But he assigned it a motion appropriate for its body – of the seven [kinds of motion] the one that is particularly relevant to intellect and wisdom. (*Tim.* 34a1-3)

Uniform circular motion is given a preferential status by Platonist astronomers and this is augmented by the metaphysical significance that is added by Platonist philosophers. Circular motion is, for Proclus, of far greater significance than its role as a mainstay of Greek astronomy. Aided by Neopythagorean and Chaldaean lore it gains the status of one of only ten most important gifts to the universe. Lee (1976) observes that Plato's model of the universe is not of a circle *qua* plane-closed curve, nor is it a geometrical figure, but his model is *motion* in a circle. The most perfect of

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noetic figures is the figure described by all the motions of the heavenly bodies. The Circle of the Same, as Plato calls it, is 'the globe or wheel that spins in place: the rotation of the whole circle all at once and as a whole around its centre or axis'. This type of motion is not the same as revolution, traversing a greater circle, stopping in mid-course or half way round, as the planets are wont to do, but is a uniform motion. 'It is uniform and indivisible, complete in every phase and moment of its duration.'¹⁹ This was the motion that impressed the philosophers and the one that most resembled reason itself.

The importance given to circularity by the classical physicist and philosopher evokes for us the wonder the early cosmologists must have felt when they observed this marvellous symmetry. Contemplating the heavens, they realized that the circulations of the heavenly bodies marked out a geometrical perfect figure. It was not, for them, their own mathematical calculations, or their geometrical constructions, that had yielded this. The *actual* heavens were adorned with perfect circles! The visible bodies might have been imperfect copies, but, as Heath notes, they play a valued role in *Timaeus* 47a-b and *Laws* V.2, 822a, providing the occasion for observation of their perfectly uniform paths. Plato repeatedly stipulated that this motion imitates intellect, giving rise to the equivocation that forever will remain in Platonism, that these are the revolutions of reason. Circular motion is a formal arrangement that can be perceived 'out there' in space and time. Intellect is not merely a human trait. For the Neoplatonists, physical motion and invisible intellect are fused. Dialectic, equalizing mathematical formula, spherical boundary in figured entities and orbital motion, all manifest circular power. The fixed stars represent intellectual perfection. In contrast, the more wandering and erratic motions of the planets' seven orbits become associated with erratic patterning and with irrationality. The whole configuration is a universal clock that measures out time through physical means. The inerratic sphere, with Aristotle becomes the equivalent of Eternity and the erratic spheres, time. Circular motion, Plato describes, involves being caused to 'move uniformly (*kata tauta*) in a circle in the same place (*en toi hautôi*), turning round and round within its own limits' (34a4-6) (II.95.12-13) (B). Proclus remarks at the cosmos which

Does not wander (*aplanes*) ... because it is moved through a motion that is single and simple (*mian kai haplên*). (II.97.9-10)

Perfect circular motion becomes identified with the Circle of the Same, which rules the Circle of the Other. Eternity becomes the command-centre, not time (though the instruments of time are derived from the heavenly configurations). All else besides the physical world is exempt from time. Curiously, the Demiurge, who has created both the eternal and temporal features of the cosmos, is not a soul. He too is exempt:

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What is more, the words [the god] who exists eternally simultaneously make both the essence and the intuitive thought of the Demiurge eternal [*aiōnios*] and it is on account of this that the cosmos is everlasting (*aidios*) ... by arranging the Demiurge among the things that exist always (*aei*) Plato assigns him a position in the eternal order, so it turns out that the Demiurge couldn't count as a Soul. (II.99.25-9) (B)

The Demiurge cannot count as a Soul because he is among the eternal things while the Soul is not. Soul spans both the divisible temporal world and the eternal world, and therefore does not qualify for full-fledged Eternity, while the Demiurge must be made responsible for the Circle of the Same as well as the Other and must supersede time. Circular motion allows the topic of Eternity and time to be introduced. Proclus will unravel the relation between the All-perfect-living-being and the cosmos. It seems that the All-perfect-living-being (*Autozōion*) is not identical to the cosmos but is the paradigm for the cosmos and allows eternal parameters in the changeable physical cosmos. Proclus stipulates that on the level of the cosmos the fixed stars, while assimilated to eternal motion, are not, as Aristotle had it, Eternity. Eternity is a hypostasis and eternal circular motion is not a transcendent hypostasis but a feature of the world. While it reflects higher causes, it is a gift to the physical world, the sixth gift of the Demiurge to the cosmos.

Proclus and astronomy

Proclus had a long history of engagement with astronomy and wrote a commentary on Ptolemy's *Almagest* (*Hypotupōsis tōn astronomikōn hypotheseōn*). The work of Eudoxus had initiated a second phase of early Greek astronomy, the so-called two-sphere model, which placed a spherical earth at the centre of a spherical cosmos that rotates daily around an axis passing through the earth's centre.²⁰ This model, as opposed to earlier ones, had reference circles, including the horizon, equator and ecliptic, conducive to a mathematical treatment associated with the risings and settings of stars and the duration of daylight. Siorvanes mentions that Proclus also produced the first theory of celestial kinematics, by describing mutually interacting spheres that are homocentric. These spheres counteract one another and have the stars and planets fixed in them.²¹ Eudoxus was followed by a series of astronomers who relied on spherical geometry and proposed models with varying numbers of celestial spheres (Callippus and Aristotle were the most notable of these astronomers). Later Autolycus (c. 360-c. 290 BCE; author of *On the Moving Spheres*) and others proposed models using epicycles and eccentrics leading up to the culminating work by Ptolemy. Proclus' 'whole of wholes', which contains all division, and whose ruling shape is spherical, was undoubtedly influenced by spherics, as well as other theories, such as that of Apollonius concerning

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uniform circular motion, that superseded the revolving spheres of Eudoxus and his successors.

One of the goals of Platonist astronomy is to commensurate 'parts' to the spherical bounds of the cosmos. The persistent goal of ancient astronomers to commensurate retrograde motions to the supervening whole and 'save the appearances' persisted from early to late antiquity.²² Proclus, his attention caught by the noetic and mathematical symmetries that were represented by models based on spheres, also pondered the irregularities of retrograde motions. Ptolemy's model, based on a combination of eccentrics and epicycles, tried to reconcile anomalous motions with sphericity. Following all the Platonist astronomers, from Eudoxus to Ptolemy, Plato's injunction that true astronomy is a matter of mathematical orbits and ideal kinematics inspired Proclus to a vision of the whole as a noetically orchestrated unity based on sphericity.²³ In the *Commentary*, the extensive discussion in Book 3 of astronomy and particularly of retrograde motion, documents the fact that resolving the difficulties posed by irregularities, in the otherwise ideal kinematics of the celestial bodies, was crucial to his overall vision. Just as incommensurable magnitudes had to be commensurated on the level of formula, here Proclus will attempt an explanation that will resolve anomalous motions in the cosmos.

In Book 3 Proclus quotes Plato's lemma at 36c7-d1: 'he gave the controlling rule to the circulation of the Same and similar (*kratos de edôke tēi tautou kai homoiou*). For this alone is undivided' (II.262ff.). The premise that the inerratic sphere (observable) somehow 'rules' (not observable) over the erratic sphere, allows Proclus to assert that the simple rules over the multiform, the uniform over the multiplied, finite over infinite, intellectual over the less intellectual, Sameness over Difference, similitude over dissimilitude, etc. Proclus takes this a step further and makes the undivided signify divine union and an indivisible life. The Soul, he points out, needs both circles in order to rule over Difference. Since the soul is a medium between both, it is twofold: it is intellectual (the Circle of the Same) and has an effect on the world by having contact with sensibles (the Circle of the Other). Proclus will go on to subsume theories of astronomy that account for celestial motions to Plato's construct, and oppose later models of these motions based on eccentrics and epicycles.

In Book 4, then, Proclus expands the discussion of the Circle of the Same and Other and gives more detail on the subject of heavenly motions. He particularly addresses that long-standing problem that troubled Greek astronomers: the irregularities of the planetary orbits in the case of retrograde motion. Noetic considerations would dictate that the rule of the inerratic sphere must somehow commensurate all differences. He makes the following arguments: discussing the fact that Venus and Mercury have retrograde motion, irregularities that do not seem commensurate with the ideal of perfect uniform circular motion, Proclus says (III.66.30-67.2)

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... there is one (*mia*) period of all things, but the parts of the periods differ in swiftness and slowness, that they seize/overtake (and are seized/overtaken by each other (*katalambanesthai kai katalambanein*)).

The astronomers who preceded Proclus had invented elaborate systems of spheres, with accounts of epicycles and epicentres, to commensurate these observed retrograde motions. Proclus, following all the Platonist astronomers from Eudoxus to Ptolemy, insists upon Plato's injunction that true astronomy is a matter of ideal kinematics.²⁴ All irregularities are appearances whose true reality will reveal itself as commensurate once the correct explanation is found. In that spirit Proclus rejected astronomers who had devised mechanical models involving elaborate eccentrics and epicycles to explain away the irregularities and 'save the appearances'. Proclus never allows himself to be seduced by the physicality of any of the models of the heavens that his predecessors put forward. Both Pappus and Theon had written commentaries on the *Almagest*. Pingree points out that while the former two commentators stuck to geometry and astronomy, Proclus returned to Plato's emphasis on the invisible world and relation to metaphysical issues.²⁵ In his *Hypotupôsis* on Ptolemy's *Almagest*, according to Pingree, Proclus displays full command of the technical details of Ptolemy's astronomy. Proclus cautions in his introductory remarks that one must 'astronomize beyond heaven, and consider abstract slowness and swiftness there in their true number'.²⁶ Segonds notes that Proclus criticizes the mechanical artificiality of Ptolemy's construct, regarding it as a violation of the Platonic injunction to astronomize based on invisible causes.²⁷

Lloyd discusses the difficulties that Proclus raises concerning epicycles and eccentrics. For Proclus, these accounts lacked elegance and simplicity: if they are contrived mathematical concepts, they cannot really account for physical movements.²⁸ If they are not considered to be merely mathematical contrivances, and they actually exist in the spheres in which they are fixed, this would destroy 'continuity' (*sunecheian*). If they are adopted, 'there will be all kinds of divisions and foldings-up and separations of the heavenly bodies'.²⁹ He also casts doubt on the reality of epicycles and epicentres by pointing out that the astronomers have not ventured to assign causes for the motions of these phenomena. Proclus prefers Plato's simpler account. In the *Commentary*, Lloyd explains, 'he follows Plato in postulating a system based on spheres of the Same and of the Other to account for the daily movement of the heavens and the longitudinal movement of each planet on the ecliptic respectively' (III.73.27ff., 123.20ff., 146.1ff., 148.1ff., 128.14ff.).³⁰

Many commentators suggest that Proclus' rejection of innovations in astronomy have to do with his Chaldaean affiliations and his unquestioning loyalty to Plato. It can also be suggested that it might have as much to do with his mathematician's/metaphysician's need for elegance beyond

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that which Ptolemy achieves with his epicycles. Though based in a noetic ideal, rather than the methods of observation and calculation, the idea that there must be a unifying and organizing system that is simple accords with scientific ideals. The idea that there must be a force unifying the whole constellation of heavenly bodies, drawing all of them into one coordinated whole, is more scientifically 'elegant' than the elaborate concentric spheres and epicycles of his predecessors. In the following passage, Proclus' picture of the whole as a simple, orderly, and harmonious unity is evident. He mentions that it is one that can be considered both mathematically and philosophically. He relates all the heavenly bodies to the earth as a centre. His inspiration for this comes from *Timaeus* 40b10ff. where Plato describes the Earth, 'our nurse, which is globed (*illomenên*) around the pole that stretches through all'. Commentators have always wondered about this word. Proclus seems to have some sort of idea that there is centrifugal attraction of all to the earth. The following description reveals the fusion between the ontology of sphericity and Proclus' studied consideration of the astronomy of this time:

... we must understand their orderly and harmonious circulations; for the sake of which Plato inserted the discussion of the Earth. For he does not say that the Earth being conglobed (*illomenên*) dances (*choreuein*), but that the stars dance about the earth. For the dance being moved with one concordant (*sumphônôn*) motion about the same thing. But by their concussions (*anakuklêseis*) we must understand their co-arrangements according to length, when they differ according to breadth or depth. I mean their joint risings and settings. And the revolutions and dancing motions of their circles signify their direct and retrograde motions. For in their direct motions, they proceed to their apocatastases; but in their retrograde motions, they circulate among themselves. But he now calls the spheres circles, according to which the stars are moved, and not the epicycles (*epikukles*) ... or eccentrics (*ekkentrous*). For it would be ridiculous (*geloion*) to make certain little orbs, moved in each sphere with a motion contrary to it, or to admit that they are parts of a sphere comprehending the centre, but not moved about it. For this would subvert the common axiom (*axiôma*) of physics, that every simple (*haplos*) motion is either about the middle of the universe, or from the middle, or to the middle. (III.146.3-23)

Simple and perfect circularity must be a matter of an invisible orbit under the command, not of a tangible sphere or mini circle, but of a single ruling principle that dominates all the entire coordination. It is precisely this need for scientific elegance that inspired Copernicus to shift his paradigm and suggest a heliocentric model. Proclus is concerned not only with external arrangement but with fundamental causes.

According to Lloyd, Proclus states that the fixed stars are regular and orderly, sublunary things irregular and disorderly, and the planets are intermediate between them, irregular, but orderly (III.147.2ff.). The planets undergo a complex of movements in longitude and latitude, in anomaly,

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being represented by an epicycle, which produces variations in the distance of the planet from the earth, i.e. in depth and axial rotation. Symmetry and *homoiotês* dictates that all motions succumb to circularity; all revolutions and rotations are circular. The resultant movement is a mean between purely circular and rectilinear movement.³¹ This is a compromise between 'true causes' (circular motion) and the sequelae of existence in space and time (anomalous or linear motion). Proclus acknowledges (III.148.23ff.) that epicycles and eccentrics 'enable one to resolve complex movements into simpler ones',³² but he would like to account for this in a less mechanical way. Lloyd calls these unresolved tensions in Proclus' position. It is, however, consistent with Proclus' recurrent themes that mediating factors resolve the discontinuities between ideal causes and spatiotemporal phenomena. This is analogous to Proclus' position that Intellect and Soul are mediated by ratio and proportion and that the cosmos receives the benefit of this mediation.³³ The linear discursions of the Soul that he discusses in another section of the *Commentary* are juxtaposed to the noetic perfect circular reason that is a higher hypostases causing a spiralling movement as the Soul assimilates to Intellect. Perhaps Proclus conceives of something similar as a cause of anomalous planetary movement.

In Book 2, Proclus had specifically supported his argument for the axiom of 'beauty' by the example of the whole of heavens, not any one part of it: beauty is a product of how all of the heavenly bodies fit into the whole. That there is 'one period of all things' and the parts must have a sympathy with the whole, requires that troublesome anomalies be resolved by accounting for them by differences in coordination which occur in order for the larger configuration to be in harmony. The larger coordination must supervene over what might appear to be irregular (retrograde motion) (III.66.30-67.2). This is precisely what happens in the idea of the so-called 'great year', in which all the heavenly bodies will align in a commensurable arrangement every 36,000 years (or however long the calculation is presumed to be). The idea of a panoptic resolution of all heavenly differences, should enough time go by, was a belief commonly held in antiquity and can be found in Plato. The belief is that in the epiphany of time all differences will commensurate. The times and speeds of the movements of the heavenly bodies, the time elapsing between position A and position B of the Sun or the Moon, is determined by the size of the interval from the central body and the speed with which they move around it. The ancient astronomers, Eudoxus for example, were concerned with times and speeds in their efforts to commensurate the whole configuration. The idea of a great year wherein all the heavenly bodies were lined up in paradigmatic formation accomplishes this ideal situation. During the 'great year' all positions return to their original and archical configuration in relation to one another.³⁴

Movement

While spherical geometry had dominated earlier astronomy, by late antiquity the geometrical account of astronomic events had been supplemented with a physical account, one that included an attempt to account for motion. Proclus envisioned central force organizing all the heavenly bodies in one overriding configuration. Out from the earth were the orbits, respectively, of the Moon, Sun, and Mercury etc. up to the eighth, which was that of the fixed stars, the ninth being the *Primum Mobile*. The mean distances of these bodies from the earth could be calculated. There was, however, a prevalent conception that the hierarchy of angelic movers was responsible for the impetus with which motion was initiated and maintained. Dionysius, one of Proclus' pupils, still promulgated this view. It took Philoponus, later, to amend this and allow internal impetus, rather than external angelic intervention, to account for the planetary movements. Proclus himself, while ostensibly crediting movement to divine local interventions, in fact describes a force connective of the whole, a kind of precursor to gravity, at a time when astronomy and physics were still largely unrelated. Aristotle had articulated a physical principle according to which movement must be either to, from, or round the centre of the universe, referred to by Proclus as a 'common axiom of the physicists' (III.146.21ff.).³⁵ This position had been supported by the Stoics. Zeno reportedly held a doctrine that everything in the world has parts that move towards the centre of the universe, countering Aristotle's objections that an infinite void could have no centre. For the Platonist and for Aristotle, this would have been incompatible with a determinate and stable world. Chrysippus the Stoic, while acknowledging that the infinite void excludes any reason for bodies to move in definite directions, also supports the view that all bodies have a centripetal tendency, towards their own centre.³⁶ Proclus discusses the great connective power that the position of the centre of the universe wields; everything is connected and contained through its power. Again, Proclus uses Plato's mysterious idea that things are 'conglobed' around the centre to describe an ultimate coordination around the central pole of the universe (*mia axona*). The earth is conglobed around this centre, not locally, but as assimilating to it and becoming itself compressed or forced into a spherical compression around it. (These descriptions appear in the passages from III.38.15 to III.41ff.) The earth, therefore, is to be regarded by the qualities it possesses:

... through which it surpasses the prerogatives of the other elements, viz. its stability, its generative power, its concord with the heavens, and its position in the centre of the universe. For the centre has all the power in the universe as connecting the whole cosmos and every circulation in it (*hôs sunektikon apasês tês periphoras*). (III.141.7-11)

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This resembles future accounts of ‘gravity’ and contributes a physical analogue to Proclus’ complex metaphysics of assimilation: a single invisible reality, the powerful centre confers *homoiôsis* to all motions that are in its compass.

It is notable that when motion and force are included in the account of the celestial coordination, it is no longer a purely geometrical account. Invisible forces and powers make it more like a physics of motion. Assumptions or theories concerning which bodies are at rest and which in movement are discussed in the first book of Ptolemy’s *Syntaxis*. This added a physical account to the discipline of astronomy. Plato’s mandate that astronomy is a matter that must be resolved beyond heaven, with this addition, provides Platonists with a stepping-stone on a path back from astronomy to mathematics and from mathematics to metaphysics. For Proclus, Platonic assumptions that the movements of the heavenly bodies are regular, uniform and circular were the compelling ones. In addition, his metaphysical vision had a portentous outcome. Soul as governing centre and a vision of the whole universe as in sympathy with itself, allowed him to conceive of a ‘force’ or tendency of all things to gravitate toward a centre, or ‘dance around the centre’ (Proclus uses the metaphor coined by Plotinus). To preserve the absolute simplicity of a unified overriding noetic circle, Proclus invoked the power of the centre as a first cause of the entire circular totality.³⁷ This is the true demise of the celestial sphere which is now superseded by the outermost circulation, that of the fixed stars, governed by the central force. Siorvanes points out that for Proclus ‘the celestial spheres (and “zones” of Chaldaean astronomers) are not physical’. They are not ‘solid bodies at all but regions of space’. ‘... the spheres are just tracks in which the stars move themselves’, Siorvanes explains, ‘... they are the incorporeal patterns of their agent, which keeps them in a regular and even motion with its ‘governing power’ (*dunamin kratikên*)’.³⁸

In time, the focus on the power of the centre would predominate over the idea of an outermost, bounding, spherical limit, and the idea of movement itself would become more important than what moved. Copernicus, a Platonist, will later remark: ‘The condition of immobility is regarded as more noble and divine than one of change and inconstancy. Hence, movement should be attributed rather to the earth than to the universe.’³⁹ Accounting for movements in a coordinated scheme, Copernicus, like Proclus, was devoted to preserving the form of the world and the symmetry of its parts. In that light he ascertained that, as Blumenberg explains,⁴⁰ ‘a final gap in the rationality of the *ordo orbium* would be closed by eliminating the disproportion between the extreme rapidity of the supposed rotation of the outermost sphere, in one day, and the extreme slowness of the revolution of Saturn – the planet next to it in sequence. This disproportion had made it extremely difficult to assume a moving influence of the *primum mobile* (outermost sphere) on the planets in their

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sequence beneath it.' If the outermost sphere could be assumed to be at rest, the *ordo orbium* could be reversed, 'and one could follow it from the inside outward; the result, going outward from the Sun to Saturn, was a diminishing series of angular velocities ... the Sun now becomes, not only the topographical centre of the system, but also the centre of its moving force ...'. The given 'fact' that the angular velocity declined as one went outward became a logical result of this scheme.

Thus, Proclus' emphasis on the power of the centre is a transitional step toward the ultimate complete demise of the notion of an outermost sphere or limit. The outermost boundary is not the determining power or seat of divinity, or even a physical limit, it is a self-same movement under command of the centre. This is a precursor of notions of a universally operating force that attracts objects toward a centre. Proclus' fanciful figurative explanation is in the spirit of Newton's later explanation of circular motion at uniform speed in the heavenly orbits too: a moving body has in addition to its original velocity, an acceleration of a certain magnitude directed towards the centre of the circle (the square of the velocity of the moving body, dividing this by the radius of the circle).

In effect, in the Proclean 'dance' around the centre there is no physical sphere. The archaic notion of a fixed celestial sphere gives way to abstract circulations and forces. The cause of motion in the heavenly orbits is invisible. Proclus can equivocate between a psychic, noetic, and physical explanation of motion. In the Proclean metaphysics, all seem to operate at once. The entire concept of boundary is changed by the idea that it is actually a motion that is marked by the heavenly bodies, rather than an outermost sphere. Physical or intellectual (noetic) 'containment' is not so much the issue as laws and causes of motion and centrifugal tendency. Though Proclus criticized eccentrics and epicycles, the innovation of astronomers such as Apollonius of Perga (third century BCE) and Hipparchus who adopted and used both to account for motions, did much to surpass the more material model of the celestial spheres of Eudoxus, Callipus and Aristotle. The former theories rely on combinations of uniform circular motions not revolving spheres, and their patterns of movement can be described mathematically.

As far back as the Presocratic cosmologists there is a reliance on the notion of self-sufficiency and equilibrium to explain the suspension of the earth in the centre of the cosmos. This notion provides some background for the idea of self-sufficiency of the cosmos that is found in Platonism. The concept of homeostatic equilibrium appeared early. Anaximander conceived of the cosmos with the earth suspended in its centre as relying on equilibrium. He posited the idea that the earth is sufficiently held in the centre of the universe because of an absence of any reason not to be so. The Greek cosmologist's idea of symmetry (the earth suspended in the centre), then, was that equilibrium itself is a cause.⁴¹ *Homoiotêtos* is the term used by the cosmologists to explain that the stability of the cosmos is due to the

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principle of sufficient reason. It is notable that this term is used by Plato in *Timaeus* and *Phaedo* as the necessary and sufficient cause that explains the stability of the physical cosmos. In Aristotle's *De Caelo* (295b10ff.), it is accepted as a commonplace of astronomy that the uniformity (*homoiotêta*) of the body at the centre of the universe is in equilibrium, because it has no reason to do anything but remain at rest. The idea that rest dominates over motion features in this as well. In *Timaeus* 57d8, Plato states that 'Motion never consents to exist in uniformity'. Rest and motion in the physical universe pose the same *aporiae*, as did multiplicity and unity. Rest/unity as noetic cause must dominate multiplicity and motion in a divinely ordered universe. Rest, as equilibrium, is a compromise between motion and absence of motion; equilibrium in the middle of any uniform substance will not have cause to incline more or less in any direction'.⁴²

The use of the term for *similarity* (*homoiotês*), so prevalent in Plato, then, takes on the highest rank in metaphysical significance for Proclus. In *Timaeus* it signifies the similarity of all things to the whole; in Proclus, it will come to mean the lowest tier of assimilation, the one appropriate to the physical world (while Equality and Sameness have to do with intellectual assimilation). In *Timaeus* 33b4-8, the roundness of the universe, described as the most self-similar figure (*homoiotaton te auto heautôi schêmatôn*). For Proclus self-sufficiency is a prime category of nature as a cosmos. Motion is a secondary disturbance in a universe in a more primal equilibrium. The ideal vision of the cosmos, then, is imagined as it would be were the moving universe to be arrested and rendered into an immovable mode, the panoptic 'great year'. In that ideal epiphany, all parts relate to its centre and outer bound. It is the archical state of the universe as Being rather than becoming. In such an epiphany, equiformity in and of itself indicates oneness. The 'great year', where all the planetary orbits are synchronous with the whole, will be *homoiotatos* on the scale of the entire configuration that includes the earth and all the heavenly bodies, commensurated by the fixed stars (the circle of the Same). This is the moment that is an icon of the Eternal Now and therefore the real truth of the moving changing world of nature.

Discussion

The higher noetic significance of rest over motion, the self-similarity of the sphere, and the rationality of circular motion or rotation – all support a causal hypothesis that the physical cosmos is an icon of the Living-being-itself. The overriding conviction of a founding equilibrium in nature supports the conviction of mathematical formula and equality in equation, as a confirmation of a correspondence of reason and nature. Sphericity, as an icon for the One Being, possesses all the characteristics necessary for the world to be eternal and divine. First, it carries the equivocation that

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circularity suggests, in both motion and time and spatial configuration: the fact that beginning and end are one. The whole, though bounded, is partless and continuous when it comes to its self-sameness. It is uniform, circular and its limit is infinite. It is the overriding Limit that rules iterative infinity removing the threat to existence that is posed by linear discursion. Internally and externally continuous, it contains everlasting temporality and is subordinate to eternity. For these reasons it is associated with the One Being which is the 'infinite', as Proclus says in *Commentary on Parmenides*, associated with Intellect and totally present as a whole, 'eternal and infinite in power'.⁴³

The spherical whole, icon of being, mainstay of scientific astronomy, is also alive, born from the gods, and holds an occult mystery that can only be told by mythology. Proclus presents us with a vision that arises from Orphic mythology. In this compressed statement, one can see the complexity of the evolution of Proclus' metaphysical tropes.

For what difference is there between calling the hidden cause an egg and [calling] that which has issued (*ekphanein*) from it living thing? What else but a living thing would emerge from an egg? And this egg was the offspring of Ether and Chaos, the former of which is situated at the limit of the Intelligibles, the latter in the [region of the] Unlimited; for the former is the root of all things, while for the latter 'there was no limit' (fr. 66 Kern). So if the first thing [to issue] from Limit and the Unlimited is primal (*prôtôs*) Being, Plato's Being and the Orphic egg will be the same thing. And if Phanes, who corresponds to Living-Thing-itself [issues] from this [egg.] one must ask what it is in Orpheus that corresponds to Eternity, which falls in Plato between Living-Thing-itself and Being. (I.428.2-12) (R&S)

Further:

This [Phanes], then, having made himself manifest (*ekphainein*) from among the Hidden Gods, already contains (*prolambanein*) within himself the causes of [all] the secondary orders – the creative, the sustaining, the originating, the perfective, the inflexible – and holds in his embrace, in the form of a single cause, all the intelligible living things ... (I.428.23-6)⁴⁴

Mythology, astronomy, Pythagoreanism, even Life, are all co-present in this image. Science (the astronomic heaven contains all the heavenly bodies and their orbits in synchronous arrangement); the dodecahedron (all the regular solids can be inscribed); ontology (the Paradigm comprehends all intelligibles); Orphism (the egg contains all the living creatures spermatocally); Pythagorean Platonism (Limit and Unlimited); and the Classic Theogony, all conspire here. For Proclus all of these factors are co-present. To hold up this passage to the scrutiny of any kind of analytic standards would not be true to Proclus' intentions. To truly appreciate Proclus' vision, incredulity must be put aside in favour of a more holistic approach. As this passage teaches us, one must acclimate to the fusion of

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the divine and the scientific if one is to be a truly competent reader of Proclus.

With the bestowal of the seventh gift, the reader of the *Commentary* is asked to leave astronomy behind in favour of a higher hypostasis. Soul has all along been the true guardian and animator of the cosmos. It is soul that casts a veil over all of being, hiding and revealing the higher world of exempt causes. With the advent of even later gifts the stars will be known to be the sanctuaries of the gods, and the souls that guide the motion of the celestial bodies, the gods themselves. The compressed symbolism of the Orphic egg anticipates this complexly layered vision of the whole.

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(He) placed Soul in the middle of the body stretching through all and enveloping the outermost body of the universe itself. (*Tim.* 34b3-6)

But consideration of the Soul is conjoined to this part of the account in just the same way that body itself depends upon the divine soul. The ensoulment (*psuchôsis*) which the account has now related is the seventh demiurgic gift to the cosmos. (II.103.25-8) (B)

In *Laws* Plato proclaims that Soul has the ‘power of self-moving motion’ (*tên dunamenên autên autên kinein kinêsin*) (*Laws* X.896a). This formulation, which applies a quality usually associated with the physical world to the invisible world of Soul, was perplexing to ancient interpreters. The idea of the soul’s self-movement put into question the very unity of the soul and provided Aristotle with a basis for attack.¹ Aristotle claimed that self-movement would entail division of the indivisible soul. Movement, after all, involves both a mover and a moved. Later philosophers were called upon to resolve the opposing co-presence of unity and movement. Psychic activity and psychic self-sameness do not easily exist simultaneously. Proclus is able to resolve the problem of the co-presence of movement and unity by invoking, once again, the ‘golden chain’ of continuity between Being and Intellect and Soul. Proclus’ ongoing discussion of the cosmos as a living and moving image of immobile principles consistently posits the co-existence of movement and unity. With the seventh gift, it becomes known that Soul provides the animation, Intellect, the unity. The self-sufficient Living-being-itself and its spherical universe are now seen to be ‘ensouled, permeated throughout and centred by Soul’. At II.80.2-5, discussing the gift of sphericity and the purely physical characteristics it imparts to the body of the world, he says:

For the proximate limit of its body is smoothness but the transcendent (*exêrêmenos*) limit of the world is Soul; and prior to this [limit there is] Intellect, for this is the boundary of the Soul itself. But even prior to Intellect is the single universal divinity, bringing together the plurality. (B)

Gersh states succinctly: ‘the hypostases of Intellect and Being constitute a multiplicity within unity in which Life is the mediator’.² Soul, in the first

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place, has the ability to facilitate the presence of Life to the universe. 'Life' underwrites the connection between Unmoved Being, an empowered Intellect, a self-moving Soul, and ultimately a moved physical world. (Notably, on this point Proclus is clearly indebted to Aristotle: *De Anima* 434a22-30 discusses the relation of Soul to Life.) Soul contains Intellect, the source of stability, and intervenes through its own self-movement to bring Intellectual parameters to the changing world of nature. This includes Intellect's activity (*energeia*) and Being's 'power' (*dunamis*) as well as the formal intellectual qualities that render nature intellectually transparent. Soul's self-movement, then, has widespread 'effects' in the world of becoming for which Plato in *Laws* provides a precedent when he asks:

But when a thing which has moved itself moves another thing and that other a third and the motion thus spreads progressively through thousands of things, will the original source of all their motions be anything else but the movement of that which moves and changes itself. (*Laws* X.894e-895.3)

Proclus clearly adopts this formulation for his own treatment of the World Soul and its myriad productions, using the term 'Life' to indicate the connection with higher sources of its energy. For Proclus, the Life that is bestowed from the highest to lowest links in the chain of being, underwrites the active nature of causality in the physical world. In doing so he also sets the stage for a 'polypsychic pantheism' (as Mary Lenzi has suggested is the case for Plato). She suggests that the fact that 'the Platonic universe is alive and continuously moving lends credence to its pluralistic, all-pervasive, divinity'.³ For Proclus, Soul provides the link between an Eternity at rest and the motion in time that characterizes the created universe. Soul, then, is a precondition for the omnipresence on all levels of spiritual motion as it converts to physical motion and activates nature. Proclus ascribes a motion-ability to both mortal and immortal souls and any souls in-between based on their 'self movement'.⁴ The World Soul is the arch-creator but there is a plethora of divine souls and daemons responsible for agency in all facets of creation.

The account of Soul that Proclus initiates at II.103.26ff. is of the World Soul, or Soul in general, and follows the completed discussion of the fabrication of the world's body (Plato having 'delivered the essence, figure and motion of it'). Books 4 and 5 will treat the topic of individual types of souls: divine souls, daemons, angels, mortal souls, etc. In this instance, Soul (presumably the World Soul), encapsulates and infuses the cosmos. Concomitantly, Soul is its control centre and the axis upon which all the upper and lower hypostases converge. It permeates the whole creation and commands it as well. Unchanging and everlasting, the soul is the hub of all peripheral activity and the seat of change and movement in time. Through its imagination, it casts images of intellectual ideas upon the

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world; impressing eternal, unchanging and motionless principles upon the objects that exist in space and time. More importantly, it serves a vital function in Proclus' universe, supplying the mediation that makes Intellect and the physical world operate in unison (one). It has the capability of maintaining continuity through its source in Eternity and yet can be divided as it moves through time and space. While the essence of the Soul is indivisible, eternal and unchangeable, its activity manifests division, temporality and change. It can contact the supermundane (II.105.30-1) by its synaptic connection to Intellect, but has a multitude of powers and so is able to divide around the world (II.106.2-3). Soul is present to all parts of the universe and is, at the same time, its centre. Though 'immanent' in these ways, it is at the same time exempt (*exêrêmenon*) from the universe.⁵ The Soul is both an unmoved mover and self-moving, animating the middle through its guardian powers (*Zeus*).

By virtue of its guardian powers it holds together (*sunechê*) the centre. For the whole sphere is steered from thence, and converges in the centre. Moreover all the troubles⁶ in the world, have been corralled in its middle and it is necessary that there should be a divine guardian who is capable of marshalling them and keeping them within their proper bounds ... the Pythagoreans call it the middle, 'tower of Zeus' or 'the guard post of Zeus'. (II.106.15-26) (B)⁷

Once again, the reader of Proclus encounters apparent contradictions. How can the same entity possess stasis and movement, division and unity, be guardian of intellectual limits and impart powers over all four elements, *and* be present and exempt, at the same time? The Soul clearly has a bipolar nature, raising the spectre of disunity so troublesome to a Platonist. Steel refers to *Elements of Theology* to help clarify how this can work. Propositions 106-7 state that Soul is eternal in substance, while temporal in activity. Propositions 192-3 add that Soul belongs, in substance, to the order of true beings that subsist perpetually. It belongs to the world of becoming only in relation to its activities. In the previous chapter, the symmetry of the Living-being-itself (the Circle of the Same) and the asymmetry of motion in time and space (the Circle of the Other), were seen to be simultaneous parameters of the physical world and its exemplar. With the addition of the seventh gift, that of Soul, the 'simultaneity' of Same and Other is subsumed to a non-physical origin: Soul contains the duality of Same and Other within its own unity. The bipolarity that is endemic to the soul, but not present to the higher hypostases with which Soul is in contact, defies the law of non-contradiction. How can one entity be moving and unmoved, temporal and eternal, multiple and a unity? The reader is once again called upon to invoke Proclus' gnomic principle that *panta en pasin all' oikeiôs en hekastôi* (all things are in all things but appropriately). Soul can contain simultaneous, but disparate attributes, incorporating stability from Intellect and its own essence,

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while receiving life and power from a higher source, thereby being active in time and space.

The contradictory idea that Soul is present to the universe and simultaneously exempt from it, is ameliorated by Proclus' idea that a complete universe (having Intellect, Soul and body) must have as a middle, a *psychic* source of power. In addition it must have energies that extend through the universe to its furthest reaches as well as a connection to a stable essence. It is not, however, the transcendent Soul which rules the centre but its power.

... [in contrast to the previous interpreters] we do not position the commanding faculty of the Soul in the centre [for this command faculty transcends the universe]. Instead we find there is a certain power of the Soul that is guardian over the whole order, for no other part of the universe is such that shifting that part around could be more destructive of the whole than shifting the centre and the power of the centre – the point around which the whole universe dances. (II.107.13-20) (B)

The ruling part of the Soul, then, is not what is placed in the centre, for this part is exempt (*exêrêmenon*) from the universe, but a certain power of it, which is the guardian of the whole arrangement. The Soul, by virtue of its higher essence, has continuity with the golden chain of hypostatic levels all the way to the top. By virtue of its descent to the 'middle' it is like the Pythagorean 'guard tower of Zeus'. It holds sway over the world. It connects to sensible reality and expands its rule laterally. The Soul itself is not an entity that somehow contracts and subsists at the centre but is there as a powerful force. Soul itself has Essence, power and activity and in this case, as ruling power, it is exercising its power.⁸

In Aristotle's physics of time and motion, Proclus finds a construct that helps him explain the types of continuity and discontinuity that pertain to Mind, Soul and sensible world. Aristotle had stipulated that things which are continuous (*sunêchê*) are those wherein the boundaries are one. Things which are contiguous (*haptomena*) are those in which the boundaries are joined, those which are successive (*ephexês*) have nothing that is a unity in between them.⁹ Those things that are continuous will have a continuous (circular) movement and will not have discontinuities (points, ends, limits). The contiguous touches both continuous and discontinuous since it is adjacent to them. The 'successive' is totally discontinuous. For Proclus, these are associated respectively with Nous, Soul and the physical world. The unmoved mover will not have any of these. The first book of Proclus' *Elements of Physics* begins with Aristotle's description of these types of motion; it appears that Proclus paid very careful attention to them. The physics of motion, for Proclus, is directly related to the theory of the Soul because psychic activity is the source of motion in the universe (*psuchê men oun kinêseôs aitia*) (I.413.20). These definitions, then, crucial to later establishing the indivisibility of the prime mover, more impor-

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tantly for the discussion here, are a prolegomenon to a theory of Soul.¹⁰ The infinity of continuity and the infinity of the successive commensurate through Soul's mediation and ability to 'contact' both. As middle entity in the three types of continuity, it ambidextrously attaches and accesses both the continuous and discontinuous; both intellectual and sensible worlds. In the beginning passages of Book 3, Proclus makes Aristotle's term for contact, *haptomena*, the basis for the capacity that Soul possesses to span both the invisible world of Intellect and the physical world of the sensible.

Some have been joined together by the Demiurge through unification (*kath' henôsis*) others through connection (*kata sunaphên*) and still others through participation (*kata methexin*). (II.102.23-5) (B)

These are Intellect, Soul and the physical, respectively. These stipulations will be very important in the later discussion of the mortal soul's limitations, when it comes to union (*henôsis*) with the One, or with the Intellect. The mortal soul has limitations that accrue from contact with the physical and its potential assimilation will depend upon its contact with Intellect and higher hypostases. Here the notion that Soul has 'contact', or touches, the higher hypostasis, creates a mechanism for continuity within discontinuities. Soul has active functions that allow it to impart to the physical world, the stable principles it can access by way of its contact with Intellect.

Proclus repeats the figure of speech used by Plato: Soul covers the world with a 'veil'.¹¹ The life of the Soul does not leave anything external and out of the range of its coverage or providential care (II.108.29-32). The continuity (*sunechê*) characteristic of Eternal One Being commensurates the successive (*ephexês*) characteristic of the physical world through the ability of the living Psyche to connect or touch (*haptomena*) Intellect which in turn is derivative of the One Being.¹² Soul, then, is a living intermediary between the physical and intellectual worlds. It is in the position of the contiguous of *Physics*, in contact with the higher and lower hypostases, Intellect and the material world respectively. Touching both centre and extremity, Soul extends its powers through everything. At the same time, it is continuous (*sunechê*) and can contract or revert, as it is simultaneously in touch with the intangible Intellect, the bearer of continuity and its own cause. The *Commentary on Timaeus* is a treatise on the physical cosmos, which for Proclus means a communion between Soul and body. Soul stretches along the extensions of time and space but is not disjoined by this expansion. On the contrary, Soul is the *guarantor* of continuity (one Providence, one Life, etc.) in the physical world through the *sunechia* that is its essence. Through self-motion it spans the discontinuities of the physical world, and through its self-constitution, it supplies continuity,

... for it is life generating itself, and leading itself. But all life is motion. So that if all that lives is moved, that which lives from itself is moved by itself

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and that which always lives will always be moved, according to Life but not intellectually. Hence the soul is always moved and not always. For it is (Life) by powers according to Intellect (by potentiality), but life in energy according to activity (*energeia*). (III.335.17-23)

Proclus names three aspects of the Soul's Life, power, energy and Essence, explaining that its continuity comes from its Essence, its powers from Intellect and its activity from Life.

While the above analysis discusses the position and function of Soul, from II.119 onwards Proclus initiates a thorough investigation of what constitutes the Soul (*sustêsanta tèn psuchên*), an ontological enquiry related to its cause. He first asks, is the Soul generated or is it eternal? Examining the *Commentary* passages from II.119.29-132.3, Steel poses the question that follows from that premise, one that raises a problem that Proclus considers a long-standing dispute in the Platonic tradition. How can there be a genesis of that which is ungenerated: what does it mean to say the soul is becoming?¹³ The Soul, like the universe itself, continually and perpetually receives the infinite power to exist. It does not ever realize itself as a whole at one time and thus must receive its power afresh and continuously, in the course of its perpetual life. As self-constituted, Soul is not generated, but has, Proclus claims, its own beginning and life from itself (II.124.17-19). As self-moving, on the other hand, it 'always has its substance in its becoming' (*kai tèn ousian echei gignomenôn*). Steel points out, citing the passages at II.127.16-132.3, that Proclus is aware of the many contradictions of a Soul that is on the frontier of two opposite regions of reality. Dividedness, however, does not concern Soul's power or essence but the various *logoi* that proceed from it. *Qua* substantial and as a whole, the soul is not in becoming but is only in its parts (II.131.23-5, 144.5-7).

Soul is, further, an administrative power (I.118ff.): a 'despot' and ruler. The world is not abandoned to fate or randomness but guarded by its powers.¹⁴ Soul's role is comparable to that of Zeus and of the function of guardianship. Proclus claims, however, that even though it has hegemony over the world, it is not the first of all things: 'It does not possess all the infinite power from which it energizes' (II.123.5-7). A true investigation must look for the causes of Soul. Again, Proclus harks back to his deductive method: it is necessary to assume first principles, otherwise the investigation of causes would be limitless. In fact the 'genesis of uncreated things cannot be sought' (II.20.9-12); they are first causes. While it is not appropriate to postulate prior causes when it comes to the One itself, when it comes to any secondary entities, one must attempt to discover them. Soul, by virtue of its hybrid nature, must be suspended from higher cause. (Proclus comments upon 35a1-4, 'midway between the being which is indivisible and remains always the same, the being which is coming to be and divisible, he blended a third form in the middle'.) It is, therefore, appropriate to seek the causes of Soul. Proclus criticizes Theophrastus

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(II.121ff.), who claimed that the Soul is the principle of motion with nothing prior (*On the Heavens*). The Soul is produced and generated by a prior principle. Time as well as Intellect are construed as prior to Soul: surely they qualify as causes. How, Proclus asks, would Soul have been generated if there were nothing prior to it?

The Soul has three genera that account for its qualities: Essence, Same and Difference (II.123.2-8). Life and eternal energy are its Essence, to be always existing and always coming to be. The Soul's activity in time does not have its source in time, however, and causality, as was established earlier in Book 2, comes from higher hypostases. 'The Soul receives its energizing powers from elsewhere ... since energizing according to time is only and always partial.' Energizing powers originate in Essence which is responsible for existence and comes from the first principle. At II.130-1, Proclus remarks that the infinity of the Soul consists in its connection to what is 'beyond all essence'. Soul possesses the infinite power of existing, always coming to be and always advancing to the infinite. Thus, it both exists from itself and from natures prior to itself. Since it is not able to receive, at once, the whole infinity of Being (I.126) this is the reason why some theorists regard Soul as always generated or coming to be. This is not the case, however: the self-movement that the Soul has is not reducible to endless coming to be, but is imparted to itself, by itself and thus it possesses an essential Life in itself.¹⁵ (All self-constituted beings have essential Being.)

There is a complex formula at work here that is not easy to decipher. Essence, power and energy (II.134.25) are archival categories which Proclus considers to be operative and contribute to a 'pentad' (the five components) of the Soul: Existence (or as translated here 'essence' (*huparxis*)), Harmony, Idea, Power and Energy. As he states:

... we shall divide the entire theory of the soul into five headings: in the first instance, speaking about the essence (*huparxis*) of the soul, in the second about the ratios and harmonies (*harmonia*) in it, third about its shape (*idea*); fourth about the many powers (*dunamis*) in it, and fifth about its activity (*energeia*). (II.127.6-11) (B)

Existence, Harmony (stemming from sameness) and Form all derive from Essence (which forms the original triad with *dunamis* and *energeia*). The five headings appear to be analogous to the first six gifts that are imparted to the physical body of the cosmos. Proclus asserts that the first, 'Existence', has to do with the *hupokeimenon* and the elements that compose it. The second, 'Harmony', has to do with the ratios and harmonies imparted to the elements (bond). The third, 'Form', concerns the forms of it (the spherical whole of wholes). The fourth concerns the many 'powers' in it (to the sphere's partible powers and to the *Autozôia*, whole and perfect powers) and the fifth concerns the 'energies' (this is analogous to the

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intellectual motion that the Demiurge imparts to the world) (II.127.11-23). It appears that the Soul possesses something like the '*Megista Genê*' that Plato identified, in *Sophist*, as universal parameters. They may be a basis for Proclus' finding that 'man' is a microcosm of the universe (since both possess these), as he points out in both Book 1 and Book 5. Again, it is important to keep the 'vision of the whole' before one when reading the *Commentary*. Soul, polis, cosmos and the higher causes that transcend them are all analogous because of the universal sympathy imparted by ultimate 'oneness'. Essence is the contracted or unified *source* of existence, harmony and Idea, while power and energy are the motive *force* that allows the Soul's life to go forward and expand along the dimensions of space and time. Since these are a pentad, an eidetic unity, all five *genê* constitute one 'Life'.

The unity of the Soul is still troublesome for Proclus. At a later point in the *Commentary*, Proclus raises this perpetual issue again. How is it that an essence, namely Soul, can be twofold in idea or form and yet one (*mia*) (II.241.23-9). Gersh discusses the equation between Existence (*huparxis*) and activity (*energeia*). Existence and activity are equal to each other under Being, and thus the powers of the Soul, and its existence, are in some sort of unity. Proclus stipulates that *incorporeal* things, namely Soul, can be one, despite the fact that they have a twofold *life* (one joined to intelligibles and the other intellectual, scientific and comprehending the cause of things). The latter is more proximate to divisible natures and effective of difference. There is only one Life, though, according to Essence, but there can be a twofold nature, according to Same and Different. One life contains and comprehends Essence and Existence (II.242.15-17). In this, Proclus follows the lead of Plotinus who stipulates that the Soul is not compound but is one nature.¹⁶

Power and activity (*energeia*) are discussed extensively by Gersh.¹⁷ A cause can extend its range of efficacy beyond that of its immediate effect, to lower levels of the hierarchy. The descent through the lower ranges of the ontological hierarchy results in diminishing force *according* to the extension of activity. Gersh adds that the range of the causal efficacy, within the hierarchy of reality, is logical as well. Gersh sees a conflict between the number of powers or activities and the quantity of power or activity. 'The basic problem is that the number will be at its maximum in the middle of the spiritual hierarchy, whereas the quantity will be at its maximum at the top of the same hierarchy.' Gersh suggests that whether these two facts can be brought together is a very debatable point, and he claims that Proclus seems unaware of the conflict.¹⁸ This can be explained as follows: when power is identified with the hierarchy of hypostases, Being and Eternity (which is a simultaneous whole), power is concentrated at its maximum. Activity associated with Soul would disperse it as quantity, an image of eternal wholeness. Quantity is a reflection of maximum power *as extended* while power *per se* is unextended and so is maximally

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powerful force. Number *qua* extended (in the course of the Soul's divided activity) is greater in quantity. When unextended, in the higher hypostasis, it is essential and greater in power. Going back to the passages at II.132-136.7, Proclus added that all of the features of the *Megista Genê*, Essence, Sameness, Difference, motion, etc., are consequents of the Limited/Unlimited dichotomy. Sameness and Difference are related to Limit and Infinity: Sameness represents maximum power in Being (Limit) and difference represents the 'unlimited' capacity to expand and produce. Number at the top of the hierarchy, then, is maximally powerful, while quantity, in the middle, is connected with Soul's discursive creativity and is maximum in quantity and production (II.134.16).

Moving and unmoved

The stranger, in *Sophist*, expresses astonishment at the thought that 'motion and life (*zôion*) and soul and mind would not be present to being itself' (248e8-249a2). As *Sophist* stipulates, Being is not fixed and unchanging (*akinêton*), but 'is moved, and moving, which cannot be the case with that which is in a state of rest'. This creates a dilemma for the Platonist: if Being is not at rest, it is exposed to disjoining effects of movement and unity is disturbed. In *Laws X*, Plato makes a distinction between those things that are moved by something other than themselves and those things that move themselves (894b-d). Those things that move themselves are a precondition for the existence of that which moves another. Proclus suggests a solution to the unity but movement problem. Both types of movement, self-movement and being moved by another, are precluded from Being but are associated with Life. Life, at the level of being, is not 'moving' but has power. Since 'all things are in all things', Being is in Intellect and Soul. The power that Being possesses is able to energize without itself moving or being moved. It is in Intellect as activity (*energeia*) and potentiates the Soul's movement, as the Soul is 'in contact' with its higher hypostases. The Soul, through its own self-moving motion, can access and energize Being's potency and Intellect's activity.¹⁹ Proposition 20 of *Elements of Theology* presents a succinct version of the levels of motion. Intellect is allowed eternal activity.

Soul again, being moved by itself, has a rank inferior to the unmoved principle, which is unmoved even in its activity (*kat' energeian*). For of all things that are moved the self-moved has primacy; and of all movers, the unmoved. If, therefore Soul is a self-moved cause of motion there must exist a prior cause of motion that is unmoved. Now Intelligence is such an unmoved cause of motion, eternally *active* without change. (D)

Somehow, motion is reconciled within essential stasis; a moving Soul possesses an unmoving Intellect, which is subordinate, in turn, to an

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unmoving and unmoved Being. Those who would seek to discover how the mechanics of this esoteric formulation works would be hard pressed to go any further than Proclus' stated formula. Activity is unmoved motive force: Opsomer describes a long and complex architecture of Demiurgy, on many levels including the encosmic. He then asks how multiple intermediaries can create an impression of continuity when Proclus does not really explain how spiritual motion prefigures physical motion.²⁰ This question is at the heart of every kind of account of creation. In fact, this is one of the perennial questions of theology and philosophy. For Proclus, motion seems to be non-physical, at the essential level of the Soul and of the Intellect, while movement in space and time is a product of Soul's activity but is somehow physical. Soul is an intermediate and mediates rest and perpetual motion, possessing a dual nature, an essence that is immobile and an activity that moves itself and others.²¹ The notion of spiritual motion is useful in putting these issues in perspective. They are not the sort of issues that scientific theories can address. It may not be particularly meaningful to seek an account either in logical or mechanical terms when discussing such strange, arcane constructs as a self-moving Soul or an Intellect at rest, etc. The best that can be done is to explain how spiritual motion works within Proclus' own superstructure.

Spiritual motion, Gersh explains, is a motion that is atemporal and non-spatial; it somehow animates without motion in the kinesthetic or metabolic sense. Further, unmoving motion (*akinêsis akinêtos*) (the phrase is used by Proclus at II.251.5), is the condition for the unfolding of multiplicity from unity.²² Gersh points to the contradiction between the supposed changeless character of Intellect as a hypostasis, and its seemingly temporal and motionable history in procession and reversion.²³ It is difficult to account for how motion can be generated by immobile principles and for the (causal) transition from Eternity to time. In lines 18-19 in Proposition 20 of *Elements of Theology*, Proclus describes Nous as 'eternally active without change'. There is a problem suggested by this formulation, one that seems to worry interpreters: the active nature of Intellect implies a kind of supraphysical movement. Gersh reviews a literature which interprets spiritual movement as a causal process conceived in essentially logical terms: the process and return of the effect upon the cause.²⁴ This explanation does not even begin to address 'Life' and power but only the effects of it, as Gersh has noted. In any case, noetic or spiritual motion seems an oxymoron, difficult to reconcile and counterintuitive, since motion in the conventional sense is physical, while Intellect is not. It is probably best to stay within the terminology of the ancient discourse on these matters and not try to seek an extratextual explanation.

Dodds points out that Aristotle considers Intellect (*Nous*) as an unmoved cause of motion (*Meta.* 12.7), while Plato associates Nous with motion, as he does in *Laws* 895c-896c.²⁵ In *Laws*, however, it is unclear whether Nous and Soul are different or whether one is beyond the other.

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Aristotle ascribes an efficient causality to the unmoved mover and that can be considered a kind of action that does not have the connotations of physical movement. Although Aristotle has great difficulty reconciling the idea of movement with supra-physical movement, as Harold Cherniss points out, 'If one admits the existence of Nous one thereby admits the reality of motion which is other than physical motion.'²⁶ In Book 5 of the *Commentary on Timaeus* (III.335.14-23), Proclus labels the life of Intellect as *energeia*, whose action is to perceive intellectually, while the '*energeia* of Being is to be, and of Life to live'. Being has life in the form of power (*dunamis*); Intellect has a life as *energeia* and its activity is to intellectualize. 'Movement' *per se* is life in Being and in Intellect but becomes kinesthetic and/or metabolic when it is associated with Soul. There is, then, an irradiating series of reflecting images of power, but all of them are actualizations of the invisible unity. Power (*dunamis*) underwrites *energeia*, which underwrites intellectual life, existing life and finally moving life.

Gersh explains that the best way into the whole problem of spiritual motion is to consider 'power'. Soul possesses Mind and Mind gives power to the Soul possessing a mind, but does not receive any power from it in return. The notion of the overflowing of power is one form of the undiminished bestowal whose origin is the First Infinity. The Soul's ability to create is inexhaustible.²⁷ Power turns to Life, life to activity and activity to motion. As the Soul becomes discontinuous when causing kinesthetic and metabolic motion, its essence, imbued with life as well, still remains connected to the higher hypostasis that assures continuity. *Dunamis* is cryptic 'power', *energeia* is the overt expression, both of which stem from Intellect. If power is complete, *energeia* is always incomplete in the Soul.

Were the Soul not grounded in Being, the simultaneous whole that is eternity, it would dissipate into disorderly motion. Soul must be super-vened by its own self-reflexivity and thereby in touch with Intellect, which in turn is grounded in Being. For Proclus this nested superstructure of hypostatic levels of reality gives stability to time, space and number. Soul, Intellect and Life are in continuity with each other. Proclus avoids an infinite regress when it comes to movers in general by usurping Aristotle's unmoved mover, and making it reside in the Soul's essence. The Soul will not dissipate in infinite division and dissemination as it might if there were no stable Essence. It can therefore be both unmoved mover and self-moved and move other things. Opsomer cites Aristotle concerning the necessity for an unmoved mover. In the case of self-movers, the argument can be extended to posit an unmoved mover within the self-mover, and it is the unmoved mover that is the true cause of movement. In this case, however, it is not strictly speaking unmoved, since it is moved accidentally. That is why self-movers cannot constitute the first principle of change; more precisely, because they are unable to cause a continuous motion. What is needed to stop a causal regress, according to Aristotle, is

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a mover that is unmoved in an absolute sense.²⁸ Soul, for Proclus, is subordinate to the Monad of Time and to Intellect, which is subordinate to Eternity. Because the Soul has an 'Essence', which incorporates the higher causes, the unmoved mover that it has within itself suspends from the higher hypostases.

Again the adage: 'All things in all things appropriately' supplies the premise by which the hierarchy of hypostases can be seen to operate without disruption in the descending series of analogical levels. The lowest level, however, is a multiplicity (*plêthos*) wherein there is always a potential for chaos. As discussed through the iconography of the allegories of Athens and Atlantis, the closer to matter the greater the threat of disorder. The mortal soul, albeit the unmoved essence that is native to all types of souls, faces the danger of dissemination. As opposed to divine, heroic and daemonic souls, this type of soul is closest to matter. There is a real struggle, as Book 5 of the Commentary will bring out, native to the mortal soul and its attempts to attain a means for salvation. There is a connection, which will become more evident later in the *Commentary*, between the Soul's potential for moving in a confused and disorderly manner and its opposing yearning for redemption. Intellect is placed in Soul and Soul in body, providing built-in limits to potential disorder. Reversion, as conceived in terms of movement, is a sequence whereupon the unmoved attracts the moving, arresting it so that it can spiral upwards to a reverting path. The attraction of the higher unparticipated hypostases causes the spiral towards Being. Proclus uses the term 'cyclo-spiral' (*kukloelikton*), which Siorvanes points out literally means 'twisting in a circular fashion' (III.20.25).²⁹ The closer to earthy passions (matter), the more difficult is this ascent. This will become clearer in the later books of the *Commentary*, when the lesser souls must try to escape fate and align with Providence.

The Soul and Number

Throughout antiquity, the Platonist philosophy of the Soul relied upon the *Timaeus*' account of the unfolding of the World Soul according to the mathematics of the cutting of the canon used in ancient musicology. Speusippus and Xenocrates took this literally and equated the Soul with geometry and mathematics. As has been shown in Chapter 5, Proclus, too, discusses the mechanics of procession according to the *Timaeus*' account of the unfolding of the World Soul in analogy to the cutting of the musical canon, but supports the account in a unique way. The Platonist mathematical account of *Timaeus* does not adequately describe either the self-movement of Soul, its life in time or its stable essence. Mathematical Platonism is unable to support the argument that only souls can originate motion. While Pythagorean mathematics is the harmonic infrastructure that the Soul *applies* to the material world, it is not the essence of Soul.

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For Proclus, then, the physics of motion, moved, self-moved and unmoved (life) is a determinate framework for understanding what is essential when it comes to the Soul itself.

Proclus opposes theories that hold that the discontinuities associated with the Soul's role in projecting ratios upon the cosmos constitute its essence. He distances himself from the Academy Platonist's mathematical account of the Soul's constitution. No predecessor can sway him from the thoroughgoing conviction of the spiritual nature of all of reality. Proclus launches a critique of his predecessors (II.132ff.). Countering the idea that the Soul is material in any way, he attacks those who consider Soul to be a geometrical or mathematical hypostasis, those who assert that it consists of point and interval, and those who associate it with Monad and Dyad. At II.138.6-26 Proclus argues that even though Soul is associated with division it is not 'infinitely divided' as are bodies. He cites Plotinus, who says that Soul is a medium between Intellect and sense, the former undivided and the latter divisible. Theodorus, Porphyry and Antonius, a disciple of Ammonias, are all predecessors who are cited in Proclus' sweeping critique of this popular interpretation of Platonism. Soul, first and foremost, does not have the characteristics of body.

Thus, just as bodies can be divided to infinity since they are divisible, when souls are divided it is into that which has been limited. So the case is like the division of number into units and from this fact some have thought it worthwhile to call the Soul a number. [Soul is like a number] in as much as it is divisible, yes, but divisible into things that are indivisible (like units) and not into things which can always be further divided [like the parts of bodies]. ... This means that the Soul is not a number, because number in its existence as a multiplicity (*plêthos*) is associated with matter ... Plato does not make the Soul a number, (therefore) ... it is absurd to investigate the principles of number of which the Soul consists. (II. 138.17-23) (B)

The Soul is not a number, Proclus insists, and Plato did not make the Soul a number. He finds it absurd to investigate the Soul as if it were a number. Here is a Neoplatonist, who devotes a large portion of his *Commentary on Timaeus* to the ratios, claiming that it is absurd to investigate the principles of number of which the Soul consists. It is the Soul's power to *project* ratios and proportion onto the cosmos that constitutes its association with number, not its own composition. Souls are unmoved in their being and moved in their activities, while physical things are moved in both (see II.147.3-148.2). The Soul, in touch with Intellect within it as a source of number, possesses the power to project this in its activity.

Those who regard the Soul as somehow geometrical are equally culpable. Proclus is critical of Numenius, Severus and others who would define the Soul as geometrical form. Severus interpreted the indivisible essence as the point (*sêmeion*), the divisible essence as dimension (*diastaseôs*) (II.153.20-4). Proclus also disagrees with those who assert that the Soul is

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a number, making it consist of the Monad and indefinite Dyad (*aoristou duad*), as did Xenocrates. He claims that the Soul is a Monad and Dyad only by reproducing³⁰ (*eneikonizomene*) the Monadic by imposing intellectual Limit and the Dyadic in divided things.

Proclus challenges the views of Plutarch and Atticus, who attribute the Soul's divisibility to the irrational part and the indivisibility to the ungenerated and rational part. Proclus appears to approve of Xenocrates' conception of the Soul as number in some passages. In others, he clearly considers such connections invalid (II.165.3-12; II.153.19-21; II.154.10-12).³¹ Proclus carefully qualifies his own extensive use of the cutting of the canon in ratio and proportion as the model for the creation of the soul-stuff. He suggests that it is a necessary paradigm, which avoids the world of geometry. Geometry is reserved for the creation of the visible cosmos. Geometry is a lesser form of mathematics because it requires extension in lines, planes and solids (and the activity of demonstration with ruler and compass). Number, on the other hand, has to do with invisible *logoi*. While the theory of proportions is a model for geometrical construction, and a formula for numerical ratios, in actuality the theory represents the more essential harmony in Being.³² The canonical model for the soul-stuff is not really a material concept at all but an intellectual one. Following Iamblichus (*De Communi Mathematica Scientia* IV), the tetractys is an ever-flowing fountain of life based on invisible principles. Mathematical formulas are 'bodiless' and intellectual. As Iamblichus stipulates:³³

From these things it is plain what difference the mathematical principles have relative to each other: for they are bodiless principles of those things which are bodily and the things contemplated with regard to life because they are motionless (principles) of those things which are characterized by motion (and) ... provide a principle of combining and division of those partless pre-existing (things). (18.13)

Proclus adopts the metaphysical premise that *logoi* for mathematics exist in the state of being in the gods but in the state of activity for the Soul.³⁴ Carlos Steel explains that Being and thought, Essence and activity coincide, but not at the level of the Soul. '... we have to distinguish between the *susiôdeis logoi* which remain eternally in the psychic essence and the *merabatikai noêseis* (the discursive temporal acts) through which the Soul projects the different *logoi* one by one' (296). The distinction, between the point and the idea of a unit, is a good example of Proclus' reasoning on this issue. The point, which is the geometrical (constructed) manifestation of unity, is the inaugural moment for the creation of the sensible world from invisible or esoteric origin. It represents the unit, which is invisible.³⁵ The hegemony of invisible ideas over visible form pertains to mathematics, as well as to ontology, and it takes the activity of Soul to cause the two to coincide. The Soul applies the principles of number to the material world,

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for example in constructing the point, but it is enacting the life of Nous. It is a medium for imparting harmonies originating in the intellect, to material realities, but not itself number.

For according to the thought of Plato, Harmony Itself is neither the Soul nor that which is in things that have been harmonized. Rather harmony itself is uniform (*monoeidês*), separate and transcendent (*exêrêmenê*) of such wholes as have been harmonized – this alone is that which is said to be harmony. But the harmony that is established with things that have been harmonized is a harmony that belongs to these other things and is ‘in another’ and multiform and naturally such as to be moved by something else. But the Soul’s harmony is intermediate between these harmonies, for the Soul’s harmony is the first thing that is harmonized ... (II.161.12-19) (B)

Doctrinaire Platonism associates the Soul with number: Iamblichus, on the other hand, emphasizes the Soul’s life and powers.³⁶ Theologizing mathematics then, while a ubiquitous Neopythagorean tradition when associated with the Soul, must be made to coincide with ‘Life’, an important Chaldaean and Mithraic principle. Mathematical parameters do not seem to have any relation to ‘Life’. Motion, *per se*, can be discussed in numerical terms, for example, the speeds of the heavenly bodies and the proportional relations that they have to each other and to the whole. Life, on the other hand, is not numerical and measurable but infinite. Further, while motion is divisible in time and space, life is indivisible. Self-moving Soul has its discursions along time’s dimensions (earlier, later, and so on), and is thereby divisible in time. It is not divisible in Being. Proclus, therefore, considers Life and motion as two separate categories and mentions them separately, as in the following passage. In this passage, it seems that motion is endemic to the discussion of nature and Soul but ‘Life’ endemic to Intellect and Soul. When Proclus discusses the animation of the world by Soul, he uses the word *Zôion*, the term he attaches to the Living-being-itself (*to panteles zôion*). The world is a ‘statue’ of the intelligible gods, one that has Soul and Intellect and deity accorded to it. In Proclus’ words, then, it is ‘a statue (*agalma*) in movement and Life and divinity (*kinomenon kai zôion kai theotêtos*) ... which receives movement (*kinêsîn*) from nature but from Soul it receives movement and Life (*kinêsîn kai zôên*) and from Intellect, intelligence and life (*noêsîn kai zôên*)’ (III.5.30-6.5). It appears that Life is the ‘constant’ present on all levels, both in Soul which has motion and Intellect which does not. When Proclus describes the soul as self-moved in its activity in the physical reality of time and space, he is talking about *kinêsîn kai zôên*, but when he is talking about spiritual ‘motion’ he is talking about *noêsîn kai zôên*). The Soul’s division is associated with its temporality and kinesthetic movement: its unity and reversion is associated with its contact with the eternally continuous life of the mind. Concerning number and dimension, which it derives from Intellect, its role as a living mover is to project these parameters onto the cosmos.

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Proclus has established that the Soul is provided with stability by an unmoved mover and has a life that is not merely kinesthetic but is tied to the life of Intellect which is spiritual. Iterative continuity, as in systematic division through proportion and ratio, is driven by the activity of the Soul. The identification with Intellect ensures that iterative continuity has a base in noetic life. In the following passage, Proclus associates the continuity of the Soul with the Monad Time and not primarily with number:

We must not imagine its continuity in an extended manner (for it is continuity without magnitude in the same fashion as time). Nor must we imagine its division is in virtue of monadic numbers, for that sort of quantity is incompatible with what is continuous. (II.166.7-10) (B)

Soul then, analogous to ‘temporal’ time, extends itself but is also at the same time a continuum. The Soul can turn upon itself and revert through its own self-motion and assimilate to eternal circular motion, self-identical and simultaneous (*hama*). This has nothing to do with its role in projecting number onto the physical world. In both the case of number and geometrical form, they are phenomena of Intellect (in their undivided form), and become material and divided in nature by the activity of Soul. Soul itself is not composed out of number.

The role of imagination and projection

Harmonies, then, are not the constituent infrastructure of the soul. Rather, the Soul produces the harmonic ratios through its connection with a transcendent harmony, which is associated with Intellect. The Soul, like the geometer who converts his concepts into images (lines and planar figures), projects the ideas in Intellect onto the imagination. In this instance, Proclus remains true to the classical view of geometrical construction: for a geometrical formula to be demonstrated it must be produced, it must be imagined. Imagination is the missing link that makes it possible for the Soul, undivided in its being, to have the capacity for both an undivided and a divided activity. While it is not itself material and is ‘unmoved’ in essence, it moves to project mathematical realities on to the screen of imagination. In this, Proclus makes use of Aristotle’s material imagination and by doing so he bypasses many of the *aporiae* that arise when a motionless and invisible Intellect meets the divisible moving Soul. It is on the screen of imagination that contact is possible between non-continuous entities. This is the receptive space within which they can interact. Proclus refers to Aristotle’s distinction between ‘the matter of things tied to sensation and the matter of imagined objects (*hulê aisthêtê* and *hulê noêtê*)’.³⁷ Imagination is not passive but:

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... the imagination, occupying the central position in the scale of knowing, is moved by itself to put forth what it knows, but because it is not outside the body when it draws its objects out of the undivided centre of its life, it expresses them in the medium of division, extension, and figure. (*in Eucl.* 53.24-7) (M)

Here is a unique contribution to psychology on the part of the Athenian school. It was Syrianus who defined the place of imagination (*phantasia*) between thought and perception, later adapted by Proclus.³⁸ In the Prologue to his *Commentary on Euclid's Elements*, Proclus discusses the relation of intelligible matter to production, as in constructing a geometrical figure. Proclus says that the objects of thought produce the figures in our imagination through the intermediation by the Soul. They originate, then, in the Soul's essence and are projected into space.

We must therefore posit the Soul as the generator of mathematical forms and ideas. And if we say that the soul produces them by having their patterns in her own essence and that these offspring are the projections (*probolai*) of forms previously existing in her, we shall be in agreement with Plato and shall have found the truth with regard to mathematical being. (*in Eucl.* 13.5-16) (M)

These passages in the *Commentary on Euclid* regard the Soul as a producer and generator of projected forms into images and complete the argument against regarding the Soul as number. Proclus provides the mechanics that explain how Soul generates harmonies while not being itself composed of them in any essential way. The Soul is a medium that is able to commonize, harmonize, or bond all that it animates while all the time conjoined (*sunapton*) with Intellect. The world of nature, the *Timaeus* asserts, is truly an image. In the *Parmenides Commentary* Proclus goes further and evokes Aristotle's 'common sense' to explain how the Soul can mediate the material world from a centre of unity. Here Proclus translates this idea into something like Aristotle's 'common sense' only on a higher level, and as organized around the 'I':

And indeed prior to both these faculties mentioned (desire and spiritedness) is the unitary principle of the soul, which often says, for instance 'I perceive such and such' and 'I am calculating' and 'I desire such and such' ... and which is conscious of all these activities and works along with them otherwise we would not have know all these activities nor would we be able to say in what way they differ, if there were not one single unitary thing in us which knew all these, which is over and above the common sense faculty and prior to opinion and prior to desire and prior to will. (*in Parm.* 958.3-11)

Proclus compares this to the undivided knowledge of god. The Soul, then, is a control centre: a perspective upon discontinuities, the overriding 'I' colonizing all its divisions. Just as Proclus sees the cosmos itself as a

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centre of apperception (see Chapter 6) now the Soul is at the heart of a unifying centralized cognition, and is thus able to perform the activity that commensurates nature with Intellect. A continuous substance, it synthesizes the divided and undivided within one unified idea. It is not made of the same cloth as its objects. The Platonic position that canonic division is the Soul's own infrastructure divides the Soul. If, on the other hand, the Soul apperceives divided objects in an undivided cognition, it is continuous and undivided. While projecting ratios upon the imagination and subsequently on nature, the Soul remains a unity.

Discussion

These formulations, like many in Proclus, are rather labyrinthine; entities and levels are multiplied beyond the demands of the elegance and simplicity that good theorizing should embody. Once again, the philosophical issues that Proclus is addressing require him to make the Soul a generator of ratio and proportion and an organizing centre of apprehension. The Soul carries out energetically in Time what is paradigmatically inscribed. The perennial problem of the material existence of ideal entities in time – how, if paradigms pre-exist, can they come to be (Husserl's question concerning the 'history' of ideal entities in Time) – is handled here by the dual functioning of paradigmatic causation and active demiurgic causation.³⁹ There is an analogy between the Demiurge creating the material world according to the Paradigm in the *Kratêr*, and the Soul actualizing the paradigms in the Imagination. The Paradigm creates by being; the Demiurge creates by his action. The co-existence and correspondence between ideal entities and their material counterparts is thus accounted for by this duality and the Soul as mediator:

For it belongs to the role of a Paradigm to create through [the fact of] Being, whereas it belongs to the role of a Demiurge to create through being active. Creating through [the fact of] being is not the same as creating through knowing and being active by means of knowledge. The soul too causes Life through [the sole fact of] Being. But it creates in a skilful manner (*technikôs*) through its knowing. The one capacity it has through its being, the other through its acting. (I.335.32-336.5) (R&S)

The Soul, like the Demiurge, carries out and reproduces ideal objects, which are paradigmatic in Being but must be produced by activity in order to exist in the material world. Image-in-ation is the factory within which paradigms are 'actualized' and apply to the real world. What exists eternally is produced in time and in interval and can never exist all at once when it comes to the physical cosmos.⁴⁰ Creation in time is the production of entities according to the eternal paradigms. Proclus is applying his ontological infrastructure, then, in order to address the perennial philosophical problem of the existence of ideal objects and their mysterious

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reproductive fecundity. Ideal objects become temporal phenomena through Soul as mediator between invisible eternal Forms and visible and temporal actualization. Eternity and time *per se* will be discussed here in Chapter 8, further clarifying these distinctions.

Conclusion

Aristotle, in a well-known critique of Plato, criticized the disjoining effect of the self-movement of the soul. By Proclus' time, the Platonic view that the Soul, as Self-mover, is the first cause of motion, was too simple to account for all aspects of the problem of an original mover. Proclus outmanoeuvres the *aporiae* that stem from both Plato's and Aristotle's premises. He allows the Soul to have self-movement and to have both the ability to distribute in parts, and be continuous. The disjoining effect of self-movement does not destroy continuity: the Soul contains Intellect essentially and is thereby subordinate to higher hypostases. Proclus' founding axioms of causality guarantee that the source of Soul's activity is undivided and unified. The Demiurge 'places Intellect in Soul and through this connects it (*sunaptôn*) to its fountain (*pêgên*)' (II.103.16-17). In essence, the Soul is unmoved while in activity it is moving: it causes motion while it is caused by what is unmoved. Plato's assertion that the Circle of the Same and the Circle of the Other are shaken up only has reference, according to Proclus, to the faculties and the activities of the Soul while its substance remains the same and unchanged (III.335.24ff.; III.338.6ff.; III.340.14ff.).

The relation between Soul and Intellect parallels that between matter and form. Soul accounts for a certain amount of the turbulence that accompanies motion; at the same time through its contact with Intellect it has a steadying effect. Aristotle's association of circular motion with continuity and eternal Being, added to Plato's Circle of the Same and Other, provides Proclus with an prototype of stability in Eternity in relation to perduration in time. (Aristotle clearly states that there is an association between circular movement and indestructibility in *De Caelo*'s lengthy discussion of imperishability.⁴¹) For Aristotle, imperishability has to do with the heavens, for Proclus, it is associated with Soul's contact with Intellect and Intellect's subordination to Being and Eternity. Soul's linear, and hence potentially infinite discursion is diverted by the attraction to rest by Intellect. The result is a deflection to circular movement. Proclus reiterates this in the fifth definition of Book II of the *Elements of Physics*: things that have natural circular motion have neither genesis or destruction.⁴² Soul, when it is 'lying upon' Intellect, is now moving circularly and aligned with its cause.⁴³ Time, on the other hand, makes the Soul continually active and this sets up yet another problem for transcendence or *homoïôsis theos*, for the mortal soul, as will be discussed below in Chapter 10.

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The Soul as a unified force that harmonizes the world through its activity ensures that the fundamental infrastructures of the universe are analogous. This in turn allows the ratiocinating formulas that harmonize the universe to be living operatives in the world of astronomy, physics and geometry. The Soul, then, is the source of a universal font of harmony across the disciplines. Doing it this way, Proclus is able to remove causality in the proper sense from the sensible world while allowing it to operate in the sensible world.⁴⁴ Proclus closes a gap that had never been adequately resolved in antiquity, between mathematics and physics. He also promotes an important premise for unifying theology and science by emphasizing, now with a physical premise, the Life and *dunamis* of the soul, which Iamblichus had put in the foreground.

In the next chapter, the eighth gift, Time, will display the next in the appreciating levels on his ladder of gifts. Proclus establishes that Soul is subordinate to both Time and Eternity. The Monad Time, rooted in Eternity, and temporality, rooted in the Monad Time, are analogous. Further, just as spatiality is rooted in Being as a Simultaneous Whole, temporality is rooted in Time. Time is a Monad in Being and temporality in activity. Eternity is a hypostasis supervening on Time, creating, in its first actuality, circular motion. If the reader of Proclus thought the complexity of Soul and Intellect was daunting, he or she will now find it augmented by a further intricately contrived account of Time and Eternity. Proclus, in this discussion, brings yet another premise into play to support his culminating claim for the ultimate hegemony of Providence over Being. The more developed discussion of soteriology occurs in Book 5, the salvation of the Soul and its potential assimilation to higher causes. A foretaste of this is given at II.112ff.: ‘The bond that proceeds from Intellect and Soul is strong ... but the union of the golden chain is still greater (the chain of deities)’. Here Proclus praises the union of the Soul with the Intellect, but suggests that he who lives according to the will of the father and preserves the intellectual nature that was imparted to him, is happy and blessed. For Proclus, psychology is never far from soteriology.

Proclus' Golden Ratio: As Time is to Soul, so Intellect is to Eternity.

... of the ten gifts which the father gives to the world, each of the following is entirely greater than each of the gifts that precede it. If therefore, having ensouled the cosmos, and completed it as a blessed God, he afterwards imparts Time to it, it is clear that Time will be superior to Soul and to the possession of a blessed life on account of soul and that a life which is defined according to Time will live according to the periods of Time (*periodikôs*). Hence, Time will not be thing of such a kind as the multitude (*hoi polloi*) say it is, but will have an essence more divine [and better] than the Soul's good. (Proclus, *in Tim.* III.3.29-4.6)

In Book 4 of the *Commentary* Proclus delivers an impressive and highly-nuanced treatment of one of the most intriguing, but also the most perplexing issues for both philosophy and physics. Undaunted by the complexity of this task, he constructs an elaborate and systematic analysis of Time and its relation to Eternity. Neoplatonism, in general, had made a study of Time, and Proclus relied on the work of several of his predecessors to elaborate his own theories. Plotinus is known for his theory that Time is an activity of the Soul. Iamblichus, a direct influence, elevated Time from the level of the Soul to the level of the Intellect and elevated Eternity to a level above the Intellect. In doing so he took several steps beyond Plotinus along the path of hypostatizing grades of reality. Plotinus distinguished between a higher and a lower time.¹ Further, Iamblichus posited a superior Time that is participated and an inferior Time that participates. Much to the dismay of commentators such as Sambursky and Dodds, Proclus systematizes the Iamblichean distinctions within an elaborate ontological schema. Sambursky finds that the 'need for a further multiplication of hypostases probably arose from the endeavours of Iamblichus and his school to correlate their ontology with the diversified syncretistic theology of their day and to include in their system the sacred entities and divinities of Oriental religions'.² Dodds expresses similar reservations regarding the hypostatizing of Time and Eternity as substantive principles and remarks that this schema is an 'unfortunate development' compared to what he considers Plotinus' more sophisticated account of Time as the activity of Soul. He attributes Proclus' lapse on these points to the influence of late Hellenistic cult and magic in which a deified *Aiôn* and Kronos have a prominent place in Gnostic and Hermetic speculation,

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and in the Chaldaean Oracles, following which Proclus calls Time ‘an intelligible god’ (III.14.3).³ O’Neill also claims that the intricacy of Proclus’ account is due to his adaptation of Orphic and Chaldaean sources.⁴

These views reflect a tendency on the part of these interpreters to attribute Proclus’ theories on Time to so-called Greek ‘irrationalism’ and allege that the theological allusions that Proclus connects with his conceptual apparatus skew his ability to be systematic. When Proclus’ theory of Time is placed within the context of his metaphysics the hypostatic levels he adapts from Iamblichus can be justified by systematic considerations. Proclus’ theory of Time stands on its own and is a solution to philosophical *aporiae* native to a Platonist vision of the whole. Central to Proclus’ entire metaphysics is the fact that unity has a higher status in the ontological hierarchy than Being. While Plotinus also held to the priority of unity, for Proclus the principle of ‘all in all but each appropriately’ means that unity pervades all hypostases from the highest to the lowest levels.⁵ A paradigmatic ruling structure radiates from unity through Being and Intellect and permeates the activities of Soul. Giving Time’s status as ‘unparticipated’ (real and undivided), along with Intellect, allows Soul to make its temporal arrangements in accordance with ruling paradigms, apart from the flux of time. Soul mediates between ideal structures and changing phenomena. Monadic Time operates as a principle and rules over temporality, and this is the reason that Time is not an endless or chaotic stream of change and motion. Since what is second in Time is often first in *logos*, the ‘map’ of time, for Proclus, has to exist as unmoved and unparticipated. If Time was equivalent to temporality (the flux of temporal events that unfold in a linear sequence), the fluctuations within temporality would not be subject to logical and providential arrangements. For Plotinus, on the other hand, it is not as clear how it is that Unity can supervene upon Time if Soul is its sole host, or at least the explanation is quite different. For Proclus, Time and Eternity are elevated above Soul and Intellect. Monadic Time supervenes upon unfolding Time (temporality) and thereby the higher hypostases dictate predetermined completions. Everything reaches its *telos* in time.

Time as a Monad and Eternity as its source imbue unfolding temporality with a ‘life’ of eternal continuity and ensure that temporality displays the limits that higher structure imparts. Time holds the epiphanies of all wholes; temporality carries out their life in nature. Spiritual motion draws from logical and ontological identities to energize temporal expansion as divided Time unfolds. It is not, as in Beierwaltes’ view, a logical identity unfolding its consequences while remaining a unity: it is *dunamis* converting to *energeia* resulting in the proliferation of temporal events. Life is a constant in both Intellect and Soul, as has been discussed.⁶ Procession, the derivation of lesser realities from superior ones, is not just a logical or intellectual derivation, but a living progression. The flux of unfolding reality is a synchronous presence of Eternity, Time as a Monad, and

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temporality. In the coming-to-be of all things, they are spaced along Time's dimensions, earlier and later, etc. In the 'completion' that attends upon all things, a linear succession of moments spirals and reverts upon itself, bringing about ideal and ultimate teleological epiphany. The exemplar and closest physical example of this is the orbits of the heavenly bodies as a noetic and supervening circular motion (Circle of the Same) which performs a self-similar rotation. Ultimately all separate motions are reconcilable: all temporalities are co-ordinated in one apocalyptic, overriding cosmic unity. The rule of uniform circular motion over all inferior motions in the universe reconciles them to a circular *apocatastasis* (ultimate reconciliation). Time as a Monad reconciles motions on an even higher level than Soul: it is an arm of Providence and brings the larger picture of the plan for the cosmos into effect. In the following passage, Proclus mentions the orbits of the planets and the diversity in their spherical orbits, but concludes that there is one supervening Time and measure, giving them one animation (*zôion*) and one life (*bion*).

... These have an orderly arrangement after the one measure of the whole period. And the one Monad, itself, of Time, is a perfect and complete number ... On this account ... we say that there is the same Time everywhere. For the world has one Life, in the same manner it has one nature and one Intellect ... it is measured according to total Time. (III.57.15-27)

The following passage is a synoptic presentation of Proclus' complex view of Time and Eternity. Here Proclus identifies the many kinds of Time possible in an infinite and eternal universe, which unfolds in temporal and spatial interval. Proclus demonstrates his highly nuanced approach to the many types of Time, accounting for Time and Eternity's paradigmatic, demiurgic and Soul-related levels. The passage aptly summarizes the complex view of Time, Eternity, perpetuity, interval and the now, and all the finer distinctions that allow a full appreciation of the complexity of Proclus' account:⁷

... For there is a difference between 'always' (*to aei to chronikon*) in the temporal sense and in the eternal sense (*aiônon*). In the one case being is wholly all together (*athrous pan*), in the other it is stretched forth by the entire continuity of Time and so is unlimited. In the one case, it is located in the 'now' (*Nun*), in the other case in extension which is unceasing and always in a state of becoming.

Now the [characteristic of being] 'in itself' ... devolves on what exists from the Paradigm. ... The [characteristic of being] 'what it is' ... devolves from the One Being (*Henos Ontos*), <that is what is> primarily elevated above non-being and privation, because it is that which is primarily Being and in it, all things secretly and indivisibly subsist. But the (characteristic of being) 'always' (*to aei*) devolves from Eternity (*Aiôn*). Just as the One Being is the bestower of being, so Eternity is the bestowed of Eternity (*aidiotês*) to the intelligibles. (I.239.2-14) (R&S)

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Further,

But when the discussion is focused on generation and freedom from generation and he needs these definitions for this end, he quite suitably asks what is that which always is (*ti to on aei*) (27d6). It is by this [characteristic] [i.e. always existing] that the eternal (*to Aiônion*) is distinguished from that which subsists temporally (*kata chronon*). (I.239.17-20) (R&S)

Proclus goes on to state the seminal claim of *Timaeus* that the Living Thing that embraces all intelligible living things is eternal and Time came into existence with the heavens. In the succinct passage above, Proclus distinguishes between (1) the temporal ever (*to aei to chronikon*), that which is coextended with the whole continuity of Time and is infinite; (2) The Eternal Ever (*ho aiônos*), which is everything collectively, and at once, and which subsists in the now; (3) Itself (*to auto*), that which is derived to beings from the Paradigm (like the forms); (4) 'the One Being' (*Henos Ontos*), which gives existence; (5) The ever (*to aei*), that which is derived from the eternal ever but which conveys perpetual action or existence; (6) Eternity (*ho Aiôn*), the hypostasis that is Eternity itself; (7) Perpetuity (*hê aidiotês*), the everlastingness that Eternity gives to whatever is perpetual such as what is (*to aei to chronikon*); (8) The 'being always' (*ti to on aei*), that which is being always includes generated and ungenerated; (9) Time (*Chronon*); (10) The eternal (*to aiôna*), that which derives from Eternity.

The premise that Eternity and Time are hypostases, even if Dodds' and Sambursky's views are set aside, may be disturbing on general positivist grounds because of the multiplication of unverifiable entities. Like many other unseen and unproven invisible realities postulated in modern physics, however, such as black holes and negative space, Proclus' hypostases are heuristic and usefully clear up many *aporiae* endemic to Platonism. Iamblichus makes an important and basic distinction between unparticipated time (*amethektos chronos*) and participated time. The former is comparable to Proclus' Monad of Time. Proclus postulates that unparticipated Time has priority over Time that is associated with change and movement. This strategy results in several consequences. Hypostatizing Time (the unparticipated Monad), as well as Eternity, allows Proclus to make some finer distinctions, such as the difference between Time and temporality, comparable to that between Eternity and eternal things. Time and Eternity have continuity while temporality and eternal things have infinite perpetuity. There is an important distinction between Time as a hypostasis and time as unfolding asymmetrically (our temporal experience is one-directional towards the future). The former is a static infinity, while the latter moves toward the future. The former has continuity, while the latter unfolds in discontinuous intervals but is stabilized by being subordinate to Time as infinite continuity.

Soul is the only entity endowed with movement that is both continuous

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and discontinuous when engaged alternatively with the intellectual and with the physical world. The dual capacity of Time to be a continuous whole and, alternatively, to be temporal (unfolding unidirectionally) is enacted in the Soul. The physical world, in turn, unfolds in a discursive or successive manner, in intervals, calibrated by the ratio structure of magnitude and of number. In this way it bears the mark of Eternity, but its continuity is expressed in a discursive fashion, carried out in stretches of time. The physical world itself, since it unfolds through motion and is created in intervals and dimensions, never achieves more than perpetuity. It does so through its association with the intellectual cause of soul, which, in turn, is rooted in Time whose ultimate cause is Eternity and Eternity's direct subordinate, Intellect.

Proclus invents the following ratio: As Soul is to Intellect, Time is to Eternity:

if Intellect is second to Eternity (*Aiôn*), soul a copy of Intellect, how could Time (*Chronos*), which is the image of Eternity, not be something more excellent and more absolutely essential than the Soul itself? For as Soul (*Psuchê*) is to Intellect (*Nous*) that is how Time (*Chronos*) is to Eternity (*Aiôn*). (III.27.18-21)

It is clear that Soul is subordinate to Time and Intellect to Eternity and not the opposite, as perhaps one could interpret Plotinus, who states that:

one must not conceive Time as outside Soul, any more than Eternity there as outside real being ... it is ... something that is seen along with it and exists in it and with it.⁸

With the above ratio, Proclus solves some of the most trying *aporiae* of ancient philosophy. Soul, subordinate to Time as a Monad, guarantees that the activities of Soul will not dissipate toward non-being. Should Time be subordinate to soul, it could be serial and unidirectional, potentially infinitely iterable and interminably successive. Some of the same issues that stem from a strictly serial view of Time are similar to those that Zeno had raised in his paradoxes of motion. He conceived of events as occurring in discrete moments of Time and his arguments against motion, therefore, rest on the assumption that magnitudes are made up of atomic elements. These units of Time are the obstacle to the progress of motion. Circular continuity transcends temporality and results in self-identity through time, even when 'coming-to-be' is in temporal succession. If there is no higher level of resolution than what occurs in temporal succession, things in Time could not reach their *telos*. If Time is continuous, on the other hand, the intended actualization of things can take place uninterrupted. If not, they would remain incomplete or dissipate in the direction of non-being. Movement during change and temporality is perilous if there is no hypostatic fundament to which Soul is subordinate. Just as intellec-

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tual equalities can contain infinities in mathematics, Time as a Monad contains all Time's dimensions. If something is contained by its cause, it can come to its completion by passing through earlier and later phases of its development and still retain its identity. Continuity, then, is introduced on a transcendent level providing an antidote to the discrete, instant-by-instant, interminable progress that could ensue if phenomena in Time were subject to temporality. Unparticipated Time resides in the level of objective Intellect (personified by the Olympian god, Zeus) and Soul as subordinate to Intellect partakes of its changeless structures.⁹ Proclus provides us with a hint of his later claim that Providence has a longer reach than Intellect and Soul, when he reminds us that 'those beings without Soul participate in Time, too; therefore Time is placed over and above Soul (*chronon epekeina psuchês*)' (III.32.27-30).¹⁰ Further, the premises are present in this discussion for a 'correspondence theory of truth', namely, why structures in the physical world conform to theoretical structures in mathematics and physics. Things in the world are not governed by temporal and phenomenal change, but from above. The same Intellect, subordinate to Eternity, reaches the physical world through Soul, which provides it with its own structures. Both the features of the physical world and the sciences that study them are subordinate to the same intellectual paradigms. Time, Plato's 'moving image of Eternity', must be a Monad in order to mediate temporality but stay within the compass of Eternity.¹¹

Eternity as a hypostasis is a cause, and just as Time holds iterative potentiality within its bounds, it holds Intellect, which has its own mode of discursion (*dianoia*). Even dialectic, which is self-reflexive thinking, is itself a duality and therefore is discontinuous in its own way. In the *Elements of Physics*, Proclus specifically associates the continuous with Eternity, the successive with temporality, and Time with Eternity.¹² Time, as a hypostasis, differs from temporality, because it and Soul that is subordinate to it are both subordinate to Intellect, and in turn to Eternity, which underwrites continuity in an ultimate sense. Here we encounter Proclus at his most systematic. The theory of Time bears analogy to divisibility in mathematical infinity, as opposed to proportion and equation in formula, as was discussed in Chapter 4. Time as temporality is opposed to Time as a Monad and Eternity as a hypostasis. Proclus' analysis is replete with analogies. The contrast between sameness and difference in Time as a Monad and Time as temporality is analogous to the parameters of Being and becoming. Similarly, there is an analogy in the panoptic 'whole' of the cosmos, as opposed to the moving heavenly bodies in ecliptic and equator. Time as a Monad holds iterative potentiality within its bounds just as the Circle of the Same holds the Circle of the Other; proportions reconcile incommensurable magnitudes, etc. Whether in the phenomenological unfolding in time, in the heavens, or in geometrical number, Proclus grounds discursion, with its potential iterative dissipation, in the permanent, continuous and uniformly self-same.

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If Time were not subordinate to Eternity, and Soul not subordinate to time, certain conundrums, such as are found in *Parmenides*, would undermine the stability of being. Were Time not Eternal, all Being as beings would be destroyed by the passage of Time (temporality). If Time were only unidirectional (serial), all the paradoxes of the *Parmenides aporiae* would remain unresolved. If, on the other hand, the truth of Time is its ultimate symmetrical wholeness, the perplexing discussion at *Parmenides* 141a-b (that the same thing that is becoming older than itself is becoming different from itself) is resolved. An entity holds the identity throughout its relata. In a continuum, the earlier and later stages of its development are not discrete and irreducible moments. The attraction of the higher unparticipated hypostases causes the spiral towards being (Proclus uses the term 'cyclo-spiral' (*kykloelikton*), as was discussed above).¹³ Were such circularity not possible, even to the last extremities of the universe, unidirectional seriality extending to perpetuity would constitute a dissipating infinity and the world would tend towards minimal form. Change would be only in the direction of increasing formlessness. If Time were not a hypostasis the earlier entity would disappear when the later arrived. There would be no object constancy, no epiphany, and no point at which something is at its perfection as intended by its individual predetermined form. All states of its existence would be equal and therefore fragmented. Atomism would rule in nature.

Proclus departs from Aristotle and Greek tradition whose notion of Time and Eternity has to do with heavens. He elevates Time above the heavens, and makes it a Monad, and not something 'physical'. Proclus claims that Aristotle discusses as eternal being what he regards as perpetuity in Time:

... for he claims that the most divine of visible beings 'also exist always' – we shall require him not to confuse what is eternal with what exists for the whole of the whole of time. In fact, he ... distinguishes between Eternity (*aiôn*) and time, and apportions the one to Intellect and the other to the heaven and the rotation of the heaven. (I.253.31-254.1) (R&S)

But the heavenly bodies: what *Timaeus* has defined as

'the most divine of visible beings' are everlasting (*aidia*) in another manner and not in terms of eternal duration. Rather they are brought forth for the whole duration of Time from their own causes, and their entire being is [concentrated] in their coming into being. (I.254.5-8) (R&S)

For Proclus, Time is perpetual in its unfolding but eternal in essence as a Monad. Aristotle associates Eternity with intellect and Time with the heavens, while Proclus himself prefers to say that the heavens have to do with the perpetuity of Time and that Eternity is transcendent. The heavenly bodies as generated may exist always but are not eternal; they are produced.

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Proclus reasons as follows:

... if the always-existent (*to aei on*) signifies the eternal (*to aiônion*), why should one refer the nature of heaven to this being that always exists, and not state that it is always in a state of becoming, inasmuch as it is coextensive with the everlasting (*aidiotêta*) nature of time? (I.254.12-15) (R&S)

Soul, with its ability to traverse reality in a linear fashion, within the parameters of its interval structure, reverses and assimilates because of the attraction of Nous. Noetic Time, circular in nature and a monad, follows Aristotle's criterion for eternal motion, namely that it is continuous with no beginning or end.¹⁴ The continuity of Time, then, comes from a higher hypostasis than the eternal circular motion of the heavens, which itself is subject to the same transcendent regulation as Time. The interval structure that arranges temporality ensures that it unfolds according to the ratio structure that Soul imposes. Soul, subordinate to Intellect, is subject to a larger overriding perfection, the continuity provided by Time as a Monad. Similarly, Eternity centres the Intellect, ensuring that it too does not oscillate infinitely from self-reflexive poles but spirals toward perfection as toward the centre of a circle. The ratio Intellect is to Eternity as Soul is to Time states the ontological priority of Eternity and Time. Soul is subordinate to Time as a Monad, which in turn is subordinate to Eternity, rendering all of creation an image of the original Paradigm.

The answer, then, to the question why hypostasizing of Time and Eternity is not 'irrational', as Dodds would have it, has to do with the functional utility of assuming these hypostases. Geometry is a body of knowledge that starts from first principles that it does not demonstrate: axioms, definitions and postulates. Similarly, the hypostases Time and Eternity are archaic but heuristic principles. They are self-constituted realities that lead to consequences that originate from them but cannot be proved by them since they must be assumed for the consequences to proceed in the first place. The Living-being-itself is a demonstration of principles. As Iamblichus put it:

One might posit that Time is a measure not with respect to measuring locomotion or being measured by movement, nor with respect to making manifest the revolution [of the heaven,] or being made manifest by it, but with respect to its being simultaneously the cause and the One of all these.¹⁵

Systemic considerations and not theurgic obscurities, then, determine the 'hypostatizing' of Time and Eternity, guaranteeing the subordination of temporality/soul to Time and Intellect/perpetuity to Eternity.

If there was any time other than the twentieth century in which an idea of relativity found expression, it was in late antiquity with the Neoplatonist view of the dimensions of time. Iamblichus had stipulated that Time was twofold. There is one Time before temporal things and there are

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several times that come into being in what participates in it, so that in it, one Time is past, one present, one future.¹⁶ Iamblichus' 'Time' before temporal things, or the Monad Time, which Proclus proposes, represents a panoptic position that does not entail any egocentric or limited perspective.¹⁷ The so-called 'now' represents the panoptic position, while the dimensions of time, *qua* temporality (past, present and future) do not entail that the present occupy any privileged position (as in the 'now' which is the panoptic eternal view). The perfect number of *Republic* (546b4-5)¹⁸ is an example of a panoptic 'now' and has the whole measure of the periodic return. It is a superstructure within which all periodicity (temporality) finds a position.

The Proclean position that there is a Monad of time, a 'panoptic now', addresses *aporiae* such as are found in *Parmenides*. The *Parmenides* arguments represent the perennial philosophical problems of the existence of ideal objects and how they can persist when Time and motion are introduced. Opposites, such as rest/motion, are mutually exclusive in respect to a single point in time, but not so in relation to time's dimensions (which could not exist simultaneously but can co-exist in a universe of interval). If there is temporality, something can be in motion at one point and at rest at another. Because of Monadic Time, which preserves Being in the face of becoming, rest/motion, one/many, Limited/Unlimited, can play out alternatively and not disrupt the constancy of the formal identity of something. As a self-contained monad, then, the Monad Time ensures the continuity necessary to complete Form. Identity is preserved through change *despite* the dimensional nature of time. The law of the 'now' that applies to sensible being, namely that opposite characteristics cannot exist at the same time, or in the same space, does not apply to the 'now' of Monadic reality. When Time is a hypostasis, its dimensions are reduced to positions (before and after, earlier and later) existing within a simultaneous whole. The absurdities of argument in the dialogue, such as 'If the One is, then motion is and is not', are resolved in a dual universe where becoming is a moving reflection of a static Being. Everywhere, what is and what is not can be given simultaneous existence within the unity that is Time despite successive appearances in the physical world. (Now something is at rest, now it is in movement, but neither exists *at the same time*, albeit in the same universe and remaining identical to itself.) Motion and rest are only mutually exclusive in a given set of Time co-ordinates. When placed in a hierarchical structure where unity possesses a 'higher' ontological status over being, and Being over becoming, rest contains motion as it contains all positions.

Blumenberg discusses the 'specular' view of Time in relation to Plato's *Timaeus*, but this applies to Proclus' *Commentary* too. Blumenberg points out, 'It remains unclear, in Plato, who is supposed to be the observer and the beneficiary of the cosmic clock.'¹⁹ The onlooker at rest, Blumenberg observes, on an absolutely fixed earth determines a vantage point from

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which the observer can see the heavenly bodies measuring time. This state of affairs led Greek astronomy to speculate about what patterns the universe of heavenly bodies, *as a whole* or *in themselves*, might follow. Constructs such as the cosmic 'great year' of Plato's *Timaeus* assume an onlooker with a more objective overview than the earth-bound onlooker. Proclus elevates the panoptic vantage point of astronomy to a metaphysical significance. The result is a vision of the whole projected as an Eternity of temporal activity. Time's measurability, following *Timaeus*, is due to the observed clock that is constituted by the movement of the fixed stars and their relations to all the other bodies of the universe. Time itself (caused by Eternity) is that which always is and has the whole of its existence simultaneously present to itself.

Time, then, is more like a space than a succession of points, an expanse taken as a simultaneous whole. After explaining that the 'always existent (*to aei on*) should be understood as being on its own and far removed from temporal change', and that 'Soul participates in Time, (while) heaven has obtained a life that unfolds temporally' (I.232.30-233.1), Proclus claims:

Only the intelligible realm is fully eternal in virtue of itself. For this reason some of the ancients describe (a) the noetic realm in its full extent (*noêton platos*) as 'truly existent' (cf. 28a3-4). (b) the psychic realm as 'not truly existent'. (c) the sense-perceptible realm as 'not truly existent' and (d) matter as 'truly non-existent'. (I.233.1-4) (R&S)

The translation of *noêton platos* might be rendered as 'intelligible breadth' and this would convey the sense in which Proclus perceives the noetic 'realm' as a non-extended but vastly encompassing, non-temporal whole. The Monad of Time is along these lines as well. Modern physics utilizes a special depiction of Time when it describes the world of events statically as a picture projected onto the background of a four-dimensional space-time continuum, rather than dynamically onto a background of three-dimensional space (time here is an absolute time). In effect the *noêton platos* is comparable to the Monad of Time. Proclus says that Soul participates in Time, and the life of the heavens evolved according to Time, but only the 'intelligible breadth' is, according to itself, eternal. Supermundane Time, then, is Time functioning as a principle. All things must originate in the eternal principle or there would be an infinite regress.

After all, where would coming into being come into being from, if not from that which exists always? For if that [always-existent] were to come into being, this would happen through the agency of something else (cf. 28a4), and that would either exist always or have come into being, with the result that (a) we would progress to infinity or (b) generation would take place in a circle, or (c) that which always exists does [in fact] exist. But (a) it is not permissible to advance to infinity, for all things come from the One as single principle. Nor does generation take place in a circle, lest the same things

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become superior and inferior, and become both causes and products. What remains, therefore, is that the always-existent exists. (I.228.13-20) (R&S)

An analogy can be made to a space/time coordinate system of modern physics. The cosmic time that embraces all measures by which the periods of the souls and bodies are made perfect is, in effect, such a system. Einstein, like Proclus, took the panoptic view of the scientist in order to decentre all motions in Riemannian space-time. These theories put the irreversibility of time in question. In particular, if all events are conceived as contained within a sphere, all intervals between two events (points in space-time) can be regarded as homogeneous with all places alike and isotropic. The world, under these circumstances, should look the same in all directions from all points at a given cosmic time. As mentioned above, in modern physics time is depicted in spatial terms. Using this as a way to understand the Athenian position on these matters, all positions in successive time, past, present and future, are decentred within an overriding oneness of Being, in the Monad of Time. If everything exists with no before or after, but in an eternal now, all together one, as Parmenides says in his poem, then, all before and after are positions on one map. From a panoptic view everything exists in simultaneity; it is only from the limited perspective of temporality (interval) that earlier and later exist. If one were travelling from New York to San Francisco, San Francisco would be reached later than New York. If the trip then went on to Hawaii, Hawaii would be later than San Francisco and New York would be earlier than San Francisco. From the perspective of another traveller, reversing that sequence, it would be the opposite. From the panoptic perspective (such as a map) they are completely reversible. It is interval and direction that determine the unidirectional series. From a panoptic perspective, all times ratiocinate with Time as a Monad like so many pieces of a puzzle. Time can be a symmetrical balance and earlier and later reciprocal, since they could be read either way from the panoptic view. What appears to be prior in sensible Time may be posterior in noetic importance and vice versa. In modern physics too, the directionality of Time comes into question, as it does for Einstein.²⁰

All the epiphenomena of Time, then, are reconcilable in a larger picture and are subordinate to what Proclus calls a circular *apocatastasis* (*kukliēs apokatastasis*). The acme of all Being is the epiphanal 'now' in which all 'nows' become co-ordinates. The 'now', for Proclus, is a stand-in for Being, and not merely a dimension. All limits are proportionate to the whole and all finitudes images of Limit. Within this framework, the dimensions of Time are for the purpose of conferring perfection on things that are imperfect. All things move along in Time as temporality attuned to their hidden sympathy with the Good (III.18.12-19). Even things that are not noetic are brought under the order of a larger universe, as Proclus proclaims in the following passage (this idea is a prelude to a later and more complete discussion of Providence and Fate):

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For even things which are not able to live according to Intellect are brought under the order of Fate (*heimarmenês*) in order that they not flee from divinity. (If they did so) they should become completely disorderly. Thus also things which proceed from Eternity, and are not able to participate in a stable perfection, which is at once whole. Under the rule of time, (they are allotted) always the appropriate energies, by which they are enabled to receive the end adapted to them, through certain *apocatastatic* periods. (III.18.5-12)

Time as the One of temporality in measure is infinite in the same sense, as is any monad that is a homogeneous and continuous whole (III.30.30-2). Temporality could never be whole, in and of itself, without Time as a Monad, since it must exist only in measured units and is therefore serially iterated ad infinitum. (This is perpetuity and not eternity.) Time is a road to destruction for whatever follows its temporal course in a discontinuous way (serial division for example). ‘Whatever can turn back upon itself, the whole to the whole (*holon holôi sunaptetai heautôi*)’, says Proclus, ‘is incorporeal’. Turning back is impossible for body because of the division of its parts, which lie outside one another in space’.²¹ Only the continuous can turn back upon itself. Only Time *qua* Monad and *qua* Eternity completes the purpose of the universe. If there is not a circuit of communicated movement, the only alternative is an infinite regress (*El. Theol. Prop. 14*). The universe is engaged in a dance of temporal events around their *telos*. This will have implications for the soul that aims to assimilate, but could choose direction wrongly.

Things that subsist according to Time (are) always in generation, those things that are eternal things are ‘always Being’. It is the common tendency then for men to denominate always being as Eternity, the same way that Time receives its name from dancing, which is a movement and which has its essential nature in coming-to-be. (III.9.14-18)²²

The allusion here is to the relation between ‘*chronos*’ and ‘*choreia*’. ‘Dancing’ is a fitting trope to convey the relation between temporal events within an eternal and immobile whole. It also connotes ‘measure’ since dance, in ancient parlance, means to the measure of music. This trope appears ubiquitously in Neoplatonic thought (certainly in Proclus) and is a favourite trope of Plotinus’.

The dimensions of Time

Aristotle succinctly states the dilemma of Time’s dimensions:

Some of it is past and no longer exists, and the rest is future and does not yet exist; and time whether limitless or any given length of time ... is entirely made up of the no longer and not yet; and how can we conceive of that which is composed of non-existents sharing in existence in any way? (*Phys.* 217b35-218a4)

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For Proclus, the no longer and the not yet (Time as temporality) is contained by Time *qua* Eternity. The no-longer and the not-yet, while linear in coming-to-be, is ruled by its *telos*, and is moving around Being as around a centre. For most things, the runaway successiveness that could potentially result in progressive deterioration is controlled and averted by the Limit that the relation to Time as a Monad and Eternity imposes. The dimensions of Time are rendered stations within wholes by these means. Time, by this view, is itself a Monad; Eternity's place-holder in Being. Time's effects appear to dance around its own stable centre. It is thus that 'non-existents' (such as things that are almost indeterminate matter) share in existence, namely through their attraction to Being. Everything is intelligible even, as *Timaeus* put it, if known only by bastard reasoning.

For Proclus, there are two kinds of 'is', that which is 'now' and akin to 'was' and 'will be', and the 'is' of simultaneity, a Monad in the sense of a singular unity, the stand-in for the unity of Time on a cosmological level. Time in motion, on the other hand, is linear and allows room for nature to proceed in its perpetual becoming. Cause can proceed to effect. Temporality provides the room for *gignomata* to become perfect. Asymmetrical logic, as Matte Blanco has discussed, is a logic of before and after, in linear and irreversible sequence, and this is what is endemic to discursive thinking which is always related to time and space. The larger panoptic perspective, Time as a Monad, as in the case of other simultaneous 'wholes', can be understood by reference to symmetrical logic. All things are present at once with no before and after: from the panoptic perspective, 'is' is Eternal.

Mohr points out the difference between 'merely relative temporal comparisons of earlier and later, before and after' and judgments of past, present and future made by reference to a celestial clock, which are only possible in an ordered world.²³ In the latter case, all *relata* are dimensional within a unity that is time. 'After' and 'before' are potentially reversible since the asymmetry of 'before' and 'after' pertains only to the relation of succession. In an Eternal 'now', circularity prevails over linearity and before and after become relative to the position from which they are regarded. From a panoptic view, events could be read forwards or backwards. The truth of Time reverses asymmetrical time: the celestial clock orders past, present and future within an overriding frame. Proclus therefore calls *to ên* and *to estai* (what was and what will be) species of Time generated by the Demiurge (III.37.15-17). They are a correlate of the Soul and Life of the world and posterior to generation, while past and future are discussed by Proclus as species (*eidê*) of time. Thus days, nights, months and years are temporal intervals (*diastêma to chronikon*) which are part of time's progression, whereas, according to the whole of itself, Time abides (III.34.15). Time perfects all things and the stars measure the numbers of time. All this is, again, only the expression of infinite power, the infinity of *appearing* Time and circling (*tou emphanous chronou tèn*

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apeiron ta kata kuklon) that goes on perpetually while Time itself stays in itself (*menon*) (III.40.24).

Husserl discusses the fact that ideal objects have to be produced repeatedly 'and are in no way capable of being found'.²⁴ The mystery of their existence is a perennial problem for philosophy, as it was from its earliest inception. The conviction that the world is eternal allows creation in time, in the sense that temporality can provide the space for demonstration of Eternal principles as they 'come to be' in generated existence. Essence moves into Existence, through demiurgic intervention, producing the cosmos in an eternal dance. Demiurgic event is the activity of paradigmatic production. Creation, then, is not a process in Time, but in temporality, an unfolding of the atemporal in its visible and tangible existence. There is an old Academy position that parallels this view. Speusippus held that even a geometrical construction should not be taken as a process in time. Creation in Time is analogous to geometrical construction in this sense. Speusippus and others held that construction with compass and ruler does not bring something into being which previously was not, but demonstrates the principle by which it is.²⁵ World creation, as analogous to this, can be considered to be a demonstration of Eternal principles extended across the space of time. Existence never departs from Eternity for more than a dance. Time is Eternal, but there is a need for a fabricator that will convert the Eternal and ideal objects to temporality: Being to becoming. Thus, the Demiurge creates through 'thoughtful invention and technological contrivance (*ennoias kai mêchanêmatos*)' (III.18.17).

... the forming of bodies has been called **generation**, as it is a movement towards the wholeness and perfection of the universe, after all, a thing composed of parts presupposes the production of those parts. So all [production] between matter and total ordering and unique completion of the **universe** should be called **generation** so that generation is a path towards the whole which is in a sense intermediate between the absence of order and the [ordered] cosmos. A **universe** on the other hand, is [he says] the whole formed from the parts, in which the parts are [all] embraced, for it is this that is a 'complete universe composed of complete [parts]' in accordance with the one [fitting] arrangement (*harmonia*) of the wholes. (I.358.19-29) (R&S)

Clearly there is no real beginning of the world in time, only a beginning of generation. Construction involves a process of contrivance. Things are not born complete but their completion must come about in time and through contrivance.

Providence

The concept of a Providence determining all events in the universe is the king-pin of both Platonism and soteriological belief. It is in this belief that the Athenian school forever embeds itself within the archaic concepts we

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associate with antiquity, religion, and everything else that Dodds might denominate 'irrational'. If one keeps an open mind, however, Providence is neatly rationalized by the Proclean view of time, at least in terms of his own ontology. Providential creation demands that all events in Time be subordinate to a continuous whole that is the divine plan. Time as a monad carries the divine *Pronoia* (Providence) into material reality: Eternity holds it within itself. The bipolarity built into the Proclean Soul, whereby it is capable of both temporality and salvation (temporality through self-motion and salvation through reversion to Intellect), enables Providence to associate itself with the sensible world. Thus there is an oneness of Infinity even in the measured temporality. Proclus quotes Iamblichus in order to explain how, in the words of the *Timaeus*, 'Time is an Image of Eternity'.

Because, as the divine Iamblichus says, it exhibits the infinity of Eternity (*aiōnos*) which is now Being, is at once all, rests in the 'now' (*to Nun*) and is the unmeasured measure of intelligible – in a circular revolution, in continuity (*sunecheia*) and in the successive; and also in separating beginnings, middles and ends and not destroying any one of the things contained (*periechomenōn*) by it. (III.33.1-7)

All this is encompassed by Eternity, and this means by Providence.

Proclus in the *Commentary on Parmenides*, refuting Aristotle's view of the primacy of Intellect, asks, 'Why is it not enough for Intellect to revert upon itself and be the "cause superior to all things"?' He then pays the greatest tribute to the ontological priority of Being as greater than Intellect, one that cannot be refuted by the analytic and scientific precepts of the twenty-first century: 'by abolishing Providence he does away with creation, for what can provide for nothing is sterile'.²⁶ Providential reach includes all of creation, perishable and imperishable, and therefore has a longer reach than intelligence. Intellect may provide intellectual parameters but the Good toward which all creation is aimed is Intellect's guide and not Intellect's invention.

For Proclus, 'Providence' is an all-important subtext in the discussion of Time and Eternity. It represents a very important difference between Proclus and Plotinus. As O'Neill explains, for Plotinus Eternity is the life of Nous whereas Soul uses discursive reasoning and is involved in time.²⁷ For Proclus, Being and Eternity transcend Intellect. Eternity contains the life of the whole universe, whereas Intellect holds only intelligible things: the formal paradigms which the Demiurge copies. The whole of Time holds the beginnings, middles and ends of all things, but the Forms hold only their intelligible parameters. Mind precedes Soul and Soul participates in it. Eternity is unparticipated and permeates Mind and Soul. Time and the timeless are thus co-present in Eternity, as well as constituting infinite potentiality. Providence is the precondition for all of these distinctions: the One and the Good are the same.

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For a Platonist, the creation story is always a *muthos*, an *eikos logos*, a tale in time that narrates becoming, a history as illusory as becoming itself. Nous, under the rule of the Demiurge, continually puts chaos back into order. The cosmos undergoes many revolutions of which there is never a beginning. Thus, the beginning of the world in Time, in a universe where Time and temporality are perpetual and Eternity is an essence, is merely the occasion of demiurgic intervention, wherein disorder is formed into order. The privilege of the present renders all formative states measurable by the 'now'; they exist only as part of the infinite potential for wholeness. This does not mean that there is a beginning of order and a pre-existing chaos in the temporal sense, but that there is a continuous converting process of a hypothetical disorder, which, in fact, never exists *per se*. The process of conversion to order is simultaneous with the possibility of existence. Generation, then, is just a way of saying that something proceeds from a cause.

Thus, that which does not have its entire essence or its actuality together in a unified stable state is named 'generated', for an existent of this nature certainly subsists only through [the process of] becoming and the existence that belongs to it is always coming into Being, but not [real] Being. (I.277.27-33) (R&S)

With these stipulations, history is merely a stage for the production of eternal paradigms and, at certain epiphenomenal points, is resolved into the focus of the true image of its eternal paradigm. As history moves away from paradigmatic epiphanies, memory fades. The theme of the infinite but nonetheless unitary and indivisible nature of divine *pronoia*, Whitaker points out, identifies the infinite and the unitary. Nicholas of Cusa follows this, citing Proclus, when he says that 'infinite' means *non solum non finitum sed simul et valde finitum*.²⁸ The glory of Infinity is its undiminished bestowal of creation which is inexhaustible and everlasting: its danger is at the extremes of Being, where things cling to existence upon pain of being nothing. Salvation is always at the behest of Divine Providence.

The wider reach of bounty than that of Intellect, the higher rule of Providence than intellectual fabrication, is characteristic of the Athenian school. *Pronoia* (Providence), determining and controlling the continuous creation, must always be read into Proclus' account of Time and Eternity. The one Time, the Monad, for the whole universe, contrasts with its 'dance'.²⁹ What is all at once in the divine mind unfolds into the light in temporal form.

For there is a difference between the divine Intellect (*ho theios Nous*) and the divine thought (*ho theios logos*), the one being unified, the other multiple, the one encompassing the whole things, the other dividing unity into multitude, the one resting in itself, the other coming forth into the light. (III.54.6-10)

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It is clear, then, that the theory of Time and Proclus' principle that continuities in the world of nature are images of the One are inextricably bound up with the idea of Providence. Eternity (*Aiôn*) is omnipresent and therefore continuity in Time is seamless and everlasting (*to aei to chronikon*). Infinite power and infinite existence are both, in their own ways, eternal, simultaneous, and entail a vision of the whole that is a Paradigm for the visible world (the One Being (*to henos ontos*)). Eternal beings are those things that are always being, and always in Eternity (*Aiôn*) and possess a continuity that affects existence (*ti to on aei*). Perduration in Time (*tês aidiotêtos*) contains the interval structure of processing time, which is potentially infinite though actually always finite and bounded by Limit. Time (*chronos*) as a Monad is a reflection of Eternity, and, as the life of the Soul, it is always in becoming, unfolding in the interval structure natural to genesis. It is, in short, the always (*to aei*). Time's order pre-exists Soul's activity. The Soul's temporality is pre-structured by Time as a Monad and transcends the Soul's enactments. The ratio Soul is to Time as Intellect is to Eternity is a superstructure, and annotates the larger perspective wherein all that is, is held in the arms of Providence.³⁰

The 'great year', originated by Oenopides and adopted by Plato in *Republic*, stipulates that periods of revolution for the various planets could be calculated so that each planet would be found at the epiphanal moment of the 'great year', to be aligned in the same configuration as in the 'great year' before it. (Oenopides had it every 59 years, whereas interpreters of Plato make it every 36,000 years.³¹) The commensuration of times within Time becomes elevated to a metaphysical assertion of eternal recurrence and apocalyptic cyclicity as the true image of Eternity.

Conclusion

Proclus employs a precise terminology for pinpointing the distinctions that fully elaborate a theory of Time and Eternity. It is clear that systematic considerations and not theurgic obscurities determine the 'hypostatizing' of Time and Eternity as opposed to more derivative aspects of Time, such as temporality and perpetuity. Giving Time a place as 'unparticipated' (that is, something real and undivided), allows the Soul to reach for ruling patterns as it moves to mediate between permanent idealities and changing physical phenomena. In doing so, the Soul accesses Time as a Monad which provides the 'syntax' as Peter Manchester explains, that communicates order to 'interval' (that is, to the discrete moments of the temporal flow).³²

Proclus, in the tradition of the Athenian school, regards the Infinite as the principle of life, fecundity and creative expansion without which the great diffusion of the Good through all the levels of multiplicity cannot occur. It is not a 'dark other' responsible for evil.³³ Without the spacings of

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discontinuities, serial expansion, growth in depth in dimensionality, the infinite potential of life could not be realized. This infinite fecundity, however, threatens ultimate destruction were it not contained by the circular infinity of Being as a simultaneous whole. Time as a hypostasis accesses Being and subordinates temporality. Like Einstein's infinity with boundary (curved space coexisting with the path of the speed of light) linearity and circularity resonate together in a single 'universe'. Proclus' formulations similarly take into account linear discursion in cyclical redemption, finitude and infinity, Time and temporality, eternal perduration and Eternity, and hold them all within a single Providence.

For Proclus, Aristotle's *Physics* presented an opportunity for a more scientific Platonism. He took into account Aristotelian notions such as continuity, succession and contiguity, potential vs. actual infinity and the idea that motion and time have an analogous continuity. Aware of all of his Platonic predecessors' views, Proclus determined an expanded superstructure for the discourse on time, heuristic for further scientific and metaphysical development.³⁴ At the same time, Proclus presents a radically teleological view, combining the predetermination by the Good of Plato with the teleological view of nature of Aristotle. Time as Providence is preservative of things 'containing the beginnings and the ends of all things, bringing everything perfectly to its conclusion'.³⁵ He criticizes those who would see Time as the cause of corruption (III.20.14-15) and reminds the reader that, in fact, as the theurgists say, Time is a God, and this means that it is a measure of motions, assimilating them to paradigms, making partial things whole.

In the next chapter the now complete infrastructure of the 'whole', Time included, will finally be seen to be a dwelling in which the gods have set their sanctuaries.

‘The Sanctuaries of the Gods’: The Ontological Status of the Lesser Pantheon

Then, ninth, he establishes the sanctuaries of the gods in it who together produce the perfect year ... (39d5) (II.5.28)

For just as the knowledge possessed by the gods and the particular souls differs, so do the names, those given by the gods revealing the entire essence of what is named, whereas the names given by humans only touch on them in a partial manner. (I.274.6-10) (R&S)

Foundational ontology, separate from any cultic, soteriological or revelatory framework, clearly has a separate life throughout the *Commentary on Timaeus*. When the reader reaches Book 5, the plethora of allusions to the sublunary gods reaches a critical mass and he/she encounters the full range of sublunary gods (*hoi hupo selênês theoi*). Proclus stipulated that the ultimate *scopos* of the *Commentary on Timaeus* is to study nature ‘insofar as it is produced from the gods’ (I.217.18-27). In Book 5, Proclus delivers on this promise. Proclus claimed that physiology must be a sort of theology right at the beginning of the *Commentary*. Now, in the most graphic terms possible, these gods populate the text and are squarely identified by their proper names and genealogies.

Book 5 begins with the declaration that the account of the sublunary gods is connected with that of the celestial gods (*hoi ouranioi theoi*), in fact, they ‘come out’ from (*exêrtêsthai*) them. They, in turn, are suspended or come out of the intelligible gods and the series (*seiras*) that follows them. The intelligible gods (*hoi noêtoi theoi*) are at the top and ‘occultly’ comprehend all things, and the acme of these gods is Unity. Second in the descent from the highest realms are the intellectual gods (*hoi noeroi*). Next down are the super-celestial gods (*hoi huperouranioi theoi*) (III.162.1-15) followed by the celestial gods and then the sublunary gods.

The ‘golden chain’ of gods, then, is one that extends all the way to the transcendent gods to whom the lesser gods are converted (*epistrephontai*). The celestial gods are converted to the supercelestial deities who in turn are converted to the intellectual deities by whom they were distributed. The genus of them all is the intelligible gods, the highest of gods, from whom the intellectual gods are ‘ineffably unfolded into light’ and who ‘occultly comprehend all things’. All of the gods have dominion over souls

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and can be their 'leaders'. This fact has bearing on the possibilities of assimilation for souls, as will be shown in Chapter 10.

The *Commentary* (III.168ff.) presents an Orphic theogony which Proclus asserts is most relevant to the *Timaeus* doctrine. (Proclus was known to be quite tolerant when it came to the intertranslatability of names of gods and regarded the sacred names of Egyptian, Chaldaean, Indian and Greek gods all as legitimate offspring of the same patronage.¹) The Orphic theogony, however, is adapted directly from *Timaeus* and that is one of the reasons why it is difficult to know from the *Commentary* alone whether Proclus considered Chaldaean names to be strictly equivalent to those he names here. Of more interest are the equivalences that Proclus makes between concepts and deities. The Demiurge who throughout the *Commentary*, thus far, has been seen as the metaphysical equivalent of the efficient cause acting as a craftsperson, now is equated with Zeus as producing 'universal beings in a universal manner'.² Dionysus is the leader of the encosmic Demiurgy and stands for perpetual regeneration. We learn further that Dionysus symbolizes the World Soul; his heart is the intellect of the world, whereas his body is of a psychic nature.³ Opsomer points out that Dionysus is the leader of the encosmic Demiurgy and hence the leader of the younger gods of the *Timaeus*. Proclus points out that Plato omits reference to Phanes and Night as in the superior order and begins the theogony of the sublunary gods with Heaven (Ouranos) and Earth (Ge). Proclus, on the other hand, begins with Phanes and Night (Nux) which, in support of his metaphysical hierarchy, correspond to the sun and the moon, i.e. the celestial gods (*hoi ouranioi theoi*). Thus, the gods who preside over wholes in descending order of kingdom from the intelligible and intellectual gods, proceeding through the middle order and into the world for Proclus, are as follows: Phanes (intellectual and intelligibles), Nux (Night), Ouranos, Kronos, Zeus and Dionysus. Phanes and Nux are analogous to same and different; Phanes to the sun and Nux to the moon. This follows Proclus' practice of making facile but systematic connections between the levels of cause and Demiurgy, linking god and metaphysical/causative function. In a later passage (III.187ff.), Proclus comments on 40e6-41a1 of *Timaeus* and comes up with an extremely complex theogony of which a partial sketch is given opposite.

Oscillating between metaphysical categories and divine figures, the reader can easily find eliding meanings. Theological personifications transform into conceptual categories and vice versa. The Unlimited itself and the Limit itself are now revealed to be Phanes and Nux. Notably, Ouranos and Ge are secondary to them and correspond to the Monad and Dyad. (This is further evidence of the priority that Proclus assigns to the Limit/Unlimited dichotomy over the Monad and Dyad.) The syncretism of concept and deity can be seen quite clearly in the following passage. Also clear here is the association that is continually made in Neoplatonism between genealogy and reproductive genesis and procession from cause and principle:

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The Supermundane Gods

Phanes (*Peras*) (Sun)
(paternal cause)

Nux (*Apeiron*) (Moon)
(female or generative cause)

The Sublunary Gods

Ouranos (Monadic paternal cause)
Father intellect; contains the
intellectual gods.
Contains the measures that come
from the Good.
Introduces bound to souls and
to the works of nature.

Gê (Dyadic maternal cause)
Assimilated to the first infinity.
Generates all sublunary infinity.

Okeanos (analogue to Monadic)
Source of all motions,
progression and power.
Establishes things like stability.
Cause of permanency.
Gives energies to souls.
Generates motion collectively to all
things, to seas, to flowing rivers etc.
Assimilated to heaven.
Unical (male) and Monadic.

Tethys (analogue to Dyadic)
Source of primary productive
power, associated with Rhea.
Separates the streams
proceeding from Okeanos.
Intellectual, psychical and physical.

Female and Dyadic.
Separates into primary and secondary
motions. Associated with weaving.

Phorkys
(guardian of spermatric
productive principles)
Moves the circulation
of the universe.

Rhea (vivifies)
Rules material world.
Cause of souls and life.

Kronos (divides intellectually)
Rules over motions of the
stars and time.
Divides forms, multiplies and
divides intelligibles.
Leader of the Titans.

The Olympian Gods

Zeus (essence of material soul)
Perfecter of all generation
in the intellectual order.

Hera (cause of power, connection)
Evolves things, gives plenitude
and life to all things intellectual.

Indeed everything that proceeds from the male is also brought to birth by the female, preserving its subordinate role. So Hera processes in company with Zeus, giving birth to all things together with the father, for which reason she is called 'the equal accomplisher', and Rhea processes in company with Kronos, for the goddess is the recess that harbours all the power of Kronos, and Ge processes in company with Uranus, as Ge is mother of all that Uranus has fathered. And if we were to assume, prior to these basic divinities, limit and unlimited, which have been given the status of principle and cause in respect of them, we shall find that everything that proceeds in any fashion into being is generated from both of them. (I.46.26-I.47.7) (T)

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It seems that, when the conceptual categories that are co-elemental are assigned gender, there is a little ambiguity about assigning equal co-ordinate roles. The main point here, though, is that the process of engendering is dyadic. It is to be noted that Zeus is placed at the lowest tier of the genealogical hierarchy, but is the 'highest god' in respect of the physical world. In Chapter 3 above we saw that when Proclus interprets the *Republic*, even at the lowest levels of perception and matter, Zeus' guardians were seen to maintain control over unruliness. Athena, goddess of war and wisdom, fights off any of the powerful enemies and restores to order that which a fulminating infinity might produce. The *Timaeus*, then, as a treatise on nature, gives priority to Zeus, the creator and sustainer of the material soul. Athena appears to be active in human affairs and those of cities. The Zeus of *Philebus* and the Demiurge of *Timaeus*, Opsomer points out, must be identical. 'It is no coincidence', according to Proclus, 'that he receives exactly the same title in two dialogues, "Demiurge and father", in this order' (*Pol.* 273b2; *Tim.* 41a7). Further, when Proclus uses the terminology 'father and maker' he is referring to the universal Paradigm equated with the third intelligible triad (the Intelligible-living-being, also known as Phanes). The title 'father and maker' refers to the summit of the intelligibles whereas the 'makers' are the lesser, encosmic demiurgoi, and the Demiurge *per se* is the essence. Proclus makes the further distinction that, while the father produces by his very being, a maker produces by his activity.⁴ The former Demiurgy is completely transcendent and responsible for universal beings in a universal way and the second Demiurgy, the one connected with the young gods, is responsible for partial beings created in a partial way.⁵ (As will be explained in Chapter 10, 'partial' creatures are mortal creatures.) The split between father (Zeus) and maker (Demiurge) is analogous to that between unmoved and unmovable, and movement *qua* change or activity. The dichotomy of movable and unmoved is a theme repeated in many contexts throughout the *Commentary*. In references to the gods, it corresponds to the two aspects of Demiurgy, while in a 'metaphysical' context it corresponds to the difference between potentiality and actuality. In this instance, change and motion (activity) are due to the efficiency of the encosmic gods.⁶ 'Father' concerns the function of the paradigmatic cause, on the other hand, which imparts stability to its offspring.

Do oriental or Aegean gods have any real ontological significance or function in the metaphysics that Proclus systematizes? It appears that they do. Proclus, as always, provides a structure in the form of a hierarchy of philosophically functioning deities. At the very beginning of Book 5, when he describes the 'golden chain' of divinities that produce generation, he traces their origin to the supercelestial gods, which in turn are connected to the intellectual, which in turn are connected to the intelligible gods from whom they were 'ineffably unfolded into the light'. The priority, for Proclus, in this discussion, is to establish an unbroken causality. The

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higher gods have the noetic scope and leadership over all that comes forth from the sequence of lower divinities. From the genus of the intelligible to the sublunary deities, down to the last of all things, there is a 'dominion of goods', which are analogous to the Good (*to Agathon*). These goods do not spring from concepts alone. The Intelligible gods (*noêtoi theoi*) are at the top and occultly comprehend all things, and the acme of these gods is Unity. Again, in the descent from the highest realms to the lowest, are the intellectual gods (*hoi noeroi*), next down are the supercelestial (*hoi hyperouranioi*) deities whose 'acme' is the intellectual, and finally, on the lowest level of extraterrestrial divinities, are the celestial gods (*hoi ouranioi theoi*) whose acme is the supermundane. The *Commentary on the Timaeus*, as a treatise on nature, covers the purview of the celestial gods and their derivative deities, the so-called lesser pantheon (*hoi egkosmioi theoi*), the ones that supervene upon the physical world. When Proclus names the gods, he is demonstrating the fact that intervening categories are, in the greater scheme of things, the purveyors of the good. Concepts alone do not produce goods; only gods do. It is these gods that ensure that production of the physical world is 'Providential'.

Proclus regards the ninth gift of the Demiurge to the world as the completion of the world by the producing gods that rule the circle of generation. They are subordinate to the ruling gods and they are at the bottom of the hierarchy. The celestial deities are generative and they receive measures and boundaries from their father, who establishes powers analogous to him in every order, in their arrangements and analogous to the Good. Dodds describes how this works. There are successive groups of henads on successive levels, so there is, for example, a *patrikon aition* among the 'intelligible' gods, another among the 'intellective', etc. Even within a particular group, each attribute may be represented by several 'gods' (in the intellective group *to patrikon* consists of the triad Kronos-Rhea-Zeus (*Plat. Theol. V.ii-iii*)).⁷

Another way to situate the lesser pantheon, as does Jan Opsomer, is to associate them with the third triad, which, in turn, is associated with the *Autozôion*, the Intelligible-living-being-itself that is the created universe (III.97.55-12). The third triad is the intelligible triad, completely perfect and unique in its kind and an infinite multitude (III.95.11-96.20). Four types of living things are contained within it: '... the heavenly race of gods; next, the kind that has wings and travels through the air; third, the kind that lives in water; and fourth, the kind that lives on land' (III.104.27-112.19). It appears that all creatures are contained in the third triad, including the lower level of gods. Each of the four is an archetype of a vertical series that runs from the gods themselves down to the mortal species. Since the *Autozôion* is a Monad and a Dyad containing the four primordial genera of living beings, the third intelligible order is the first case of all Demiurgy (I.230.22-8).⁸ The heavenly race of gods that follows from this Demiurgy and who produce and supervise the sublunary gods

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who are directly responsible for the creatures below them, then, are the divine operatives in the physical world.

Once again, the basic premise that pervades Proclus' thinking, the principle of 'everything in everything but appropriately in each' (*El. Theol.* 103.92.13) allows licence in the matter of the fusion of concept and divine being. This principle supports the possibility of the simultaneous presence of transcendent realities and those existences that proceed from them and operate on more finite levels of being. The encosmic gods are associated with the iconic, and therefore with the physical or sublunary world, but we learn throughout the *Commentary* of the simultaneous presence of the higher levels of divinity with the lower ones.

One may still ask how it is that sublunary gods can operate so freely within a philosophical system. One way to understand this is to look more carefully at Proclus' view of language. Rappe has identified very important issues in the use of language on the part of the Neoplatonists.⁹ She quotes I.273.25-7: 'There are names appropriate for each level of reality, divine names for the divine, discursive names for the discursive reality and opinionated names for the level that requires the use of opinion.' One can approach this by considering the symbolic function of names. There is a hierarchy of levels of meaning as well as realities and one level can receive one name, which has a different name when considered on another level. The Good and the One, for example, may be the same reference, but on the level of Providence is called 'Good', and on the level of cryptic transcendence, 'One'. The subordinate gods follow from the One and operate in the context of natural theology, insofar as they are the efficient causes of the generation and preservation of souls and of the cosmos.¹⁰ In Iamblichus and his successors, the gods serve functions within the larger metaphysical picture, especially when it comes to creation. In the *Commentary on Timaeus*, impersonal 'forces', or 'principles' can lead a double life as 'gods' and are personified by bearing their names. Still, one can ask why Proclus needs these 'personifications' when he has principles operating smoothly throughout the many-levelled ontological schema. Do they merely reflect Proclus' political and cultic loyalties and beliefs and mar his philosophical purity?

There are certain lacunae in abstract philosophical systems that are impossible to fill in without invoking causative agency in the form of forces or intervening functions. Proclus fills in by invoking the gods. Paradigmatic causes, that is, 'principles', cannot *create* anything tangible (the Greek for principle, *archê*, may carry wider connotations as a source or beginning or origin). Principles, *per se*, have no motion, no agency, and cannot induce change. They may meet the demands that there be all-powerful reigning noetic design, but they are sterile. They generate only intelligible and intellectual parameters of the universe but cannot guarantee its 'goodness'. Being has hegemony over Intellect, after all, and principles do not equate to ontological presence in the form of transcen-

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dent agency or Providential plan. The gods are agents of Providence, and Providence has a wider reach than scientific causality. Providence (*pronoia*) is an activity prior to even Intelligence (*pro nou*), as Proclus stipulates.

Stephen Gersh discusses spiritual motion as the highest form of causation in the Neoplatonic system. He claims that spiritual entities exercise their causal function not by conscious thought, but by spontaneous and unwillful creativity.¹¹ This is right. Principles, *per se*, do not create or activate anything and they do not, in and of themselves, possess 'spiritual motion'. Proclus tackles a problem that cannot even be formulated here in the twenty-first century, at least not within the confines of positivist ideologies: how to account for the fecundity of nature. Forces can be quantified and values can be given to the variables in formulas. A scientist can quantify the speed of light, decipher the genetic code and analyze the chemical elements of phenomena to no avail. The secrets of how they operate in natural phenomena still remains a mystery, particularly the 'agency' by which the world and its creatures are continually renewed. How things come to be, each of its kind and in its season, and how nature renews itself without fail eludes the modern scientist. Modern scientists refer to 'mechanism', which does not address the 'living' production of biological genesis, nor can the strict adherence to operational definition even attempt this level of explanation.

The Proclean 'gods' fill in a gap in understanding. The epistemological difficulties of attributing causality to the 'gods' did not trouble Proclus. The gods exercise powers that carry out the paradigmatic principle of the 'unknown' source; the One that is beyond the dichotomy of motion and rest. They are 'souls' and, as such, they can supply the activity necessary to construct the universe and activate it according to noetic principles. The gods embody the characteristic of self-sufficiency (*autarkês*) and can, thereby, make up for the circumstance that the physical world is not self-constituted and the highest divinity is immobile.¹² Since physical entities are always moved by another, the self-movement of the self-sufficient gods is the activating catalyst that ignites the world into existence, something that cannot come from concepts *per se*. The spectre of the '*apeirakis apeiron*' (the infinity of infinities) which Proclus raises in the very first proposition of *Elements of Theology* evokes the horrifying prospect of a material world unhooked from transcendent unity. Dodds explains that, in a universe of pure plurality, the basis of knowledge would be destroyed.¹³ This danger is precluded by the entire hierarchy of ontological principles; moreover, as was discussed in Chapter 3, it is not only by principles but the 'might' of gods and goddesses that this danger is warded off. In Book 5 of the *Commentary* we find it is the gods that stabilize the universe and ensure that it does not dissipate into non-being. An entire pantheon of greater and lesser gods is at work in creating and sustaining nature. They produce according to the paradigmatic principles

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that ensure limits are applied to spatial and temporal creation, but also do what a paradigm *per se* cannot do. They perform the acts of creation that produce nature and they sustain nature by their presence.

Pantheonic ontology

The conceit of making facile connections between Platonic constructions and Hellenic or oriental deities had a long history prior to Proclus. The Presocratics, up to and including Plato's time, were deeply involved with theologizing mythology and its iconography. One does not have to go further than Plato himself to discover this ubiquitous practice. Plato, in the *Laws*, defends the traditional cults of Greece and the amalgamation of them with the star gods. There is mention of Apollo, Helios, Hera and others. These gods are patrons and protectors of the civic order and are closely associated with the social and political life of the polis.¹⁴ Zeus, for example, in *Laws* (715e), is connected with Athena and a symbol of the rational World Soul. The Derveni Papyrus, a document of the fifth century BCE, documents the prevalence of the Orphic cosmogony in the culture contemporary with Plato. In it (Col. xxii), Earth, Mother, Rhea and Hera are one and the same.¹⁵ In *Timaeus*, Plato calls both heaven and earth visible and generated gods (40d5-6). However, Plato also employs a certain amount of irony regarding the traditional gods, calling them 'family matters, as some people declare themselves to be descendents of the gods' (*Timaeus* 40d7-40e6). Still, he is clearly referring to the Orphic theogony when he states (40e6-41a3) that 'Of Ge and Uranus were born the children Oceanus and Tethys, and of these Phorkys, Kronos, and Rhea and ... of Kronos and Rhea were born Zeus and Hera etc.'. From the earliest history of the Academy, philosophical terminology is associated with the gods by other Platonists. Xenocrates, for example, associates the gods with the Monad and the Dyad, according to Kahn (relying on Aetius' account), Zeus with the odd and intellect and the male, and the Dyad with the mother of the gods and the region of the sublunary world.¹⁶ Nicomachus too, quoted by Kahn, says, 'It is fitting to match god with the Monad, since god is in a seminal way (*spermatikôs*) all beings in nature, as the Monad is [potentially all things] in number ...'.¹⁷

The oriental religions gained increasing importance in late antiquity and the names of the gods became international and intertranslatable with Roman, Egyptian and Greek deities and with philosophical concepts as well. Dillon points out, for example, that in later Platonism the Demiurge became a second god and the role of *logos* was taken over by the World Soul in its active rational aspect.¹⁸ The reign of the Emperor Julian was a critical period during which the oriental/Platonic fusion became canonical. He adopted Iamblichus' philosophy, revered the Chaldaean Oracles, and enabled them to become, in Athanassiadi's words, the 'holy book of paganism'.¹⁹ In the Chaldaean Oracles, myth and Platonizing are inextricable.

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The Oracles established a bridge between Platonism and Persian religion, and through it Hecate becomes a linking identity associated with *dunamis* situated between the creativity of the Father and the world. Somewhat later, Plutarch of Athens (d. 432 CE), founder of the Athenian school, transmitted the Chaldaean doctrines to his disciple Syrianus, Proclus' prime mentor.²⁰ Proclus' deep emotional connection to the school, his genuine belief system and the political solidarity with the pagan cause all contribute to the ample play he gives to the Chaldaean and Orphic pantheon in his own writings. Still, they seem to have important internal systemic functions as well, within the basic philosophy promulgated in this text.

Sarah Iles Johnston discusses the 'growing interest in mediating deities and principles in general' that is a motivating factor in the thought of late antiquity. As the gods were increasingly portrayed as transcendent and detached from the world of men, the need for intervening principles or entities increased. Eventually, intermediary entities entered into almost all accounts of the relationship between divinity and humanity as they did into relationships between other opposing concepts such as 'divided' and 'indivisible' or 'time' and 'eternity'. Johnston points out that the need for mediating factors was in part responsible for the burgeoning philosophical interest in daemons and gods and even in the interest in the intermediate position of the moon.²¹ The insistence on intermediary principles that prevailed in antiquity and which was related to the cosmic Soul has been called by modern scholars the 'principle of continuity'. It stipulates that there can be no gaps or discordances in the universe, physically or theologically; therefore dissimilar entities must be intermediated by a third entity possessing characteristics of each. Wallis calls this the 'law of mean terms'.²² Plutarch and Apuleius used it to prove and justify the existence of daemons who mediated between gods and men.

Proclus accommodates the Orphic pantheon which is most predominant in the Chaldaean Oracles, and at the same time remains philosophically consistent when it comes to core premises. An example here will suffice to demonstrate the complexity of these connections. In the Chaldaean system, Aion and Eros are predominant. Aion is a good example of what Lewy argues is the 'Chaldaean god par excellence', which he suggests Proclus associates with the Chaldaean Kronos (fr. 199).²³ Proclus had to attribute to Time those epithets that the Chaldaeans attributed to Aion in order to reconcile the Platonic Aion with that of the Oracles.²⁴ Dodds maintains that there is a distinction between Aion and Kronos based on the fragments. It seems, following Dodds and Majercik, that Hecate is more the principal god than Aion when it comes to the Oracles. Aion, as described in the fragments, is seen as 'light generated from the Father' (fr. 49) 'the solar world', etc. As such, Aion is a noetic entity identified with the transmudane sun (and thus with the Teletarch of the Empyrean world whose principal function is to manifest the 'light' of the Father to the world

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of Ideas). Aion's role is to keep the Ideas in a state of constant circular motion: 'Hypostatized motion of an otherwise immobile Supreme God'.²⁵ Proclus refers to Aion as an 'intelligible god' who is even greater than Nous, but does not describe Aion in terms that suggest a true deity (possessing cult status, etc., as is the case with Hecate). He does say that the Chaldaean Kronos is a god invoked during theurgic rites, but does not refer to Aion in this way. Majercik asserts that 'This Chaldaean Aion strikes one as an abstraction rather than a personal god'.²⁶ Similarly, Eros, as mentioned in the Oracles in the triad Faith, Truth, Love, is the first to leap from the Paternal Intellect (fr. 42), and as such, Majercik points out, Eros functions as a binding cosmic principle who preserves a sense of harmony not only in the universe but in the human soul as well (fr. 43 and 44).²⁷

Hans Lewy has included a chart in his book on the Chaldaean Oracles that compares the Platonic, Orphic and Chaldaean systems and terminology and is helpful in connecting the Oracles with Plato's and Proclus' categories.²⁸ For the most part, in the *Commentary*, Proclus uses Orphic terminology for the god's names. Hecate will serve here as an example of a mediating god. Hecate, queen of night and goddess of the crossroads in Greek mythology, is identified in the Chaldaean Oracles as the 'Ensouler of Light, of Fire, of the Ether and of the Worlds'.²⁹ Several texts attest to the identity of Psyche and Hecate. The lengthy Chaldaean Oracle that Proclus quotes does so and interprets the emblems of the cultural image of Hecate as symbols of the cosmic orders dominated by her. 'The source of the "First generated Soul" which springs from the right flank of the statue of Hecate represents the potency of the Cosmic Soul: a power which is (a) Aion, "the Father-begotten Light" ... (b) the Empyrean, as a whole ... "the highest world of all" (c) the Ether, probably signifying the region of the fixed stars, as it is distinguished from (d) the Worlds, viz. the zone of the planets, which includes the terrestrial world. The power of "ensouling", is contained in Hecate.'³⁰ Hecate is identical with the winding fire in the Chaldaean Oracles and is thought to be above the noetic region, situated beneath the Ideas, conforming to the doctrine of the Platonists as to the place of the Cosmic Soul. Hecate is a good example of the often confusing complexity of Proclus' gods and goddesses and their names. As Tarrant points out, the female life-giving power (described in relation to the *Kratêr*: III.247.26; 248.12-13; 249.27-250.8) can be associated with Hecate, but she is mentioned by name only once in the *Commentary* (III.131.26). The fusion of goddesses' and gods' names is hard to follow, but associating them with a 'function' is somewhat helpful in identifying which god or goddess Proclus is invoking at any given point. Tarrant suggests that Rhea, Demeter, Hecate, Kore, whom van den Berg suggests are a triad of life-producing goddesses, may be a key, regardless of which name is used, to identifying the power of the female life-giving goddess, as she is named selectively in various of Proclus' texts.³¹ The Demiurge is equated with

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Zeus as the efficient cause, producing 'universal beings in a universal manner'; Dionysus is the leader of the encosmic Demiurgy and stands for perpetual regeneration, etc.

When Zeus and the female life-producing goddess combine it is a mythological 'place holder' for the function that is 'mixing', the source of generation by which the world is created. The fusion of the conceptual and the biological is elaborated through the equivalence Proclus claims between logical and genealogical generation. The reader cannot help but notice the ubiquity of the designation of the higher gods as paternal and the female goddesses as maternal. This confluence allows an interchangeability of gods and proceeding hypostases. The greater gods generate the lesser gods, analogous to procession from higher to lesser hypostases. The *neoi theoi*, the younger gods, are mediators whose function is to carry out the physical activation of the noetic creation. They are the makers and the greater gods are the fathers. Proclus claims that 'They give perfection to the fabrication which the Demiurge created intellectually ... the younger gods unfold his total production through their own appearing demiurgy (fabrication), being filled from the demiurgic Monad' (III.316.10-14). The account that follows, inspired by *Timaeus* 43a3-6, that thick-set and invisible nails, as well as earth, fire, air and water (liquefaction by fire, conglutination by water) are at work, provides a very physical and technological account of creation. The analogy is with construction in architecture and smelting, and other technologies. The younger gods are constructors in this analogy and carry out the plans of the Intellect and Providence much as a construction worker might carry out the plans of an architect and a contractor. On the higher levels, however, the formal specifications came from the noetic 'father' and the infusion of life came from the life-giving female principal goddess. She is simply 'Life' in the more strictly philosophical contexts, while he is noetic intellection.

Proclus presents a good example of the fluidity of these personified, intellectual and, in this case, elemental, categories. At III.175.15ff. he focuses on Earth and Heaven, the two categorical beings that are both gods and the very two elements that are at the 'extremes' of sensibility. This is also a good description of the complex generating process, which equivocates between logical and reproductive genealogy.

She [Earth] becomes manifest in the middle triads of the intellectual gods, together with Heaven, who connectedly contains the whole intellectual order. She proceeds analogous to the intelligible Earth, which we find to be the first of the intelligible triads. And as ranking in the life-generating orders (*en zôgonois taxesin*) she is assimilated to the first Infinity (*pros tēn Apeirian tēn prôtēn*). She is the receiving womb (*kolpos*) of the generative deity of Heaven ... Earth [analogous to her first manifestation in the middle triad along with Heaven] [but] presiding in the sublunary regions, receives the prolific power of the heaven, ... unfolding into light his paternal definitive, measuring, and containing Providence, which prolifically extends to all

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things. She likewise generates all the sublunary infinity; just as Heaven who belongs to the co-ordination of limit introduces termination and end to secondary natures ... for there is much limit in all sublunary natures and much infinity ... (III.175.15-176.6)

From these two, Ocean and Tethys are generated or proceed. Ocean is the source of all motions while Tethys is the cause of permanency, and so on.

Another example of the manner in which Proclus configures the genealogy of the lesser gods to his philosophical priorities are his comments on *Timaeus* 40e6-41a3 (III.183.9ff.). Plato states that 'Of Ge and Uranus were born the children Oceanus and Tethys and of these Phorkys, Kronos, and Rhea and ... of Kronos and Rhea were born Zeus and Hera', etc. Proclus points out that these passages present something that is not conformable to Orphic principles. Ocean and Tethys being brothers and not the fathers of Kronos and Rhea, he asks, how it is that Ocean and Tethys produce Kronos and Rhea. His solution is to configure this myth to signify the presentation of the rule of the triadic through its conversion of the Dyadic through the intervention of the infinite and indefinite. Ocean and Tethys are above Kronos and Rhea as being the media between these and the fathers and guardians of the boundaries of both. In this explanation, Proclus reinstates his basic premises regarding the Infinite, Boundary, triad and mediation as primary operative categories.³² Proclus construes the technical difficulties of brother-father generation by applying purely philosophical solutions.

Proclus and monotheistic metaphysics

Henology by definition (and metaphysics in general) is monistic, or, if you will, monotheistic. This creates additional paradoxes for a reader of this text: there is a proliferation of gods that inhabit Proclus' world. The higher one goes in the hierarchy of principles, the simpler and more unitary are the causes. The One which is beyond attributions of any kind seems to signify some sort of singular 'oneness'. By definition, the One must be 'one', but in what way cannot be specified. Proclus is very much an ancient in that he employs the same ambiguity that all ancient writings employ when it comes to indifference to the singular or plural when mentioning the gods. In *Elements of Theology* Prop. 113, he states, for example, that 'The whole number of the gods has the character of unity (*pas ho theios arithmos henaïos estin*), if the One is God (*eiper to hen Theos*)'.³³ For Proclus there is oneness in the plurality of individual gods, and he adopts a very definitive position that the first cause is One. In *Commentary on Timaeus* many gods are named, greater and lesser. Monotheism can only be supported by the 'all in all' principle mentioned above and the stipulation that all the gods are at all times suspended or connected (*sunechê*) in a hierarchical relation to the higher and more unified princi-

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ples. The Providence and the One from which they originate are somehow singular.

By adhering to this model and invoking the 'all in all' strategy, Proclus is able to avoid sacrificing his metaphysical vision in the course of holding to polytheistic religious doctrine. Proclus configures his employment of the mythic pantheon in the service of his philosophical infrastructure. The pantheon performs functions that allow the One to permeate the lower levels of being. The gods perform unifying acts that ensure that the created world is administered according to its higher unity and they are servants of the active creative Demiurge that adheres to the Paradigm. This view directly contradicts a more ancient view of the pantheon in which the gods are individuals performing unrelated functions, rather than carrying out the unifications prescribed by the One.

Some of Proclus' criticisms of his predecessors are based on objections to any suggestion of polymorphous theology. A prime example can be found in the passages immediately following *Timaeus* 28c2-3 ('whatever is generated, is necessarily generated by a certain cause (*hup' aitiou tinos*)'). Proclus remarks that 'the cause of all things is simply (*haplôs*) cause and not a certain cause ... for it is simply god (*ekeino gar kai theos haplôs*)' (I.298.1-13). Commenting on 28c3-5 ('It is difficult to discover the maker and father of this universe and, when found, it is impossible to speak of him to all men'), Proclus remarks upon the separate mention of maker and father. He objects to those philosophers who would make the father and maker separate beings. The father is the cause, in the sense of supplier of Being and union, and the maker, in regard to power and a multiform Essence. The paternal function is higher than the creative, though lower than the ultimate causality of the One (Prop. 151). They are, however, one and the same being. Proclus follows the Chaldaean Oracles which distinguishes the *patêr* from the lower *technitês*. The father (*to patrikon*) is connected with the paradigmatic cause, producing from his being, whereas the Demiurge, who is predominantly a maker, produces by activity. Proclus criticizes Porphyry, Numenius and Plotinus on this point. He agrees with Plotinus' assertion that there is a two-fold Demiurge, one in the intelligible world and the other the leader and ruler of the universe, but thinks that Plotinus errs in placing an exempt father and maker in the intelligible world. Amelius, too, is taken to task for making a threefold Demiurge. He even criticizes the 'divine Iamblichus' who calls the whole intelligible world the Demiurge. For Proclus, the ontological hierarchy dictates that the Demiurge and the lesser gods are projections of a single transcendent source. He disparages any doctrine that would multiply entities outside the fact of separate levels within the hierarchy.

The text at III.199ff., commenting on *Timaeus* 41a7, appears to solidify a monist position, even in the face of the extensive discussion of the individual and multiple gods that has preceded it. The Demiurge, 'producing all things from himself at once and eternally, ...' still has an order in

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which the procession emanates from him: 'the celestial gods produce sublunary gods and these generate mortal animals', etc. These latter creatures require another proximate generating cause, so far as they are mortal, and must receive a progression into being. The dependence, in procession, of lesser to greater creators, the source in a one Demiurge, even here at the sublunary level, suggests a supervening unity. It is necessary to apply an understanding of the entire Proclean system to understand how this works. Time and Eternity, for example, as related to one another (Time is a reflection of Eternity) are one way to understand the links between the phenomenal world and its creators. All of the phenomenal 'created' world, even its created gods, exist in Time, but from the perspective of Eternity or when assimilated, they are united with the One. Time is a lesser hypostasis of Eternity, as was discussed in Chapter 8 above. Created beings do not receive their eternal subsistence all at once but in increments, because of temporality, so they do not appear to possess their oneness at any given time. It 'flows' into them. In the following passage, it is clear that Time and Eternity function as much for the sublunary gods as for the rest of creation:

The essence of these is not allotted subsistence in Eternity but in the whole of Time. They are younger (*neoi*) therefore not as once beginning to exist, but as being always generated, and ... subsisting in becoming to be or perpetually rising into existence. (III.311.8-11)

Proclus' 'monotheism', then, can be placed within the purview of his views on Time and Eternity. There is oneness in Eternity and multiplicity in Time and temporality. All things are in all things. All gods are god. These are basic parameters of the Proclean ontology which now can be extended to the 'god of gods'.

Conclusion

Jan Assmann points out that the great achievement of polytheism is the articulation of a common semantic universe. 'The practice of translating the names of the gods created a concept of similarity and produced the idea or conviction that gods are international'.³⁴ During the reign of the Emperor Julian, whose mission was to restore paganism after Constantine in the widespread and diverse Roman empire, it is not surprising that fusions of regional gods' names were condoned and exploited. In addition, an even more esoteric fusion of ontological concept and god-naming took place among philosophers, even before the advent of empire. The strange and exotic combinations of concept and gods, the questionable compatibility of multiple gods, and a monotheistic metaphysics all serve to make this text arcane and inaccessible to modern scholars.

In the *Commentary on Cratylus*, Proclus states his belief that names are

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a kind of portrait-like image of the entities they refer to. In the case of divine names, van den Berg points out, 'Since names can resemble metaphysical divine beings, Proclus, like many other Neoplatonists, considers them as statues (*agalmata*) in sound of the gods.'³⁵ Similarly, Rappe, in discussing *Platonic Theology*, suggests that the text itself and the names of the gods are a kind of intellectual theurgy in which an initiatory text, or even a textual symbol, is a ritual token of the divine reality it describes.³⁶ In *Commentary on Timaeus*, the subject matter is the physical world, ruled by a lesser pantheon, produced and caused by a higher more transcendent divinity. While these two levels of divinity can be regarded as 'principles', they are given the name of 'gods'. Do these names transform these concepts into some sort of objects of worship symbolic of '*agalmata*' of the higher One? This question cannot be answered but Proclus' use of them can be explained. Naming the gods acknowledges the role of the active efficiency of creators, as opposed to the sterility of static intellectual principles. They remind the follower of his philosophical arguments, that the world that the philosopher is trying to explain is one whose origins remain mysterious. To comprehend these mysteries lies in the discourse of theology and not that of science or philosophy. For Proclus, in any case, nature is a host for the 'sanctuaries of the gods' and their activities are evident everywhere.

One of the most difficult tasks in attempting to construct a coherent exegesis of Proclus' *Commentary*, and of many of the Neoplatonic texts of late antiquity, is to make any kind of 'rational' accounting of the extensive theologizing and naming of gods. The philosophical *koinê* of the age and the cultic practices dictated by it, Athanassiadi points out, are given supernatural authority by the Oracles.³⁷ Proclus' extensive citation of the Oracles is clearly an example of 'the late antique spiritual commonwealth' to which Athanassiadi refers. Cosmotheism,³⁸ the pagan worldview that relies on a doctrine of the divine animation of the world, serves a dual purpose in *Commentary on Timaeus*, the dialogue on nature. The political survival of pagan philosophy and theology to some extent relies on the continued assertion of the powers and presences of the pagan theogony. At the same time, there is a genuine requirement in the philosophical treatment of transcendent entities that there be mediation between the world beyond and the physical universe. Polytheism is contradictory to the doctrine of ultimate and inexorable unity and transcendence of the One. Proclus reconciles the two by an elaborate hierarchical scheme, but ultimately values henotheism over pantheism. Much as the physical world is an icon of the invisible realities, so the names of gods are icons of the invisible power that operates in creation. All of these entities are suspended from the One and nature exists through participation on a number of levels. Nature is a 'god by being divinized but not having divinity through itself.'³⁹

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By giving mention and tribute to all kinds of gods, Proclus finds the powerful causes of the world's unity.

Áll things are bound up in the gods and deeply rooted in them, and through this cause they are preserved in Being; if anything falls away from the gods and becomes utterly isolated from them, it retreats into non being and is obliterated, since it is wholly bereft of the principles which maintained its unity. (*El. Theol.* Prop. 144)

In the twenty-first century, all that science and mathematics has achieved has also brought with it a scientific purism when it comes to methodological considerations. We are willing to name any number of operational constructs. We cannot and are not willing to do as Proclus so freely does, to name creative forces and causes.

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It is not lawful for anything imperfect to touch the all-perfect (*ateles de ouden tōi panteleiōi sunanapesthai themis*). (in *Tim.* I.301.21-2)¹

Nature is in fact suspended from the world above and the gods themselves, and she is distributed through the ranks of the gods. She thus also instills in the bodies the signatures of affinity to their gods ... and she causes these things to revert to the gods as well, some to the gods in general, others to specific gods ... (I.210.20-6) (R&S)

Proclus' account of the ten gifts of the Demiurge culminates with two gifts that complete the cosmos. The ninth gift fixes the cosmos within the epiphany of time's oneness, the 'great year'. The tenth gift, 'he makes it all complete by producing all the living things in the likeness of the four Forms [included with the Paradigm]' (B), finalizes the creation, and puts in place the orders of living creatures. The allusion to the tetractys, which is 'complete at ten'; signals the completeness of the account of material fabrication. The 'Forms' mentioned here, according to Baltzly, refer to the four numbers, which add up to ten, the revered Pythagorean decad. They feature in the ratios (octave, fourth and fifth) which form the World Soul.² Further, the fourth line of the tetractys has to do with the creation of three-dimensional solid reality and is the 'lowest' and most 'earthly' of the processive levels. The 'four Forms' not only mark the advent of the inanimate, dimensional objects of the universe, but those creatures which are animate as well. Proclus particularly focuses, in this discussion, on the creation of the orders of souls and especially the lowest types of souls: those that are embodied within their earthly vehicle.

... the tetrad ... is native to the arrangements of the generating construction (*pros...tais genesiourgois*) of the sublunary region; in order that it may contain multiplicity in a unifying manner (*henōmenōs*) and [contain] the things that occur in parts (*to meriston*) in a partless way (*ameristōs*) and also (do so) to the natures that exist in generation ... (III.193.12-15)

The tetrad, Proclus points out, rules generation and ensures unity to that which is divisible. For it is complete at ten, and the

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ennead moulds all the whole breadth of the generated beings that the Demiurge fabricates There are, in the sublunary realms; bodies, nature, souls, intellects, both according to wholes and in parts. (III.193.18-22)

The perfect year, the ninth gift, is the cosmic epiphany attainable by heavenly life. It is the completion of the cosmos, and now the *Commentary* can take up the meaning of completion for the creatures that inhabit the cosmos. In the transitional stages of becoming, which constitute nature, animate beings, both the sublunary gods and mortal souls, fall under the sway of earthly control. Assimilated to the four Forms (earth, air, fire and water, the tetractys, etc.), their nature is determined by where they fall within a hierarchy of soul-types and their ‘completion’ is as individuals. (Four, after all, is not ‘one’ but it is the ordering of a multiplicity; the four creatures are and are not unified with each other or with the cosmos.)

For these living-beings, the possibility of assimilation to higher super-celestial realms, while they are inexorably ‘encosmic’, is problematic. ‘Partial’ or mortal souls, in particular, whose condition of existence is that they descend to the encosmic world, are confined by the limits that a mundane world imposes. That mortal souls descend *in toto*, in the course of their coming to be, is a theory that can be attributed to Iamblichus. Further, Proclus is influenced by Iamblichus’ conclusion that the *energeiai* of embodied souls are subject to change, their *ousiai*, the source of their *energeiai*, therefore, are also subject to change.³ While under the dominance of fate and necessity, the souls of mortal beings can achieve their final *telos* only in the created universe. How, then, is the transcendence that Proclus prescribes for the salvation of the spiritual sojourner to fit into this schema?

The plight of a mortal soul relegated to a sublunary existence and the Neoplatonic goal of assimilating to the One appear to be antithetic to one another. The problems this entails have generated a secondary literature that has tried to resolve the seeming incompatibility. What does it mean, in the well-known phrase of the *Theaetetus*, to ‘become like god’, if one is mortal?⁴ Both Being as a simultaneous whole, the One Being, and the One itself, are infinities and, therefore, just by virtue of this difference, partial souls are not commensurate with higher hypostases. If that were not enough, the mortal soul acquires a ‘vehicle’, which accompanies it interminably. Irrationality, as part of this endowment, accompanies the mortal soul even into the afterlife. At most, it would seem that a mortal soul could reach an asymptote as it attains to its own unique *telos*, but not achieve full unification with any of the higher hypostases. Certainly, if one follows Proclus’ own metaphysical principles diligently, full union cannot be a consequence of the soul’s fully-descended state, nor can it overcome its own separation from radically transcendent higher gods. Proclus holds out the goal of assimilation, but at the same time entraps his earth-bound souls in a coil that is all too mortal. The final book of the *Commentary* supplies some of the reasoning necessary to unravel this seeming paradox.

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Proclus describes a spiritual ascension, in conjunction with commenting on 28c3-5 of *Timaeus* (‘the task of finding the Maker and Father of the universe is difficult and to declare him even more so’). Proclus claims here that the soul can ‘stand at the gate of the Father and be united (*henôthênai*) with him’ (I.302.1-2). The soul can find the means to connect ‘light with light’:⁵

... not in the manner of scientific knowledge, but in a manner that is more beautiful more intellective and more unificatory. This is the paternal harbour, the discovery of the Father, the immaculate unification (*henôsis*) with him. (I.302.21-5) (R&S)

It is notable that Proclus does not use the term ‘*homoiôsis*’ in this passage, but rather uses ‘*henôsis*’ for union. In *Theaetetus* (176b1f.) the admonishment is to ‘become like God to the extent possible (*homoiôsis theôi kata to dunaton*)’.⁶ The term used in this expression, *homoiôsis*, employed by Plato and ever after to indicate union with the transcendent, is the term that Proclus regularly uses. It refers to ‘resemblance’ and suggests *likeness* to god rather than a *union* (*henôsis*) in the Neoplatonic sense. Attention to the wording of the passage alerts the reader of Proclus to the fact that the ‘*homoiôsis theôi*’ does not refer to unification, as does *henôsis*, and literally means ‘becoming similar’. Assimilation, in the sense of unification, and assimilation, in the sense of attaining similarity or likeness, must be differentiated if one is to understand Proclus’ distinction. He does not seem to expect the mortal soul to attain unification, but assimilation or ‘resemblance’ is possible under the right circumstances. In the passage above, in any case, unification may be in relation to the demiurgic Intellect and not the One.

The grounds for establishing the limitations of mortal souls can be found in the passages from III.209.27ff. to III.220, which elaborate the parameters of mortality, immortality, dissolubility (Proclus uses the verb *luô*) and indissolubility. Proclus formulates a threefold distinction: that which possesses infinite life from itself; that which receives infinite life from another, and that which, neither from itself nor from another, exhibits infinite life. The first is *immortal*, the second is *not immortal*; the third is *mortal*. The middle condition refers to the mundane gods deriving immortality secondarily from what is truly, and primarily, immortal. These gods produce mortal nature. That which is principally and primarily indissoluble is what is simple and free from all composition and pertains to the supercosmic souls. The secondary category of souls is composed of those souls that are secondarily indissoluble, indissoluble with a bond. They are, at the same time, dissoluble in consequence of proceeding from divided causes. The third type of soul is naturally dissoluble and hence mortal.

The consequence of the descent of the soul into the physical world, which constitutes much of the final discussion in Proclus’ *Commentary*,

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describes the most mortal kind of soul and its vulnerability to corruption. Paradoxically, these souls, albeit mortal, are immortally created:

... (the Demiurge makes) the enmattered immaterially (*enhulon aulôs*), and the generated without generation, bringing forth according to each, wholeness. (III.228.24-6)

The admonishment, to 'become like god to the extent possible' engenders all the paradoxes of the mortal soul's condition: created immortally, it is nevertheless irreconcilably mortal. To compound the difficulty, the human soul strives to become at one with immortal being. In the passages of Book 5, from III.231ff., following a discussion of the genealogy of the gods and the Demiurge, Proclus makes the further distinction that the Demiurge is the creator of immortal souls and the lesser gods of mortal souls. In these accounts, the reader will find that Proclus applies very exacting limits to mortal souls. Assimilation, or union, conceived as a matter of any type of 'transcendence' of the mortal condition, is highly problematic by all but extraordinary measures.

For Plotinus, the rational part of the soul stays in touch with the beyond. Proclus' position on these matters is more complicated. The rational soul is always attached to a vehicle (see *El. Theol. Prop.* 196). In fact it is the vehicle, John Finamore points out, that makes the soul encosmic.⁷ For Proclus, the soul descends in its entirety; rational and irrational parts, in tandem, and it is consecutively sown into both an Aetherial and an earthly vehicle. The earthly vehicle that it acquires as the final step in its descent assigns it irrevocably to a mortal existence. The gods, on the other hand, possess an 'unknown transcendency'. A spiritual ascent or an after-life that includes becoming 'unified' with the One is both unknowable and unattainable and appears to be prohibited to a mortal soul. Proclus claims decisively that 'it is not lawful for anything imperfect to touch the all-perfect' (I.301.21-2). For these and other reasons, he opposes those Platonists

... who assert that our soul is equal (*isostasion*) with the gods and is of the same essence (*homoousia*) with divine souls; and against those who say that it becomes intellect itself, the intelligible itself, and the One itself (*to hen*), leaving all and being established according to union. (*henôsin*). (III.231.5-10)

The paradoxes only compound. While it seems that there is a radical discontinuity between mortal and immortal worlds, it should be recalled that the principle of continuity is basic to Proclus' whole ontology. How can Proclus reconcile the discontinuity of physical life and the alleged continuity of the entire hierarchy of hypostases? The two Proclean principles of 'undiminished bestowal' and 'the all is in all things', as well as the idea that spiritual motion is a continuity that extends over the invisible and visible world, apply here. They suggest that reconciliation is possible

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between mortal and immortal life. But what kind? Mortal souls descend *in toto* to their lives in this cosmos and cannot easily transcend the limitations that this condition imposes. The Demiurge directly creates immortal souls but delegates the creation of mortal souls to the many lesser demiurges (*polloi demiourgoi*) (III.242.19-23). These gods are themselves suspended from the leader god from whom they are created. They are links in a continuous chain joining hybrid souls to immortal souls, the latter being more unified and intellectual.

The statement regarding the unlawful nature of the imperfect reaching the perfect clearly precludes unification (*henôsis*). (Again it is notable that *homoiôsis* is not the term used for assimilation here.) In fact, it is important to note carefully that Proclus himself insists that the terminology be appropriate to the level of assimilation possible when it comes to mortal souls:

... everything, which is produced by an immovable cause, is ungenerated and unchangeable but in a thing that is produced by an immovable cause, though a cause that is moved as the medium, is ungenerated and moving and changeable. It receives unity from the immovable cause, but multitude from the movable cause and from the former existence and from the latter singularity (*atomon*) and the being generated through which it is preserved according to form but dissolves according each one [the individual] ... Since, therefore, someone may say, the Demiurge himself constitutes rational souls, according to which they become equalized to the Gods, how does Plato shortly after call these souls homonymous to divine souls, according to the immortal? Must it not therefore be said that the word 'equalized' is added with great assertion, *the Demiurge not saying that they will be entirely equal to the encosmic gods, but that they will be similar (homoion) to them?* (III.225.9-18) [my italics]

For Proclus, as has been shown here, *homoiôsis* is the least of the modes of unification, on the scale of assimilative terminology. In mathematics, it refers to physical objects, which do not attain to either Equality or 'Sameness' to the noetic form that they resemble. They can resemble the Paradigm through their ratios, but this is merely an image of unity. It takes higher equalizing mathematical operations to achieve the higher types of identity with the Paradigm. With these distinctions in mind, it is possible to understand that for Proclus, the 'becoming like god' doctrine signifies assimilation in the sense of resembling, or similarity, but not full equality or unification. It can refer to the oneness of the human intellect with noetic causes, the similarity of images in the imagination to their paradigms or the similarity of moral qualities to divine qualities. 'Unification', on the other hand, means to transcend mortal limitations and to achieve a union with the source of unity itself.

Proclus clearly has great reservations about his promise of assimilation and consequently salvation, which, given the circumstances surrounding the mortal soul, seems all but impossible. By virtue of Proclus' own

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metaphysical superstructure, the One beyond Being is totally transcendent and radically removed from all other hypostases. Even the Demiurge is transcendent and he is limited to creating rational souls while partial souls are created by the lesser gods. Individual souls, mixed as they are with the irrational, suffer a state of existence that precludes their potential assimilation, in the sense of either equalization or unification, by any means. Despite the fact that theurgic practices are regularly hinted at in the *Commentary* as a way around this, the parameters of the mortal soul pose more obstacles to individual transcendence than open pathways. Still, the principle of continuity would suggest that there could be an upward trajectory for the human spiritual sojourner aspiring to union with the One.

The one condition that appears to impose the most severe limitations on the mortal soul, separating it from all higher levels, results from the nature of the process by which it comes to be. Proclus distinguishes among the 'seminations' (*to speirein*) of souls. The Demiurge disseminated some souls into the earth, others into the sun, and others to the moon, all distributed about different leaders. The first semination is not of the soul into the vehicle, but of the soul with its vehicle into the visible gods (see III.276.8-9 and Finamore⁸). The third and least semination consists of the souls that are distributed in generation, i.e. mortal. This is accomplished by 'placement' into an earthly vehicle (*embibasas hōs eis ochēma*) creating a heterogeneous living entity composed of soul containing Intellect and encompassed by its vehicle. Irrational 'life' attaches to the vehicle during its creation. Proclus is critical of the theory, attributed to Atticus and Albinus, that the rational soul alone is immortal on the grounds that the rational soul is not separable from its irrational 'life', *qua* en-vehicled (III.234ff.). Proclus argues that when the soul passes into Hades, the afterlife fated for mortal souls, it must take with it the inseparable, irrational components. If the irrational element of the soul did not survive death, the soul would not be punished in Hades for its anger and desire. Punishments and purifications will take place in relation to the soul's life and not to the soul's rational nature. The union of irrational and rational factors cannot be easily dissolved, as the union is 'one multiform life' (III.236.23). 'While in the gods, the rational nature is intellectual, in our souls the intellect is inextricably mingled with the irrational nature' (III.246.18-19). This difference originates in the life-giving *Kratēr* where souls are produced and composed, the demiourgoi allotting one kind of mingling of life and rational soul to mortals and a different kind to immortal, daemonical and angelic souls (III.248.13ff.). In some of this insistence on the fusion of the irrational soul, Proclus is responding to the position of Plotinus, and particularly to Porphyry, who implies that the *ochēma* can be dissolved and remain at the same time. Porphyry meant this to apply to the case of philosophical souls, which may be united with first causes according to their rational souls.⁹ Smith contends that Proclus may be exaggerating Porphyry's position (II.236.2).

What it means for the human soul to be multiform

Sedley points out that in *Enneads* I.2 Plotinus reads the *homoîōsis theōi kata to dunaton* doctrine as describing a purely intellectual assimilation to a higher being.¹⁰ Iamblichus held that the pure souls do have perfection permanently. Proclus breaks with this tradition and stipulates that mortal souls lose contact with the gods, contrary to Iamblichus' perfect souls or Plotinus' soul as '*aei noousi*' (always thinking). Robbert van den Berg discusses the *Theaetetus* passage and Proclus' opinion in regard to that and other passages in Plato's *Timaeus* (90d4, 90d5f. and 90c5f.) which suggest that becoming like god is a possibility for souls.¹¹ He points out that no Proclean human soul 'seems to be perfect all the time'.¹² Departing from the doctrine of Iamblichus' 'perfect souls', then, Proclus argues against Plotinus and Theodorus 'who assert that something in us stays always unaffected and enjoying intellection'. Proclus rejects Plotinus' theory that human souls have an ever-thinking, unaffected part and claims that 'it is not lawful to consider human things the same as divine things'.¹³

Proclean souls, further, lose contact with the gods in their descent (III.334.4ff.). What does Proclus mean by assimilation, then, if mortal souls remain imperfect, multiform and subject to a godless fate? It is not as if Proclus, who follows Plato in all things, would arbitrarily reject the 'becoming like god' doctrine so prominent in the writings of his predecessors. In fact, Proclus specifically refers to the *Theaetetus* (I.5.26-30) claiming that once we have made the contemplating subject like the contemplated object, we become blissful (*eudaimon*) like the universe, and we will have ascended to our cause ('whoever would attain a life of well being "must liken that which tries to apprehend to what is apprehending"' (T). (Proclus is using the terminology that Plato uses in *Timaeus*: '*homoîōthen tōi pantī*' and *Theaetetus*: *homoîōsis theōi*.) He is consistent about the usage of the terminology of assimilation when it comes to mortal souls, retaining the term *homoîōsis* and thereby confining the meaning to 'becoming similar'). Unification with the one, *henosis* is a more radical form of union. In fact, 'union' means complete and simple unification of homogeneities, essence to essence.

The human soul does not have a single constitution. It remains a hybrid and multiple existence, as opposed to divine souls that are unparticipated and essential in their identity as gods. It is necessary to understand the profound significance of this limitation on the ultimate destiny of the human soul. Not only is the world of the gods unknown and transcendent, but the human soul has very different equipment from divine souls. How can the individual soul revert and somehow commensurate with the higher hypostases, if it is inextricably bound up with its material vehicle? Transcendence is a radical extraction from Being and from becoming (as we learn by Proclus' use of the verb *exaireô* for transcendence). By what means can the 'partial soul', as Proclus terms it (referring to its hybrid nature), catapult itself out of the realm of becoming or even Being while

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influenced by the irrational life imparted to it its vehicle? Drawn down into earthly passions, hieratic virtues seem unattainable. Proclus suggests that purificatory measures that can result in *'apathês'*, freedom from bodily affections, will help.¹⁴ How can they accomplish this?

If the assumption is that the mortal soul has the prerogative to unify with the higher hypostases, solely based on their own internal capacities to do so, they cannot do so. Union, in the ultimate sense, is the prerogative of the gods to bestow upon the mortal soul. The soul is multiform, and inextricably irrational, by virtue of the vehicle. Generation and corruption, and restoration and assimilation, however, are cyclical. Mortal souls receive their generated natures from the junior gods and are corruptible: the gods possess an eternal motion, however, and will return what is generated to what is whole.

Hence, they receive such things as they imparted to generated natures, when they are corrupted and deliver to wholes that which they took from them ...

For the things they generate they receive back again, when they are corrupted, returning them to wholes from which they were received and distributing them to their proper source ... (III.241.30-242.5)

The gods deliver to wholes that which they took from them. Here is a contradiction that is hard to resolve, but it is known that all things revert to their cause. Can unification with the One follow from the fact that all things inevitably revert? Aside from the limitations of the mortal soul, however, there is another even larger obstacle to mortal assimilation: the radical and unreachable transcendence of the object of the spiritual quest itself.

Proclus' radical view of transcendence

The coinage of root concepts in metaphysics does not occur in a vacuum; tropes do not simply create themselves in a self-referential discourse, but always carry a residue of meaning from the context from which they emerge. Plato's one significant reference to transcendence is the passage in *Republic* 509b8-10, 'the Good is not, in reality (*ousias ontos*), Being but is beyond Being (*epekeina tês ousias*) surpassing it in power and dignity'. Transcendence of 'invisible' objects was a new concept to Western intellectual history at the point at which Plato inaugurated this famous suggestion that there is something that is 'beyond Being'. Metaphysics itself was in its early stages. The door was left open for future interpreters to decipher the significance of this passage. Plato's infamous 'Good', in any case, is described, not as reality, or as Being, but as on the 'other side' of both. (Liddell and Scott translate *epekeina* as 'on yonder side' and 'beyond', while Siorvanes renders it 'on the far side of' (also in Liddell and Scott).¹⁵) For Proclus, the sense of transcendence is more radical: he uses the verb *exaireô* consistently but in a more radical sense. It does not imply a

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relation to anything but an exemption from everything it supersedes. 'On the far side of' implies an inside, invoking a spatial metaphor. The Good beyond Being is outside of reality and the cosmos, but the source of all that is. The science of dialectic, for Plato, becomes the *sine qua non* for attaining knowledge of this ideal and the forms are its ambassadors within Being. The Good (*to agathon*) holds a pre-eminent position and its powers are in a direct relationship with the visible world as its organizing hegemonic principle.

Proclus uses the terms '*epekeina*' and '*huperousia*' to refer to higher hypostases. It is the verb '*exaireô*', however, that he applies most consistently when referring to the One and to transcendence.¹⁶ *Exaireô*, as opposed to *epekeina*, suggests a total extraction from all reality, both physical and metaphysical, and is a standard Neoplatonic term for transcendence. *Exaireô* suggests the condition or action of its subject: 'that which is removed'. The preposition *epekeina* implies temporal, spatial, or logical relations to its object (in this case Being). Proposition 98 of *Elements of Theology* provides a typical usage of *exaireô*, as does Proposition 23, which has been called the fundamental theorem of transcendence. It states that the unanticipated transcends the participants (*exêrêmenon tôn metechêmenôn*), but since it is not sterile or isolated, gives to the participants but is not itself participated.¹⁷

Proposition 52 of *Elements of Theology* states that 'Eternity is a simultaneous whole', articulating a view of Being that it is an eternal One Being (as discussed here in Chapters 6 and 8). This vision of the whole arises in the context of ancient astronomy and the view that Eternity is 'demonstrated' by the uniform circular motion of the outermost limits of the cosmos. For Proclus, this image is the Living-being-itself and ultimately the One Being. This conglomerate construct is a counterpoint to a One which is boundlessly infinite and has no relation to the cosmos or to the One Being. The One is radically removed and cannot be described simply as 'beyond Being'. The entire construct of boundary and beyond is inapplicable as the One, *qua* infinite, is removed from all discursive and dialectical reach. For Proclus, the One is not simply what is beyond physical reality; it is beyond Intellect and extracted from all Being in a way that is totally inaccessible. Proclus' terminology accords well with Chaldaean theology which, reflecting its Middle Platonic origins, describes the transcendency of the highest god as 'snatched away' (fr. 3) 'existing outside' (fr. 84) its product.¹⁸ When Plotinus' radical idea that the One is beyond intellect is added to this, the possibility of assimilation is precluded on the grounds of its inaccessibility even to Intellect. There is a total 'escape' from Being:

The One is shown to be unlimited as itself requiring no limit or other measure: for all relations of it to itself are denied of it ... It is unlimited then, as being superior to all limit, for there is not within it any limit in relation

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to itself, for there is no beginning in it, nor middle nor end ... only the quality of being bounded by nothing, nor having in it any beginning or end, which we call the extreme points of these that have them, only this is what we apply to the One (*in Parm.* 1124.16-29) (M)

Further, Proclus denies the One time, place and all other spatial attributes, claiming, 'by its mode of being that is unmixed with what is in place, and by its transcendent purity it is *nowhere*' (Proclus uses the term *exêrêmenon* here as well). In one of the last passages of Book 5 of the *Commentary*, Proclus discusses the gods as possessing an unknown transcendence and uses *exaireô* here too. He points out our ignorance of the cause that produces life and body. It is 'the cause that (produces) providentially and generates, possesses a divine existence, superior pre-eminence and an unknown transcendence' (III.356.15-16). Proclus' general use of the term *epekeina* is as a preposition in descriptions of a chain of subordination to cause; the higher hypostases are described as 'beyond' the lower one, implying a causal continuity of some sort, where one hypostasis is considered to be beyond the one beneath it.¹⁹

The difference between transcendence '*epekeina*' and transcendence '*exaireô*' can be better understood by examining the distinction that Proclus makes between 'nowhere' and 'everywhere'. The Good, *epekeina tês ousias*, is a principle that permeates everything and thus can be everywhere while still 'beyond' the phenomena that participate in it (it is analogous to the Sun, which itself is beyond but whose light shines everywhere). The One '*exêrêmenon*' is 'nowhere', excised or lifted, not only out of the cosmos, but all of its paradigmatic principles as well:

this sense of 'nowhere' is superior to 'everywhere' and is a particular epithet of the One aloneThere is another sense of 'nowhere' which is coordinate with 'everywhere' which we are accustomed to apply only to secondary entities and either of them is true by virtue of the other. Being, for instance, is 'nowhere' because it is 'everywhere'. (*in Parm.* 1138.5-9)

The One is totally excised from Being and not in opposition to it. The opposition, boundary and outside, does not apply to the unbounded infinity of the One. Atemporal, aspatial, anumerical, etc., it is its own 'in-itself', infinite power, and is thus totally unreachable and ineffable. This is all the more reason why assimilation in terms of '*henôsis*' is problematic for the mortal soul.

The mortal soul

It is quite clear, then, that 'our soul' is not 'of equal dignity with the gods and not of the same essence with divine souls', let alone conversant with the One itself. As discussed above, the soul of the human being is three steps removed from extraterrestrial life since it has irrevocably 'descended

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to the last of three seminations. The first semination (*sporan*) is of the essence of souls and proceeds from the Demiurge of wholes, the second is that around the junior gods and the third is around the realms of generation' (III.233:10ff.). The first is divine souls, the second daemons, and the third, alone, is the souls that are distributed in generation. In this tier, the soul and its life are tied with its 'vehicle' even though concomitantly joined with the rational soul. Both are asserted by Proclus to be in some sort of homonymy (*homônumon*) with the immortals:

Hence it appears to me that the immortal is assumed in *both* the rational soul and its vehicle, this being common and not the rational; and that it is indicated that this proceeds from the one fabrication, by the words 'and so far as among them, it is fit there should be that which is homonymous to the immortals'. For every vehicle together with its appropriate life, and the rational soul from which it suspended is essentially perpetual (*kat' ousian aidion*). Both vehicle and rational soul are generated according to a similitude of the stars (*kath homoiotêta tôn astrôn*), the souls and the vehicles ... (III.233.28-234.1)

Certainly, the least of the seminanted souls are the least likely to have the potential for assimilation *qua* embodied and envehicled, hence subject to the entrapment of multiplicity. They have become 'something', i.e. physical as well as rational. At the same time, it is clear that mortal souls already possess perpetuity, an everlasting essence, whose higher hypostasis is Eternity. Within this paradox, there is both the impossibility of assimilation and the fact that assimilation is already present in a diminished and retrograde form.

Proclus remediates these dilemmas in the following way: the respective types of souls have all the same qualities, including rationality, but differ in the proportions of these things with which they are endowed. All types of souls have similar substances but a dissimilar distribution of ratios. At III.244.9ff., Proclus describes the mingling of substances in the *Kratêr* in the course of creating souls, based on *Timaeus* 41d4-6:

... once more into the former bowl, wherein He had blended and mixed the Soul of the Universe, He poured the residue of the previous material, mixing it in somewhat the same manner, yet no longer with a uniform and unmixed purity but second and third in degree of purity

Superior souls are a first mingling while lesser souls result from secondary and tertiary mingling: they are produced at a different time than divine souls and are constituted separately.

In truth, if you take participated time (*chronon*), there is not the same time in total and in partial souls (*en merikais psuchais*); nor the same intellectual intuition (*noêsis*), nor the same form of motion; but different time for divine and partial souls. (III.244.28-32)

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(This passage is reminiscent of the different periods of the planetary orbits as contrasted with the totality of the heavenly configuration and the difference between temporality and Time as a Monad.) Thus there are both similarities and differences between divine and human souls (III.244.18-31). First of all, there are similarities between the divine and mortal souls, all being produced in the same *Kratêr*, and from the same components. Eternal natures have different energies, however, from natures subject to time. It is at this juncture that Proclus declares that ‘our soul is not equal (*isaxion*) or of the same essence (*homousion*) with a divine soul’ (III.245.19-21). In the gods, the rational nature is intellectual, but in our souls, it is mingled with the irrational nature (III.246.18-19). The *Kratêr* is

... a unique life-producing goddess, the source of the procession and generation of all souls who together with the Demiurge with whom she is coordinated, generates the whole order of the souls, bringing forth all hypercosmic soul, all encosmic soul, rushing forth to everything and giving life to the whole cosmos Plato calls her *Kratêr* because she is the source of the life of soul. (III.248.30-249.6) (vdB)

After refuting Theodorus, who claimed that there are two *Kratêrs*, and agreeing with Iamblichus that there is only one, Proclus identifies the *Kratêr* as the source of life. Proclus associates the *Kratêr* with Rhea who is in between the pure Nous and the demiurgical Nous (the Demiurge, also known as Zeus). (Rhea, van den Berg points out, is the Orphic name of this deity while the Chaldaean theologians call her Hecate.²⁰) Both the *Kratêr* as ‘mother’ and the rational as ‘father’ (Zeus), contribute to the mingling. The *Kratêr*, vivific cause and fountain of souls, is cause of ‘life’ and the fountain and principle of motion. There is a fourfold process consisting of he who mingles, the *Kratêr*, the things mingled and the mixture: ‘the father, the generative, the form of souls, and that which is formalized from both according to the generative cause and through the *Kratêr*’ (III.248.19-23).

For of the middle genera, essence (*ousia*) predominating makes a divine soul, sameness (*tautotês*) a daemoniac soul and difference (*heterotês*) a partial soul. (III.254.4-6)

There are the same ratios in all of them ... (III.256.14-15)

They exist in partial souls in different terms even though the ratios are common ... an increase of the number of ratios in partial souls causes them to be in a greater degree partible than daemons and to descend instead of resting above. (III.256.18-20)

The ‘difference’ factor is more abundant in partial souls. The earthly vehicle mixed from the four elements, which is a greater part of the mixture in partial souls, makes them irreversibly multiform. Despite the ‘rational soul’ that ‘comes forth from the father’ and is present to partial souls as well as superior souls, the partial soul cannot transcend the limitations imposed by the different balance in the mixture it is allotted.

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It cannot assimilate by intellectual means alone; not with the obstacles posed by the mixture with irrational factors. Homogeneity with either intellect, or its transcendent hypostases, is impossible, simply on the basis of the difference rationing. The incompatibility of the human soul's more numerous ratios differentiates it from those of any higher soul's 'sameness'.

Given the similar conditions and identical *Kratêr* in which divine and human souls are created, then, differences between souls are accounted for by numerical differences in the formulas for the respective souls. If the One is an 'unbounded' infinity, a-temporal, a-spatial, a-numerical, etc., and the respective souls are mingled with 'life' coming from the *Kratêr*, on these grounds alone, there are irreconcilable differences. The human soul, now discussed as a harmonized entity, by virtue of its own ratios can now be seen to be incommensurate with the unratiocinated and simple character of Unity.

A soul which could become like the gods, Proclus explains at III.296.27-297.1, has done it via its *whole* uniform life. It does so by the whole form of life in the soul, unlike the partial soul, when it has 'fallen to the bodily extreme and has become *something* as opposed to all things ...'. Only higher souls, then, are unified, whole to whole, with unified life. Becoming like god, by this account, is only possible for unalloyed souls, those that are not multiform. To be 'something' means to be possessed of determinations, to be *atomic*, and to be discontinuous with other things, with both 'everything' (*to pan* or the One Being) and 'nothing' (the One that is excised from all determinations). In light of the radical transcendence and discontinuity between the One and Being and the naturally defiled character of the mortal soul, then, the mortal soul seems irreversibly bound to earthly life.

The limits of the intellect for assimilation

In the Platonist tradition, adopted by the Neoplatonists generally, Intellect is the 'purest' part of the soul, and with this premise, the Intellect is considered a viable candidate for assimilation. Plotinus' 'intellect', for example, does not descend and therefore remains positioned to unite with the One. For Proclus, no cognitive process is equal to the One. The soul's descent is terminal and its own limitations hold intellect captive within a sublunary world. The One, in any case, has a reach extending to the furthest and last outposts of the universe; its transcendence is absolute and its reach encompasses far more than intellect can embrace. For Proclus, then, the intellectual life of the mortal soul is not a candidate for transcendence. At most, it can employ a higher form of reasoning (*noêsis*), the 'summit' of discursive reasoning, to gain some sort of apprehension of superior hypostases. At I.243.26-246.9, Proclus examines the term 'intuitive knowledge' (as Runia and Share translate the term *noêsis*).²¹ *Noêsis* is a direct form of knowledge of the object, as opposed to discursive reasoning involving propositional thought. The highest form of intuitive knowledge

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occurs 'when it arrives at identity with the object of *noêsis* and is not different from it', according to Proclus. *Noêsis* differs from opinion and from discursive reasoning (*dionoia*) (I.246.20-3). The only method for even thinking about the transcendent One, for Proclus, relies on either double negative dialectic or some sort of non-propositional ineffable discourse.²² The negative dialectic that Proclus describes in the *Parmenides Commentary*, aimed at overcoming unlikeness of the mind to its God, turns out to be itself too limited a means for apprehension of divine being. It is not a true agent in the mortal soul's assimilation, either. In his *Commentary on Parmenides*, Proclus thoroughly dissects the machinery of double negation and transcendence through negative dialectic, and considers it as a possible epistemic option for comprehending the transcendent world. Negative dialectic is the posit of propositions which deny and affirm attributes to the One and then negate these posits, thus taking aim, but never reaching the object of their reference which lies outside the parameters of the mutually exclusive premises. It achieves, according to Proclus, the following: by 'this subtracting of all characteristics, the One may be shown to stand beyond all determinate orders'.²³ Still, the One remains inaccessible:

The One while itself the cause of so-called transcendent negations, yet does not participate in any of them, nor is in any of them in order that by means of the removal of all of these attributes he may show the One to be fixed above all the intellectual realms. (*in Parm.* 1172.27-30)

Dialectic, then, is the best option for higher reasoning for the mortal soul using intellect, as it is a self-identity of an intellectual kind since it involves circular and, therefore, reversionary reasoning. It too breaks down before the One which cannot be the object of *any* kind of propositional thinking. All intellectual process ends before the abyss which lies between the One and everything else. There is both a lack of conjunction and a lack of disjunction between the One and everything else and so no discursive or reversionary thought can encompass it as an object.

Kant alludes to something along these lines in his *Logic*. When it comes to cosmological speculation, if reasoning is used, the kind of situation is set up which he denounces as too large for any concept. He describes what he terms an 'infinite judgment'.²⁴ Double negative dialectic involves judgments that merely border on the object of reference (in Kant's terms), but can apply neither affirmative nor negative attributes other than identifying that the object of reference is outside normal predications. For Proclus, negative dialectic is lacking in another way as well. Any intellectual designation is denigration: any qualifications add to and thereby subtract from the perfection of the divine object and are therefore inappropriate. Intellectual formulations divide rather than conjoin, diminish rather than equate to the divine object and this subverts, rather than forwards, the cognitive return.

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In any case, these are epistemological considerations: reversion is not an intellectual act. A noetic reversion must be a communion and conjunction according to affinity.²⁵ Negative dialectic is a modality of thought that is aimed at overcoming unlikeness of the mind to its god. It intends to join the mind and its object but is limited to the act of purifying the mind of its conceptual posits. While it is considered the purest part of philosophy, reducing the many to the One, it is still only an intellectual exercise. If the objective is to commune with an object of desire, not of science, the transformation from negative proof to spiritual journey is certainly inadequate.

Theurgy, purification, non-discursive thought

Jean Trouillard has provided the Neoplatonist scholar with a nuanced and sympathetic approach to understanding the role of theurgy in the Neoplatonist worldview. As opposed to Dodds' view of theurgy as a 'corruption of Plotinus' rational mysticism', Trouillard, as discussed by Gregory Shaw, 'argues that Theurgy ... arose out of the Neoplatonists' profound reflections on the limits of rational understanding and the consequent need for man to have a discipline which carried him beyond those limits'.²⁶ Neither the structural limitations of the soul, *qua* mortal, nor the intellect, *qua* dialectical, open up a path for the spiritual sojourner to unite with the object of desire.

In fact, just the opposite of intellection is called for: ritual 'purification' must be preceded by ridding oneself of conceptual thought. The so-called paternal harbour, the arrival point of the spiritual sojourner, is a station reachable through preparatory ritual, purification and vision, promoted by contact with the non-discursive sphere. The spiritual aspirant must try to eliminate the 'chopping up' and separations of discursive thinking and to catapult him/herself into a region of vision and ineffable apprehension. In the realm of intellect, negative dialectic is one way to remove the posits of discursive reasoning through denials, and thus is an intellectual counterpart to ritual purification. Still, 'becoming like god' is a complex matter in a world which includes many hypostases that are beyond the physical universe; two sources of creation, a Demiurge and a paradigmatic cause; a hierarchy of gods, daemons and angels, a One Being, and a One itself. Intellectual purification brings the soul closer to the threshold of the One by opening a path to immediate vision or apprehension; an undivided vision of the whole. In *Platonic Theology*, Proclus asserts that 'some things are saved and united with first causes, through erotic mania, some through divine philosophy and some through the powers of theurgy (*ta men dia tês erôtikês manias, ta de dia tês theias philosophias, ta de dia tês theourgikês dunameôs*'). It is the latter, theurgic power, which Proclus holds to be more excellent than all human wisdom and knowledge.²⁷

Andrew Smith points to this passage as the clearest evidence for the

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primacy of theurgy in Proclus. Smith, however, contrasts these passages with a passage in the *Cratylus Commentary* where Proclus limits theurgy and suggests that it is perhaps subordinate to *noësis*.²⁸ Smith notes that, if human *nous* is considered as a mere emanation of *Nous*, the importance of divine help in the form of theurgy becomes more necessary. The *noësis* that is the final object of the theurgic ascent is divine or superhuman. 'There is no noesis of the type in which subject and object are identical in an unchanging relationship at the human level.' It is above human wisdom and knowledge. Smith finds precedence for this point of view in Iamblichus (*De Mysteriis*) when he says that theurgic union is above *noësis*.

Non-discursive thought is known to antiquity. It was a concept articulated by Aristotle, as Sorabji reports, and one that Plotinus confirms by his idea that non-discursive thought is propositional.²⁹ The unusual claim that non-discursive thought is somehow 'propositional' means that, in some way, it can be characterized by logical criteria. This can be better understood by a short digression, once again invoking Matte Blanco's concept of 'symmetrical logic' as opposed to asymmetrical logic (the logic of discursive reasoning). Symmetrical logic gives 'logical' parameters for non-discursive thought. It is not possible to apprehend the objects of non-discursive thought, such as the One or other totalizing concepts, within asymmetrical propositions. Symmetrical logic, or the logic of infinite sets, has rules that apply to non-discursive thinking. The parameters for infinite logic, as Matte Blanco conceives them, are as follows: the identity of part and whole, and the reversibility, rather than irreversibility, of before and after, suspension of the law of non-contradiction (two things can be in the same place at the same time), etc. These are features that are anathema to discursive thinking, but Matte Blanco contends that they can be applied to infinite objects. Once the premises of a symmetrical logic are accepted, for example, it follows that interpenetration, the simultaneous existence of one and many, Limit and Infinity, Eternity and Time, are possible because the standard of possibility is no longer the law of non-contradiction. Proclus' 'simple vision' is 'non-discursive'. It can then be 'nowhere', as opposed to being delimited or 'something'. All 'somethings', after all, can only be described by discursive reasoning, applying predicates asymmetrically to their subject. Non-discursive thought, or symmetrical logic, removes the asymmetry of before and after, the core premise of iterative sequences, leaving open the possibility of apprehension of simultaneous whole, and is the logic of infinity. Of course this is only a hypothetical exercise, but it provides a way to contemplate what 'non-discursive reasoning' might look like under the suspended laws of discursive logic.

For Proclus, the descent of the soul into the encosmic world means that our soul is not always in the same condition; sometimes it is imperfect, sometimes perfected.³⁰ Once the soul, through being born, has fallen into what Proclus calls 'the extreme depth of the body' and has become 'some-

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thing', it is too limited to be 'nowhere', as is the One, nor everywhere (as Proclus describes the One Being, which is everywhere or equivalent to the principle of the universe). The human soul or even soul in general can revert but it reverts to itself, 'understanding itself, and finding itself to be all things' (II.286.8-11). In this way there is a sort of transcendence of its own singularity and a reversion to the self-identity of a higher hypostasis, since this is an intellectual act.

The individual soul, however, *is* a something or a singularity in some sense. It is doomed to be 'individual'

For it receives from the immovable cause unity, but from the movable cause multitude; and from the former existence and form; but from the later *atomon* (entitiness) and the being generated or becoming to be: through which it is preserved according to form but perishes according to the each entity. (III.225.9-13)

That which is 'everywhere' and that which is 'nowhere' (as is the One), both a kind of infinity, are grounds, in and of themselves, for exclusion of the limited, i.e. finite encapsulated mortal soul. The obstacles to becoming, either like intellect, or like god, or assimilating to the One again are precluded by definition. Simple vision, however, seems more possible, with the understanding that if one is able to transcend the limits of discursive thought altogether, intellectual non-discursive thought might simulate a unification. Theurgy itself, however, can be seen to go even further.

Enlightenment as opposed to assimilation: how theurgy can accomplish what other means cannot

Only the telestic life, Proclus finally asserts, is eligible for the task of unification, 'when it removes through divine fire all the "defilements" caused by generation, as the oracles teach, and all that is alien and irrational that the pneumatic vehicle of the soul has attracted' (III.300.13-20). Theurgic practices promise a means for the Soul to reach 'the paternal harbour'. Van den Berg describes the potential for mystical ritual which he believes is connected with a kind of ritual death as celebrated in the Chaldaean and Orphic-Eleusinian Mysteries (mysteries at which Proclus hints here). This is a specific reference to the Chaldaean sacrament of purification by fire, as van den Berg points out. It seems to favour ritual purification, rather than the assimilation to the revolutions of the Circle of the Same, as a means for aligning the soul with its noetic nature (as Proclus stipulates at III.296.7-297). Van den Berg calls this a 'truly remarkable conclusion in the context of a commentary on the *Timaeus*, more in line with the Oracles than the *Timaeus*' more scientific study of the universe'.³¹

It follows from Proclus' internally consistent premises concerning the

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limitations of mortal reason that aligning the intellect with the eternal revolutions of reason, as Plato stipulates in *Laws*, while a worthy goal for right reason, is inadequate for union with an object that transcends reason and circularity. If the gods are the only beings that can dissolve the indissoluble bond that dooms the soul to fate and earthly conditions, it is only they who can intercede. The Demiurge directly creates immortal souls but delegates the creation of mortal souls to the lesser gods. Just as these lesser gods can create the mortal soul, only they can 'dissolve' the tie to the body. The escape clause that can be found for the mortal condition is the practice of telestic arts. These practices, aimed at freeing the bond with the body, do not themselves affect the dissolution but will evoke the divine agency that can. This has already been claimed by Proclus in his remarks regarding prayer (II.221.29-222.3).

... if someone should pray to the gods who excise [the effect of] matter and cause the stains that come from the [process of] birth to vanish, while he himself with the help of Purificatory virtues is especially engaged in this [activity]. Such a person would certainly, together with the [help of the gods], achieve liberation from the shackles of matter. (I.221.31-222.3) (R&S)

It seems, then, as van den Berg points out, that, while the Soul is not separable from its vehicle (its Aetherial vehicle), it is separable from its earthly and bodily containment. The two vehicles are not the same, he explains, citing I.5.11-17 where Proclus regards man as a microcosm calibrated to a universe that has both 'an Aetherial vehicle analogous to the heaven, and an earthly vehicle mixed from the four elements to which it corresponds'.³² Mortal souls are burdened by both types of vehicle, in contrast to immortal souls.

Theurgic union, as Iamblichus conceives of it, is not an intellectual enterprise. Shaw, in a definitive article on theurgy that clarifies many of these issues, contends that both Andrew Smith and Anne Sheppard continue to accept, unexamined, Dodds' basic premise that ritual is inferior to rational contemplation. For Proclus, 'simple vision' and the achievement of a state of unification beyond that possible for noetic contemplation of any sort, is the summit of the spiritual ladder. Theurgic practices supersede rational thought in the Proclean hierarchy of assimilative possibilities. In the same way that the infinity of the One, 'nowhere' as opposed to 'everywhere', supersedes all Being, these practices supersede the limitations imposed by the multiform nature with which the mortal soul is burdened. Shaw contends that the view of Iamblichus, Syrianus, Proclus and other hieratic Neoplatonists is that theurgy is the result of more unified insight into the mysteries of the One.³³ With this as the premise, theurgy can be seen to follow from Proclus' basic metaphysical theorizing.

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*De Mysteriis*³⁴ was composed some time between 280 and 305. In this influential work, Iamblichus describes theurgy as divine acts, or the working of the gods. The rites, performed by men but directed by the gods, are aimed at intensifying the presence on earth of higher beings.³⁵ Theurgy works in the opposite direction to divination. As the striving, but limited soul tries to ascend through the ladder of virtues or undergo intellectual purification, it helps to bring down the presence of the gods to the hierophant. Shaw explains that theurgy employs ritual to subordinate man to the divine will, the opposite of sorcery, which tries to subordinate the gods to man's desires. Theurgic rites reveal vestiges of a divine presence, which the theurgist could enter through ritual actions. It is 'religious ritual demonstrating supernatural power and it both symbolizes and encapsulates the extraordinary miracle of the soul's conversion back to divine cause'.

It seems that union is possible, then, but not as a consequence of philosophy or intellect. Prayer, theurgy, hymn, are all practices that bypass intellectual discursion or apprehension and accomplish a non-intellectual liberation. The key lies in escaping the imprisonment that is visited upon the soul by its earthly entanglements. Even virtuous persons, though they be most like the gods, are still, according to Iamblichus and Proclus, in prison as long as they are confined by bodily existence, Proclus gives the views of Porphyry when he says,

Like children who have been separated from their parents, we should pray for the return to our true parents, the gods. (I.208.11-15)

Further:

In addition ... because we are part of the All, it is fitting that we pray to the All. For in the case of every being reversion to the whole (*epistrophê*) brings salvation with it. If, therefore, you possess virtue, you should invoke that [deity] which has already grasped the world of virtue in advance, since that which is entirely good is for you too cause of the good that is suitable for you. (I.208.22-7) (R&S)

Proclus uses the word for reversion and not '*homoiôsis*' here for a return to the gods. Conversion is a different matter from assimilation in the sense of similarity or emulation or *henôsis* in the sense of unification. Prayer and ritual hold greater promise than mental effort in ascending to higher causes and reverting to the true origins.

It might be asked how, then, does the soul 'ascend' in any other way besides through the intellect? The intellect, after all, is the next up on the soul's immediate scale of hypostases. '*Anagôgê*' is a term that is attached to a developed doctrine of the ascent of the soul in Chaldaean teaching. As Shaw states, 'Philosophy, for Iamblichus, meant the art of demonstrating truths through intellectual discourse; Theurgy, however, neither demon-

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strated nor proved but lifted the soul directly into the divine.’ *Anagôgê*, in the Chaldaean sense, relies not on the mortal soul, but on the gods. Plotinus developed this term to mean a contemplative process that brings the soul to greater and greater degrees of intellectual purification. The Oracles, on the other hand, regard the leading up of the soul as a ritual event; the soul ascends on the rays of the sun aided both by the theurgist and by the gods.³⁶ Prayer or theurgy, the ‘telestic arts’, because they invoke divine help, can eclipse the whole intellectual process and gain immediate vision, achieving what thought cannot. The telestic arts invoke the gods who ‘lift’ up the soul: an act, not an intellectual discursion. The One, after all, is an object of desire, not science: the soul longs for union with an object that transcends all parameters and is infinite and boundless. Faith and love and light, not thought, take priority in the spiritual quest. The spiritually purified must go through a trial by fire: all ideas must be incinerated, all intellectual possibility exhausted, for the gods to be finally able to intercede.

It is not, then, the purification rituals, the incineration of intellectual ideas, or prayer, that suffice. The help of the gods themselves needs to be invoked. The direction of the process here is not from soul to the transcendent but in the opposite direction. Divinity visits the soul. The purified soul is positioned to *receive* conversion. Baltzly differentiates between cathartic virtues, ritual purification through mysteries and through theurgy, and other virtues such as civic virtues. For Iamblichus, there is a virtue even higher, that is the hieratic or priestly virtue ‘proper to the One’ (while the others are concerned with Being).³⁷ Intellect is not the path for human souls, which, Proclus contends, ‘are sometimes assimilated to a divine nature, yet are partly assimilated’ (III.301.5-8). Shaw points out that for Proclus thinking does not affect a theurgic union but plays a necessary auxiliary role.³⁸ Ineffable rites could bring the soul back to the gods. Shaw sees as an elaboration of *Ennead* VI.7 that the soul’s ascent to the Good ultimately came from above (*exothern*), from grace. Proclus, consistent with his nuanced account of the soul’s descent, expresses a similar imperative in the following passage:

But they [i.e. the souls] make the first descent when they have already been sown around the visible gods in order that they might have the gods as saviours (*sôtêras*) of their wandering around generation and that they might call upon them as their own patrons. (III.280.19-21) (F)³⁹

Prayer attracts the beneficence of the gods towards itself. It unites those who pray with the gods who are being prayed to. It also links the Intellect of the gods with the formulations of those who pray, inciting the will of those who contain the goods in a perfect way within themselves to share them unstintingly. Prayer is the creator of divine persuasion and establishes all which is ours in the gods. (I.211.2-8) (R&S)

10. *All Too Mortal: The Proclean Soul and its Inability to Assimilate*

Proclus turns to Chaldaean 'light' mysticism in the passages that follow. Joining the light of the Soul to that of the One are figures of speech which best express the 'non-intellectual' nature of unification with the One. He describes a process of knowledge of the divine, then 'becoming like' (*homoïōsis*), in respect of purity, chastity and education and ordered disposition, then

... touching, through which we make contact with the divine substance with the topmost part of our soul and incline towards it. Next there is the 'approaching' for this is what the oracle calls it 'For the mortal who approaches the fire directly will possess light from the gods', allowing us greater communion with the gods and a more transparent participation in their light. Finally there is unification (*henōsis*), which establishes the unity of the soul in the unity of the gods, causing there to be a single activity of us and them, in accordance with which we no longer belong to ourselves but to the gods, remaining in the divine light and encircled in its embrace. (I.211.18-29) (R&S)

The Soul possesses an 'epistemic light' and so through faith, through the infinite joining the infinite, through a silence that surpasses intellection, a path is open to assimilation. There is synchronicity between the Chaldaean mysteries and Proclus on these points.⁴⁰ In Chaldaean terms, 'The return of the soul is not to its supermundane termination, but only up to the sun, of which the noetic light directed by Aion, completed its purification'.⁴¹ The reader is reminded of the hymn to Helios, which was composed by Proclus and was also one of the hymns composed by the Emperor Julian.

Discussion

The task here, in interpreting the more mystical passages of the *Timaeus Commentary*, is to try to make a fit between Proclus' ontology and the hieratic mysticism that is found in expressions such as the one just quoted above. If one were to follow only the premises that are given by Proclus' metaphysics, it would seem as if the soul, striving to make contact with the divine, could only do so by being at one with itself. This would entail getting 'in touch' with the Intellect which in turn knows the paradigmatic causes. This would seem to be as close to assimilation to unity as is permissible for souls by natural means. The soul apparently can assume a revolution (which in *Laws* is described as a noetic motion) which counteracts the wandering movement of passions. Given these premises, the soul is limited to assimilating to the revolution of the Same when it leads the good life, as Proclus points out here in Book 5:

the unique salvation of the soul is shown by the Demiurge, the salvation that sets from the circle of generation ... once it has purified itself from what

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surrounds it, become a noeric flower and fruit ... following the uniform and simple activity of the revolution of the same instead of the much wandering circuit of the movement of the other (III.296.7-18)

It would appear here that the revolution of the same is the ultimate terminus of reversion to the One as the soul leads a noetic life. Revolution, however, is still movement and related to the movements of the heavenly bodies, hardly isometric to the state of 'rest' attributed to the transcendent world. It seems there is, once again, a structurally irresolvable difference between the material and immaterial world. The mortal soul, albeit aligned with perfectly circular movement along with right reason, as Plato stipulates, is still precluded from reaching unification. 'Light' seems a more suitable trope or vehicle to carry the intended meanings. It is a physical/metaphysical medium that has the vastness of an infinite energy unlimited by place or word. Still, to the disappointed 'philosopher' who reads the *Commentary*, it seems as if the Proclus who was so carefully deductive has turned to metaphor and gnomic oracular utterance. Perhaps, given his premises regarding the mortal limitations, there is no other choice.

Matters may be simpler than all this implies. Proclus' metaphysical premises do have a place within this so-called mysticism. For Proclus, this world is only a projection from a Good, infinite and totally outside the boundary between Being and becoming, superlunary and sublunary spheres, heaven and earth. There is, in fact, no boundary to transcend and there is no negotiation between the cosmos and its ultimate source. There does not have to be. All things remain in their cause. In an infinite, eternal universe, all things are simultaneous: remaining and proceeding, discur-sion and excursion and reversion, all are the same from the perspective of the gods. When it comes to the mundane individual soul in its singularity, theurgy and the telestic arts are the means, not to an impossible union of finite with infinite, but to invoking living gods that can lead and raise the soul so that its light can be joined to its source. The soul can transcend its own material nature in a spiritual lifting. How is this possible? Simply, there was never a separation in the first place. By the grace of the gods, the soul regains its continuity with the all-powerful source of unity. It was only separated from that source by division and material obstacles. 'All things are in all things': light penetrates even to the last of creation. The spiritual initiate need only to place himself or herself in the best possible position to re-engage with the unity that is always there, was always there from the beginning and will always be there. All of time's dimensions are co-present after all. Unification is not an achievement, it is a pre-existing condition.

For it is only when the soul has passed beyond the distraction of birth and the [process] of purification and beyond the illumination of scientific knowl-

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edge that the intellective activity and the intellect in us lights up, anchoring the soul in the Father and establishing it immaculately in the demiurgic thoughts. It connects light with light,⁴² not in the manner of scientific knowledge, but in a manner that is more beautiful more intellective and more unificatory. This is the paternal harbour, the discovery of the Father, the immaculate unification (*henôsis*) with him. (I.302.16-25) (R&S)

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Then tenth, he makes it all-complete (*pantelês*) by producing all the living things in the likeness of the four Forms [included] within the Paradigm. (II.5.29-30) (B)

... man is a microcosm and everything that is in the cosmos in a divine and complete way is in him too in a partial manner. For we have Intellect in act, and a rational soul that came forth from the same father and the same life producing goddess as that of the universe, and an Aetherial vehicle analogous to the heaven, and an earthly vehicle mixed from the four elements to which it corresponds. (I.5.11-17) (vdB)¹

... do not gaze at nature; its name is Fate. (*De Prov.* 21)

It is not clear that Proclus ever completed the *Commentary on Timaeus*. In any case, Book 5 completes a cycle, one that has put in place a sequence of endowments to a cosmos that is both living and divine. Proclus began in Book 1 with the assertion that man is a microcosm (see above); Book 5 mirrors that inaugural claim:

It is necessary just as the whole cosmos, man in the same manner should be considered perfectly, for man is a microcosm. He has, just as the universe, an intelligence and reason, a divine body and a mortal body just as the universe and is divided analogously to the universe (*to pan*). (III.355.7-11)

If the tenth gift is a culminating epiphany, and the ten gifts progressive, then man as a microcosm does not, on first consideration, seem to be the culmination of all that has gone before. Humankind is the bottom-most point of procession (for souls) and, as far as souls are concerned, the most earthbound of creatures. How can it be that Proclus considers the mortal soul, imbued with the maximum multiplicity that souls can possess, to be the 'completion' of the demiurgic creation? The human soul is a seat of activity in time and that seems to be far from the ideal situation, which is one of rest, and immobility. Proclus gave a clue to the answer to this question in Book 1:

The first things have been separated from the second, *and they employ activities of the latter as something necessary for the completion of the All.*

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The second things are organized by the first, and the best of them are harnessed symbiotically with the best of encosmic things, the middle ones with middle things and the last with the last. The same principles penetrate several substrates and the same receptacles participate in several principles. (I.54.16-27) (T) [my italics]

If procession and return are a cycle, the final 'station' on the trajectory of procession is, at the same time, the point at which spiritual return can commence. In a circle, the beginning and the end are one. The soul of a human, as it becomes self-reflective and assimilates to Intellect, begins a spiral upward to transcendent causes. The mortal soul, therefore, is a pivotal station in the path of return, as the cycle of creation spirals back upward as it reverts. The living things, which are the imitation of the All-perfect-living-being, mortal souls subjugated to Fate, but at the same time to Providence, complete the world according to the fourfold idea by their active assimilation. The mortal soul is the last outpost of Soul, and thus the most earthly connection to the hierarchy of gods. Mixed in the *hupodochê* (*kratêr*), the fountain of psychical life, soul is a link between the transcendent and the mundane gods, between Fate and Providence; 'every encosmic god is connected to bodies (*sunaptesthai tois sômasi*) through Soul' (III.164.16-17).

In order to understand how this works, it is necessary to look, once more, at the manufacturing of souls that Proclus catalogues in Book 5. Souls are enlivened by being mixed in the *Kratêr*, as he explains at III.243ff. Souls can have hybrid natures as created, and at the same time be in touch with their invisible causes. For Proclus, like Iamblichus, there is a hierarchy of souls according to the degree of admixture with the mundane.² Angels, daemons and heroes 'fill up the middle space between the gods and men':

... the angelic is analogous to the intelligible, unfolded into light first from the ineffable and occult fountain of beings ... the demonical is analogous to infinite life; it proceeds everywhere according to many orders and many ideas and many shapes. ... And the demonic is analogous to intellect and reversion (*epistrophê*), the demoniacal proceeds according to the demiurgic Providence of wholes, governs nature and gives completion to the order of the whole world. And the heroic proceeds according to the revertive Providence of all these. Hence, this genus likewise raises (*anagôgê*) souls on high and is the cause of souls being full of life. (III.165.12-30)

The fourth and lowest tier of this particular fourfold classification of souls is the mortal soul. The lower ranks of junior gods produce Monads of their own ranks; multitudes of mortal souls that are a link in a chain that connects to them directly. Junior gods are, in turn, connected to the celestial gods: there is an upward linking of lower to higher gods within the hierarchy. The bottom-most place in this chain of being is the soul that has the greatest admixture of physical, earthly, properties. It is also the

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soul most filled with 'life', in the form of active motion and change. If activity is required to complete the cosmos, mortal souls seem to be the busiest, at least as far as operating in the physical world is concerned. While mortal souls are lowest in the chain of being, they are a higher form of earthly life, and a direct link to the lower gods who, in turn, are linked to the celestial gods.

Proclus identified the *Commentary on Timaeus* as a discourse according to iconography (I.130.16-132) 'interpreting nature through images' (I.129.33). The artifacts of the physical world are reflections of the intellectual world though confined to the parameters of material space. The physical and inanimate artifacts of this world are signifying entities and the physical world a plenum of disseminated meanings and structures. They are intellectually comprehensible because they reflect higher realities. The mortal soul can reflect upon the images that occur in nature and in that way come to know higher realities. At the same time, and in a more prescient way, the types of souls have, to greater and lesser degrees, a more direct connection with the invisible causes. They are more 'similar' to these causes and to their own originating gods and are therefore positioned to connect with higher hypostases. There is a complication, however. Just as the imposition of form on a fulminating material substrate is a struggle, the mortal soul is engaged in a struggle as well. The mortal soul has the potential to assimilate but also holds, through its free will and the distractions of its embodiment, a potential to choose wrongly and not enable assimilation.

In his *On Providence*, Proclus distinguishes between Fate and Providence. Fate rules nature, and Providence rules the entire universe and everything beyond, both the visible and invisible world. There are two essential types of soul in the sublunary region. There is the one that descends into the mortal region and 'is separable from the body' (presumably heroic souls) and another 'which resides in the bodies and is inseparable from its substrates'. The latter depends in its being on Fate, the former upon Providence.³ This distinction between the two types of souls is the first premise in an argument to explain why mortal human souls can complete the world. They are in immediate touch with the world and can convert it.

At III.254.2-10, Proclus makes another threefold distinction concerning the distributions of ratios in the respective types of souls. When Being (*ousia*) rules, a divine soul is produced; when Same (*tautotês*), a demonic soul; and when Other (*heterotês*) dominates, a partial soul results. This is reminiscent of the threefold distinction, Identity, Equality and similarity, that appears throughout the commentary. Identity comes from the Demiurge of wholes, Equality from distributions of the good on the second level about the junior gods, and similarity, third in stature, holds onto higher hypostases but stays in the realms of generation. Extending the analogy further, in the discussion of mathematics it was stated that Identity

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(*tautotês*) of relations (that the middle term produces in regard to the extremes, binding them together), proportionate *alternando*, is a mathematical fundament. Here, in the case of the soul, identity with higher causes is an attribute only of the higher souls. All souls, however, have in a greater or lesser degree, the type of ratio connected with Identity. Lower souls have the same structural proportion as higher souls, but with a greater multiplication of differences distributed in them. They are, therefore, capable of similarity (*homoiôsis*) to their leader gods but stop short of perfect unification. Beset with multiplicity, their earthly life places them under the sway of Fate.

The relation of souls to Fate and Providence is directly related to their respective distribution in the hierarchy of soul types. In particular, for the mortal soul, the quest for assimilation to leader gods is a struggle to overcome Fate and commensurate with Providence. The connection between soul types, and Fate and Providence, goes back to the middle Platonists and is a well-established doctrine by late antiquity. Sharples cites Apuleius, Plutarch and Nemesius on the subject of primary, secondary and tertiary providences.⁴ These philosophers, in one way or another, consider mortal souls to be presided over by daemons in the region of earth who are guardians of human deeds. A secondary Providence is connected with the celestial gods and has to do with heavenly rotation and the coming to be of mortals. Primary Providence has to do with ideas, heavens, genera and species.⁵ In these accounts, and in the tradition of this discourse on Providence, generally, in late antiquity, mortal souls are allotted a position that is more subject to Fate than to the higher levels of Providence. Success or failure of human deeds occurs at this level. Souls do not lose that part of their essence that is beyond Fate. They only lose connection with it when embroiled in the 'evils' of worldly temptations. This is partially due to their becoming encosmic (III.275.15-17) *per se*. Souls are in essence supernatural (*hyperphuês*), supercosmic (*hyperkosmioi*) and beyond Fate (*epekeina heimarmenês*) (III.275.26-7). They are placed under the rule of Fate, but are, concomitantly, suspended from Providence as well.

Finamore discusses the comparison between Iamblichus and Proclus' *Commentary on Timaeus* (41e3).⁶ For Iamblichus:

Souls are essentially supernatural, hypercosmic and above Fate because they hold a first generation (*prôtên hupostasîn*) separate from this cosmos (III.275.26-9). Souls become subservient to Fate, [Proclus says] by their vehicles and by their allotments (*lêxeis*) which they are assigned to administer. (III.275.28-9) (F)

Finamore points out that the soul's movement from the hypercosmic realm into generation occurs in stages. The soul is above Fate and comes under the domain of Fate in descent and in association with generation. The

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sowing is first, being a sort of second distribution of the vehicles (III.276.5-11). This distribution is around the gods. For Proclus, says Finamore, there is the *protopostasis*, the distribution, the sowing, the assignment of allotments, and then the descent.⁷ Proclus explains what is at issue: Souls, when sown around the visible gods in the course of their first descent, acquire their saviour gods which become their patrons when they are subsequently sown around generation.

As discussed in the previous chapter, the soul attains its option for salvation through the gods – specifically, the leader god who originally sowed it. How to access the patronage of the leader god, however, is not only a province of theurgy, but also a matter of making the appropriate moral choices. Soul's life in time can be either a path to destruction or one to assimilative redemption. Earlier in the *Commentary*, Proclus discusses the idea that there are both divine and daemonic souls enlisted under secondary leaders, Earth, Moon, Helios, Zeus and Ares (I.110.28-31), resulting in an assortment of different types of souls with lives determined according to their leaders. Some remain immaculate, while others descend into generation (I.111.15-114.20) 'and are filled with the vice of producing generation'. The worst of these forget their special gods and make a range of choices (not all of them for the good). (We were told at I.77.10-15, when Proclus stipulates among the types of souls, divine, demonic etc., that some are destructive (*lumantikon*) souls.)

The Soul and the cycle of generation and corruption

At III.227.4-7, Proclus discusses the fact that what is given over to the world by the Demiurge is twofold: providential (*ton pronoêtikon*) and assimilative (*ton aphomoiôtikon*).⁸ Providential creation is a product of a superplentitude of power. Assimilative creation is fabrication for the sake of giving completion to the universe, to render it similar to the perfect Paradigm. Time can be understood, not only as a cause of corruption, but also as a cause of assimilative redemption. Time's connection with Eternity gives things their spiralling course upward to access paradigmatic creation, and thereby to assimilate according to Providential redemption. Mortal souls, whose life is in time, have opportunities to escape the temporal course to which Fate has consigned them. They participate in Time's real being as a hypostasis when they assimilate to intellect. Mortal souls, also called 'partial' souls by Proclus, are from the same *Kratêr* as total souls. In partial souls, however, difference is more abundant than sameness and they exist according to a more partial intelligence; they are situated under Fate and the laws of Fate (III.244ff.). Souls that descend into generation change their life from intellection to action and thus are mingled with mortal concerns. They can follow a linear course towards potential destruction or make a better choice. 'Pure' souls, on the other hand, which transcend generation, are exempt from the laws of Fate. All

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souls are essentially supernatural and beyond Fate (III.275.26-7), however if they follow a linear course and ignore the possibilities for cyclical redemption, their Fate is sealed within their mortal condition. The circular apocatastasis enacted by redemption countervails dissipation into destruction. If souls do not align with this cyclical redemption by aligning with Intellect and instead choose earthly passions, they are consigned to disorderly motion. In the *Commentary on Euclid* Proclus gives us a vision of the whole as a cyclical process regarding mortal beings.

All things exist eternally through the cycle of generation and the equilibrium among them all is maintained by its balancing destruction; for if generation were not recurrent, the order of things and the whole cosmic scheme would soon have been dissolved. Animals and plants owe to the circle the likeness between parents and offspring. For animals and plants are born from seed and produce seed in their turn: generation becomes reciprocal, with a recurring cycle of growth from the immature to the fully-grown and back again, so that decay accompanies generation. On things that we call 'contrary to nature', the circle imposes order by limiting their boundlessness and regulating even them rightly by using the last traces of the powers resident in it. (*in Eucl.* 149-50)

Partial souls, as all of creation, can countervail nature and revert to their more essential supermundane and supercosmic nature. In the passages from III.241.18 to 242.7, Proclus discusses which powers the Demiurge imparts to the junior gods in creating mortals for the sake of adding perfection to the world. Proclus describes an infinite process of generation and corruption. The junior gods generate living things, with hybrid mortal and immortal natures, which include both irrational and rational components and a potential for both life and death. (This follows *Timaeus* 41d: 'weave together the mortal with the immortal and thereby fashion and generate living creatures and give them food in order for them to grow and when they dissolve (*phthinonta*) to receive them back to their original source'.) The activity of all the gods that fabricate mortal natures has an influence over their mortality. Along with receiving the characteristics of generated natures, when these natures are corrupted, the junior gods 'deliver to wholes that which they took from them'. While embodied, however, souls that descend are defiled by vice (I.258ff.), 'for evil is in the mortal place and in material things'. Justice rules, however, 'and recurs from earth to heaven and is circularly led from matter to intellect according to certain orderly periods of wholes'. Partial souls are, admittedly, incorruptible in respect to essence alone, but, according to energies, they are not incorruptible. Souls have an existence in time and, hence, may be corruptible and deprived of purity, thus subject to Fate.

Mortal souls, it seems, hang onto being only with great peril. We are reminded of the great floods and catastrophes that can beset the material world and cities, so much more so for the human soul. It seems paradoxical

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that mortal souls can bring completion to the universe and at the same time not be of equal dignity with divine souls, and can be easily corrupted. 'No Proclean (human) soul,' as van den Berg states, 'seems to be perfect all the time'.⁹ It is in the mixing process itself that Proclus finds an answer to how mortal souls can complete creation. The mortal soul is directly intermingled with the world. As the darker and heavier earth-bound qualities adhere to a mortal soul, its earthly vehicle impedes its ability to remix the mixture and assimilate to intellect. The partial soul lives with the physical world. For that very reason when it 'saves' itself, it can save the world as well. How does this work? Intellect and materiality are both opposite to each other and unmingled with each other *per se*. The *Kratêr* alone, Proclus asserts, can produce souls as it has the capacity to 'mix' what is not mixed. Only the *Kratêr* is 'psycho-genic' and can cause souls. As was discussed in Chapter 10, all ratios are not equivalent when it comes to souls. In fact, the diatonic genus, commensurating though it may be, does not appear similarly in mortal and semi-mortal souls. There are excellent and less excellent harmonies. Proclus had said that secondary things can complete the things above them. Does this mean that, in the instance of the mortal soul, if the soul makes rational choices, it can rework the balance of material and immaterial components?

At III.253, Proclus explains that in the partial souls the diatonic genus and ratios also take place but with a greater difference; 'certain harmonies are more excellent' and are native to divine and daemonical souls which are more unified. Harmonies exist in partial souls however,

in different terms even though the ratios are common [with divine and daemonic souls]. ... an increase of the number of the ratios in partial souls causes them to be in a greater degree partible than daemons and to descend instead of resting on high ... (III.256.18-20)

Can turning towards intellectual life perform the same kind of commensuration of the soul's ratios within a higher formula as proportion does for incommensurable magnitudes? It seems that this would follow from Proclus' premises, particularly in stipulating that these are 'partial' souls and the wider principle that all things can reach completion.

The descent into irrationality and the adhering tumult

Clarke, Dillon and Hershbell point out that it is the well-documented belief of Iamblichus that the soul changed and was damaged as a result of the process of descent into the physical world.¹⁰ Iamblichus, according to Fowden, indebted to the Hermetic literature, attributes the idea of the theurgic liberation of the soul from the bonds of Fate to hermetic books.¹¹ Holding that the physical world is bogged down by material admixture,

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but still has continuity with higher levels, is a Chaldaean doctrine. What occurs in the descent of a soul, for Iamblichus and Proclus, as opposed to those who believe there is a separate and more exalted destiny for Intellect than for the rest of the soul, is that irrationality becomes inextricable and inseparable from it. The soul is animated through being mutated from the intelligible to the sensible world. In the course of this, it is converted to motion and disordered conditions. When immortal mixes with mortal, intellectual with non-intellectual, and impartible with interval, dissimilar natures are engendered. Proclus differs from Atticus and Albinus who contend that the intellect alone is immortal; Porphyry has a more moderate view. Proclus looks to Plato's opinion that the rational life is *preserved* after the corruption of the mortal body and that the irrational soul, along with it, cannot be destroyed. It lives on to be judged in the afterlife.

Descent and the acquiring of 'vehicles', as all other issues in Proclus, is not as straightforward as acquiring only an irrational life through an earthly vehicle. The mortal soul is doubly en-vehicled. According to Dodds, 'The soul acquires several bodies, of which the physical body is the last one. These bodies are its vehicles each proper to each level of being that it acquires in its descent'. Siorvanes describes Proclus' position on this: '... first comes the "luminous" (*augoeidos*), "aetheral" (*aitherion*, *aitherôeides*), "star-like" (*hêloeides*) and astral (*astrôeides*) vehicle. Following this comes the "spirituous pneumatic" vehicle. Finally, the soul is incarnated in the fleshy body, the "material" vehicle (*hyulianion ochêma*), its physical oyster-shell (*ostreôdon sôma*) and prison."¹² The astral body is the first and perpetual vehicle of the soul. The descending soul, when it acquires its pneumatic soul, attracts irrational faculties and becomes subject to necessity and mortality. When the soul acquires the lower vehicles, it becomes a citizen of the physical cosmos. Humans, then, are souls with luminous, pneumatic and fleshy bodies as opposed to angels.¹³

The higher vehicles serve a 'metaphysical' function by mediating the mundane soul entrenched in its earthly coil, and transcendent realities. These higher vehicles supply continuity between the physical world and the spiritual world. Immortal and transcendent realities have the ability to interpenetrate on all levels of creation and the 'all in all' principle operates in the most mundane of souls. Somehow, the higher vehicle gives the soul transportation (in the spiritual sense of this word). The earthly vehicle, on the other hand, ties it to earthly concerns. At III.231ff., Proclus states that what is capable of being mingled with mortal natures is neither simply divine nor immortal: 'it does not have immortality primarily' (III.231.20). It is the Demiurge, the father of wholes, who gives the soul its unity and total soul and that makes it to be rational. Justice, however, is not served by conceiving of the rational part of the soul as primary. Justice is established with the mundane gods and they will judge the mortal soul according to her propensity to be ensnared by earthly passions. Here in the dissemination to the lowest of the three levels around the realms of

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generation, the soul is most entrenched in its vehicle. The types of vehicles can be thought of as opposite tendencies in the hybrid mortal soul; the Aetherial vehicle leading upward and the earthly vehicle holding the soul within the lower world. The decisions that the soul makes in its encosmic life will very much determine whether it discards the earthly vehicle and ascends to a higher destiny. The issue of the soul's irrationality, and at the same time its status as a microcosm, are very important in the account of Fate and Providence that makes up much of the remaining part of Book 5.

At III.324 Proclus asks why it is that the soul descended into bodies. It could also be asked why the gods would want to cause such a tortuous and obscure path to salvation, when reversion for all of nature is orchestrated by Providence. (The tenth gift is the completion of the universe according to the fourfold idea but by and under the auspices of Providence.) This is not simple: completion has a deeper meaning than would appear at first glance. Completion (*teleion*), after all, means termination and perfection at the same time. Some things pass away into non-being, others are redeemed. The Soul, Proclus claims, wishes to imitate the providential *energy* of the Gods (*bouletai mimesthai to pronoêtikon tôn Theôn*) and on this account, dismissing contemplation, it descends into generation. Strangely, then, activity is endemic to the *life* of Providence. Its missions are carried out by such as is the mortal soul. Through descent 'the soul acquires a genesiurgic life in motion relinquishing the stable intellectual unalterable energy of the Gods'. Why, Proclus asks, does the soul descend into bodies?

Its descent contributes to the perfection of the world. For it is necessary that there should not only be immortal and intellectual living things, such as are with the gods, nor alone mortal and irrational animals, such as are the last of the fabrication of things, but likewise, such as subsists between these: which are by no means immortal but are able to participate in reason and Intellect. (III.324.14-19)

Completion (*teleion*) is the final and perhaps the greatest gift of the Demiurge, and for paradigmatic creation to triumph, time must reverse its course and assimilate to the ideas. Does Proclus mean to imply that the Soul, carrying out the life of Time in temporality, can work on the world's redemption by its own acts of continual purification and conversion, the commensuration of its own ratios?¹⁴

Stephen Gersh describes the continuum of transformation between incomplete and complete power and vice versa. At the beginning of the procession and at the end of the reversion, complete power reaches its maximum. Completeness then is a point at which the procession and the reversion coincide.¹⁵ Only Soul can be an engine of spiritual reversion since it is the motion of the self-moving Soul that effects assimilative creation in the image of the Paradigm. When Soul reverts, it brings the rest of

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creation with it. The activity of the World Soul is responsible for paradigmatic creation to supervene and cause Time to be a cause of redemption rather than corruption. Assimilative creation is fabrication for the sake of giving completion to the universe, to render it similar to the all-perfect paradigm. Time's true existence is as a hypostasis rather than its iconic unfolding. Dissipation into destruction is countervailed by the circular apostasies enacted by assimilative redemption. The final gift of the Demiurge is to complete the circle as he enables Paradigm and creation to coincide in a circular apocatastasis. This is the intervention of the World Soul but what of the mortal soul?

The mortal soul or partial soul assumes the various forms of living beings, the daemonical, the human and the irrational but at the same time is governed by Justice, recurs from earth to heaven, and is circularly led from matter to intellect, but according to certain orderly periods of wholes. ... Partial souls are in a certain respect undamaged (unmixed or undefiled can also be the translation of *akêraton*), viz. according to Essence alone; and in a certain respect they are not undamaged. (III.259.24-260.4)

Every order of souls is attached to, or dependent upon two fountains, the demiurgic and the Life-producing. At III.266, the reader will find the clearest statement of the fact that, while superior souls are superior to Fate, mortal souls are also superior to Fate, according to their highest life, even though when 'they fell into their vehicles they become subject to listen to the laws of Fate' (III.266.13-14). The mortal soul, Proclus appears to be saying, is the only soul that has both a residence in nature, is a part of nature, and can transcend nature at the same time. The Intellect within it can contemplate nature while being ensconced in its earthly existence. The soul, *in situ*, then, is in the best position to assimilate, being right where the action takes place, and at the same time being possessed of the intellectual resources to be able to siphon out its principles. The study of nature itself can be a means to salvation and an escape from the laws of Fate. In the passages from III.270ff., Proclus reminds the reader, as the Oracles proclaim, 'that immense nature is suspended from the back of the goddess'.

[souls] should survey the fountains (*pêgês*) and roots of nature in order that they may behold their own excellence and the total series from whence they are suspended, and that adhering to this, they should contemplate the universe. For by directing their view to nature herself, they co-arrange themselves with Fate. As therefore, the Demiurge himself, by first comprehending the paradigm of nature, governs the universe, thus also he is desirous that souls looking to the first and intellectual cause of nature, should revolve on high and conduct the whole world. For this is the highest (*akrotatê*) allotment of the soul. (III.271.12-13)

Based on statements such as these, it is easy to see why some interpreters are able to make a case that the *Commentary* may be a form of spiritual

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exercise. The path it sets out, after all, is one from the lower to the higher causes of nature. The suggestion here is that the astute hierophant of the study of nature, according to the gods, can achieve a kind of 'assimilation' to divine causes. In any case, it seems that the human soul can choose higher paths than those laid out for it by Fate. Fate is an important component of the governance of nature and is indirectly supervised by the Demiurge; however, Fate is a secondary existence. Proclus makes the reader understand the difference between Fate and Providence by alluding to *Statesman* (see III.273.25ff.). The passage is significant enough in Proclus' thinking to quote here at length:

... and the earth-born race had at length been used up, since every soul had fulfilled all its births by falling into the earth as seed its prescribed number of times, then the helmsman of the universe dropped the tiller and withdrew to his place of outlook, and Fate and innate desire made the earth turn backwards. ... And as the universe was turned back and there came the shock of collision, as the beginning and the end rushed in opposite directions, it produced a great earthquake within itself and caused a new destruction of all sorts of living creatures. But after that, when a sufficient time had elapsed, there was rest now from disturbance and confusion, calm flowed ... and the world went on its own accustomed course in orderly fashion ... at that moment god, who made the order of the universe, perceived that it was in dire trouble, and fearing that it might founder in the tempest of confusion and sink in the boundless sea of diversity, he took again his place as the helmsman, reversed whatever had become unsound and unsettled ... when the world was left to itself, set the world in order, restored it and made it immortal and ageless. (*Pol.* 372e2-373e4) (Fowler)

This passage describes periods of time when the Demiurge loses control of the reins and as a consequence, existence spins out of control. The separation of the universe from Providential governance leaves it solely subject to Fate. Proclus asserts that there is a second period of the world that is convolved by Fate, but not the first and intellectual period, which is connected to the invisible Providence of the Gods. It is to this epiphanal period that the aspiring mortal soul must turn, in acts of goodness and moral choice and in intellectual contemplation. The mortal soul, just as the Demiurge, must always work to regain control. This is not, however, enough, as has been shown, to ensure unification but is one of the provisions for successful assimilation.

The human soul must take drastic measures to escape the mortal form of life. Proclus follows Iamblichus on some of this doctrine. In Book V of *De Mysteriis*, Iamblichus addresses himself to the double nature, spiritual and corporeal, of man's relationship with his gods.¹⁶ A man who is wholly soul consorts with the gods and renders them an incorporeal cult, while he who is still tied to the body renders them a material cult subject to becoming and change. However, even men of the spirit must address themselves to gods who have charge of corporeal matters because of their

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own corporeal nature. There are those few men who do lead a purely intellectual life. Still, even the incorporeal intellectual life of theurgists has varying levels of spiritual purity. Even these souls, in matters of the body, may have to address themselves to the good daemons who have charge of corporeal matters.¹⁷ As for corporeal types of souls themselves, there is hope for even they can find the means to redemption and escape Fate.

The path to assimilative redemption is not without peril. The soul is subject to a 'darkness' which can be treacherous. Proclus, from III.324ff., asks and answers why it is that 'partial souls', when they descend into generation, are 'filled with such great material perturbation and so many evils'. It is, he says, through the propensity arising from free will. The soul already is innately endowed with a composition of similar and dissimilar natures: it is immortal and mortal, intellectual and not intellectual, divided and undivided. If that were not dissembling enough, it is subject to motion and particularly to disorderly motion. The soul, then, is situated in darkness.

... Why are partial souls when they descend into generation filled with great material perturbation and so many evils? It is through the propensity arising from their own inclination to free power (*autexousion ropên*) [free will], through their vehement familiarity with body, through their sympathy with the image of soul, which is called animation; through their total mutation from the intelligible to the sensible world and from a quiet energy to one entirely conversant with motion; and through a disordered condition For all these become the cause to the soul, of this mighty tumult and labour in the realms of generation. (III.324.25-325.5)

Proclus now returns to *Republic*, which he had discussed in Book 1 as an example of a constitution that ordered the city according to an allotment of citizens to their appropriate roles. Now he mentions it as a dialogue in which the allotments and elections of lives under Fate can be examined. Here he is referring to the myth of Er (I.324.31-326.8). Proclus turns to the *Phaedrus* to elaborate upon the same theme. The soul descends and this is the 'defluxion of the wings' that Plato explains in *Phaedrus*. These are passages in which it is proclaimed that anyone who has lived a moral life will obtain a better Fate. Those who have been immoral will not. It takes ten thousand years for wings to grow again and souls are allotted their position in the afterlife according to justice (248e-249c). Proclus describes the Fate of a soul in descent, commenting on *Timaeus* 43a where Plato has spoken of the soul when it is mortally bound as being bound in a vast river:

The river therefore signifies not the human body alone, but the whole of generation with which we are externally surrounded through its rapid, impetuous and unstable flux. Thus also in the *Republic*, Plato calls the whole genesiurgic nature, the river of Lethe; in which are contained, as Empedocles

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says, Oblivion and the meadow of Ate; the voracity of matter and the light-hating world ... (III.325.25-32)

In the genesiurgic river, souls carry and are carried with violence and lose their life as a soul and live that of generation and mixture. It seems that the *Commentary* has now come full circle and returned to a consideration of violence and the disorderly motion that is foretold by the myth of Atlantis. We recall the floods and earthquakes mentioned in the prologue. The mortal soul is now subject to the same disturbances that threaten stability as the polis in war and natural disaster. Redemption through assimilation and formal cohesion is easily put into a precarious state. If the universe is a cosmos, the soul as a microcosm is subject to the same dissembling forces that connect to matter and to the *polis*. The soul, living its composite life, is a mover, but is also potentially moved by disorderly motion. It can lose its moorings and be swept away by the river of Fate (III.328ff.). As self-mover, it has choice, but when it is moved, it is under the sway of forces out of its control, hence the river analogy. It must use the counterforce of its own will to resist the pull of Fate and disorderly motion. While in the *Statesman*, the Demiurge must take the helm to restore order, and, in *Republic*, the constitution must be imposed on a city to maintain order, the self-moving soul must regain a command position through its intellect and its moral choices. Only then can the soul escape Fate and be under the rule of Providence.

Providence and Fate

Proclus is very specific in making the distinction between Fate and Providence, and this is central to his arguments.

... the term *pro-noia* (pro-vidence or thinking in advance) plainly signifies the activity before the intellect, which must be attributed solely to the Good – for only the Good is more divine than the intellect, since even the much praised intellect desires the Good together with all things and before all things. The term *heimarmenê* (fate) indicates the cause that strings together all that are destined to have such a connection. (Proclus, *De Prov.*7) (St)

The *Commentary on Timaeus* is a treatise on nature. Nature has the associated meaning, for Proclus, of those things that are subject to Fate. This is a very pressing theme for Proclus, who wrote an entire book *On Providence*. In it, he explains carefully, the difference between Fate and Providence and the discussion there is directly relevant to the ultimate disposition of souls and their spiritual quest in the *Commentary*. The key to leading an enlightened life is associated with the soul's ability to transcend the Fate that rules the rest of nature. Salvation is not ruled out by the mortal soul's allotment in the sublunary world. As a citizen of this world, the soul is subject to Fate but not doomed by it, any more than the

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citizen of the corrupt state is forever barred from political redemption, should the rule of reason be restored. (Proclus' use of the word 'citizen' suggests an allusion to the political arena as analogous to nature when not well ruled.) The soul, which has an intellectual/eternal essence, can be released from the sway of Fate and live in accordance with Providence. Providence, after all, rules Fate in an ultimate sense.

Besides, Providence is not identical with what is subject to providence nor yet is it the gift coming down to it, but it is the 'providing' cause, and fate is not what is connected, nor the connection coming into it, but the connecting principle. (*De Prov.* 8) (St)

... the three orders of beings, which we call intellectual, psychic, and corporeal. By the 'intellectual' I mean the order that both exists and thinks in eternity; by 'corporeal', the order that is always becoming either for infinite time or for a part of time; by 'psychic', the order that is eternal in substance, *but uses temporal activities.* (*De Prov.* 9) (St) [my italics]

Proclus has incorporated these views in the *Commentary on Timaeus*. Clearly, they parallel the systemic considerations that stem from his basic ontology. Intellectual, psychic, and corporeal orders of Being must be synchronized for Providence to carry out its rule. The activities in temporality must conform to the 'thinking' that stems from Eternity. Thus, the soul's life in time must be countermanded by a turn towards the Eternal and then her activities will be Providential. She is a hybrid creature, after all, and must transcend the disjoining effects that pull temporality away from the redemptive cycle.

Of all beings, some have their substance in eternity, others in time. In eternity are those beings that have an activity coeternal with their substance, in time, those whose substance 'is not but always comes to be', even if it exists for an infinite time. Other beings are somehow intermediary between them: they have a substance that is stable and better than becoming, but an activity that is always becoming; their substance is measured by eternity, their activity by time (*De Prov.* 9) (St)

Temporality introduces the dangerous risk of infinite and potentially disorganizing production without redemption. Time is the salvation of temporality and Eternity the ultimate provider of the Good. The spiritual task of the soul in its sojourn to assimilate to the divine consists in transcending its own corporeal irrationality to be at one with its own higher nature. In this way, it lives in Eternal Time, not temporality, and can be in touch with Intellect, which, in turn, is provided for by Providence. Intellectual purification can turn the soul towards the intelligible Paradigm and living the good life can help the soul bypass the discursions of Fate and turn it towards the Good.

Proclus claims that generation leads the soul into three possibilities:

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into the generation of man, then into the generation of woman and in the third place into 'brutal nature'. This appears to be Proclus' hierarchy of mortal souls according to their intrinsic 'rational' capabilities. Adrastia, Necessity and Fate, intellectual, supermundane and the mundane, are the levels of Fate, and it is the third and lowest level of mundane Fate that is inscribed in souls who elect the inferior lives. An erroneous choice leads the soul to a dark and atheistic life, but a pious choice directs it to heaven under the guidance of wholes. Choice is involved with the laws of Fate, and souls, as Plotinus says, 'betake themselves to the place announced to them by the laws which they contain'. At III.328.26, Proclus discusses the fact that the irrational soul is without deliberate choice (*apoiaretôs*), and lives conformable to nature, which is subject to Fate. When the soul is in touch with its rational nature, on the other hand, it can transcend fate. In *De Prov.* 20, Proclus explains this as follows:

... when the soul acts according to its nature, it is superior to the condition of being led by fate; but when it is brought down to sense perception and made irrational and corporeal, it goes along with the things below ... (St)

Proclus goes on to quote the Oracles (*De Prov.* 21): 'do not gaze at nature; its name is fate'.¹⁸

What this means in relationship to the *Commentary*, is that nature is not to be taken at face value, but is to be studied by rational means. Only then is it seen to be the veil that hides true causes. Choice, too, is a rational appetitive faculty that strives for some good, and making the right choices is the key to gazing away from nature and toward its causes. Choosing the Good aligns us with Intellect and the unitary power that exercises authority over all things and becomes godlike. Proclus makes considerable analogy between the Circle of the Same and that of the Other and the soul's choice to align with the ruling and rational circulation as a road to aligning itself with its own immortality. Further, man is a microcosm because:

... he has intellect and reason, a divine and a mortal body, in the same manner as the universe and he is divided analogously to the universe. Hence, also, his intellectual part is arranged analogous to the sphere of the fixed stars ... (III.335.12-13)

One might wonder, at this point, whether this implies that the limits of unification with the One, for the mortal soul, have only to do with alignment with Intellect and the circulations of reason. It seems that Proclus, as was discussed in Chapter 10, has a greater transcendence in mind for the enlightened soul. To understand this a little further it is necessary to understand that Providence is a First Infinity and transcends Intellect.

Infinity and Providence

For Proclus, Limit and Unlimited, as self-constituted, are the highest hypostases beneath the One (the *Autoapeiron* and *Autoperas*). Now the reader of the *Commentary* can come to understand that Proclus reserves the fount of Providence to be the First Infinity.¹⁹ The theme of the infinite, but nonetheless unitary and indivisible nature of divine, is, as Whittaker points out, an identification of the infinite and the unitary. The First Infinite is the fount of Providence and its fecundity transcends Nous. Nous is an important stabilizer in a universe that relies on Limit for its hold on Being. Nevertheless, it too is subject to the wider well of creativity ultimately commandeered by Providence. The source of undiminished bestowal of creation, which is inexhaustible and everlasting, is precisely Providence. It is infinite and the fountain of all infinite creation, even the kind that is in peril of destruction and which barely clings to being. The least of things participate in the highest of causes. The wider reach of bounty than Intellect, the higher rule of Providence than intellectual fabrication is characteristic of the Athenian school. The infinity when contained in the First Infinity itself is a unity, but when in the cosmos, embodied, appears in increments. Infinity penetrates all things, therefore; so does Providence, albeit in diminished form in physical things. The soul, which is partial and mixed with material life, is thus subject to Providence and Fate at the same time. This creates another one of Proclus' struggles, this time between good and evil. If the soul aligns with Intellect it also aligns with Providence, because Providence reaches to all things. Providence and Intellect coincide in the simultaneity of all of being. The soul comes under the direct sway of Providence when it reaches its 'harbour' and comes within the purview of the Good. Since the Good and the One coincide, the soul has now escaped Fate.

Conclusion

The reader of Proclus' *Commentary* cannot know what Proclus might have added to his manuscript had it been completed. One still gets the sense, in Book 5, that Proclus has come full circle by ending with this discussion of man as a microcosm. In support of this, it is only necessary to examine the last propositions of *Elements of Theology*, which ends on the same note. The last propositions (206 and 209) concern the vehicle of every particular soul that is immaterial and

descends by the addition of vestures increasingly material; and ascends in company with the soul through divestment of all that is material and recovery of its proper form, after the analogy of the soul which makes use of it; for the soul descends by the acquisition of irrational principles of life; and ascends by putting off all those faculties tending to temporal process with

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which it was invested in its descent, and becoming clean and bare of all such faculties as serve the uses of the process ...

At III.352, Proclus repeats Plato's warning that ignorance is the greatest disease of the soul, burying it and blinding its eye and causing it to pass into Hades imperfect and destitute of intelligence. Proclus admonishes those who proceed through the path of life in this manner. Such persons will not be able to give perfection to his intellect and are like the living from the dead. Only he who has purified himself will know what is wholly pure and incorruptible. Proclus reminds the reader in the end of this book that, despite the fact that the mortal soul is created under the auspices of younger gods, ultimately they are still under the Providence of the divine. There is hope even at the last outposts of existence.

The gods are the primordial causes of mortal bodies, remote as they may be from the material fabrication. They preside over generated nature in an ungenerated manner and over material nature immaterially, as Proclus claims. The deeper mysteries of the gods remain unknown, their Providence over all things, however, is apparent.

... all things are constituted by the gods, in consequence of looking to their goodness: but we are not able to know how they proceed from that point. The cause that (produces) providentially and generates, possesses a divine existence, superior pre-eminence and an unknown transcendence. (III.356.12-17)

What we do know, now that we have read the *Commentary*, is that there are signs everywhere. Coming-to-be is always in intervals ratiocinated by proportion. Times that seem irregular and retrograde motions are reconcilable once speeds and times are coordinated within the larger picture. Speeds explain the differences that are resolved ultimately in the invisible world of number. The fixed stars display eternal spherical motion. All differences are resolved ultimately; the Demiurge takes hold of the helm always, no matter what has occurred to enable things to swing out of his control. The cosmos shows us its circles and its spherical self-containment. There are sanctuaries for the gods right here in this universe. Discursions of all kinds will be redeemed in a spiral toward arrested motion. All straight lines at a certain point bend back to form a circle. Time and Eternity reconcile in the 'great year'. Discussing the proposition that Providence exists in his *Commentary on Parmenides*, Proclus claims:

... it is ruling over them (things), preserving each one of them, containing the beginnings and ends of all things, bringing everything perfectly to its conclusion. (*in Parm.* 1016.11-13)

Providence and Fate, it appears, are not separate, as Proclus argues in *Elements of Theology*:

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Every god has an undivided knowledge of things divided and a timeless knowledge of things temporal, he knows the contingent without contingency, the mutable immutably. (*El. Theol. Prop. 124*)²⁰

Pronoia extends to the furthest reaches of the universe. No matter how distant a soul may be, she can approximate to her cause and commensurate the indeterminate future to the determinant foreknowledge of the gods. Fate is, after all, subordinate to Providence, while the reverse is not the case. Close to the end of Book 5 Proclus repeats: 'It is necessary that man, in the same manner as the whole world, should be considered perfectly because man is a microcosm.' The material world at its summit in the heavens reaches an *apocatastasis* and *telos* during its epiphany. If the mortal soul is a microcosm of the universe, it too can attain to its proper and superior *telos*.

Beyond Plato: Nature, ‘Woven by the Intellective Light of Athena’

Proclus thinks that Plato was the one man to whom the entire truth about all matters of importance was entrusted by the gods (*Plat. Theol.* I.6.2)¹

Knowing therefore, that in the case of the cosmos this name pre-existed [before it came into being] and that there is a divine name differing from its apparent name, he left this name unspoken, but at the same time introduced it with the utmost caution as a symbolic name of the divine signature in it. For the words **whatever name** and **should receive** are a concealed hymn to the cosmic name as unpronounceable and the recipient of the divine essence, so that it would be coupled with the signifying name that he [Plato] gives it. (I.274.10-17) (R&S)

For Aristotle ‘*to ti en einaĩ*’, the essence of things, is never known apart from enmattered existence. Platonists, on the other hand, assume that exemplars, which are the true essence of Being, are separate and self-sufficient, but can be known through exemplary objects. Aristotle claims that nature is that which has the source of motion in itself. Doctrinaire Platonists exempt *all* the causes of nature from nature. Nature is not self-constituted: transcendental causes are. Spiritual form and spatiotemporal individual are paradigm and icon. Ideal Forms (essences) exist simultaneously with their physical instantiations, but existence is merely a veil of contrariety, a dancing study in motion of the images of unmoving sources, a living statue of the truly real. The Pythagoreans were correct; their theorems and numbers are ideal objects, they are substantial and they only exist once. It is only in the imagination and, consequently, in the physical world that infinite replication occurs in the everlasting discursion of time. The visible world is figure, temporal, spatial, and ever-changing; the noetic is self-same, atemporal and non-spatial. Soul, Mind, Time and Eternity are separate levels of reality. How the visible world of nature comes to be in the image of a paradigmatic world of essences is one of the primary *aporiae* that a Platonist philosopher must answer. For Proclus, the Neoplatonist and polymath, an admirer and student of mathematics, Aristotle’s physics of motion and astronomy, the pursuit of an answer, must be rerouted through these sciences. The visible world is a construction, as in geometry, whereby the paradigm is ‘demonstrated’. While mathematics gives us the parameters for understanding nature’s infrastructure, astronomy and physics must provide the knowledge that is

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needed to understand nature's motion and change. For Proclus, the theurgist and hierophant, ideal objects, mathematically cogent though they are, do not come to be in nature without agency. Causes are one thing, agency another. The former provides necessary and sufficient conditions, even hypostatic realities. The latter are gods. The world seems to have purposes necessitated by scientific mechanism, but the ultimate Good to which it is aimed, is found only in Providence. Providence, we are reminded by Proclus, has a longer reach than Intellect. And words? – they are only symbols, given philosophical terms when used by Plato. The 'divine names', the 'ineffable names', they are handed down by the gods and given only to the theurgists.

Existence is perilous. Bodies, souls, and even cities can slip precariously into Heraclitus' ever-changing river. From iterative infinities that do not commensurate, to the floods and political upheavals of history, the universe has an alarming tendency to veer dangerously close to non-being. Proclus addresses this: the Demiurge does not leave the world without 'gifts'. All formless potential is counteracted with formula, rendering it subject to unity. At the very moment of creation, all of existence turns to face the One. Being is the overriding, limited, infinity that embraces the whole in a superstructure that ensures that the tendency to decay, as Essence advances to Existence, is always counteracted. How do we know that nature corresponds to intellectual ideals and that the world turns, always, toward the Eternal? We need only to look to the heavens. From Parmenides' well-rounded sphere, to Aristotle's evocation of the outermost boundary of the cosmos in uniform circular motion, ancient philosophers and cosmologists saw Eternity in the temporal. Over time, in the history of ideas, meanings associated with the spherical accrued. Sphericity became the model of containment and self-sufficiency for the whole world of nature, an overriding unity and intellectual sameness that prevailed even over the most recalcitrant of participants. The visible, as figure, temporal and spatial and ever-changing, and the Noetic as Self-same, atemporal, and the true reality, are separate levels of the same world, one transcendent and the other embedded in nature. The Self-same, however, rules.

The 'vision of the whole' as circular, an ideology from the time of the cosmologists to late antiquity, was given scientific and rational support by the two-sphere and concentric-sphere models of ancient astronomy. From Eudoxus to Ptolemy, this construct prevailed and orbital motion became fused with spherical containment. The philosopher of antiquity was now provided with a model for Limit in its most concrete visible sense. When Plato adds that circular motion is the motion of mind, sphericity acquires meanings that raise it to metaphysical significance: it becomes the canonical model of a rational cosmos. The sphere becomes the *Pantelos zôa* and the ontological and non-physical essence becomes the *Hen ontos*. For Proclus, the construct becomes even more than this: it becomes the basis for an elaborate ontology.

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Plato, in a sophisticated milieu of polymaths, sophists and rhetoricians, during a time in Athens when the art of rhetoric was burgeoning, constructed a language for metaphysics. It grew out of his restless and living coinage, with constructs that were drawn from cosmology, myth, technology, mathematics, spherics and geometry. Root constructs such as sphericity, in the course of Greek intellectual history contributed to a language of tropes that philosophy could not abandon and was forced to address forever after. Plato's unrelenting enquiries and metaphorical play with language opened wide a door to interpretation. It has often been said that all of philosophy is a footnote to Plato. Proclus enhances Plato in ways that render his dynamic figures of speech into reified essences and deified personifications. Proclus took Plato literally as doctrine, much along the lines of one school of current exegesis described by Hans-Joachim Kramer's 'a more comprehensive picture of Plato', as 'a unified system proceeding from an overarching theory of the one and the many'.² Proclus in late antiquity reads Plato in precisely the way that Kramer describes. In the *Timaeus Commentary*, the reader finds a definitive reading of Plato's *Timaeus* as doctrine. Proclus mines key formulations of Plato and embeds them within his own systematic ontological architecture. He uses frequent intertextual reference to dialogues other than *Timaeus* and extracts principles of metaphysics that he rearranges so that they constitute a unified theory.³ Runia and Share regard Proclus 'as holding the hidden assumption that Plato's writings form a unity'. It is quite evident that Proclus reads the dialogues as a single whole.

Charles Kahn describes this type of reading of Plato. The dialogues correspond to one another in providing parallel doctrines that 'might be seen as sub-schemata for some more general, or more abstract schema (such as the One and Indeterminate Dyad of the so-called "unwritten doctrines")'.⁴ Kahn gives an example of parallelism in diverse dialogues in the cosmological doctrines of *Timaeus* and *Philebus*. The Receptacle of *Timaeus* and the Unlimited of *Philebus* can be read as two aspects of the same schema. The former is the Unlimited of *Philebus* in spatial extension, whereas the latter is all qualities that admit of degrees (the more and the less). The late dialogues, in particular, provide Proclus with intertextual validation of key Platonic doctrines. *Parmenides*, *Sophist* and *Philebus* are not part of any kind of developmental sequence but all of one cloth.⁵ If there is a developmental sequence to Plato's dialogues, it escapes Proclus' notice. A doctrinal Platonist, he reads all the dialogues as having a simultaneous intertextual unity.

In Proclus, we find a definitive strategy of adding Plato to Plato to form a concordance that goes beyond Plato. Once this premise is accepted, the strategy is easily identifiable. Proclus, in effect, adds Plato to Plato when there is a need on Proclus' part to remediate Plato's more perplexing constructs or to ontologize what for Plato may have been epistemological concerns (or even just the stated positions of the interlocutors of his

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dialogues). The strategy is most clearly identified when Proclus augments the arguments of *Timaeus* with *Parmenides*' hypercosmic and supermundane 'One' and the multiplicity of the One Being. These have a parallel structure in *Timaeus*' demiurgic, encosmic creation of the world and its paradigmatic Formal cause. Further, as Gersh points out, 'The *Parmenides* relates everything to the One and the *Timaeus* everything to the Demiurge'.⁶ Proclus sees the *Parmenides* as investigating theology and concentrating on the Forms, while the *Timaeus* focuses on physiology with contemplation through images. Proclus elaborates these connections in I.12.30-14.3 and I.84.22-85.30. The *Timaeus* gives responsibility for all imminent things to the Demiurge, the *Parmenides* to the One. The *Timaeus* teaches how procession of entities shares in Providence, the *Parmenides* teaches how existent things participate in unitary substantive existence, etc. These are not simply comparisons but augment an ideology that goes much further than Plato may have intended.

The Neoplatonic 'One' is the example, *par excellence*, of how Neoplatonism, Proclus included, augments Plato and construes him as the spiritual father of an ontology that Plato himself might never have endorsed. After Plotinus, the *Parmenides* dialogue, wherein the first and second hypotheses are taken as a split between the One and the One Being, becomes a mainstay of Neoplatonic doctrine. The doctrine supports the premise that Being and becoming are two interrelated hypostases, both continuous and discontinuous with one another. The first hypothesis represents the permanent and stable One, the exemplar for Being, while the second hypothesis represents the One Being and allows for coming-to-be within a unified and limited whole. Proclus adds the Good beyond Being of *Republic* to *Parmenides*' first hypothesis and then gives it further development by adding Aristotle's final cause. In doing so, he follows through on the first principle governing his study of nature, that the Good and the One are the same (*Elements of Theology* Proposition 12 clearly states 'the Good is identical with the One'). Providence, the trump card in this deck of Platonic premises, is never far in the background for Proclus.

Proclus' use of Plato's treatment of *Apeiron/Peras* (Infinity and Limit) in *Philebus* to set up the ontological opposition that tops the hypostatic hierarchy is another example of this strategy. The Limit/Unlimited hypostasis solves the problem of the one and the many; particularly how multiplicity can coexist with unity and both be constituent of a unified world. By making the Phileban opposition into a hypostasis, some of the *aporiae* that arise in the *Parmenides*' dialectic are resolved: the duality attendant upon all reality is grounded in principle. All multiplicities are encompassed by the limits of unity. A Monad, for example, is infinitely producible, but a limited henadic unit. Many of the difficulties that change and motion create in the world of nature are ameliorated by this strategy. The many is assumed to be a sequela of the unity implied by the fact that the Limited/Unlimited pair is the most direct and immediate consequent of the One itself.

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Proclus reaches widely to supplement Plato by Academy Platonism, Iamblichus' and Syrianus' metaphysics as well as scientific developments (such as those in Aristotle's *Physics*, Euclid's *Elements* and Ptolemy's astronomy). Aristotle's *Physics*, for example, provides the tools for explaining 'continuity'; a much-needed amendment to a theory that raises perplexing issues about discontinuity between transcendent unity and the divided natural world. Aristotle's terminology brought Proclus necessary vocabulary such as 'substrate' and the many shades of meaning and terminology for time, eternity, infinity and continuity.

The notion of spiritual motion, thoroughly analyzed by Stephen Gersh, is a good example of Proclus' syncretism. Gersh calls this all-pervasive idea of spiritual motion the most syncretistic of all aspects of the Neoplatonic doctrine embracing Platonic, Aristotelian and Stoic elements. Thus to the *Sophist's* association of Being with Life and Intelligence, and its *Megista Genê* (Existence, Rest, Motion, Sameness and Difference) as prime elements of the spiritual world, Proclus adds First Limit and the First Infinity.⁷ Identity is associated with limit and difference with infinity. Rest is associated with Limit, motion is associated with infinity, etc. Aristotle's concept of *energeia*, in addition, allows Proclus to turn Life and Intelligence into 'activity', a way of conceptualizing non-kinetic movement. Spiritual motion originates as *dunamis* as Being becomes *energeia* in Intellect and activates as motion in Soul and in the physical world, under Soul's dominion. Spiritual motion, non-physical but powerful, also allows a role for agency.⁸ The creator gods can elide seamlessly into philosophy in the role of intermediaries between static concepts and living polis, nature and soul.

Plato might never endorse a reading in which his restless and rhetorically sophisticated enquiries become doctrine, but Proclus, reading Plato as one might read scripture, finds principle after principle within the dialogues. Mined with deliberate care, they become the basic building blocks of a metaphysics and can be characterized by the following premises: (1) Reality is bipolar: the basic principle stated in *Timaeus* at 27d5 (this is the basic distinction between that which is always Being and never has becoming, and that which is becoming and is never Being). (2) The ground of Being is transcendent and the One beyond Being is totally extracted from Being, and, therefore, entirely removed from reach. (3) Rest is the principle of motion. (4) Eternity is superabundant and there is undiminished bestowal. (5) Every effect assimilates to its Cause. (6) Coming-to-be is a process of projections of images into the 'receptacle' (this receptacle is introduced in *Timaeus* at 48c-52d as the mother of all becoming). (7) The mediation of mathematical analogy is required for Being and becoming to commensurate. (8) Time is an Image of Eternity. (9) Limit and Unlimited are transcendent co-principles such that there is no uncolonized infinite that is not subject to an overriding perfection (Limit) through assimilation. (10) Circular and discursive movement are

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reconcilable. (11) Everything comes from a cause higher than itself, except the One. (12) Principles are what are truly real. In an elaborate deductive enterprise, *Elements of Theology* enunciates 211 propositions that elaborate premises such as these, in a series that ranges from the simplest to the most complex elements basic to a metaphysical theology. Soul, Mind, gods, and the One, following these principles, can be seen to be the truly real.

Ironically, only nature is unreal, an image in perpetual and ephemeral becoming. Nature aims at the real and only reaches it in Time's epiphany in the 'great year'. Nature, as Heraclitus said, loves to hide: true realities are the ideal entities but they are covered by a veil of contrariety. Nature can be understood only by seeking the higher causes, a matter for intellectual pursuit but also for spiritual conquest. For the Soul, these causes are gods and must be reached through prayer and ritual act. The modern reader of the *Commentary* will find nominalism completely turned on its head by these provisions. What is real and essential can only be known through intermediate ideas. Everything that can be discovered through the perception of the physical world alone is symbolic. The world of nature is but an image in motion, dancing to the measure of a hidden origin.

Intermediation

Socrates, in *Philebus*, makes the gnomic statement that 'the wise men of today are too quick to produce their one and many directly from the one to the indefinite; they let the intermediates escape their grasp'. He proposes that a prayer be offered 'to Dionysus or Hephaestus, or whoever is the god who presides over the ceremony of mingling' (*Philebus* 17a2ff.). If there is one basic operating premise that is common to matters as diverse as the gods, mathematical analogy, the Soul and the continuity of the so-called 'golden chain' of hierarchical principles, it is intermediation. In the *Commentary*, intermediation operates everywhere as evidenced by the superstructure of 'triads'. Cleary rightly points out that the ontological status of mixture, reflected in every level and in the role of the third term in every triad, stays the ontological gap between the One and its effects.⁹ In the *Kratêr*, souls are intermingled in idiosyncratic combinations depending on their allotment. Geometric proportion is an intermediation on the most elemental level of physical reality. The sublunary gods mediate between souls and their divine causes and in the creation of nature. Mediation makes the potential become actual and at the highest level, the creation of beings (*ta onta*) from Being, is a mixture of Limited and Unlimited. Every triad that follows from this primary pair, in one form or another is a mediation between them. Thus, as *Philebus* stipulates regarding the nature of Being in the form of Limit and Unlimited, the ancients 'who were better than we and lived near the gods' said, 'we must not apply the idea of infinite to plurality until we have a view of its whole number between infinity and one, then, and not before'.¹⁰ Even in matters of astronomy,

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mediation is at play. Pingree points out that 'Proclus took very seriously indeed the position of the planetary spheres in the universe as intermediaries between the supercelestial, intellectual world and the sublunar world of sensation'.¹¹ The planetary spheres too, then, are intermediaries. In fact, intermediation is so crucial to Proclus' ontology that the Soul's primary role is to mediate between the higher hypostases and the physical world. Soul can access the necessary harmonies for world creation in its own essence and has the ability, through self-movement, to be the mediator between becoming and Being. Being (which is motionless) and coming to be (which is moving) would otherwise be irreconcilable.

Of all the types of mediation, the one most immediate for nature is mathematical. This is the second gift of the Demiurge to the world. The world has to be constructed as though it were a geometrical figure. Aristotle recognized that Plato's Academy was known to claim that the generation of the world is a matter of geometry and creation is a demonstration of geometry's axiomatic principles (*De Caelo* 279b33-280a8). Clearly, Proclus derives much of his approach to the mediating between oneness and creation from the Platonism described by Aristotle as follows:

They claim that what they say about the generation of the world is analogous to the diagrams drawn by mathematicians: their exposition does not mean that the world ever was generated, but is used for instructional purposes, since it makes things easier to understand just as the diagram does for those who see it in process of construction.

Mathematical mediations are constitutive of all things in existence. Construction requires that there be an act of intercession between Intellect and the created bodies. Proclus takes the Academy conviction regarding the constitutive nature of mathematics and fine-tunes it for the *Commentary on Timaeus*. Specifically, Plato's 'musical' ratios, for many subsequent Platonists, are a paradigm for a universal mathematics that can be applied to nature. For Proclus they are accessed from Intellect by the Soul and projected on the screen of imagination. The cosmos, after all, is but an image of its Paradigm.

The problem of incommensurability was particularly disturbing to ancient mathematicians and philosophers. Acrobatic feats on the part of Platonist mathematicians to assimilate incommensurable magnitudes and irrational numbers to higher principles particularly impressed Proclus. Problems that concerned Plato and his followers, such as the difficulty in commensurating square roots, seemed to Proclus manageable if one looked toward higher mathematical formulas. Mathematical methods that had been developed to solve problems such as the application of areas and the duplication of the cube, took on ontological significance when regarded as the secrets of growth and expansion in the physical world. The five regular solids and their inscription in the sphere showed

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the sympathy of all things to the whole and made 'all that is' (*to pan*) into 'cosmos'. The infinite expansion that appeared in nature, because of mathematics, always appeared within intellectual limits signifying the presence of mind. After all, on a potentially limitless continuum of sound, ratio and proportion had proved to establish intervals that were harmonious. The diatonic scale not only makes sound into musical harmony but also contributes harmony to the planetary orbits. The most extreme diversity, even the retrograde motions of the planets, gives way to unity when the formulas of proportion are applied. While Plato nowhere equates a 'One' with the Good of *Republic*, he does promote the bonded nature of all things through analogy. All things become the same as one another 'and in becoming the same as one another ... they will all be one' (*Rep.* 537). Ontology is supported by mathematics.

That the creation of nature is mediated by ratio and proportion is a sure sign of the equation of the One and the Good. Mathematics is the universal commensurator of differences: nothing is arranged and becomes 'something' without having a formula to mediate its material and formal causes. Further, no matter how elaborate are the constructions of the cosmos, a measure can be found which renders it co-measurable with other structures in the cosmos. The construction of the regular solids out of the isosceles and scalene triangles, the contemplation of the geometrical proportions of the relation of speeds and orbits of the heavenly bodies, all signify the ultimate presence of a commensurating Good. Plato himself endorsed the connection of number and Being, and he praised the kinship of mathematical with one another and with the nature of being. Proclus goes further and theologizes the discovery that physical creation requires active intervention by mathematical principles based on higher causes. Iamblichus and Nicomachus had taught him that mathematics is theology. Proclus advocates that any number of superlunary and encosmic gods are behind the enactment of these miraculous harmonies.

Sphericity, the fourth gift of the Demiurge, is a mediating formal structure as well. All things are created in temporal and spatial interval and follow an asymmetric linear path. As they return and assimilate, they assume a path that is circular. The cyclical trajectory that things take on as they revert has an intermediate status: it is a confluence between physical parameters and noetic cause. Adapted from the most canonical image of Greek cosmology and employed by Plato for his model of Same and Other, sphericity for Proclus resolves several ontological *aporiae*. First, it is a noetic ideal Form that can be found to be physically present in the world of nature and is evidence of higher causes. Second, it resolves the problems that arise from the fact of motion in the physical world. Ideally, there is no motion in uniformity as Plato's principle stipulates. The *Sophist*, however, introduces the idea that the universe cannot be a static and unmoving fixture. Circular motion is the intervening commensurator between rest and motion. It is how noetic stability interacts with

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the moving life of the universe. For Proclus, circular motion is not only the optimum state for Mind, but is the invisible 'shape' of reversion and procession. The cycle of producing and perfecting creation goes on without end on both a physical and spiritual level. For Plato, the way to become rational in a universe of change and motion is to align with circular rotation. For Proclus, to do so is redemptive.

There are supportive passages for the ontological priority of circular motion and spherical being throughout Plato's dialogues. In *Republic* IV.424a Plato alludes to the 'cycle' of growth of the state. He graphically depicts an astronomical model in the myth of Er in Book X, which highlights the sphericity of the universe.¹² Counterbalanced upward and downward spirals are balanced against each other and combined into circular images and periods, in this eschatological/cosmological imagery. The vision of cosmic sphericity continues in *Timaeus*. In *Statesman* 273a6-7, after a period of dissolution into chaos that is described when the pilot of the Universe lets go of the helm, the Demiurge reorders everything and the universe resumes a circular rotation. Rotation on an axis was the supreme manifestation of reason; as he explains in *Laws*, it is 'most akin and similar to the circular movement of mind' (*Laws* 898a3-6; 897c5-9). In *Timaeus* 43a7-44a6 the soul is described as subject to irregular motion influenced by the body thus connected with the irrational. When it is connected with reason, however, it is allied with uniform (circular) motion, 'the highest and best kind' (58a-b).

For Proclus, circular motion is the paradigm for the spiritual motion of the cosmos. Humankind as a microcosm has the same option for 'right reason' should he or she choose it. The cyclical triad, 'procession, remaining and reversion', is true not only for the cosmos but also for its resident souls. Neoplatonist spiritual movement is grounded in the Eternal, and through circular reversion all created beings can resist the destructive linear progress of the temporal, assimilate, and turn towards the One and the Circle of the Same. In *Timaeus*, the movement of the heavens is rotary but deranged in us because of the contradictory motions coming from the body.¹³ Assimilation to rotation (the ultimate circular motion) is a way to become like god and can be achieved by assuming dialectical reasoning. *Timaeus* 37a-c6 describes the Soul as self-moved 'when it is concerned with the creation and the circle of the Same', as 'spinning truly'. At 47b-c5 Plato states that the greatest sense is eyesight because through it we might behold the revolutions of reason and use them for 'the revolving of the reasoning that is within us' so that 'by imitation of the absolutely unvarying revolutions of the Good we might stabilize the variable revolutions within ourselves'.¹⁴ For Proclus, if one achieves alignment with the reverting cycle, and in addition performs the necessary rituals and purifications, it means ascension to a leader god who can lift one towards salvation.

Proclus in his *Commentary on Euclid*, discussing Definitions 15 and 16 of Euclid concerning the circle, adds:

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... for insofar as the circular form is found in the changes and figures of the world of generation it is derived from above from the heavenly order. It is because of the circular revolution of the heavens that generation returns in a circle upon itself and brings its unstable mutability into a definite cycle. If you divide bodiless things into soul and Nous, you will say that the circle has the character of Nous, the straight line that of soul. This is why the soul, as she reverts to Nous is said to move in a circle. (*in Eucl.* 147.8-19)

Clearly, Proclus relying on Plato integrates Plato's discussions of circular motion into a unified theory of spiritual motion. Circularity, on a meta-physical level, makes all infrastructure reducible and commensurable to unity within the continuity of an ontological order even when in motion. Theories of Time and Eternity are related to circularity as well. The part of the soul that is connected with temporality has a tendency to move in a linear and discursive fashion, while the Intellect is associated with circular motion and Eternity.

After Aristotle's *Physics*, circular movement is specifically associated, in nature, with continuity and imperishability. For Aristotle, the outer heavens are eternal because they are in continuous and unending motion, the essential parameter of uniform circular movement. The association between circular movement and indestructibility is clearly stated in *De Caelo's* lengthy discussion of imperishability.¹⁵ For Proclus, imperishability is converted from its connection with the heavens to the soul's possibility for redemption. In Eternity, 'all things are in all things', a simultaneous whole. The circular is a paradigm for processing and remaining as a unified sequence. Cyclicity creates and redeems the world at the same time: it is the circular in spiritual motion. John Dillon raises a problem in the context of Damascius' discussion of *epistrophê* in reference to the idea that remaining and proceeding are somehow simultaneous.¹⁶ Nous, Life and Intellect proper must proceed and revert simultaneously, but reversion implies resemblance while procession implies differentiation. They do not reconcile with one another. If the concept of remaining is incoherent then the whole system collapses. If one accepts the premise, however, that simultaneity is not contradictory in an infinite universe (symmetrical logic), the problem disappears. Symmetry is the truth of asymmetry; the wholes that reflect the paradigm remain in the Paradigm and simultaneously appear in created entities. The circle is always 'complete' in the eternal Now. All wholes are static Eternal wholes. They are temporal and develop in stages as necessity, Fate and/or Providence dictate, but they are always steering a path towards completion. Everything is cyclical, everything is simultaneous.

Proclus' three infinities and the role of Limit

A reader of Proclus can come away wondering why the *Philebus* categories *Peras/Apeiron* are ubiquitous in the *Commentary*. In the *Parmenides Commentary*, Proclus describes in full detail three different types of

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infinity, all of which correspond to the various levels of principle found in the *Timaeus Commentary*. After Aristotle, it was not possible to think of infinity in a singular way: he identified several types of infinity. In his *Physics* he provides an elaborate catalogue of all the types of infinity that have held sway at one time or another in the history of this concept, a further influence on Proclus.¹⁷ Aristotle, however, applied an ‘Occam’s razor’ to the term *apeiron*, claiming that the only legitimate usage is to apply it to that which can potentially be serially iterated (‘For in general infinity exists through one thing always being taken after another, what is taken as being always finite, but ever other and other’, *Phys.* 206a27-9). Aristotle eliminated Anaximander’s spatial infinity as purely speculative; the kind of infinities that go along with perduration in time and the type of infinity connected with the sphere that has no beginning or end. He even criticized the notion of infinity as infinite harmony where a ratio is imposed on an infinite continuum, as in Plato’s *Philebus*.¹⁸ Ironically, it is Aristotle, in forming his famous operational definition of infinity, who identifies and delineates the several senses of infinity with more exactness and differentiation than did Plato.¹⁹ While Aristotle rejects any possibility of an actual infinity, he still presents the full range of ancient thought on the matter. For Proclus, Aristotle’s analysis inspires a full range of possibilities for elaborating infinity for each of his hypostatic levels. Still, Aristotle raises a challenge to metaphysics by his harsh reduction of all infinities to the serially iterable kind. This challenge could only be met by establishing the systemic integrity of all infinities for First Philosophy. For Proclus, whose absolute and supreme ‘object’ was the boundless infinite of the One, the new approaches to infinity that the Athenian school proposed fit into his many-levelled ontology of archical causes.²⁰ (Though Syrianus, Proclus’ mentor, placed the Monad and Dyad as the highest dichotomy after the one, he describes the Dyad in terms of infinity.²¹) For Proclus, there is one type of infinity that is present on the lowest level of material reality, another in the middle level of mathematical and heavenly reality, and a third type on the level of the highest of transcendent hypostases. The glory of Infinity is its undiminished bestowal of creation, which is inexhaustible and everlasting. Its peril is at the extremes of Being where things can turn disorderly and chaotic. Infinity rules creation on every level. One type of infinity is that of matter which is indeterminate preliminary to the imposition of form. A second type of infinity is that of Intellect which has eternal and self-same unities. The One Being to which Intellect is associated, unlike the One itself which is without bounds, is infinite in a bounded manner. Its beginning and end are one, just as is its image, the spherical cosmos. A third type is the infinity of the One itself as totally without bounds. Historical events and natural disasters can be chaotic and can be restored by Limit. The One itself as an object that is described as non-existent and boundless is described as superior to the other two, but present to them. The *Autoapeiron* and *Autoperas* (Limit itself and Unlim-

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ited itself), the immediate successor to the One in the hierarchy of principles, intermediates the transcendent and exempt infinity, the infinity that is limited, and finally, that infinity which is seriated in nature.

Proclus, by making Limited/Unlimited hypostases immediately following the One, averts the possibility of an infinite regress. The first infinity has an immediate affinity to Unity and is a co-principle of Limit. With both as co-principles, potential expansion and containment within Limit are simultaneous, and in addition, caused by the One. All hypostases beneath the two are similarly mediated by principle and there is no uncolonized infinity. Proclus' three types of infinity are key to recognizing the parallel structures throughout the *Commentary*. The first type of infinity, the one that poses the greatest threat to the unity of Being, is epitomized by serial iteration with no end, the kind of infinity upon which Zeno built his paradoxes. This is the infinity of divisible continuity that is interminable. If any finite body may be divided at any point and is, therefore, potentially, divisible *ad infinitum*, it poses a threat to permanence, stability, even to being itself. Proclus discusses this form of infinity, which is the type that characterizes indeterminate matter and mathematical incommensurability. He describes it in the *Parmenides Commentary* in the passages from 1118 onwards: 'as unlimited and shapeless and formless of itself, whereas the forms and shapes are limits of Matter'. Proclus suggests that it is found in any body which is divisible *ad infinitum*, and it also includes quantities, bulk and the infinity of matter when it cannot be enumerated or traversed. The first proposition of *Elements of Theology* suggests that one of the dangers that can ensue if multiplicities do not participate in unity is that of an 'infinity of infinities'. The *Elements* proceeds to present a systematic build-up of the 211 propositions that mitigate that possibility. These propositions, like the 'ten gifts', put in place ever higher and more transcendent principles to stabilize being.

The runaway infinite comes up in many contexts in Greek thought. The cutting of line in extreme and mean ratio can continue *ad infinitum*, other iterative operations that are not exhausted by a common measure, once it is exhaustively subtracted from them, continue without limit. Natural disasters and cities without adequate governance and constitutions demonstrate the effects of limitless chaos. Lost souls who make poor decisions are infused with disorderly earthly passions. Things can tend to dissipate and become out of control when one encounters incommensurable irregularities or disorderly motions. Higher principles must be appealed to under these circumstances. This type of infinity, discursive, spatial and temporal, can never be 'equal' or 'identify' with ruling principles but can 'resemble' them when salvaged by intellectual parameters. The fact that infinity could potentially run away without Limit is not mitigated merely by Limit imposing formal parameters on the unlimited.²² In the larger picture it is by assimilating to the One Being in the guise of the Living-being-itself as a paradigm that the physical world is preserved and the danger averted.

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The unbroken continuity of the uniform cosmos as Living-being-itself, and its ruling One Being, are a second type of infinity. This is a bounded infinity wherein the beginning and end are one, combining Limit and Unlimited. On the one hand, it is uniform, circular, its limit is infinite and its temporality everlasting and eternal. On the other hand, it encompasses time and so holds becoming within its compass. Proclus describes this Infinite in the following passage of the *Commentary on Parmenides*. Notably, it is both intellectual and is infinite *dunamis*: 'Even prior to Time, behold the infinite in Intellect itself and intellectual life; for this is non-transient and always a totality and present as a whole, and Eternal and infinite in power; its eternal motion and unailing continuity is a mark of an Essence and power which does not give out ...' (*in Parm* 1120.3-6). It is this infinity that counteracts potential infinity and sculpts formlessness into Form. At the inaugural moments of existence, it turns it toward unity. This infinity underwrites existence, and goes along with the Platonic idea that 'to be is to be something'. The One Being, then, is that which can be identified in the second hypotheses of *Parmenides* (as opposed to the One Beyond Being). It is both an infinity, as it is without beginning or end, and is limited by being bounded. It is the source of power for what is actualized by Intellect and soul. It can be identified by its image in Living-being-itself and the spherical cosmos and by the beauty in the cosmos. It is the reason for self-sameness and assimilation of all things to each other and to the whole. It is characterized by Equality and is grounding for equations and dialectical theories where axiom, principle and proof coincide. It gives stability to both *epistêmê* and nature.

Even though self-identical and self-reflexive, the second type of infinity cannot be responsible for its own unity on a higher level. When identical to itself it is not thereby identical with the One. For Proclus there are principles even higher than the One Being. The ceaseless oscillation between Being and becoming that characterizes the One Being, despite the fact that there are mediating conditions, does not suffice to guarantee stability. Prior to Intellect, there is the much-celebrated Eternity itself, a non-bounded non-seriated infinity which is closer to the One. For how, Proclus asks, would Intellect derive its eternal life if not from Eternity? For 'Eternity is power itself; for indeed the primal Eternity is nothing else than power'.²³ Power, in turn, must derive from a unity even higher than Eternity and Being. The *Autoapeiron* and *Autoperas* are a duality, and thus do not qualify. Proclus looks to a third infinity, which is superior to all of the lower hypostases; in fact it is totally removed from them. In some mysterious way, it ensures the unity of all Being.

The one in itself is superior to the One which is being while below abstract being is actual existence. (*in Parm* 1034.34)

The infinity of the One is the third type of Infinity.

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After an exhaustive discussion in the *Commentary on Parmenides* (1120-4) of ten types of Limit, Proclus goes on to examine how the One will be termed Unlimited. For this type of Infinity, Proclus points out, the term 'Unlimited' may be a misnomer, since Unlimited refers to a lesser term in the Limited/Unlimited dichotomy and would not be fitting. Nevertheless, he does use that term to discuss the One, which he mentions that *Laws* (IV.716c) calls

God ... described as the measure of all things and as providing a defining limit for all things of their existence and their power and their perfection ... the One is shown to be unlimited as itself, requiring no limit or other measure; for all reactions of it to itself are denied of it ... It is unlimited, then as being superior to all limits; for there is not within it any limit in relation to itself; for there is no beginning in it, as we said, nor middle, nor end ... (1124.15-30)

What applies here is:

... only the quality of being bounded by nothing, nor having in it any beginning or end, which we call the extreme points of these that have them, only this is what we apply to the One ... (*in Parm.* 1124.26-8)

The third type of infinity, the hyper-infinite, that of the One, is not bounded in any way. It is atemporal, aspatial, anumerical, infinitely powerful and totally ineffable. The categories of continuous and successive do not apply here. This Infinity inspires a negative dialectic since it escapes both discursive and dialectical reasoning. It is also this infinity that is ineffable and is only known by 'non-discursive thinking'. Proclus explains that, though it is essentially unknowable,

... the infinite exists in the imagination, only without the imagination's knowing the infinite ... it is not the object of knowing imagination, but of imagination that is uncertain about its object, suspends further thinking and calls infinite all that it abandons, as immeasurable and incomprehensible to thought. Just as sight recognizes darkness by the experience of not seeing, so imagination recognizes the infinite by not understanding it. It knows that the infinite exists because it does not know it. It takes it hypothetically and uses only the finite for demonstration, that is, it assumes the infinite not for the sake of the infinite, but for the sake of the finite ... (*in Eucl.* 285.6-286.4)

The intellect, especially when possessed by a mortal soul, cannot comprehend the ultimate cause of the universe. Such knowing would require a 'symmetrical logic' and this is itself only a way to describe a hypothetical logic, if there were such a thing, which could form propositions concerning an infinite object. It is not really something that can be practised. Only theurgy promises an 'elevation' of the soul to the 'threshold' of the One, a figurative way to speak about the fact that the One is 'fixed above all the intellectual realms'.²⁴

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In the superstructure of the Proclean world, every level of infinity guarantees itself through the stability of the level beyond it, which acts as its unified cause. The higher hypostases supervene upon the lower two infinities. Soul is able to circumsolve the cosmos, and contain material infinities projecting Limit in the form of ratio and proportion. Intellect, grounded in Eternity by Being, is given its ability to form intellectual categories and dialectical arguments, and subsume multiplicity by its higher suspension from the Unlimited/Limited dichotomy. The dichotomy is a source of boundary and expansion at the same time and down through all the levels, and a common ground for ontology, theology and mathematics in the ruling principle that all diversity is coordinate with unity. For Proclus, there is only one light and many appearances.

The Limit/Unlimited dichotomy is a prism through which the One, with its timeless, space-less mysteries, refracts and breaks into spectral colours: science, existence, mathematics, biological production and reproduction, heavens, souls, cities. The Limited/Unlimited dichotomy always, through intermediate hypostases, restores the proliferation that infinity gives to the world, to its source. What does not respond perishes. The irrational, such as the infinitely generatable surd, or the retrograde planet, or the errant soul, can be contained by the rational, just as chaos in modern chaos theory is contained by overriding mathematics.

Proclus, then, in the tradition of the Athenian school, regards the Infinite as the principle of life, fecundity, and creative expansion, without which the great diffusion of the Good through all the levels of multiplicity cannot occur. It is not a dark other responsible for evil. There is just as much a need for infinities as there is for limits. The necessity for the first of these infinities is in the service of the possibility of the finite: that it has potential repeatability and that there be generation.²⁵ The coequal principles of Monad and Dyad are not good and evil but sources of continuities and discontinuities that together make up the cosmos in existence. Without the spacing of discontinuities, serial expansion, growth in depth and dimension, life, infinite in potential, could not be actualized. The numerical series is infinite in this sense, but actualized in successive finite parts. Similarly, the infinite succession of individual animals maintains the perpetuity of species within the finiteness of a genus that is a guarantee of perpetuity. Life is a fountain of ever-flowing production; it is *energeia* in Intellect, power in Being, and motion in Soul. Limit, the ambassador of the One to Being, makes sure that Intellect remains in control of form.

After Plotinus, the One beyond Being is excluded from this cosmos in a more radical way than ever before articulated. Though Plato had posited the famous *epekeina tês ousias*, for the most part he espoused a two-world ontology with the dichotomy of Being and becoming and the transcendent organizing principle, the Good. As the concept of Being becomes more inclusive in Neoplatonism, Being, all that is, contains all dualism; time and eternity, being and becoming, rest and motion, noetic stability and

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discursive *dianoia*. The organizing principles also lie beyond Being but are everywhere found in Being. The more radical transcendence of Proclus' 'One' suggests a total exclusion, a withdrawal and removal of the One, which is 'nowhere'. It is not in opposition to the universe or to being. It is truly unknown. Reprieve from the separation to which the mortal soul is condemned, relegated by its semination to the lowest level of soul-existence, will take the largesse of an entire pantheon of greater and lesser divinities.

The account of levels of infinity can certainly seem, to the modern reader, to be fanciful metaphysics of a highly speculative type. To the discerning eye, however, the principles and categories that Proclus delineates are similar to those that form the architecture of any metaphysics that tries to account for unity and multiplicity in a mathematically understandable universe that is physical in nature. Contemporary physics has not given up on cosmology, nor has modern logic given up on infinite set theory. The latter is somewhat related to Proclus' innovations in the late fifth century, and in general Platonic ideas have been related to modern logic in ways that apply to Proclus as well (although I would not go as far as some interpreters in making specific connections).²⁶ Modern physics, for example, has learned that it must deal with time as well as space, and with curved space as well as linear concepts (such as the path of the speed of light) in a nonlinear universe.

The one area where analogies cannot be made with modern cosmology is the notion of a final cause. Proclus associates the One with the final cause and the highest of infinities with the fount of Providence.²⁷ In the end, even the serial type of infinity is commandeered by the Good. Generation without end, the fecundity of being, is the tangible proof of divinity in nature. Transcending nature, the forces that preserve nature stabilize the cosmos and make it self-sympathetic, and hence beautiful. The cosmos may rely on Limit for the preservation of all things in being, but we understand very little if we do not understand *why* they are preserved and for what purpose they came to be at all. They come to be for the sake of the Good. The wider well of Providence guarantees the Good, even for the things that cling to Being perilously. This is the message for the mortal soul.

Conclusion

In the mysterious way that the metaphysical lexis can impact on scientific constructs, and vice versa, the extremely rich history of the ancient Greek 'vision of the whole' alternates between poetry, cosmology, astronomy and philosophy. The result is that 'root' constructs, such as Parmenides' vision of the whole as a spherical unity, carry forward in the history of thought. Proclus fully exploits his intellectual heritage and yields an intellectual confluence that is fascinating, if for no other reason than its tropic syncretism. The very idea of a boundary to the universe, be it a spherical

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containment or noetic rotation, imbues the physical world of nature with metaphysical parameters. The outermost circumference of the universe is a limit; time conceived as a monad is a limit, ratio imposed on a continuum is a limit, etc. When the boundary of the universe contains all that is, for the Platonist following *Timaeus*, its self-sufficiency counteracts deterioration towards formlessness. At the same time, its bounded nature prompts the association that what is a border is also a frontier. There is a divide between being, beyond being, and the radically transcendent One. This is no longer the 'two-world ontology' of Plato,²⁸ Being and becoming: it is a non-negotiable divide. If the cosmos, self-sufficient and bounded by eternal motion, Aetherial and imbued with Soul, is 'all that is', then its source is mysteriously exempt, invisible, non-discursive and non-existent. Thus while Plato has a 'two-world ontology' (such as is implied in the theory of forms), Aristotle describes the sublunary and superlunary world differently in his astronomy. The former is subject to local motion, while that of the superlunary world is subject to a more divine circular motion. With the Neoplatonists, the relation between the world of becoming and being and what is beyond breaks down. The One, which is exempt from 'all that is', is nowhere. When it comes to speculation about the One, there is none. Even the turn to negative theology to reason about the One is flawed. A new world of possibilities, however, opened up and took hold in the Hellenistic culture that was fast receding in the late Roman empire. Iamblichus had promoted the value of the Chaldaean Oracles and with his influence and the turn towards mysticism on the part of Julian, the apostate emperor, new spiritual opportunities arose. Theurgy as a possible means to negotiate what has become a radical separation between all the levels of hypostases and the One itself overtook discursive philosophy as a means to enlightenment. Theurgy becomes the only means to connect with an object of spiritual desire that is forever and ever, in the words of the Chaldaean Oracles, 'snatched away'.

The subtle weaving of mystagogic lore and metaphysical construct found in the *Commentary* is to be admired rather than denigrated. Proclus claimed that the veil of Athena, identical to nature, was 'the last image of the whole contrariety of things'. A study of nature, then, is an accessible means for contemplating the truth of Being. The reader of the *Commentary* can consider himself or herself as having embarked on a very fascinating adventure along with Proclus. If nature is the concealment of true reality, to study it is to study the philosophy that is written by the gods. What type of journey could this be? Perhaps we are best guided in this by the following passage from the Chaldaean Oracles:

Hence, as the Oracle says, 'By understanding the works of the father, they fly from the shameless wing of Fate. But they lie in God, drawing vigorous torches, descending from the father; from which descending the soul plucks of empyrean fruits, the soul-nourishing flower.' (III.266.19-23)

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If one cares to see that, indeed, the forces of nature and the forms it takes are an entree to the transcendent world of causes and to divinity, then one has complied with Proclus' intentions. If, on the other hand, one wishes to take from this study the understanding that nature 'signifies', that the reproductions of each species are an image of its genus, that nature empirically demonstrates and confirms our own mathematical constructs, that there is a mysterious correspondence between ideas and sensible reality – then we have heard, along with Proclus, nature's message to the seeker of intellectual truths. If we further acknowledge that nature holds in its purview gifts that were not given, nor did they originate in our own minds, we are fully attuned to what this *Commentary* is bringing to light. In any of these ways, we can take hold of some of the prescient vision of this complex Neoplatonist, who never trades his awe for nature and the gifts it displays, for a barren and sterile '*epistêmê*'. The reader who can truly appreciate Proclus' *Commentary on Timaeus* will become that very soul that plucks empyrean fruits and soul-nourishing flowers. To do this the reader must put away Occam's razor and bask in the varicoloured light that Proclus casts on the secrets of nature. Only then can he or she reap, from this text, its strangely beautiful harvest.

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Notes

1. Introduction: The Ten Gifts of the Demiurge

1. Athanassiadi 1993a: 129&n.156.
2. Much of the general background to the *Commentary* is available in Siorvanes 1996; Tarrant, *CPT* vol. I; Baltzly, *CPT* vols III and IV; Runia and Share, *CPT* vol. II; Wallis 1972, and others. See also Sorabji 2004 (*Philosophy of the Commentators: A Sourcebook*) for a sense of the Commentary tradition and the range of topics that concerned the philosophers of late antiquity.
3. Marinus, *V.Procli* (Edwards 2000): 13.
4. Sheppard 1980: 48. Homer, for example, is given a theological reading.
5. See *Plat. Theol.* III.11.140.1-5. Here Proclus claims that he is indebted to Iamblichus (*ho theios Iamblichos*) for his basic ontology.
6. As Majercik 1989 says, 'The Chaldaean Oracles are a collection of abstruse hexameter verse purported to have been "handed down by the gods" to a certain Julian the Chaldaean and/or his son, Julian the Theurgist, who flourished during the late second century CE.' Later Neoplatonists regarded the Oracles as authoritative revelatory literature; the so called 'bible' of the Neoplatonists, according to Franz Cumont, *Oriental Religions in Roman Paganism* (New York: Dover Press, 1956): 216. The Oracles were regarded from Porphyry (232-303 CE) to Damascius (462-537 CE) as equal in importance to Plato's *Timaeus*. There were extensive commentaries by Porphyry, Iamblichus and Proclus on this work which are lost (Majercik, *Commentary on Chaldaean Oracles*, 1-3).
7. Sorabji 2004: vols 1, 2 and 3, 1-30 for a complete informative introduction to the commentary tradition and its Neoplatonic commentators.
8. See John Dillon's Introduction to Glenn R. Morrow and John M. Dillon, *Proclus' Commentary on Plato's Parmenides* (Princeton: Princeton University Press, 1987): xii; Marinus, *V.Procli* 13-14.
9. Dillon 1990: 66.
10. The aspect of theology that concentrates on salvation through divine agency.
11. Kingsley 2002: 340-1.
12. Mueller 1970: xxvi n.51.
13. Dodds 1947: 56-8.
14. Bussanich 2002: 42-3n.21.
15. Bussanich 2002: 47.
16. Plato, Kingsley notes, paraphrases Orpheus everywhere. In his view, Plato is a station in the long continuity of Orphic and Pythagorean traditions. Proclus' and Julian's claims that Plato followed the model of Orpheus in his descriptions of the underworld, for example, are argued by Kingsley to support the idea that Plato is but one link in the chain of doctrine that extends from Pythagoras and the Orphics to the Late Neoplatonists. He says, 'And when Proclus claims that Plato "took over from Orpheus the mythological details" in the *Phaedo* myth, or when Julian – writing a century earlier – says Plato followed the model of Orpheus in his description of the underworld, we may object to their failing to distinguish

between Orpheus and people writing under the name of Orpheus; but otherwise the evidence indicates that they were perfectly correct' (Kingsley 1995: 132). See also *Plat. Theol.* I.5 and in *Tim.* III.61.2-6 where Proclus makes what is a typical claim for him, that 'the science concerning the gods (*peri theôn epistêmê*) is given and passed on from the Orphic tradition through Pythagoras, to the Greeks, as Pythagoras himself says in The Sacred Discourse'.

17. See L. Brisson, 'Proclus et l'Orphisme', in J. Pépin and H.D. Saffrey (eds), *Proclus, lecteur et interprète des anciens* (Paris: CNRS, 1987): 51.

18. Rappe 2000: ch. 7 and pp. 170-1.

19. van den Berg 2001: 73.

20. van den Berg 2001: 10: 'For Proclus, the difference between his hymns and Plato's *Parmenides* is one of form, not one of content. The equation of doing philosophy with hymn singing may not come out of the blue, but the Athenian Neoplatonist elaborated it in a systematic way that had never been seen before, as appears from their use of the verb *humnēin* and their interpretation of the *Parmenides* as a hymn. We may regard it as characteristic for their approach to philosophy.' Van den Berg also suggests that Proclus' constant use of this verb even in contexts where it means 'to say' suggests that celebratory hymns to the gods are being sung. See his p. 27.

21. Sheppard 2002: 645-6.

22. Rappe 2000: 193-5.

23. See John N. Martin, 'Proclus and the Neoplatonic Syllogistic', 'Proclus on the Logic of the Ineffable', in Martin 2004; Brumbaugh 1982; Sweeney 1982; Lloyd 1990.

24. See Runia 1997; Martijn 2008.

25. Sheppard 1980: 35&n.41 cites Praechter in his review of Diehl's edition of the *Commentary*, *GGA* 167 (1905), 531-2.

26. Syrianus died in 427.

27. See Sheppard 1980: 36.

28. See P. O'Cleirigh, 'Theology in Origen and Plotinus', in John Cleary (ed.) *Perennial Tradition of Neoplatonism* (Leuven: Leuven University Press, 1997): 22.

29. See D. O'Meara in *Platonopolis: Platonic Political Philosophy in Late Antiquity* (Oxford: Oxford University Press: 2003): 103 regarding the relation of geometry to the ideal state.

30. Gersh 2003: 143 discussing Lernould 2001.

31. Gersh 1973: 2.

32. Gersh 2000: 16 commenting on *Plat. Theol.* I.4, p. 17,9-23,11: 'Direct signifiers/signifieds are specified for all four modes: for the entheistic the intellectual gods and the detached gods; for the dialectical the One, Being and the processions from these; for the symbolic the three demiurges, union through love, the divine distributions to mortal lives – in general – the intelligible, immaterial, indivisible, and real; and for the iconic various encosmic gods and other principles.'

33. Baltzly, *CPT* vol. II: 110&n.201: 'Assigned to each of these regions are Rulers. Among other functions, the Rulers play a role in theurgic practice. Hence Proclus later (I.58.3-10) calls the one assigned to the Aetherial region "Ruler of Souls" (*psuchokratôr*) and "Ruler of Mysteries" (*teletarchês*). Proclus further integrates these Chaldaean entities into his own ontology, identifying the *teletarchês* with the third triad of the intelligible and intellectual order.'

34. Gersh 2003: 148.

35. Sheppard points out that there are opposing forces in the order of things, proceeding from the original opposition of *Peras* and *Apeiron*, responsible for

procession and reversion, division and re-unification. The strife, for example, depicted in Homer, that the gods fight and engage in war with one another, can be interpreted as philosophical doctrine along these lines according to Proclus. See Sheppard 1980: 49.

36. Gersh 2003: 148.

37. Opsomer 2000b: 118, which Opsomer discusses citing the passages at I.315.4-317.20.

38. Martijn 2008: 5-6&7ff. citing Lernould 2001. Martijn contrasts her own view that there is continuity between the physical and transcendent, sensible and intelligible, physics and theology and that of Lernould who, she claims, presents Proclus as dialectising Plato's philosophy of nature and turning it into theology, losing its Pythagorean character.

39. Dillon 1990: 70.

40. Plato had Socrates puzzle about this very aporia in dialogue with Zeno in *Parmenides*, 'what does this mean that existences are both like and unlike? If they are many'. It is impossible for them to be many and one at the same time, etc. (128b ff.). In this dialogue, the unity of Being itself is put into question on the charge of the multiplicity evident in all phenomena.

41. Sheppard 1982b: 3 quotes from Syrianus' commentary on Aristotle's *Metaphysics*, Books B, G, M and N. Sheppard quotes from the edition edited by Kroll, vol. I.V.I of *Commentaria in Aristotelen Graeca* (Berlin 1902).

42. Sheppard 1982b: 5 cites Proclus in *Tim.* 175.2ff., 384.24ff., in *Parm.* 1119.4ff., *Plat. Theol.* III.7-9, *El. Theol.* Prop. 89-92. See also in *Eucl.* 277.25-279.11; 284.4-286.11.

43. Siorvanes 1996: 51&n.1. A.C. Lloyd called the 'all is in all' principle the golden rule of late Neoplatonic metaphysics, in 'Athenian and Alexandrian Neoplatonism', in A.H. Armstrong (ed.), *The Cambridge History of Later Greek and Early Medieval Philosophy*, 2nd edn (Cambridge University Press, 1970): 202-25.

44. *Plat. Theol.* III.4,123-4; see Edward Butler (2005) 'Polytheism and Individuality in the Henadic Manifold', *Dionysius* 23 (2005) 83-104: 97.

45. Runia 1997: 101-6.

46. Nikulin 2003: 183-209.

47. See Mueller 1985: 305-16; MacIsaac 2001: 116n.278.

48. See in *Tim.* I.6.24-6; Tarrant, *CPT* vol. I: 90.

49. Eudoxus and later Aristotle as well as Callipus had theories of the heavenly bodies and their motions which involved concentric spheres. Later Ptolemy described circular motion in terms of epicycles and eccentrics. See Chapter 6 below.

50. Proclus will criticize the type of account that Eudoxus and Ptolemy gives as too mechanical, discussed in Chapter 6 below.

51. Festugière, as noted by Baltzly, examines what he takes to be an analogical pattern of interpretation in which things here are paired with things up there. Encosmic phenomena, like the bond of proportion, are symbols of higher realities. Baltzly, *CPT* vol. III: 58n.59 cites A.J. Festugière, 'Modes de composition des Commentaires de Proclus', in Festugière (ed.), *Études de philosophie grecque* (Paris: Vrin, 1971): 561-3.

52. Runia and Share, *CPT* vol. II: 2, Introduction to Book 2 of Proclus' *Commentary on Plato's Timaeus*.

53. Runia and Share (op. cit.): 312n.596. R&S tell the reader that Proclus frequently uses the verb *ekphainô* (to reveal or shine forth), as an additional way to understand the 'gifts', which culminate with the account of the gods in Book 5, is to regard them as a progressive revelation.

54. Brisson 1998: 116.

55. in *Eucl.* 66.4-68.22. According to some current scholarship, the 'Academy' was a paramount influence on the latter-day Platonism that Proclus adopts as well. Thus Leonardo Taran 1987 amply documents that the Old Academy is a prime influence on Proclus, as does John Whittaker in his article 'Proclus and the Middle Platonists', in J. Pépin and H.D. Saffrey (eds), *Proclus, lecteur et interprète des anciens* (Paris: CNRS).

56. Proclus mentions at II.76.23ff. that he intended to write something on the mathematics of the *Timaeus*, but it is not certain whether it was ever written or not.

57. Gersh 2003: 144-5.

58. See Gersh 2003: 152-3.

59. See Matte Blanco 1975: ch. 2, 'Some logico-mathematical concepts'.

2. The Prevailing Circumstances: Theological Rhetoric and the Athenian School

1. Athanassiadi 1999b: 151-2.

2. In Iamblichus' *Life of Pythagoras* and in Diogenes Laertius' account, Philolaus sold Pythagorean books to Plato, and in Iamblichus' *Commentary on Nicomachus* Timaeus Lokros becomes a colleague of Philolaus and Archytas on the theory of harmonics. In this version, Timaeus Lokros' book *On the Nature of the Cosmos and the Soul* supplied Plato with his *Timaeus*. See Siorvanes 2003: 162. This is the canonical story that Proclus cites.

3. See Athanassiadi 1999b: 152n.15.

4. See Athanassiadi 1999b: 156n.31. She cites H.D. Saffrey, 'Les Néoplatoniciens et les Oracles Chaldaïques', *Revue des Études Augustiniennes* 27 (1981): 224-5, where the connection between Amelius and the Oracles is documented by Saffrey's critical reading of *in Tim.* I.361,26-362,2.

5. Tarrant, *CPT* vol. 1: 7.

6. Cameron 1969: 15.

7. Marinus, *V.Procli* 15.

8. H.D. Saffrey, 'Allusions antichrétiennes chez Proclus, la diadoque platonicien', *Revue des Sciences Philosophiques et Théologiques* 59 (1975): 553-63.

9. I. Hadot, 'The Life and Work of Simplicius in Greek and Arabic Sources', in R. Sorabji (ed.), *Aristotle Transformed* (London: Duckworth and Ithaca, NY: Cornell University Press, 1990): 294. Hadot contends that it was written after 532 in Harran after the exile from Athens.

10. *In Alc.* 264.7: Cameron 1969: 16&nn.2&3, citing passages collected by R. Asmus. Proclus uses similar formulas in *in Remp.* I.74.8 and *in Alc.* 264.5: Cameron 1969: 15.

11. O'Donnell 1979: n.41 bases this on a study of J.F. Matthews, *Western Aristocracies and Imperial Court AD 364-425* (Oxford: Oxford University Press, 1975).

12. See W. Liebeschuetz, 'The Significance of the Speech of Praetextatus', in P. Athanassiadi and M. Frede (eds), *Pagan Monotheism in Late Antiquity* (Oxford: Oxford University Press, 1999); O'Donnell, 1979; J.F. Matthews, 'Symmachus and the Oriental Cults', *Journal of Roman Studies* 63 (1973): 175-95.

13. Stephen Williams and Gerard Friell, *Theodosius: The Empire at Bay* (New Haven: Yale University Press, 1994): 131. Eunapius, chronicler of the pagan histories, was born in 346 in Sardis and died in 414. Iamblichus died around 330 and Julian had reigned from 360 to 363.

14. What follows is discussed by Frede 1999.
15. Dillon and Hershbell 1991: 14 (*Iamblichus: On the Pythagorean Way of Life*).
16. Athanassiadi 1999b: 152&n.15. See R. Smith, *Julian's Gods* (London: Routledge, 1995): 93. Julian most likely had access to the extensive and now lost Iamblichean commentary on the Oracles, reported to be in 28 books. The Oracles include both instructions on theurgic rituals and revelations of cosmological and soteriological doctrine.
17. Clarke, Dillon and Hershbell 2003: xxvii (*Iamblichus: On the Mysteries*).
18. There is contention in the literature as to whether it is Mithraism that has the prime position in Julian's thought (Athanassiadi-Fowden 1981) or, as Smith posits (op. cit. n.16 above), it is the Chaldaean Oracles that have primacy.
19. G.W. Bowersock, *Julian the Apostate* (London: Duckworth and Cambridge: Harvard University Press, 1992): 6.
20. See E.G. Burr, 'Julian Against the Galileans', in R. Valantasis (ed.), *Religions of Late Antiquity in Practice* (Princeton: Princeton University Press, 2000): 144-5.
21. O'Meara 1989: 214; Finamore 1999: 63-86. Julian, according to Athanassiadi-Fowden 1981: 167&n.30, regarded Asclepius as healer of humanity's body and soul, and saviour. He was aware that the Christians regarded Asclepius as a competitor (*Contra Galilaeos* 235cd).
22. Clarke, Dillon and Hershbell 2003: xxviii n.31 (*Iamblichus: On the Mysteries*).
23. P.O. Kristeller, *Renaissance Thought and its Sources* (New York: Columbia University Press, 1979): 224-6.
24. Julian, 'Letter to the Senate and People of Athens' 209b, tr. W.C. Wright, *The Works of the Emperor Julian*, vol. II (New York: Macmillan: 1913).
25. See Fowden 1982: 53, 43&n.79 (Marinus, *V.Procli* 36), 43n.82.
26. Matthews, 'Symmachus and the Oriental Cults' (op. cit. n.12 above): 181-2.
27. Williams and Friell, *Theodosius* (op. cit. n.13 above): 130-5.
28. Lewy 1956: 69n.9. *Eunapius: Lives of Philosophers*, tr. W.C. Wright, Loeb Classical Library: 565.
29. Cameron 1969: 16nn.3&7.
30. J. Glucker, *Antiochus and the Late Academy* (Gottingen: Vandenhoeck & Ruprecht, 1978): 306.
31. Glucker (op. cit.): 332-3, 152-8, 157n.125. Zumpt's reconstruction of the tradition, in fact, was the established orthodoxy of his time. Glucker reports the interesting fact that Nietzsche dared to challenge this tradition, on the evidence of Seneca and Diogenes Laertius. Nietzsche contended that the succession in all schools except the Epicurean had ceased by the time of Augustus, for which Hermann Diels, who cited Zumpt, sternly upbraided him.
32. Proclus, *Platonic Theology* I.I.5-6. Dillon 1990: 74-5. Proclus was not the originator of this successor mythology. Hierocles (a pupil of Plutarch along with Syrianus and later Proclus) in his work *On Providence*, contended that Plotinus' teacher Ammonius Saccas preceded a glorious series of future figures that purified philosophy from Plotinus to Porphyry and Iamblichus to Hierocles' master Plutarch of Athens. Porphyry himself had referred to a Golden Race and Hierocles uses the expression '*hiera gena*' to describe Ammonius Saccas, Plotinus and their pupils. The extension back in time to a founding figure Pythagoras, in addition, was prepared by Porphyry's and Iamblichus' paradigmatic biographies of Pythagoras. See G.W. Bowersock, *Hellenism in Late Antiquity* (Ann Arbor: University of Michigan Press, 1990): 35.
33. Clarke, Dillon and Hershbell 2003: xxxi (*Iamblichus: On the Mysteries*).

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34. See L. Siorvanes, 'The Problem of Truth in the Platonic Theology', in A.Ph. Segonds and C. Steel (eds), *Proclus et la Théologie platonicienne* (Paris: Les Belles Lettres, 2000): 48. See also *Plat. Theol.* (Saffrey and Westerink), cited in Siorvanes (op. cit.): 48.4.

35. Saffrey (op. cit. n.8 above): 553-63.

36. L.G. Westerink, *Anonymous Prolegomena to Platonic Philosophy* (Amsterdam: North Holland, 1962): xviii&n.57. A.Ph. Segonds, *Proclus, Sur le premier Alcibiade de Platon* (Paris: Société d'Édition Les Belles Lettres, 1985-1986), vol. 2, p. 264.3-6, as noted in Lang and Macro 2001: 3&n.12&13. Dodds (*El. Theol.* xxviii n.9) cites *Remp.* I.74ff.; *in Alc.* 531,39; *in Crat.* cxxx.

37. Lewy 1978: 483.

38. Dodds, *El. Theol.* 278 (commenting on Prop. 151-9).

39. Bowersock (op. cit. n.32 above): 35.

40. Athanassiadi 1999a is an excellent compilation of the fragments that gives us an entrée into the pagan communities of late antiquity and the travels and tribulations of Damascius and his cohorts as they escaped persecution in Alexandria. See also Athanassiadi 1993b: 1-29: cxiii.

41. See Cameron 1969: 8&n.1. Codex Justinianus 1.5.18.4. Justinian issues a general law forbidding pagans to teach or be baptized or exiled and have their property confiscated.

42. Siorvanes 1996: 9.

43. Cameron 1969: 143-53 and 157n.125.

44. Fowden 1982: 53.

45. Siorvanes 1996: 23.

46. Details of much of what follows here can be found in Athanassiadi 1993b and 1999b.

47. Athanassiadi 1993b: 31n.38.

48. Damascius, *Vita Isidori* 118B.

49. Damascius, *Vita Isidori*, fr. 303 (ed. C. Zintzen 1967), discussed by Siorvanes 1996: 3.

50. Codex Justinianus 1.5.18.

51. Julian, *Ep.* 61.423ab.

52. R. Sorabji (ed.), *Philoponus and the Rejection of Aristotelian Science* (London: Duckworth and Ithaca: Cornell University Press): 1-3.

53. Lang and Macro 2001: 9f.

54. See Hadot (op. cit. n.9 above): 276-7.

55. Hadot (op. cit. n.9 above): 277. Bowersock 1990: 64, discussing Alan Cameron, 'The Empress and the Poet: Paganism and Politics at the Court of Theodosius II', *Yale Classical Studies* 27 (1982): 217-89.

56. See Stanley Rosen, *Hermeneutics as Politics* (Oxford: Oxford University Press, 1987): 141.

3. Contrariety and Perceptibility: Athena, Goddess of Wisdom and of War

1. Lernould 2001: 105. See S. Rappe's review of Lernould 2001 in *BMCR* 2002.05.21.

2. *El. Theol.* Prop. 20, Dodds 1963: 23. See Kutash 1994: 105-21.

3. See Tarrant, *CPT* vol. I: 10 and *Timaeus* 17a1-3 to 27b7-10.

4. Reference to classic pairs of opposites, a canon of the Pythagoreans, but also introduced to this context by Iamblichus. See Tarrant, *CPT* vol. I: 95n.13.

5. John Dillon (1976: 249) points out the clear distinction between an *eikon* and a *sumbolon*. He finds it unclear why the description of the Ideal state differs as a representation of cosmic truths, from the Atlantis myth, or from myths in general. He cites (254) Diehl's index, shows that *eikon* and *sumbolon* are used indiscriminately right through Book I 'for relating the surface meaning of the text or of the characters, things and actions mentioned in the text and the metaphysical truths of which they are the expression'. The same thing can be according to various *analogiai*, according to Proclus (I.57.22). The important thing here is that *Analogia* 'is the principle on which allegorical exegesis is based' (257). The surface meaning of the text and the truths it represents are analogous.

6. This is, as O'Meara describes (1989: 16), 'standard second century Platonic cosmology'.

7. Plotinus *Enneads* II.4.10.31. See Sambursky 1962: 46.

8. Plotinus has made similar connections between unruliness and matter, as Slaveva-Griffin has pointed out to me in a personal communication. There are references to this in his treatise *On the Nature and Origin of Evil* 1.8, and in *Enneads* V.8.1.

9. O'Meara 1989: 63, quoting Iamblichus, *Commentary on Nicomachus* 77.23-79.8.

10. The fact of an assortment of infinities brings the issue of relative infinities along with it. This is a curious doctrine which E.R. Dodds (1963: xxiv) attributes to Syrianus (Syr. 147.14). Dodds (1963: 188-9) also points out, commenting on this proposition, that it is directed against the concept of an actual infinite (as distinct from potential), as Aristotle argues, and turns on the impossibility of conceiving a sum of numerical infinities which must be numerically greater than infinity. These arguments are elaborated in *Platonic Theology* (II, Bk. I). John Murdoch ('Infinity and Continuity' in Norman Kretzman et al. (eds), *The Cambridge History of Later Medieval Philosophy* (New York: Cambridge University Press, 1982): 569&n.13.4) discusses the history of the issue of equality of infinities and the occurrence of some infinities that clearly seem to be greater than others, despite the axiom that all infinities must be equal. Murdoch cites early sources for this in Plutarch, *De Communibus Notitiis adversus Stoicos*; Philoponus, *De Aeternitate Mundi contra Proclum* I.3; *apud Simplicium Phys.* VIII.i. (ed. Diels: 1179); Proclus, in *Eucl.* Def. 17; and Proclus, *El. Theol.* Prop. 1.

11. Proclus in *De Malorum Subsistentia* criticizes the view that evil is identified with matter. Here he criticizes Plotinus in *Enn.* I.8(52). Proclus takes issue with the view that matter is the cause of evil in the soul, or that it is evil or a principle of evil. See Jan Opsomer, 'Proclus vs. Plotinus on Matter (*De Mal. Subs.* 30-7)', *Phronesis* 46 (2001): 154-88.

12. Sambursky 1962: 52-3. Simplicius, *De Caelo* 644.8.

13. See Siorvanes 1996: 184-6. He differentiates matter proper, which is universal potential, and the mass-matter of the sublunary domain. The latter is gross matter, which must be distinguished from the former, which is the universal substrate. It is the gross matter that is associated with indeterminate quantity.

14. This is a quote from *De Myst.* (76-7), as quoted by Psellus in *On Pythagoreanism* VII.76-7, quoted by O'Meara 1989: 83.

15. Steel 2003: 177, in *Tim.* I.217.18-27.

16. Dirk Baltzly translated *akras* as 'extremes' and interpreted it to evoke the Aristotelian sense of extreme terms in the syllogism or the mathematical sense of the end terms in a proportion but at the same time the extremes of the elements fire and earth (personal communication). 'The cosmos is perceptible by virtue of

being composed of fire and earth (the extremes of perceptibility)' (Baltzly, *CPT* vol. III: 2).

17. Perception in the twentieth century became a discipline in and of itself. Both phenomenologists and experimental psychologists regard physical reality as an interaction between perception and physical stimuli and as 'constructed' to be perceived from the outset. For Proclus a perceptible universe is gifted with parameters that allow apprehension by vision and touch.

18. Gersh 2003: 151&n.44, citing I.339.14-16, I.344.28-345.1, I.345.28-346.3.

19. See F. Solmsen, 'Plato and Science', in Helen North (ed.), *Interpretations of Plato* (Leiden: Brill, 1977): 92n.12.

20. '... and what about the matter of child production? ... as regards marriages and children, all should have all in common so no one should even recognize his own particular offspring but all should regard all as their actual kinsmen, as brothers and sisters ...'.

21. Tarrant points out (*CPT* vol. I: 143n.216) that Festugière is confused by what Proclus means by undivided division but Tarrant points out, rightly, that this is about 'the Platonic notion about the descent into plurality and beyond (*Phileb.* 16d-e). After a plurality has been divided as far as it can go it can then be released into an infinite or indeterminate multiplicity.' Tarrant cites '*Parm.* 159b-160b (the fifth hypothesis according to the Neoplatonic count, and often linked with matter), where the plurality that is deprived of the One loses all characteristics and all number, and ends up looking rather like a unity as a result and ... Platonic concepts of matter stemming from the receptacle of the *Timaeus* itself.'

22. K. Gaiser, *Platonis Ungeschriebene Lehre* (Stuttgart: Ernst Klett Verlag, 1963): 275.

23. See Jean-François Pradeau, *Plato and the City* (Exeter: University of Exeter Press, 2002): 120ff.

24. The connection which Plato and, here, Proclus are drawing upon is the deep connection of *dikê* in the social life of the city-state to the realm of nature, which originally can be seen as far back as Anaximander. The connection between coming to be and passing away is not controlled and chaotic but an analogy in time of the equilibrium that is justice wherein things compensate each other for injustice. The meaning of cosmos was always right order on analogy with state or community.

25. Pradeau (op. cit. n.23 above): 121.

26. Proclus here is alluding to the *Megista Genê* of *Sophist*.

27. Tarrant points out that the Iamblican interpretation of Atlantis is also Syrianus' interpretation adopted by Proclus. It is viewed as a good historical example that illustrates the fact that cosmic rivalry is fundamentally embedded in the cosmos. See Tarrant's discussion in *CPT* vol. I: 81-4.

28. It is notable that Philolaus, the Pythagorean who was closest chronologically to Plato, uses the terms Limiters and Unlimited repeatedly in fragments 1-3 and 6, a phrasing that Proclus adopts here (see C. Huffman, *Philolaus of Croton* (Cambridge: Cambridge University Press, 1993): 37-9).

29. One cannot help but speculate that there is an allusion, here, to the political situation in Athens. A similar strategy of subversive allegory can be found in the Talmud where Nebuchadnezzar the tyrant is used as a cryptic allusion to the Roman emperors. This, of course, cannot be verified.

30. There is possibly political innuendo here too, since the restoration of paganism was thought to take place in a 'great year'.

31. Tarrant has translated this 'to return to square one' and adds in a footnote that the allusion is to the *apokatastasis* as 'return to position, restitution or

periodic return of the cosmic cycle'. Perhaps to translate this as 'great year' or 'periodic return', would convey these meanings more directly.

32. Tarrant, *CPT* vol. I: 195n.429.

33. See A.H. Armstrong, 'Dualism: Platonic, Gnostic, and Christian', in R. Wallis and J. Bregman (eds) *Neoplatonism and Gnosticism* (New York: SUNY Press, 1992): 42. He cites J. Trouillard, who discusses this as well (*La mystagogie de Proclus* (Les Belles Lettres: Paris, 1982): 247). See also *El. Theol.* Prop. 89-92; *Plat. Theol.* III.7-9.

34. See Tarrant, *CPT* vol. I: 279n.763.

4. Bonded Genesis and Foundational Mathematics

1. *Parapetasmata* is a word which has to do with veils or curtains or concealments, and is an important hint, here, that the Oracles are not too far away from Proclus' language at any given point. It also evokes Proclus' imagery concerning the soul as a 'veil' cast over the cosmos. The veil in ancient thought had reference to nature as a concealment, the veil of contrariety and the soul. Athena was covered with a veil on festival days. See Pierre Hadot's *The Veil of Isis* (Cambridge, MA: Harvard University Press, 2006) for background on this very common trope in ancient and modern literature.

2. Baltzly, *CPT* vol. IV.

3. Proclus admired Euclid and argues (*Timaeus* 27d5-28b3, at I.236.1-20) that Plato proceeds in the manner of geometers, setting out definitions (*horous*) and hypotheses (*hupotheiseis*) from which his demonstrations (*apodeixeis*) will follow.

4. Szabo discusses the origin of the word *analogia* as originally two words, *ana* and *logon* (equal in *logos*), a use reflected frequently in Euclid's *Definitions*. See A. Szabo, *The Beginnings of Greek Mathematics* (Holland: Dordrecht, 1978): 156.

5. See Slaveva-Griffin 2009: 87ff. for a full and thoroughly analyzed account of Plotinus' substantial number and its relation to the Monadic number. 'Substantial number ... is the ontological expression of the One, because it executes in actuality the dividing and ordering of substances and induces existence, while monadic number gives quantity.'

6. Rappe 2008: 4. Rappe points out that the words *ogkos* and *dunamis* taken in this sense refer to the square or solid numbers and powers that belong to the world using *dunamis* in a more general way. Plato, she says, is 'using dynamis in such a way as to be able later to extrapolate from the properties of geometric proportions present among solid numbers, to proportions present in the cosmic elements (earth, air, fire, and water)'. Mueller 1991: 98n.28 points out that Euclid, as well as Plato, uses *dunamis* as a way of specifying a kind of commensurability of incommensurables.

7. Baltzly, *CPT* vol. III: 81n.129.

8. Baltzly, *CPT* vol. III: 55n.54

9. See Klein 1966: 78-9 and his ch. 4 on the role of the theory of proportions in Nicomachus, Theon and Dominus for background.

10. Höhle 1988: 26n.18. Höhle cites W. Burkert, 'Konstruktion und Seinsstruktur: Praxis und Platonismus in der griechischen Mathematik', *Abhandlungen der Braunschweigischen Wissenschaftlichen Gesellschaft* 34 (1982): 132 and his own paper (Höhle, 'Platons Grundlegung der Euklidizität der Geometrie', *Philologus* 126 (2) (1982): 180-97) where he attempts to reconstruct Plato's views on the founding of mathematics.

11. It is notable that in the surviving fragment of Philolaus the Pythagorean

who was closest chronologically to Plato, he uses these terms in Fragments 1-3 and 6 repeatedly. He says 'Nature in the world-order was fitted together both out of things which are Unlimited (*apeirôn*) and out of things which are limiting (*perainontôn*) both the world order as a whole and everything in it'. See Huffman 1993: 37-9, who points out that these terms become singular in Plato and Aristotle and thus become principle-like and detach themselves from the phenomenal world around us. Huffman notes further (39) that Philolaus does not say all things are numbers but that the world order is fitted together by limiters and unlimiteds. Syrianus (*Meta.* 46.22-5) had placed the Monad and Dyad after the One, while Proclus clearly places the Limited/Unlimited pair in this position. Sheppard 1982b discusses this extensively.

12. Glenn Morrow (Proclus, *Commentary on Euclid* (1970): 5n.6.21) explains that this is a distinction between two orders of irrationals: *arrêton* denotes a line incommensurable in length with a given (rational) line, *alogon* a line which is commensurable neither in length nor in square with the given line (Bk X, Def. 3 & 4).

13. in *Eucl.* 42.12-19. Here is a point of difference with Iamblichus, as Ian Mueller has noted. Proclus argues that dialectic is the source of mathematical method, while Iamblichus insists on the autonomy of mathematics (Mueller 1987: 343).

14. See I. Stewart, 'Mathematics as Philosophy: Barrow and Proclus', *Dionysius XVIII* (Dec. 2000): 151-82. Stewart argues that Proclus subordinates mixed mathematics to pure mathematics and pure mathematics to a *mathesis universalis* (in *Eucl.* 18.6-20.7). Proclus has the general conception of a universal mathematics based on Euclid's *Elements* (even though Euclid nowhere discusses this). Commentators have noted that theories pertaining to numbers and to lines have a similar *logos* in Greek mathematics as evidenced by the similarities between Book V and Book VII of the *Elements*. While both are about the theory of proportions, Euclid discusses them separately, probably due to what Oskar Becker ('The Theory of the Odd and Even in Euclid's *Elements*', *Graduate Faculty Phil. J.* 16, 1 (1992): 87-110: 100) has pointed out as an archaic characteristic of early mathematics, the 'distinction into cases'. This results in separate proofs for proportion, for numbers, lines, bodies, times, etc. Although *logoi* and activity may coincide in the soul, in the physical world with the introduction of extension in space and time there can be analogy, similarity but not sameness.

15. O'Meara 1989: 176.

16. Morrow (Proclus, *Commentary on Euclid* (1970): 55n.20), commenting on *in Eucl.* 67. 4. Proclus says 'Eudoxus of Cnidus ... was the first to increase the number of so-called general theorems; to the three proportionals already known he added three more and multiplied the number of propositions concerning the "section" which had their origin in Plato, employing the method of analysis for their solution'. Morrow suggests reference to Thomas Heath (1981, vol. I: 323ff.) for a more extended discussion of Proclus and the theory of proportion.

17. *Posterior Analytics* 74a17-25. *Metaphysics* 1026a25-7. Klein 1968: 158-9. B. L. van der Waerden, *Science Awakening*, Eng. tr. by Arnold Dresden (New York: Oxford University Press, 1961) discusses an even older definition of proportionality ascribed to Hippocrates (430 BCE) and Artmann (1991: 7), citing him, adds that there is no doubt that the theory of similar plane figures in Book VI is considerably older than Eudoxus' definition of proportionality.

18. Baltzly, *CPT* vol. III: 71 n.103. Baltzly points out that these last two terms are technical terms in mathematics denoting quantities that are rational in relation to one another (Euclid X, Def. 3) and terms that are in the same proportion

(Euclid V, Def. 12). Heath 1956 (*Euclid: The Elements*): vol. 2, 112ff. The anonymous author of a scholium to Book V (Euclid ed. Heiberg, vol. v, p. 280), who Heath suggests is Proclus, tells us that some assert that this book containing the general theory of proportion which is equally applicable to geometry, arithmetic, music and all mathematical science is the discovery of Eudoxus. The Pythagoreans had this theory with regard to numbers, and had the three means; arithmetic, geometric and harmonic, of which the geometric was called proportion par excellence. Iamblichus calls it the most perfect proportion (Iamblichus, *Commentary on Nicomachus* 9 p. 118). While the Pythagoreans used the theory applicable to commensurables only, it was Eudoxus represented by Book V of Euclid that made the theory general enough to apply to incommensurable magnitudes as well. Heath points out that proportion alternando was at one time proved separately for numbers, lines, solids and times though it was possible to prove it for all by one demonstration. Now, however, the proposition is proved generally even though Euclid does not connect Book V and Book VII, which prove the same pattern for magnitudes and numbers. See also Aristotle, *An. Post.* 1.5, 73a17.

19. It is this formula $a : (a+b)/2 = 2ab/a+b : b$, which Heath points out was spoken of by Iamblichus as 'the most perfect proportion consisting of four terms'.

20. Lernould 2001: 134. See also A. Lernould, 'Mathématiques et physique chez Proclus: l'interprétation proclienne de la notion de "lien" en *Timée* 31b-32c', in G. Bechtle and D.J. O'Meara (eds), *La philosophie des mathématiques de l'antiquité tardive* (Fribourg: Editions Universitaires St Paul, 1998).

21. Baltzly, *CPT* vol. III: 69n.98.

22. Baltzly cites Nicomachus, *Introduction to Arithmetic*, which has sections on plane and solid numbers (II.6-20) and the theory of proportions (II.21-9). Proclus was influenced by Iamblichus who in turn wrote a commentary on Nicomachus. Baltzly, *CPT* vol. III: 9&n.11.

23. See Burkert 1972: 410-11.

24. See Burkert 1972: 403. W.A. Heidel, 'The Pythagoreans and Greek Mathematics', *American Journal of Philology* 61, 1 (1940): 1-33 at 19. In the history of Greek thought, Heidel points out, Pythagoreans are rarely mentioned except by later writers; the Philolaus fragments are possibly pseudepigraphic. Huffman 1993 has successfully sorted out the issue and plausibly documents which fragments can be regarded as authentic. Burkert 1972: 430-1 suggests that Theon, Nicomachus and Iamblichus might have to be regarded with caution as evidence for earlier Pythagorean arithmetic, that proof is not rigorous in their work and incomplete inductive procedure leads to errors. Thus these efforts may be a product of decadence, 'a dilute, popularizing selection from what had been a rigorous mathematical system'. See also Heath 1981: 98f.

25. Mueller 1985 and 1987: 343. Iamblichus and Syrianus had more interest in Pythagorean mathematics than in Euclid, while Proclus is more interested in what Mueller (317) terms 'ordinary mathematics' (as opposed to Pythagorean mathematics). It would have been extremely helpful to have the lost work Proclus alludes to in II.76.22 where he claims he will 'arrange a collection of mathematical theorems that bear on the Timaeus' (B).

26. Mueller 1985 and 1987: 314 points out that, compared to Syrianus, and Iamblichus in *De Communi Mathematica Scientia*, Proclus cites Geminus approximately 15 times while Syrianus does not cite him at all. Proclus mentions in the first prologue alone, Archimedes, Eratosthenes, Heron, Ctesibius and later in the commentary, Apollonius, Pappus and Ptolemy, none of whom play any role in *Comm. Math.*

27. O'Meara 1989: 166-7.

28. O'Meara 1989: 168.

29. See D.J. Struik, *A Concise History of Mathematics* (New York: Dover Books, 1987): 40. Struik explains that the three famous mathematical problems of antiquity – the trisection of an angle, the duplication of the cube (the so-called Delian problem) and the quadrature of the circle (to find the square of an area equal to that of a given circle) – were problems that cannot be geometrically solved by the construction of a finite number of straight lines and circles except by approximation. This spurred new innovations in mathematics. The first two problems were often reduced to the search for two line segments x and y such that $a:x = x:y = y:b$, where x and b are given line segments. The problem is an extension of the search for an x of which $a:x = x:b$, the geometrical proportion, but the search for the double geometric proportion cannot be solved by compass and ruler alone. This led to the discovery of conic sections. Struik points out that 'mathematics of various periods have shown a connection between these Greek problems and the modern theory of equation'.

30. Klein 1985: 27-30.

31. See I. Mueller, *Philosophy of Mathematics and Deductive Structure in Euclid's Elements* (Cambridge, MA: MIT Press, 1981).

32. Knorr 1975: 29. Two homogeneous magnitudes A and B are given. The small (say G) is subtracted from the larger leaving the remainder C . If C is smaller than B , it is subtracted from B to produce a second remainder. If C is larger than B then B is subtracted from C . In either case, a new remainder D is obtained and it is used in the same fashion with respect to the previous subtrahend, yielding a new number E . The process continues this way. When applied to numbers, it terminates after a finite number of steps and the last (non-zero) remainder is the greatest common divisor of the two given numbers. Euclid develops this in VII.1 and 2. Similarly, the process applied to commensurable magnitudes terminates, resulting in the greatest common measure. Euclid proves this in X.3. In the case of incommensurable magnitudes, the process continues ad infinitum.

33. Paul Pritchard, *Plato's Philosophy of Mathematics* (Sankt Augustin: Academia Verlag, 1995): 5 documents an 'acrimonious dispute' over whether the second book of Euclid's *Elements* can be described as a form of geometrical algebra. Benno Artmann 1991: 46 discusses this as well. Jacob Klein's extensive discussion of Vieta who finally in 1591 put together previous number concepts and introduced a general mathematical symbolism for algebra, certainly considers Proclus as one of his intellectual predecessors. Vieta's conception of a general algebra equally applicable to geometric magnitudes and numbers is met half way by the general theory of proportions of Eudoxus as transmitted in the fifth book of Euclid (Klein 1968: 158). Klein contends (161) that he was extensively influenced by Proclus' position on the general theory of proportion. T.L. Heath in his commentary restates Euclid's arguments using modern algebraic notation.

34. Barker 1994: 54n.2 catalogues some of these including Nicomachus' *Enchiridion*, Ptolemy's *Harmonics*, Porphyry's *Commentary on Ptolemy's Harmonics*, which along with Aristoxenes' *Harmonics* and possibly Euclid's *Data*, were probably known to Proclus.

35. See Barker 1991: 57-62 and Eva Brann, 'The Cutting of the Canon' (1970 unpublished paper, personal communication). Barker 1991: 68-71 shows the identity of Plato's construction of the world soul and the *Sectio Canonis* of Euclid for the diatonic system.

36. A. Bowen, 'Euclid's *Sectio Canonis* and the History of Pythagoreanism', in

A. Bowen (ed.), *Science and Philosophy in Classical Greece* (New York: Garland Publications, 1991): 164.

37. Cornford 1997: 68-70. Barker 1991: 49-83. Barker accepts the dating of the *Sectio Canonis* to around 300 BCE and the authorship of Euclid or a pupil or associate of his. Thrasyllus belongs to the first century CE.

38. The *hêmiolios* is 3:2; the *epitritos* 4:3 and the *epogdoos* 9:8.

39. Aristoxenes' Perfect System, largely devised in the late fourth century BCE, was the Greeks' first coherent theoretical structure, the culmination of fifth-century efforts to find some common structural ground between various heterogeneous tuning conventions. Aristoxenes (b. 375-360 BCE) stipulated three types or genera of tuning, which persisted as the basis for the various forms of modal heptatonic music (viz. seven-stringed lyre): the diatonic, enharmonic and chromatic, the latter two popular in the later Classical period, overlaid on the diatonic scale and seen as modifications of the diatonic, required to conform to minimum conditions of diatony according to Aristoxenes' cardinal rule of *sunecheia* (continuity). Nicomachus describes the diatonic progression as dictated by a certain natural necessity (Nicomachus, *Enchiridion* 7 9249.1-3; see J.C. Franklin, 'Diatonic Music in Greece: A Reassessment of its Antiquity', *Mnemosyne* 55, 6 (Leiden: Brill, 2002): 673nn.10&11).

40. Proclus' vocabulary can be read with the additional insight provided by the use of these terms in musicology. *Diastêma* (for interval in the physical divided world) *sunecheia* (for continuity), *harmonia* (for harmony) are all terms used by Proclus and are mainstays of the ancient musical writers.

41. Huffman 1993: 37.

42. See Carl Huffman, 'Archytas', in Edward N. Zalta (ed.), *Stanford Encyclopedia of Philosophy* (Fall 2007 edition) <http://plato.stanford.edu/entries/archytas> (accessed May 2008).

43. Barker 1991: 68-9.

44. *Plat. Theol.* I.122.3-10. O'Meara 1989: 205.

45. *El. Theol.* Prop. 132, 148. Dodds, commentary: xxii.

46. Dodds has noted this too in his commentary on *El. Theol.* Prop. 89-90 (247). Proclus, he points out, rejects Plotinus' idea that Limit is the Form of Infinitude or the Infinite 'the matter of Limit'. Limit, rather, is related to Infinitude as substance to potency.

47. Kahn 2001: 32. Keith Critchlow in his Introduction to R. Waterfield (tr.), Iamblichus' *Theology of Arithmetic* (Grand Rapids: Phanes Press, 1988) quotes Aetius, a first- or second-century CE source for the opinions of the Pythagoreans. They thought that 'the nature of number is the decad'. Critchlow explains that if the decad is the essence of number, there is an explanation for the linear generation of the incomparable ideal numbers which Aristotle puzzled over. The decad is a Monad of minimum ten, which is complete at four, in the Lambda formation which Plato describes at *Timaeus* 35b-c.

48. Kahn 2001: 118.

49. Morrow in Proclus, *Commentary on Euclid* (1970): 99ff. and p. 81n.22.

50. O'Meara 1989, Appendix I: 'The Excerpts from Iamblichus' On Pythagoreanism V-VII in Psellus: Text, Translation, and Notes': 219 exemplifies the Neopythagorean canon of number which includes the tetractys. 'The beauty in numbers, which shows in their symmetry; the self-sufficiency that is apparent in perfect numbers; the generativity seen in (the numbers) seven and nine; the power that is observed especially in the tetractys; the primacy that is found in the One;

and the identity, purity, and paradigmatic character appearing in the first numbers; and the equality that may be seen in square numbers; all of these (properties) fit physical cause as form.'

51. Critchlow (op. cit. n.47 above) describes all the features of the Lambda formation. The decad can be made into a triangular pattern with 'ten dots in four rows and/or as one triangular form outlined in nine dots with a center point ... the tetraktys of the Pythagoreans can represent both a minimal oneness and a maximal ten-ness simultaneously' (p. 11). Critchlow describes how the process of generation can follow from this paradigm, a process which goes '... from undifferentiated unity into twice-ness and thrice-ness: in the first dimension, four-ness and nine-ness are their respective planar reflections; eight-ness and twentyseven-ness as their projections into the ultimate third dimension or bodily world. We have two squared and cubed and three squared and cubed, giving a dyad of forms of generation passing through the three dimensions on each arm' (p. 14).

	1		
	2	3	
	4	6	9
8	12	18	27

The decad, Critchlow points out further, contains those numerical harmonies proposed by Plato for the generation of the world soul. The numbers moving into cubic being facilitate the geometrical basis of materiality (*Timaeus* 36e, 53c-e): the four-ness of fire, the six-ness of air (octohedrality); the twelve-ness of water; the eight-ness of the solid earthiness etc. (pp. 15-16).

When Plato discusses the seven portions (35b), Critchlow explains, in regard to the intricacies of the internal workings of the tetraktys, by 'multiplying unity by two and three to get the sequence 1,2,3,4,9,7,27, he (Plato) goes on to describe the filling in of the intervals. This is done by placing two means between each of the powers of 2 and powers of 3. These are the arithmetic and harmonic means which, with the geometric mean, complete the triad of means. The means set up proportional unities between extremes and are therefore in themselves the epitome in mathematical terms, of mediating principles' (p. 17). Proclus considers the means to be hierarchical: the geometrical mean is the most metaphysical; the harmonic is the most psychic and the arithmetic the most physical. Times two or times three are the geometrical proportions that govern the legs or diagonals to the right and the left. Plato describes the insertion of means between these square and cubic numbers in such a way that the result is a formula, the formula for perfect proportionality, if the mean and extreme number is a square or a cube. This is the 'golden proportionality' which is reportedly Pythagorean and acquired by Pythagoras from the Babylonians (as reported by a Neopythagorean, of course, of the fourth century: Iamblichus).

52. Heath (1956) commenting on Book XIII of Euclid's *Elements*: 438ff. discusses the construction of the five regular solids and their history. Theaetetus, according to Heath, contributed to Euclid's Book XIII, which is devoted to constructing the five regular solids. The Suda says that Theaetetus was the first to write on the five regular solids, while scholium no. 1 to Eucl. XIII adds that the cube, the pyramid and the dodecahedron were the discovery of the Pythagoreans; the other two, the octahedron and icosahedron, were

discovered by Theaetetus. But he was the first to construct all five theoretically and to investigate fully their relations to one another and to the circumscribing spheres, as in Eucl. XIII. The fifth regular solid, the dodecahedron, requires the regular pentagon for its construction.

53. Cornford 1997: 15.

54. Morrow in Proclus, *Commentary on Euclid* (1970): Introduction.

55. Knorr 1991: 142.

56. Heath, *The Thirteen Books of Euclid's Elements*, vol. 2, Book IV (discussion of Prop. 10): 99.

57. *Comm. on Eucl. El.* 67.6.

58. M. Ghyka, *The Geometry of Art and Life* (New York: Dover, 1977): 40-1. Whereas the plane, the triangle, the square and the pentagon are irreducible to each other morphologically, the same antagonism does not subsist in three dimensions. We can in space pass from dodecahedron or icosahedron to cube, from cube to tetrahedron. For instance; the 12 vertices of the icosahedron (and 6 of its sides) are on the surface of a cube; the 8 vertices of this cube coincide with 8 of the vertices of a dodecahedron having its side equal to that of the icosahedron. The 12 other vertices of the dodecahedron and 6 of its sides are situated on the surface of another, enveloping, cube such that its side and the side of the first cube should be in the phi ratio. In the same way the 6 sides of any tetrahedron can be set as diagonals on the 6 faces of a cube, the 4 vertices of the tetrahedron coinciding with 4 of the vertices of the cube (the 4 remaining vertices of the cube and the 6 other diagonals producing another tetrahedron, etc.).

The octahedron and the cube are reciprocal; that is, if we take the centres of the surfaces limiting one body, we obtain the other one (the number of faces becomes the number of vertices, and inversely, the number of total sides does not change). The same is true for the couple icosahedron-dodecahedron. The tetrahedron, for example, is auto-reciprocal, that is, reproduces itself by taking the centres of its faces. The presence of the golden section is important here, as dodecahedron and icosahedron together constitute the projection in three dimensions of the pentagon and its properties, and seems to dominate the morphological relations between the five bodies, as Ghyka points out (p. 44). One can pass from dodecahedron to icosahedron and from icosahedron to dodecahedron by lengthening out all the sides or the planes of the faces of these solids until they meet. This operation on the dodecahedron produces the twelve vertices of an enveloping decahedron. These operations can proceed indefinitely producing alternating ever-growing dodecahedra and icosahedra and we obtain thus a pulsation of growth in which lines, surface, volumes, are ruled by the golden section or proportion.

59. Husserl 1887: 28n.6.

60. Cleary 1998.

61. Syrianus' commentary on Aristotle's *Metaphysics* is Proclus' direct source for the account of mathematical objects as projections in the imagination (*phantasia*). Syrianus regarded mathematical objects as projections of invisible ideas originating in Nous (*dianoëta*) in contrast with Aristotle's abstractionism, a post hoc analysis that is not based on foundational principles. Iamblichus, according to both Anne Sheppard and Ian Mueller, had provided all the materials for the theory of mathematical projection which we find in Syrianus and Proclus (see Iamblichus, *De Communi Mathematica Scientia* 34.9-12). See Sheppard 1980:40, Sheppard 1997: 119, Mueller 1987: 317 citing *Comm. Math.* 33.19-34.18, and Syrianus in *Metaph.* 91.11-92.10. Little has survived of Syrianus' writings. Among them are

the commentary on the *Phaedrus* compiled by his pupil Hermias, and the commentary on books B, G, M and N of Aristotle's *Metaphysics*.

62. Mueller 2000: 71ff.; Syrianus, in *Metaph.* 91.22-4.

63. Syrianus, *On Aristotle Metaphysics 13-14* tr. Dillon and O'Meara (2006): 12ff.; Syrianus, in *Metaph.* 84,10ff.

64. Slaveva-Griffin 2009: 118.

65. See Mueller: 1998: 77; Syrianus, in *Metaph.* 132,8-14.

66. O'Meara 1990: 187n.25 finds supportive passages at II.25,1-3; 39,18-19; 161,71-2; 164,21-8; 166,4-12; 193,17-27; and in *Parm.* 869.3.

67. Runia and Share translate this 'He denominates the 1 as a cause of Sameness and unification, while the 2 is able to provide for procession and differentiation. The 3 is such as to originate the reversion ...' etc. I include Proclus' language of Monad, Dyad, etc. in order for the reader to see that the arguments can be contextualized by the Pythagorean usages.

68. This is explicitly stated by Proclus in his *Commentary on Parmenides*: 'if he [the student] wonders how the Many could be in the One, and all in the indivisible, let him think of the Monad and how it is shown that all forms of odd and even are pre-contained in it, the circle and sphere, and the other forms of numbers (in *Parm.* 926.6-29).

69. See G. Sommaruga, 'The Nature of Mathematical Objects in Proclus and in Contemporary Philosophy of Mathematics', in G. Bechtle and D. O'Meara (eds), *La philosophie des mathématiques de l'antiquité tardive* (Fribourg: Editions Universitaires St Paul): 85-101, who supplies a framework for a rapprochement between Proclus' mathematical objects and their generativity and Maddy's (a modern set theorist of mathematics) theoretical objects as generated.

70. Heath (1956), vol. 2: 279 quotes and comments on Iamblichus, *Commentary on Nicomachus* (in *Nicomachi introductionem arithmetica*, ed. H. Pistelli (Leipzig 1894): 11,5).

71. Theon of Smyrna (Heath 1956, vol. 2: 280 quotes *Theonis Smyrnaei: expositio rerum mathematicarum ad legendum Platonem utilium* ed. E. Hiller (Leipzig: Teubner, 1878): 18, 3-5).

72. Plato's famous paradigmatic problem, which he thought exemplified the purpose of solid geometry, was the problem of the methods of the duplication of the cube. The famous problem of the enlargement of the cube is of such extreme importance to Greek mathematicians because the most important planometric operations, to change an area into a square for example, involve application of areas and that these operations are a form of geometric algebra. Changing an arbitrary rectilinear of area 'F' into a square amounts to solving the pure quadratic $x^2=F$. The equationizability of proportional lines, and the method of solving problems by application of areas in order to yield a method for finding unknowns, makes geometry the 'algebra' proof of the time in the broad sense that line segments become the parameters of a geometrical algebra based on Euclidean lines and planes.

Some examples are: addition and subtraction of quantities is equivalent to producing the line to the required extent or cutting off a portion of it; division is a statement of a relation between lines in the principles of Book V and VI; the division of a product of two quantities by a third is represented by the finding of a rectangle with one side of a given length and equal to a given rectangle or square (like I.44, 45); the sum or difference can be transformed into a single rectangle by means of application of areas to any line of a given length, corresponding to the algebraic process of finding a common measure, etc. See Heath 1956, vol. 2: 372-4,

and B.L. van der Waerden, *Science Awakening* (New York: Oxford University Press, 1961): 150ff.

73. D. O'Meara, *Platonopolis: Platonic Political Philosophy in Late Antiquity* (Oxford: Oxford University Press, 2003): 102-3.

74. Siorvanes 1996: 43.

5. The Third Gift: 'He Makes it a Whole'

1. Lang and Macro 2001: 17&n.49, quoting Dillon 1977: 423 n.2.

2. See for example O'Meara 1989: 148-9.

3. Runia and Share, *CPT* vol. II: 18.

4. Opsomer 2000a: 356.

5. Opsomer 2000a: 356-69.

6. Opsomer 2000a: 362.

7. Opsomer 2000a: 363 commenting on *Plat. Theol.* 95.11-96.20.63.

8. Rappe 2000: 168.

9. For Platonists, the distinction between Being and becoming is associated with the heavenly bodies. Being is associated with the fixed stars and becoming with the planets. This is elevated to metaphysical significance in Plato's depiction of the Circle of the Same and the Other. At 38c of *Timaeus*, 'the sun, moon and planets are fashioned to distinguish and guard the numbers of time in order that time might be created. Thus the motion of the Other is broken up into seven subordinate motions; this expresses the diversity present in the universe'.

10. See Slaveva-Griffin 2009: 46 and 50, and Dillon 1996: 350ff.

11. Runia and Share translate *noêsis* as intuition or intuitive knowledge. *Noêsis*, stemming from the word *nous*, has a long history in ancient philosophy. Anaxagoras has a *Nous* ruling all that is. In *Laws* 966e, Plato has a cosmic *Nous*, and Plotinus makes *Nous* the second of three hypostases (*Enn.* V.9.3). I think that translating *noêsis* as intuitive knowledge, in English, associates it with the word intuition, which has connotations that do not reinforce the connection with *Nous* and its history. I would rather translate it as 'intellectual insight' as opposed to *dianoia*, which is discursive reasoning, although that does not convey the sense of a direct, all at once, apprehension, either. *Noêsis* is hard to capture in English; it does imply something more immediate and intuitive than *epistêmê*, it is true, but on the other hand it is a higher form of reason in classical thought.

12. Aristotle in *Physics* discusses the ideas that generally lead people 'to infer that something infinite does exist' (203b15). The first two are the infinity of time and the division of magnitudes in mathematics. Aristotle declares at the start of Book III.5 that the infinite is not itself a substance. In addition, the infinite cannot stand separation from perceptible things and be just itself. To defend his views Aristotle asks, 'how could there be an independent infinite, if there cannot be one independent of number and magnitude?' (204a17). W.D. Ross, *Aristotle's Physics* (Oxford: Clarendon Press, 1998): 364: 'There cannot be an infinite which is nothing else, unless there are similarly a number and a magnitude that are nothing else. For infinity is an attribute of number and magnitude and an attribute of an attribute is even less capable of independent existence than an attribute'. Infinity, for Aristotle, is a property of number and magnitude. Aristotle also declares that it is impossible for infinity to exist both in actuality and 'to have substantial existence as a principle' (204a20). He eliminates all actual infinities and considers only the definition of infinity as one thing taken after another as an appropriate definition.

13. Tarrant, *CPT* vol. I: 140n.203. The *Philebus* passage is at 26d7-9: 'the huge class of things that is the combined product of limit and unlimited is described as generation into being'.

14. The distinction between an iconic account and a scientific account, in both Plato's and Proclus' discussions, is not as sharp as the word 'likely' suggests. I have long held that 'iconic' means the same kind of similarity to its principles that the cosmos holds to the Paradigm. It does not carry the meaning of a weak or mythological or fanciful and questionable account as the word 'likely' suggests in English.

15. Runia and Share, *CPT* vol. II: 18.

16. See Martijn 2008: 5.

17. Proclus calls them *axiômata* and refers to them as fundamental propositions See I.236.10; 258.13-15; 242.16-18.

18. See Runia and Share, *CPT* vol. II: 108 and 109n.337 citing Martijn 2008. Her ch. 2 discusses the role of the Demiurge in nature.

19. Carlos Steel (2003) discusses Proclus' types of causality from p. 177 and gives the historical origin of 'paradigmatic causality', citing Seneca's '*turba causarum*', which Seneca introduced in his letter 65. To the four causes, he says, Plato added a fifth cause, the paradigm (exemplar) which he himself called idea. In this text, Steel points out, is already the complete system of causes that Proclus presents as the contribution of Plato (with the exception of the instrumental cause, which Steel attributes to Alexander of Aphrodisias): 181n.20. Aristotle's four causes are applicable only to the understanding of what happens on the sublunary level (181).

20. Proclus does not endorse the idea that there are indivisible lines. Aristotle's discussion of continuity in *Physics* 1.2, 185b10-11 is also relevant here: 'every continuum (*sunechês*) is divisible without limit'.

21. Sorabji 2005: 169-70.

22. See Gersh 1973: 28-30 for a more complete discussion of overflowing power. I would add that as power, Being does not have to follow the laws of non-contradiction that apply to time, space and logic (no two things can be in the same place at the same time for example). Being can thus be a 'simultaneous whole', as Proclus states in *El. Theol.* Prop. 52.

23. Gersh cites Proclus' *Elements of Theology* to document instances that show that Proclus gives a consistent account of *dunamis* as progressively incomplete as the causal process proceeds and progressively more complete as it reverts. *El. Theol.* 74.20-1; 74.11-14; 72.20-1; 132.1-2; 130.6-16; 54.25-6.

24. See Kutash 2001: 119ff. Parmenides' poem identified and named the schemata for a circular universe in his 'well rounded sphere'. For Plato it has the meaning of a noetic visible with geometric symmetry and internal relations commensurate with its equality and self-sameness, etc. It is 'paradigmatic', an intellectual whole, that has mathematical parameters. For Proclus it suggests participation in an intellectual cause that lies beyond it.

25. See Peters 1967: 108-9.

26. Proclus combines this with his knowledge of the unwritten doctrines as well as passages in *Timaeus* such as 53d where Plato alludes to 'principles even higher than those known to God (*anôthen theos*) and to such men as are loved by God'.

27. Taran 1987: 229 discussing in *Parm.* 38.32-40.

28. Runia and Share, *CPT* vol. II: 215n.14.

29. It is notable that Plato describes the living universe (*to pan*) as an 'ensouled intelligent living being' (30b8) an 'intelligible living being' (30c8) and an 'all-perfect living being' (31b2).

30. See Steel 2007: 24, Introduction to Proclus *On Providence*.

31. Lang and Macro 2001: 97n.2 point out that deification of matter and the receptacle has a long history in Stoicism, Neoplatonism, Plotinus (*Enn.* II.4.1.11-12, III.6). In *Theol. Plat.* I.122.19-26 Proclus calls being the father of generation and matter the mother. *Tim.* 50d2-e1: see Lang and Macro 2001: 98n.12.

32. See *On the Existence of Evils* 34.5-25. See Opsomer and Steel 2003: 15-31 for a complete discussion of this.

33. See Sambursky 1962: 52-4; Simplicius, *De Caelo* 644.8. Things can change and reconstitute themselves in transformations that include phases of unformed matter able to receive shapes of things as triangles dissolve and reconstitute. There is a certain indeterminacy involved in these processes. In general, there is a potential indeterminacy as a byproduct of the Unlimited exemplified by irrational numbers, the *Kratêr* in its purely receptive state, etc.

34. Lang and Macro 2001: 22-3.

35. See Lang and Macro 2001: 23&nn.67&71. Plutarch, *De Animae Procreatione in Timaeo* 1013C, 1014a-b.

36. Johnston 1990: 71. Wallis 1972: 130 calls this the law of mean terms.

6. 'He Makes it a Sphere': The Anatomy of the *Autozôion*

1. *Pol.* 269d. Baltzly, *CPT* vol. III: 43n.21, points out that this passage has been a focus of attention of Neoplatonists. The context for it is the account in the *Statesman* (209d) which has the cosmos revolving in one direction under divine influence, but in other periods, left to its own devices, winding backwards, until the divine mover retakes the reins and restores the proper direction. Other Neoplatonists might have seen this as a source of evil; for Proclus this is a model for catastrophic events. These events stem from disorderly motion and the material world whose fate is not always in accord with divine Providence.

2. Baltzly's translation of Book 3, Part 1, following Festugière's designation, denominates these sections as 'the World's Body'.

3. While the world's body is generated and Intellect is ungenerated having an eternal Essence (*ousia*) and eternal activity (*energeia*), Soul is an intermediate between generated and ungenerated things (II.1.10-14). Baltzly, *CPT* vol. III: 38n.4 relates this to the Neoplatonist triad, essence, power, activity: 'Intellects are eternal in respect of their essence, power and activities (*El. Theol.* 169) while souls have an eternal Essence but activity in time (*El. Theol.* 191)'

4. To the observer, the stars on a clear night seem to lie on a portion of a spherical surface, of which he/she is the centre. This was known to astronomy as the celestial sphere. One half is observable, but the imagined other half, lying below the earth, completes the sphere. The sun's path on the celestial sphere is oblique to the equator. The sun's annual path on the celestial sphere is a great circle having its centre at the centre of the sphere. This great circle is the ecliptic.

5. See E. Kutash, 'What did Plato Read?', *Journal of the International Plato Society*, Issue 7 (February, 2007): 1-20.

6. Gregory Shaw explains '*agalma*' and traces the use of the term to Iamblichus who uses it to describe the stellar manifestations of the gods (*De Myst.* 168.4-5). *Timaeus* 39e uses the term in reference to the bodies of the gods (Shaw 1995: 90&n.4). See Cornford 1959: 99-102 for further discussion of this term.

7. Baltzly, *CPT* vol. III: 110n.201.

8. The visible is primarily due to fire and all colours are products of light (see II.8.1-13), proceeding from an Aetherial substance. Sight and the visible require

light to bring them together to exist in actuality. The conical form of eyesight and the pyramidal form of fire are similar. At II.10.18ff. Proclus discusses the earth as the cause of solidity among other elements and opposed to fire. As extremes, fire and earth are mediated by air and water and always operating in actual reality through intermediation. Motion/motionless, light/dark, are all oppositions contained and applied to the universe by the proportions of the four elements (II.11.1-11). Light is somehow a supreme unifier and itself 'contains', through permeating all that is, from the highest source of light to the lowest of creatures. It is thus analogous to spherical containment. Here again, there is a Chaldaean association as the Oracles present the place of the Cosmic Soul as a noetic power, 'the girdling flower of fire', which 'envelops the cosmos from without, a membrane between soul and body'. In any case, the metaphysical problem is how the whole of wholes is configured and animated in a way that guarantees the kinship of all that is to the overriding physical cosmos. Light metaphysics addresses that problem. See M. Griffin, 'Proclus on the Luminous Vehicle of the Soul in Procline Physics', ISNS Conference 2005, unpublished manuscript, citing Lewy 1978: 91.

9. See Kutash 2001. Another possible source for the Greek vision of the whole as a spherical bound, may be the burgeoning technologies of early Greek cartography which by Proclus' time had advanced considerably. The idea that the all-material contents of the universe are in symmetrical relation to the whole, for example, can be seen as an ontological analogy to the fully developed spherical and zonal theory of the earth and/or the star maps of the heavens, which were conceived as projected upon an inverted sphere. The original map of Anaximander was round and was conceived as containing the entire inhabited world within its circular compass.

10. See Dicks 1970: 51.

11. *De Caelo* 1.9, 279a14-20.

12. See in *Parm.* VI.1120ff. for a discussion on its relation to infinity.

13. This argument summarizes Aristotle *De Cael.* 2.4, 287a32-b15, as Baltzly points out (*CPT* vol. III: 131n.244).

14. Baltzly, *CPT* vol. III: 125n.231 puzzles along with Festugière over the *apoutou suggenous* (II.69.28) which Proclus substitutes for intellectual creation (*apotês noeros poiêseôs*) (II.68.25). He suggests that the connection between affinity and the intellectual creation is not clear. *Suggenes*, however, is affinity through bonded interval that is the icon of intellectual causes.

15. Dodds commenting on *El. Theol.* 224.

16. *Phaedo* 78d5-7.

17. This approach compelled Kepler in his *Mysterium Cosmographicum* of 1597 to retain it, insofar as he fitted the distances between the orbits of the six planets to the distances which would be obtained if the hypothetical spheres of the planets were inscribed in, and circumscribed around, the five regular solids.

18. See J.O. Urmson, *The Greek Philosophical Vocabulary* (London: Duckworth, 1990): 42-3. *Diastasis* (*diastêma*, *diastasthai*) is used in *Tim.* 36a, 36b-d, discussing the creation of the world soul; is used of musical intervals; is used by Aristotle in *Physics* 204b20 and at 206a6 'body with extension' and for discussing the six directions. He also uses *diastêma* at 209a4 when discussing three dimensions and at 211b7 in discussing place. The Platonists and Stoics say *diastêma* is something other than body but always contains a body. Urmson further points out the use in 'for those that say that place is incorporeal some say that it is altogether unextended, others that it is extended' (Simplicius, *Physics* 601.6).

19. See Lee 1976: 77-8.

20. Berggren cites Goldstein and Bowen, who contend that the work of Eudoxus began a second phase of early Greek astronomy (see J.L. Berggren, 'Greek Spherics and Early Greek Astronomy', in Alan C. Bowen (ed.), *Science and Philosophy in Classical Greece* (New York: Garland, 1991): 230-1, and for a good account of spherics and early astronomy).

21. See Siorvanes 1996: 279ff. for a very complete discussion of Proclus and astronomy.

22. The concept of uniform circular motion created a problem for the Greek astronomers when they encountered what appeared to be retrograde motion of the planets. Burkert 1972: 332 discusses this. Except for certain stationary points and retrogradations of the planets, the sun, the moon, and the planets seem to make the circuit of the zodiac, each in its respective period travelling from west to east. This difference from the uniform east to west movement of the fixed stars was interpreted in antiquity in two ways. Some of the older natural philosophers, e.g. Anaxagoras, Hippocrates of Chios and Democritus, spoke of the planets as getting left behind by the fixed stars in the all-embracing cosmic revolution. Others thought of them as having a contrary movement of their own from west to east, in spite of which they are carried along with the general movement of the heavens, like ants crawling the wrong way on a potter's wheel (this comparison was made by Oenipodes and others). The theory of contrary movement is regarded as specifically Pythagorean, and Plato rates this theory very highly. It is found in Alcmaeon, Oenipodes and Euripides.

23. T. Heath, *Aristarchus of Samos* (1931; repr. New York: Dover Press, 1981): 140-1, quotes Simplicius discussing *Republic* VII.529a-530b. 'It is on the authority of Sosigenes (Simplicius on *De Caelo* ii.12, 1292b10, p. 488-4 Heib.) that had it from Eudemus that Plato set the problem to find "what are the uniform and ordered movements by the assumption of which the apparent movements of the planets can be accounted for"'. Eudoxus was operating under this injunction when he formulated his concentric sphere hypothesis.

24. Heath (op. cit. n.23 above): 138, discussing *Republic* VII.529a-530b.

25. Pingree 1994: 78-9.

26. Pingree 1994: 79&n.20, *Hupotupôsis* I.I (Manitius 1909). Pingree is citing Proclus' *Hupotupôsis tôn astronomikôn hupotheseôn*, an exposition of Ptolemy's *Almagest*.

27. Segonds 1987: 169. Segonds points out that P. Festugière found the expression 'artificiellement machinées' or its equivalent pertaining to Ptolemy, in *Tim.* II.264.22; III.65.8; 96.19; 147.1 and in *Remp.* II.227.27-8; 229.9-11; 230.8-9; 223.23; 236.11. This documents Proclus' critique of Ptolemy as too centred upon mechanical models as opposed to astronomizing beyond the heavens as Plato had stipulated.

28. Lloyd 1991: 158 (Proclus, *Hupotupôsis* 236.18ff. and 236.25ff.).

29. Lloyd 1991: 258, quoting from Proclus, *Hupotupôsis* 154.27ff.

30. Lloyd 1991: 261&n.38.

31. Lloyd 1991: 262&n.44.

32. Lloyd 1991: 164.

33. Lloyd situates this whole discussion in a controversy concerning whether Proclus has an instrumentalist or realist approach to these matters, but acknowledges that in the *Commentary* his standpoint is a realist one and that motion of the stars and spheres is accounted for by a kind of fire. Proclus objects to mathematical models that are merely instrumental explanations (*Hupotupôsis* 236.18ff. and 236.25ff.).

34. Heath 1981: 314-16 discusses the 'great year' in relation to the Chaldaean estimation of the time period and the later estimates of Callippus, Aristarchus and Ptolemy, etc.

35. Discussed in Lloyd 1991: 273.

36. These discussions are documented by A.A. Long and D.N. Sedley in *The Hellenistic Philosophers* (Cambridge: Cambridge University Press, 1987), vol. 1: 296-7.

37. Here Proclus may be influenced by Plutarch's *On the Face in the Moon*, which Sambursky 1956: 205-6 calls the first essay in Astrophysics ever written. It draws arguments from dynamics and optics, 'which are remarkable for their advanced grasp of gravitation'. Plutarch in turn, may be influenced by the Stoic doctrine of the Pneuma, which exerts a cohesive force on the cosmos.

38. Siorvanes 1996: 282.

39. Sambursky 1956: 66 points out that for the Pythagorean scale of cosmic values, the centre was more 'honourable' than the non-central position. This reappears in Copernicus' book when he argues that the earth moves and the heavens are at rest. In fact Copernicus said, 'I would go further and say that it seems utterly incomprehensible to attribute motion to what contains and sustains and not to what is contained and sustained, i.e. the earth ...' (*On the Revolutions of the Heavenly Bodies* I.8). Sambursky contends that in this sense Copernicus remains a contemporary of the Ancient Greek scientists.

40. Blumenberg 1987: Part II, 241.

41. Dicks 1970: 44-6, 51.

42. *Phaedo* 108e3-9. Aristotle, *De Caelo* 295b30ff. mentions Anaximander as among the ancients who held that the earth remains at rest because it is in equilibrium (*homoiostatos*). The following are various translations of this term: 'similarity': C. Kahn, *Anaximander and the Origins of Greek Astronomy* (Indianapolis: Hackett, 1994): 79&n3; 'equilibrium': G.S. Kirk, J.E. Raven and M. Schofield, *The Presocratic Philosophers*, 2nd edn (Cambridge: Cambridge University Press, 1983): 134; 'equal distance': Cornford 1997: 165; 'equiformity': Dicks 1970: 44.

43. in *Parm.* VI.1120.4

44. Runia and Share (*CPT*, vol. II: 312n.596) inform the reader that Phanes means 'he who reveals' and point out the verb '*ekphainō*' which Proclus uses in this passage.

7. The World Soul: Animating the Universe from the Centre

1. See *De Anima* 1.4, 408b1-14 and *Physics* 406a12, 406b15, 406a3-4.

2. Gersh 1972: 24. Related to the triad Being, Life and Intellect.

3. M. Lenzi, 'Platonic Polypsychic Pantheism', *Monist* 80 no. 2 (1997): 239.

4. Chapters 10 and 11 below will discuss the many types of souls in the Iamblichean/Proclean world, both divine and mortal.

5. '*exêrêmenon*' is a term consistently used by Proclus for transcendence, stemming from the verb *exaireō*. As will be discussed in Chapter 10, this term, used for the One as transcendent, goes beyond Plato's *epekeina tês ousias* (beyond being). It is suggestive of a radical and supercosmic removal. It is best translated as 'exempt'.

6. *tarachôdês*: 'turbulence', 'upheaval' or 'disorder' are also possible translations of this term (Liddell and Scott, s.v.).

7. In this passage, Proclus states that the soul connects or provides continuity (*sunechê*) to the world. A complex 'semiotic' history attaches to this word, which may originate with Philolaus. In a fragment which Huffman regards as partially spurious but containing elements of Philolaus' genuine ideas, there is the following statement: 'Philolaus (says) that there is fire in the middle around the centre which he calls the hearth of the whole and the house of Zeus and mother of gods, altar, continuity and measure of nature (*sunechê kai metron phuseôs*)' (Aetius 2.779 0338 Diehls; Stobaeus, *Eclogue* 221.1d.1.196 Wachsmuth) (Huffman 1993: 395). The Pythagorean 'hearth' and tower of Zeus or guardian post of Zeus is a common notion in Neopythagorean and Pythagorean literature. Aristotle also alludes to it in his discussion of the Pythagoreans. According to Huffman, the term '*sunechê*' first appears in Aristotle and becomes more notable in Proclus and Damascius (see in *Eucl.* 96.17-18, for example). It was not necessarily used by Philolaus.

8. The cosmos is a sphere, penetrated and surrounded by Soul, Griffin 2006: 1-2, points out, using Simplicius' report of Proclus' passages on this subject. Proclus adds that the world is surrounded and penetrated by place acting as intermediary to soul. This 'place' can also be conceived as 'light' (Simplicius, *Commentary on Aristotle's Physics* 612.29-34; see J.O. Urmson (tr.), *Simplicius: Corollaries on Place and Time* (London: Duckworth, 1992)).

9. Aristotle makes these distinctions in *Physics* 6.1, 231a21-232a22. Wickstead and Cornford translate 'continuous', 'contiguous' and 'next in succession' (Loeb 1980 edition of Aristotle's *Physics*: 93). See *El. Phys. (Institutio Physica)* Def. I.2.

10. Nikulin 2003: 189; Kutash 2003: 214.

11. Further associations to this, such as the idea that place is 'light', as Griffin 2006 has brought out, make the trope concerning the 'veil' replete with meanings. Further, Proclus uses the 'veil' as in the veil of Athena or veil of contrariety: both of which are said to cover nature.

12. 'Touching' is one way to translate *haptomena*, but its exact interpretation as such is complicated. Touching can mean superimposition or edge-to-edge touching, and is as complex a matter even in contemporary physics. Proclus' terminology carries some of its complexities. For two things to have contact relates to causality as well. For two billiard balls to connect, one causing the other to move, there has to be contact. Do they occupy the same space at the same time at the moment of interaction, or is there always a point gap between them? How can they be in the same place at the same time? etc. See Marc Lange, *The Philosophy of Physics* (Oxford: Blackwell, 2002) on spatiotemporal locality. It is interesting to look at the term in Euclid where it can mean 'to touch' (Heath 1956, vol. II: 427) or to meet or even to lie on (in the case of geometrical figures). Several of the definitions in Book IV, Heath points out, use *haptesthai* to mean 'to meet', to touch, to lie on etc. (Heath 1956, vol. 2: 79). Book III Definition 2 in Heath (op. cit.) is an example: 'A straight line is said to touch a circle which meeting the circle and being produced, does not cut the circle (*Eutheia kuklou epaptesthai legetai hêtis haptomenê tou kuklou kai ekbballomenê ou temnei ton kuklon*)'. In Proclus' usage regarding the soul, it seems to equivocate between a discreet and a continuous contact.

13. Steel 1978: 70-1.

14. The notion of the soul as a ruler resonates with Chaldaean allusions. Lewy points out that Proclus and his school associate the centre with Hecate and designate the central position of Hecate between the two 'fathers' (II.283). Hecate is the third ruler and applies to the moon, which is always mentioned in the Chaldaean Oracles immediately after the sun and before the other planets. It also refers to the overlordship of the sublunary world. See Lewy 1956: 142-3. See also

Majercik 1989: 163. She explains that Hecate, identified with the centre of the moon, was also identified with the midmost of the three rulers or fathers.

15. At times Proclus sounds like Hegel, which may be one reason Hegel admired him. The self-constituted, which is also constituted from higher causes, suggests a kind of dialectic: in-itself, for-itself and from another in the course of its self-identity.

16. See Slaveva-Griffin 2009: 116&n.149. She cites VI.24: the soul is not divisible because its parts are not spatially separated.

17. Gersh 1973: 98ff.

18. Gersh 1973: 98n.1.

19. See Kutash 1994 on Proposition 20 of *El. Theol.* Dodds points out that Nous is an unmoved cause of motion, which is an Aristotelian idea, Plato associated Nous with motion in *Laws* 895c-896a. See Dodds 1963: 207.

20. Opsomer 2000b: 124. The 'self-moving' Soul is a solution to these *aporiae* when the idea of Demiurgy is added. Opsomer suggests that procession and timeless production can be understood only by a study of the Demiurgy, which steps in to mediate between timeless causes and effects in the world of perpetual change. As Opsomer points out, to account causally for the self-moved soul's moving power, motion must pre-exist in Intellect, albeit in an immobile way. 'Demiurgy is concerned with the passage from "unmoving motion" to "moving motion"' (Opsomer 2000b: 114). Demiurgy and becoming are linked, or as Proclus explains, citing *Philebus*, becoming is linked with the soul's activity (I.260.19.19-26).

21. Steel 1997: 295 points out that for Proclus, the Intellect constitutes the soul not by an act distinct from its essence, but *autô tô einai*, that is, by being what it is, a thinking intellect'. The Soul, then, possesses *logoi* in an active and living mode ('intellectualizing activity', as Steel describes (296)).

22. Gersh 1973 and an extensive discussion of spiritual movement by Opsomer 2000b: 114ff.

23. Gersh cites Armstrong's (1969) discussion of this problem in Plotinus, namely that Intellect should have no history but seems to have a life of intellectual travel and exploration. Gersh suggests that spiritual motion is a syncretistic doctrine embracing Platonic, Aristotelian and Stoic elements. Gersh 1973: 2-3&nn.1-3.

24. Gersh 1973: 14.

25. Dodds 1963: 207.

26. H. Cherniss, *Aristotle's Criticism of Plato and the Academy* (Baltimore: Johns Hopkins University Press, 1944): 413.

27. Gersh 1973: 25&n.3, 28-9.

28. Opsomer 2000b: 114 explains that Motion must pre-exist at the level of Intellect, but in an immobile way, to causally account for the self-movement of souls.

29. Siorvanes 1996: 136n.42.

30. Festugière uses the word 'reproduisant' here.

31. Taran 1987: 250n.100, 251. Taran points out that Proclus, when explaining how the soul in the *Timaeus* is both a unity and a plurality of parts, refers with approval to Xenocrates' conception of the soul as number (*in Tim* II.165.3-12), at least concerning Xenocrates' conception of the indivisible and divisible Being, to explain its unity and simultaneous multiplicity. Plutarch, *De Animae Procreatione in Timaeo* 1013Cff. also criticizes Xenocrates' view of soul as number. See R.M. Jones, *The Platonism of Plutarch* (Chicago: University of Chicago Press, 1909).

32. In *Timaeus*, the making of the world's soul is poetically described after the image of mixing together certain ingredients in a *kratêr* or mixing bowl, the vessel

in which wine and water are blended at parties (41d4). The Pythagorean conception of a musical scale (*harmonia*) as a blending (*krasis*) of the high and the low (*to oxu kai to baru*) according to definite mathematical ratios traditionally led medicine to an analogous conception of health in the body as a blend or *krasis* of the different supposed ingredients of the body in the right ratios, the body being thought of as a sort of instrument of many strings which is in tune in health but out of tune in disease. This analogy was extended from the body to the soul by the Pythagoreans. Echebrates in *Phaedo* sees the soul as just the tune or scale (*harmonia*) given out by the body. See A.E. Taylor, *A Commentary on Plato's Timaeus* (Oxford: Clarendon Press, 1928): 107.

33. Iamblichus, *De Communi Mathematica Scientia* IV.12.13 in R.M. Dancy, *Two Studies in the Early Academy* (New York: SUNY Press, 1991): 119.

34. Steel 1997: 295-7 quotes *El. Theol.* 194.168-70: 'Every soul possesses in its own essence all the forms which the intellect possesses primitively' (see also in *Parm.* 897.17-39). Steel explains (297) that divine souls are 'engaged in a permanent activity of thought without any interruption, *dei noousi*'. Particular souls, on the other hand, 'must be awakened by sense perception, before they can "project" their innate reasons'.

35. in *Eucl.* 96.12.

36. Iamblichus, *De Communi Mathematica Scientia I-III*, ed. N. Festa (Leipzig: Teubner): p. 13: *tês psuchês kai dunameis*.

37. *Meta.* 1036a9-12. Although, as Morrow points out in his introduction to the Euclid commentary (1992: 41n.5117), Proclus uses the term '*hulê phantastôn*' which is perhaps justified due to Aristotle's use of inclusion of *phantasia* as a form of *noêsis* (*De Anima* 433a10) and mentions an '*hulê noêtê*' in *Meta.* 1036a9-12.

38. in *Metaph.* 91.31-4: 'geometry aims to contemplate the actual partless reason-principles of the soul, but, being too feeble to employ intellections free of images, it extends its powers to images and extended shapes and magnitudes, and thus contemplates in them those former entities'. See also 186.17-23.

39. Husserl 1887: 160-1.

40. This is a way to approach the issue of the eternity of the world. Existing in time must come about through a beginning but eternity is its ground. The ungenerated eternal reality cannot be produced as a whole and production of its different products in the spacing of temporality is the province of Soul. See II.123.2-14.

41. *De Caelo* 236a10-13, for example.

42. There is a major difference between Proclus and Aristotle. Aristotle regards the circular motion of the heavenly bodies as eternal Being, while Proclus regards the same phenomena as perpetuity in time. The heavenly bodies for Proclus have eternal motion only in the sense that they are a generated infinite, in infinite time, but the eternal is atemporal and at rest. Circular motion is a special case of generated time as subordinate to Eternal Time, or Time as a Monad. The self-moving soul, as both subject to the Monad of Time and possessing a life in temporality, can mediate motion and rest. The soul's attraction to the intellectual as a source ensures circular motion (the only kind). The soul's life brings motion to the world; when it is connected with Intellect, it brings continuity to the world,

43. See *Laws* X.897d and *Timaeus* 37a-c6, where Plato describes the soul 'when it is concerned with the creation and the circle of the Same', 'spinning truly, declares the facts, reason and knowledge of necessity'. In other sections of the *Timaeus* the soul is described as subject to irregular motion, influenced by the body, and thus connected with the irrational. The soul when she reverts to Nous is said to move in a circle. It is interesting to note that Anaxagoras, who is an influential rhetorical predecessor of

Plato (Kutash 2001: 134-52) in fr. 12 says that Nous controls all things (*panton nous kratei*), and the 'whole rotation' (*perichoresios*).

44. As Sorabji points out (1982: 305).

8. Proclus' Golden Ratio: As Time is to Soul, so Intellect is to Eternity

1. *Enneads* III.7.13.58. In *Enneads* III.7.11, Plotinus says: 'It would be sense to say that Time is the life of the soul in a movement of passage from one way of life to another.'

2. Sambursky and Pines 1971: 12-13.

3. Dodds, Commentary on *El. Theol.* Prop. 53: 228.

4. O'Neill 1962: 162.

5. *El. Theol.* 103.92.13.

6. Gersh points out that those interpreters view the causal process in essentially logical terms, as does Grondijs (L.H. Grondijs, 'L'âme, le nous et les henades dans la théologie de Proclus', *Mededelingen der Koninklijke Nederlandse Akademie van Wetenschappen*, Afd. Letterkunde (1960) 23, 2: 29-42), and others see the process as the return of the effect upon the cause in a static, logical rather than dynamic sense (Gersh 1973: 14-15 and 14n.1, 15nn.2&5). Gersh discusses Beierwaltes' theory of 'dynamische Identität' (dynamic identity) as promising but not sufficiently elaborated. It must be explained, he asserts, in terms of complete and incomplete power and motion toward and away from the cause, as does Gersh himself (pp. 73-8). He contends that identity, difference and similarity can be related to dynamic concepts, for example, 'the logical category of difference is from another aspect the ascendancy of incomplete power' (74); further, 'identity and difference form the basis of the motion away from the cause, so does similarity form that of the motion towards the cause' (76). This description, tied to the triad of remaining, procession and reversion, and that of limit, infinity and mixture, is complete only when it takes power into account.

7. The complex terminology for Time can already be seen in Aristotle's account. In *Metaphysics* 1049, for example, he uses four different designations for four different types of time: *aiôn*, *aei*, *chronos* and *aidia*.

8. *Enneads* III.7. Armstrong (Loeb, 1980 repr. of 1967 edn): 337-43.9. Siorvanes 1996: 134.

9. Siorvanes 1996: 134.

10. Quoted by Siorvanes 1996: 135.

11. See *El. Theol.* Prop. 53, on eternity as a simultaneous whole.

12. *El. Phys.* II.6 l.

13. Siorvanes says that this term literally means 'twisting in a circular fashion', which heralds the path upward (III.20.25). Siorvanes 1996: 136n.42.

14. Mitchell H. Miller, *Plato's Parmenides* (University Park: Penn State University Press, 1982): 102-3, points out that Aristotle in *Physics* 6 discusses spatial magnitude, time and motion as isomorphic, such that either all three of them have an atomic structure or all three are continua. Miller suggests that Aristotle infers that one of the three is continuous because another is, in such statements as 'For because magnitude is continuous, motion is also continuous, and Time because of motion' (103n.63: *Phys.* 6.2, 219a12-13) (cf. 219b15-26 and 233a11-21).

15. Iamblichus in Simplicius in *Phys.* 792.20-795.3, Sambursky and Pines 1971: 43.

16. Simplicius' report of Iamblichus' view quoted from in *Phys.* 793.3-7. See

Sorabji 1983: 37n.13 and ch. 3: 'Iamblichus' Solution: Static and Flowing Time', wherein Sorabji compares McTaggart's A-Series and B-Series to Iamblichus' two-fold distinction.

17. As does the concept of an A-Series where the present is always the placeholder for a token reflexive point of reference. Given the Athenian School position, the A-Series that McTaggart has identified, of past, present and future, is, was and will be, reduces to a B-Series (earlier, simultaneous, later).

18. '*periodos ên arithmos perilambanei teleios*'.

19. Blumenberg 1987: 451.

20. Hans Reichenbach, 'The Philosophical Significance of the Theory of Relativity', in Herbert Feigl and May Brodbeck (eds), *Readings in the Philosophy of Science* (New York: Appleton-Century-Crofts, 1933): 206-7. Of course, these are very inexact analogies based on informal descriptions of modern physics.

21. *El. Theol.* Prop. 15 Dodds: 17-19.

22. See also III. 29.26-30: 'it is necessary that the movable nature of Time be circular; and proceeds with a dancing (or measured) motion, in order that it may not depart from Eternity and may itself revolve about the intellection of the father'.

23. R. Mohr, *The Platonic Cosmology* (Leiden: Brill, 1985): 65.

24. Husserl 1887, quoted by Derrida 1962: 28n.6. Husserl describes numbers as 'unique relation-concepts which can only be produced again and again and which are in no way capable of being found somewhere ready-made'.

25. Taran 1981: 422-31; Proclus, in *Eucl.* 78.3-8.

26. in *Parm.* 72k Morrow and Dillon 1987: 601&n.136.

27. O'Neill 1962: 161-5.

28. Proclus, *De Decem. Dub.* 5.30ff. Whittaker 1976: 163. Whittaker quotes Nicolaus of Cusa, *De Principio*, ed. J. Koch (Heidelberg, 1948): 102.

29. Gersh 1973: 93&n.3 discusses controversial views of *Pronoia*: is the intellect what is referred to, is it equivalent to the order of intellectuals as a whole or equivalent to Intellect in the Being, Life and Intellect triad? Gersh says this is possibly problematic in Proclus because it would require Proclus to ascribe *Pronoia*, in an equally fundamental sense, to the hypostases of Being and Life themselves, but he nowhere says so. Is it possible that this is resolved by Proclus' distinction between divine mind and divine thought?

30. One can recall here the image in the Myth of Er of *Republic*, of Necessity holding the world in its purview.

31. See Sir Thomas Heath, *Aristarchus of Samos* (New York: Dover Publications, 1981): 132-3, 171-3.

32. In a discussion I had with Peter Manchester he agreed that Proclus' Monad of Time has a similar connotation to his own description of Iamblichus' higher Time as 'mind-like in its unity, syntactical in nature and hence expressive in physical motion'. See Manchester 2005: 66.

33. This is a description by A.H. Armstrong, 'Dualism: Platonic, Gnostic, and Christian', in R. Wallis and J. Bregman (eds), *Neoplatonism and Gnosticism* (New York: SUNY Press, 1992): 42. He cites J. Trouillard who discusses this too in *La mystagogie de Proclus* (Paris: Les Belles Lettres, 1982): 247. See also *El. Theol.* Prop. 89-92; *Plat. Theol.* III.7-9.

34. David Park, *The Image of Eternity* (Amherst: University of Massachusetts Press, 1980): 102-3 recognizes that Proclus anticipated the laws of dynamics when it comes to Time, which in his opinion is two-fold, having a physical aspect represented in the equations of dynamics by the letter t, and the Time of human

consciousness and process. Dynamical laws, says Park, waited for more than a thousand years to again find expression.

35. in *Parm.* 1016.11.

9. 'The Sanctuaries of the Gods': The Ontological Status of the Lesser Pantheon

1. See Dillon 1990: 210. Dillon mentions Proclus' tolerant view of the variety and possibilities of translation of names.

2. Dillon 1977: 82-3. Dillon points out that in later Platonism, the Demiurge became a second God, and the role of *logos* was taken over by the World Soul in its active rational aspect. Mithras became associated in Middle Platonism with the Demiurge-Apollo.

3. Opsomer 2000a: 122n.68 and in *Tim.* I.407.21-408.2; II.146.9-14; II.198.2-11.

4. Opsomer 2000a: 118.

5. Opsomer 2000a. See also J. Opsomer, 'La demiurgie des jeunes dieux selon Proclus', *Les Etudes Classiques* 71 (2004): 5-49.

6. Opsomer 2000a: 124.

7. Dodds, Commentary on *El. Theol.* Prop. 151-9: 278.

8. Opsomer 2000a: 370-1.

9. Rappe 2000: 180ff. for a complete discussion of the significance of divine names and naming in Proclus.

10. Bussanich 2002: 39ff.

11. Gersh 1973: 2.

12. See Gersh 1973: 9 for a full discussion of self-sufficiency and spiritual motion.

13. Dodds, Commentary on *El. Theol.*: 189.

14. See G. Morrow, *Plato's Cretan City* (Princeton: Princeton University Press, 1993): 443.

15. Dillon 2003: 102&n.51. In the Derveni commentary on the Orphic Poems (col. Xxvi) Rhea is mother and daughter of Zeus.

16. See Kahn 2001: 115.

17. This is an excerpt from Nicomachus in Iamblichus, *Theologomena arithmeticae*. Proclus, we are reminded, claimed to be a reincarnation of Nicomachus (Marinus, *Life of Proclus* 28) (Kahn 2001: 116n.46).

18. See Dillon: 1976: 82-3.

19. See Athanassiadi 1999a, citing Iamblichus.

20. Plutarch's lost *Harmony of the Doctrines of Orpheus, Pythagoras and Plato with the Chaldaean Oracles*, as documented in the Suda, was undoubtedly required reading for the school.

21. Johnston 1990: 71.

22. Wallis 1972: 130-2.

23. Lewy 1956: 99-105 discusses *Aiôn* in great detail.

24. Lewy 1978: 104. Majercik, commentary on Chaldaean Oracles: 14.

25. Majercik (op. cit. n. 24 above): 15 (at III.13.23).

26. Majercik (op. cit. n. 24 above): 16n.37 cites Dodds, 'New Light on the Chaldaean Oracles', *Harvard Theological Review* 54 (1991): 266n.12. The quotation is from Lewy 1978: 696n.12.

27. Eros functions in the same way as the Connectors, Iynges and Intellectual supports. (Proclus does develop the Chaldaean notion of Divine Love to a full extent, envisioning both gods and men as moved by Eros to help those less perfect: in *Alc.* I.15.) Majercik (op. cit. n. 24 above): 16.

28. Lewy 1978: 483.

29. Procl. in *Remp.* II.201.10 (Kroll 28). See Lewy 1978: 88.

30. Lewy 1978: 88-9.

31. See Tarrant, *CPT* vol. I: 97n.28 commenting on I.5.25 where Proclus states, 'For we are in possession of active intelligence and rational soul that proceeds from the same father and same life-giving goddess as the universe'.

32. Proclus explains this in an elaborate account. In short, the progression is triadic (a triple-order progeny) through the peculiarity of conversion, and dyadic through the intervention of the infinite and indefinite. Somehow this resolves the brother (dyadic)-father (triadic) issue regarding levels of Demiurgy: first, second and third. See Gersh 2003: 152-3.

33. West 1999: 38-9 tells us that this indifference to singular or plural is ubiquitous in ancient writings, for example in Herodotus and Hippocrates and in Greek tragedy. He suggests that the assumption when someone says 'the gods' is that these gods act as a unanimous body.

34. J. Assmann, *Moses the Egyptian* (Cambridge, MA: Harvard University Press, 1997): 45. Assman contends that polytheism, rather than something primitive and tribal, in the ancient Near East represents highly developed cultural achievements inseparably linked to the political organization of the early state. This view, of course, can be extended well into late antiquity.

35. in *Crat.* 51.19.12-17. Van den Berg 2004: 195.

36. Rappe 2000: 171.

37. Athanassiadi 1999a: 178-81.

38. Assman 2006: 181.

39. Gersh 2003: 152.

10. All Too Mortal: The Proclean Soul and its Inability to Assimilate

1. The verb for touching that is used in many contexts in relation to Soul has a new application here in the arguments surrounding assimilation of the mortal soul.

2. Baltzly, *CPT* vol. III: 44&n.23; see also Chapter 4 above.

3. See Shaw 1995: 98-9. Shaw cites Steel 1978 as the source for this analysis of the soul as attributable to the Aristotelian doctrine that essences (*ousiai*) are revealed by activities (*energeiai*). See also G. Shaw (1997): 'The Mortality and Anonymity of the Iamblichean Soul', *Syllecta Classica* 8 (1997; 2nd edn 2002): 179, 180-1&n.20, citing Finamore 1985. Citing passages from *De Mysteriis*, Shaw explains that Iamblichean souls are ranked according to participation in essence and relation to the good. Human souls 'do not participate directly in the essential Good' (*De Myst.* I.5.37-40), hence their low rank. Proclus, according to Finamore, is relying on Iamblichus in giving mortal souls an inferior status.

4. See Sheppard 1982a, van den Berg 2003 and D. Baltzly, 'Pathways to Purification: The Cathartic Virtues in the Neoplatonic Commentary Tradition', in H. Tarrant and D. Baltzly (eds), *Reading Plato in Antiquity* (London: Duckworth, 2006).

5. This metaphor is used by Plotinus, *Enn.* VI.4.9.26-37.

6. Tarrant, *CPT* vol. I, 41&n.47 cites M. Atkinson, *Plotinus Ennead V.1: A Commentary with Translation* (Oxford: Oxford University Press, 1983): 185. Tarrant notes that according to Atkinson, 76% of the references to the *Theaetetus* in Plotinus are to this popular passage.

7. Finamore 1985: 33.

8. Finamore 1985: 62. Chapter III is a very complete discussion of these matters and the relationship of Iamblichus to Proclus' views. See pp. 54-87.

9. See Smith 1974: 66-8.

10. Sedley 1997: 334.

11. See van den Berg 2003.

12. van den Berg 2002: 160.

13. van den Berg 2002: 161.

14. Baltzly 2006: 171 points out that there is a series of virtues in the literature of late antiquity: cathartic virtues which entail ritual purification through the mysteries and through theurgy, civic virtues inculcated through education and laws stipulated in *Rep.* IV.429c, etc. He points out that Plotinus distinguishes between constitutional virtues and the cathartic or purificatory virtues. The civic virtues do not make us like god (I.2.3,8-11). Baltzly 2006: 171.

15. Siorvanes, 'Proclus on Transcendence', *Documenti e studi sulla tradizione filosofica medievale* 9 (1998) 1-19: 3.

16. The Greek verb (*exaireô*) was used by Homer and Herodotus to mean 'to lift up' or lift off the earth; or in the passive, 'to be raised' (as used by Plato in *Critias* to refer to the hippodrome which is carved out (*exêrêmenos*) of the island of Atlantis, for the purpose of forming a racecourse for horses). Interestingly the term is quite common in the New Testament to refer to excommunication.

17. Siorvanes (above) mentions some other usages, such as in *Parm.* 923.19-29 where Proclus uses it of forms in relation to their participants. Siorvanes' interpretation of the exempt or transcendent taking into account this usage is that *exêrêmenon* represents the superlative of its class, and is of the same kind as it. It is outstanding in the sense of excellence. I do not know if this interpretation is consistent with Proclus' use of *exêrêmenon* to refer to the Unparticipated as exempt, outside the universe of discourse of the participants.

18. Majercik, Commentary on Chaldaean Oracles: 3.

19. The use of *epekeina* can be seen, e.g., in Proposition 20 of *Elements of Theology*: *epekeina psuchê* is *noera* and *epekeina ton noeros* is *to hen*, etc. Here *to hen* is a prior cause and in fact Dodds translates it as 'prior to' locating them in a hierarchy of causality. When Proclus discusses *to hen* as the totally unparticipated, however, he calls it *exêrêmenon*, emphasizing its total otherness and discontinuity.

20. Hecate is the source for souls from her womb in the Chaldaean Oracles (fr. 28, 352,352). See Brisson 2002: 10-11.

21. *Noêsis*, again, stemming from the word *Nous*, has a long history in ancient philosophy.

22. Andrew Smith, 'Further Thoughts on Iamblichus as the First Philosopher of Religion', in T. Kobusch and M. Erler (eds), *Metaphysik und Religion* (Munich: K.G. Saur, 2002): 307-8 mentions a transcendent logic to govern relations about transcendent realities that is discussed by Iamblichus and is associated with Iamblichus' frequent allusions to the inadequacy of philosophical discourse for theology. Van den Berg's discussion of Marinus and the contemplative virtues (2003: 201) is helpful in understanding the Neoplatonic view that Proclus adopts concerning non-discursive reasoning for theology.

23. in *Parm.* 1208.

24. See Kant, *Critique of Pure Reason*, Antinomy of Pure Reason, Section 5 (for example), tr. Norman Kemp Smith (New York: St Martins Press, 1929) and Kant, *Logic*, tr. Robert Hartman and Wolfgang Schwarz (Indianapolis: Bobbs-Merrill Co, 1974): 109-10. Kant distinguishes between an affirmative, negative and infinite

judgment and points out that in an affirmative judgment the subject is thought as under the sphere of the predicate while in the negative judgment it is posited as outside the sphere of the predicate. In the infinite judgment it is posited in 'the sphere of a concept which lies outside the sphere of another'. The infinite judgment does not merely indicate that a subject is not contained under the sphere of the predicate but that it lies outside its sphere somewhere in the infinite sphere. Everything predictable is bounded, i.e. is either A or non-A. To say something is non-A, such as 'the human soul is non-mortal' is an infinite judgment. This type of judgment, according to Kant, 'does not determine under which concept the object belongs but solely that it belongs in the sphere outside which is actually no sphere at all but only the bordering of a sphere on the infinite', or limitation itself. Although this exclusion is a negation the act by which a concept is bounded is a positive act.

25. Reiner Schurman, Lecture in Early Medieval Philosophy at Graduate Faculty, New School for Social Research, 29 March 1990.

26. Shaw 1985: 6. Shaw suggests that Trouillard's chapter 'La théurgie' in his study *L'un et l'âme selon Proclus* is the best introduction to the worldview of Neoplatonic theurgy. See especially pp. 186-9.

27. *Plat. Theol.* I.25.5-7.

28. Smith 1974: 110-14.

29. Sorabji 1983: 152-3.

30. van den Berg 2002: 159-60 cites in *Platonis Alcibiadem* 228.1ff. (*Phaedrus* 248b2-3).

31. van den Berg 2003: 193-7.

32. van den Berg 2003: 191ff.

33. Shaw 1985: 11.

34. Iamblichus' *De Mysteriis*, despite E.R. Dodds considering it 'a manifesto of irrationalism' (1951: 287), has been described more appropriately by recent scholars as a masterful attempt to combine the teachings of revelation literature with those of Neoplatonism, and to give theurgic rites a philosophical basis (Clarke, Dillon and Hershbell, Introduction to their edition of Iamblichus, *On the Mysteries* (2003): xxvi-xxvii). Clarke, Dillon and Hershbell (xxvii) discuss the definitive difference between theurgy and magic, 'the latter being a process operating within the bounds of nature, manipulating and exploiting natural forces rather than demonstrating the secret power behind and beyond them (see *De Myst.* IX.1.273: X.3.288)'.
35. See Shaw 1985: 1 for a comprehensive discussion of Iamblichus and theurgy. Theurgy according to *De Mysteriis*, as Shaw describes it, employs ritual to subordinate man to the divine will: the opposite of sorcery, which tries to subordinate the gods to man's desires. Theurgic rites revealed vestiges of a divine presence which he could enter through ritual actions.

36. Majercik, Commentary on Chaldaean Oracles: 30-1.

37. Baltzly 2006: 173.

38. Shaw 1993: 120.

39. Finamore 1985: 63.

40. Anne Sheppard identifies three levels of theurgy in Proclus, and argues that the last and highest type of theurgy is the one that brings about the mystical union with the One. Van den Berg quotes *Chal. Phil.* fr. 2 p. 207 to the effect that we cannot please the father 'with an empty storm of spoken words' or 'a fantasy of (ritual) acts embellished with art'; the only form of true worship consists of unification with him. These passages seem to imply that ritual theurgy only works up to the level of the noetic and noeric gods. Van den Berg sees Proclus' hymns as

theurgic devices that aim at unification with Nous, which corresponds to the second type of theurgy in Sheppard's division. Sheppard 1982a: 221; van den Berg 2001: 78n.50.

41. Lewy 1978: 414.

42. Plotinus, *Enn.* VI.4.9.26-7 uses this metaphor.

11. Man as a Microcosm: Providence, Fate and the Soul's Descent

1. van den Berg 2003: 191 translates this passage and comments on it.

2. In Iamblichus, *De Myst.* 1 there are the 'more excellent genera' and in descending order, gods, daimones, heroes and (embodied) souls. In *De Myst.* 2.3 Iamblichus lists other intermediary entities which expand the hierarchy of genera to gods, archangels, angels, daimones, heroes, sublunary archones, material archones and human souls. *De Myst.* 1.5 describes daimones and heroes in detail. Heroes are superior to souls in power, virtue, oral beauty and greatness, mediating immortality and the mortal world, daemones are inferior to gods but make manifest what is without form.

3. Proclus, *On Providence*, tr. Steel: 42.

4. This is a doctrine that is associated with *Timaeus* 41c and 41e, regarding Providence in the realm of human affairs.

5. Sharples 2003: 108-9 quotes ps-Plutarch, *De Fato* 9 572F-573A, for example, a middle Platonic work, pseudo-epigraphic, but associated with Plutarch of Chaeronea. There is a highest and primary Providence as the thought of the first god, a second Providence of the 'secondary gods who travel in the heaven', and a third Providence which is the forethought of the daemons who are stationed in the region of the earth and are guardians and watchers over human affairs. Sharples also quotes Nemesius, *Nat. Hom.* 43.125.21-126.12, stipulating the same distinctions.

6. Finamore 1985: 60ff. Iamblichus, *De An.* I.377.115-29.

7. Finamore points out that there is a problem with the meaning of the phrase 'the sowing of the vehicles'. Dillon (199) translates it 'the sowing of (the souls) into vehicles', but Proclus, who is the source of Iamblichus' fragment, considered the sowing a 'second distribution of souls under the divine circulations' (III.276.8-9).

8. Literally 'to make resembling'.

9. van den Berg 2002: 160.

10. in *Tim.* fr. 87.

11. See G. Fowden, *The Egyptian Hermes: A Historical Approach to the Late Pagan Mind* (Princeton: Princeton University Press, 1993): 135. Iamblichus' interlocutor poses as an Egyptian prophet called Abammon. This was a convention in late antiquity. Porphyry's Anebo, for example, in his attack on theurgy was an Egyptian priest. The Chaldaean Oracles themselves consist of Platonist ideas, mixed with Stoic and Pythagorean ones. It was not unusual in the second century to mix elements of Iranian, Babylonian and Syrian origin, 'for the Chaldaeans, in Greco-Roman usage, were the astronomer priests of Babylonia' (Fowden loc. cit.)

12. Siorvanes 1996: 131&nn.27&28. The role of the 'vehicle' in this discussion has an interesting history in the texts of late antiquity. It draws upon an archaic and obscure doctrine held by Porphyry, Iamblichus and Syrianus. Siorvanes points out that Proclus was the one who systematized the theory of vehicles, and the term 'astral body-vehicle' seems to be original to him and may not be found earlier. See Dodds, 'The Astral Body in Neoplatonism', an appendix to Proclus' *Elements of*

Theology; Finamore 1985; J. Trouillard, 'Reflexions sur l'ochema dans les "Éléments de théologie" de Proclus', *Revue des Etudes Grecques* 70 (1957): 102-7.

13. Siorvanes 1996: 133.

14. This is similar to Jewish theology, which espouses a 'tikkun ha-olom', a healing of the world through the righteous acts of humans. This concept grew out of Lurianic kabbalism but is now common parlance in Jewish thought.

15. Gersh 1973: 68.

16. *De Myst.* V.15-20.

17. Fowden (op. cit. n. 11 above): 128.

18. Steel, tr. of Proclus, *On Providence*: 51&n.97, citing Chaldaean Oracles fr. 102, *Theol. Plat.* V.32.119.12; in *Tim.* III.271.16-17.

19. Proclus, *De Decem. Dub.* 5.30ff.; Whittaker 1976: 163.

20. See Steel's introduction to Proclus, *On Providence*: 25 for commentary on this quotation from *El. Theol.*

12. Beyond Plato: Nature, 'Woven by the Intellectual Light of Athena'

1. Baltzly and Tarrant, *CPT* vol. I: 11.

2. H.J. Kramer, 'The New View of Plato', *Graduate Faculty Philosophy Journal* 19.1 (1996): 25-41.

3. Sara Rappe has pointed out that the philosophers of late antiquity were aware of a 'non-doctrinal' Platonism. She cites passages from Olympiodorus and Damascius where they refuted what must have been sceptical interlocutors who read a non-dogmatic Plato. Rappe rightly comments that 'the issues of textual practice, of dogmatism and exegesis were very much alive for the ancient students of Plato, just as they are for us today' (p. 11). Proclus, on the other hand, had a dehistoricized Plato that is, she claims, 'yet another exponent of the *philosophia perennis*'. See Rappe 2000: 169.

4. C.H. Kahn, 'The Philosophical Importance of the Dialogue Form for Plato', *Graduate Faculty Philosophy Journal* 26.1 (2005): 27.

5. Kenneth Sayre (*Plato's Late Ontology* (Princeton: Princeton University Press, 1983): 256-67) has an appendix concerning the stylometric dating of the *Timaeus* which adequately covers some of these issues. He points out that before 1953, the stylometric investigations of Lutoslawski placed *Timaeus* and *Critias* along with *Laws* as the last dialogues. G.E.L. Owen (*The Place of the Timaeus in Plato's Dialogues*, repr. R.E. Allen, *Studies in Plato's Metaphysics* (London: Routledge & Kegan Paul, 1965)) placed it before the *Theaetetus*. Sayre, who mistrusts stylometrics (as do many others), regards the relative position of *Timaeus* and *Parmenides* as controversial. Sayre himself opts for *Parmenides I* written substantially before *Parmenides II* with *Timaeus* written between them. His idea of Plato's ontological development warrants careful attention to dating. Proclus, by contrast, would see all of Plato as of one cloth. Proclus' non-developmental view is an alternative that does not require chronological accuracy.

6. Gersh 2003: 145&n.9.

7. Gersh 1973: 55n.1.

8. Peters 1967: 56: 'Since function is the end, *energeia* is obviously related to *entelecheia* (q.v.), being in a state of completion and has, for Aristotle, priority in his discussion of substance.' Peters remarks further that 'the eternal movement of the heavenly bodies, being eternal, is pure *energeia*' (no *dunamis*). The Prime

Mover's pure *energeia* is *noësis*; Life is the *energeia* of *nous* (the Prime Mover) (*Meta.* 1072b), etc.

9. Cleary 2000: 70-1.

10. *Philebus* 16e1-3.

11. Pingree 1994: 78.

12. Robert S. Brumbaugh, *Plato's Mathematical Imagination* (Indiana University Press, 1954): 78 points out the upward spiral of the state, following the introduction of temperance as the result of improved education, balances the inevitable cyclic downward spiral (presented in the nuptial number image of Book VIII of *Republic*).

13. When irrational movements calm down and pursue their own path becoming more stable as time proceeds, then 'as the several circles move each according to its natural track, their revolutions are straightened out and they announce the Same and the Other aright and thereby they render their possessor intelligent. And if so be it that this state of his soul be reinforced by right educational training, the man becomes wholly sound and faultless' (*Tim.* 44b4-c3).

14. There is precedent for this in Presocratic cosmology. Anaxagoras, who is a rhetorical predecessor of Plato, says in fr. 12 that *Nous* controls all things and the 'whole rotation, so that it began to rotate in the beginning'. See my 'Anaxagoras and the Rhetoric of Plato's Middle Dialogue Theory of Forms', *Philosophy and Rhetoric* VII.26, 2 (1993).

15. *De Caelo* 236a 10-13, for example.

16. Dillon 1997: 379.

17. See Chapter 5 n.12.

18. *Phys.* 206a3-208a5.

19. *Meta.* 1072b13-1073a13.

20. See Morrow and Dillon, Introduction to *Commentary on Parmenides*: xxviii ff., for a full discussion of '*apeiron*' in the *Anonymous Commentary*, attributed to Porphyry, in Iamblichus and Plotinus (*Enn.* VI.9.5 (the One is infinite in Power)).

21. in *Metaph.* 112.16-22: 'After the super-essential One, there were two principles of everything, the Monad and the Dyad of infinite potency (*apeirodunamos*), and they apportioned these principles at each level of being in the mode proper to each.'

22. See *El. Theol.* Prop. 90-4 and Dodds' comments: 246-9. (Also in *Tim.* I.453.19: 'Infinity in relation to power is found among divine beings and in the cosmos, for to be inexhaustible and ever-flowing is the property of infinity in relation to power.') Dodds mentions the following references to infinity, an important principle of the Athenian School: Syrianus, in *Metaph.* 112.14ff.; Proclus, in *Tim.* I.176; in *Parm.* 1119ff. and *Plat. Theol.* I.III, vii-ix. Proclus rejects Plotinus' view (*Enn.* II.4.15) that infinity is intelligible matter. Proclus posits a First Infinity that comes directly after the one and before Being.

23. in *Parm.* VI.1120.14-16.

24. in *Parm.* VII.1172.28.

25. For Proclus generation in nature has developed beyond Plato; it includes accounts of genesis that derive from Aristotle as well. Proclus had the advantage, in his education, of reading *De Gen. et Corr.* where Aristotle discusses the never-ending cycle of genesis (II.331a, 337a).

26. Hans-Joachim Kramer 1996: 36-7 relates the systematic reading of Plato and modern theoretical sciences: the theory of meta-predicates to predicate logic; linguistic theory to Hilbert's methodological difference between regression and progression; the Platonic model of natural number's derivation from unity and

multiplicity. Vittorio Hösle makes the observation that Platonic duality as a second principle suggests the idea of a binary system of logic, 'That the Platonic Academy knew of antinomies comparable those of modern set-theory has been sufficiently shown by contemporary discussions of the problems of infinite regress and self-predication.' Kramer cites the Russellian theory of types, which prevents infinite regress, and Von Weizsacker's work that relates doctrines of Plato and both the quantum theory and the general programme of a deductive science of nature. See also C.R. Kordig, 'The Mathematics of Mysticism: Plotinus and Proclus', and R. Brumbaugh, 'Cantor's Sets and Proclus' Wholes', both in R. Baine Harris (ed.), *The Structure of Being* (Albany: SUNY Press, 1982).

27. Proclus, *De Decem. Dub.* 5.30ff. Whittaker 1976: 163.

28. R.E. Allen, *Plato's Euthyphro and the Earlier Theory of Forms* (New York, Humanities Press, 1970): 58 uses this phrase.

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