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Svetla Slaveva-Griffin

Plotinus on Number

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To Don
for his undying optimism

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Behind every book lies a personal story. The final result printed on these pages has transcended, for me, the bounds of intellectual satisfaction to become a celebration of life. As a survivor of leukemia, I regard this book as not only the result of my scholarly research, but as a symbol of my victory over a disease that nearly claimed my life. First I would like to thank my family for everything they have done for me: my husband, Donald Griffin, for always hoping that things will turn out for the better and for participating wholeheartedly in every stage of this project; my son, Youlian Simidjiyski, for reading sections of the manuscript with the uncompromisingly critical eye of a theoretical mathematician; and my mother, Lubomira Lazarova, and my brother, Tsvetomir Ross-Lazarov, for being next to me in all the important moments of my life. I would also like to thank my colleagues and friends at the Florida State University for their kind understanding and unfailing support. My intellectual debt is immense and goes to mentors, colleagues, and friends: John Finamore, John Dillon, the late Henry Blumenthal, Luc Brisson, Suzanne Stern-Gillet, Kevin Corrigan, David Depew, Sarah Pessin, Emilie Kutash, and Russ Dancy, who have read, commented on, or discussed in person different sections of the work. My warmest gratitude goes to the anonymous reviewers whose invaluable suggestions have strengthened and expanded the manuscript, to my colleagues Kathryn Stoddard and Nancy de Grummond for saving the text from my non-English idiosyncrasies, and to Nikolay Balov, who designed the figures with the inspiration of a mathematician and an artist. I would also like to thank Christopher Pelling for encouraging me in this enterprise, Stefan Vranka for his editorial expertise, and my copy editor, Eileen Markson, for her expeditious and meticulous work. This project has benefited from two major research grants from the Florida State University, which enabled me to complete the manuscript in the ideal atmosphere of the Firestone Library at Princeton University in

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Aware that words are but a pale expression of the self, I move on.

CONTENTS

ABBREVIATIONS

The abbreviations are according to H. G. Liddell, R. Scott, and H. R. Jones, *A Greek-English Lexicon*. Oxford: Clarendon Press, 1996.

Ar.	Nicomachus of Gerasa. *Arithmetica Introductio*. Ed. R. Hoche. Stuttgart: B. G. Teubner, 1846.
Comm.Math.	Iamblichus, *De Communi Mathematica Scientia*. Ed. U. Klein. Leipzig: B. G. Teubner, 1894.
D-K	*Die Fragmente der Vorsokratiker*. 6th ed. Eds. H. Diels and W. Kranz. 3 vols. Berlin: Weidmann, 1951–1952.
Enn.	*Plotini Enneades*. Eds. P. Henry and H.-R. Schwyzer. 3 vols. Oxford: Clarendon Press, 1964–1983.
Epin.	*Epinomis* in *Platonis Opera*. Ed. J. Burnet. 5 vols. Oxford: Clarendon Press, 1900–1907.
Expos. rer. math.	*Philosophi Platonici Expositio Rerum Mathematicarum ad Legendum Platonem Utilium*. 2nd ed. Ed. E. Hiller. Stuttgart: B. G. Teubner, 1995.
Metaph.	*Metaphysics: A Revised Text with Introduction and Commentary*. 2 vols. Oxford: Clarendon Press, 1924.
Ph.	*Physics*. Ed. W. D. Ross. Oxford: Clarendon Press, 1936.
Phlb.	*Philebus* in *Platonis Opera*. Ed. J. Burnet. 5 vols. Oxford: Clarendon Press, 1900–1907.
Prm.	*Parmenides* in *Platonis Opera*. Ed. J. Burnet. 5 vols. Oxford: Clarendon Press, 1900–1907.

R.	*Respublica* in *Platonis Opera*. Ed. J. Burnet. 5 vols. Oxford: Clarendon Press, 1900–1907.
Sph.	*Sophista* in *Platonis Opera*. Ed. J. Burnet. 5 vols. Oxford: Clarendon Press, 1900–1907.
Theol. Ar.	*Theologoumena Arithmeticae*. Ed. V. de Falco. U. Klein rev. Leipzig: B. G. Teubner, 1975.
Tht.	*Theaetetus* in *Platonis Opera*. Ed. J. Burnet. 5 vols. Oxford: Clarendon Press, 1900–1907.
Ti.	*Timaeus* in *Platonis Opera*. Ed. J. Burnet. 5 vols. Oxford: Clarendon Press, 1900–1907.
VP	Vita Plotini in *Plotini Enneades*. Eds. P. Henry and H.-R. Schwyzer. 3 vols. Oxford: Clarendon Press, 1964–1983.

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Introduction: One by Number

Plotinus' concept of number and *Ennead* VI.6 are not among the mainstream topics in Neoplatonic scholarship. In the general introductions to Plotinus' philosophy, both of them usually lie either buried in the footnotes or hidden in the context between the lines.[1] This should be surprising, however, because Plotinus makes number the primary activity of substance, which orders the unfolding of the universe from its absolute source into a finite multiplicity. More important, number, as underlying the existence of Intellect and Being, is the building block, so to speak, of the intelligible realm. If number has such a paramount ontogenetic role in the intelligible, it seems strange that it does not figure more prominently in all scholarly presentations of Plotinus' architecture of the universe. I can find no reason for this omission other than to suspect that the concept has been simply overlooked, despite the red flags raised in more specialized studies of Plotinus' ontology. This book, therefore, aims at filling the current gap in the scholarship by demonstrating the primary role of number in Plotinus' philosophy and its significance for Porphyry's organization of the *Enneads*.

A perspicuous understanding of any Plotinian concept inevitably requires a consideration of the subject from the Presocratics to the Neopythagoreans. It is particularly difficult to grasp Plotinus' understanding of number, because of the controversial nature of the concept in the philosophical tradition before him and especially because of Plato's enigmatic view that the Forms are numbers.

Historical and Philosophical Background

The question of how to explain the overwhelming diversity in physical reality and the underlying principle of order in it is the foundation of ancient philosophy. The concepts of multiplicity and number are concomitant with the development of Greek philosophical thought itself. From the sixth century B.C.E. to

1. Omitted in Bréhier (1958), footnoted or slightly referenced but not discussed in O'Meara (1993) and Gerson (1994, 1996), briefly mentioned or summarized in Corrigan (2005: 37, 181).

the fifth century C.E., from the early Presocratics to the late Neoplatonists, every philosophical school has striven to explain the tangible order of multiplicity.

Very generally, the ancients conceived of the universe as a multiplicity of material elements that are organized in a sense-perceptible way by intelligible principles. In these terms, one side of the above question is cosmogonical, as it searches for the origin of multiplicity from some physical or metaphysical source. Another side is cosmological, as it searches for a way to explain the innumerable diversity of material world in an orderly fashion. Yet a third side of it is epistemological, as it attempts to comprehend the visible and invisible constituents of the universe in a rational form. The concepts of multiplicity and number seem to be innately related as a pair, if not completely of opposites, at least of opposite nature. Multiplicity denotes the innumerable, discrete, and continuous things that exist; number conveys the notion of limited, ordered, and defined multiplicity.

The Pythagorean maxim that "all is number" best captures the philosophical background of the two concepts.[2] The understanding of the universe as a unity of one and many begins with the early Presocratics' search for the primary originative substance (*archê*) as the source and the unifying element of physical reality.[3] Next, the Pythagoreans postulate that numbers organize the universe in one harmonious unity, which is interwoven by unlimited (*apeira*) and limiting (*perainonta*) elements.[4]

Later philosophers said that Plato "Pythagorizes."[5] In the *Metaphysics,* Aristotle compares and distinguishes the philosophical views of Plato and the Pythagoreans.[6] According to him, the doctrines that numbers are the causes of the substance of everything and that unity is a substance, not an attribute, of that which exists, are similar. The doctrines that numbers exist apart from the sensibles, that mathematical objects are an intermediate class between sensibles and nonsensibles, and that the indefinite is a dyad "of great and small," are different. With the exception of the last pronouncement, as will be discussed at length later,[7] Aristotle's list is quite accurate and has influenced the reading of Plato for all generations to follow.

2. Strictly speaking, Philolaus, in his later years a contemporary of Plato, is the first Pythagorean for whom we have written evidence for a doctrine of numbers (Zhmud' 1989).

3. Successively, the originative principle is water for Thales, the indefinite for Anaximander, and air for Anaximenes.

4. D-K 44B.2: Ἀνάγκα τὰ ἐόντα εἶμεν πάντα ἢ περαίοντα ἢ ἄπειρα ἢ περαίοντά τε καὶ ἄπειρα.

5. Pseudo-Plutarch, *Placita Philosophorum* 887c4 (in *Moralia*, vol. 5); Eusebius, *Praeparatio Evangelica* 15.37.6.1; Cicero, *De Finibus* 5.87.4–9. Burkert (1972: 15).

6. *Metaph.* 987a29ff.

7. See chapter 3.

The *Timaeus* and the *Philebus* contain dominant Pythagorean themes.[8] For anyone who is interested in the Pythagorean elements in Plato, the *Timaeus* comes first to mind with the stark mathematical explanations of the psychogony (*Ti.* 34b10–36d7), the creation of time and the celestial clock (*Ti.* 37c6–39e2), and the construction of the four primary bodies (*Ti.* 53a2–55c6). The origin of Plato's interest in Pythagoreanism and arithmogony is not perfectly clear. It is clear, however, from *Phlb.* 16c5–10, that Plato considers the Pythagorean cosmological view that everything which exists consists of one and many and has in its nature a conjunction of Limit (*peras*) and Unlimited (*apeiria*) to be primary for the understanding of the universe. He even compares the importance of Pythagoras' teachings to Prometheus' gift of fire.[9] In the dialogue, Plato transforms Socrates' initial perspective that any generic unity (One) contains a definite number of "kinds" (Many) "mediating between itself and the infinity of particulars into which it ultimately vanishes"[10] from logical into ontological. His search for the intelligible paradigm that underlies physical reality originates from the Pythagorean view that Limit "orders and 'informs' the unintelligible 'chaos' of the Unlimited (*apeiron*)."[11]

In addition to the Pythagorean cosmogonical and cosmological themes in the *Timaeus* and the *Philebus,* the *Parmenides* raises the ontological questions of unity (one) and multiplicity.[12] It investigates eight possible ways, commonly known as hypotheses, of understanding the relationship between one and many, of which the first two are considered to be of primary significance for Plotinus' ontology. The first hypothesis (*Prm.* 137c4–142a8) demonstrates that the unity of one (*to hen*) absolutely excludes any predicates and therefore plurality, including even the predicate of being one, in a series of deductions, the most popular of which state that the one is not a whole and yet it does not have parts; it does not have a beginning nor an end, nor does it have shape or place; it is neither in motion nor at rest, and neither is it

8. The chronology of the works has been long debated and there is no prospect of settling it soon. The general consensus, reached not too long ago (Zeyl 2000: xvi–xx), is that the dialogues belong to Plato's later period. See W. Guthrie (1978: vol. 5, 241–244).

9. *Phlb.* 16c5–10: Θεῶν μὲν εἰς ἀνθρώπους δόσις, ὡς γε καταφαίνεται ἐμοί, ποθὲν ἐκ θεῶν ἐρρίφη διά τινος Προμηθέως ἅμα φανοτάτῳ τινὶ πυρί· καὶ οἱ μὲν παλαιοί, κρείττονες ἡμῶν καὶ ἐγγυτέρω θεῶν οἰκοῦντες, ταύτην φήμην παρέδοσαν, ὡς ἐξ ἑνὸς μὲν καὶ πολλῶν ὄντων τῶν ἀεὶ λεγομένων εἶναι, πέρας δὲ καὶ ἀπειρίαν ἐν αὑτοῖς σύμφυτον ἐχόντων.

10. Hackforth (1945: 20–21).

11. Hackforth (1945: 21).

12. The *Parmenides* predates, with more certainty, the *Timaeus* and the *Philebus.*

the same as, nor other than, itself. Exposing the self-contradictory nature of the first hypothesis, which denies even existence to a one, The *Parmenides* proposes a second hypothesis (*Prm.* 142b1–151e2), which suggests that the one consists of unity (*to hen*) and being (*ousia, to einai,* and *to on*). This hypothesis allows the one to partake of being "which qualifies it for a wide range of attributions considered in relation to other things,"[13] thus implying that being partakes of multiplicity. The final result of the second hypothesis, which is most important for our investigation, is that one, as unity, and multiplicity interact at an ontological level, especially as represented in Plotinus' concepts of the Indefinite Dyad and Intellect.[14]

In Plato's so-called unwritten doctrines (*agrapha dogmata*),[15] the concepts of one and many crystallize as the principles of all things: a One and an Indefinite Dyad.[16] The two principles are in the foundation of Platonic metaphysics and shape the interpretation of Plato's written works by both Platonists and Peripatetics. The immediate successors of the Academy, Speusippus and Xenocrates, face the challenging and yet inspiring task of explicating the meaning of Plato's first principles in light of Aristotle's criticism in *Metaphysics* M and N that numbers are not beings and do not have intelligible substance.

Speusippus renames Plato's principles of a One and an Indefinite Dyad as a One and Multiplicity (*plêthos*) and refines the derivation of beings from them into a system that is best documented in Iamblichus' *De Communi Mathematica Scientia* (*Comm. Math.*) chapter 4, if we accept, with Dillon and Merlan,[17] Speusippus' authorship. According to this system, the first level of reality that derives from the union of a One and Multiplicity is the first principle of number, which in turn unites with multiplicity once again

13. Sayre (1996: 271).

14. The subject of chapter 3.

15. The debate over the relationship between Plato's written works and his "oral unwritten doctrines" is ceaseless. Although I am sympathetic with Krämer's position (1990: 177) that the direct and indirect Platonic traditions "have a reciprocal relationship" and are "in agreement and partly coincide, partly complete one another," I believe, with Dillon (2003: viii), this relationship to be more "fluid and developmental." For a detailed survey of the issue, see W. Guthrie (1978: vol. 5, 418–442).

16. Simplicius, *In Metaph.* 187a: "Alexander says that 'according to Plato the One and the Indefinite Dyad, which he spoke of as Great and Small, are the Principles of all things and even of the Forms themselves.' . . . It is very likely that Plato made the One and the Indefinite Dyad the Principles of all things, since this was the doctrine of the Pythagoreans whom Plato followed at many points."

17. Dillon (2003: 41) and Merlan (1960: 98–140).

to produce the sequence of numbers and geometrical figures. In this process, oversimplified here, the One imposes limit and quality onto Multiplicity, being infinite divisibility. As will be analyzed at length in chapter 3, Aristotle interprets multiplicity quantitatively as multiplicity of units and number as a composition of units, while Speusippus and, in retrospect, Plato view them as ontologically primal.[18]

Speusippus' successor as the head of the Old Academy, Xenocrates, understands the two first principles as the Monad and the Dyad. The former is characterized as male and Intellect, the latter as female and an Indefinite Dyad containing multiplicity (*plêthos*) and unlimitedness (*apeiria*).[19] From the union of these two principles derives a World Soul, which is the "creative repository of the Forms, and projector of them onto the physical plane."[20]

The metaphysical schemes of Speusippus and Xenocrates construct, very much in the manner of Plato's *Philebus,* the universe as a product of the imposition of Limit onto the Unlimited. Although they adopt Plato's two first principles, they take opposite views of the place of the Forms in their systems. In this respect, Aristotle's summary of the Platonic positions on the issue has gained the popularity of a "purple passage" in every book on the history of philosophy and deserves to be mentioned in this survey too: "some [sc. Plato] recognize these as two classes—the Forms (*ideas*) and the mathematical numbers (*mathêmatikous arithmous*)—and others [sc. Xenocrates] regard both as having one nature (*mian physin amphoterôn*), and yet others [sc. Speusippus] hold that only the mathematical substances are substances (*mathêmatikas monon ousias einai*)."[21] Aristotle adds Plato to the rift between Speusippus and Xenocrates on the issue of the relationship between the Forms and numbers in order to compose the big picture of the debate. Speusippus' radical rejection of Plato's Forms in favor of numbers as the ontological reality that fashions the material world is not so much a conceptual negation of Plato's Forms as it is an aftermath of the difficulty of the problem itself. Perhaps forced by Aristotle's avid criticism, Speusippus decisively makes numbers to be the intelligible paradigm of the universe. Xenocrates, in his turn, perhaps in response to Speusippus' position, takes a moderate path by arguing that the Forms and numbers have the same nature, that is, have ontological value. For Aristotle, of course, the ontological relation between the Forms and numbers is an insurmountable stumbling block because, for him, numbers have only arithmetical and quantitative value. Aristotle's position

18. *Metaph.* 1085b; see chapter 3.

19. Plutarch, *De Procreatione Animae* 1012d–1013b and *De Defectu Oraculorum* 409e. Dillon (2003: 99).

20. Dillon (2003: 107).

21. *Metaph.* 1076a19–22. Dillon's translation and brackets (2003: 108).

on the question of number and being offers a suitable point to conclude the survey of the philosophical background of the concepts of number and multiplicity before Plotinus, as we will return to examine it in chapter 3.

The conflation of the universal order and the concept of number, and the ensuing debates thereon, shape the course of Middle Platonism and lead to the revival of Pythagoreanism in the first and second centuries,[22] resulting in the Neopythagorean teachings of Moderatus, Nicomachus, Numenius, and Ammonius Saccas. Unfortunately, the paucity of biographical information about them and the fragmentary nature of their extant works, with the exception of Nicomachus' *Arithmetica Introductio (Ar.),* present a major obstacle not only for understanding their views but also for elucidating Plotinus' immediate philosophical background. In *Vita Plotini (VP),* Porphyry emphasizes that the originality of Plotinus' thought surpasses the philosophical acumen of his Neopythagorean predecessors or contemporaries.[23] As chapters 1 and 2 will demonstrate, the Neopythagorean influence on Plotinus' concepts of number and multiplicity is crucial, if not absolutely vital. Both Moderatus and Nicomachus coin definitions of number that lie in the foundation of Plotinus' view of multiplicity and its dynamic state of unfolding and enfolding.

In the third century, Plotinus stands at the important crossroads of confluent and sometimes conflicting influences of Platonic, Neopythagorean, and Aristotelian thought.[24] As a devoted Platonist and a student of the Neopythagorean Ammonius Saccas, Plotinus, while rejecting Aristotle's quantitative view of number, is naturally inclined to give numbers a more prominent ontological role in the structure of the universe.

Plotinus' Philosophy, Concept of Number, and *Ennead* VI.6: Difficulties

Before the difficulties with Plotinus' concept of number and *Ennead* VI.6 are introduced, it may be helpful to sketch, in broad strokes, the big picture of his philosophical system. Plotinus conceives of the universe as a unity-in-multiplicity that is hierarchically ordered by three underlying principles of existence (*hypostases*). The first principle is the One—itself simple, completely unified, nondiscursive, supranoetic, the single source from which everything exists. The second principle is Intellect, containing the intelligible principles

22. All dates refer to the Common Era unless noted otherwise.

23. *VP* 17–21. Discussed in chapter 2.

24. The debate on whether the Forms are numbers very much shapes Aristotle's criticism of Platonic philosophy and his (usually acerbic) relationship with Plato's immediate successors Speusippus and Xenocrates.

of physical reality. Intellect comes into existence by contemplating the One and by comprehending itself as homogenous multiplicity that possesses one and the same nature. The third principle is Soul, which translates the intelligible principles into sense-perceptible reality. Soul is also a principle of multiplicity, but it has a heterogeneous nature. Parts of it pertain to the intelligible realm, and parts of it associate with the material realm. These three hypostases organize the multiplicity of the universe in one unified organism that unfolds from and enfolds to its source, the One.

According to Plotinus, this one-in-many nature of the universe is best understood only through contemplation. In the treatise on nature and contemplation (III.8), he artistically makes nature itself describe its origin from and existence in contemplation (*theôria*): "And my act of contemplation makes what it contemplates, as the geometers draw their figures while they contemplate. But I do not draw, but as I contemplate, the lines which bound bodies come to be as if they fell from my contemplation."[25] The mathematical content of the comparison immediately invokes Plato's elaborate conceptual use of arithmetic and geometry as intermediate tools in studying the higher level of reality. But the impelling simplicity of the image also reveals the principal difference of how Plato and Plotinus use mathematics. While Plato, as illustrated by the examples in the preceding section,[26] uses mathematics with deliberate and painstaking precision, Plotinus uses it with what Armstrong has called "intuitive spontaneity,"[27] which entails not numerical precision but an intellectual and spiritual flight of abstraction. The imaginary sphere on the front cover of this book is constructed according to the different aspects that Plotinus conceives as constituting number in the intelligible. It visualizes geometrically the "unfigured figure" of the intelligible whose elements, he argues, have ontological and not quantitative meaning.[28] As the sphere is not a result of someone who drew the lines but is an expression of the mathematical formula written in the graphing program, so does number in the intelligible realm provide the blueprint for its quantitative expression in physical reality.

Unfortunately, Plotinus' contribution to the concept of number has been often omitted, if not even ignored. It is not reasonable, however, to lay all the blame for the obscurity of the concept on its difficulty or Plotinus' seemingly disorganized presentation of his philosophy in the *Enneads,* for there is not an easy concept in Plotinus, nor has his style hampered the

25. III.8.4.7–10.

26. P. 5.

27. Armstrong (1967: vol. 3, p. 368, n. 1).

28. In VI.6.17.25–26, Plotinus introduces the term "unfigured figure" (*aschêmatista schêmata*) to explain that, in the intelligible realm, figures, just like numbers, have only ontological, not quantitative, meaning. Below, pp. 120–122.

pursuit of other multifaceted concepts such as Intellect, Soul, or contemplation. The main reason for this omission, I suggest, is that Plotinus does not treat the subject of number in the *Enneads* as pervasively as, let us say, the Neopythagoreans, or even as his own successors, Iamblichus, Syrianus, and Proclus. Nevertheless, a close examination of the *Enneads* reveals Plotinus' systematic discussion of number in relation to each of the three hypostases. Particularly focusing on the role of number in the putting together (*systasis*) of the intelligible realm (*kosmos noêtos*),[29] he anticipates the subject of VI.6 twice in the *Enneads*.

In the treatise which explains that the intelligibles are not outside of Intellect (V.5),[30] Plotinus announces the approach of VI.6 with the remark that "if there are any difficulties about [the concept of number], they will be addressed later" (V.5.4.38).[31] In the treatise on the Platonic primary kinds (VI.2), a second remark assures the reader that the properties of number and magnitude "will be discussed later" (VI.2.13.31).[32] In his thematic arrangement, Porphyry places VI.6 to succeed immediately the treatises on the primary kinds of being (VI.2–VI.3), as if to acknowledge formally the association of number with the intelligible realm. The first remark (in V.5) connects VI.6 with the treatises explicating the core of Plotinus' metaphysics and thus identified as the *Großschrift* (III.8, V.5, V.8, and II.9).[33] The second remark (in VI.2) thematically links the treatises on the nature of the intelligible with the last two treatises in the collection, devoted to the One.[34] This arrangement suggests that number relates being to the One and VI.6 brings together the core treatises and the last treatises of the collection.

Since VI.6 has long had the reputation among scholars of being obscure and difficult, Plotinus' concept of number takes, as mentioned earlier, a backseat in Neoplatonic scholarship. Admittedly, it is true that number is one of the most aporetic concepts in Plotinus. Losev, the patriarch of Russian classical scholarship, begins his commentary on VI.6 with the warning that "Plotinus' study of number is the most difficult topic not only in the history

29. VI.2.2.10–11.

30. Respectively, V.5 is the thirty-second treatise and VI.6 is the thirty-fourth in Porphyry's chronological order reported in *VP* 5.

31. The intermediate treatise is II.9, *Against the Gnostics*, which Porphyry judiciously places, according to his "thematical" arrangement in the second *Ennead*.

32. Respectively, numbers 44 and 43 on Porphyry's chronological list.

33. On the *Großschrift*, Roloff (1970). See pp. 18–20.

34. The placement of VI.6 in the thematic and chronological arrangement of the treatises is discussed on pp. 17–21.

of Greek, but also of world's philosophy,"[35] while Kirchner remarks in a footnote that "the concept of the Forms as numbers form the main content of the sixth treatise of the sixth Ennead, which is perhaps the most difficult of all treatises Plotinus wrote."[36] Although these initial evaluations are not very encouraging, I am compelled to investigate the source of their skepticism. In this, I stand in the same field with Losev, who poetically justifies his interest in the concept of number by admitting that he does not choose "only the strawberries, not even only the flowers" of ancient philosophy, but is interested in "all the grass and the fertilizer upon which the strawberries and other flowers of philosophy grow."[37]

The fates of Plotinus' concept of number and *Ennead* VI.6 have changed since their black-and-white phase in the nineteenth century, in which the two were either denigrated or exalted. Krämer, Szlezák, O'Meara, and Horn each in turn have discussed the topic in chapters within larger frameworks,[38] while Charles-Saget, and Nikulin have elucidated it as a part of a broader historical and comparative study of the concept in late antiquity and early modern philosophy.[39] Yet something is left to be desired. To date, no comprehensive analysis of Plotinus' concept of number alone has been published. Charles-Saget examines it in the shadow of Proclus' elaborated theology of number. Nikulin traces the conceptual development of number from Plotinus to Descartes. The two studies, on the one hand, deservedly ascribe to Plotinus' understanding of number a prominent place in the history of post-Platonic metaphysics. On the other hand, since the subject is consistently treated as a part of other topics, they give the erroneous impression that the concept of number in Plotinus can be grasped firmly only in relation to his successors' more advanced views. Yet, as I demonstrate in this work, Plotinus' conception of number is the fundamental framework on which his entire philosophical system is built. This premise requires a comprehensive

35. Losev's study of the "dialectic of number" (1928: 5) is virtually unknown to Western scholarship. I have perused and referred to it in this book with great satisfaction and I hope my effort will bring due attention to his work.

36. Kirchner (1854: 49, n. 18). It should also be noted that the concept of number is not discussed at any length, save a few lines, in his study. Thus, the mention of VI.6 only in a footnote correctly reflects the lack of interest in and attention to its subject.

37. Losev (1928: 5).

38. Krämer (1964: 292–311); Szlezák (1979: 92–104); O'Meara (1975: 79–85); and Horn (1995b: 149–169).

39. Charles-Saget in Bertier et al. (1980, reprinted in Charles-Saget 1982); and Nikulin (2002).

and systematic examination of the concept and the treatise that is devoted to it, without making them complementary to another subject.

Chapter Synopsis

This study offers the first comprehensive analysis of Plotinus' concept of number alone, beginning from its origin in Plato and the Neopythagoreans and ending with its influence on Porphyry's arrangement of the *Enneads*. Its goals are to examine the Platonic and Neopythagorean contexts in which Plotinus develops the concept; to demonstrate that the concept is at the foundation of Plotinus' definition of the universe as multiplicity, and thus bears paramount significance for understanding the intelligible realm; to reveal Plotinus' contribution to the defense of Plato's Ideal Numbers against Aristotle's persistent criticism; to show that Plotinus is the first post-Platonic philosopher who purposefully and systematically develops what we may call a theory of number, distinguishing between number in the intelligible realm and quantitative mathematical number; and finally, to draw attention to Plotinus' concept as a necessary and programmatic link between the Platonic and later Neoplatonic doctrines of number.

The book contains six chapters, and, unlike the arrangement of the *Enneads* by Porphyry, the numerical symbolism is unintended. I begin by investigating the origin of Plotinus' cosmology in the *Timaeus* and end by examining the significance of the concept for Porphyry's arrangement of the *Enneads*. It is a curious, but telling, fact for the Plotinian introspective order of the topics of each chapter that my first interest in the subject started from the last chapter, dealing with Porphyry's arrangement of the multiplicity of the treatises according to number. I successively moved to the role of number in the intelligible realm, to Plotinus' defense of Plato's ontological view of number against Aristotle's criticism, to Plotinus' understanding of multiplicity, and finally to the Neopythagorean and Platonic background of number. This introspective order has allowed me to study the concept in the most Plotinian fashion, I believe, beginning with the physical appearance of number in the multiplicity of the treatises and systematically peeling away the conceptual layers until reaching the Platonic core of Plotinus' understanding that the universe is multiplicity separated from the One according to substantial number. This multiplicity is unified, divided, and circumscribed into existence by number, and therefore this universe is one by virtue of number.

This chapter arrangement presents the subject more suitably to our analytically trained minds, but, above all, it follows Plotinus' explanation of the universe from the inside out, that is, from its source to its periphery. With this arrangement, I hope to show that my examination of Plotinus' concept of number is a book that is also one by number.

The first chapter examines the Platonic origin of Plotinus' presentation of the universe as multiplicity separated from the One. He uses the term "separation" (*apostasis*), which stands in stark opposition to Plato's account of the Demiurge's composition of the universe as "composition" (*systasis*) in the *Timaeus*. The two terms characterize the top-down approach in VI.6 and the bottom-up approach in the *Timaeus*. Although the antithesis between the two terms does not stem from any conceptual opposition between Plotinus and Plato, it raises the question of the relationship between Plotinus' cosmology in VI.6 and Plato's cosmogony in the *Timaeus*. A close examination of the two works reveals that Plotinus bases his definition of *apostasis* precisely on Plato's account of the composition of universal order (*tou kosmou systasis*) in the *Timaeus*.[40] Both terms express the notion of motion and otherness in the origin and organization of the universe. The two works achieve the same goal, the explanation of the universe, with the same means—according to number—but from opposite starting points.

The missing conceptual link between the two approaches, I suggest, is found in Numenius' concept of the Three Gods, ordering the universe: the Father, the Maker, and the Creation. The characteristics of Numenius' First God convey the dichotomy between rest, as being and stability, and motion, as change, in the first principle. The explicit paradox of ontological stability (*stasis*) and innate motion (*symphytos kinêsis*) in Numenius' First God is implicitly present in Plotinus' explanation of the origin of the universe as *apostasis*. This discovery further warrants the examination of the first separation from the One and the origin of Intellect. The term *apostasis* denotes the cosmological process in which the universe exists as multiplicity abiding in different degrees of separation from the One. The major conclusion of this chapter is that Plotinus induces the concept of multiplicity as a measurement of the ontological distance from the One, which opens the possibility for stronger Neopythagorean influences.

Chapter 2 investigates the Neopythagorean roots of Plotinus' concept. Porphyry's numerous reports of his teacher's involvement with Neopythagorean circles, and especially with Numenius and Ammonius Saccas,[41] do not require much searching throughout the *Enneads* to be validated. Numenius' influence on the definition of multiplicity as *apostasis* demonstrates the central role Neopythagorean views play in Plotinus' cosmology.

The notion of stability and motion in the origin of multiplicity also characterizes Moderatus' definition of mathematical number as a system of monads (*systêma monadôn*), which either progresses (*propodismos plêthous*) from the first monad into multiplicity or regresses (*anapodismos plêthous*)

40. *Ti.* 32c5–6.
41. *VP* 3, 14, 17–21.

from multiplicity to the first monad.[42] He further distinguishes between the monad as the principle of numbers (*tôn arithmôn archê*) and the one as the principle of enumerated things (*tôn arithmêtôn archê*).[43] This distinction leads to a number of questions about Moderatus' influence on Plotinus' two kinds of numbers; about Plotinus' use of the mathematical definition of number in the formation of the outward and inward directions of the existence of multiplicity; and about Moderatus' doctrine of three separate Ones as underlying principles of existence and Plotinus' hypostases. After examining these questions, I conclude that Plotinus views multiplicity as nothing else but number that preserves it from dissipating into infinity and nonexistence.

The prominent Neopythagorean overtones of Plotinus' concept of multiplicity and the origin of the universe as separation from the One compel an examination of the difference between numbers, which are related to the intelligible realm, and quantitative numbers, which enumerate things. For Plotinus, this difference directly exposes Aristotle's misconception of the Indefinite Dyad, not as a principle of potentiality of existence in the intelligible, but as the actual creator of quantitative numbers. The third chapter, therefore, analyzes Plotinus' refutation of Aristotle's criticism of the Platonic view of number. By rejecting any quantitative value of number in the intelligible, Plotinus specifically focuses on Aristotle's inability to understand the Monad and the Indefinite Dyad as the principles of creation and order of the intelligible realm.

The postulate that number lies at the ontological foundation of the universe characterizes the early Pythagoreans and, later, Plato as well. Aristotle, in his turn, advocates the rejection of the ontological value of number in the construction of the universe, thus partially causing the Middle Platonic and Neopythagorean conceptual uprising in Plato's defense. Also in chapter 3, I show that Plotinus not only follows the steps of his Platonic and Neopythagorean predecessors in defense of Plato's position, but ingeniously uses Aristotle's ideas in arguing that number in the intelligible is activity and a property of primary substance. The result is an original and ontologically elaborate theory of substantial number (*ousiôdês arithmos*), which fulfills two major purposes: (1) it offers a new and more successful defense of Plato's "true numbers" against Aristotle's persistent criticism; and (2) it explains the relationship between substantial nonqualitative number and arithmetical quantitative number as that between intelligible paradigm and its material copy.

42. Stobaeus, *Anthologia* 1, 21–22. Moderatus' dates are unknown but it is safe to place him in the first century. Dillon (1996: 344–346).

43. Capitalized "One" refers to the One as a primary principle; noncapitalized "one" refers to all other uses of "one." More details are explained in the last section of this introduction.

Chapter 4 focuses on Plotinus' analysis of the relationship between number and substance in the intelligible. Based on the distinction between substance (*ousia*) as ontological actualization of beings and quantity (*posotês*) as the numerable count of individual units, Plotinus conceptualizes a similar division for number itself. Contrary to Aristotle and in support of Plato, he conceives of two kinds of number: substantial number (*ousiôdês arithmos*) that is "itself by itself," which is the activity (*energeia*) of substance and a power (*dynamis*) of being;[44] and monadic number (*monadikos arithmos*), which simply enumerates individual things.[45] As an activity of substance, substantial number enacts the limiting role of the Monad, while as a power of substance, substantial number enacts the role of the Indefinite Dyad as potentiality that is limited into existence by the Monad. As a property of substance, number is the productive power and activity of substance. While substantial number actualizes the existence of that which has separated from the One in the intelligible, monadic number expresses quantitatively that which has been already defined by substantial number in the intelligible. In this light, substantial number is the intelligible paradigm of monadic number. As the former determines the existence of multiplicity in the intelligible, so does the latter preserve sensible multiplicity from dissipation in infinity. Mathematics and the numerability of individual things use monadic numbers.

To explain the nature of substantial number, Plotinus defines Absolute Being as unified number (*arithmos hênômenos*), Intellect as number moving in itself (*arithmos en heautôi kinoumenos*), beings as unfolded number (*arithmos exelêligmenos*), and the Complete Living Being as encompassing number (*arithmos periechôn*).[46] Number identifies the primary property of substance in every aspect of the intelligible realm. As such, substantial number acts as a principle (*archê*) constituting Intellect. In due order, chapter 5 analyzes the ontological meaning of the above definitions. Their closer examination reveals that the four aspects of substantial number correspond to the primary kinds of rest, movement, otherness, and sameness respectively. Heinemann, O'Meara, and Horn have noted the similarity between the structure of the intelligible in VI.6 and the Platonic primary kinds (*megista genê*) in VI.2–VI.3 and have interpreted it differently. Heinemann just acknowledges the relationship between the treatises.[47] O'Meara concludes that the correspondence

44. VI.6.4.10: αὐτὸς ἐφ' ἑαυτοῦ ὁ ἀριθμὸς ἐνοήθη; VI.6.9.26: ἡ τοῦ ἀριθμοῦ δύναμις ὑποστᾶσα ἐμέρισε τὸ ὄν; VI.6.9.28: ἡ ἐνέργεια ὁ ἀριθμὸς ἔσται.

45. This does not mean that the number of the material copies of something is limited to its substantial number, but that the overall number of material things is limited to the number of all intelligible beings.

46. VI.6.9.29–31.

47. Heinemann (1921: 181–184).

between the intelligible structures in the two treatises is not conceptual, because the two treatises deal with different problems.[48] Horn understands them as an expression of the dialectic of the Indefinite Dyad.[49] I have reached the conclusion that the properties of substantial number enact the four primary kinds of rest, motion, otherness, and sameness, while the fifth primary kind, that of being, is the common denominator that represents them all. This conclusion also elucidates the relationship of substantial number with the One and Soul, as Plotinus does not identify them with a particular property of number. Since the properties of substantial number order Intellect on the inside and since both the One and Soul stand on the outside of Intellect, they do not inherit a particular property of number. Substantial number is an ontological expression of the One "beyond Being," which does not possess any particular characteristic. Soul, however, as an image of Intellect, possesses all the properties of substantial number. The world soul encompasses the sphere of the universe in its dance according to the paradigms of substantial number, while the individual soul expresses the nonquantitative substantial numbers in quantitative monadic numbers.

Chapter 6 examines the relationship between Plotinus' concepts of number and multiplicity, and Porphyry's organization of the *Enneads.* Porphyry's thematical arrangement of the *Enneads* is traditionally considered to be more detrimental than beneficial for understanding Plotinus' thought. This, I think, is an issue that is worth reexamining. Perhaps there is something more than personal eagerness and Neopythagorean numerical extravagance that inspired Porphyry's organization of the works in six groups of nine according to his notorious "perfect ratio of six and nine" (*VP* 24). That Porphyry publishes the collection in a particular numerical arrangement may even be more significant for the later Neoplatonists' attempts to overcome the limitations of discursive thought.[50] In the Neopythagorean tradition, the number six is considered to be the first perfect number and the hexad is identified as the number of Soul.[51] Furthermore, the completion of the universe is represented by the number nine, which is "called 'ennead' as if it were the 'henad' of everything within it, by derivation from the 'one.'"[52] The individual treatises are consequently grouped in nines, because they enclose the numerical essence of the universe from *henad* to *ennead.* As number is the constituting element of the existence of Being, Intellect, and Soul, so

48. O'Meara (1975: 82–83).

49. Horn (1995b: 169).

50. The numerical symbolism of the *Enneads* is perhaps a distant echo of the pantheistic unity of the divine Ennead in Plotinus' homeland of Egypt.

51. *Ar.* 33.2.

52. *Ar.* 57.4–5.

does the concept, I suggest, outgrow the pages of VI.6 to construct both the Neoplatonic universe and Porphyry's organization of the treatises.

Plotinus' Concept of Number and *Ennead* VI.6: Content and Form

Often in the *Enneads,* individual treatises deal with a particular subject that has come up during lectures in the school.[53] Sometimes the treatises form natural groups of works on the same topic, such as IV.1–IV.5 examining questions about soul or VI.1–VI.3 dealing with the primary kinds of being. The reality of Plotinus' thought, however, is that any given concept is referred to and discussed throughout the entire collection. A study of a Plotinian concept is grounded originally in a particular treatise, then gradually builds relations with other concepts and treatises, and inevitably engages the entire collection. Consequently, a recent trend in Neoplatonic studies is to evaluate a specific treatise in the context of the entire collection.[54] This approach merges the boundaries separating the chronological from the thematic organization of the *Enneads* and provides an integrated contextual analysis of the treatise as both an individual work and a part of the fifty-four treatises. To defend this unitary approach, D'Ancona Costa draws a comparison with the traditional attitude toward the works of Plato and Aristotle:

> Again, a look at the contemporary scholarship on Plotinus suggests that the main strategy in approaching his philosophical thought consists in dealing with single treatises, devoting to them a careful textual and philosophical analysis in precisely the same way as to a Platonic dialogue or an Aristotelian treatise. This fact shows on its own account the abandonment of the two hidden assumptions that made scholars in the past refrain from considering late Platonism as a proper philosophical subject matter, namely, its picture as a counterfeit of Plato's thought, and its interpretation as a barely deductive a priori chain whose ultimate principle escapes rational analysis.[55]

Any modern student of late ancient philosophy is no stranger to this sentiment, although the passage refers specifically to the disparity of the scholarly approach to Neoplatonic works in the past.

53. *VP* 5.59–64.

54. D'Ancona Costa (1997: 367–403) juxtaposes the treatment of Plotinus' philosophy in Zeller (1923) to the approaches of O'Meara (1993) and Gerson (1994).

55. D'Ancona Costa (1997: 371).

On the smaller, microcosmic scale of the individual treatises, the same disparity is found in the dichotomy between a privileged chronological reading or a thematic reading of the corpus. The latter is more popular among studies of a certain Plotinian concept, rather than a particular treatise.[56] The goal of this section of the introduction is to broaden the unitary approach to include the importance of the relationship between a particular concept and a particular treatise.

The two concepts of multiplicity and number are discussed throughout the *Enneads,* but VI.6 is specifically devoted to them. Porphyry lists the treatise with the title "On Numbers" and makes it the fifty-first treatise in his thematic arrangement,[57] thus placing it among the most difficult topics for discussion pertinent to the One. O'Meara has examined the thematic proximity of VI.6 with the treatises on the primary kinds of being (VI.1–VI.3).[58] To underline this significance, I would also point out the placement of VI.6 in the sixth *Ennead.* It follows the treatises on the kinds of being (VI.1–VI.3) and on the presence of being everywhere (VI.4–VI.5) and immediately precedes the thematicly culminating point of the collection—the treatises dealing with the One (VI.7–VI.9). In this ascending sequence, VI.6 is the formal link between the treatises on the nature of the intelligible and those on the One. As we will discover later, this thematic arrangement is conceptually and iconically justified since substantial number as an ontological expression of the One gives existence to the intelligible. As a result, both the treatise and the concept of number prove to be of crucial importance for understanding Plotinus' universe.

The chronological sequence of the *Enneads* also demonstrates the importance of VI.6. The treatise is the thirty-fourth on Porphyry's list (*VP* 5) and immediately succeeds the *Großschrift,* which includes III.8 [30], "On Nature and Contemplation, and the One"; V.8 [31], "On the Intelligible Beauty"; V.5 [32], "That the Intelligibles Are Not Outside the Intellect"; and II. 9 [33], "Against the Gnostics."[59] According to *VP* 5.35, Plotinus wrote the *Großschrift* and VI.6 in Rome with the encouragement of his long-time disciples, Porphyry and Amelius. The subject of the architecture of the intelligible realm and the specific relationships between Soul, Intellect, and the One

56. For other examples of the unitary approach, see Tornau (1998) and Stern-Gillet (2000).

57. Edwards (2000: 52, n. 312): "The late position of this treatise justifies the numerological interests of the life [*VP*]."

58. O'Meara (1975: 79–80).

59. The titles are given according to Porphyry's entries in *VP* 4–5. On the thematic integrity of the treatises and Porphyry's detrimental division, see Harder (1960: 303–313). On the structure of the *Großschrift*, see Roloff (1970). The new French edition revives the chronological reading of the *Enneads.*

must have been the center of heated debates in contemporary philosophical circles. The novelty of the concept of three underlying principles, germinating in the Neopythagorean doctrines of the second and third centuries, perhaps stimulated Plotinus to espouse in writing his own understanding of the bondlike organization of the universe.

The four treatises explicate the core of Plotinus' metaphysics. That these references relate specifically to the exegesis of multiplicity and number in VI.6, however, deserves a closer look. The discussions of contemplation in III.8, knowledge in V.8.5–6, the origin of multiplicity in V.5.4–6, and the refutation of the notion that multiplicity is evil in II.9 anticipate the main topics of VI.6.

The four treatises in the *Großschrift,* although chronologically successive, are also organized thematically in such a way that their topics ascend the path taken by Soul (and by the philosopher's mind)[60] to reunite itself with Intellect and the One. This path, Armstrong observes, is twofold.[61] The first path, ascending from Soul to the One, is laid out in the first *Großschrift* treatise (III.8). The other path, ascending from Intellect to the One, is the subject of the second and third treatises (V.8 and V.5). The last treatise (II.9), written immediately before VI.6, concludes the theme of ascent by refuting the Gnostic anti-Platonic arguments against a single unified being, generating and transcending the noetic cosmos.[62]

The thematic connection of VI.6 with the *Großschrift* suggests that we should take the treatise more seriously and reevaluate its place in the *Enneads,* since VI.6 continues the major themes of the *Großschrift* and answers the questions that it has left unanswered. VI.6 repeats the thematic organization of the *Großschrift* on a smaller scale. The composition of the work conspicuously unfolds in a circular fashion, as noted by Charles-Saget, but omitted by Krämer and O'Meara.[63] The beginning of the treatise, like the awake Soul in III.8, explores the origin and existence of multiplicity in the intelligible realm. The first chapter defines multiplicity and infinity. Chapters 2 and 3

60. The philosopher who has transcended sense-perception and "has already finished reasoning" (III.8.6.36–38).

61. Armstrong (1988: vol. 5, 152).

62. Seeking a more appropriate, thematic, arrangement of the treatises, Porphyry bisects V.5 [32] and II.9 [33] and places them in the fifth and the second *Enneads* as they deal respectively with the intelligible realm and physical reality. Perhaps the fact that II.9 defends the goodness of the physical reality against the Gnostic doctrines that it is evil is the reason for which Porphyry severs this part of the text and places it in the second *Ennead*, dealing with topics related to material world.

63. Charles-Saget (1982: 18); Krämer (1964: 298–299); and O'Meara (1975: 80).

defend Plato's understanding of the "number of infinity" against Aristotle's criticism.[64] Following the themes of V.8 and V.5, chapters 4–8 systematically reveal the dominant role of number in the intelligible. Chapter 9 is the center of the treatise, outlining the participation of number in every intelligible entity. Chapters 10–16 refute once again Aristotle's polemics on number and also summarize the constitutive role of substantial number in the intelligible; chapter 17 brings back the discussion of the "number of infinity," introduced in chapters 2–3; and chapter 18 concludes the investigation of how multiplicity ascends to the transcending One by closing the discussion of multiplicity's descent in chapter 1.

The structure of VI.6 is symmetrical and self-contained, integrating concentrically the concept of multiplicity with the focal discussion of substantial number. It can be schematized as in figure 1. Multiplicity begins and ends the thematic composition of the treatise. This circular arrangement iconically brings Plotinus' examination of number to a full closure. As multiplicity unfolds from the One and enfolds to the One, so does the composition unfold and enfold itself like nesting circles, moving away from and yet turning toward their center. This circularity originates from Plotinus' understanding of the nature of discursive thought itself, which he compares to "many lines which proceed from one center" in order to "lead to a notion of the multiplicity which has come to be."[65] The composition of VI.6 also conveys iconically the "self-turning attention" of Plotinus' train of thought, as if the subject (*skemma*) of his thought produced the scheme (*schêma*), Greek pun intended, of the universe it contemplates.[66]

Contrary to Brisson, who views the central chapters of the treatise as a long digression that answers the questions posed in the first three chapters,[67] I think the concept of number is so well ingrained in the composition of the treatise that its rationale naturally follows the narrative of the treatise. In fact, Charles-Saget reproduces the commentary on VI.6 edited by Bertier et al. as an equally analytical part of her study of mathematics in Plotinus and Proclus.[68] My own interest, pursued elsewhere, in how the literary form of philosophy provides the framework for understanding the philosophical concepts it presents has led me to study the composition of VI.6 in the

64. *Metaph.* 1083b36–1084a1.

65. VI.5.5.1–3. See Rappe (2000: 124–125).

66. *VP* 8.8–13: "He worked out his train of thought from beginning to an end in his own mind, and then, when he wrote it down, since he had set it all in order in his mind, he wrote continuously as if copying from a book. Even if he was talking to someone, engaged in continuous conversation, he kept to his train of thought."

67. Brisson (2006: 286).

68. Charles-Saget 1982.

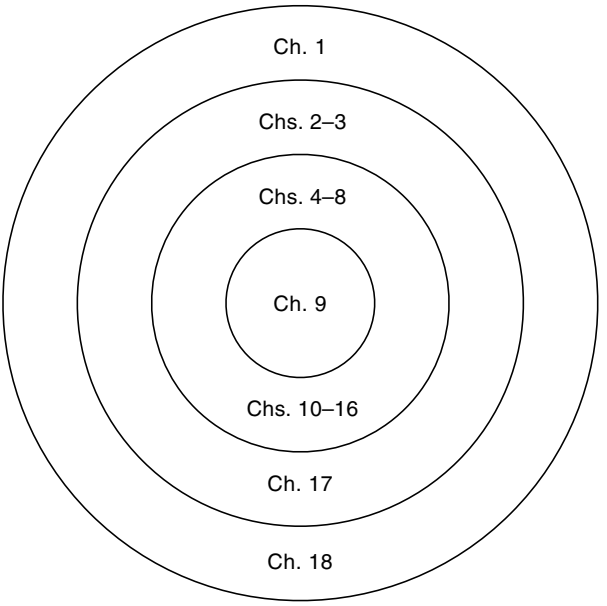

FIGURE 1. Concentric composition of *Ennead* VI.6 by chapter.

context of Plotinus' concept of number.[69] One of the noteworthy discoveries I have made in working on the treatise is that the concept and the exegesis of VI.6 are in a surprisingly confluent relationship. This exegesis displays the elegance of Plotinus' thought, despite the accusation, often deserved, of obscurity and disparity. The concentric composition of VI.6 conveys nondiscursively the higher ontological presence of number in the intelligible realm and iconically sketches the spherical figure of the universe. It also illustrates perfectly Bréhier's statement that "the image, in Plotinus, is not an external ornament but an integral element of the thought."[70] The relationship between VI.6 and the concept of number reveals a less intimidating and more attractive side of Plotinus' style and demonstrates how rewarding it is to examine the interplay between form and content in the *Enneads*.

I have taken advantage of this rare example of symbiosis between literary form and philosophical content and have followed the progression of the treatise to construe Plotinus' concept of number, instead of straightening the course of his argument in favor of our modern analytical taste. As a result, this book does not offer a commentary on VI.6, but rather an analysis of Plotinus' composition of the universe according to number as presented in VI.6 and all the *Enneads*.

69. Slaveva-Griffin (2003a, 2003b, 2005).
70. Bréhier (1958: 30).

A Note on Terminology, Translation, and Citation

The complexity of Plotinus' thought is reflected in the intricacy of his vocabulary and compressed style. Oftentimes a term has a number of different meanings depending on its context. I have followed the convention of capitalizing the One, Intellect, and Soul, when they denote the underlying principles of existence, the *hypostases.* When they are not capitalized, they refer to an individual one, being, intellect, and soul. I have also capitalized Monad, Indefinite Dyad, and Complete Living Being when Plotinus uses them as proper names. Like everyone who has faced the challenge of Plotinian "living" thought, I have tried to grasp the precise semantic nuance of a particular usage, but I must admit that I cannot claim with absolute confidence that I have always been successful.

Finally, as often is the case with any term in Plotinus, *kosmos* has a number of different meanings depending on the specific context. It can refer to: (1) the universe as a whole as acted upon by the principle of order; (2) the universal order determining the individual place of everything in the grand scale of things; or (3) the two conceptual planes that distinguish collectively all intelligible beings from their material copies. In order to minimize as much as possible the polysemous complexity of the term, I have used "universe" when I have referred to Plotinus' idea of the entire cosmos (1 above), which includes both the intelligible realm (*kosmos noêtos*) and physical reality (*kosmos aisthêtos*). When I have discussed either of the two planes separately (3 above), I have used respectively "intelligible realm" and "physical reality." I have kept Plotinus' original term *kosmos* only when I have had in mind the principle of universal order (2 above).

Following the definition of multiplicity (*plêthos*) in VI.6, I have called it multiplicity to express Plotinus' use of the term as a collective noun, conceptualizing the ordered existence of everything other than the One, as opposed to his use of *polla* as "many," which denotes a multitude of particular units without an explicit notion of order.

Translating the *Enneads* is an equally Herculean task. But this time we can claim that it has been accomplished with greater success. Armstrong's translation of the complete text of the treatises in seven volumes in the Loeb series (1966–1988) has withstood the test of many a mind and has deservedly won its authoritative place. Thus I have used his translations as the basis of the quotations in the text, with appropriate and sometimes substantial modifications. The readership of the *Enneads* is expanding with the new series *Plotin: Traités,* edited by Luc Brisson and Jean-François Pradeau. I believe the appearance of VI.6 in print in this series is another testament to the timeliness and importance of the subject of this book. The Greek text is according to P. Henry and H.-R. Schwyzer, *Plotini Opera,* 3 vols. (Clarendon Press 1964–1983) and it is used without transliteration only in the footnotes to quote the original text

of a translation or to illustrate a point that has already been made in the main body of text.

A few words are in order about the way in which the *Enneads* are cited. In general, there are two conventions of referring to a specific treatise. The first identifies the number of the *Ennead* and the number of the treatise in this *Ennead*. For example, the treatise "On Numbers" is cited as VI.6, which means *Ennead* VI, treatise six. The other contains the above information but adds in brackets the number of the treatise according to the chronological order given by Porphyry in *VP* 4–6. Thus, *Enn.* VI.6 [34] indicates that this is the sixth treatise in the sixth *Ennead* and that the treatise is number thirty-four on Porphyry's chronological list. There is no specific distinction of when one way is preferred to the other, but the common trend recently favors the former and I have observed it throughout this book.

Plotinus on Number is intended to serve experienced as well as developing scholars pursuing research in Neoplatonism, ancient philosophy, or the history of mathematics in general. It is hoped that the book will be of interest to those who study the development of ancient cosmology and the history of the concepts of One and Many in late antiquity.

1

Platonic Cosmology on Plotinian Terms

Ennead VI.6 and the *Timaeus*

Plotinus' cosmology begins where Plato's cosmogony ends. In the *Timaeus,* Plato explains how the Demiurge "brings together that which is visible and in disorderly motion" into universal order (*tou kosmou systasis, Ti.* 32c.5–6). In VI.6, Plotinus expounds that the universe is a separation from the One (*apostasis tou henos,* VI.6.1), which organizes everything into a finite cosmos. The *Timaeus* presents, in an ascending order, the composition (*systasis*) of the primordial matter by the Demiurge into an image as close as possible to a perfect intelligible model, whereas VI.6 constructs, in a descending order, the universe as dianoetically successive separation (*apostasis*) of Being, Intellect, the Complete Living Being, and Soul from a suprametaphysical starting point.[1] Both works explicate the construction of the universe, but from opposite ends.

While it is obvious that the antinomy of the terms composition (*systasis*) and separation (*apostasis*) does not stem from a conceptual opposition between Plato and Plotinus,[2] I would argue that Plotinus' view of multiplicity itself demands reversing the order of the cosmological account in VI.6. Since the One, as the ultimate source of existence, is "beyond being," the universe can exist only as a result of the emanating power of the One.[3] Everything must descend from and depend upon the One.[4] Thus, if VI.6 is going to deal with the construction of the universe, it must employ the top-down approach.

In an article on the revival of Neoplatonic studies at the end of the last century, Gerson concludes that "Plotinus' consistently 'top-down' approach provides a most provocative alternative to the 'bottom-up' approach, precisely

1. This cosmogonical act is atemporal and aspatial. Our inability to comprehend it nondiscursively forces us to talk about it dianoetically as separating, unfolding, descending from the One (IV.3.30, V.1.11, V.8.9) or to represent it figuratively as a center and its circle (V.1.11).

2. In VI.2.2, the intelligible realm is presented as *systasis* of all primary kinds.

3. VI.2.17.22–23: τὸ ἐπέκεινα τοῦ ὄντος; VI.9.11.42: ἐπέκεινα οὐσίας. Cf. I.7.1.19; V.1.8.7; V.3.17.13; V.4.2.38; V.6.6.30; VI.8.16.34. Also Plato, *R.* 509b9.

4. III.8.10.1: δύναμις τῶν πάντων.

owing to its uncompromising radical character."[5] The two approaches, as he points out, rely upon simplification and inversion respectively.[6] In the case of VI.6, I would add, it is the difference between saying that multiplicity is nothing but otherness from the One and multiplicity is an inferior ontological expression of its source. Plato and Plotinus share the same goal, but the difference in their approach lies in whether they see the glass as half empty or half full. In the *Timaeus,* Plato does not observe what is in the glass but rather vacuum, because the primordial elements are in disorder, while in VI.6 Plotinus explains what is actually in the glass because every postcosmic element is in its ordered ontological place. The first approach has difficulty explaining the interactions between the glass contents, while the second approach elucidates the derivation of the elements filling the glass. In V.8.7, Plotinus dismisses the bottom-up approach because he finds the preconception of the finite universe impossible.[7] Arguing from an ontological, not epistemological, standpoint, he claims that one cannot think up the universe with all its elements together, unless one perceives that all things exist in something else from which they derive. The "nesting" explanation of the derivation of the universe lays the foundation of the top-down approach.

This chapter therefore examines how the top-down approach converts the *systasis* of the *Timaeus* into the *apostasis* in VI.6 in particular and Plato's cosmogony into Plotinus' cosmology in general. Subsequently, this analysis searches for the roots of Plotinus' understanding of the origin of the universe as a separation from the One in Plato's cosmogony in the *Timaeus* and in the Neopythagorean notion of the First God as *stasis.*

Enn. VI.6 is not usually associated with Plotinus' cosmology as II.1 is, for example, because it does not deal with the standard cast of ancient cosmology: the four primary elements, the heavens, the physical reality, and the soul.[8] Instead, it postulates that the universe is a result of the separation of multiplicity from the One and that this separation is conducted according to intelligible number. While II.1 strictly follows the traditional Platonic explanation of the universe, VI.6 conflates Platonic cosmogony and Neopythagorean numeric theory to produce a truly Plotinian account focusing on the derivation of that which exists from that which is beyond existence.[9] Naturally,

5. Gerson (1997: 299).

6. For an example of simplification, Gerson (1997: 299) gives "the mind is nothing but electrical and chemical activities in the brain"; for an example of inversion, he gives "the mind can only be understood as an imperfect representation of its paradigm."

7. V.8.7.8–9: οὔτε ἡ ἐπίνοια δυνατή.

8. Wilberding (2006).

9. An extension of Plato's equation of the One and the Good as "beyond being" in *R.* 509b9.

this account relates the composition of the universe by using general terms, such as multiplicity and infinity, rather than by examining any specific elements. Thematically, II.1 presents Plotinus' exegesis of the orthodox Platonic cosmology, whereas VI.6 focuses exclusively on the post-Platonic view of the universe as a derivation and "other" from the One.[10]

Discussing Plotinus' cosmological exegesis in VI.6, both Charles-Saget and Nikulin neglect to recognize the conceptual communication of the treatise with the *Timaeus*.[11] Most recently, however, in his preface to the translation of VI.6, Brisson calls Plotinus "un disciple fidèle du Platon du Timée,"[12] a statement that deserves, I think, a serious consideration. The treatise conveys Plotinus' understanding of the structure of the universe, namely, the architecture of the intelligible realm according to number. The strong cosmological tones of VI.6 demand that we turn our attention to the *Timaeus* first.[13]

We often forget that the cosmogony in the *Timaeus* begins on a less perfect note. It starts from the primeval material chaos, which brings a thematic culmination to the catastrophic end of Atlantis, and ends with the creation of cosmic order, discernible even in the organization of the human body.[14] Scholars tend to use the original-and-copy analogy in presenting Plato's view of the physical world as a phenomenological expression of the Forms. While this method suits his ontology well, it obfuscates the fact that the cosmogony of the *Timaeus* is an upward progression from the image to its original, from sensible matter to the Forms. Plato's cosmogony begins with the Demiurge's perception of the disorderly state of everything that is corporeal and visible.[15] Through his inherent goodness, the Demiurge brings the precosmic matter

10. II.1 is the fortieth treatise in Porphyry's chronological order (*VP* 5) and thus succeeds VI.6, which is number thirty-four. Both treatises belong to the middle period of Plotinus' writing, characterized by Porphyry as "the acme of Plotinus' ability" (*VP* 6.33).

11. While Charles-Saget (1980: 9–17) examines the place of the treatise in the Neopythagorean tradition, Nikulin (2002) is interested in the post-Plotinian development of the concept.

12. Brisson (2006: 289).

13. Aside from Phillips, who analyzes (1997: 173–197) the Neoplatonists' answers to the question of the eternity of the cosmos in the *Timaeus,* the relationship between Plotinus' view of the origin of the universe, especially as presented in VI.6, and the *Timaeus* has not been yet examined.

14. Respectively *Ti.* 25c6–d6 and 69a6–81e.

15. *Ti.* 30a.3–5: πᾶν ὅσον ἦν ὁρατὸν παραλαβὼν οὐχ ἡσυχίαν ἄγον ἀλλὰ κινούμενον πλημμελῶς καὶ ἀτάκτως. Plutarch interprets the disorderly precosmic state as animated by the World Soul and as an aspect of the Indefinite Dyad, *De Generatione Animae in Timaeo* 1014b, as John Dillon pointed out to me.

into order by "putting intelligence into soul, and soul in body" (*Ti.* 30b4–5) so that he creates an imperfect image of the perfect intelligible paradigms he contemplates. The bottom-up approach explains the physical reality as a copy of the Forms by putting it together as if filling the empty half of the glass with order and identity.

Plato builds the *systasis* of the universe upon motion, which is at the basis of the existential polarity between the Forms and their material copies. To recall the famous definitions of being (*to on*) and becoming (*to gignomenon*), the Forms are ontologically perfect constants ("that which always is and has no becoming"), while their copies are materially imperfect variables ("that which becomes and never is").[16] The Forms are eternal, perfect, atemporal, motionless, and therefore not subject to change, whereas the physical world is originated, imperfect, temporal, constantly in motion, and therefore subject to change.[17]

In the *Timaeus,* motion characterizes the universe in its precosmic and postcosmic stages. First, there is the discordant and disorderly motion of the precosmic elements, which the Demiurge brings into order.[18] Second, in creating the model of the Complete Living Thing (*to zôon noêton*), the Demiurge makes motion inherent in the nature of the World Soul. In the composition of the World Soul, he uses the Same, "which is indivisible and always changeless," the Different, which is "divisible and comes to be in the material world," and the Mixture of the Same and the Different (*Ti.* 35a). The first two parts are completely opposite to each other, while the third, containing elements of both, acts as their intermediary. Because, in this sense, the nature of the World Soul is heterogeneous, the difference in the nature of its elements creates motion and therefore change. For this reason, the Demiurge regulates and orders the motion of the World Soul in strict numerical proportions as he shapes it in the perfect form of a sphere (*Ti.* 36a–37d). Third, the Demiurge's final touch in the creation of the ordered universe is the creation of time as a quantifiable physical image of eternity (*Ti.* 37d). He channels the disorderly motion of primordial mass into the orderly existence of a finite universe by giving it "a distinct configuration by means of shapes and numbers"

16. *Ti.* 27d6–28a1. Cf. Parmenides, fr. 8.3–6 and 25–38 and fr. 8.39–41, respectively.

17. Plato contradicts himself in *Sph.* 248e–249b by arguing that the Forms do not lack intelligence, change, movement, and life. Scholars have a hard time resolving Plato's inconsistency. Cornford (1935: 244–247) suggests that Plato has both intelligible and physical reality in mind. But I do not think we have seen the end of the debate. Motion is one of the principal characteristics of Intellect, see the discussion of substantial number and Intellect in chapter 5.

18. Respectively, *Ti.* 30a4–5, κινούμενον πλημμελῶς καὶ ἀτάκτως and *Ti.* 30a5, εἰς τάξιν αὐτὸ ἤγαγεν ἐκ τῆς ἀταξίας.

(*Ti.* 53b4–5).[19] As a result, the Demiurge's induction of proportions and numbers converts Plato's cosmogony into cosmology.[20]

While for Plato, in the *Timaeus,* the universe is a composition (*systasis*) of the primordial mass in an order, for Plotinus, in VI.6, the universe is a separation (*apostasis*) of everything from the One into order. The universe is a one-in-many unity of different degrees of ontological stability that derive by emanation in a successive order from the One, beyond Being, to Intellect, comprising all intelligible beings, to Soul, the lower part of which brings life to physical reality. At first glance, the opening chapter of the treatise has a strong cosmogonical sense, underlining the stark difference between the beginning of the *Timaeus* account and Plotinus' conception of the origin of the universe. Paradoxically, it seems that Plato and Plotinus attribute the structure of the universe to opposite processes. There is no primordial disorder in Plotinus' construction of the universe. Instead, there is only an ontological orderly procession of everything that exists from the One.[21] While Plato's account is about putting the universe together as an image of the perfect intelligible paradigms, Plotinus' account is about unfolding the universe from the absolute Good and the One.[22] It seems that Plotinus begins his account of the composition of the universe from the point at which Plato leaves it off.

Origin of Multiplicity in Plotinus

Before dealing with any specific cosmological details as in II.1, Plotinus must work out the most important point of any cosmogonical theory, the beginning of existence. Now is the time to clarify that this beginning is only a dianoetic expression conveying the relationship between the One and the

19. Cornford's translation (1935: 198). The reference to Plato's account of the creation of time and numbers (*Ti.* 37d–39e and 47a) suggests that Plotinus has the *Timaeus* in mind in VI.6.

20. In Cornford's words (1935: 31), "the cosmology is cast in the form of cosmogony, a 'story' of events spread out in time." This idea is overall underplayed by Wilberding (2006: 6–21) in his discussion of Plato's cosmology.

21. O'Meara (1993: 60–79) refers to it as "derivation," arguing that this term is "less specific" when applied to the explanation of the constitution of intelligible beings by the One as opposed to terms like "emanation," "creation," or "making." Although I see, with O'Meara, the need for a less specific term to express such a general idea, I think "unfolding" captures best Plotinus' idea of the composition of the universe, as is discussed in chapter 5. Rist's "effluence" (1962a: 99–107) is another successful rendering.

22. Regulated by number, as explained later in VI.6.9.

intelligible realm. The nondiscursiveness of the One itself obscures both the primal separation from the One and Plotinus' account of it.

The aporia of explaining precisely how the interaction between a higher and a lower metaphysical principle occurs does not originate with Plotinus but can be traced back to the *Timaeus* itself. In his discussion of the nature of the Receptacle in *Ti.* 50b–c, Plato explains that, in it, the Forms mold their ontological patterns onto the primary elements "in an unexplainable and wondrous fashion."[23] The nondiscursiveness of the cosmogonical act that originates physical reality stems from the intelligible nature of the Forms and the dianoetic difficulties surrounding the Receptacle itself. The Receptacle is not in a particular point in time and space, but "its nature is to be available for anything to make its impression upon, and it is modified, shaped, and reshaped by the things that enter in it."[24] Plato views the *systasis* of the disorderly matter of the Receptacle to be beyond the human ability to conceive or to describe.

Ancient and modern scholars alike have cast many nets to comprehend the nature of Plato's Receptacle. Aristotle associates matter with the Indefinite Dyad and the Receptacle, the disorderly state of which is the source of evil. This view, however, raises the problem, unthinkable for Plato and Plotinus, that the Forms, which come from the Indefinite Dyad, possess evil.[25] Plotinus attempts to solve the problem by distinguishing two types of matter: sensible and intelligible.[26] I think Cornford's point that "the Receptacle is not that 'out of which' (*ex hou*) things are made; it is that 'in which' (*en hôi*) qualities appear" best describes the difference between the two types of matter.[27] Plotinus' concept of intelligible matter has caused embarrassment among Neoplatonic scholars. The terms "intelligible" and "matter" crown the opposite ends of the ontological hierarchy and seem to be mutually exclusive. Rist solves the problem by suggesting that "the contemplation of the One by Νοῦς [*sic*] in the form of Intelligible Matter is the cause of the very existence of the Second Hypostasis."[28]

Similarly to the mysterious way in which the Forms imprint their characteristics onto the Receptacle in the *Timaeus,* Plotinus views the origin of the universe as a thaumastic act.[29] While Plato makes the Receptacle

23. *Ti.* 50c6: τρόπον τινὰ δύσφραστον καὶ θαυμαστόν. Also Simpl. *In Phys.*, p. 320.

24. *Ti.* 50c2–3, Zeyl's translation. The evasive nature of the Receptacle is perhaps best understood in Derrida's (1993: 87–127) deconstructive reading of *khōra.* On Derrida's interpretation of the Receptacle, see Gersh (2006: 15–16).

25. *Metaph.* 988a7–14; *Ph.* 192a15, 203a9–16, 209b33–210a2.

26. II.4.3.

27. Cornford (1935: 181).

28. Rist (1962a: 102).

29. Contrary to Gerson (1994: 46), who remarks that "the second ἀρχή [*sic*] does not arise magically or mysteriously from the first. It is coeternal with

a medium between the Forms and the physical reality in his bottom-up approach, Plotinus dematerializes the cosmogonical process and conceptualizes it as a separation and otherness from the One in his top-down approach. In the treatise on contemplation, III.8, he inspiredly pronounces that the very first separation from the One is "a wonder" (*thauma*) beyond discursive thought:

> Oh, yes, it is a wonder (*thauma*) how the multiplicity of life came from what is not multiplicity, and the multiplicity would not have existed, if what was not multiplicity had not existed before the multiplicity. For the origin is not divided up into the All, for if it were divided up it would destroy the All too; and the All could not any more come into being if the origin did not remain by itself, different from it. (III.8.10.14–19)[30]

The passage describes one of Plotinus' postulates about the first hypostasis, that is, the One is simple. Although our analytically trained minds cannot be satisfied by the spiritual and maybe even religious connotations of Plotinus' use of *thauma,* a close examination reveals that the passage lists the reasons for the ontogenetic wonder of the universe not by establishing what the One is but by negating what multiplicity is.[31] In doing so, he chooses the top-down approach and looks at the glass as half full, that is, negating that which is, instead of establishing that which is not. Since the One cannot be reasoned (VI.8.14.30), does not have predication (V.5.6.24, VI.8.8.6), and is truly ineffable (V.3.13.1),[32] we haphazardly understand why Plotinus perceives the separation as a *thauma*. But if we contextualize Plotinus' description of the origin of multiplicity in Plato's presentation of the cosmogonical act in the Receptacle "in an unexplainable and wondrous fashion" (*tropon tina dysphraston kai thaumaston, Ti.* 50c6), we can truly understand that Plotinus transposes the cosmogonical mystery from the Receptacle at the brink between the intelligible and physical

the first but subordinate. It is only as a heuristic device that multiplicity can be said to arise from the One." From the modern epistemological point of view, Gerson is right. The textual evidence, however, shows that Plotinus still views the origin of multiplicity as *thauma,* despite his logical explanation of it.

30. Cf. VI.9.5.30: θαῦμα τοῦ ἕν, ὃ μὴ ὄν ἐστιν.

31. Mortley (1975: 365–366 and 1982: 429–439) examines the relation of Plotinus' *via negativa* with the mystery cults and early Christian theology. He also (1975: 367) argues lucidly that for Plotinus "language is a way of coping with multiplicity" of intellection. I return later to this point, pp. 105–106.

32. Mortley (1975: 376) connects ἄρρητος with τὰ ἄρρητα referring to the unspeakable content of the mysteries.

reality in the *Timaeus* to the origin of the entire universe. Both Plato's *systasis* and Plotinus' *apostasis* contain *thauma*.

Plotinus' *Apostasis* and Numenius' *Stasis*

The relationship between the *Timaeus* and Plotinus' cosmology cannot be understood without considering the intermediary of Neopythagoreanism. The directional polarity with which Plato and Plotinus conceive the beginning of the universe is also a result of the conceptual innovation of Platonic thought in the Neopythagorean generation before Plotinus and specifically by Numenius, who indirectly influenced him, most likely through Ammonias Saccas, whose lectures Plotinus attended personally during his Alexandrian period (*VP* 3).[33] I will discuss at greater length the complex relationship between Plotinus and his teachers and contemporaries in the beginning of chapter 2, which is devoted to the Neopythagorean influence on his concepts of multiplicity and number. Since our current subject is the Platonic context of Plotinus' cosmology, here I examine Numenius' views only as an attempt to discover the missing link between the cosmologies of Plato and Plotinus.

With the concepts of the One and multiplicity, Plotinus rewrites the *Timaeus* infused with post-Platonic and more specifically Neopythagorean ideas. According to Numenius, Three Gods order the universe: the Father (*patêr*), the Maker (*poiêtês*), and the Creation (*poiêma*).[34] In this triad, scholars have rightly seen the precursor of Plotinus' three hypostases, with the notable exception that the first hypostasis in Plotinus is beyond the other two.[35] The fragment below explains the relationship between the First and the Second God from a point of view which, I think, is crucial for Plotinus' understanding of *apostasis*. "In the place of the motion, which is characteristic to the Second [God], I say that the stability, which is characteristic of the First [God], is an innate motion, from which the order of the universe is and its eternal unity and preservation is poured toward all things" (fr. 15).[36] Numenius' concept of the First God as both at rest and in innate motion completes reasonably well, in my judgment, the conceptual shift between Plato's view of the universe as a composition (*tou kosmou*

33. A younger contemporary of Nicomachus whose *floruit* was ca. 150, according to Dillon (1996: 362). On Numenius, see pp. 8 and 42–43.

34. Fr. 21 (des Places) in Proclus, *In Ti.* I 303.27–304.7 9.

35. Festugière (1954: IV, 275–276) and Krämer (1964: 81–83).

36. Ἀντὶ γὰρ τῆς προσούσης τῷ δευτέρῳ κινήσεως τὴν προσοῦσαν τῷ πρώτῳ στάσιν φημὶ εἶναι κίνησιν σύμφυτον, ἀφ᾽ ἧς ἥ τε τάξις τοῦ κόσμου καὶ ἡ μονὴ ἡ ἀίδιος καὶ ἡ σωτηρία ἀναχεῖται εἰς τὰ ὅλα.

systasis) and Plotinus' definition of multiplicity as "a separation from the One" (*apostasis tou henos*). The First God is not Plato's Demiurge,[37] but his concept of the absolute Good, which Plotinus later refines, with the help of Moderatus, as the One.[38] The Second God is the Demiurge, later elicited in Plotinus' Intellect. If we consider what O'Meara calls Plotinus' Principle of Prior Simplicity,[39] we can conclude that, in Numenius, since the First God is transcendent, it possesses, in an absolute form, the qualities of the Second God. Consequently, since motion is the characteristic of the Second God, the First God must possess innate motion (*kinêsis symphytos*). Numenius describes the First God to be in *stasis*, which is not static but dynamic and possesses an innate motion that orders the cosmos (*taxis tou kosmou*).[40] So how are we to understand the conceptual paradox of Numenius' First God as innately moving stability?

The influence of the *Timaeus* on Numenius' views is rather detectable. Of most interest to us is that Numenius combines Plato's idea that being is "always according to itself" (*Ti.* 28a8) with the primary kinds of Being, Rest, and Motion (*Sophista* 254d).[41] In order to render the cosmogonical motion in the *Timaeus,* we may suppose that Numenius conflates Plato's primary kinds of Being, Rest, and Motion in his First God and perceives of it as stability (*stasis*) in innate motion (*kinêsis symphytos*). Although Numenius' conceptual adaptation of the *Timaeus* seems paradoxical, it is not out of line with his Three Gods. On the contrary, this kind of paradox is ingrained in his system. For example, the Second God "unifies matter, but is split by it" (fr. 11), "creates both his own idea and the cosmos" (fr. 16), and "the Second and the Third Gods are one" (fr. 11). Dodds finds the answer to these paradoxes in Proclus' interpretation of Numenius' system in the context of *Ti.* 39e6–9.[42] According to Proclus, "Numenius equates the First God with the living creature that truly is,[43] and says that he thinks (*noei*) by calling in the help of the Second God (*en proschrêsei tou deuterou*); he equates his Second God with *Nous,* and says that *Nous* creates by calling the help

37. As misunderstood by Proclus, *In Ti.* I 303.27ff; Dillon (1996: 366).

38. See chapter 2.

39. O'Meara (1993: 62) and sketched in III.8.10.

40. Dodds (1957: 12–13); Dillon (1996: 368).

41. Respectively, τὸ κατὰ ταὐτὰ ἔχον…ἀεί (*Ti.* 28a6–7) and τὸ ὂν αὐτὸ καὶ στάσις καὶ κίνησις (*Sph.* 254d). Dillon (1996: 369) takes it as a reference to *Sph.* 248e and the predicates of the "Completely Existent": motion, life, soul, and knowledge. I think the analogy with *Sph.* 254d is more accurate since Numenius talks about exactly the same things as Plato: being, rest, and motion.

42. *In Ti.* 3.103.

43. Proclus has τὸ ὃ ἔστιν ζῷον corresponding to τῷ ὃ ἔστιν ζῷον in *Ti.* 39e8.

of the Third (*en proschrêsei tou tritou*)."[44] Dodds accepts Proclus' interpretation of help (*proschrêsis*) to solve the above paradoxes by associating the three gods with three different mental processes.[45] Since the Second God has the ability to think and be self-reflexive, the First God borrows or inherits the ability to think from the Second God.[46] Since the Third God possesses *dianoia,* the Second God, when relating to the Third God, abandons his *noêsis* and takes on *dianoia*. Thus there is an implicit interdependence among the three gods.

Dodds does not extend his interpretation to solve the paradox of *stasis* and *kinêsis symphytos* in the First God. But I see no reason why not. If motion (*kinêsis*) is the characteristic of the Second God and if the First God, as the highest grade of reality (*autoon*),[47] is in *stasis,* then the First God must "borrow" the motion of the Second God and make it innate motion (*kinêsis symphytos*). While "being" proper negates the idea of motion and the First God is in *stasis* proper,[48] the First God must possess innate motion in order to account for the motion of the Second God. Although this argument may seem circular, the circularity is not generated by our analysis but stems from the interdependent elements of Numenius' system itself.

In VI.6, Plotinus solves, I would argue, the difficulty of Numenius' *stasis-kinêsis* paradox by expressing only implicitly the idea of motion in the term *apostasis,* literally meaning "away from the *stasis*." That Plotinus is aware of Numenius' definition is clear in III.9.7–9, which explicitly discusses the characteristics of Numenius' First and Second Gods.[49] While explaining the relationship between Intellect and the Forms, based on the same passage from *Ti.* 39e used by Proclus,[50] Plotinus postulates that "the One is the power of motion and rest, so that is beyond them; but the Second is at rest and also in motion around the First."[51] Plotinus completely removes the One from the ontological equation (perhaps a distant relative of Numenius'

44. Dodds' translation (1957: 13).

45. Although I find Dodd's explanation of the *noêsis* of the First God shady, his discussion of the *dianoia* of the Second God is compellingly lucid.

46. In stark opposition to Plotinus' view in III.9.9.1: οὐ νοεῖ τὸ πρῶτον ἐπέκεινα ὄντος.

47. Fr. 17 (des Places): αὐτοόν.

48. Fr. 6 (des Places): ἡ δὲ αἰτία τοῦ ὄντος ὀνόματός ἐστι τὸ μὴ γεγονέναι μηδὲ φθαρήσεσθαι μηδ' ἄλλην μήτε κίνησιν μηδεμίαν ἐνδέχεσθαι μήτε μεταβολὴν κρείττω φαύλην.

49. This is perhaps the most unusual treatise in the *Enneads* containing sporadic notes.

50. *In Ti.* 3.103, discussed p. 32.

51. III.9.7.1–3. An allusion to Plato's famous passage in the *Epistulae II* 312e3.

autoon) and makes it the absolute source of *stasis* and *kinêsis,* while Intellect becomes the embodiment of *kinêsis symphytos*.[52]

Numenius' claim that the innate motion propels or creates not the *kosmos* itself but rather the order of the cosmos (*taxis tou kosmou*) is important. It implies that, according to him, the origin of the universe is not a cosmogonical act as it is for Plato in the *Timaeus,* but a cosmological act that arranges the cosmos of the universe. Plotinus, it seems, shares the same view in VI.6 and develops Numenius' idea in two ways. First, by focusing on the state of existence of multiplicity in VI.6.1, he reinforces Numenius' understanding that the coming-to-be of the universe is a cosmological rather than cosmogonical act.[53] Second, he coins the term *apostasis* to signify the former.[54] Thus, it is through Numenius that, as we said in the beginning of the chapter, Plotinus' cosmology begins where Plato's cosmogony ends.

Numenius' concept of *stasis* of the One is the foundation of Plotinus' understanding of *apostasis.* Explaining the transcendent nature of the One in VI.5.3, Plotinus asserts axiomatically that the One does not separate from itself (*existatai*);[55] it does not come into being; it is not in any physical place, but is always with itself; it does not stand away from itself (*mê diestanai*), so that nothing comes from it (*mêde proienai ti ap' autou*); and it does not separate from anything (*mêdenos apostatein*). The language of this description emphasizes that the One does not participate in the separation of multiplicity from itself. Because the One is beyond being and nondianoetic, it can be conceived only as an opposite to that which originates from it. As a result, the One is described by negating the ontogenetic separation of multiplicity from the One. If we remove the prefixes denoting separation from the verbs listed above (*ex-istatai, die-stanai, pro-ienai, apo-statein*),[56] we are left purely with the

52. V.1.4 and VI.9.3.42–45: "The One is not in movement or at rest, not in place, not in time, but 'itself by itself of single form,' or rather formless, being before all form, before movement and before rest; for these pertain to being and are what make it many." This description systematically denies that the One participates in Aristotle's categories, see pp. 95–99.

53. Plotinus repeatedly emphasizes that the extending of the universe from the One does not occur in time but presents only dianoetically the structure of the universe.

54. The term does not occur in any metaphysical context before Plotinus but is prevalent in the post-Plotinian Neoplatonists: Simplicius, *In Cael.,* vol. 7, p. 255.9, *In Ph.,* vol. 9, p. 798.14, *In de An.* vol. 11, p. 6.7; Iamblichus, *Comm. Math.* 33.29; Syrianus, *In Metaph.* 137.11.

55. *Ti.* 50b7–8: ἐκ γὰρ τῆς ἑαυτῆς τὸ παράπαν οὐκ ἐξίσταται δυνάμεως.

56. See the discussion of substantial number and the One in chapter 5.

definition of multiplicity in VI.6: since multiplicity pours forth (*cheêtai*), and extends (*ekteinêtai*) from the One, it is a separation (*apostasis*) from the One.

If we ignore, for a moment, the nondiscursiveness of the One, we can perceive that the *apostasis* of multiplicity is a direct result of the *stasis* of the One. We may even suppose dianoetically that the One is in *stasis* because the One is not divided, does not pour forth, remains in itself, is always with itself, is one and the same in number, and exists as a whole. All these characteristics of the One negate the characteristics of multiplicity found in VI.6.1. When we restore the nondiscursiveness and absoluteness of the One at the end of this hypothetical exercise, we can understand that the One does not possess *stasis* or *kinêsis* but only emanates them: "[the One] does not move nor does it stand still,"[57] and yet, something generated by the One leaves it and comes into the other things in many ways.[58] In this vein, the immediate separation from the One is a result of the transcendent nature of the One.

A much-discussed passage in V.3.11 offers a good starting point for examining the very first separation. It explains that Intellect, as the Second Hypostasis, turns itself toward the One in a contemplative act in which Intellect sees the One as multiplicity. When Intellect turns itself toward the One in a desire to attain to the One in its simplicity, it perceives something else, which is many in itself (*plêthynomenon,* V.3.11.3–4). Here Plotinus enigmatically explains that Intellect does not act as Intellect in this process but as sight "which has not yet seen" (*opsis oupô idousa,* V.3.11.5). We get a better idea of what he is talking about when he elaborates that Intellect perceives the multiplicity reflected from the One as an imagination (*phantasma*) and gains sight and knowledge of the One only after understanding in a contemplative act that many come from the One.[59] Itself thinking and the object of thought, Intellect comes into existence

57. V.5.10.16–17: οὐ γὰρ κινεῖται οὐδ᾽ ἕστηκεν. Plotinus reverses the order of Plato's quote οὐτε ἕστηκεν οὐτε κινεῖται at *Sph.* 250c7, *Prm.* 139b3, and *Lg.* 893c2.

58. VI.5.3.23–24: ἄλλο δέ τι ἀπ᾽ αὐτοῦ γεγονὸς καταλελοιπὸς αὐτὸ ἥκειν εἰς τὰ ἄλλα πολλαχῇ. This interpretation of multiplicity follows the same line of reasoning as V.5.5.3, where Plotinus clarifies that "in the case of numbers, the one remains unchanged, but another one makes number" (ποιοῦντος δὲ ἄλλου).

59. Rist (1962a: 101) argues that the passage explains how the Indefinite Dyad experiences the first act of separation. Even if this is what Plotinus has in mind implicitly, I do not think we have enough hard evidence for it in the text. He is usually very specific when he talks about the ἀόριστος δῦας and wants us to distinguish it from Intellect. But throughout this passage, he refers to the entity he is talking about only as νοῦς.

simultaneously at the very moment when Intellect understands that the One is many. In the coming-to-be of Intellect, the One reveals itself as multiplicity because Intellect sees itself as multiplicity.

The emanation of Intellect as multiplicity from the One in Plotinus represents both the *stasis* and the *kinêsis symphytos* in Numenius' First God. He further stratifies Numenius' concept by separating the *stasis* of the First God from the *kinêsis symphytos* in which the One is absolute and beyond being, while the Indefinite Dyad, as will be discussed later, conceptualizes the principles of innate motion, duality, and creation of the Second God.[60] Although, in Plotinus, the One does not participate in the act of manyness and remains in absolute *stasis,* it reveals itself through the innate motion in the Indefinite Dyad.[61] Contemplating the One, Intellect sees the multiplicity of the Indefinite Dyad as a reflection of the One. Only then can Intellect, filled with the multiplicity that emanates from the One (*plêrôtheis*), stand still (*stas*) and contemplate the One.[62]

The opening chapter of VI.6 offers an informative example of what Gerson calls the "uncompromising radical character" of Plotinus' thought.[63] Since Plotinus gives an account of the structure of the universe through multiplicity, he must vest the cosmogony in the *Timaeus* in garments suited to the post-Platonic taste of his time. His top-down approach sketches the ontological ladder of the universe in which the One and Infinity are respectively at the top and the bottom of its hierarchy, while multiplicity is their intermediary.[64] In cosmological terms, the *apo-stasis* from the One con-stitutes the existence of the universe, pun intended.

My main point is not that there is an intertextual echo of *systasis/stasis/apostasis* respectively in Plato/Numenius/Plotinus, but that the different points from which Plato, Numenius, and Plotinus develop their cosmogonical accounts (bottom, middle, and top) build the same structure of the universe, which, in its turn, demands the above intertextual echo. This echo highlights both the conceptual differences and the conceptual similarities among the three cosmologies.

60. See the discussion of substantial number and Intellect in chapter 5.

61. The multiplicity of the Indefinite Dyad is not in conflict with the Absolute One (VI.4.4).

62. V.5.8.9–13.

63. Gerson (1997: 299); see also pp. 24–25.

64. His view of multiplicity in the beginning of VI.6 casts a positive light on the participation of multiplicity in the structure of the universe and stands in direct opposition to the theme of the last treatise in the *Großschrift*—II.9, *On the Evil,* number 33 in the chronological order of the *Enneads* and immediately preceding VI.6.

The Universe as Degrees of Separation from the One

The term *apostasis* does not occur in philosophical texts before Plotinus. It appears strictly in mathematical works to signify physical distance.[65] The term is used without any ontological connotations even by Theon of Smyrna in his treatise *The Mathematics Useful for the Understanding of Plato,* where it is only used to measure the radius of a circle.[66] Considering Numenius' meaning of *stasis* as *kinêsis symphytos* and Plotinus' *via negativa* description of the One, it is reasonable, I think, to conclude that Plotinus coined the term to denote the cosmological process in which the universe exists as different from and dependent upon the One.[67] He separates the *stasis* from the *kinêsis symphytos* in Numenius and delegates them respectively to the One and Intellect. Although the One does not possess any particular qualities, it possesses them in absolute form. If the One is the absolute *stasis* from which the universe unfolds, the term *apostasis* literally negates the meaning of *stasis.* The One is in *stasis* in the sense that it is the absolute starting point of the universe, while Intellect, through the emanation from the One, receives the *stasis* and *kinêsis* in actuality. Since separation from the One leads to existence, *apostasis* denotes ontological becoming and thus being.[68]

Based on the definition of multiplicity in VI.6.1, we may expect that Plotinus would present the underlying principles of the universe as a degree of separation from the One. In other words, multiplicity (*plêthos*) would measure the universe from the Being to the embodied soul. We do not need to search far in the *Enneads* to find out that, indeed, he employs the idea of separation, although at some embryonic stage, as a measurement of the distance from the One to the second and to the third hypostases.

Let us examine VI.2.5 closely. Explaining that multiplicity comes from a plurality that is one and yet different from the absolute One, Plotinus

65. Theon, *In Ptol.,* p. 337, 1.24; p. 521, 1.7; p. 620, 1.19, among many others. The term is not even found in Euclid.

66. Theon, *De util. math.* 191, 15. Themistius defines the circle as ἡ γὰρ ἀπὸ τούτου πανταχόθεν ἴση ἀπόστασις κύκλος, *In Ph.* vol. 5.2, p. 233, 2. Cf. Simpl., *In Cael.,* vol. 7, p. 181, 29.

67. Aristotle uses *apostasis* only once in the definition of time, which is not in a cosmological or metaphysical context. *Ph.* 223a.5–8: πρότερον γὰρ καὶ ὕστερον λέγομεν κατὰ τὴν πρὸς τὸ νῦν ἀπόστασιν...ἐν ᾧ γὰρ τὸ νῦν, καὶ ἡ τοῦ νῦν ἀπόστασις.

68. The later commentators pick up on Plotinus' use of *apostasis* to mean existence. Discussing the actual activities (*energeiai*) of Intellect, Damascius explains that the *energeia* of Intellect is directed toward the One and not toward separation from being, that is, nonexistence (ἀπόστασις ἀπὸ τοῦ εἶναι, *De Principiis* vol. 1, p. 133.7).

remarks that "the extent of the separation from being is as great as that of the departure from unity."[69] Contextually, *apostasis* here means measurement of a degree of beingness and unity. As already determined in V.3.11,[70] the first separation from the One is a contemplative act in which Intellect sees the One in its multiplicity (*plêthynomenon*). This multiplicity is unified because it is an image of the absolute One. The absolute One cannot participate itself in this multiplicity because it is beyond being and does not become multiplicity but reveals itself to Intellect as multiplicity, unified by one. VI.2.5 clarifies the explanation of the first separation in V.3.11 by highlighting the differences between the absolute One and the one containing multiplicity. The former is beyond being; the latter is unified being.[71] The former is absolute unity; the latter is the unified multiplicity, emanated by the former. The latter represents the originative principle of the Indefinite Dyad, which is best reflected in the double nature of Intellect, able to think itself and to think all the beings in itself.[72]

But nowhere in the *Enneads* does Plotinus specifically call the Indefinite Dyad or even Intellect *apostasis*.[73] In the passages describing Intellect's contemplation of the One in which Intellect becomes aware of its existence, the idea of separation is represented by the differences between the Absolute One and Intellect.[74] I should note that he prefers to characterize Intellect by its closeness to rather than remoteness from the One. The reason, I suggest, for his interest in emphasizing the distance from the One at the end rather than at the top of the ontological spectrum lies in Plotinus' view that Intellect is closer to the One and thus it is obvious that is related to the One, whereas it is more difficult to grasp the relation of the innumerable physical reality to the One. Although Soul is most ontologically distant from the One, it is still related to it:

> But since Soul depends on Intellect and Intellect on the Good, so all things depend on him through intermediaries, some close

69. VI.2.5.6–7: ὅσῳ γὰρ πρὸς ἓν ἡ ἀπόστασις, τόσῳ καὶ πρὸς ὄν. Later echoed by Proclus in ὅσῳ γὰρ πλείων ἡ ἀπόστασις, τοσούτῳ τὸ ἔχειν ἀμυδρότερον, *In Ti.* 1.306.9 and by Syrianus in πολλῷ πλέον αἱ ψυχικαὶ τῶν νοερῶν, ὅσῳ πλείων ἡ ἀπόστασις, *In Metaph.* 137.11.

70. See pp. 35–36.

71. On Plotinus' unified being as *arithmos hênômenos* (VI.6.9), see the discussion of substantial number and Absolute Being in chapter 5.

72. Against Rist's assertion (1962a: 100) that Plotinus does not speak of the Indefinite Dyad as multiplicity (*plêthos*).

73. It is not until the *Theol. Ar.* 10.26, where the Indefinite Dyad is called "the first separation" (*prôtê apostasis*).

74. V.3.11.

> to him, some neighbours of those close to him, and the things of sense dependent on Soul at the ultimate distance from him. (VI.7.42.21–24)[75]

I quote this passage not only to demonstrate the ontological succession of the underlying principles in the structure of the universe but also to prove that Plotinus perceives the ontological succession in terms of separation. His view of physical reality as ontologically the farthest separation from the One measures the dependence of sense-perceptible reality upon the underlying principle of Soul conceived as "the furthest separation" (*pleistê apostasis,* V.1.1.7–8).[76] All references to *apostasis* as ontological distance pertain to Soul and physical reality or, put differently, to the end of the ontological spectrum.[77] At the bottom of this chain of separation stands infinity as a complete separation from the One (*pantelês apostasis,* VI.6.1.2).

In I.8.7,[78] Plotinus further defines the meaning of *apostasis* in VI.6 by recognizing the different ontological motions in the separation: the moving away (*ekbasis*),[79] which results in the Otherness from the One, and the moving down (*hypobasis*), which traces the ontological hierarchy from the intelligible to the sensible world. The two terms clarify that *apostasis* in VI.6 means falling away,[80] separating, expanding, and going down from the One, which produces the universe as extended multiplicity (*diestêkos plêthos,* VI.2.5.9). The moving away and moving down represent the innate motion of multiplicity as ontologically dependent on the One, while *apostasis* denotes the state in which multiplicity abides as Otherness from the One.

The separation from the One is an ontologically deteriorating act in which "a thing is multiple when, unable to tend to itself, it pours out and is extended in scattering; and when it is utterly deprived of the one in its

75. VI.7.42.21–24: ἀνηρτημένης δὲ ψυχῆς εἰς νοῦν καὶ νοῦ εἰς τἀγαθόν, οὕτω πάντα εἰς ἐκεῖνον διὰ μέσων, τῶν μὲν πλησίον, τῶν δὲ τοῖς πλησίον γειτονούντων, ἐσχάτην δ' ἀπόστασιν τῶν αἰσθητῶν ἐχόντων εἰς ψυχὴν ἀνηρτημένων.

76. V.1.1.5–9: "Since [the souls] were clearly delighted with their own independence, and made great use of self-movement, running the opposite course and getting as far away as possible (*pleistên apostasin*), they were ignorant even that they themselves came from that world [the intelligible]."

77. V.1.1.8; VI.2.5.7; VI.7.42.24; VI.9.4.4. Damascius also talks about *apostasis* exclusively at the level of Soul. Cf. *De Principiis* vol. 1, p. 169.10: ἡ τοῦ τρίτου ἀπόστασις ἀπὸ τοῦ πρώτου.

78. One of Plotinus' latest treatises, number 51 in Porphyry's chronological order (*VP* 6).

79. Cf. *ekbebêkos,* VI.6.3.7–8.

80. Armstrong (1988: vol. 7, 11).

outpouring it becomes multiplicity" (VI.6.1.4–6). If we compare the fragmented nature of multiplicity to the absolute unity of the One, multiplicity is everything other than the One. In fact, multiplicity is the universe. But, breaking the Pythagorean tradition that views multiplicity as complete evil,[81] Plotinus ameliorates multiplicity's lack of absolute ontological unity by explaining that the universe does not expand searching for anything else but itself (VI.6.1.10–14).[82] As a result, this desire turns multiplicity inward,[83] connects it, albeit faintly,[84] with the One, and thus preserves it from "complete separation from the One" (*pantelês apostasis,* VI.6.1.2), meaning infinity and nonexistence. This inward desire induces order and correspondence in multiplicity "because what needed ordered beauty was many"[85] and creates *kosmos.* From the intelligible beings to their material images, order arranges multiplicity into a one-in-many universe.

The discussion of the ontological distance of *apostasis* draws together the concepts of the One and multiplicity as a Plotinian pair of opposites (*hen plêthos*). I characterize this pair of opposites as Plotinian not to distinguish it from the Pythagorean and Platonic pair of One and Many but to highlight Plotinus' understanding of Multiplicity as a collective *plêthos* in VI.6, and not as the individualized plurality conveyed by the standard *ta polla*. Plotinus introduces the concept of multiplicity as a measurement of ontological distance from the One, creating the orderly structure of the universe.

Let us recapitulate our findings. Plotinus defines the beginning of the universe as a separation (*apostasis*) from the One that results in the ontologically hierarchical existence of everything. The first hypostasis is both absolute stability and absolute motion and therefore the absolute starting point of the separation that results in the existence of the universe. Possessing ontological stability inherent in being, Intellect is a separation that is closest to the One because first Intellect perceives itself as the multiplicity of the Indefinite Dyad and only then realizes that this multiplicity comes from the One. Finally, Soul, as the ontologically weakest form of existence, oscillating between the intelligible and the material world, represents the farthest separation from the One.[86]

81. This is the main point of Losev's commentary on VI.6.1 (1928: 12–14).

82. For the outward and inward stages of separation, see Charles-Saget (1980: 32).

83. VI.6.1.16: τὸ δὲ πρὸς αὑτὸ τὸ ἔνδον ἦν.

84. VI.6.18.24: ἀμυδρῶς.

85. VI.6.1.27–28: πολὺ τὸ δεόμενον κόσμου.

86. V.1.1.7–8 and VI.7.42.23: *pleistê* and *eschatê apostasis,* respectively. In V.8.7.22–23, Plotinus' view that matter is a sort of ultimate form (*eidos ti eschaton*) corresponds to the ultimate stage of the separation of Soul (*eschatê apostasis*). Soul, enmattered in physical reality, is the farthest separation from

The top-down cosmological order in VI.6 is determined by Plotinus' ontological system and therefore necessitates its representation as opposite to the bottom-up cosmogonical order in the *Timaeus*. This reversal in the understanding of the universe from Plato's *systasis* to Plotinus' *apostasis* most likely reflects the Neopythagorean development of the concept of the First God as an innate stability and mobility in Numenius. The description of multiplicity in VI.6.1.1 proceeds like a mathematical progression, and the Plotinian terms of Plato's cosmology suggest strong Neopythagorean influence.

the One (*pleistê apostasis* in V.1 and *eschatê apostasis* in VI.7), matter is the most distant and ontologically pejorative. On the same note, Proclus calls the distance between the human and divine matters *pantelês apostasis* (*In Ti.*, vol. 3, p. 165.7).

2
Multiplicity as Number

Surfacing from the "Neopythagorean Underground"

This chapter aims at excavating the Neopythagorean layer in Plotinus' concepts of multiplicity and number. Among the *Enneads,* VI.6 is the best candidate for this work as it follows the long Neopythagorean tradition of philosophizing about numbers.[1] The heading above reflects the strong and yet subtle Neopythagorean movement in the first and second centuries, wittily called the "Neopythagorean underground,"[2] and the tangible presence of Neopythagorean elements in Plotinus' concept of multiplicity.

In *VP* 14, Porphyry reports the names of Severus, Cronius, Numenius, Gaius, and Atticus among the philosophers whose works Plotinus used in his lectures. Among them, Numenius is distinguished in that Plotinus was accused of appropriating his ideas and later absolved from the charges in a letter written by Longinus (*VP* 17–21). The letter also attests, as reported by Porphyry, that Plotinus "deliberately propounded Pythagorean views, and the works of Numenius and Cronius and Moderatus and Thrasyllus come nowhere near the accuracy of Plotinus's treatises on the same subjects" (*VP* 21.5–9). Even if we ignore the encomiastic tone of Porphyry's biography, it is clear that Plotinus was highly esteemed in Neopythagorean circles, and his use of Neopythagorean material should surface, in its turn, from the scholarly underground for serious consideration.

In *VP* 3, Porphyry also documents that Plotinus was a student of Ammonius Saccas, a mysterious figure who swore his students to secrecy about his doctrines. Most likely his secrecy is not the sole reason for our lack of written evidence from him. But since both Numenius and Ammonius are thought to have introduced Plotinus to Neopythagoreanism,[3] the paucity of Numenius' extant fragments and the lack of Ammonius' writings present a serious obstacle for directly studying the Neopythagorean roots of Plotinus' understanding of multiplicity and number. We can, however, perform a kind of conceptual archaeology to search and uncover the Neopythagorean remains scattered throughout the *Enneads.* Although scholars have generally

1. Charles-Saget (1980: 9–17) surveys this tradition.
2. Dillon (1996: 381).
3. Dodds (1957); Schroeder (1987); Narbonne (1994).

acknowledged the Neopythagorean influence on Plotinus, there is little concrete discussion of any particulars, aside from the Neopythagorean elements in Plotinus' concept of the One, as discussed later.[4]

The opening statement of VI.6 introduces the question of multiplicity precisely in its Neopythagorean context. In the previous chapter, we examined the influence of Numenius' concept of the First God as stability (*stasis*) and innate motion on Plotinus' idea that the universe is a separation (*apostasis*) from the One. In its turn, Numenius' idea of *stasis* contains elements that characterize the definition of number found in the fragments of his not-so-distant contemporary Moderatus.[5] According to him, number is a system of monads (*systêma monadôn*), which is a progression of multiplicity (*propodismos plêthous*) beginning from the monad and a regression (*anapodismos plêthous*) stopping at the monad.[6] This reasoning makes the first monad both the beginning of the ascending sequence of numbers and the end of the descending sequence of numbers. The monad is the actual limit of quantity because there is no number smaller than it. When multiplicity is decreased by subtraction of all numbers, the naked monad (*sterêtheisa*), Moderatus concludes, receives onlyness (*monê*) and stability (*stasis*). Since the monad is both the starting point and the finishing end for numbers, the monad lacks motion and thus represents stability. If all numbers start with and return to the monad, the monad must be unmoved, fixed, and stable. This stability makes the monad the limit of quantity.[7]

Reworking Platonic ideas and Neopythagorean mathematics,[8] Moderatus further distinguishes between the monad and the number one. The monad is

4. Dodds (1928); Rist (1962b); Jackson (1967); Whittaker (1969); Dillon (1996: 347). See also pp. 45–46.

5. See p. 8.

6. Theon, *Expos. rer. math.*, p. 18, 3–8: ἀριθμός ἐστι σύστημα μονάδων, ἢ προποδισμὸς πλήθους ἀπὸ μονάδος ἀρχόμενος καὶ ἀναποδισμὸς εἰς μονάδα καταλήγων. μονὰς δέ ἐστι περαίνουσα ποσότης [ἀρχὴ καὶ στοιχεῖον τῶν ἀριθμῶν], ἥτις μειουμένου τοῦ πλήθους κατὰ τὴν ὑφαίρεσιν τοῦ παντὸς ἀριθμοῦ στερηθεῖσα μονήν τε καὶ στάσιν λαμβάνει. Cf. Stobaeus, *Anth.*, vol. 1, p. 21, discussed by Dillon (1996: 350).

As Bulmer-Thomas notes (1983: 384), Iamblichus (*In Nic.* 10.9) attributes the definition of the monad to Thales. But while Iamblichus, probably following Nicomachus (*Ar.* 1,7,1.2), calls it *monadôn systêma,* Theon of Smyrna, perhaps following Moderatus, calls it *systêma monadôn.* This reversal is most likely incidental, but it may also indicate two different traditions.

7. Theon, *Expos. rer. math.*, p. 18, 5. I accept Usener's emendation of μονάδες δὲ περαίνουσι ποσότης into μονάδας δὲ περαίνουσα ποσότης.

8. According to Moderatus' avid Neopythagoreanism, Plato and his successors are mere followers of Pythagoras. Cf. Dillon (1996: 346).

the first principle of numbers (*tôn arithmôn archê*), whereas the arithmetical number one is the principle of enumerated things (*tôn arithmêtôn archê*).[9] In this distinction, the monad as the first principle of numbers acquires, albeit faintly, some ontological significance since it generates the numbers themselves as systems of monads. This generating principle is different from the numerical expression of individual things. If we view the monad as a principle of numbers (*tôn arithmôn archê*), for example, the number five represents five monads that are brought together to form one unity, like our five-digit hand. When we think of a normal hand, we do not think of the five fingers individually but of the five fingers that all together make one hand. But, from the point of the one as the principle of enumerated things (*tôn arithmêtôn archê*), the number five enumerates five individual things, like five chocolate bonbons.[10] The difference between the intelligible principle of number and the mathematical principle of number in Moderatus anticipates Plotinus' distinction between intelligible and arithmetical number.

This distinction brings us to the question of the first One in Moderatus. It is not clear from the extant fragments exactly how Moderatus explains the difference between the monad as the first principle of number and the One as the first underlying principle of existence. A controversial passage in Simplicius (*In Phys.* A 7, 230.34), which I interpret, with Dodds, Jackson, and Rist, as representing Moderatus' views,[11] lists three separate Ones as underlying principles of existence: the first One, which is "above Being and all essence"; the second One, which is "truly existent and an object of intellection"; and the third One, which is "the soul-realm which participates in the previous two."[12] Unfortunately, it is unclear who the author of the doctrine is. The text states that, according to Moderatus' report, first the Pythagoreans, followed by Plato, form an opinion about matter (*hylê*).[13] In

9. Stobaeus, *Anth.*, vol. 1, p. 21. It is not absolutely clear from the text that Moderatus shares this opinion, but it is quite reasonable to assume so. Otherwise, the text would have somehow indicated a divergence.

10. It is unlikely that this distinction leads Moderatus to the conclusion that number is quantity in the intelligible realm (*to en noêtois poson*), as reported by Theon (*Expos. rer. math.*, p. 19, 15) and as later rejected by Plotinus (VI.6.4). The phrase is in a sentence that connects almost verbatim Moderatus' two fragments quoted in Stobaeus. Contrary to Dodds (1928: 138, n. 2), who attributes the phrase to Moderatus, I think it is safer to suspect, for the lack of textual evidence, Theon's addition.

11. Dodds (1928); Jackson (1967); and Rist (1962b).

12. Respectively, ὑπὲρ τὸ εἶναι καὶ πᾶσαν οὐσίαν, ὅπερ ἐστὶ τὸ ὄντως ὂν καὶ νοητόν, and ὅπερ ἐστὶ τὸ ψυχικόν, μετέχειν τοῦ ἑνὸς καὶ τῶν εἰδῶν. Dillon's translation (1996: 347).

13. Ταύτην δὲ περὶ τῆς ὕλης τὴν ὑπόνοιαν ἐοίκασιν ἐσχηκέναι πρῶτοι μὲν τῶν Ἑλλήνων οἱ Πυθαγόρειοι, μετὰ δ' ἐκείνους

his discussion of the passage, although admitting that the text most likely expresses Moderatus' views, Dillon takes the subject of the sentence (*houtos*) to refer to Plato and not Moderatus, thus reading that "Plato, following the Pythagoreans, declares that the first One is above Being and essence."[14] It seems to me that the text contains an elliptical connection between Plato and Moderatus. Relating Moderatus' account, Simplicius makes a syllogistic jump from the names of the Pythagoreans and Plato to Moderatus' views. In his mind, all three of them represent the same doctrines, and he lists them accordingly. The idea of the three Ones is certainly Middle Platonic and most likely Neopythagorean, and the author, even if not Moderatus, is Neopythagorean.[15] But even if Moderatus did not come up with the system of the three Ones, which is unlikely as I will discuss presently, this text proves that he at least knew of this view, and we should expect him to incorporate it in his own ideas.

The Neopythagorean origin of the concept of the One has been at the center of a long and heated scholarly debate. Dodds, followed by Jackson, discovers an earlier Neopythagorean doctrine within Moderatus' three Ones in the *Parmenides,* while Rist purports that the doctrine is original to Moderatus.[16] I think Moderatus' definition of number can bring us closer to answering this question:

1. He postulates that both number and the numbered things have founding principles, respectively as the first principle of numbers (*tôn arithmôn archê*) and as a principle of enumerated things (*tôn arithmêtôn archê*).

2. He distinguishes between numbers representing unities and numbers enumerating individual things, such as the difference between the monad and the number one.

If we consider Moderatus' characteristics of number in the context of our earliest evidence of the Neopythagorean cosmological views, reported in Alexander Polyhistor, we discover that Moderatus' view of the monad as the first principle of numbers is concurrent with the Neopythagorean view that the monad is the originative principle of everything.[17] The same fragment (fr. 140) also documents that "the Indefinite Dyad derives from the monad

ὁ Πλάτων, ὡς καὶ Μοδέρατος ἱστορεῖ. Οὗτος γὰρ κατὰ τοὺς Πυθαγορείους…Dodds (1928: 137–140); Dillon (1996: 347).

14. *In Phys.* A 7, 230.36–37: οὗτος γὰρ κατὰ τοὺς Πυθαγορείους τὸ μὲν πρῶτον ἓν ὑπὲρ τὸ εἶναι καὶ πᾶσαν οὐσίαν ἀποφαίνεται.

15. Cf. Numenius' idea of the Three Gods, discussed pp. 31–36.

16. Dodd (1928); Jackson (1967); Rist (1962b).

17. Fr. 140, 31: ἀρχὴ μὲν ἁπάντων μονάς.

as matter underlying the monad being its cause."[18] By relating Alexander's account to the system of the Three Ones, one may see that Moderatus treats the monad as a joint principle of existence with the Indefinite Dyad, which, in its turn, relates to the second One as a principle of propagation in the intelligible realm, while the third One corresponds to the Soul, which acts according to the enumerating principle of number. Rist has argued that Alexander's testimony demonstrates that the monad has two functions: the first, which treats the monad as the Supreme Principle, is a prototype of the Neoplatonic One, and the second, which treats the monad as a productive principle, is a precursor of the Neoplatonic Intellect. Polyhistor's text, however, does not separately account for the third One, which relates to physical reality but combines it with the Second One by stating that the Indefinite Dyad is at the foundation of the material principle. If we take into account Moderatus' distinction between unifying number and enumerating number, I think we can modify Rist's classification of the dual function of the monad to account for Moderatus' three Ones.[19] The first One, as a supreme principle of everything, derives from Moderatus' view that the Monad is *archê* in the sense of absolute stability and an absolute starting point. The second One, as a principle of creation, derives from the monad representing all numbers as absolute unities. The third One, as a principle of the material reality, derives from the number one as enumerating individual things. This reclassification elucidates the influence of Moderatus' definition of number on his cosmological views. Such conceptual symbiosis between mathematics and the universe is a genuine Neopythagorean characteristic.

Outward and Inward Direction of Multiplicity in *Ennead* VI.6

Plotinus' understanding of multiplicity synthesizes the ideas of Numenius and Moderatus.[20] The definition of multiplicity as a separation from the One in VI.6.1 conflates Moderatus' concept of number moving in progression from or regression to the monad as *stasis* and Numenius' concept of the First God as stability that contains innate motion.[21] He conceptualizes the motion of multiplicity (*plêthos*) by using Moderatus' idea of number as motion of progression or regression of multiplicity (*propodismos plêthous kai anapodismos*). Instead of using Moderatus' terms, however, Plotinus invents his own

18. Fr. 140, 31: ἐκ δὲ τῆς μονάδος ἀόριστον δυάδα ὡς ἂν ὕλην τῇ μονάδι αἰτίῳ ὄντι ὑποστῆναι.

19. Rist (1962b: 393).

20. Charles-Saget (1980: 52) observes the relation between Moderatus and Plotinus.

21. And Plato's primary kinds in *Sph.* 254d, as discussed in chapter 5.

term, *apostasis,* which specifically encapsulates Numenius' idea of *stasis* and innate motion (*symphytos kinêsis*), combined with the Neopythagorean distinction between ontological and arithmetical number.[22]

While discussing the nature of arithmetical quantity (*to poson*) in VI.3.8–10, Plotinus himself is aware of the arithmetical definition of number as he clarifies that "one must call the many 'many' as a multiplicity in number (*plêthos en arithmôi*)... but this is the same as saying 'an expansion of number' (*epektasis arithmou*) and the opposite 'contraction' (*systolê*)."[23] The text suggests that Plotinus uses analogically the arithmetical understanding of number for the bidirectional state of multiplicity to the extent that Plotinus' pair of One and multiplicity, which we defined in chapter 1,[24] is better suited to the title of One and number.

Like Plato's cosmology in the *Timaeus,* Moderatus' definition of number has motion at its foundation: all of number unfolds and enfolds to the monad as a starting and an ending point. Moderatus' bidirectional motion of number is woven into Plotinus' understanding of the two directions of multiplicity.[25] In the beginning of VI.6.1, Plotinus explains that multiplicity extends in two opposite directions: first, as an outward motion (*exô poreia*) from the One (VI.6.1.4–8);[26] and second, as an inward motion (*pros hauto neneukos*) from the exterior toward the One (VI.6.1.11–14).[27] While the former explains how multiplicity derives from the One, the latter illustrates how multiplicity retains its connection with the One. This bidirectional composition establishes, first, that the outward motion brings multiplicity to exist as "many and large" in "a journey foolish and compulsory," which induces an ontological weakening;[28] and second, that the inward motion directs multiplicity toward

22. This may be a good example of the clarity for which Longinus allegedly praised Plotinus, as Porphyry reports in *VP* 21.

23. The two terms are not attested in the extant mathematical texts.

24. See the end of the chapter.

25. Charles-Saget does not note this parallel. She (1980: 32) defines the bidirectional procession of Multiplicity as dispersion (*de l'un au multiple, il y a dispersion, écart progressif à l'égard de soi-même et du principe, donc mouvement vers l'infinité, l'inconsistance, le mal*) and concentration (*du multiple vers l'un, dans le recueillement et l'inclination vers soi, se produit au contraire le resserrement de l'être, le progrès vers l'existence et la possession de soi*).

26. Further represented in I.8.7.17–20 as a bidirectional process including *ekbasis* and *hypobasis,* as discussed on p. 39.

27. On the concept of procession in Plotinus, see Trouillard (1955). On the relationship between the two directions as *proodos* and *epistrophê,* see Corrigan (2005: 28–30).

28. VI.6.1.11–13: ἡ δ' ἔξω πορεία μάταιος... ὅταν γένηται πολὺ ἢ μέγα.

TABLE 2.1. Correlation of the Characteristics of Multiplicity Unfolding and Enfolding

Outward Direction (*exô poreia*, VI.6.1.4–8)	Inward Direction (*pros hauto neneukos*, VI.6.1.11–14)
Unable to tend to itself (*adynaton eis hauto neuein*)	Desires to tend to itself (*heautou d'esti pros hauto neneukos*)
Pours forth and expands (*cheêtai kai ekteinêtai skidnamenon*)	Seeks itself inward (*hauto zêtei*)
Becomes multiplicity (*plêthos ginesthai*)	Each thing exists more in belonging to itself (*mallon de estin hekaston... hotan heautou êi*)
Becomes magnitude (*megethos ginetai*)	Does not possess quantity and size (*ouch hotan genêtai poly ê mega*)
Abides always expanded (*aei cheomenon menon*)	Exists turned inwardly (*estin... hotan heautou êi*)

itself and, by seeking its original source, partially compensates the ontological loss accrued during its outward expansion.[29] If the outward motion is based on the inability of multiplicity to tend to itself, then the inward motion is based on the ability of multiplicity to seek itself.[30] The characteristics of the inward direction bring multiplicity closer to the One and thus are antithetical to the nature of the outward direction, as demonstrated in table 2.1.

Like Moderatus' progression of number, multiplicity flows from the One through the ontogenic interaction between the Monad and the Indefinite Dyad, and ends with everything that exists. As a result of this action, multiplicity comes to be and abides in its expanded state. The inward direction, like Moderatus' regression of number, turns itself toward its starting point and loses its quantity and size. The inward turning of multiplicity provides an ontological damage control of the outward direction. Although *plêthos* is unable to tend to itself originally and, pouring out of itself, scatters to become multiplicity, it retains its desire to tend to itself and thus seeks itself inward.[31] If we consider the inward motion of multiplicity within the context of Intellect's perception of the One as many (*plêthynomenon*), the

29. VI.6.1.12–13: μᾶλλον δέ ἐστιν ἕκαστον... ὅταν ἑαυτοῦ ᾖ.

30. Respectively, VI.6.1.4: ἀδυνατοῦν εἰς αὑτὸ νεύειν and VI.6.1.11: αὑτὸ ζητεῖ.

31. VI.6.1.16: τὸ δὲ πρὸς αὑτὸ τὸ ἔνδον ἦν. Cf. VI.9.1–2.

self-turning direction of multiplicity reflects the self-turning direction of the One (V.1.6.18–19).[32] When *plêthos* is turned inwardly, it looks away from its manyness and size in an attempt to restore its ontological unity with the One. Corresponding to Moderatus' definition of the monad as the absolute limit of number, Plotinus characterizes the Monad in the Indefinite Dyad as the limit of multiplicity. Similarly, since Moderatus perceives no number outside of the monad, Plotinus finds nothing outside of the finite universe.[33]

Just as, according to Moderatus, all numbers progress from and regress to the monad, multiplicity, according to Plotinus, dynamically constructs the universe by unfolding from and enfolding to the One. Plotinus conceptualizes the two directions of multiplicity in terms of the properties of number to increase and to decrease.

Multiplicity as Effluence and Unity

So far we have discovered traces of both Moderatus and Numenius in Plotinus' concept of multiplicity, and the omission of Nicomachus, from whom we actually have a complete extant work, is becoming rather conspicuous.[34] Now is the time to address this. In different treatises of the *Enneads,* Plotinus refers rather explicitly to Nicomachus' threefold definition of number.[35] The view that multiplicity is limited in VI.6.1 points to Nicomachus' understanding of number as "limited multiplicity" (*plêthos hôrismenon*). The reference to mathematical number as multiplicity of henads (*plêthos henadôn*) in VI.6.5.6 points to Nicomachus' definition of number as "a combination of units" (*monadôn systêma*). But, above all, Nicomachus' definition of number as "a flow of quantity made up of units" (*posotêtos chyma ek monadôn sygkeimenon*) is most likely behind one of the most vivid images of the transcendent nature of the One in the *Enneads*:

> If one enquires, therefore, where the living beings come from, one is enquiring where the sky there comes from; and this is to enquire

32. There is a tempting parallel between the self-tending ability of the One (πρὸς αὑτὸ νενευκός, VI.6.1.13–14) and Porphyry's description of Plotinus' "self-turned attention" (τήν γε πρὸς ἑαυτὸν προσοχήν, *VP* 8.20).

33. VI.5.9.34–37.

34. Nicomachus lived in the first half of the second century and was slightly older than Numenius. Dillon (1996: 352–353, 361–362).

35. *Ar.* I.7.1. Following Euclid, *Elementa* VII. Def. 2. Aristotle's definition is similar, *Metaph.* 1020a13· πλῆθος…τὸ πεπερασμένον ἀριθμός. See D'Ooge (1926: 190). On Plotinus' use, see O'Meara (1993: 60–61).

> where the [universal] living being comes from, and this is the same as where life comes from, and the universal life and universal Soul and universal Intellect, when there is no poverty or lack of resource there, but all things are filled full of life, and, we may say, boiling with life. They all flow, in a way, from a single spring (*hê hoion rhoê ek mias pêgês*), not like one particular breath or one warmth, but as if there was one quality which held and kept intact all the qualities in itself. . . . (VI.7.12.19–26)[36]

In light of Nicomachus' definition of number as "a flow" (*chyma*), the passage does not simply offer a literary metaphor of the effluence of the One but presents a literal explanation of the ontological productive power of the One.[37] The transcendent nature of the One itself elicits the metaphor of flowing. Since, for Plotinus, multiplicity is number, the "flowing" of the One must also be number. Since the One's productive power is omnipresent and multiplicity is the numbered expression of the One, the universe, while being regulated by number, flows out of the One.[38] Such flow, in turn, defines existence and "the spring" (*rhoê*) in the text is not a metaphor, but a conceptual synonym for number. I will return to the relationship between the One and number, but here I should note that the dependence of the universe on both the One and number juxtaposes the two concepts and raises the question of whether the One itself is number.[39]

The effluence of the One according to number best illustrates the unity of Plotinus' universe. Dependent on the One, the universe as multiplicity extends outward and contracts inward, akin to the behavior of number in the definitions of Moderatus and Nicomachus.[40] Plotinus summarizes:

> Now [multiplicity there is not Evil] because the multiplicity is unified (*hênôtai to plêthos*) and not allowed to be altogether multiplicity,

36. The treatise immediately succeeds VI.6 in Porphyry's arrangement. Armstrong (1988: vol. 7, 126–127) points out the connection of this passage with Aristotle's *De Anima* 405b26–29, which distinguishes the etymologies of the Presocratic ideas of "to live" (ζῆν) and "to boil" (ζεῖν).

37. On metaphor as Platonic "ontological concept," see Gerson (1997: 298–299).

38. Other vivid flow metaphors in Plotinus include the procession of the unlimited (II.4.11.31), the fountain-like multiplicity (IV.7.4.32), the sun's energy (IV.5.7.5), and Soul's presence (VI.7.11.59).

39. See the discussion of substantial number and the One in chapter 5.

40. Charles-Saget (1980: 37) recognizes the remedial force of Plotinus' argument here: *Au préalable (*3, 2, *à* 9*), une correction s'impose: la multiplicité n'est un mal comme le premier chapitre voulait le suggérer.*

> being a one-multiple (*hen on plêthos*). And because of this it is less than the One, because it has multiplicity (*hoti plêthos echei*), and in so far as it is compared with the One, it is worse; and since it does not have the nature of that One, but has gone out from it, it has been diminished, but it keeps its majesty by the one in it, and it turned back its multiplicity to one and there it stayed. (VI.6.3.4–9)

The above passage concerns multiplicity in the intelligible. The unity of multiplicity, albeit inferior to the unity of the One, carries with it the notion of the absolute unity of the One. Having gone out of the One (*ekbebêkos*),[41] the unity of multiplicity is inferior (*elattoutai,* VI.6.3.6) to the absolute unity of the One and always remains a degree away from the perfect unity of its source.[42] But, as far as tending to itself and its source, the One, multiplicity gains its ontological value. Through inward contemplation, unity brings the multiplicity of all beings closer to the One and farther away from physical reality.[43] The centripetal orientation of every level of the architecture of Plotinus' universe serves a cosmological purpose. It is the counterpoint to the cosmogonical nature of the outward direction of multiplicity's separation from the One and gathers the multiplicity of all intelligible beings and their sensible representations in a bondlike unity.[44]

The preeminence of the concept of unity in the organization of the universe also clarifies the distinction Plotinus makes between multiplicity (*to plêthos*) and many (*ta polla*) that I introduced at the end of chapter 1.[45] The former refers collectively to every thing as a whole. The latter refers to multiplicity as consisting of individual things. For example, Plotinus uses the terms monad, triad, and myriad to denote something that exists as one unity, while, when he refers to numbers as composite from individual things, he uses the numbers one, three, and ten thousand.[46] If we relate this distinction to the cosmological standpoint of multiplicity as a separation from the One, then we find another reason to talk not about the traditional pair of One (*hen*) and Many (*polla*),[47] as Plato does, but rather about the One (*to hen*) and Multiplicity (*plêthos*), as Plotinus does. The predominant use of *plêthos* throughout VI.6 suggests that the focus of the treatise is upon the unity of multiplicity relating to Moderatus' monad as the first principle of numbers (*tôn arithmôn archê*),

41. Referring to *ekbasis* (I.8.7.18), discussed p. 39.
42. VI.6.3.4–5: κεκώλυται πάντη πλῆθος εἶναι ἓν ὂν πλῆθος.
43. VI.6.3.3: ἐν τοῖς οὖσιν ὄντως πλῆθος.
44. VI.9.2.20: πολλὰ μέρη καὶ συνδεῖται ἑνὶ τὰ πολλὰ ταῦτα.
45. See p. 40.
46. VI.6.10.
47. The first reason is the ontological distance of multiplicity from the One, discussed pp. 38–40.

and not upon the segmented multiplicity relating to Moderatus' one as the principle of enumerated things (*tôn arithmêthôn archê*).

Now is the time to address the question of why I think Moderatus and not Nicomachus is the primary source of influence on Plotinus' formulation of the concepts of multiplicity and number, even though Moderatus' thought is documented only in scraps of fragments, and Nicomachus' work is better represented in its extant form. It is interesting that Porphyry mentions Moderatus twice among the philosophers whom Plotinus used extensively in his lectures,[48] while he explicitly omits Nicomachus. That Porphyry is familiar with Nicomachus' work is obvious from the references to his teachings in the *Life of Pythagoras*.[49] Why does he leave out Nicomachus in the *Life of Plotinus*? I do not think the question can be answered with the current evidence. Nicomachus' famous definition of number as a flow of number composed of monads[50] is undoubtedly at the foundation of Plotinus' favorite imagery of the effluence of the One.[51] But Nicomachus does not address, at least in his extant works, two very important elements that are present in Moderatus and Plotinus: first, the understanding of number as a motion from and to the monad; and second, the conceptual difference between the monad (*monas*) and the One (*hen*) and between numbers (*arithmoi*) and numerable things (*arithmêta*). Nicomachus, although distinguishing between paradigmatic numbers that preexist in the divine realm and arithmetical numbers,[52] does not offer an extensive cosmological account explaining the difference between intelligible and scientific number.[53] The latter is the sole object of his *Introduction to Arithmetic,* while the former is briefly referenced in chapter I.6 and expanded in his section in the *Theology of Arithmetic*.[54] Above all, Nicomachus does not even talk about the above as two separate kinds of number, nor does he elaborate on their relationship. On the other hand, as demonstrated in the previous section, we find the answers to all these questions in what little text is attributed to Moderatus. Thus I rest my case.

The definition of multiplicity as *apostasis* in VI.6 infuses the motion, inherent in the cosmogony in the *Timaeus,* with Neopythagorean content.

48. *VP* 20.75 and 21.7.

49. *VPyth.* 20.3 and 59.1.

50. *Ar.* I.7.1: ποσότητος χύμα ἐκ μονάδων συγκείμενον.

51. II.4.11.31, IV.7.4.32, IV.5.7.5, VI.7.11.59.

52. *Ar.* I.6.1.

53. Nicomachus' terminology is not completely defined. He calls scientific number *epistêmonikos* (*Ar.* I.6.4.2) but talks about intelligible number in a roundabout way without referring to it with a specific term. I think the closest term to his meaning would be intelligible (*noêtos*) number, which D'Ooge (1926: 98–99) translates "divine."

54. D'Ooge (1926: 99).

Plotinus' view weaves together Moderatus' concept of number, Numenius' concept of the First God as stability and innate motion, and Nicomachus' concept of number as a flow. As a result, Plotinus' cosmology is based specifically on the Neopythagorean definitions of number. Just as the monad is the limiting principle of quality in Moderatus, Plotinus' concept of multiplicity denotes multiplicity limited by numbers. For Plotinus, multiplicity is finite, not infinite, and number belongs to the intelligible realm, not to the theoretical world of mathematics. This conceptual parallel suggests that number may have a more significant role in the organization of the intelligible realm than scholars have recognized and that Plotinus brings the "Neopythagorean underground" to the Platonic foreground.

3

The Number of Infinity

In the study of Plotinus' concept of number, Aristotle should come when Plotinus himself introduces him. Otherwise, the long history of the debate between Aristotle and Plato's successors on the concept of number may overshadow Plotinus' position on the issue.[1] If we want to investigate the latter, we need to see the debate through Plotinus' eyes.

The difficulty with Plato's concept of number begins with his "unwritten doctrines," in which he talked about the Good, Limit, and Unlimited as primary principles and allegedly equated numbers with the Forms.[2] The latter conceptually defines the ontological role of numbers by implying that numbers have a metaphysical property, different from their enumerating or arithmetical property. Aristotle, following his scientific method of examination, attempts to understand Plato's ontological view of numbers by investigating their arithmetical nature because it is more objective. First Aristotle probes Plato's understanding of infinite number in *Prm.* 142b–145a, which contains the Second Hypothesis that the one partaking in being is both limited and unlimited. While this passage has attracted much scrutiny, Plotinus' treatment of it in VI.6.2–3 has received minimal scholarly attention for three main reasons. The topic of the number of infinity is seemingly outside of the principal relationship among the three hypostases; it is in a treatise that, too, is outside of the main Neoplatonic interest; and not least, within VI.6, the topic itself has an outside position, hidden between the discussions of multiplicity in VI.6.1 and the primary subject of the treatise—the role of number in the intelligible, in VI.6.4–14. In addition, Plotinus' treatment of the number of infinity, as he calls it, is usually considered extraneous to the definition of number proper. Charles-Saget identifies the main purpose of VI.6.2–3 to be the discussion of number and infinity from both a quantitative and an ontological perspective, with emphasis on the latter.[3] A detailed examination, however, suggests that the primary focus of the chapters is the origin of number from the Indefinite Dyad. Since the first chapter of VI.6 deals with the general explanation of the origin and characteristics of

1. See pp. 3–8.
2. Refer to Ross (1951: 142–153) and Krämer (1990: 69–71, 93–113).
3. Charles-Saget (1980: 34–35).

multiplicity as number, the next two chapters must address specifically the origin of number at the metaphysical level, that is, the generation of number from the Indefinite Dyad.

It seems that Plotinus wishes to do more than simply set out Plato's views. His concept of the three hypostases needs clarification, first from a cosmogonical and then from an ontological viewpoint, about how exactly number is generated and precisely what it does in the intelligible. While Rist has made much sense of the role of the Indefinite Dyad in the intelligible and Nikulin has dealt with the ontological aspect of the concept of number, Plotinus' contribution to Aristotle's debate on Platonic number remains unexamined.[4] In this chapter, I argue that Plotinus introduces the subject of the number of infinity after the discussion of multiplicity in VI.6 not only to illustrate Aristotle's misconception of Platonic numbers but also to explain the relationship between multiplicity as number and the Indefinite Dyad as the principle from which numbers originate. The notion that multiplicity is number, established in VI.6.1, propels Plotinus to expand on his understanding of the Ideal Numbers before his explanation of the role of number in the intelligible realm in the central chapters of the treatise (VI.6.4–14).

The question about the number of infinity is raised in the beginning of the second chapter of VI.6.[5] At first glance, the question seems sudden and without an apparent relation to the discussion of the separation of multiplicity from the One in chapter 1. At second glance, however, if we consider the finding of chapter 2 that multiplicity is number, the context of the question emerges. Because Plotinus understands multiplicity as a collective term denoting the cosmological role of number in the universe, it is logical for him next to ask if multiplicity, that is, number proper, is finite or infinite. Initially he formulates the question as "what, then, about what is called the number of the infinite" (VI.6.2.1), which he immediately rephrases into "how it is a number, if it is infinite" (VI.6.2.2). The latter echoes directly Aristotle's famous conclusion at the end of *Metaph.* 1083b that number must be either infinite or finite.[6] This strong conceptual resonance suggests that Plotinus intends his discussion to regard not Plato's but Aristotle's position.

Plotinus' discussion of the problem of the number of infinity marks his entry into the greater debate Aristotle wages against the Platonic doctrine

4. Rist (1962a, 1962b); Nikulin (1998a, 2002). Ross (1951: 185) does not put Plotinus, Iamblichus, or Proclus on his list of later philosophers who have dealt with the Indefinite Dyad. Maybe his goal is to trace the concept in Aristotle's commentators from Theophrastus to Asclepius.

5. VI.6.2.1: τί οὖν ἐπὶ τοῦ λεγομένου ἀριθμοῦ τῆς ἀπειρίας; VI.6.2.2: πῶς ἀριθμός, εἰ ἄπειρος.

6. *Metaph.* 1083b36–37: ἔτι ἀνάγκη ἤτοι ἄπειρον τὸν ἀριθμὸν εἶναι ἢ πεπερασμένον. Cf. *Metaph.* 1020a13.

that the Forms are numbers. Plotinus uses the concept of the number of infinity to begin his defense of Plato and the Platonists because it allows him to explain the relationship between number and the Indefinite Dyad and the role of number in the intelligible realm. This discussion further enables him to move, in VI.6, from the subject of multiplicity in general to the examination of the role of number proper in the intelligible. The definition of separation of multiplicity from the One in VI.6.1 sketches the big cosmological picture. Next he needs to provide the details of how multiplicity, as number, unfolds into the universe. Since for Plotinus, as for all Platonists, numbers originate from the Indefinite Dyad, he must first address Aristotle's misconception of Plato's reference to the Indefinite Dyad and infinite number.

Plato's Position

Surprisingly for his Platonic attitude, Plotinus does not begin the analysis of Aristotle's position with a discussion of Plato's original text on the Second Hypothesis (*Prm.* 142b–145a), which introduces the terms of infinite multiplicity (*apeiron plêthos*) and infinite number (*apeiros arithmos*), but with Aristotle's interpretation of Plato's ontological as well as mathematical explanation of the generation of numbers (*Metaph.* 1083b). Plotinus goes directly to the crux of the problem that Aristotle does not distinguish between the ontological and mathematical side of number. Aristotle's disagreement with Plato, however, goes further back to the beginning of *Metaphysics* (987b29–34), where he criticizes Plato because, unlike the Pythagoreans, Plato considers unity (*to hen*) and numbers to be different from the material things, introduces the Forms, postulates a dyad to be "a nature different from unity," and makes this dyad generate all numbers "excluding the primes."[7] This line of criticism reveals that Aristotle dismisses the ontological interpretation of Plato's argument, although Plato's line of reasoning is completely based on it.

For example, in *Prm.* 142d9–143a, Plato proves that, in order for *one* to exist, it must contain two parts (existence and oneness). In turn, each of these two parts contains two others (existence and oneness), and so on and so forth. From this, it follows that, as Sayre notes, "the one in H2 [the Second Hypothesis] might be indefinitely multitudinous . . . and *to hen,* because of its unstable constituency (its parts always 'becoming two'), is *capable* of yielding

7. Earlier in *Metaph.* 986a16–17, Aristotle explains that, according to Plato, number is an underlying principle of existence (*archên einai*) and acts like a matter for beings (*hôs hylên tois ousi*). Perhaps in direct opposition to this passage, Plotinus concludes in V.1.5.9 that number is "as substance" (*hôs ousia*), discussed pp. 68–70.

an *apeiron plêthos,* not that it will do so willy-nilly."[8] Sayre rightly argues against Cornford's analysis of the passage as a deduction of "the existence of the unlimited series of numbers"[9] by pointing out that Plato's text never suggests that the infinite multiplicity (*apeiron plêthos*) should be arranged in infinite series. Instead, we should interpret the infinite multiplicity only as indefinitely multitudinous and thus different from the infinite number (*apeiros arithmos*) in *Prm.* 144a6. Parmenides makes the transition from indefinite multiplicity to infinite number by fixing the initial indefinite multiplicity into "a set of distinct entities—two, three, twice two etc."[10] If there is the pair of one-being, then there is a number. If there is a number, then there is an infinite number ($1 + 1 = 2$; $2 + 1 = 3$; etc.),[11] meaning that a set of numbers is infinitely numerous (*apeiros arithmos*). Therefore, Plato summarizes, "one, itself cut up by being, is many, indeed, unlimited in multitude.... Thus, not only is being one many, but also one itself, divided up by being, is necessarily many" (*Prm.* 144e3–9). The summary concludes the deduction that one and being are equinumerous in the sense that each part of being is one part (oneness) and each oneness is such a part (existence). By saying that number and being are infinitely numerous, Plato means that "there is no finite number of single things that exist" and yet one, as a part, is limited to the wholeness of that which it is a part (*Prm.* 144e9–145a2).[12] At the end, Plato concludes that "the one that *is* (*to hen... on*)... is both one and many, is a whole and has parts, and is limited as well as infinitely numerous."[13] In other words, Plato explains that as far as being is concerned, number is limited to being; as far as number proper is concerned, number is infinite. This symbiotic duality between being and number, however, Aristotle does not recognize.

Considering the straightforwardness of Plato's reasoning, it is surprising that Aristotle rejects the proposition that there can be both infinitely many numbers and no specific number representing infinity, in spite of his promotion of the same line of thinking in *Ph.* 207a33–b15. Consequently, he insistently argues that, if the Forms are numbers, then it is impossible for infinite

8. Sayre's quotation marks and italics (1996: 166, 167).

9. Cornford likely draws his conclusion from *Metaph.* 1083b–1084a. Sayre (1996: 171).

10. Turnbull (1998: 74–82) refers to it as "the two machine" and "the three machine" of number. Also referred to in VI.6.2; see pp. 65–66.

11. Turnbull (1998: 75–78) points out that the phrase *et cetera* in the above series conveys exactly the notion of the infinity of number in "a vast mathematical combinatorics." For the relationship of Plato's arithmetical exercise and Greek mathematics, see Turnbull's discussion of Euclid's view of numbers as multitudes of units (1998: 74–75).

12. Sayre (1996: 174–175).

13. *Prm.* 145a2.

number to exist either intelligibly or as an object of sense perception because if it had intelligible existence, it would be represented phenomenologically by a finite magnitude.[14] So why is Aristotle on the wrong track here?

Aristotle misinterprets *Prm.* 143–144 as demonstrating Plato's account of the actual generation of numbers as if "numbers did not exist prior to this exercise in the *Parmenides*," as Sayre quips.[15] In fact, Parmenides only proves that number is unity and that all number exists, although it comprises an infinitely numerous set. Aristotle, however, interprets this passage as describing the generation of number itself and concludes in *Metaph.* 1083b36–1084a4 that "there cannot be infinite number because the generation of numbers is always of an odd number or an even one."[16] In this statement, he conflates Plato's use of "infinite multiplicity" (*apeiron plêthos*) and "infinite number" (*apeiros arithmos*) in the Second Hypothesis in *Parmenides.* He considers the latter as a reference to infinite sets of numbers and the former as a representation of Plato's deduction that all number, including infinite number, exists.[17] Such combining of the ontological and mathematical aspects of Plato's infinite number only confirms Aristotle's skepticism that number has a separate ontological existence, but does not prove the fallacy of Plato's position.

Aristotle's Criticism of Plato and the Platonists

The section of the *Metaphysics* that contains Aristotle's criticism of Plato's infinite number[18] is described by Annas as "an unconnected string of arguments beginning and ending abruptly and with no connecting topic."[19] This evaluation points out the abrupt transitions in the flow of Aristotle's argument from disproving Plato's view to rejecting the Platonic theories of number (both of which occupy about two-thirds of the chapter), and finally to ending the section with a short and unsatisfactory exposition of his own view.

Metaph. 1083a–1084a concludes Aristotle's criticism of Plato's alleged view that the Forms are numbers.[20] The debate about the relationship between Forms and numbers originates from Aristotle's representation of Plato's position according to his unwritten doctrines rather than from an explicit

14. *Ph.* 206a21–206b33. For a defense of Plato's views from Aristotle, see Kouremenos (1995: 62–71).

15. Sayre (1996: 171).

16. Trans. Annas (1976: 108).

17. For a detailed analysis, Sayre (1983: 98–99).

18. *Metaph.* 1083a–1084a.

19. Annas (1976: 176).

20. *Metaph.* 987b14–29; 1028b18–32; 1081a; 1085b.34–1086a.18; 1088b34.

discussion in the dialogues.[21] Throughout the dialogues, we find pieces that may form the foundation of Aristotle's presentation of Plato's late doctrine of Form-numbers. In *R.* 525c–d, *Tht.* 195d–196b, and *Epin.* 990c6,[22] Plato speculates that numbers participate in our intelligence and exist separately from the things that they enumerate. In the *Sph.* 238a10–11, the Eleatic Stranger generalizes that "at any rate, we consider all number to be among the things that exist."[23] Based upon Plato's works and especially the unwritten doctrines, Aristotle synthesizes that Plato considers the mathematicals as intermediaries between the Forms and their material copies. For example, the idea of a triangle is the same regardless of whether it is drawn on sand, molded on a piece of wood, or construed in our minds. As Merlan puts it, "mathematicals mediate between ideas and sensibles in that they share changelessness with the former, multiplicity with the latter."[24] They are ontologically superior to the physical world and yet, despite representing unchangeable concepts, they are ontologically inferior to the Forms. If the Forms are numbers, then, the Form-numbers must differ both from numbers representing mathematical objects and from numbers enumerating physical multiplicity.

Aristotle begins the discussion in *Metaph.* 1083a by asking whether there is a difference between number, representing quantity, and monad, representing quality.[25] If there is a difference, he speculates, the former would represent quantity (*poson*), the latter quality (*poion*).[26] In other words, the Ideal Numbers should be distinguished not according to quantity (*kata to poson*) but according to quality (*kata to poion*).[27] Nevertheless, the distinction

21. Merlan (1967: 15); Annas (1976: 1 and especially 41): "Plato's theories about the foundations of mathematics, the derivation of numbers and (later) of geometrical objects do not figure in the dialogues. They have to be recovered from indirect sources."

22. Regarding the *Epinomis,* I follow the scholarship on the subject, which traditionally leaves aside the problem of Plato's authorship.

23. *Sph.* 238a10: ἀριθμὸν δὴ τὸν σύμπαντα τῶν ὄντων τίθεμεν.

24. Merlan (1967: 16).

25. He distinguishes better the ontological kind of number by calling it *eidêtikos arithmos* in *Metaph.* 1086a2–5: οἱ μὲν γὰρ τὰ μαθηματικὰ μόνον ποιοῦντες παρὰ τὰ αἰσθητά, ὁρῶντες τὴν περὶ τὰ εἴδη δυσχέρειαν καὶ πλάσιν, ἀπέστησαν ἀπὸ τοῦ εἰδητικοῦ ἀριθμοῦ καὶ τὸν μαθηματικὸν ἐποίησαν. On Plotinus' preference of *ousiôdês* over *eidêtikos arithmos,* see pp. 75–76.

26. *Metaph.* 1083a1–3: πάντων δὲ πρῶτον καλῶς ἔχει διορίσασθαι τίς ἀριθμοῦ διαφορά, καὶ μονάδος, εἰ ἔστιν. ἀνάγκη δ' ἢ κατὰ τὸ ποσὸν ἢ κατὰ τὸ ποιὸν διαφέρειν.

27. *Metaph.* 1083a2–3.

between the two is impossible, he argues, first because the qualitative differences[28] among numbers (such as compositeness, primeness, and dimension) are ultimately based on their discrete quantities and second because it is irrational to claim that numbers are sui generis.[29] Aristotle deems the latter sufficient to end the discussion outright.

Aristotle's distinction between mathematical and ideal number is not analytical but hypothetical. His chief complaint lies in the origin of numbers, which he believes must be quantitative, not qualitative. The monad, without quality of its own, cannot produce qualitatively different numbers, whereas the indefinite dyad can produce the numbers only quantitatively (*ou poion hê de posopoion*).[30] At any rate, it seems that Aristotle wants to promote the position that, if numbers are separate ontological entities, they must have separate quality, not quantity. Thus he looks for a distinction based upon ontological difference. Such a distinction, however, is impossible, according to him, because it supposes that they are primary substances. From the *Categories* and the *Metaphysics,* we know that he considered substance prior to the categories of quality, quantity, and rest.[31] Therefore neither quality nor quantity could produce the primary ontological difference in numbers, because each one of them includes the definition of substance in their being, whereas the definition of substance does not include any of them. I will later return to discuss the implications of Aristotle's view on quantity as a category for Plotinus' concept of number.[32] For now it should suffice to say that, in the discussion of quantity and quality in *Metaph.* 1083a, Aristotle concludes that quantity, and not quality, is the differentiating element in number.

Next this conclusion leads to Aristotle's refutation of the theories of Plato's immediate successors, Speusippus and Xenocrates.[33] First, he rejects Speusippus' claim that the mathematical numbers alone are the primary principles of existence. He argues that Speusippus' claim is irrational[34] because,

28. *Metaph.* 1020b3.

29. *Metaph.* 1083a4–14.

30. *Metaph.* 1083a11–12: ἔτι οὔτ' ἂν ἀπὸ τοῦ ἑνὸς τοῦτ' αὐταῖς γένοιτο οὔτ' ἂν ἀπὸ τῆς δυάδος. Aristotle's description of the indefinite dyad as *posopoion* is a hapax legomenon, according to Ross (1924: 441). He refers to it elsewhere as *dyopoion* (1082a15, 1083b36).

31. *Cat.* 5, *Metaph.* 1028a31–b2. For a detailed discussion of Aristotle's view on the priority of substantial being, see Witt (1989: 47–62).

32. See pp. 110–112.

33. See pp. 6–8.

34. For a defense of Speusippus' position, see Dancy (1991: 77–98) and Dillon (2003: 40–64). On Aristotle's position, see Annas (1976: 188) and Cleary (1995: 356–357). Cf. Iamblichus, *Comm. Math.* 4 and Pseudo-Iamblichus, *Theol. Ar.* 82, 10–85, 3.

if the mathematical numbers alone exist, every number must have its own unique originating number, and all numbers would derive from the One.[35] Second, Aristotle moves to Xenocrates, only to give him the shortest and most acerbic treatment. In one sentence, he judges Xenocrates' theory to be the worst because it supposes that the Form-numbers and the mathematical numbers are the same.[36] After dismissing these theories, he states somewhat approvingly that the Pythagoreans' view is more sound because it does not separate numbers from things but instead postulates that physical things are numbers. Subsequently, he refutes this view, too, by explaining that, since things have magnitudes and magnitudes are divisible,[37] whereas mathematical number represents abstract units and therefore is indivisible, things cannot be made of numbers because there are no indivisible magnitudes.

If we consider these criticisms in the context of his distinction between mathematical number and ideal number in *Metaph.* 1083a, discussed earlier, it becomes clear that Aristotle is uncomfortable with the subject because he does not offer an explanation of his own after he lists his objections. In *Metaph.* 1083a1–20, he insists that the difference between the two numbers is quantitative and not qualitative, since quantity implies that units comprise number, while quality, pertaining to an object's nature without regard to quantity or size, implies indivisibility. In *Metaph.* 1083b8–17, however, he switches the argument from quantitative numbers to magnitudes to show that the quantitative numbers are also indivisible when compared to magnitudes because they represent abstract units. Thus, he concludes, "the arithmetic number is monadic."[38]

The question of the origin of number permeates Aristotle's discussion and forms the core of his disagreement with Plato. The question of whether the Ideal Numbers derive from the monad or from the dyad first appears in *Metaph.* 1083a11–12 and is modified in *Metaph.* 1083b23–25 as to how all numbers derive from "the great and the small."[39] If they do, he speculates, they can either originate from "the great and the small" or separately come from "the great" and "the small." On the one hand, it is impossible to come from the latter because some numbers would come only from the great and others only from the small. Thus, the monads would be characterized as

35. *Metaph.* 1083a24–27. Aristotle's reference to Plato here should be taken more as a sarcastic note than as a genuine installment in his argument.

36. *Metaph.* 1083b1–3, 1086a5–11. Annas (1976: 175); Cleary (1995: 356–357); Dillon (2003: 98–111).

37. *De Generatione et Corruptione* 315b25–317a18.

38. Ὁ γ' ἀριθμητικὸς ἀριθμὸς μοναδικὸς ἔστιν. This conclusion is very important for Plotinus' own definition of *monadikos arithmos*; see p. 93.

39. *Metaph.* 1083b23–25: πότερον ἑκάστη μονὰς ἐκ τοῦ μεγάλου καὶ μικροῦ ἰσασθέντων ἐστίν, ἢ ἡ μὲν ἐκ τοῦ μικροῦ ἡ δ' ἐκ τοῦ μεγάλου.

either great or small. On the other hand, numbers cannot come from the former, because numbers, as separate entities, would be indistinguishable from one another, if they come from the equalized principles of the great and the small. But above all, the problem is that the monad is prior to the dyad and it acts like a form of a Form. But what does the monad come from, if the Indefinite Dyad produces two, and not the monad? Aristotle's questioning and the famous remark about the Indefinite Dyad (*aoristos dyas*) as two-maker (*dyopoios*) in *Metaph.* 1083b36 demonstrate the contradiction within his mathematical approach of explaining the Ideal Numbers. When he points out that the monad is prior to the dyad, he is as close as he can get to making the jump from a mathematical to an ontological perspective. But he cannot make this jump because, for him, number is not a being (*to on*), nor even substance (*ousia*). Instead, he escapes his ontological stalemate by calling the Indefinite Dyad "infinite number."[40]

In *Metaph.* 1084a7–9, Aristotle questions how there can be a Form of infinite number, if the infinite number cannot be limited by a Form or a sensible body.[41] Annas suggests that Aristotle's criticism stems from the interpretation that the Platonists view infinity as actual and not potential.[42] His own understanding from *Ph.* 207a33–b15 is that the infinite cannot exist in actuality because (1) "it cannot be gone through, as in the case of voice, which is invisible" and (2) "it cannot be traversed" because "that which admits of being traversed has no end" (*Ph.* 204a1–4).[43] He deduces that, since infinity is unlimited, infinity is potentiality:

> That the infinite does not exist in actuality has been already stated, but it exists by division; . . . Accordingly, we are left with the alternative that the infinite exists potentially. (*Ph.* 206a16–18)[44]

Rist, in his seminal article "The Indefinite Dyad and Intelligible Matter in Plotinus," cogently argues that Aristotle mistakenly takes the Indefinite Dyad as two separate things, as we saw above in his use of "the great and the small," rather than "the potentiality of plurality," which leads to "his own mistaken view of the Platonic generation of Ideal Numbers."[45] Even before Annas and Rist, Ross shows exhaustively that Aristotle misses the mark in understanding

40. *Metaph.* 1083b36–37.
41. Ross (1924: 446–447); Annas (1976: 178–179).
42. Annas (1976: 178).
43. Apostle's translation (1969).
44. Annas (1976: 178); Cleary (1995: 82–84).
45. Rist (1962a: 100) in support of Ross (1951: 204).

the relation between Plato's Ideal Numbers and the arithmetical numbers.[46] Aristotle's rejection of the propositions that numbers, as Forms, are causes of other things and that numbers are separate from the things they enumerate drives the split between Aristotle and Plato and the Platonic tradition on numbers.[47] Faced with this conceptual impasse, he directs his investigation solely into the nature of mathematical numbers. In other words, Aristotle chooses to examine the wrong patient with the wrong tools, and consequently comes up with the wrong diagnosis. By treating the Indefinite Dyad as infinite number, he examines the Ideal Numbers from the perspective of the arithmetical numbers and concludes that the former are nonsensical.[48]

Aristotle's criticism in *Metaph.* 1083a–b, therefore, crystallizes the conceptual differences between the two camps and puts Aristotle's mathematical approach in opposition to the Platonic ontological approach. All later philosophers, especially in the Platonic tradition, have had to grapple with the issue. Plotinus is no exception to this rule.

Plotinus' Answer

Given Plato's ambiguous expression of "infinite number" in *Prm.* 144a6 and Aristotle's reference to it in *Metaph.* 1083b36–37, it is not surprising that Plotinus himself, after defining multiplicity, tackles the question of "the so-called number of infinity."[49] The use of the participle "so-called" (*legomenos*) in VI.6.2.1[50] resonates with both Plato's expression and Aristotle's refutation of it and reveals Plotinus' awareness of the issue.[51] While Aristotle seeks to decipher Plato's infinite number through mathematical logic,[52] Plotinus finds the answer in Plato's ontology. But, while Aristotle understands the origin of

46. Cf. *R.* 525c–d, *Tht.* 195d–196b, *Epin.* 990c6. Ross (1924: vol. 1, 157–177); Annas (1976: 4); Cleary (1995: 346–389).

47. Most eloquently expressed in *Metaph.* 987b11–988a15.

48. Aristotle's purpose in studying ontology and mathematics, in fact, is not very different from the Neopythagoreans' efforts. But while the Neopythagoreans accept the fusion of mathematics and ontology and bring it to a different conceptual level, Aristotle, although abrogating the fusion, uses mathematics for the study of ontology.

49. VI.6.2.1: τί οὖν ἐπὶ τοῦ λεγομένου ἀριθμοῦ τῆς ἀπειρίας; Cf. *De Cael.* 272a2; *Ph.* 203a–206b.

50. Perhaps this is a subtle jibe at Aristotle's use of "so-called" (*legomenos*) in distinguishing epistemological truth from linguistic expression. *Cat.* 2. See Apostle (1980: 53).

51. Repeated later in VI.6.17.3–4: διὰ τί οὖν λέγομεν "ἄπειρος ὁ ἀριθμός."

52. *Ph.* 204b5–13.

number in abstract mathematical operations, Plotinus looks for the origin of number in relation to the Indefinite Dyad and in the intelligible realm.[53]

For Plotinus, Aristotle's rejection of the proposition that the numbers derive from the Indefinite Dyad is most objectionable. Before explaining the role of number in the intelligible (VI.6.4–18), he sets out in VI.6.2–3 to correct Aristotle's mistake in *Metaph.* 1083b in equating the principle of the Indefinite Dyad with the mathematical meaning of "infinite number" in *Metaph.* 1083a35–37. Aristotle disproves, in *Metaph.* 1083b36–1084a17, the claim that number is either finite or infinite.[54] First, he dismisses the premise that number is finite by stating that, if the original numbers run up to ten only,[55] then the Forms would quickly run out of numbers to represent the original things. For example, if the number three is inherent in the Form of man, there will be no numbers for the Form of horse or the Form of anything else. Also, were three to be the Form of man, it follows that all other threes will represent Ideas of man, which, in turn, will lead to an infinite number of men (*apeiroi esontai anthrôpoi*).[56] Once again, Aristotle contradictorily examines the Ideal Numbers on the basis of the properties of mathematical numbers. By forcing the former to behave mathematically, he "shows" the impossibility of the Ideal Number Three.

Aristotle's refutation of the proposition that number is infinite, however, is of greater interest to us because Plotinus responds to it in VI.6.2. In *Metaph.* 1084a1–10, he explains that number cannot be infinite for mathematical and ontological reasons. Mathematically, when generated, number must be either odd or even. Ontologically, if Forms are numbers, there must be a Form of the infinite too. The latter, Aristotle argues, is definitely wrong, because the Platonists conceive the Forms as definite, not indefinite.[57] Ironically, he gets the ontological reasoning right only quickly to disregard it. But his mathematical rationale is surprisingly skewed. He refuses to accept the possibility that there could be a series of infinitely many numbers (n) without determining a finite quantity for n. His refusal is particularly striking since he accepts the same proposition in *Ph.* 207a33–b15.

53. II.4.3–5; III.8.11; V.3.11.

54. Actually, Aristotle first says "infinite" (*apeiros* [*arithmos*]) and then "finite" (*peperasmenos*), but I have reversed the order because his reasoning on the infinite number leads to the next major point in my analysis.

55. A reference to the Pythagorean view, also held by Plato (*Metaph.* 1088b10) and Speusippus (*Metaph.* 1028b21–24), that the numbers from one to ten are the Ideal Numbers that participate in the construction of the universe through the tetractys (*Metaph.* 986a8–9). Cf. Philolaus, fr. 11.

56. *Metaph.* 1084a10–21.

57. *Metaph.* 1084a7–9. This rationale shows Aristotle's rare acknowledgment of the Platonic view.

Charles-Saget considers Aristotle's discussion of infinite number and mathematical operations in *Ph.* 203–208 to be the main target of Plotinus' critique in VI.6.2,[58] since there are certain thematic correspondences between the two texts: the impossibility that the number of sensibles is infinite in VI.6.2.2–4 and *Ph.* 205a; and the assertion that, when we multiply numbers in our mind, we only perform abstract mathematical operations that do not affect the physical number of things in VI.6.2.4–7, VI.6.2.10–15, and *Ph.* 208a15–20. In fact, the two thematic correspondences in VI.6.2 and *Ph.* 203–208 offer a quick summary of Aristotle's reasoning on the mathematical infinity of number, as they highlight the beginning and end of the section on infinite number in the *Physics.* I disagree, however, that Plotinus summarizes this section in response to Aristotle's mathematical discussion of infinite number in the *Physics.* Instead, I think that Plotinus uses the passage in the *Physics* to highlight Aristotle's tendentious discussion in *Metaph.* 1084a. In VI.6.2, Plotinus uses Aristotle's view in the *Physics* only to refute Aristotle's analysis of the Indefinite Dyad in the *Metaphysics.*

That Aristotle equates the Indefinite Dyad with infinite number in *Metaph.* 1083b35–37 has great significance for the bigger picture of Plotinus' argument in VI.6. While the second chapter of VI.6 rejects Aristotle's interpretation of the Indefinite Dyad as "infinite number," the third chapter presents the Indefinite Dyad as the principle of limit and unlimited in the intelligible realm.[59] The juxtaposition of the two chapters heightens their conceptual opposition. It also strongly suggests that Plotinus had Aristotle's original opposition of the two concepts in *Metaph.* 1083b35–37 in mind. Additionally, the juxtaposition of chapters 2 and 3 bluntly exposes Aristotle's confusion.

The arithmetical behavior of number is certainly a minor concern for Plotinus. Because Aristotle treats infinite number as a mathematical number, Plotinus first refutes the proposition that number proper originates in physical reality or in mathematical theory. With his reference to Aristotle's use of abstract manipulation in *Ph.* 208a15–20,[60] Plotinus also echoes Plato's so-called two and three machine in *Prm.* 143d8–e7,[61] which demonstrates

58. Charles-Saget (1980: 149–150).

59. Referred to as one-many (*hen polla,* V.1.8.26). Cf. Jackson (1967: 322). Dodds (1928: 132–133) does not mark the beginning of the Second Hypothesis in the *Parmenides* until 144b, although he considers 142a to be the end of the First Hypothesis. Regrettably, he does not find the summary in 142a–144b, leading to the discussion of the number of infinity in 144c6, valuable either.

60. VI.6.2.4–7: "But, even if [the one who numbers] makes them twice or many times as many, he limits them, and even if he takes into account the past or the future or both at once, he limits them."

61. Turnbull, n. 10.

that "the existence of numbers follows from the existence of the unity at hand."[62] Plotinus, however, conceives of this unity as the key element relating number to being. According to him, number proper exists separately from mathematical number:

> No, the generation of number is not in the power of the one who counts, but it is already limited and stands fast (*hôristai kai hestêken*). Or, in the intelligible, just as the real beings are limited so is the number limited to as many as the real beings (*arithmos hôrismenos hosos ta onta*). (VI.6.2.8–10)

For him, the true nature of number is ontological, not quantitative, and the origin of number is in the intelligible realm and not a result of man's intellectual mathematical operations. The passage has crucial importance for Plotinus' understanding of the origin of number in the intelligible because it introduces number as possessing the characteristics of being:[63] it is limited (*hôristai*) and therefore exists (*hestêken*). This compatibility makes number and being commensurate in the same way that Plato makes number and being equinumerous in *Prm.* 144d1–145a.[64] For Plotinus, the unity of being and number stems from the unity of "the existence" and "the oneness" of Plato's second hypothesis.

Plotinus reasons toward the existence of the Indefinite Dyad in the intelligible by considering two ways in which infinity can exist.[65] The first supposes that infinity exists in the intelligible by suggesting the absurd proposition that infinity is an intelligible being.[66] The second presumes that infinity exists not in the intelligible realm but only in sensible reality.

Naturally, Plotinus focuses on the first hypothesis. Because infinity is unlimited, it both needs to be limited and shies away from the idea of limit.[67] And yet, when infinity is caught by limit,[68] "place comes into existence" (*hypestê topos,* VI.6.3.18). But this is not place in the sense of location but rather place in the sense of ontological instantiation. The running away

62. Sayre (1996: 171).

63. Paraphrased later in VI.6.3.2 as "for what really exists and is, is already determined by number" (ὃ γὰρ ὑφέστηκε καὶ ἔστιν, ἀριθμῷ κατείληπται ἤδη).

64. See the discussion of Plato's position in the beginning of the chapter.

65. In his explanation, the focus on the intelligible realm makes the use of ἀπειρία independent from the negative connotations associated with physical matter.

66. Recalling Aristotle's second proposition in *Metaph.* 1084a7–9.

67. VI.6.3.13: οὐ γὰρ τὸ πέρας, ἀλλὰ τὸ ἄπειρον ὁρίζεται; VI.6.3.15–16: τὸ ἄπειρον φεύγει μὲν αὐτὸ τὴν τοῦ πέρατος ἰδέαν.

68. VI.6.3.16: ἁλίσκεται δὲ περιληφθὲν ἔξωθεν.

of infinity is movement, not in the sense of spatial movement, since place occurs only after infinity has been caught by limit (VI.6.3.19–21), but in the sense that infinity does not stay still (*mê menei,* VI.6.3.23–25) in the way in which number does (*hôristai kai hestêken,* VI.6.2.9):

> One will conceive it as the opposites and at the same time not the opposites: for one will conceive it as great and small (*mega kai smikron*)—for it becomes both—and at rest and moving (*hestôs kai kinoumenon*)—for it does really become these. (VI.6.3.28–30)

The passage explains the principal difference between Aristotle and Plotinus and elucidates why Aristotle's explanation of the Indefinite Dyad is wrong from the Platonic point of view.[69] Aristotle considers the Indefinite Dyad as two things, which he first calls "quantity-maker" (*posopoios*) in *Metaph.* 1083a13 and later redefines as "two-maker" (*dyopoios*) in *Metaph.* 1083b36. The former represents the Indefinite Dyad as a mechanism that generates quantity in general, which Aristotle quickly rejects as impossible.[70] This rejection forces him to interpret the Indefinite Dyad as some sort of mathematical doubling mechanism that does not create multiplicity in general but only twos.[71] For Plotinus, on the other hand, "the great and the small" do not produce quantity, but represent the pair of the principles of rest and motion (*hestôs kai kinoumenon*), possessing the characteristics of stability (*stasis*) and innate motion (*symphytos kinêsis*) inherent in Numenius' First God.

It is not until Syrianus' commentary on Aristotle's treatment of number that Aristotle's confusion is resolved. Proclus' teacher explicitly talks about the Indefinite Dyad qua principle, which is "the author for all things of generative power and procession (*proodos*) and multiplicity (*plêthos*) and multiplication."[72] According to him, the Indefinite Dyad fills every level of reality (divine, intelligible, psychic, natural, and sensible) with the numbers proper to it. Syrianus articulates the concept of the Indefinite Dyad as a primary originative principle of the numbers that govern every level of reality. But Plotinus cannot speak with such clarity on the subject because he needs first and foremost to establish that number has ontological meaning and to distinguish intelligible from arithmetical number. Most likely he has in mind Syrianus' conceptual goal, but what we find in VI.6.3 and elsewhere in the

69. Rist (1962a: 100) and Sayre (1983: 98), accusing Cornford (1939: 144) and Taylor (1927: 22) of following Aristotle's false lead.

70. *Metaph.* 1083a11–13: ἔτι οὔτ' ἂν ἀπὸ τοῦ ἑνὸς τοῦτ' αὐταῖς γένοιτο οὔτ' ἂν ἀπὸ τῆς δυάδος· τὸ μὲν γὰρ οὐ ποιὸν ἡ δὲ ποσοποιόν. Discussed pp. 59–60.

71. *Metaph.* 1083b35–36: ἡ γὰρ ἀόριστος δυὰς δυοποιὸς ἦν. Discussed pp. 59–60.

72. *In Metaph.* 112.35ff. Trans. Dillon and O'Meara (2006: 6).

Enneads are the labor pains of a work in progress, which later allows philosophers like Syrianus to achieve such conceptual clarity.[73]

Therefore we need to look elsewhere in the *Enneads* to acquire a complete understanding of Plotinus' concept of the Indefinite Dyad. The discussion in VI.6.3 is not intended to depict the full picture, but only to reject Aristotle's quantitative interpretation of the Dyad. VI.6.3 ends with the notion that the Indefinite Dyad is a principle pertinent to the intelligible realm. He further elucidates this position by explaining that "what is called number in the intelligible world and the dyad are rational principles (*logoi*) and Intellect (*nous*)" in V.1.5.13–14. The equation of number and the Indefinite Dyad with rational principles suggests that they originate from the first separation of multiplicity from the One and organize the intelligible realm.

In chapter 1, we discussed the first separation, in which Intellect contemplates itself as an image of the One in multiplicity.[74] The thaumastic nature of this paradox stems from the two activities of the One. The internal activity, which the One directs toward itself, prevents it from losing any part of itself in its productivity. The external activity, directed toward the Second Hypostasis, reveals itself to Intellect as its own multiplicity.[75] Through self-contemplation, Intellect instantiates itself as many (*ho nous houtos ho polys*) and perceives the One as multiplicity.[76] Thus, the thinking of Intellect is the actual activity of the Indefinite Dyad, which produces multiplicity.[77]

So, what is the role of the intelligible numbers and the Indefinite Dyad in this first act of separation? Although Plotinus introduces them in the above order in V.1.5, in our examination, we need to reverse this order because the Indefinite Dyad belongs to "the effluence from the One when it first appears, before it has returned in contemplation upon its source and become informed,"[78] whereas the intelligible numbers pertain to the informed Intellect seeing its manyness. In V.1.5, we find that this is the actual order of separation from the One:

> For number is not primary: the One is prior to the dyad, but the dyad is secondary, and originating from the One, has it as definer, but is itself of its own nature indefinite; but when it is defined, it is

73. This process took about two centuries.

74. See pp. 35–36.

75. Here I am happy to use Emilsson's lucid analysis of the double activity of the One (2007: 22–30). I regret, however, that his work appeared in print too late for me to peruse it thoroughly in my book.

76. V.3.11.3–4: . . . ἁπλῶ ἔξεισιν ἄλλο ἀεὶ λαμβάνων ἐν αὑτῷ πληθυνόμενον.

77. Rist (1962a: 102).

78. Rist (1962a: 99).

> already a number, but a number as substance (*hôs ousia*); and soul too is a number. (V.1.5.6–9)

The passage not only contributes to the standard postulate in Plotinian metaphysics that the One is metaphysically prior and thus superior to the Indefinite Dyad and the intelligible numbers, but also clarifies the relationship between the Indefinite Dyad and the intelligible numbers. Note that he only says that the One is prior to the Indefinite Dyad. He does not say that the Indefinite Dyad is prior to the intelligible numbers. The Indefinite Dyad and the intelligible numbers are at an equal metaphysical level. The former is the indefinite (*aoristos,* V.1.5.8), shapeless (*amorphos,* II.4.4.20) productive effluence from the One resulting in movement and otherness from the One (*kinêsis kai heterotês*).[79] He also compares it to darkness (*aphôtistos,* II.4.5.35) or "unformed sight" (*atypôtos opsis,* V.3.11.12). The latter is a result of Intellect's contemplation of itself and the unity of the One as many, defined by intelligible number.[80] Thus, Plotinus carefully distinguishes between the Indefinite Dyad and intelligible number as pertinent to the pre-Intellect and post-Intellect respectively. Because intelligible number defines the indefinite nature of the Dyad, in contrast to Speusippus, Plotinus does not talk about the Indefinite Dyad as multiplicity (*plêthos*), because, for him, the intelligible number itself is multiplicity.

The passage in V.1.5 also answers the pressing question of whether the One itself is number.[81] The One is not number internally, but it externally manifests itself as number, when Intellect contemplates the One. This distinction enables Plotinus to specify that the One is not counted at all: "for it is a measure and not measured, and it is not equal to the other units so as to be of their company."[82] This conclusion has major significance for understanding the structure of the intelligible realm. First, it preserves the suprametaphysical state of the One. Second, it explains that the Indefinite Dyad is not number either. Third, it suggests that intelligible number is an expression of the external activity of the One. Fourth, it defines the indefinite nature of the Dyad only when Intellect contemplates itself and its source. Fifth, it shows that the Indefinite Dyad is the underlying substrate[83] upon

79. II.4.5.31–33: ἀόριστον δὲ καὶ ἡ κίνησις καὶ ἡ ἑτερότης ἡ ἀπὸ τοῦ πρώτου, κἀκείνου πρὸς τὸ ὁρισθῆναι δεόμενα.

80. This is slightly different from Rist (1962a: 104), who describes them as defined by the Forms.

81. I am grateful to Tony Long for stimulating me to pursue this question by suspecting that the One is number, despite the fact that I reached the opposite conclusion.

82. V.5.4.13–15. On the negative description of the One and negative theology, see Mortley (1975: 373).

83. V.1.5.14–17.

which the intelligible number acts like a Form,[84] as if Intellect was shaped by the numbers flowing through the external activity of the One. The undefined nature of the Dyad carries the potentiality of existence[85] and intelligible matter,[86] while the defined nature of intelligible number presents the actuality of existence in VI.6.9.28.[87] Consequently, intelligible number becomes being and substance (*arithmos de hôs ousia,* V.1.5.9).[88] The explication of the last result, of course, deserves its own chapter, following next.

Let us combine this discussion about the Indefinite Dyad and intelligible number with the analysis of the previous two chapters. In chapter 1, we examined the origin of Plotinus' presentation of multiplicity, although in reversed order, from the *Timaeus.* We pointed out the thaumastic element in Plato's conception of the Forms imprinting themselves onto matter in the Receptacle and in Plotinus' definition of multiplicity as separation from the One. While Plato describes the Demiurge's work ordering the primordial chaos of the primary elements in numerical proportions (*Ti.* 36a–37d), Plotinus makes intelligible number, as an agent of the external activity of the One, define and order the unlimited nature of the Dyad into being and substance. In the first separation from the One, "the One gives what it does not itself possess: multiplicity."[89] Therefore, Plotinus' treatment of the relationship between the Indefinite Dyad and intelligible number confirms the finding of chapter 2 that multiplicity is number. Multiplicity exists in the intelligible only as Number.[90] The Indefinite Dyad and intelligible number also relate to the two directions in multiplicity. At the intelligible level, the outward direction represents the indefinite, preinformed nature of the Dyad, while its inward direction represents the defined and informed nature of intelligible number.

The discussions of the number of infinity in VI.6.2 and the Indefinite Dyad in VI.6.3 expose Aristotle's misinterpretation of the Indefinite Dyad and place the origin of number in the intelligible realm. As Plotinus says, quantitative number is only an image (*eidôlon arithmou,* VI.6.2.13) of the true existence of number in the intelligible and should not be the subject of investigation. VI.6.2–3 establishes that number and being are inseparable.

84. III.8.11.

85. V.3.11.

86. II.4.5, III.8.11. On the intelligible matter in Aristotle in connection with Plotinus, see Rist (1962a: 106).

87. See the discussion of substantial number in chapter 4.

88. The relationship between the One, the Indefinite Dyad, and intelligible number is a Plotinian echo of Plato's Limit, Unlimited, and Mixture in *Phlb.* 16d7–e1, 27b7–c1. Merlan (1967: 21).

89. VI.7.15. Rist (1962a: 103).

90. V.4.2.7–8 explicitly states "from the Indefinite Dyad and the One derive the forms and numbers."

4

Number and Substance

Plotinus' Three Hypotheses about Number in the Intelligible Realm

Plotinus' view of the Indefinite Dyad, as a principle of potentiality that the One defines through intelligible number, raises many questions. How does the Indefinite Dyad relate to substance (*ousia*) and to the hypostases of Intellect and Soul? How does intelligible number impose limit on the unlimited? Exactly what is the nature of intelligible number?

Let us follow Plotinus' train of thought that examines each of these questions in the central chapter of VI.6. The refutation of Aristotle's view of the number of infinity in VI.6.2–3 not only defends the Platonic "true numbers," but also univocally denies place for mathematical number in the intelligible realm. The discussion of the Indefinite Dyad's relation to intelligible number places number at the level of the first Monad and Being. This view requires much consideration as it is at the heart of Plotinus' ontology and represents a new step in the theoretical debate between Aristotle and the Platonic concept of number.

In his anti-Aristotelian argument, Plotinus does not distinguish intelligible number and mathematical number terminologically; instead, he expects the reader to understand which one he is referring to by the context of the argument. For the sake of clarity, I will refer to number in the intelligible realm as "intelligible number," adopting Plotinus' single use of *noêtos arithmos* in V.9.11.13. As Charles-Saget notes the term is ambiguous because it implies both the existence of number in the intelligible realm and the plurality of Forms themselves,[1] but again, it is usually possible to discern from the context which one is meant. Since, at this point of VI.6, Plotinus completely enters into the discussion of number as part of the intelligible, the term intelligible number best captures the main focus in the rest of the treatise. As the argument progresses, he specifically uses *arithmos* to mean

1. Charles-Saget (1980: 42): *Cette incertitude où nous demeurons à l'égard du sens du nombre intelligible (c'est-à-dire du nombre 'qui est dans' l'intelligible, car 'intelligible' jusqu'ici ne qualifie pas le nombre, ne l'éclaire pas, il le situe simplement) n'est pas levée par une indication quelconque sur le sense de la pluralité dans les idées elles-mêmes.*

intelligible number, even after he defines it as "substantial number" (*ousiôdês arithmos*) in VI.6.9.34.[2]

In VI.6.2–3, the two kinds of number are introduced indirectly by explaining their major difference. He repeatedly states that "the generation of number is not in the power of the one who counts, but it is already limited and stands fast," that "in the intelligible, just as the real beings are limited so is the number limited to the real beings," and that "what really exists and is, is already determined by number."[3] These statements repeatedly establish that intelligible number originates in and pertains to the intelligible realm. Mathematical number, on the other hand, is mentioned only once as an image of intelligible number.[4] As a result, even without proper and explicit terminology, the two types are characterized by the standard Platonic division of an intelligible paradigm and its physical copy.

After alluding to the distinction between intelligible and mathematical number in VI.6.2, Plotinus abandons the latter and focuses on the former, since "that which *exists* and *is,* has been already determined by number."[5] In the discussion of the order of separation from the One in V.1.5.9, examined earlier,[6] Plotinus explains that the One is prior to the Indefinite Dyad and defines the Dyad by number which is "as substance" (*hôs ousia*). The comparison of number with substance elucidates the relationship between the Indefinite Dyad and intelligible number, but more important it establishes an ontological relationship between intelligible number and substance. Ontologically the use of *hôs* in the sense of "as" in the phrase *arithmos hôs ousia* does not simply compare but equates number with substance within the Indefinite Dyad. Since number defines the unlimited nature of the principle of potentiality, number induces limit and stability in the intelligible. Furthermore, since limit and stability imply being, it follows that number must be being. This reasoning leads Plotinus to conceive of number as substance.

This brings us to the subject of the origin of Limit, Being, and the absolute Monad.[7] In V.1.5, Plotinus explains that the One is prior to the Dyad and defines the Dyad by number. In V.5.5, he further clarifies that the defining activity of the One is the first Monad, which is the principle of Limit and gives beings substantial existence.[8] Nikulin has pointed out that the intelligible numbers come from the Monad and the Indefinite Dyad.[9] His

2. Discussed in the last section of this chapter.
3. In order, VI.6.2.8–9; VI.6.2.9–10; and VI.6.3.2.
4. VI.6.2.13.
5. VI.6.3.2.
6. See pp. 68–69.
7. Peculiarly absent from Rist's discussion (1962b).
8. V.5.5.13: τὴν οὐσίαν αὐτοῖς ὑπεστήσατο. On the Monad and Being, see the discussion of substantial number and the Absolute Being in chapter 5.
9. Nikulin (2002: 81–85).

conclusion, however, requires further clarification. If the absolute Monad is the principle of the absolute Being and defines the Indefinite Dyad in the creation of the intelligible realm, then the Monad and the Indefinite Dyad produce not the intelligible numbers, but the multiplicity of beings as intelligible numbers.

The Monad as the first principle of being underlies the existence of intelligible numbers. V.5.4 clarifies that the One does not participate in number but "when the dyad comes to be, the monad before the dyad exists."[10] The monad in number participates in the first Monad as the principle of existence that represents both unity and individuality. For example, the two units in the dyad and the wholeness of the dyad both participate in the monad but in different ways. The dyad is one as a unity and the two units in the dyad are each an individual unit, which is one as a unity. As Plotinus says, an army and a house are one in a different way.[11] A house is one "in virtue of its continuous structure," while an army is one as a discrete unity. Like a house, the dyad is one in virtue of its continuity, while the number two is one as a discrete unity.

The Aristotelian origin of the distinction between continuous and discrete will be discussed later, in the examination of the primary kinds in VI.2–3.[12] Here it is important to understand Plotinus' point that, while both a house and an army participate in the monad, the monad itself does not participate in them, but beings acquire their unity and individuality by participation in the monad.[13] The monad represents one as the unity and the limit in being.[14]

The discussion of the relationship between being and number raises the question of how intelligible number relates to the Forms. Plotinus considers three possible ways:[15]

1. The posterior hypothesis (H1): if each Form is numbered after it comes into existence, then number is posterior to the Forms (*epiginomenos,* VI.6.4.3–6).

10. V.5.4.24.

11. V.5.4.31–33.

12. See chapter 5.

13. V.5.4.29–30.

14. VI.6.4.3–4: "since being is of such a kind as to be itself the first, we conceived it as monad" Nikulin (2002: 77).

15. Nikulin (2002: 74–80) analytically construes Plotinus' concept of number without discussing the concept within the structure of the argument in VI.6. His interpretation is rather concise and does not examine every detail of Plotinus' argument, such as the disproof of H1 and H2 or the discussion that intelligible number is not incidental.

2. The simultaneous hypothesis (H2): number is created along with each Form (*synegennêthê,* VI.6.4.6–7).

3. The anterior hypothesis (H3): number is conceived in and of itself (*autos eph' heautou ho arithmos enoêthê,* VI.6.4.10).[16]

In order to understand the hypotheses correctly, we must remind ourselves that the temporal distinctions used in expressing relations in the intelligible realm are actually atemporal.[17] The notion of time in the intelligible is only a coping mechanism of our dianoetic thinking in conveying the relations of metaphysical superiority and dependency. The above hypotheses, thus, investigate whether number is, respectively, metaphysically inferior, equal, or superior to the Forms.

Recalling Plato's distinction between numbers enumerating sense-perceptible things and numbers representing higher mathematical concepts, Plotinus attempts to answer the above hypotheses through Plato.[18] In VI.6.4.20–25, he paraphrases the explanation in *Ti.* 39b–c that "men came to the idea of number by the alternation of day and night."[19] The reference illustrates the fact that numbers simply measure the differences between things.[20] He further expounds that, according to Plato, soul enumerates things when they enter into soul by perceiving them as different. This view supports the posterior hypothesis (H1) that numbers are inferior to the things they count and, in the context of the intelligible realm, below the Forms.[21]

On the other hand, in VI.6.4.20–25, he recalls Plato's *R.* 529d2–4, which explains that true astronomy is concerned with "motions that are really fast or slow as measured in true number (*en tôi alêthinôi arithmôi*), delineate true

16. Nikulin (2002: 74–75) counts four hypotheses: the number may be either after, together with, or independent of the Forms and subdivides the last one into number being independent "either before or after the Forms." The last bifurcation, although important to the nature of intelligible number, does not need to be counted as two separate hypotheses as it refers to the single premise that number is prior to the Forms. Therefore, with Charles-Saget (1980: 41–42), I count three hypotheses.

17. I should also add space. But, since the three above hypotheses do not include spatial reference, I have left it out from the main text.

18. Charles-Saget (1980: 42).

19. Continued in *Ti.* 47a. On Plotinus' mind most likely are also the creation of time as "an eternal image, moving according to number, of eternity remaining in unity" (*Ti.* 37d5–7) and the alternating motions of the sun and the moon (*Ti.* 38a7–8).

20. III.7.12.31–33: "... The god made day and night by means of which, in virtue of their difference, it was possible to grasp the idea of two, and from this [Plato] says, came the concept of number."

21. A remote reference perhaps to the future role of Soul as translator of the intelligible numbers into mathematical numbers; see pp. 114–118.

geometrical figures (*pasi tois alêthesi schêmasi*), and are all in relation to one another." This passage comes from the much-discussed section on Plato's propaedeutics describing the curriculum designed to train the guardians' minds to grasp arithmetic, geometry, stereometry, astronomy, and harmonics "by reason and thought, not by sight."[22] The order of the disciplines proceeds from the particular to the abstract. Regarding astronomy, Plato completely dismisses the knowledge acquired by the senses and argues that real astronomers, that is, the ones with a strong philosophical bent, do not study the visible appearance of the heavenly bodies' movements, but their intellectual counterparts. The incorporeal mathematical abstractions occupy an intermediate position between the Forms and their physical copies, although they are closer to the former than to the latter.[23] By "true numbers" and "true figures," Plato means abstract numbers, which lead us closer to the understanding of "the colorless, shapeless, and invisible being," as described in the *Phaedrus*.[24] Thus, Plato's true numbers are closer to H2 and H3 rather than H1.

In mentioning Plato's true numbers, Plotinus' goal is apparently to place number in the intelligible realm. He achieves this in a peculiar, convoluted, yet still important manner:

> But then when Plato says "in the true number" (*en tôi alêthinôi arithmôi*), and speaks of the number in substance (*ton arithmon en ousiai*), he will, on the other hand, be saying that number has an existence from itself (*hypostasin tina an aph' heautou tou arithmou*) and does not have its existence in the numbering soul (*ouk en têi arithmousêi hyphistasthai psychêi*) but the soul stirs up in itself from the difference in sensible things the idea of number (*ennoian tou arithmou*). (VI.6.4.20–25)

Plotinus introduces Plato's true numbers as the alternative to the posterior hypothesis (H1). In addition, he explains that Plato speaks of them as "numbers in substance" and as "existence from itself." But Plato does not associate the true numbers with substance (*ousia*) in the passage Plotinus refers to in the *Republic*. Plotinus skips Plato's view that the mathematical number is an intermediary between the Forms and the physical copies and links the true numbers directly with being. In his interpretation of Plato, Plotinus fuses the

22. *R.* 529d4–5: λόγῳ μὲν καὶ διανοίᾳ ληπτά, ὄψει δ' οὔ.

23. In general, Plato considers geometry as a more advanced discipline than arithmetic because it works with abstract construction of geometrical figures. Adam (1965: 129, 166–167).

24. *Phdr.* 247c6–7: ἀχρώματός τε καὶ ἀσχημάτιστος καὶ ἀναφὴς οὐσία. Parallel drawn by Adam (1965: 129). In this particular passage, I translate *ousia* as "being" to be faithful to Plato's original use and not to let Aristotle's term "substance," which I use throughout, overpower it.

true numbers in the *Republic* with Plato's description of *ousia* in the *Phaedrus* in order to conceptualize his own idea of the intelligible number as "substantial" (*ousiôdês arithmos*) in VI.6.9.34.[25] Aristotle does not use Plato's true number (*alêthinos arithmos*) at all. Indeed, he coins his own term, such as "*Form*al number" (*eidêtikos arithmos*), to signify Plato's Form-numbers. Plotinus, on the other hand, specifically quotes Plato's "true number" to show his reception of Plato's view, while he does not even once use Aristotle's "*Form*al number."

Plotinus' interpretation of Plato's true numbers, in VI.6, has three important ideas with programmatic significance for the concept of the substantial number. First, according to him, by "true numbers," Plato means "number in substance" (*ton arithmon en ousiai*).[26] This interpretation entirely shifts the true number from the realm of mathematicals, as intermediaries between the Forms and the physical reality, to the intelligible realm. Second, the explanation that number is in substance leads to the major conclusion that "number has an existence from itself and does not have its existence in the numbering soul,"[27] which places substantial number in Intellect. Third, the above point allows Plotinus to specify that the soul enumerates by stirring up in itself the idea of number, which in turn suggests that number belongs to a higher ontological level than the individual soul.[28]

Plotinus' interpretation of Plato's true numbers, then, points to H2 and H3 in VI.6.4: that number is either simultaneous and equal to the Forms (H2) or prior and superior to the Forms (H3).

Is Substantial Number Discrete and Incidental?

VI.6.5 begins the analysis of the hypotheses by modifying the main question about the relationship between number and substance to a question about the nature of number itself:

> What, then, is the nature of number? Is it an accompaniment (*parakolouthêma*) of each substance and something observed in it (*epitheôroumenon hekastêi ousiai*)—man and one man (*anthrôpos kai heis*

25. In his late period, Plato himself might have distinguished between true numbers and mathematical numbers as reported by Aristotle, *Metaph.* 1080b11–14, 1083b1–2, and Syrianus, *In Metaph.* 186.30–36. Annas (1976: 69–72); Nikulin (2002: 73).

26. VI.6.4.21. Plotinus' "substantial number" denotes both Plato's "being" and Aristotle's "substance," as discussed in the rest of the chapter.

27. VI.6.4.21–23.

28. I believe Plotinus is speaking about the individual soul here as his point is to deny the sense-perceptible origin of number, although he would have expressed a similar thought about the universal Soul, too.

> *anthrôpos*), for instance, and being and one being (*on kai hen on*), and so with all the individual intelligibles and the whole of number (*ta panta hekasta ta noêta kai pas ho arithmos*)? But how is there a dyad and a triad, and how are all unified, and how could such and such number be brought together into one? (VI.6.5.1–5)

The final questions seem to retract the conclusion that was reached at the end of VI.6.4 and reexamine H1. If number is metaphysically inferior to substance, number would accompany substance as it distinguishes particulars from universals: a man from man, one being from being, the whole number of beings from all beings.[29] But such reasoning follows the rules of mathematical number, which counts things discretely. It does not, however, relate to substantial number, because the nature of substantial number possesses internal unity,[30] which must not be discrete but indiscrete.[31] This reasoning supports the text of V.5.4.28–35, discussed earlier,[32] that the monad has substantial unity (*kata to hôs einai hen*), which is different from the unity of the things that are predicates of it. Take the dyad, for example, Plotinus insists. What is the inseparable unity of the dyad?[33] Obviously, it is not "two powers brought together, as if composed into one,"[34] because, if it were, the substantial number would be simply multiplicity of units (*plêthos henadôn*).[35] Substantial number then would be like mathematical number, composite and without inherent unity, except in the case of the monad, which is "simple one" (*to haploun hen*) inherently possessing unity.[36]

Plotinus' argument revisits Aristotle's question about the difference between number and monad (unit) in *Metaph.* 1083a.[37] Aristotle thought

29. Cf. *Metaph.* 1003b.22–30. Armstrong (1988: 20).

30. VI.6.5.4–5: πῶς δυὰς καὶ τριὰς καὶ πῶς τὰ πάντα καθ' ἕν. This one is the monad as unity, not the absolute One, which does not relate to anything, οὐ κατ' ἄλλο (V.5.4.7).

31. The topic of the substantial unity leads to the discussion of Intellect as "one nature" in VI.6.7. Cf. the unity of Intellect as "always inseparable and indivisible" (ἀεὶ ἀδιάκριτος καὶ οὐ μεριστός) in IV.1.1.7.

32. See p. 73.

33. The Indefinite Dyad is not strictly speaking a substantial number, but an ideal principle possessing two powers, potentiality and actuality. Nikulin (2002: 81).

34. VI.6.5.9: δύο ἔχει δυνάμεις συνειλημμένας οἷον σύνθετον εἰς ἕν.

35. VI.6.5.6.

36. VI.6.5.6–7, for one cannot be predicated to itself; thus it cannot make two. "The simple one" (τὸ ἁπλοῦν ἕν) is perhaps an image of "the bare one" (τὸ ἓν ψιλόν, VI.6.11.19) and "the pure one" (τὸ καθαρῶς ἕν, V.5.4.6).

37. Discussed pp. 59–62.

that, in order for them to be different, they must differ not by quantity (*kata to poson*) but by quality (*kata to poion*). Since he perceives the difference between number and monad to be only quantitative and not qualitative, he dismisses the qualitative distinction between them as nonsensical (*alogon*).[38] Plotinus also looks, although not as explicitly as Aristotle, for the same distinction. Just as Aristotle uses mathematical concepts to deny the ontological meaning of number, Plotinus uses mathematical language to deny the arithmetical characteristics of substantial number. First, he compares substantial number to multiplicity of henads, recalling the mathematical definition of number proper.[39] Second, he explains the dyad as a composite number (*synthetos arithmos*).[40] Neither attempt, however, satisfies him as demonstrating the internal and inseparable unity of substantial numbers. This series of failed attempts reinforces the invalidity of Aristotle's conclusion about the quantitative nature of number and points at Plotinus' ontological interpretation of substantial number. In this light, once again H1 proves to be false. For him, number does not count substance in the intelligible realm.

Next, Plotinus turns to the Pythagorean analogical understanding of numbers (*arithmoi ek tou analogon*) in order to exemplify what kind of unity substantial number has.[41] For example, the Pythagoreans speak of the tetrad as absolute justice (VI.6.5.10–12).[42] The inherent unity of the tetrad is conveyed by the indivisibility of the abstract concept of justice. By giving a

38. *Metaph.* 1083a8.

39. Moderatus defines number as *systema monadôn* (see pp. 43–44) whereas Euclid defines it as "multiplicity composed of units" (τὸ ἐκ μονάδων συγκείμενον πλῆθος, *El.* bk. 7, def. 2, bk. 9, def. 22), which is used by both mathematicians and philosophers later. Plotinus' choice of henads in the place of monads is peculiar, but we cannot make much of it for now since he is usually inexact in his quotations. Xenocrates, however, speaks of "multiplicity from absolute henads" (πλῆθος ἐξ ἑνάδων ἀληθινῶν) and explains that we do not use henads in regard to individual bodies (fr. 260, Isnardi Parente). Damascius is able to distinguish between the two: "number is composed of many units whereas multiplicity is composed of henads" (ἐκ μονάδων γὰρ πολλῶν ὁ ἀριθμός, τὸ δὲ πλῆθος ἐξ ἑνάδων συμπληροῦται, *De Principiis* 129.19).

40. Euclid, *El.* 7, def. 14; Aristotle, *Metaph.* 1020b4.

41. VI.6.5.11.

42. Most likely, according to Armstrong (1988: 21), Plotinus refers to Aristotle's treatment of the Pythagorean doctrines in *Metaph.* 985b23–986b8 rather than to their original sources. On the Pythagorean tetrad, see *Theol. Ar.* 29: "Anatolius reports that it is called 'justice,' since the square (i.e., the area) which is based on it is equal to the perimeter" (trans. Waterfield). For the mathematical details of the concept in Pythagoras, Plato, and Aristotle, see Ausland (2006: 107–123).

certain abstract meaning to the individual numbers, the Pythagoreans denote the nonquantitative nature of number. Following the Pythagorean method, we may suppose that the unity of the dyad does not come from the quantitative addition of two units but is inseparable from the absolute idea of the dyad. The analogy suggests that the dyad, the triad, and the tetrad in the intelligible are not different from the Form of whiteness, man, or anything else.

The discussion of number as substance invites the question of whether number is incidental to the Forms (*symbebêkos*), and thus referring to H2.[43] Charles-Saget acknowledges the Aristotelian tone of the section only in passing.[44] Her cursory note, however, stems from the expository style of Plotinus' text itself. Plotinus begins by explaining that number is not incidental to the Forms, just as absolute movement is essential and not incidental. To distinguish essential (*kata to ti estin*) and incidental movement (*symbebêkos*), he refers to the discussion of time and movement in III.7.12, which clarifies that time measures the movement of the universe, and not movement per se. Movement per se is a being and thus essential, while movement observed in a thing is incidental. He concludes that substantial number is not altogether incidental (*oude symbebêkos holôs*), since even incidentals must be something before they incidentally occur.[45] This conclusion is exemplified in VI.3.6 where he explains that "the white" per se is being (*to leukon on*) independently from the things to which it is incidental, such as "white Socrates" or "white thing."[46] Therefore there must be a real existence of whiteness, although the color white is only observed in things.[47] Even if number, like the color white, is inseparable from the things it is predicated of, number also must precede man and being, and every thing of which it is predicate.[48] Thus, the simultaneous hypothesis (H2) is invalid:

> And [Number] is prior to being (*pro tou ontos*) so that being itself may succeed in being one (*auto tou hen einai*); but I mean not that One which we say is "beyond being" (*epekeina tou ontos*) but this

43. His discussion of the second hypothesis is the briefest of the three. Nikulin (2002: 74–80) lists it among his four hypotheses but omits it from his discussion. Charles-Saget (1980: 43) spends a paragraph on it.

44. Charles-Saget (1980: 43) does not give specific references to Aristotle. The subject pervades his works. A few most essential references are *A. Pr.* 90a11; *De An.* 406a18; *Metaph.* 1003a30, 1015b29–35.

45. VI.6.5.26–27: τὸ γὰρ συμβεβηκὸς δεῖ τι εἶναι πρὸ τοῦ συμβεβηκέναι. Cf. VI.6.10.28–39.

46. Most likely Plotinus' homage to Aristotle's frequent use of the color white in discussing incidentals, *Cat.* 5a39; *Metaph.* 1007a32–b12.

47. VI.6.5.18–20.

48. VI.6.5.28–35.

> other one which is predicated of each individual Form (*touto to hen ho katêgoreitai tôn eidôn hekastou*). (VI.6.5.35–38)

The passage brings to fruition Plotinus' protracted labor on the subject. Substantial number is superior to being because it determines being as one. The immediate clarification in the passage, that is, that he does not mean the One beyond being, is not absolutely necessary since the beyondness of the One is not threatened here. The mention of the One beyond being is useful, though, because it clarifies that Number, prior to being, is the monad that is predicated of each form.[49] A decad should not be perceived as composed of ten separate units but, like a house, as a single unity that has ten powers brought together in one. The absolute unity of ten (*autodekas*) must preexist the Forms,[50] as absolute justice preexists just acts. The absolute decad is to the Forms as the Forms are to sense-perceptible objects.

The major question, then, is that, if the one itself and the decad itself exist in the intelligible prior to applying to the Forms, what is their absolute nature? Plotinus' answer is that "we make [intelligible beings] come into being in thought."[51] To illustrate his point, he quotes Aristotle's *De Anima*, that "in immaterial things the knowledge and the thing are the same."[52] For Aristotle, the definition of "what it is" is the same as "what it is."[53] In other words, absolute Justice and the concept of justice are the same. For Plotinus, however, the definition or the concept of something does not constitute the thing itself (VI.6.6.19–26),[54] but the thing itself is nothing else but intellect and knowledge (VI.6.6.26–29). Once again, Plotinus comes back to the major point of disagreement with Aristotle on the number of infinity, that the Forms are absolute beings in the intelligible realm and have separate existence both from their material copies and from dianoetic thought: true knowledge is not an image of the thing but the thing itself.[55] The absolute nature of substantial number is in Intellect.

49. Also called ἀριθμὸς αὐτό in VI.6.8.5.

50. VI.6.5.39–51.

51. VI.6.6.4–5: λόγῳ δὲ δεῖ νομίζειν τὴν γένεσιν αὐτῶν ποιεῖσθαι. Also V.1.8. Cf. Parmenides, D-K B 3, 4, and 8. Socrates, too, wants to construct a city, λόγῳ, *R.* 369c9.

52. VI.6.6.19–20: εἰ δέ τις λέγοι, ὡς ἐπὶ τῶν ἄνευ ὕλης τὸ αὐτό ἐστιν ἡ ἐπιστήμη τῷ πράγματι, noted by Armstrong (1988: 27). Cf. *De An.* 3.5.430a2–3 and 3.7.431a1–2.

53. *Metaph.* 1028a13–18. Witt (1989: 54).

54. Armstrong (1988: 26): "A clear statement that a Platonic Form is something very different from a hypostasized Aristotelian universal."

55. VI.6.6.29–30: τοῦτο δ' ἐστὶν οὐκ εἰκόνα τοῦ πράγματος, ἀλλὰ τὸ πρᾶγμα αὐτό.

Thus, the final stop in Plotinus' search for the nature of substantial number is the second hypostasis. The investigation has made a full circle starting from the relationship between the Indefinite Dyad and number in the intelligible and returning to the unity of knowledge and being in Intellect. From our vantage point, it seems that Plotinus should have addressed this question immediately after his discussion of the Indefinite Dyad, because the question of how number is Intellect was pressing when he made the equation between Intellect and multiplicity in V.3.11 and III.8.8.[56] Yet, he could not explicate the relationship between number and Intellect without first determining that number precedes the Forms.

Plotinus finds the final proof that number precedes the Forms in the nature of Intellect, in which knowledge of the Forms and Forms themselves are in inseparable unity.[57] Absolute motion (*autokinêsis*) of Intellect brings the thoughts of the Forms (*noêsis*) not as "an image of the Forms but as the Forms themselves" (VI.6.6.31–34) because motion in Intellect is not incidental but real and "the active actuality (*energeia*) of what is moved, which exists in actuality."[58] The unity of knowledge and Form suggests once again that the absolute number (*arithmos auto*), as Plotinus later defines it in VI.6.8, precedes the Forms and thus supports the anterior hypothesis (H3).

The Whole Number of Beings

The one-in-many nature of Intellect invites Plotinus to search next for the unity of substantial number in the second hypostasis in VI.6.7–8.[59] As I discussed earlier, Intellect contemplates the One by cognizing its own multiplicity.[60] Thus, Intellect, as Gerson formulates it, "is the eternal product of the One" and "is cognitively identical with all intelligibles."[61] In VI.6.7,

56. Discussed pp. 35–36 and p. 104.

57. The unity is "an intellectual statue, as if standing out from itself and manifesting in itself, or rather existing in itself" (VI.6.6.40–42). This is a triple reference to Socrates' comparison of the wholeness of the perfect state to the overall completeness of a statue in *R.* 420c–d, to Socrates' request to view the intelligible idea of the perfect state coming alive in *Ti.* 19b–c, and to Aristotle's popular example of a bronze statue in *Metaph.* 984a24–25, 1013a25, and *Ph.* 190a26, 207a28, among many others.

58. VI.6.6.35–36: ἡ [κίνησις] ὄντως, ὅτι μὴ συμβέβηκεν ἄλλῳ, ἀλλὰ τοῦ κινουμένου ἐνέργεια ὄντος ἐνεργείᾳ. This description clearly relates Numenius' concept of the innate motion of the First God to the level of Intellect in Plotinus.

59. Charles-Saget (1980: 47).

60. See pp. 35–36.

61. Gerson (1994: 46).

Plotinus repetitively describes this unity of Intellect and intelligibles as "one nature" (*mia physis*),[62] first by quoting Anaxagoras' famous expression "all in one together" (*homou en heni panta*), and second, by rephrasing it ontologically as "all beings together" (*homou pantôn ontôn*).[63] His paraphrase, however, underlines the presence of multiplicity in Intellect.[64] The apparent reason is that Intellect, as one nature, contains all intelligible beings as thinking contains all thoughts of Intellect.[65] Thus Intellect and beings share the same intelligible nature. Closely echoing Anaxagoras, Plotinus explains in IV.1.5–8 that "the whole Intellect one together" (*homou men nous pas*) is always inseparable and indivisible (*aei adiakritos kai ou meristos*).[66] Since substantial number is Intellect, as explained in V.1.5.12–14,[67] then substantial number must be also inseparable and indivisible from being.[68]

So what is the content of the "one nature" of Intellect? In the earlier discussion of V.3.11, we found the first separation of multiplicity from the One in the contemplative act of Intellect, in which Intellect sees and knows the One by seeing and knowing itself as many (*nous polys* and *plêthynomenos*).[69] Intellect, as self-reflexive thinking, knows itself as the external activity of the One by seeing the multiplicity of beings. Copying the internal and external activities of the One, Intellect, as thinking, turns itself internally to contemplate itself and, in the same act, turns externally to cognize its multiplicity (VI.6.7.8–10). So both Intellect and the beings it contemplates share "the one nature" of the second hypostasis.[70]

The explanation of the one nature of Intellect in VI.6.7 elucidates the bidirectional structure of multiplicity in the intelligible realm, which was

62. "One nature" is mentioned emphatically twice in VI.6.7.1–2.

63. VI.6.7.4 and 7; Cf. D–K 59B 1.

64. Explaining the one nature of Intellect, Plotinus masterfully refers to Anaxagoras' quote three times without repeating himself—a good illustration of Corrigan's (2005: 4) assessment that "Plotinus never says exactly the same thing twice."

65. VI.6.7.2: μίαν φύσιν πάντα ἔχουσαν καὶ οἷον περιλαβοῦσαν.

66. The context of this statement is the participation of the unembodied soul in the intelligible realm and the divisibility of its nature, which allows embodiment.

67. See pp. 68–70.

68. The conclusion complements Gerson's distinction (1994: 178–179) between discursive divided intellect and undivided Intellect, which makes discursive thinking possible. Substantial number falls in with the latter.

69. See p. 35.

70. V.9.8.16–17: μία μὲν οὖν φύσις τό τε ὂν ὅ τε νοῦς, in contrast to the complete lack of quality in matter (μηδεμία φύσις) in I.8.10.4.

introduced in VI.6.1. The outward direction represents Intellect thinking all beings, which are already separated in Intellect forever (VI.6.7.10), whereas the inward direction constitutes Intellect knowing all beings together in one. The desire of multiplicity, after its separation from the One, to return to the One (VI.6.1.16), in fact, begins with the first act of separation from the One, which is marked by Intellect's contemplation of itself as many. As Intellect embraces the Forms as one nature (VI.6.7), so is multiplicity circumscribed by one and retained into unity (VI.6.1.24).

In VI.6.8, the multiplicity of Intellect introduces the concept of the Complete Living Being (*to panteles zôion* and *autozôion*), which "encompasses in itself all living beings and being one as large as all things."[71] The Complete Living Being contains the multiplicity of all beings in the intelligible.[72] The whole number of beings has been an undercurrent in Plotinus' discussion of unity since VI.6.4.4, because it expresses the idea that the number of all beings is finite. The Complete Living Being encompasses the whole number of all living beings (*arithmos sympas*), and therefore is the absolute living being (*zôion prôtôs*).[73] The intermediary position of the whole number in the following equation demonstrates that number unifies the intelligible realm.[74]

Equation of the Number of the Complete Living

All Living Beings	=	Whole Number [of Living Beings]	=	Complete Living Being
ta panta zôia	=	*sympas arithmos*	=	*to autozôion*

As Intellect embraces the Forms into the Complete Living Being, so does the whole number of all beings embrace the multiplicity of all beings that exist individually. The embracing, however, is not external, as if from one thing to another, but internal and self-identifying for both Intellect and

71. Respectively VI.6.7.16–19 and 8.2. Cf. Plato's universal living being (*to zôion*) in the *Ti.* 30c–31b. Charles-Saget (1980: 47) interprets the one-in-many nature of Intellect and the Complete Living Being as different aspects of the intelligible.

72. Hadot (1957: 118–119) concludes that *Sph.* 248e supports *Ti.* 39e in the description of the plurality of being in VI.6.8. Charles-Saget (1980: 50), however, finds Plotinus' remarks less convincing.

73. VI.6.8.1–4.

74. Later Plotinus defines "the whole number" (*sympas arithmos*) itself as "encompassing number" (*periechôn arithmos*) in the discussion of the presence of number in the intelligible realm in VI.6.9.31; see the section on substantial number and the Complete Living Being in chapter 5.

the beings.[75] The division between thinking and beings is artificial and is a result of our discursive thought. In Intellect, the activity of thinking (*noêsis*) is simultaneous with its own objects (*ta onta*).[76]

Where does absolute existence, such as the absolute man (*autoanthrôpos*) or the absolute number (*arithmos auto*), come from, then?[77] Stripped of the burden of predication, the absolute substance (*alêthinê ousia*), according to Plotinus, is a power that comes from itself and is "the most living and intelligent of all":[78]

> If then one should take being first, since it exists first, then, intellect, and then the living being (for it is already established that this contains all things)—but intellect comes second, for it is the active actuality of substance (*energeia gar tês ousias*); then number would not be on the level of the living being (*out' an kata to zôion ho arithmos eiê*)—for even before it one and two existed—nor on the level of intellect (*oute kata ton noun*)—for substance was before it, which was already one and many (*pro gar autou hê ousia hen ousa kai polla ên*). (VI.6.8.17–22)

As Charles-Saget notes, the passage recapitulates the findings that Plotinus has made thus far in his examination: that Being comes first in the separation from the One, followed in due order by Intellect and the Complete Living Being.[79] This summary, however, does not explain the place of number in the triad of Being-Intellect-Complete Living Being. Substantial number is not at the level of the Complete Living Being since the Forms already existed individually,[80] nor is it at the level of Intellect, since Intellect is already second in respect to Being, which, in turn, is also one and many. This conclusion dismisses once again the first two hypotheses introduced earlier at VI.6.5, that number is either posterior to or simultaneous with the Forms, and confirms the third hypothesis, that number precedes the Forms and is at the level of Being.

75. In III.9.1.1–14, Plotinus clarifies Plato's statement that "Intellect sees the Ideas existing in the real living creature" (*Ti.* 39e7–9) by explaining that "there is nothing in the statement against both being one, but distinguished by thought, though only in the sense that one is intelligible object, the other intelligent subject."

76. V.6.2.11–12: "Intellect does not have thinking without the object of thought." Corrigan (2005: 36).

77. VI.6.8.4–6.

78. VI.6.8.10–12.

79. Charles-Saget (1980: 48).

80. As suggested previously in VI.6.4.

Substantial and Monadic Number

The placement of number at the same metaphysical level as absolute substance returns the discussion to the original question, in VI.6.4, about the relationship between number and substance:

> It remains then to consider whether substance generated number by dividing itself (*hê ousia ton arithmon egennêse tôi hautês merismôi*), or number divided substance (*ho arithmos emerise tên ousian*); for certainly either substance and movement and rest and same and other generated number or number generated them (*hê ousia kai kinêsis kai stasis kai tauton kai heteron auta ton arithmon ê ho arithmos tauta*). (VI.6.9.1–5)[81]

The idea of division (*merismos*) of being according to number adds an ontological layer to its primary mathematical meaning.[82] The passage examines the ontogenetic role of substantial number and suggests that this number is above all intelligibles and among the Platonic primary kinds (being, rest, motion, same, and other).[83] VI.6.6.41–42 has already explained that the absolute existence of all intelligibles "stands out from itself and manifests in itself, or rather exists in itself." How does number relate to absolute substance? Is it a result of our thought and cleverness, or does it exist in the intelligible realm?[84]

In order to answer these questions, Plotinus goes back to H3 and further subdivides it into two propositions: first, if number exists by itself in the intelligible, number must preexist the Forms;[85] or second, if number exists by itself, it comes after the Forms. The latter he has already rejected in H1. Here he points to the apparent paradox, that if being precedes number, then how it is that being is one being and two beings are two beings. His reasoning clarifies the second hypothesis in the *Parmenides* by asserting that the idea of number is already in us when we count one man and a second man after him and a succession of other men one after the other.[86] So number

81. Losev (1928: 50) labels VI.6.9 as "the most difficult text in the history of Greek philosophy."

82. Heron, *Defin.* 21.1.6; Theon, *In Ptol.* 457.10, 458.12; Claudius Ptolemaeus, *Syntaxis Math.* 1.1.32.6; Diophantus, *Arithm.* 14.2; Iamblichus, *Comm. Math.* 5.39; Sextus Empiricus, *Adv. Math.* 1.159.1.

83. Armstrong (1988: 32). Plato's μέγιστα τῶν γενῶν in *Sph.* 254–255a.

84. VI.6.9.13–14: τῇ ἐπινοίᾳ καὶ τῇ ἐπιβολῇ ἢ καὶ τῇ ὑποστάσει.

85. VI.6.9.8–11.

86. VI.6.9.15–24. Plotinus uses the same argument against mathematical number in VI.6.2.

precedes being in order to count the number of beings and the first proposition in VI.6.9.22–27 turns out to be true:

1. Certainly the beings were not numbered at the time when they came to be.
2. But it was [already clear] how many there had to be.
3. The whole number, therefore, existed before the beings themselves.[87]
4. But, if numbers were before beings, numbers are not beings.
5. Number, therefore, was in being, not as the number of being—for being was still one.
6. But number was in being as the power of number which, having come to exist (*hê tou arithmou dynamis hypostasa*), divided being (*emerise to on*)[88] and made it, so to speak, in labor to give birth to multiplicity (*hoion ôdinein epoiêsen auton to plêthos*).

The conclusion that the power of number divides being further suggests that number is a productive power that is either the substance of being (*hê ousia autou*) or the activity of being (*hê energeia ho arithmos estai*).[89] The former associates it with the intelligible realm in general, the latter with Intellect.[90] I discuss the conceptual ramifications of this definition in the following chapter. Now it is important to note that "power" (*dynamis*) here signifies actuality and not potentiality as in Aristotle. Plotinus associates number with substance and ontological productivity. The Indefinite Dyad represents the element of potentiality in the intelligible. His distinction between the Indefinite Dyad and substantial number in V.1.5 clearly suggests that the latter acts differently from the former.[91] If the former is potentiality, then the different act of the latter must be actuality.[92] In addition, Plotinus associates *dynamis* with productive power and actuality when he describes the productive power of the One. As Armstrong notes, the meaning of *dynamis* in relation to the One connotes something that is "supremely active, not passive";[93]

87. Nikulin (2002: 75) makes the following successful comparison: "If we stage a thought experiment in which we create something, we have to know precisely beforehand how many things are to be produced. In this way, number has to precede things."

88. *Merismos* and *synthesis* are the mathematical terms for division and multiplication; Heron, *Def.* 21.1.6; Proclus, *In Euc.* p. 5, 5.

89. VI.6.9.27–28.

90. Brisson and Pradeau (2006: 339).

91. See pp. 68–70.

92. Contrary to Losev (1928: 69–70), who interprets number to contain potentiality of being.

93. Noted by Armstrong (1967: vol. 3, 394–395).

that is, the One is the productive power of all things and the first power.[94] But, while the One is a formlessness that is productive of Forms, substantial number, as a result of the interaction between the Indefinite Dyad and the Monad, imposes limit itself onto being and thus creates the Forms themselves. Substantial number is the mold into which the Forms slip to exist. Thus, it is both substance and primary activity of being.

At this point, Plotinus' argument is both most anti-Aristotelian and most Aristotelian. Fusing what Plato calls true numbers in the *Republic* with the description of *ousia* as "being" in *Phdr.* 247c6–8,[95] Plotinus equates number with substance, power, and activity of being. It is perhaps ironic, from a Platonic point of view, that Plotinus' solution offers the most Aristotelian defense of Plato's view of number. On the one hand, the definition of number as substance succinctly contains the characteristics of Aristotle's definition of primary substance,[96] that it is concrete (*tode ti*) and separable (*chôristos*).[97] On the other hand, Plotinus completely adapts Plato's true number (*alêthinos arithmos*) to fit the ontological hierarchy of the intelligible realm. As a principle of actuality, number imposes limit onto the Indefinite Dyad, as a principle of potentiality. By explaining that number is substance (*ousia*), power (*dynamis*), and actuality (*energeia*), Plotinus makes number the building block of the intelligible, as presented in VI.6.9.29–31. Table 4.1 displays

TABLE 4.1. The Aspects of Number in the Intelligible Realm in Plotinus

Being (*to on*)	Unified number (*arithmos hênômenos*)
Intellect (*Nous*)	Number moving in itself (*arithmos en heautôi kinoumenos*)
Complete Living Being (*to zôion*)	Encompassing number (*arithmos periechôn*)
Beings (*ta onta*)	Number unfolded outward (*arithmos exelêligmenos*)

94. III.8.10.1: δύναμις τῶν πάντων. V.4.1.23–25: εἰ τέλεόν ἐστι τὸ πρῶτον καὶ πάντων τελεώτατον καὶ δύναμις ἡ πρώτη. Gerson (1994: 17).

95. See pp. 75–76. This parallel is further strengthened by the description of soul as "source and principle of motion" (*pêgê kai archê kinêseôs*) in *Phdr.* 245c9, as remarked by Brisson and Pradeau (2006: 339, note 144).

96. By "primary substance," I refer to what Aristotle describes as "the substance first in every way" (*pantôs hê ousia proton*, *Metaph.* 1028a32).

97. Respectively, *Metaph.* 1028a3 and 1028a34. Witt (1989: 38–39, 47–58).

the definition-like synthesis of the ontological role of substantial number in VI.6.9.29–32. It is remarkable that Plotinus embeds what could arguably be considered the essence of the argument of the entire treatise in a rhetorical question. For him, it seems that there is nothing left to explain or to prove about the constitutive role of substantial number in the intelligible, except spelling out its terms and different aspects.

Brisson and Pradeau rightfully compare the aspects of substantial number that participate in the production of the intelligible in VI.6.9 to the role of the mathematicals in the creation of the sensible world in the *Timaeus*.[98] According to Plotinus, substantial number has its own infrastructure including four terms corresponding to the ontological nature of every element in the tetrad of Being-Intellect-Complete Living Being—beings that he discussed earlier in VI.6.7–8.[99] Each term explicates the innermost nature of every component in the tetrad. At the level of Being, Number is "unified with Being" (*arithmos hênômenos*).

In all beings, number has unfolded outward (*arithmos exelêligmenos*). This centrifugal movement is ontogenic and figuratively represents the outward direction of multiplicity, described in the first chapter of the treatise.[100] Substantial number then divides Being, which is unified number, according to the whole number of beings that is already predetermined.

The Complete Living Being is "encompassing number" (*arithmos periechôn*) that circumscribes "the number of beings which has unfolded" (*arithmos exelêligmenos*) from "the unified number of Being" (*arithmos hênômenos*). The defitnition of the encompassing number clarifies Plotinus' earlier statement that the Complete Living Being embraces all beings that already exist individually.[101]

"The unfolded number" of all beings and the encompassing number of the Complete Living Being involve motion away from the unified number of Being. In other words, the substantial number in beings and the Complete Living Being separate from the unified number of Being just as multiplicity separates from the One.[102] The definitions of substantial number reinforce the initial definition of multiplicity as separation from the One in VI.6.1. The foundation of existence, then, is motion, which is inherent in Intellect, defined by Plotinus as "number moving in itself" (*nous de arithmos en heautôi kinoumenos*).[103]

98. Brisson and Pradeau (2006: 339, n. 146).

99. Charles-Saget (1980: 53–58); Nikulin (2002: 80).

100. As discussed in chapter 1.

101. Cf. VI.6.7.16–19.

102. Corrigan (2005: 37).

103. Krämer (1964: 304) concludes Intellect to be nothing else but the substantial number moving, in the sense of thinking, itself. Nikulin (2002: 76). See the discussion of substantial number and Intellect in chapter 5.

The detailed explanation of the role of number in the intelligible realm introduces the two types of number in Plotinus: substantial number (*ousiôdês arithmos*) and monadic number (*monadikos arithmos*).[104] The former is the ontogenetic nonquantitative paradigm of existence in the intelligible realm; the latter is its quantitative image.

Substantial number is absolute number, which, together with Being, divides substance to create all beings that come after Being in separation from the One. It is also the rational principle (*logos*), described in V.1.5.13, which orders substance (*ousia*) and constitutes being (*to on*).[105] Substantial number participates in Being as an activity (*energeia*) of Being and as such it emanates its power of numbering to all beings. Unified number unfolds itself into all beings, makes the number of multiplicity finite, and abides in Intellect's constant motion:[106] "But the Substantial number is that contemplated in the Forms (*ousiôdês ho men epitheôroumenos tois eidesi*) and sharing in their generation (*syggennôn auta*), and, primarily, the number in Being and with Being and before the beings (*prôtôs de ho en tôi onti kai meta tou ontos kai pro tôn ontôn*)" (VI.6.9.35–37). The passage synthesizes Plotinus' Platonic answer to Aristotle, toward which he has been moving since the beginning of his examination of the three hypotheses in VI.6.4.[107] The explanation that substantial number is contemplated in the Forms implies that number is metaphysically superior to all intelligible entities and underlies their existence. When substantial number is a power and active actuality of Being, it is present in Being as unified number (*arithmos hênômenos*). As such, substantial number is for all beings what the One is for Being. As the One is the principle of Being (*tôi onti to hen archê*) and the existence of Being rests upon the One (*epi toutou estin on,* VI.6.9.39–40), so is substantial number the source, root, and principle of beings.[108] Since number is "actuality of substance" (*energeia tês ousias*), number must be at the level of the Indefinite Dyad and Being. As Being is "absolute substance" (*alêthinê ousia*) and number is active actuality of the absolute substance, so is absolute number actuality of substance (*energeia tês ousias*).

Plato alludes to the idea that the Forms are numbers without coining a particular term for them. Following Plato's lead and the contemporary disputes on the Platonic theories of number in the Old Academy, Aristotle refers

104. Nikulin (2002: 73–76).

105. Nikulin (2002: 70).

106. Krämer (1964: 305ff); Szlezák (1979: 90–104); Cleary (1995: 346–365); Annas (1976: 62–73); and Nikulin (2002: 73).

107. VI.6.5.1–2: ἆρα παρακουλούθημα καὶ οἷον ἐπιθεωρούμενον ἑκάστῃ οὐσίᾳ.

108. VI.6.9.38–39: βάσιν δὲ ἔχει τὰ ὄντα ἐν αὐτῷ καὶ πηγὴν καὶ ῥίζαν καὶ ἀρχήν.

to the Form-numbers as *Form*al number (*eidêtikos arithmos*).[109] But Plotinus has a more ambitious program than his predecessors. Since he develops a new philosophical system, he must adapt the Platonic and Neopythagorean concept of number to suit his system. Thus, he has to explain how number is at the origin of the intelligible realm *en tout* and at every intelligible entity separately. To accomplish this, he needs more than a loan of old terminology. He needs to invent a new term for the name of the intelligible number that will capture precisely the symbiotic relationship between intelligible number and substance. As a result, he coins the term "substantial number" (*ousiôdês arithmos*) in VI.6.9.34 to denote the paradigmatic kind of number abiding in the intelligible.

Plotinus' conclusion that substantial number constitutes the intelligible realm continues the traditional dispute on Platonic number between the Aristotelian and Platonic schools. Therefore, to articulate his position better, in VI.6.10–11 he reviews the main points of the argument. The summary is important for the structure of the treatise as it is the centerpiece that marks the end of the investigation of the three hypotheses of the nature of number in the intelligible, and the start of the descending exegesis, which will trace the newfound understanding of the ontological role of number consecutively in Being, Intellect, the Complete Living Being, and all beings.[110] The summary not only recapitulates the original top-down approach in presenting Plotinus' cosmology in VI.6.1, but also explains its conceptual reasons. Since substantial number is the pattern that constitutes intelligible existence from the unified number of Being to the encompassing number of the Complete Living Being, the only conceptually sound way for representing the composition of the universe is to follow the pattern of substantial number unfolding the universe from Being to beings.

In this vein, the beginning of VI.6.10 reexamines the definition of multiplicity as separation from the One (*apostasis tou henos*) in consideration of the relationship between Being and substantial number. That number is being standing in multiplicity[111] rewrites the original definition of multiplicity to mean that number instantiates the existence of multiplicity. It supports, in Plotinian terms, the second hypothesis of the *Parmenides*:[112] as number stands firm in being, so does being stand firm in number. The two are ontologically equal and inseparable.

109. The term is especially characteristic of Xenocrates (fr. 99.28, 110.3, 111.2, 112.6, 115, 260.11). It appears only once in Speusippus (fr. 35.4).

110. Charles-Saget (1980: 58–59) recognizes two themes in the chapter: lines 1–20 support the conclusions of chapter 8 that number preexists being; lines 20–51 discuss number as a predicate to being.

111. VI.6.10.1: ἑστὼς οὖν τὸ ὂν ἐν πλήθει ἀριθμός.

112. Discussed in chapter 3. Also Nikulin (2002: 74).

Based on this ontological union between number and being, Plotinus summarizes that substantial number is a preliminary sketch for beings (*protypôsis*). It is like unities (*henades*) "keeping a place for beings which are going to be founded on them" (*hidrythêsomenois*).[113] It is not incidental (*kata syntychian*), but inherent to beings (*kata prothesin*) so that number preexists beings.[114] Finally, it is the cause that determines how many the beings are.[115] If we consider the aspect of substantial number at the level of Being, it becomes clear that the origin of henads as unities or sketches of beings derives from "the unified number of Being":

> Each [being] is one, if the one in them is many all together (*homou polla ên to hen to ep' autois*),[116] as the triad is one, and all the beings are one, not like the one of the number one (*ouch hôs to hen to kata tên monada*), but as the ten thousand or any other number is one (*hôs hen hê myrias ê allos tis arithmos*). (VI.6.10.17–20)

Without being yoked to a particular thing,[117] the henads in beings represent individually the inseparable unity of the unified number in and with Being. If the decad, for example, consists of ten units and each unit is one, Plotinus argues, this one is common to the ten individual units. But, if this one is common to the ten individual units, why could it not be common to the unity of the decad itself? It is obvious that "there is one nature predicated of many, which we said must exist in itself before being observed in many."[118] The common nature of the henad (*henas*) is the inseparable ontological unity imparted both on the single unit in the decad and on the decad per se. This inseparable unity is not incidental but an individualized ontological expression of the unified number of Being (*hênômenos arithmos*). The henads have existence of themselves and are not a result of agglutination or combination. This conclusion rejects Aristotle's proposition in *Metaph.* 1083a that the units in numbers are combinable.[119]

113. VI.6.10.2–4, further explained at VI.6.10.20–29.

114. VI.6.10.11–12 and VI.6.10.27–39. He refers back to the discussion of whether number is accidental to being in VI.6.5.

115. VI.6.10.14–16 and 10.41–51.

116. Echoing ὁμοῦ ἐν ἑνὶ πάντα in VI.6.7.4 and ὁμοῦ…νοῦς πᾶς in IV.1.1.5; above, pp. 81–83.

117. VI.6.11.4–5: οὐ γὰρ δὴ συνεζεῦχθαι δεῖ ἑνί.

118. VI.6.11.7–9: τοῦτο δὲ φύσις μία κατὰ πολλῶν κατηγορουμένη, ἣν ἐλέγομεν καὶ πρὸ τοῦ ἐν πολλοῖς θεωρεῖσθαι δεῖν καθ' αὑτὴν ὑπάρχειν.

119. See chapter 3.

If the units in numbers are noncombinable, there is not only one unit that exists, but there must be a multiplicity of units.[120] This multiplicity of units (*plêthos henadôn*) introduces the problem of the homonymy between the One, as the first hypostasis, and the one present in being.[121] Plotinus distinguishes them by deducing that, if the first unit is that which exists in the highest way, it follows that the other units are units only by the common name of units because, in fact, they have a different nature (VI.6.11.14–17). But, it is not possible for the first unit to be coupled with that which is one in the highest degree, since that which is one in the highest degree does not need to be predicated of any thing (VI.6.11.18–19). Therefore, he concludes, there must be "a one which is nothing else but bare one (*to hen psylon*), isolated in its essential nature, before each individual one is spoken and thought" (VI.6.11.19–21). This bare one is different from the One and is the henad of each being. The henad is the ontological matrix for each particular being so that no being could exist without being predicated to number.[122] Otherwise, it would become innumerate and irrational (*anarithmon kai alogon*),[123] echoing Aristotle's conclusion in *Metaph.* 1083a8 that the distinctions between number and unit are nonsensical (*aloga*). The decisiveness of this conclusion is perhaps surprising. Plotinus brings the finiteness of the universe down to the henads and their inseparable unity with beings. The henads, as images of the unified number of Being (*hênômenos arithmos*), limit beings.

Plotinus, however, is not yet ready to articulate the fusion between substance and number as clearly as it is later found in Syrianus: "And indeed, if one imagines unitary numbers (*monadikoi arithmoi*) as coming into being, one will observe the Form that confers quality as coming later to shape the quantity underlying it."[124] For Syrianus, the monads are "merely the *matter* or *substratum* of number, on which we have to impose, as form, the triad, pentad, heptad, ennead, etc., that we carry in our souls."[125]

In Plotinus, the clear conceptual distinction between monads and henads is at a formative stage. Nikulin remarks that Plotinus uses monads (*monades*) and henads (*henades*) "rather loosely and interchangeably" throughout the *Enneads*.[126] And yet, in the discussion of the unity of substantial number in VI.6.4–5, Plotinus seems to relate the monad to substantial number

120. VI.6.5.6, VI.6.11.12: καὶ οὕτως πλῆθος ἔσται ἑνάδων.

121. Charles-Saget (1980: 63).

122. Corrigan (2005: 181).

123. VI.6.11.32–33, also alluded to in VI.6.6.17–18.

124. *In Metaph.* 139, 1.20–25; trans. Dillon and O'Meara (2006).

125. Dillon and O'Meara (2006: 3). Authors' italics. This is similar to Aristotle, who considers the henads to be *matter* of number, *Metaph.* 1084b5–6.

126. Nikulin (2002: 77 and n. 41).

and the henad to quantitative number. He calls the first being monad,[127] and distinguishes the substantial unity from the quantitative unity of numbers in the phrase "multiplicity of henads" (*plêthos henadôn*).[128] Previously, in V.5.4.33–35, he discusses the relationship between monads and henads in the question of whether the monads in the number five and the monads in the number ten are different, but the one in the number five and the one in the number ten are the same. The question distinguishes between the intact unity of substantial numbers and the discrete units of quantitative numbers. It is not immediately answered in V.5 and is only ambiguously answered in VI.6.4–5.[129] While it seems that the monads are associated with substantial number in V.5, over all both monads and henads are used in reference to substantial number in VI.6.4–5. In the most important part of the argument, which leads to the definition of substantial number in VI.6.9.33, Plotinus states that "they" call the Forms henads and numbers. With Dodds, I take "they" to refer to the Neopythagoreans.[130]

The evidence of Plotinus' use of monads and henads in VI.6 is inconclusive. Nevertheless, if we consider that the henads individually represent the substantial number as unified number in every being, we have a good reason to suppose that toward the end of the explanation of substantial number in VI.6, he associates the henads with substantial number, although he calls this kind of number substantial, not henadic. While coining a new name for Plato's ontological numbers, Plotinus calls the quantitative number "monadic" after Aristotle's term for mathematical number.[131] Perhaps Plotinus chooses Aristotle's monadic number over Moderatus' henadic number in order to emphasize that Aristotle understands correctly quantitative number but misunderstands Plato's true numbers.

Plotinus' inconsistent use of monads and henads is a symptom not so much of his conceptual ambiguity as of the uncertain terminology of his times. Moderatus, as we saw earlier, distinguished between monads and henads in his definition of number as between unities of numbers and

127. VI.6.4.4: οἷον πρῶτον αὐτὸ εἶναι, ἐνοήσαμεν μονάδα.

128. VI.6.5.6–7: οὕτω γὰρ ἔσται πλῆθος μὲν ἑνάδων, εἰς ἓν δὲ οὐδεὶς παρὰ τὸ ἁπλοῦν ἕν. Thesleff (1965: 237.17–19); Nikulin (2002: 77).

129. This reference is the formal precursor of VI.6 in the *Enneads*.

130. Dodds (*Proclus. The Elements of Theology*, 1963: 258). Theon (*Expos. rer. math.* 21, 14) reports that the Neopythagoreans even consider the henads to correspond to the One, but, according to the *Anonymous Photii*, the Pythagoreans attribute the monad to the intelligible numbers and the henad to quantitative numbers.

131. *Metaph.* 1083b16–17: ἀλλὰ μὴν ὅ γ' ἀριθμητικὸς ἀριθμὸς μοναδικός ἐστιν. Nicomachus calls this kind of number "scientific" (ἐπιστημονικός, *Ar.* I.6.),

units of numbers.[132] Along the same lines, Plotinus first distinguishes, in VI.6.5, between monad as substantial unity and henad as quantitative unit. Reflecting the divergent Neopythagorean terminology, Plotinus, perhaps unwittingly, slips from one into the other during his discussion because his main goal is to show that the unity of number and being is inseparable regardless of its terminology. In fact, this slip attempts to unite the different views and prepares the ground for the elaboration of the theory of henads in the later Neoplatonists.[133] It has been argued that Iamblichus, with his strong Neopythagorean bent, is the first one who starts to work on a theory of henads, which Proclus later completes with the elaborated doctrine that gods are henads, ontologically prior to Being and Intellect.[134]

In the company of the stars of Neoplatonic numeric theology, Plotinus' contribution to the development of the concept of the henad has been overlooked. His view of substantial numbers as henads, I argue, deserves more attention and credit. His merit is in planting the idea that the henads are molds for the Forms and in explaining the two kinds of number as an intelligible paradigm and its quantitative, that is, sense-perceptible, copy. Monadic number is a copy of substantial number because, by separating the beings individually, it imitates the ontogenic role of substantial number.

The definitions of substantial and monadic number are the final step of Plotinus' solution to Aristotle's criticism of Plato's complicated understanding of number. This solution is successful for Plotinus' cosmology because it establishes a Platonically informed relationship between the two kinds—substantial number is the ontological supersedent and the intelligible paradigm of monadic number. It is turned inwardly toward itself; its existence is unified with Being and, in this sense, is an absolute number. Monadic number is the quantitative representation of substantial number and is turned outwardly to enumerate physical reality.

Plotinus engages Plato and Aristotle in an imaginary dialogue about the nature of number. If we ask ourselves who the winner in this scholastic debate is, the fact that the central section of VI.6 opens with criticism of Aristotle and closes with a new interpretation of Plato speaks for itself.

132. See pp. 43–46.

133. As Dodds summarizes (1963: 257), "the doctrine of divine henads is the most striking of the modifications introduced by later Neoplatonism into the Plotinian world." But even Syrianus, who lived almost a century after Iamblichus, uses them interchangeably, *In Metaph.* 139.1.20–25, 183.1.24–25.

134. Iamblichus, *De Mysteriis* 59.1–60.2; Proclus, *El. Theol.* prop. 64 and 113–167. Dillon (1972, 1993); O'Meara (1989: 82–83, 204–207).

5

Number and the Universe

The aspects of substantial number require a reevaluation of the structure of the intelligible realm.[1] The list of unified number, moving-in-itself number, unfolded number, and encompassing number in VI.6.9 is unusually systematic and complete for Plotinus. Charles-Saget discusses its general implications for the intelligible[2] and Nikulin refers to it only in a sentence to exemplify the process of thinking and thought.[3] Plotinus' list, however, deserves more attention and a closer examination. The view that number is an activity of primary substance[4] with specific properties warrants an investigation of the relationship between substantial number and the general properties of substance, also known as Plato's greatest kinds of being, rest, motion, same, and other.[5] In a strictly Platonic context, the properties of substantial number act as agents of the primary kinds in the construction of the intelligible and reveal the exact ontogenetic details of how multiplicity separates from the One. This chapter examines each of the aspects in an attempt to construe the architecture of the universe according to them.

Substantial Number and the One

The anterior hypothesis that substantial number precedes beings, presented in VI.6.4, places number at the heart of ontogenesis.[6] Later, in VI.6.9, Plotinus highlights the ontological importance of number by defining substantial number as activity of substance (*energeia tês ousias*). In order to understand the importance of this definition, we need to recall the distinction Gerson has made between activity of substance (*energeia tês ousias*) and activity from substance (*energeia ek tês ousias*).[7] The former refers to "the activity which is the thing itself," while the latter refers to "the activity

1. Presented in table 4.1.
2. Charles-Saget (1980: 56–57).
3. Nikulin (2002: 80).
4. Defined in VI.6.8.17–22 and VI.6.9.27–28.
5. Plato, *Sph.* 244b–245c, 254d–257a. Gerson (1994: 23).
6. See chapter 4.
7. Gerson (1994: 23). V.4.2.24, II.9.8.23, V.9.8.13–15, VI.2.22.24–26, to list a few.

which comes from the thing."[8] Also, the former must be considered as primary activity, the latter as secondary activity. Since substantial number is primary activity of substance (*energeia tês ousias*), it follows that substantial number is substance itself and must possess the primary properties of substance: being, rest, motion, sameness, and otherness.[9] The definition of number as a primary activity of substance, in fact, fulfills the premise of the third hypothesis that substantial number is prior to beings, has a separate existence from beings, and participates in the creation of beings. The ontogenetic power of substantial number "continually gives existence" by dividing Being, as "unified number" (*hênômenos arithmos*), into multiplicity of beings.[10] The idea that substantial number is primary activity of substance itself implies that Being does not exist without being unified in and with substantial number. This understanding poses the question of whether substantial number per se can exist without the union with being. Certainly, the statement in VI.6.10.2–3 that the henads are molds (*paraskeuê* and *protypôsis*)[11] for beings suggests this, if not at the level of Being, at least at the level of beings.

In our discussion of the relationship between the Indefinite Dyad and substantial number in chapter 2, we examined Plotinus' argument in V.1.5 that number is not first, but the One is prior to the Dyad; the One limits the Dyad; and, when it does this, substantial number is already in place.[12] In the argument, however, the logical transition from the One that limits the Indefinite Dyad to the predetermined existence of substantial number is abrupt. It is not clear what exactly predetermines the substantial numbers, unless we understand that the Monad, as an image of the One, is implied. Yet Plotinus does not proceed to say that this kind of number is "as being" (*hôs on*), but "as substance" (*hôs ousia*). This comparison is also ambiguous, however. Does it mean that substance is inseparable from number or that substance is the ordered result of the One's power to limit the Dyad? V.1.5 does not offer an answer but makes one thing clear: substantial number is different from the One. At the end of our analysis of V.1.5,[13] we reached the same conclusion, just on more general terms; namely, that the One is not

8. Gerson (1994: 23).

9. VI.6.9.27–29.

10. V.5.4.18: οὐσιώδης μὲν ὁ τὸ εἶναι ἀεὶ παρέχων; VI.6.9.26–27: ἡ τοῦ ἀριθμοῦ δύναμις ὑποστᾶσα ἐμέρισε τὸ ὂν καὶ οἷον ὠδίνειν ἐποίησεν αὐτὸν τὸ πλῆθος.

11. The meaning of *protypôsis* as "mold" and "holding place" for beings suggestively echoes the use of *archetypos* to describe the One as "the original" of existence, VI.4.10.1–8.

12. V.1.5.7–9.

13. See pp. 68–70.

number internally,[14] but it externally manifests itself as number in Intellect's contemplation of the One. How, then, is substantial number an ontological expression of the One?

As determined earlier, the view of substantial number as power of substance (*dynamis tês ousias*) depends on the understanding that the One, although it does not divide itself into all, is the productive power of all (*dynamis tôn pantôn*).[15] In its internal activity, the One remains unchanged because it is simple, perfect, and self-sufficient.[16] In its external activity, the One is omnipresent and the most powerful source of all life.[17] This external productive activity, however, entails the existence of another one that can participate in being. This other one is the substantial number that "continually gives existence" (*ousiôdês men ho to einai aei parechôn*).[18] Substantial number, therefore, is the ontological expression of the One, because it executes in actuality the dividing and ordering of substance and induces existence.

In V.5.4–5, Plotinus analogically illustrates the difference between the One and substantial number by distinguishing between substantial and monadic number. Monadic number, he says, gives quantity, both when it is in series with other numbers and when it measures things.[19] This is the first time mathematical number is mentioned in the *Enneads* and it is not introduced as monadic, but as quantitative number. Obviously, the primary goal of Plotinus' analogy is to show that the One and substantial number do not participate in quantity, and thus do not have anything to do with quantitative number. He further explains that quantitative number imparts quantity by imitating the relationship between substantial number and the One. Monadic number does not expand or divide the unity of substantial number, but when "a dyad comes to be, the monad before the dyad exists, neither each of the two units in the dyad nor one of them is the monad in the dyad."[20] Substantial number remains unchanged because it is not quantity but a pattern or a holding place for being.[21] Therefore it is not expandable nor divisible, but only ontological.

14. VI.5.3.19–20: the One is one and the same, undivided by number.

15. Respectively, VI.6.9.26 and III.8.10.1, discussed in chapter 4.

16. Gerson (1994: 16–18).

17. I.8.2.4–7.

18. V.5.4.18.

19. In the latter, he really says "when number is not with other number," which I interpret to mean when number is not part of arithmetical operations but measures physical objects.

20. V.5.4.24–25.

21. See chapter 4.

The difficulty of understanding what substance (*ousia*) is lies in its non-phenomenological nature.[22] In a way, substantial number epitomizes this difficulty because it is most closely related terminologically to its sense-perceptible counterpart. While *ousia,* as intelligible substance, and *hylê,* as sense-perceptible matter, are to a large extent terminologically separated,[23] the word "number" (*arithmos*) makes both substantial number (*ousiôdês arithmos*) and monadic number (*monadikos arithmos*) appear only as its subgenera. Therefore, it takes Plotinus a lot more explanation to elicit the differences between the two. He often uses an analogy with One to illustrate the difference between substantial and monadic number. In V.5.4–5, for example, he compares the relationship between the two kinds of number specifically to the relationship between substantial number and the One. Compared to monadic number, substantial number is nondiscursive in the sense that it is nonquantitative. In regards to nondiscursiveness, substantial number is to monadic number what the One is to substantial number.[24] But he also explicates the nonnumerical nature of the One by defining and comparing the two kinds of number. Substantial number is closer to the One than any other intelligible being, including the Complete Living Being and Intellect, and yet is not the One, as "the One would not have made a discrete plurality."[25]

Plotinus uses the analogy of substantial number and the One to explain the relationship between the two kinds of number. The analogy places substantial number in the intermediate position between the One and monadic number and thus metaphorically shortens the distance between the One, as the principle (*archê*) of all, and number which enumerates physical reality. He again finds monadic number useful in the description of the absolute One:

> Now we long to see, if it is in any way possible, what is the pure, real One (*to katharôs hen*), unrelated to anything else. At this point, then, you must rush to one, and not any longer add anything to it, but stand absolutely still in fear of departing from it (*stênai pantelôs dediota autou apostatêsai*), and not progress the least little way towards two. (V.5.4.6–10)

22. VI.5.2.1–6. O'Meara (1993: 24–26) deservedly calls it "a category mistake" leading to the major difficulty in understanding the intelligible per se.

23. I refer to substance and matter in their most general meaning, apart from *hylê noêtê.* On the distinction between substance and matter, see Nikulin (2002: 3).

24. V.5.5.2–11 clearly distinguishes between the One, as the supreme principle of existence, one as a substantial number, and one as a quantitative number.

25. VI.2.5.8–9: οὐ γὰρ ἂν διεστηκὸς πλῆθος ἐποίει.

Earlier, I discussed the importance of the passage for the definition of multiplicity as separation (*apostasis*) from the One.[26] The One is described by negating any motion and otherness from it. Nikulin cites the same lines to illustrate the closest proximity of the Monad to the One.[27] The passage is most interesting, however, in that it uses quantitative concepts to convey the nonquantitative and absolute nature of both the One and the Monad:

1. To rush to the One;
2. Not to add anything to the One;
3. To stand absolutely still in fear of departing from the One;
4. Not to progress even a little toward two.

The series of negations establishes the One and the Monad as not countable and beyond monadic number. If we reverse the above negative propositions and replace the One with "one" in the sense of unit, we can construe the definitions of number and multiplicity proper:[28]

1. To move away from one;
2. To add something to one;
3. To separate from one;
4. To progress toward two.

The two lists of propositions emphasize the polarity between the One and the mathematical one and prove that the One is beyond number. As stated in V.5.4.12–15, the One is "not included in the count with another one, or another number of any size; it will not be counted at all: for it is a measure and not measured, and it is not equal to the other units so as to be one of their company." This conclusion, although intended to distinguish the One from monadic number, also highlights the differences between substantial and monadic number itself. Substantial number, as an expression of the One, is a measure for being as it "continually gives existence," while, in itself, it is unmeasured, because it is nonquantitative but ontological.[29] Since quantitative number imitates substantial number as its ontological paradigm, so does substantial number,[30] in turn, imitate its own supersedent, the One, which is the measure of all and itself unmeasured.[31]

26. See the origin of multiplicity in Plotinus in chapter 1.
27. Nikulin (2002: 78).
28. Cf. VI.6.1; discussed in chapter 1.
29. V.5.4.18.
30. VI.6.9.34–35: ὁ μοναδικὸς λεγόμενος εἴδωλον τούτου.
31. I.8.2.5: μέτρον πάντων καὶ πέρας; VI.7.32.21–23: τό τε εἰς ἀεὶ καὶ εἰς πάντα οὐ μέτρον αὐτῷ δίδωσιν οὐδ᾽ αὖ ἀμετρίαν.

Substantial Number and Absolute Being

Plotinus' concept of number as activity of being relates substantial number to all the aspects of the intelligible realm.[32] The list in VI.6.9.29 begins with the definition that, at the level of absolute Being, substantial number is unified number (*hênômenos arithmos*). As the henads are molds for beings to be limited and shaped,[33] so does the unified number limit and shape Being. This means that number has priority even over Being and if number is prior to Being, then the unified substantial number is the closest to the source of all.

At the level of Being, substantial number is unified with Being, forming the archetype of all beings. Nevertheless, this archetype should not be confused with the Monad. The Monad is the very first to come from the productive power of the One and, together with the Indefinite Dyad, generates every number as a form or a henad.[34] As such, the Monad represents absolute stability and unity with itself. In V.5.5, Plotinus analogically elucidates that "as there in the case of numbers, the form of the first, the monad, was in all numbers primarily and secondarily, and each of the numbers which come after the monad did not participate in it equally, so here too each of the beings which come after the First has in itself a kind of form of it."[35] Substantial numbers and beings participate only to a different degree in the absoluteness of the Monad. The Monad, as an image of the One, and the Indefinite Dyad give substantial existence to being so that being is a trace, albeit imperfect, of the One.[36] The Monad, as the generating principle of existence, is not a substantial number, however. Plotinus emphasizes the difference between the first Monad and the absolute Being, by defining Being as unified number, not as unified monad.[37]

The meaning of the term unified number (*hênômenos arithmos*) denotes limit and rest. Both of them are permanent characteristics of existence and relate to the One as their source. To illustrate the absoluteness of the One, Plotinus recalls Plato's explanation of the First Hypothesis in the *Parmenides,*

32. V.3.7.25–26: ἔστιν ὁ μὲν νοῦς ἐν αὐτῷ ἐνέργεια.

33. VI.6.10, discussed in chapter 4.

34. Opposite to Aristotle (*Metaph.* 1084b5–6), who considers the henads as matter of number. As Nikulin (2002: 82) summarizes, "the matter of the essential number is rather a multiplicity of the dyad, bounded by the form of the monad."

35. V.5.5.7–11.

36. V.5.5.11–14.

37. Syrianus (*In Metaph.* 112.31) explicitly distinguishes between the Monad and the Dyad as ontogenetic principles and the substantial monad and dyad.

that "the one does not move, nor does it stand still."[38] The One, as the first principle of all, is both "the power which causes motion and rest" and "beyond motion and rest."[39] Since the One is simple and first, it is not itself in motion and rest, but produces them in its external activity.[40] As a result, motion and number are among the primary properties of substance. Consequently, in the ontological procession from the One, Being denotes rest, while Intellect denotes motion. When the external productive activity of the One comes into being, it turns back to the One, fills itself with multiplicity, and becomes Intellect by contemplating the One. This stopping and introverted turning, Plotinus explains, is being, whereas the retrospective gaze upon the One is Intellect.[41] In other words, Being, as unified number, is Intellect's rest in relation to the One.[42] Thinking stops in Being. Plotinus, therefore, defines the primary kind of stability (*stasis*) as the limit of Intellect.[43]

In V.1.7, Plotinus refers to being (*to on*) as not fluctuating-in-the-indefinite and as fixed by limit and stability. This description is based on the role of substantial number in the relationship between the One and the Indefinite Dyad. Since the Indefinite Dyad is the principle of potentiality, which, undefined, is in constant motion, the One, as the source of stability, defines the indefiniteness of the Dyad with limit and shape through substantial number. As a result, substance is characterized as that which is already defined by number, while limit and shape in substance instantiate being and produce stability in the intelligible realm.[44]

If we compare the definition of being as stability of existence by limit and shape, to the definition of substantial number in V.5.4, as number that "continually gives existence," we can deduce that substantial number, as an ontological expression of the One, is the source of limit and shape for being. As quantitative number measures generation in physical reality, so does substantial number define, albeit nonquantitatively and non-sense-perceptibly, the generation of being in the intelligible.

38. *Prm.* 139b.2–3: τὸ ἓν ἄρα, ὡς ἔοικεν, οὔτε ἕστηκεν οὔτε κινεῖται. Cf. *Sph.* 254d5.

39. III.9.7.1–2: τὸ μὲν πρῶτον δύναμίς ἐστι κινήσεως καὶ στάσεως, ὥστε ἐπέκεινα τούτων.

40. V.5.10.15–17: ἀπ᾽ αὐτοῦ κίνησις ἡ πρώτη—οὐ γὰρ ἐν αὐτῷ—ἀπ᾽ αὐτοῦ στάσις, ὅτι αὐτὸς μὴ ἐδεῖτο· οὐ γὰρ κινεῖται οὐδ᾽ ἕστηκεν.

41. V.2.1.19–21.

42. Corrigan (2005: 37) reaches the same conclusion, although without the emphasis on the role of the unified number in Being.

43. VI.2.8.22–24.

44. V.1.7.25–26: στάσις δὲ τοῖς νοητοῖς ὁρισμὸς καὶ μορφή, οἷς καὶ τὴν ὑπόστασιν λαμβάνει.

Describing substantial number's role to define the Indefinite Dyad in V.1.5,[45] Plotinus explains that number is "as substance" (*hôs ousia*), not "as being" (*hôs to on*).[46] This distinction associates number with substance and thus with the primary kinds (*prôta genê*)[47] of rest/stability (*stasis*), motion (*kinêsis*), otherness (*heterotês*), and sameness (*tautotês*).[48] Just like substance, number, as activity of substance itself, possesses them all.

In VI.6.9.29, the definition of Being as unified substantial number suggests that Being and substantial number are at rest (*stasis*). As unified substantial number, Being is an image of the One as the source of *stasis.* Because *stasis* itself signifies stability and thus existence, Plotinus almost hints that the primary kind of *stasis* has precedence over the primary kind of motion (*kinêsis*), although he introduces the latter first in his discussion of the primary kinds. He admits that, if someone does not consider *stasis* among the primary kinds, he is completely out of line (*atopôteros*):[49] first, because rest is easier to relate to being than movement, and second, because rest simply means "existing in the same state and in the same way."[50] Although existence is separation from the One and thus denotes movement, being is first associated with limit and consequently rest. The lack of movement implies permanency and stability. The unified substantial number simply defines Being as *stasis.*

In the beginning of VI.6.10, Plotinus summarizes that Being "stands firm in multiplicity, when it woke as many, and was a kind of preparation for the beings and a preliminary sketch."[51] We have already discussed this passage in relation to the henads.[52] The true context of the passage, however, is the unity of one and many in Being. The henads represent the multiplicity of beings that retain a trace of the unified number of Being in themselves to impart onto their beings. Thus, each henad, as a holding place for being, is an individual version of the unified number of Being.

The unified number of Being and *stasis* are ontological representations of the perfect unity of the One. Since "Being came into existence from the One" and the One is absolute by nature, then, in number, Being inherits the unity of the One (*to hen*) as unified number (*hênômenos arithmos*).[53] That

45. Discussed pp. 68–70.
46. On the distinction between being and substance, II.6.1.
47. I.3.4.14, VI.2.8.43, 9.1, 13.1. Plotinus' term for Plato's *megista gene.*
48. VI.2.7.
49. VI.2.7.26–28.
50. VI.2.7.30: τὸ γὰρ κατὰ ταὐτὰ καὶ ὡσαύτως. Cf. *Sph.* 248a12.
51. VI.6.10.1–3: ἑστὼς οὖν τὸ ὂν ἐν πλήθει ἀριθμός.
52. See pp. 90–94.
53. In reversed order, VI.6.9.29 and 39.

Being is unified number represents the closest degree of unity to the perfect noncompositeness of the One.[54] The unified number of Being is the ontological replica of the One because Being is a result of Intellect's contemplation of the One.[55] Being cannot exist without unified substantial number.

Substantial Number and Intellect

In the *Timaeus,* the Demiurge orders the motion of the primeval elements into a finite universe, revolving according to number. In the *Sophist,* Plato considers movement one of the primary kinds. With the concept of the Unmoved Mover, Aristotle places motion in the foundation of the universe. Moderatus sees motion in the progression and regression of number to and from one.[56] Numenius' First God possesses both rest and innate motion.[57] Plotinus makes movement the basis of all life in the intelligible.[58] For him, the source of movement is the One itself.[59] Movement both underlies the separation of multiplicity from the One and defines the relationship between the Indefinite Dyad and the Monad in the production of the Forms and numbers.

Plotinus' definition that Intellect is substantial number "which moves in itself"[60] reflects upon the many facets of the concept in its long tradition and lays the foundation of the second hypostasis. In its nature, intelligible movement is atemporal and aspatial, for it is only a logical sequence articulating the ontological succession and dependence among beings. As an ontological expression of the One,[61] substantial number is also an expression of intelligible movement since the One is the source of both rest and movement.[62]

In our earlier discussion of the relationship between the Indefinite Dyad and substantial number, we established that Plotinus considers number and

54. VI.6.9.32–33: δεῖ αὐτὸ οὕτως ἀριθμὸν εἶναι.

55. The One beyond Being is not predicated to anything and the one in the one-being exists only as one in Being because, there, it is not divided into parts (VI.2.9). Narbonne (2001: 75–77) perceptively calls substantial number engenderment of beings, after Charles-Saget (1980: 53).

56. See chapter 2.

57. See chapter 1.

58. VI.2.7.6–7.

59. V.5.10.15.

60. VI.6.9.30–31: νοῦς δὲ ἀριθμὸς ἐν ἑαυτῷ κινούμενος.

61. As established in the previous section.

62. Nikulin (2002: 85): "all the numbers are *already* there, *already* having been moved."

the Dyad to be rational principles and Intellect.[63] He explicitly mentions the Forms in relation to number by explaining that "every number which comes from the Dyad and the One is a form (*eidos*), as if Intellect was shaped (*morphôthentos*) by the numbers which came to exist in it."[64] In fact, the first time substantial number is mentioned in the *Enneads* is exactly to equate it with Intellect. In III.8–9, while elaborating on the theory of contemplation, Plotinus explains that number belongs to the intelligible realm since Intellect is number.[65] When Intellect contemplates the One, it does not contemplate it as the simple one, but it unknowingly becomes many: "as if heavy [with drunken sleep], it unfolded itself because it wanted to possess everything."[66] I leave the discussion of the unfolded aspect of Intellect for the next section. Here let us focus on Intellect's desire to possess everything. If Intellect desires to possess everything, it follows that Intellect is deficient in some way and that thinking expresses Intellect's deficiency.[67] The nature of this deficiency derives from the complexity caused by the one-in-many nature of Intellect.[68] Since Intellect is not simple as the One is, Intellect is not self-sufficient as the One is. By thinking itself, Intellect comprehends all intelligibles in itself, in order to replenish its deficiency. The desire for fulfillment originates the introverted motion of Intellect, which results in the unified number of Being.

The concept that Intellect is number moving in itself also portrays the self-contained nature of Intellect. As previously discussed,[69] Intellect knows and sees itself by contemplating the One.[70] This self-knowledge is introspective. By turning inward, Intellect realizes its multiplicity, but, in doing so, Intellect still retains its self-directed orientation.[71] As Plotinus describes it, "the Being of Intellect is activity, and there is nothing to which the activity is directed; so it is self-turned."[72] The self-turned activity represents the moving-in-itself number that allows Intellect to be self-contained.[73]

63. V.1.5.13–14: ὁ οὖν ἐκεῖ λεγόμενος ἀριθμὸς καὶ ἡ δυὰς λόγοι καὶ νοῦς. Discussed in chapter 3.

64. V.1.5.15–17.

65. III.8.9.3–4: ἀριθμὸς δὲ οὗτος.

66. III.8.8.34: ἐξείλιξεν αὑτὸν πάντα ἔχειν θέλων.

67. V.3.13.12–15, discussed in Gerson (1994: 53).

68. Gerson (1994: 54).

69. V.3.7. See pp. 48–49.

70. Emilsson (2007: passim) refers to the prethinking stage of Intellect as inchoate, which captures very well the notion of inceptive motion in it.

71. Gerson (1994: 54).

72. V.3.7.18–19.

73. V.3.7.25–26: ἔστιν ὁ μὲν νοῦς ἐν αὑτῷ ἐνέργεια.

The characteristics of Intellect's movement derive from the characteristics of the primary kind of movement (*kinêsis*), described in VI.2. Plotinus points at its prominent position among the other primary kinds by introducing *ousia* and *kinêsis* as the first two primary kinds. In this order, *kinêsis* is mentioned even before *stasis,* as if rest can occur only after motion occurs. As we determined above, motion is in the foundation of thinking and thus existence.[74] Without the motion of thinking, Intellect cannot realize itself, and the existence of Being, in its state of rest as unified number, would be impossible.

The primary kind of movement is an activity of being that is ontologically inseparable from being, except in our dianoetic thought. Movement does not change the nature of being, "but rather is in being as if making it perfect."[75] Intellect's number, which moves in itself, then perfects Intellect's deficient nature that desires to possess everything. Intellect's thinking is centripetal, internalized motion that results in both Intellect's separation from the One and Intellect's realization that it is separated from the One. Intellect becomes Intellect through the contemplation of its separation from the One:

> Thinking, which sees the intelligible and turns towards it and is, in a way, being perfected by it, is itself indefinite like seeing (*aoristos men autê hôsper opsis*), but is defined by the intelligible (*horizomenê de hypo tou noêtou*). This is why it is said: from the Indefinite Dyad and the One derive the Forms and Numbers (*ek tês aoristou dyados kai tou henos ta eidê kai hoi arithmoi*): that is Intellect (*touto gar ho nous*). For this reason Intellect is not simple but many (*dio ouch haplous, alla polla*); it manifests a composition, of course an intelligible one, and already sees many things. It is, certainly, also itself an intelligible, but it thinks as well: so it is already two (*dio dyo êdê*). (V.4.2.4–11)

By thinking, Intellect is Intellect, that is, many, intelligible, intelligent, in motion, and everything else appropriate to it.[76] Thus Intellect is a movement, for "one must include movement if there is thought, and rest that it may think the same" (V.1.4.36–37).[77] Both the One and Intellect are thinking, but,

74. In VI.2.7.16–20, Plotinus states that motion is not under nor over, but with being, as, in VI.6.9, he determines that number is with and in substance.

75. VI.2.7.24–26: κινήσεως δὲ περὶ τὸ ὂν φανείσης οὐκ ἐξιστάσης τὴν ἐκείνου φύσιν, μᾶλλον δ᾽ ἐν τῷ εἶναι οἷον τέλειον ποιούσης.

76. VI.7.39.14–16: νοήσας δὲ αὐτὸς πολὺς γίνεται, νοητός, νοῶν, κινούμενος καὶ ὅσα ἄλλα προσήκει νῷ.

77. An idea already alluded to in VI.6.6.30–33: "So the thought of movement has not made absolute movement, but absolute movement has made the thought of it, so that it has made itself as movement and thought; for movement there is also the thought of that thing itself."

while the One itself is thinking of itself, Intellect is thinking of itself as well as contemplating that from which it comes (V.4.2.13–26).[78]

In the intelligible, motion is thinking. The churning motion of number in Intellect is the waking power in VI.6.10.1–2, which substantiates Intellect itself, and divides being "in labor to give birth to multiplicity."[79] Intellect is shaped by substantial number.[80] There is nothing unmeasured (*ametron*) in Intellect, for it moves itself according to substantial number, which is an ontological expression of the One.[81] Number ontologically, not quantitatively, measures the separation of being from the One. In Being, motion has stopped in the unified substantial number. The beginning of the internal motion of number in Intellect is thinking, which makes its first stop at the unified number of Being, unfolds into the ministops of beings, and contains itself in the Complete Living Being.

Substantial Number and Beings

Plotinus' understanding that Intellect is number moving in itself can be represented dynamically by a circle which, possessing all beings, unfolds itself.[82] This understanding of Intellect predetermines the definition of beings as substantial number that has been unfolded.[83] The unfolded number of beings is the result of the unfolding thought of Intellect itself:

> But immediately after Intellect comes being, and number is in this, and with its help it produces the real beings when moving according to number (*meth' hou ta onta gennai kinoumenon kat' arithmon*), setting the numbers before their existence (*prostêsamenon tous arithmous tês hypostaseôs autôn*) as the One stands before its own, joining being itself to the first. (VI.6.15.24–27)

The passage describes the productive power of the One "in labor to give birth to multiplicity."[84] As explained, being cannot "by its own means become

78. The textual problems of the text are discussed in Merlan (1964: 45–47). Armstrong (1984: vol. 5, 146) points out that this passage clearly articulates the idea that the One thinks.

79. VI.6.9.26: ἡ τοῦ ἀριθμοῦ δύναμις ὑποστᾶσα ἐμέρισε τὸ ὄν.

80. V.1.5.12–19.

81. III.8.11.31.

82. III.8.8.34: ἐξείλιξεν αὑτὸν πάντα ἔχειν.

83. VI.6.9.29–30: τὰ δὲ ὄντα ἐξελιλιγμένος ἀριθμός.

84. VI.6.9.26–27: ἡ τοῦ ἀριθμοῦ δύναμις ὑποστᾶσα ἐμέρισε τὸ ὂν καὶ οἷον ὠδίνειν ἐποίησεν αὐτὸν τὸ πλῆθος.

many, unless somebody cuts it up like a magnitude."[85] The number moving in itself substantiates the individual existence of all beings and creates the notion of otherness (*heterotês*). As it thinks itself, Intellect thinks beings into existence.[86] In regard to the primary kinds, beings are a particular being, a particular rest, and a particular motion. These particular properties bring together in themselves the different aspects of the substantial number underlying the corresponding primary kinds. The results of this conflation are the henads of the Forms. Each henad expresses a particular unity of the particular kinds. Beings express most clearly the primary kind of otherness. The difference between the beings (*diestêsen en heterotêti*) produces discrete multiplicity (*diestêkos plêthos*).[87]

The general properties of substance are recognized by separating them from one another according to their difference.[88] We examined the differences among Being, Intellect, and beings as represented by the different aspects of substantial number. If we consider the primary kinds in relation to the different aspects of substantial number, it becomes apparent that Plotinus connects the differences among the primary kinds to the different aspects of substantial number. The primary kind of otherness underlies the unfolded number of beings. As each of them has a particular being, a particular rest, and a particular motion, then each being possesses a particular ontological identity that characterizes the differences in beings.

Substantial Number and the Complete Living Being

The Complete Living Being is encompassing number (*arithmos periechôn,* VI.6.9.31). It contains what Plotinus refers to both as "the whole number of beings" (*sympas arithmos*) in the introduction of the Complete Living Being in VI.6.8.3 and as "the whole number" (*pas arithmos*) in the explanation that the whole number of being is predetermined before the existence of beings in VI.6.9.23–24. Both references stress that number participates in the Complete Living Being with its unifying power. VI.6.7–8 presents the encompassing number of the Complete Living Being as an activity of Intellect to think itself and in itself. Intellect's thinking completely grasps

85. VI.2.2.39–40: οὐ γὰρ ἑαυτῷ πολλά, εἰ μή τις ὡς μέγεθος κερματίζει.

86. Thought is both manifold and movement: νόησις, εἴπερ νόησις ἔσται, ποικίλον τι δεῖ εἶναι, τὸ δὲ ἁπλοῦν καὶ τὸ αὐτὸ πᾶν οἷον κίνημα, VI.7.39.17–19.

87. Respectively, VI.2.8.34–35 and VI.2.5.9, while the One would not have made a discrete plurality (VI.2.5.8–9).

88. VI.2.8.31–36.

all beings at once. Each being, on the other hand, is not passively contained by Intellect as a part in Intellect. As Corrigan puts it, "each part is not only in the whole but *is* the whole, so to speak, just by being itself."[89] This "all-in-one" (*homou en heni panta*) Intellect is the Complete Living Being.[90] The totality of the unified number of Being is matched by the whole number of the Complete Living Being. If Intellect were only sameness, it could not think itself because it could not relate itself to something different from itself.[91] When Being thinks, it relates Intellect to itself as an otherness to the One. Since Intellect is not self-sufficient, it thinks both itself and the beings inside itself and, by this, possesses both otherness and sameness.[92]

It may seem that Plotinus should have had the unified number of Being represent the primary kind of sameness (*tautotês*).[93] He does not, however, define sameness as noncompositeness or simplicity. On the contrary, he introduces the primary kind of sameness, as "bringing beings back together to unity" and "seeing beings as unity."[94] In other words, the general property of sameness can be recognized only after beings have been perceived as different. Sameness comes to exist as a mirror reflection of otherness. Plotinus describes the bringing of beings together as "collecting them into sameness."[95] His definition of the primary kind of sameness does not imply an ontological stop, as in the unified number of Being, but an all-inclusive revolving ontological motion. Intellect "moves along in the same way and on one same and identical course, but still is not the same one partial thing, but all things."[96] Therefore, "there is otherness and sameness where there is Intellect and Substance" (VI.7.39.4–5).

It turns out that the assertion Plotinus made in the beginning of VI.6 that multiplicity is limited contains ontological truth. Every aspect of multiplicity corresponds to a certain role of number in the intelligible: that "multiplicity is separation from the One" (*apostasis tou henos,* VI.6.1.1) represents the moving number of Intellect (*nous de arithmos en heautôi kinoumenos,* VI.6.9.30–31), and the outward and inward directions of multiplicity exhibit

89. Corrigan (2005: 34).

90. VI.6.7.

91. VI.7.39.1–10.

92. VI.7.39.5–6: δεῖ γὰρ τὸν νοῦν ἀεὶ ἑτερότητα καὶ ταὐτότητα λαμβάνειν, εἴπερ νοήσει.

93. As interpreted by Nikulin (2002: 78).

94. VI.2.8.36–37: πάλιν δὲ ταῦτα εἰς ἓν καὶ ἐν ἑνὶ καὶ πάντα ἕν.

95. VI.2.8.37–38: εἰς ταὐτὸν αὖ συνάγων καὶ βλέπων ταὐτότητα εἶδε γενομένην καὶ οὖσαν.

96. VI.7.13.4–6: νοῦς τε κινούμενος κινεῖται μὲν ὡσαύτως καὶ κατὰ ταὐτὰ καὶ ὅμοια ἀεί, οὐ μέντοι ταὐτὸν καὶ ἕν τι ἐν μέρει, ἀλλὰ πάντα.

the self-contained motion of Intellect; that "multiplicity is circumscribed by one" (VI.6.1.24) anticipates the encompassing number of the Complete Living Being (VI.6.9.31); that "what really exists and is, is already determined by number" (VI.6.3.3)[97] foreshadows the unified number of Being (VI.6.9.29). Number, then, is the rational principle that orders the intelligible realm.[98] The absolute unified number in Being, when contemplated by Intellect (the number moving in itself), divides substance and becomes the unfolded number of beings, enclosed by the finite number of the Complete Living Being.[99]

The examination of the properties of substantial number reveals that they represent, in a concentrated form, the primary kinds of substance. I say concentrated because all primary kinds determine the existence of every being and, as Plotinus says, the primary kinds appear to us at first as mixed and indistinguishable. It is only after our dianoetic examination that we perceive them individually.[100] From this it follows that the different properties of substantial number simultaneously underlie the structure of the intelligible, and only when we examine them individually do they appear in their most concentrated form in each of the elements in the second hypostasis.

The particular activities of substantial number in Being, Intellect, beings, and the Complete Living Being, as defined in VI.6.9, correspond to Plato's five primary kinds: the unified number of Being (*hênômenos arithmos*) corresponds to stability (*stasis*); the number moving in itself in Intellect (*arithmos en heautôi kinoumenos*) corresponds to motion (*kinêsis*); the unfolded number in beings (*arithmos exelêligmenos*) corresponds to otherness (*heterotês*); and the encompassing number in the Complete Living Being (*arithmos periechôn*) corresponds to sameness (*tautotês*). Each activity, just like each category, characterizes a different aspect of the intelligible realm. When put together, all activities of substantial number bring together the different aspects of the same whole.[101] This same whole, in turn, corresponds to the fifth primary kind of being. In this sense, substantial number constructs the intelligible. Substantial number has priority over all aspects of the intelligible, including Being. Plotinus calls number in the intelligible realm substantial (*ousiôdês*) and not ontological (*ontikos*), presumably because it, like substance, provides

97. VI.6.3.2: ὃ γὰρ ὑφέστηκε καὶ ἔστιν, ἀριθμῷ κατείληπται ἤδη.

98. VI.9.5.

99. V.1.5.15–17: "As if Intellect was shaped by the numbers which came to exist in it."

100. VI.2.8.

101. Armstrong (1988: vol. 6, 7) cites Bréhier's evaluation of VI.2 as "a reflective analysis which brings to light different aspects of the same whole." This evaluation holds true beyond the pages of the treatise, especially regarding the activities of substantial number.

all intelligible existence. Number substantiates separation from the One, which enables Being to stand firm in multiplicity.[102] In his own summary, "the first and true number is the principle and spring of existence for the real beings."[103]

Considering Plotinus' principal disagreement with Aristotle's categories,[104] the correlation between the Platonic primary kinds and the properties of substantial number in Plotinus provides another conceptual defense of Platonic number. He uses the parallel to argue once again for the existence of substantial number against Aristotle's mathematical interpretation, discussed earlier.[105]

Aristotle places quantity second on the list of his ten categories, following substance itself.[106] Most often, he refers to it as *poson* and occasionally as *posotês*,[107] but never as number (*arithmos*). This fact is important because it proves that Aristotle views quantity to be the primary genus, of which number is simply a species. Consequently, this view leads to the fundamental rift between Aristotle and Plotinus on the subject of number. In VI.1.4 and VI.2.13, Plotinus argues against Aristotle's placement of quantity among what Plotinus considers to be the primary kinds.[108] According to Plotinus, quantity is posterior both to the primary kinds (being, rest, motion, otherness, and sameness) and to itself.[109]

Further, Aristotle divides quantity into two species: discrete (*diaireton*) and continuous (*syneches*).[110] Among the former he places number, because the units in arithmetical number do not have a common boundary; among the latter, he places magnitude, for example, a line, because all the points on a line are in relation to one another and have a common boundary.[111]

102. VI.6.10.1.

103. VI.6.15.34–35: ἀρχὴ οὖν καὶ πηγὴ ὑποστάσεως τοῖς οὖσιν ὁ ἀριθμὸς ὁ πρῶτος καὶ ἀληθής.

104. Plotinus views Aristotle's categories entirely from the point of Plato's primary kinds and consequently finds them completely inapplicable for the understanding of being in VI.1.1–24. For the most recent summary of the scholarship on Plotinus' criticism of Aristotle's categories, see De Haas (2001).

105. See chapter 3.

106. *Metaph.* 1028a; *Cat.* 3b10ff.

107. For the former, *Metaph.* 1083a4, among many; for the latter, *Metaph.* 1028a19.

108. VI.2.13.1–2: τὸ ποσὸν οὐκ ἐν τοῖς γένεσι τοῖς πρώτοις, καὶ αὖ τὸ ποιόν.

109. VI.2.13.7: ὕστερός τε ἐκείνων καὶ ἑαυτοῦ.

110. *Cat.* 6 and *Metaph.* 1020a. Porphyry, *In Cat.* 101, 1; Simplicius, *In Cat.* 120; Dexippus, *In Cat.* 3, 1.

111. *Cat.* 6.

Plotinus' main objection to taking number as discrete quantity is that the one is not the same in discrete and in continuous things but, more important, that the one is not the same in perceptible and in intelligible things.[112] The one, as the unit of number, is definitely not a genus[113] and "the nature of quantity signifies a definite quantity and measures how much each thing is and is itself a so much."[114] Plotinus specifically rejects Aristotle's view that number is a genus including continuous magnitude, place, and time.[115] If the continuous is quantity, then the discontinuous would not be quantity. For how would they both relate to one common quantity, unless the quantity in the continuous is considered to be incidental? But if the continuous things are quantity only incidentally, that does not explain what their nature is "in virtue of which they are considered quantity."[116] In order for quantity to be a primary kind, it must be simultaneous with being, like Plato's primary kinds described above.[117] Plotinus argues that quantity is posterior to these primary kinds, because it includes movement when number increases and rest when number stops to make a unit.[118] Quantity is a mixture of movement and rest, and thus composite and not inherent to substance. Quantity is only a form.[119] He specifies that, in order to understand the nature of number as a Platonist, one should investigate how numbers in and by themselves are substances. No matter what the substantial nature of number is, in any case, such numbers have nothing in common with quantitative numbers except the name alone.[120]

The primary kinds of being, motion, rest, otherness, and sameness conflate into the concept of substantial number. By considering substantial number as activity of substance (*energeia tês ousias*), Plotinus relates number to the essence of substance itself and to Aristotle's primary substance that explains what a thing is. Thus substantial number, like being, is a whole in

112. Apostle (1980: 71) notes that the name "discrete," although the antonym of "continuous," is not a synonym of "noncontinuous."

113. VI.2.11.42–43: ἐν τοῖς ἀριθμοῖς κοινὸν τὸ ἓν δὴ ἴσως τοῦτο καὶ οὐ γένος; VI.1.4.50–51: ἔσται τοίνυν οὐχ ἕν τι γένος, ἀλλ᾽ ὁ ἀριθμὸς μόνος.

114. VI.2.13.20–21: μετρεῖ τὸ ὅσον ἑκάστου αὐτή τε ὅσον τι.

115. VI.1.4.1–2.

116. VI.1.4.9–10: καίτοι τοῦτο τὸ λέγεσθαι ποσοῖς ὑπάρχει, οὔπω δέ, τίς ἡ φύσις καθὸ λέγεται, δηλοῦται.

117. VI.2.13.2–3: ἢ ποσὸν μὲν οὐ πρῶτον μετὰ τῶν ἄλλων, ὅτι ἐκεῖνα μὲν ἅμα μετὰ τοῦ ὄντος.

118. VI.2.13.23–26.

119. II.4.9.6–7: εἶδος ἡ ποσότης.

120. VI.1.4.54–55: οὐκ ἂν κοινόν τι ἔχοιεν πρὸς τούτους ἐκεῖνοι, ἀλλ᾽ ἢ ὄνομα μόνον.

many things. It exists independently in the intelligible, and yet the things participate in it.[121]

Soul and Number

Plotinus' omission of soul from the list of the activities of substantial number is rather conspicuous by now. This notion is sharpened by the long pre-Plotinian tradition of understanding soul as number, including the Pythagoreans, Plato's Demiurge, who uses arithmetical ratios and geometrical patterns to make the cosmic soul, and Xenocrates' concept of the soul as self-moving number.[122] Before Plotinus, Soul is one element of the intelligible that has been clearly associated with number. Yet he does not discuss the soul until the end of the exegesis on the concept of number, in VI.6.16. Furthermore, on the list in VI.6.9, he does not assign a specific activity of substantial number to Soul. He does not even mention Soul in the discussion of substantial number in the intelligible in VI.6.6–10. The first time he introduces soul in the treatise is through Plato's explanation that the notion of number arises in the transition of soul as it goes from one thing to another, as if it numbers them.[123] This is also the last time Plotinus refers to soul until the antepenultimate chapter of the treatise. Why is soul missing from the central and most essential chapters dealing with the concept of number in VI.6?

The reason for this, I argue, lies in the concept of substantial number itself. In V.3.5 and III.8.9, Plotinus introduces Intellect as number. In the central chapters of VI.6, and especially in the list of activities of substantial number in VI.6.9, he elaborates every detail of number's construction of the second hypostasis, and thereby conflates the properties of substantial number with the primary kinds of existence. This conflation seals the ontogenetic productive power of substantial number exclusively in the intelligible realm.

At the level of Soul, as the third hypostasis, which mediates between the intelligible and the sensible, things are more complicated. Substantial number generates Being, Intellect, beings, and the Complete Living Being, because they are pure intelligible entities. Soul, however, contains the complex duality of having a part of itself undescended in the intelligible realm and a part of itself descended in the corporeal world. Substantial number therefore cannot have an exclusive property with Soul, unless all of Soul is undescended and disembodied. In order to distinguish the higher transcendent part from the lower embodied part of the soul, in VI.6.15–16, Plotinus returns to the discussion of the difference between monadic and substantial number. Here he

121. VI.2.12.
122. *Ti.* 35–37; Xenocrates, fr. 190.
123. VI.6.4.9–18.

examines the relationship between the two kinds from a new perspective. He explains that substantial numbers, which are the first numbers in the generation of the intelligible realm, are "numbered numbers" (*prôtoi arithmoi, hôs arithmêtoi*).[124] They are numbered in the sense that they possess the number, which they represent, inherently as their substance, and they do not measure or count things quantitatively.[125] The henads, defined as molds for beings in VI.6.10.1–2, then represent the numbered numbers. Since substantial numbers are numbered numbers and paradigms of monadic numbers, it follows that monadic numbers are "numbering numbers" that measure and count the countable things (*arithmountes tous arithmous kai ta arithmêta*).[126] This conceptual and etymological play, however, is perplexing.[127] Plotinus admits that his audience finds this distinction most difficult and would ask for more explanation. As a reply, he summarizes the crucial points of his explanation so far in the rest of the treatise. This little vignette on the audience's reaction provides a rare glimpse of the live atmosphere of his lectures and structurally marks the inception of the concluding chapters. Plotinus construes his explanation in the form of an imaginary dialogue with his audience.

The difficulty lies in how to distinguish substantial numbers (the numbered numbers) from monadic numbers (the numbering numbers).[128] He begins with monadic number in physical reality. For example, Plotinus says, when you count one dog and one man to be two or even two men, you should not consider this two to be substance in the intelligible (*arithmos houtos ouk ousia*), nor even a kind of substance that is in the perceptible things (*oud' hôs en aisthêtois*), but purely quantitative measurement (*katharôs poson*).[129] If you split this two, you make the two new ones as the quantitative principle of number two.[130] But this quantitative principle, he insists, does not represent the unity of two underlying intelligible realities. If these two underlying realities are activities of substance and they form a unity, this two is a substantial two, different from a monadic two.[131]

124. VI.6.15.37–38.

125. Nikulin does not discuss this part of Plotinus' exegesis. Charles-Saget (1980: 73–76).

126. VI.6.15.40–41. Proclus, *In Tim.* I, 16.26; Dexippus, *In Cat.* 69.15. Similarly, Amado (1953: 423–425) interprets the terms along the lines of Spinoza's *natura naturata* and *natura naturans.*

127. VI.6.16.8–9: ἔχει γὰρ πολλὴν ἀπορίαν. This difficulty is also noted by Bréhier in his translation (1963: 14); see Amado (1953: 423–425).

128. VI.6.16.6–8: ὡς πρώτων ὄντων οὑτοί εἰσιν οἱ ἀριθμοί, ἄλλους τε αὖ ἀριθμοὺς παρ' ἐκείνους εἶναι λέγετε ἀριθμοῦντας.

129. VI.6.16.15–18.

130. VI.6.16.19–20: τὰ ἕνα ἀρχὴν ποιεῖς καὶ τίθεσαι ποσοῦ.

131. VI.6.16.24–26; VI.2.9.

Proceeding to the substantial two, Plotinus argues that, since substantial numbers exist in the intelligible and underlie the Forms, it is correct to think that a dog in itself or a man in himself have a particular substantial number. Let us say a dyad, for example. Each one of them is a dyad, not by counting them quantitatively as two ones,[132] but by grasping them as the unity (*henotês*) of two underlying principles. This dyad is a substantial dyad,[133] as the substance of the thing (a man or a dog) holds its nature together.[134] As a result, we do not make a man or a dog two by counting. The substantial dyad of a man or a dog has its own existence in the intelligible and does not come together when we number. The summary of the difference between the two kinds of number reinforces one last time Plotinus' principal disagreement with Aristotle's view of quantity as a primary kind and number as its species.

Naturally, the rejection of Aristotle's view that number is multiplicity of units raises the question of exactly how substantial number is imitated by monadic number in enumerating physical reality. Plotinus' answer is that the monadic number externally assigns a certain quantity to a thing, while the substantial number internally shapes the substantial unity of the Form of this thing. The substantial number, he clarifies, is latent in us when we do not count.[135] When we count, we convert the internal nonquantitative number into an external quantitative expression, just as when we walk, we externalize or actualize the primary kind of movement.[136] Since number is substance and thus in the substance that makes us and not in body or magnitude, he argues, it follows that soul is number.

Plotinus' precise words are that soul is number, if it is a substance.[137] The modality of the statement comes from the soul's duality in its undescended intelligible part and descended corporeal part. The number of body is substance in the way that is proper for body, he clarifies, while the number of soul is substance in the way that is proper for soul. He gives an example with a triad in the intelligible: if a triad is represented in a living being in the intelligible, it is a substantial triad (*trias ousiôdês*); and if this triad is not in a particular living being but is generally in real being (*holôs trias en tôi*

132. A subtle jibe at Aristotle's understanding of the Indefinite Dyad as *dyopoios* in *Metaph.* 1083b36.

133. A good example that the Indefinite Dyad is not a substantial number. Nikulin (2002: 81).

134. VI.6.16.27–28: τὸ ἐν τῇ οὐσίᾳ καὶ συνέχον τὴν τοῦ πράγματος φύσιν.

135. VI.6.16.37–38.

136. A reference to *Metaph.* 1028a20–29.

137. VI.6.16.45: ἀριθμὸς ἄρα ἡ ψυχή, εἴπερ οὐσία.

onti), it is a principle of substance.[138] The latter is the numbered number of the substantial triad.

The discussion of numbered numbers and numbering numbers, albeit enigmatic and not elaborated by later Neoplatonists, elucidates Plotinus' interpretation of Plato's true number at the onset of Plotinus' investigation of the three hypotheses on the relationship between number and substance in VI.6.4.21–25. As the numbering number only actualizes the numbered numbers, the numbering soul does not produce number but only arouses in itself the idea of number from the difference in sensible things.[139] In counting, Plotinus vividly says that you generate the quantitative number in yourself and actualize the quantity and the dyad.[140] When you say that the form of virtue is a tetrad, you actualize the quantity of the substantial tetrad and attribute to virtue the substantial tetrad that is in you.[141]

The activities of substantial number suggest that Soul is number. As discussed in V.1.5,[142] the One is prior to the Indefinite Dyad and, when the Indefinite Dyad is defined by the One, it becomes Intellect and substantial number (*arithmos hôs ousia*). The different activities of substantial number have their own ontological hierarchy: substantial number, as the unified number of Being, is an image of the One; the unfolded number of beings represents the principle of otherness in the intelligible realm; the encompassing number of the Complete Living Being represents the principle of sameness in the intelligible; monadic number is an image of substantial number; Intellect, as number moving in itself, is an image of the Indefinite Dyad; and Soul is an image of Intellect.[143] Since Intellect is number moving in itself,[144] Soul, as an image of Intellect, must also resemble number moving in itself.[145] If substantial number instantiates Intellect and Soul is an image of Intellect, then Soul also contains an image of substantial number. The above activities of substantial number relate to the intelligible as a whole, and likewise, Soul imitates them all. Plotinus has already hinted at the mimetic nature of Soul in the comparison that Soul holds all things together in itself, just as Intellect embraces all beings together in the intelligible realm.[146] The difference

138. VI.6.16.47–54.

139. Discussed in chapter 4.

140. VI.6.16.51–52: σὺ δὲ γεννᾷς ἀριθμὸν ἐν σοὶ καὶ ἐνεργεῖς ποσὸν καὶ δυάδα.

141. A correlative to his example of justice as a tetrad in VI.6.5.10–12.

142. See pp. 68–70.

143. V.1.3.7: εἰκών τίς ἐστι νοῦ.

144. VI.6.9.30–31; VI.7.13.4–5.

145. Although Plotinus does not describe Soul as "self-moving" (*autokinêtos*) but as "always moving" (*aeikinêtos*) in V.1.12.5.

146. VI.6.7.5: ψυχὴ οὕτω μιμεῖται καὶ ἡ λεγομένη φύσις.

in wholeness between Soul and Intellect is that Intellect holds all beings in their actuality, whereas Soul comprises them in their potentiality.[147] As images of beings, material things represent beings only potentially as one being is copied in a great number of sensible things. Since Soul is an image of Intellect, Soul cannot possess an individual aspect of substantial number, but actualizes all aspects in its activity. Soul moves, unfolds, embraces, stops in the creation of the sensible reality as image of the intelligible. In these activities, Soul deciphers the ontological code in substantial number into corporeal and quantitative multiplicity.

As the image of Intellect, Soul also inherits Intellect's one-in-many nature. In VI.2.4, the multiplicity of Soul is explained by a comparison to the body. The body, being many and one, is divisible into many innumerable parts. Soul, which also is a unity of many and one, is not divisible because its parts are not spatially separated.[148] It is many not as a compound from many, but as one nature, which is many.[149] With its one-in-many nature, Soul creates the plurality of bodies, animals, and plants in physical reality and preserves them from innumerable infinity by encompassing them in its one nature. Soul comprises all sensible things in one as Intellect and the Complete Living Being embrace the whole number of beings in one.

Regarding knowledge, Soul, like Intellect, cognizes itself as multiplicity separated from the One. Soul's knowledge of the One is different from Soul's knowledge of itself, just as Intellect's seeing of the One in Being is different from Intellect's seeing of itself in beings.[150] Because of the basic nondiscursiveness of the One, Soul does not reason the One, but understands the One by "a presence superior to knowledge."[151] But to acquire knowledge of itself, Soul thinks discursively.

The language with which Plotinus explains the dianoetic reasoning of Soul is also important. Discursive thought is defined as separation (*apostasis*) from the One[152] as "Soul goes past the One and falls into number and

147. VI.6.15.21–23. That Soul and Intellect are number is an original Pythagorean doctrine (*Metaph.* 985b), adopted later by Xenocrates, for whom Soul is a self-moving number (*autokinêton*; Iamblichus, *De Anima* 4.8).

148. VI.2.4.21–22: εἰ δέ τις λάβοι ψύχην μίαν ἀδιάστατον ἀμεγέθη ἁπλούστατον.

149. VI.2.4.31–32: οὐ σύνθετον ἓν ἐκ πολλῶν, ἀλλὰ μία φύσις πολλά. In V.1.2, Soul itself exists forever not departing from itself (μὴ ἀπολείπειν ἑαυτήν), quoting *Phdr.* 245c8.

150. Discussed pp. 35–36.

151. VI.9.4.1–3: κατὰ παροῦσαν ἐπιστήμης κρείττονα.

152. VI.9.4.3–5: "Soul experiences its falling away from being one and is not altogether one" (πάσχει δὲ ἡ ψυχὴ τοῦ ἓν εἶναι τὴν ἀπόστασιν καὶ οὐ πάντη ἐστὶν ἕν). Cf. V.1.1.5–9.

multiplicity."[153] Discursive thinking unfolds as many (*logos gar hê epistêmê, polla de ho logos,* VI.9.4.5–6) as if adding layers of sense-perceptible propositions to conceal the ontological truth of its single source.[154] The explanation of Soul's discursive thought interprets epistemologically the original definition of multiplicity in VI.6.1. Separation from the One is knowledge that unfolds into many characteristics and accumulates propositions. This interpretation is important, because first, it explains Soul's dianoetic connection with number and multiplicity, and second, it reinforces the notion that any reasoned account and definition are attempts at peeling away the layers of propositional thinking to uncover the underlying truth beyond. Like Intellect, Soul, when it knows itself, becomes number and many;[155] while contemplating the One, Soul regains its unity and nondiscursiveness.[156]

In Soul, the dichotomy between One and multiplicity is most striking. It involves the intelligible and the corporeal, the immortal and the mortal, the continuous and the discrete, substantial number and monadic number. Since it includes a multiplicity of complete opposites, the unity of Soul has been consistently an object of philosophers' interests. In his commentary on the *Timaeus,* Proclus summarizes the prevalent theories on the representation of the soul:

> Before those who earlier than we have attempted to explain the nature of the soul arithmetically (*mathêmatikên poiountes tên ousian tês psychês*)[157] as some medium between the physical and the metaphysical, it is asserted by those who call the soul a number that it consists of unity, as something indivisible (*hoi men arithmon autên eipontes ek monados poiousin hôs ameristou*), and of the Indefinite Dyad as something divisible (*ek tou aoristou dyados hôs meristês*). Others, however, who conceive of the soul as of a geometrical figure (*geômetrikên hypostasin*), insist that it consists of a point and distance (*ousan ek sêmeiou kai diastaseôs*); of which the first is indivisible, and the second divisible. Of the first opinion are the people

153. VI.9.4.6–7: παρέρχεται οὖν τὸ ἓν εἰς ἀριθμὸν καὶ πλῆθος πεσοῦσα.

154. The reverse process of abstraction retracts multiplicity and knowledge back to the One, as lucidly explained by Mortley (1982: 436–437).

155. VI.6.16.45: ἀριθμὸς ἄρα ἡ ψυχή.

156. VI.9.6.3–5: In contemplating the One, Soul loses its multiplicity and number.

157. Based on the ensuing distinction between the two types of representations of the soul, pace K. Guthrie (1987: 48), I translate *mathêmatikên* as referring specifically to arithmetic, not to mathematics in general.

> around Aristander, Numenius, and the majority of the other commentators; of the second opinion is Severus.[158]

The passage relates the Neopythagorean arithmetical and geometrical representations of the soul.[159] We do not know much about the divide between the two schools, and the figure of Aristander is unknown,[160] but it is obvious that, for Plotinus, both views are equally important and complement each other in his concept of Soul. On the one hand, Plotinus' distinction between substantial and quantitative number falls along the lines of Numenius' understanding of number as that which is indivisible, corresponding to substantial number, and that which is divisible, corresponding to monadic number. On the other hand, the geometrical construction of the soul as a point and dimensionality represents figuratively the relationship between the higher and the lower part of Soul, between the universal Soul and the individual soul, and between the One and multiplicity.[161] We have discussed the former thoroughly, and the latter requires our present attention.

The Unfigured Figure of Soul's Dance

The context in which Plotinus reaches the conclusion that Soul is number is also significant for the understanding of the role of Soul in the structure of the universe. Alluding to Plato's elaborate explanation of the mathematically harmonious making of the world-soul in *Ti.* 36a6–37a1, Plotinus explains in VI.6.16.43–44 that soul is number and melody, since intelligible substance itself is number and melody. In the *Ennead* explicating the nature of the intelligible realm (V.9), Plotinus states: "indeed all music, since the ideas which it has are concerned with rhythm and melody, would be of the same kind as the art which is concerned with intelligible number."[162] He compares the art of music to "the art of intelligible number" ([*technê*] *peri ton noêton arithmon echousa*), in order to explain that not all imitative arts produce

158. Proclus, *In Tim.* II, 153.17–25; Numenius, fr. 39 (des Places), fr. 46 (Guthrie). Guthrie's translation with modifications.

159. A better explanation of the geometrical relationship between the point and the three-dimensional separation from it can be found in Plato's description that the soul is interwoven with the body "from the center on out in every direction to the outermost limit of the heavens" and covers it all on the outside (*Ti.* 36e1–5).

160. des Places 1973: 89, n. 3.

161. Guthrie's translation. Cf. Iamblichus, *De Anima* 4. On number and time in the separation of the Soul, see Blandin (2000: 33–60).

162. V.9.11.10–13.

copies of sensible, or more precisely not intelligible, objects, but that there are some which possess a closer connection with the intelligible. His statement recalls a series of memorable images of dancing, dancers, and dances throughout the *Enneads.* For example, the cosmic dance of the heavenly bodies in IV.4.33–34, the hypostatic dance of Soul around Intellect in I.8.2, and the divine dance of the individual soul, free from its corporeal imprisonment and reunited with its intelligible source in VI.9.9–10. All these images pertain to the intelligible and visually convey the order and the harmony at the cosmic stage of the universe. But how do music and dancing relate to the role of number in the intelligible realm?

Plotinus' use of metaphors is one of the most captivating features of his style and has long been an object of scholarly attention. Gerson has suggested that usually there is a deeper ontological meaning in these metaphors.[163] In support of his view, I think that the dancing scenes in the *Enneads* are literary metaphors of the harmonious universe, but, at a deeper level, there is a certain literalness to them that conceptually reveals the inherent ontological roles of substantial number in the structure of the intelligible. This ontological movement of number, which organizes the *kosmos noêtos,* originates and directs the circular cosmic dances of Intellect and Soul.

First, let us go back to the passage cited in the beginning of this section, and ask what Plotinus means by "the art of intelligible number." In VI.3.16.18–24, he explains that some arts, such as lyre playing, contain sense-perceived activities (*energeiai aisthêtai*), while others, such as "the works of the soul" (*tas de autês tês psychês pragmateias*), relate to the intelligible realm. On Plato's authority, he also distinguishes other arts, such as geometry, arithmetic, astronomy, and music, that occupy an intermediate position between sensible reality and the realm of the Forms. As he states, "geometry is concerned with intelligibles and it must be placed there [in the intelligible]."[164] Geometry theorizes in figures the concepts of relation, proportion, and measurement. This kind of conceptualization uses the monadic numbers as measures of magnitudes, however.

All these arts use number as their medium and work with quantifiable proportions in space and time.[165] Plotinus, too, thinks that the arts relate closely to something that is beyond sense perception. While Plato uses conventional mathematics to demonstrate their higher noetic quality, Plotinus emphasizes the nonquantitative nature of substantial number and geometrical figures. His attention is exclusively on their role in the intelligible, where

163. Gerson (1997: 298–299).

164. V.9.11.24–26: γεωμετρία δὲ νοητῶν οὖσα τακτέα ἐκεῖ. On Plato's intelligible number, see *R.* 525b11–526c12: the soul is turned toward the Good by studying geometry.

165. On rhythm and harmony, see *R.* 398d2, *Symp.* 187e5, *Leg.* 655a5.

space and time do not exist, or in other words, where measurable quantity does not exist. Thus, the art of intelligible number in Plotinus' comparison between music and number refers to the ontological, not sense-perceptible, activities of substantial number in the intelligible.

In VI.6.17.5–7, Plotinus borrows the geometrical figure of the line as an example from Aristotle's explanation of continuous quantity[166] to explain that a line, in the intelligible, is unlimited, not because there is an intelligible line that is unlimited, but because we can always think of a longer line:

1. It is impossible to attach a mental image to the things which really exist in the intelligible realm.
2. Hence the line in the intelligible is unlimited in the sense that it is not of definite numbered length.
3. Since a line is what proceeds from one point and over one distance, it is posterior to number because the one is observed in it.
4. Limit is not thought to be included in the absolute line, since the line in the intelligible cannot be measured quantitatively.

How is it possible for the absolute line to start from a point and yet be unlimited? For Plotinus, the line is both an intellectual thing (*noeron*) and somehow a real thing (*pôs to pragma*). All figures in the intelligible (point, line, plane, and solid) do not have quantity or quality but exist as "unfigured figures" (*aschêmatista schêmata*) before they are extended into bodies (VI.6.17.25–26):

> Figure, then, is always one in real being (*schêma hen en tôi onti*), but it has distinctions in it either in the living being (*en tôi zôiôi*) or before the living being (*pro tou zôiou*). But I mean "has distinctions" not in the sense that it has acquired size (*ouch hoti emegethynthê*), but because it has been divided (*hoti hekaston emeristhê pros hekaston*), each part of it in correspondence to each being, and given to the bodies there in the intelligible. (VI.6.17.28–31)

As substantial numbers are the paradigms of monadic numbers and the henads are molds for beings, so too, in the intelligible, unfigured figures are the antecedents of figures, and, in this sense, are unlimited. If intelligible figures are unlimited, then what kind of division does Plotinus have in mind? The answer is that the division of being by substantial number generates the beings in Intellect.[167]

166. *Cat.* 6.5a1–14.
167. VI.6.9.26: ἡ τοῦ ἀριθμοῦ δύναμις ὑποστᾶσα ἐμέρισε τὸ ὄν.

The concept of unfigured figures, introduced at the end of VI.6, confirms the ontological solution to the problem of the number of infinity, examined in the beginning of the treatise.[168] On the one hand, number and figures, just like beings, are limited in the intelligible (*arithmos ekei hôristai*), because it is not possible to think of more beings than the ones Intellect thinks.[169] On the other hand, they are unlimited, in the sense that they are not measured quantitatively in the intelligible:[170]

> But what it is it all is, being one and all together and, certainly, a whole, and not bounded by any limit but by its own agency being what it is; for in general none of the real beings is in a limit (*tôn gar ontôn holôs ouden en perati*), but what is limited and measured is what is prevented from running on into indefiniteness and needs a measure (*esti to peperasmenon kai memetrêmenon to eis apeirian kôlythen dramein kai metrou deomenon*); but those real beings are all measures (*ekeina de panta metra*), and therefore are all beautiful. (VI.6.18.6–12)

The existence of being is a measure—itself a result of the division of Being by and according to substantial number. In VI.2.22.19–20, we also learn that, before Intellect sees all beings, they are unlimited (*apeira*), but as soon as it comprehends them (*tôi de heni perilêphthenta*), they arrive at number (*eis arithmon erchetai*). Intellect also holds Soul, which comes after it, so that Soul is in number. Only the lowest part of the soul, the one that is responsible for grasping and shaping matter, is altogether infinite (*to de eschaton autês êdê apeiron pantapasi,* VI.2.22.22–23).[171] That number is unlimited in the intelligible realm means that beings exist there without measure.[172] But as soon as Intellect sees them in the Complete Living Being, they show their number, magnitude, and quality.[173]

The ontogenetic activities of substantial number in Being, Intellect, beings, and the Complete Living Being construct the unfigured figure of the intelligible. It is in the form of a circle, but this circle is also unfigured, as it does not have any quantitative dimensions or measures. Since this circle does not have any quantitative dimensions, the best dianoetic description of it is to conceive it as the cosmic dance of Soul around Intellect and of

168. VI.6.2; see chapter 3.

169. VI.6.18.1–4.

170. VI.6.18.5–6: εἴη δ' ἂν κἀκεῖ ἄπειρος, ὅτι οὐκ ἔστι μεμετρημένος.

171. Recalling *apostasis eschatê* in VI.7.42.21–24; see chapter 1, note 86.

172. VI.6.18. Cf. VI.6.7.7–10: all beings exist individually before Intellect sees them.

173. VI.2.21.12–26.

Intellect around Soul. Dance is a most suitable analogy because, although it is based on measurements of space and rhythm, it conveys them implicitly. When one observes dance, one is not made aware of the actual measurements but of their effect. The unfigured figure of the intelligible, although not measured quantitatively, also implicitly conveys its effect in the circular dance of Soul.[174]

Plotinus' idea of the circle that equally encompasses the plurality of its parts follows the long tradition of geometrical representation of the composition of the universe, documented in Alexander of Aphrodisias' commentary on Aristotle's metaphysics:

> Plato and the Pythagoreans thought that the numbers were the cause of being, for they took the first and non-composite as cause, surfaces being first in relation to bodies, being more simple and independent in their being of body, lines being first in relation to surfaces, and points are first in relation to lines, being totally non-composite and having nothing prior to them. (*In Metaph.* 55.20–26)[175]

This is the Peripatetic report of how Plato views the generation of the universe as a geometrical progression from a discrete point to a line to a plane to a solid.[176] O'Meara represents it as shown in figure 5.1.[177] I will not digress into the mathematical history of this representation since it is outside of Plotinus' interest itself. I will point out, however, that he uses a similar geometrical progression to explain the productive power of number that constructs the intelligible realm. But his understanding of the constitutive role of number literally rounds out the corners of O'Meara's figurative representation of Plato's cosmology. The figure of the circle conveys the transcendence of the One, not in every corner of the cube but in every segment of circle of the *kosmos noêtos* and the *kosmos aisthêtos.* The One is the single point from which Intellect unrolls outward, and the universe explodes into multiplicity, although it is still unified by the limit of the circle's circumference.[178] The fact that all elements of the circle are listed in the passage above emphasizes

174. I am thankful to the anonymous reviewer for the reference to Olympiodorus' treatment of Plato's interpretation of circular dance as an imitation of the heavens, *In Grg.* 5.5 and of soul's circularity in 30.1–2.

175. O'Meara (1993: 47). Dooley's translation (1992: 84).

176. Cf. *Metaph.* 1080b; Sextus Empiricus, Adversus mathematicos VII 99; Theon, *Exp. rer. math.* 27.

177. O'Meara (1993: 47).

178. I.7.1.24: "So the One must stay still, and all things turn back to it, as a circle does to the center from which all the radii come" (ὥσπερ κύκλον πρὸς κέντρον ἀφ᾽ οὗ πᾶσαι γραμμαί). Cf. VI.2.12.8–10.

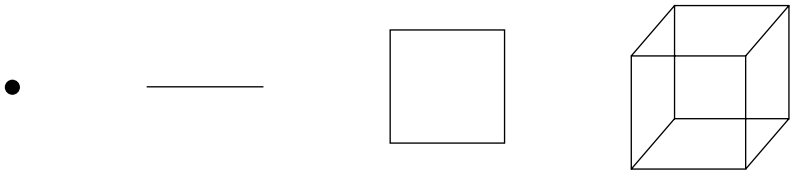

FIGURE 5.1. Geometrical representation of Plato's cosmology (O'Meara 1993).

that they are absent in "the single point" of the One. Plotinus, too, cautions us that comparing the One to the single point (*sêmeion*) is only a result of our desire and necessity to indicate the One to each other; otherwise the absolute One beyond Being is not a point (*sêmeion*) or a unit (*monas*),[179] although the unified number of Being is.

The list of the properties of substantial number in VI.6.9.29–31 constructs the intelligible realm in a strictly mathematical progression.[180] Substantial number does not arrange the multiplicity of intelligible beings into a *kosmos noêtos,* for they have never been in chaos or disorder, but, by dividing Being, the substantial number itself creates a *kosmos noêtos.* To visualize Plotinus' description, we can mark Being as a point representing the unified number of Being, the Intellect as a concentric circle representing the number moving in itself, all beings as lines unfolding from Being to the circle of the Intellect, and finally the Complete Living Being as a sphere encompassing all the above. Plotinus himself explains that substantial number constructs the intelligible realm as "an intelligible sphere (*sphaira noêtê*) embracing the form imposed upon the universe."[181] Because substantial number does not measure quantitatively beings and the intelligible realm, this image is not spatial or temporal and yet is a literal and iconic representation of the architecture of the intelligible according to the ontogenetic activities of substantial number. The best parallel to the metaphysical qualities of Plotinus' image is perhaps Parmenides' own description of being as "completed, / from every direction like the bulk of a well-rounded sphere, / everywhere from the centre equally matched."[182]

Plotinus' vision of the circular motion of the universe, which is rooted in a center that is beyond it, closely relates to the circular heavenly models

179. VI.9.5.42.

180. Similarly, Gerson (1994: 45) characterizes Plotinus' description of the effluence of the One in V.2.1.7–11.

181. II.9.17.5.

182. D–K B8.42–44: τετελεσμένον ἐστί, / πάντοθεν εὐκύκλου σφαίρης ἐναλίγκιον ὄγκῳ, / μεσσόθεν ἰσοπαλὲς πάντῃ. (Gallop's text and trans.) I thank the anonymous reviewer for reminding me of this parallel.

constructed by Hipparchus of Samos, Eudoxus, Heracleides, and Ptolemy.[183] Euclid defines the circle as "a plane figure contained by one line" upon which all the straight lines fall from one point and are equal to one another. The point from which the equidistant lines derive is called the center of the circle.[184] Proclus acknowledges the particular metaphysical usefulness of the figure of the circle as such:

> The first and simplest and most perfect of the figures is the circle. It is superior to all solid figures because its being is of simpler order, and it surpasses other plane figures by reason of its homogeneity and self-identity. It corresponds to the Limit, the number one, and all the things in the column of the better. . . . If you divide the universe into the heavens and the world of generation, you will assign the circular form to the heavens and the straight line to the world of generation; for insofar as the circular form is found in the changes and figures of the world of generation, it is divided 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 Intellect, you will say that the circle has the character of Intellect, the straight line that of soul. This is why the soul, as she reverts to Intellect, is said to move in a circle. (*In Euc.* 147.8–19)[185]

I cite this passage at length because it presents the synthesized final result of what Plotinus has set out to do in the *Enneads.* Proclus' commentary on Euclid's definition of the circle demonstrates the path of Plotinus' complete philosophical exegesis. The suitability of the circle to express the simplicity of a starting point from which multiplicity expands outward until it is contained inward by a circumscribing line is beyond doubt. This becomes clear when we relate the hypostases to the elements of the circle.

Proclus conceptualizes a clear geometrical distinction between the circular shape of the heavens and Intellect and the linear sense-perceptible progression of soul. Based on Plotinus' distinction of number, we can equate the former with the nonquantitative substantial numbers and the unfigured intelligible figure of the circle, and the latter with soul as the linear quantitative enumerating principle in physical reality.

Examining Proclus' concept of the circular movement and the "beyondness" of the hypostases in his *Elements of Theology,* prop. 20, Kutash

183. Except Ptolemy, all mentioned in Kutash (1994: 105).
184. Euclid, *El.,* def. XV and XVI. Kutash (1994: 109).
185. Morrow's translation (1970) with modifications.

recognizes, in passing, the influence of geometrical and astronomical theories of Plato and Plotinus on Proclus.[186] A closer look, however, reveals that Proclus' commentary on Euclid's definition of the circle, cited above and also by Kutash,[187] does not bear such direct resemblance to Proclus' explanation of the motion of Soul and Intellect in prop. 20 as it does to Plotinus' explanation of the circular form in the intelligible in the *Enneads*.[188] In IV.2.1, Plotinus discusses the indivisibility of Intellect and the indivisibility of the part of soul that always remains in the intelligible, and the divisibility of the part of soul that descends into the sensible. To illustrate what he means, he describes that "soul is composed of the part which is above and that which is attached to that higher world but has flowed out as far as these parts, like a line from a center" (*hoion grammês ek kentrou*).[189]

For Plotinus, Being "produces the real beings when moving according to number."[190] The motion of number begins with Intellect, which exists by thinking itself and thinking all the individual intellects in itself. Thinking for Intellect is moving within itself. This motion is introverted, self-reflexive, all-inclusive, and without direction, except for the dianoetic conception of inward and outward. Therefore, the motion is circular, though not in the sense of circular direction, but rather that a circle circumscribes the movement.[191] The unified number of Being is the point of Intellect's gaze upon the One before it realizes its multiplicity. By the moving-in-itself number of Intellect, the individual forms come into existence as a number that unfolds itself from the unified number of Being. The individual beings do not continue their unfolding motion ad infinitum. They are encompassed by the number of the Complete Living Being. Thus, the intelligible world moves circularly, folding out and folding in, resembling the breathing in and out of an ensouled organism. Plotinus perceives figuratively the course of this ontological progression as follows: "[Intellect] became like a circle unfolding itself, shape and surface and circumference and center and radii, some parts above and some below."[192] The unfolding of the circle of Intellect (*exelixas*) results in

186. Kutash (1994: 105, 112).

187. Kutash (1994: 109–110).

188. Among Proclus' predecessors, Plotinus must have had the most sway in the formulation of Proclus' view, since all the elements of his commentary on Euclid's definition of a circle are found in Plotinus.

189. IV.1.1.16–17.

190. VI.6.15.25: τὰ ὄντα γεννᾷ κινούμενον κατ᾽ ἀριθμόν.

191. I.8.2.15–17: Intellect "has all things and is all things, and is with them when it is with itself and has all things without having them."

192. III.8.8.36–38: οἷον γὰρ κύκλος ἐξελίξας αὑτὸν γέγονε καὶ σχῆμα καὶ ἐπίπεδον καὶ περιφέρεια καὶ κέντρον καὶ γραμμαὶ καὶ τὰ μὲν ἄνω, τὰ δὲ κάτω.

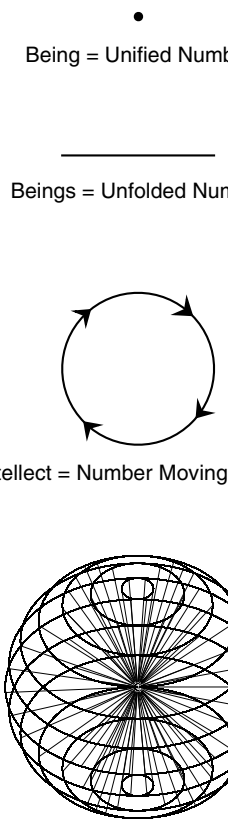

FIGURE 5.2. Geometrical representation of the aspects of substantial number in the intelligible realm in *Ennead* VI.6.

the unfolded number of all intelligible beings (*arithmos exelêligmenos*). In VI.6.17.41–43, we read that Intellect, as thinking itself, is a bare sphere (*hê noêsis de psilon echei sphairan*), which is represented geometrically by the planar surface, but the living being is the sphere of the living being (*to de zôion zôiou sphairan*), represented by the solid (figure 5.2).[193]

Plotinus presents Intellect as a circle in III.8.8.36, and as number moving within itself in VI.6.9.30–31.[194] Since the inner revolution of number creates

193. In VI.5.5.1–3, Plotinus describes dianoetic thought "as many lines proceeding from one center which leads to a notion of the multiplicity which has come to be."

194. Themistius, *De An.* 5.3.3.2: κινοῦσι τὸ ζῷον ὑπ᾽ ἀριθμοῦ, καθάπερ καὶ Δημόκριτου ἔφαμεν ὑπὸ τοῦ ἀριθμοῦ τῶν σφαιρῶν.

the notion of a sphere, it follows that Intellect, which has not seen all beings in itself, resembles an empty sphere. But when Intellect sees, and thus thinks all intellects or all beings in itself, it holds them and surrounds them in the Complete Living Being as encompassing number (VI.6.31), which resembles a full sphere.[195] The sphere of the living being is, then, the figure of the universe (*to te tou pantos schêma*) to which Plotinus refers in the beginning of his discussion of the figures in the intelligible (VI.6.17.23–24).[196]

The final product of this progression is the encompassing number of the Complete Living Being. IV.4.32 sheds more light on Plotinus' view of the Complete Living Being by quoting *Ti.* 30d1–31a1 that the universe (*to pan*) is "a single living being which encompasses all the living beings that are within it"; "it has one soul which extends to all its parts, in so far as each individual thing is a part of it" (IV.4.32.4–7). Plotinus interprets Plato's definition in terms of his own ontological classification to mean that "this one universe is all bound together in shared experience and it is like one living creature" (IV.4.32.13–14). This Complete Living Being consists of all individual things that exist, or as he says, "persist" (*menein*) by moving. Its movement can be observed by sympathy (*sympatheia*) in the heavenly circuit.[197] It "is not casual but according to the rational principle of its living organism, possessing harmony of action, experience, and order which arranges things together, bringing them in due relation to each other . . . as if they were performing a single ballet (*mian orchêsin*) in a rich variety of dance-movements" (*en poikilêi choreiai,* IV.4.33.1–7). The rational principle which orchestrates this cosmic dance is the substantial number. It creates harmonious movements between all individual beings, Intellect, and Being. Plotinus' dancing metaphor illustrates the structure of the universe not in situ, but contemplatively in action; not static and devoid of life, but dynamic and "boiling with life." He further extends the simile by comparing the orderly and yet different movements of the limbs of the dancer's body to the image of the whole universe, which "actively lives its own complete life, moving its great parts within itself, and continually rearranging them."[198] This motion is not in space or in time; rather, it is contemplative, possessing the knowledge of the intelligible realm. Motion in the intelligible means the ontological progression of beings according to the rhythm provided by

195. As in the self-reflection of Intellect, according to Rappe (2000: 124–128).

196. The Complete Living Being holds all beings "full of life, and, we may say, boiling with life" (πάντων ζωῆς πεπληρωμένων καὶ οἷον ζεόντων, VI.7.12.22–23). After Aristotle, *De Anima* 405b26–28. Armstrong (1988: 126).

197. Kutash (1994: 105).

198. IV.4.33.27–29.

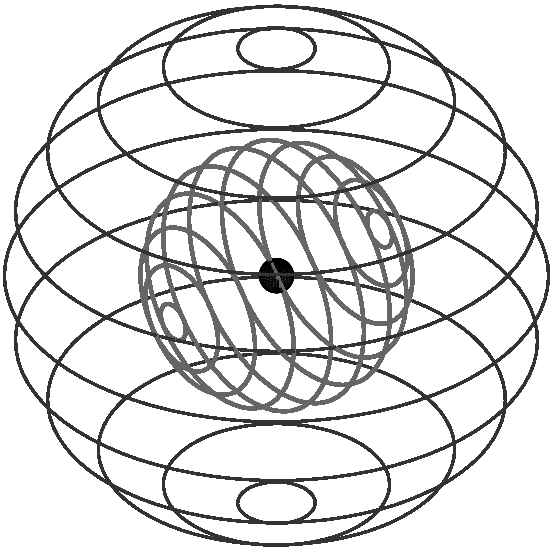

FIGURE 5.3. Geometrical representation of Being as a center and unified number, Intellect as number moving in itself around its center, and Soul as dancing around Intellect in *Ennead* VI.6.

substantial number. Quoting Plato's *Second Letter* (312e1–4), Plotinus explains the chain of ontological command:

> That Intellect is the first act of the Good and the first substance (*prôtê energeia* and *prôtê ousia*); the Good stays still in himself; but Intellect moves about him in its activity, as also it lives around him. And soul dances around intellect outside (*hê de exôthen peri touton choreuousa psychê*), and looks to it, and in contemplating its interior sees God through it. (I.8.2.21–25)[199]

Soul is like a circle too, "fitting itself around its center, the first expansion after the center, an unextended extension" (*diastêma adiastaton*).[200] All intelligible realities are unextended extensions (IV.4.16.23–24), because they are unfigured figures (VI.6.17.25–26). Once more, Plotinus visualizes the One as a point, Intellect and the Complete Living Being as an unmoved circle, and Soul as a circle that moves by its desire.[201] As a result, "the sphere of all (*tou pantos sphaira*), since it possesses

199. The passage continues with a reference to the journey of the gods in *Phdr.* 247a–248a.

200. IV.4.16.22.

201. IV.4.16.23–25. For the dance of the Soul around Intellect, see I.8.2.23–24; For the unmoved and unchanged Intellect and the moving Soul

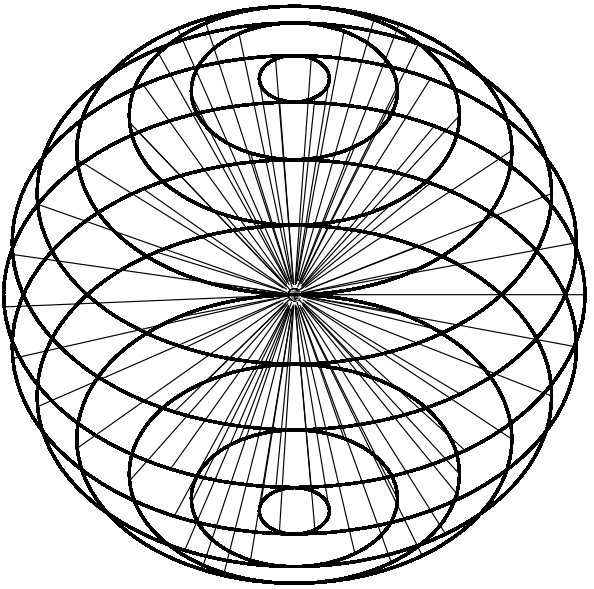

FIGURE 5.4. Geometrical representation of the outward and inward motion of multiplicity in Plotinus.

the soul which desires in that way, moves by its natural desire."[202] In VI.9.8–10, he explains that the natural movement of Soul is not in a straight line but in a circle around a center that is not on the outside but within itself (see figure 5.3).

If we further consider the hypostatic dance of Soul in the intelligible realm in the context of Plotinus' understanding of the origin of multiplicity as a separation from the One in VI.6, we discover that the motions of Soul coincide with the two directions in which multiplicity exists. The first is a motion away from the One, which gives existence to all beings and Soul, as different from the One. This direction is represented by the external dance of Soul around Intellect. The second motion of multiplicity is introspective and toward the One, which preserves multiplicity from dissipation into infinity. This direction is represented by the inward dance of Soul around its center in an attempt to see its intelligible source. While Soul dances externally outside Intellect, it is turned internally toward Intellect and the One.

The ontological composition in this explanation can be represented geometrically as in figure 5.4.

generating sense-perceptible reality, see III.4.1. For Soul as an unfolding seed, see III.7.11.23–24.

202. IV.4.16.27–29. Cf. the motion of heaven is circular because it imitates Intellect (II.2.1.1), and the universe, too, imitating Intellect, both moves in a circle and is at rest (II.2.3.20–22).

The three primary hypostases represent a center with two concentric circles in which the center is the first hypostasis, the One beyond being; the inner circle circumscribes the second hypostasis, Intellect moving in itself around it; and the outer circle circumscribes the third hypostasis, Soul moving around Intellect. But how is it possible for the One to be a point in this ontological representation, when the One is beyond being? We cannot solve the problem unless we consider the ontological activities of substantial number. Being, as unified number that has not divided being yet, is the homeostatic center of the two circles. As a static image of the One, Being is a holding place for the One in the noetic architecture of the universe.[203] The One is the single source from which Intellect unrolls and the universe expands in multiplicity, unified by the encompassing line of the circle's circumference.[204] Plotinus cautions us that comparing the One to the single point (*sêmeion*) is only a dianoetic result of our desire and need to indicate the One to each other. So, the absolute One beyond Being is not a point (*sêmeion*) or a unit (*monas*),[205] but the unified number of Being is. The cosmic dance of Intellect and Soul, then, is circular because it follows the ontological activities of substantial number in the intelligible realm.

The closing chapters of the very last treatise of the *Enneads* in Porphyry's arrangement (VI.9.8–11) describe the cosmic dance of the enlightened individual soul that has achieved its complete union with the One. In fact, this is the last image that the *Enneads* leave in our mind's eye. These dancing scenes not only metaphorically convey the complete harmony of the universe, but also reveal the ontological truth of the intelligible. Plotinus perceives the universe, like a sphere full of life, which derives from the One and returns to the One according to the concentric numbered dance of Soul around Intellect, and of Intellect around the One.[206] Intellect and Soul perform their cosmic dance on the stage of the universal poetic creation[207] to the rhythm of substantial number.

203. Similarly, Corrigan (2005: 28) describes Plotinus' circle analogy as "a circle unfolding itself into radii and circumference but still rooted in its centre, which is itself rooted in the centre of all centres beyond it."

204. I.7.1.23–24; see n. 178 above. Cf. VI.2.12.8–10.

205. VI.9.5.41–42.

206. I.8.2.23–25, VI.9.8–11.

207. III.2.17.49–50: τὸ πᾶν ποίημα.

6

Unity of Thought and Writing

In *VP* 24.11–14, Porphyry's statement, "So I, as I had fifty-four treatises of Plotinus, divided them into six sets of nine (*Enneads*)—it gave me pleasure to find the perfection of the number six along with the nines," has garnered many slighting remarks in the pages of Neoplatonic scholarship. Armstrong criticizes Porphyry for taking "a most unfortunate liberty" in creating "an extremely unsystematic presentation of a systematic philosophy";[1] Gerson finds the arrangement to be "a seriously disruptive division";[2] and O'Meara dismisses it as "wholly artificial and sometimes misleading."[3] Consequently, scholars suggest two alternative organizations of the *Enneads.* The first reconstructs the conceptual unity of certain treatises, such as the *Großschrift* (III.8; V.8; V.5; II.9), which Porphyry disperses throughout the collection.[4] The second reads the treatises in Porphyry's chronological order (listed in *VP* 4–6) in an attempt to show the development of Plotinus' philosophy itself.[5]

While the *communis opinio* of Porphyry's arrangement stems from our analytically trained perception of how philosophical writing should be organized, I think we must also try to understand his work within the context of both Plotinus' thought and the Neopythagorean fashion of the time. Porphyry's arrangement does not simply embellish Plotinus' corpus like the Muses' ennead, crowning the nine books of Herodotus' *Histories*:[6] as a student of Plotinus and a former member of the Neopythagorean school, Porphyry would have understood his task to be editing and arranging his master's works in an order complying with the tenets of the presented philosophy. This chapter, therefore, examines Porphyry's arrangement of the

1. Armstrong (1967: 217) and (1966: vol. 1, viii), respectively.

2. Gerson (1994: xiv).

3. O'Meara (1993: 10).

4. Argued by Armstrong (1967: 217); O'Meara (1993: 8–10); Gerson (1994: xiv); Dillon (1992: 189–204, esp. 191). Roloff (1970) disregards Porphyry's arrangement and writes a commentary on the treatises as a whole. Also followed by Cilento (1971).

5. O'Meara (1993: 9–10). For the opposite "antidevelopmentalist" position, see Armstrong (1967: 218), followed by Gerson (1994: xvii).

6. Plutarch, *Moralia* 744b, however, sees a deeper significance in the Muses' number.

Enneads in relation to Plotinus' concepts of multiplicity and number and the late Neopythagorean thought of the *Theology of Arithmetic*.[7]

Porphyry and the *Enneads*

Porphyry's interest in collecting Plotinus' treatises continues the Hellenistic and Roman tradition whereby the works of Plato and Aristotle were organized by their successors—Albinus, Dercyllides, Thrasyllus, Theon of Smyrna, and Andronicus, to name a few.[8] While all of them made their collections at least a century after the deaths of Plato and Aristotle, Porphyry knew Plotinus personally. He not only collected and edited his master's treatises but, unlike his predecessors, encouraged him to write them. Regardless of Porphyry's motives, his close association with Plotinus suggests that we should give more credit to his editorial work than we have done.[9]

In the beginning of *VP,* Porphyry declares Plotinus' approval of his editorial role: "I myself, Porphyry of Tyre, was one of Plotinus's closest friends, and he entrusted to me the editing of his writings" (*VP* 7.49–51).[10] Considering Porphyry's aspirations to be regarded as Plotinus' intellectual heir,[11] we should suspect that he would use more than sheer numerical elegance in his task, especially as his flagship role as the editor of the *Enneads* was the key to his self-promotion. Toward the end of *VP,* Porphyry again justifies his editorial authority:

> He [Plotinus] himself entrusted me with the arrangement and editing of his books (*tên diataxin kai tên diorthôsin tôn bibliôn poieisthai*

7. Aristotle's silence upon the hexad and the ennead in *Met. A* and *M* also grants the arrangement a programmatic significance for Neopythagorean number symbolism. The omission is more apparent on Burkert's list (1972: 466–7), which is based on Aristotle and Alexander's commentary on Aristotle's text.

8. On the Platonists, see Tarrant (1993: 1–103); Mansfeld (1994: 58–84). On Andronicus, see Barnes (1997: 1–69); Pfeiffer (1968: 264, 273).

9. According to *VP* 4–6, Plotinus, at a more advanced age, began to write the tractates in September 253 and stopped only at his death in 270. On the chronology of Plotinus' writing, see Dillon (1992: 191). On Porphyry's edition, see Goulet-Cazé (1982: vol. 1, 280–7 and 294–307).

10. Gerson (1994: xiv): "We should note first of all that probably owing to Plotinus' foresight in choosing an editor, especially one as able as Porphyry, we possess everything that Plotinus wrote.... Among the ancient Greek philosophers, the only other one we can say this about is Plato."

11. Porphyry most likely intentionally omits the names of Plotinus' well-known pupils, Amelius and Eustochius, here. Eunapius does not mention Porphyry's edition in his *Lives of Philosophers and Sophists.* Penella (1990: 40).

> *hêmin epetrepsen*), and I promised him in his lifetime and gave undertakings to our other friends that I would carry out this task. So first of all I did not think it right to leave the books in confusion in order of time as they were issued (*prôton men ta biblia ou kata chronous easai phyrdên ekdedomena edikaiôsa*). I followed the example of Apollodorus of Athens, who collected the works of Epicharmus the comedian into ten volumes, and Andronicus the Peripatetic, who classified the works of Aristotle and Theophrastus according to subject, bringing together the discussions of related topics. (*VP* 24.2–11)[12]

Taken at face value, this statement confirms Porphyry's motivation and ambition. He perceives his work on the *Enneads* as a natural continuation of the Hellenistic and Roman publishing trend. The collections of Plato's dialogues were constantly reorganized after Plato's death. But the *corpus Aristotelicum* had a less fortunate fate. After many vagaries, a number of Aristotle's texts fell into the possession of Andronicus, who unified them thematically. The references to Andronicus and Apollodorus help us understand better how Porphyry himself perceived his work, in what state he received the treatises, and what exactly he did to them. Porphyry organized the tractates thematically in Andronicus' fashion and divided them into a significant number of volumes qua Apollodorus.[13] In his mind, he did not compare his work to the standard work of Plato's editors, who edited already established collections, but to the work of the editors who made collections from scratch.

Since Plotinus' writings grew naturally but sporadically from his lectures over a period of seventeen years, the treatises obviously needed editing and organization. The phrase "in confusion in order of time" (*kata chronous . . . phyrdên, VP* 24.5–6) denotes not only the disorderly condition in which Porphyry received the treatises but also the condition that prompted Plotinus to ask his disciple to publish them in "arrangement" (*diataxis*) and "editing" (*diorthôsis*) (*VP* 24.2). Armstrong, remarking that *diorthôsis* "need imply no more than the correction of the spelling and supply of punctuation," does not comment on the connotation of *diataxis,* despite the word order, in which the latter immediately precedes the former.[14] The combined

12. Both Barnes and Blumenthal note the importance of Porphyry's remark recognizing Andronicus' contribution to the collection of Aristotle's works, later overshadowed by Alexander of Aphrodisias. Barnes (1997: 37–9); Blumenthal (1996: 8, n, 6). Pfeiffer (1968: 264, 273) also documents the two scholars' editorship with Porphyry's testimony in *VP.*

13. Barnes (1997: 37–38).

14. According to Armstrong (1967: 217), there is "no reason to suppose that Porphyry did not do his work as editor conscientiously and accurately." But he

use of the two terms and the orthographic meaning of *diorthôsis* suggest that we should interpret *diataxis* to mean, specifically, arranging the treatises.[15]

At first glance, Porphyry's organization of the treatises from the easiest to the most difficult topics does not directly reflect the division of philosophy into ethics, physics, and logic, which governs Plato's collections. Albinus' organization adapts this tripartite division and further divides Plato's works into five subtypes of peirastic, maieutic, hyphegetic, logical, and anatreptic dialogues. Thrasyllus' division, followed later by Theon of Smyrna, groups the dialogues into tetralogies following the pattern of three tragedies and a satyr play.[16] Edwards recognizes that Porphyry's arrangement moves in a similar direction but sees stronger kinship with the division of body, soul, and spirit, found in Origen's *De Principiis* (4.2.4).[17] As we will see later, his conjecture is all the more convincing in that it captures the anagogical path on which the treatises unfold the essence of Plotinus' universe, because Porphyry believes that his editorship is central to the teaching, promotion, and preservation of Plotinus' philosophy.[18]

Ennead VI.6

Why should we look next into Plotinus' concepts of multiplicity and number for a possible answer to Porphyry's arrangement? Because, as we have determined in this book, the two concepts lay the foundation of Plotinus' understanding of the composition of the universe. If we are to concern ourselves with studying the ordering of a multitude of treatises into a whole, then focusing on Plotinus' signature view of the universe as one-in-many seems to be suitable and logical.

From Porphyry's editorial standpoint, if the *Enneads* are going to present Plotinus' view of the universe, regardless of whether Plotinus cares or not, they can do so only if they are published as a multitude of treatises, organized in a way that demonstrates their unity. For Porphyry, to induce *kosmos* in the presentation of the treatises is to arrange them in a way that "inwardly," through introspection, reveals to the reader the essence of Plotinus' universe.

also judges that "Porphyry did no more than correct the spelling, etc., of his master's carelessly written and unrevised manuscripts."

15. Leopardi translates them as *ordo* and *emendatio* in Moreschini (1982).

16. Tarrant (1993: 41, 89–107).

17. Edwards (2000: 51, n. 309).

18. Eustochius (c. 270) published another edition of the *Enneads,* quoted by Eusebius in *Praeparatio Evangelica.* But all extant manuscripts of the *Enneads* transmit the treatises according to Porphyry's edition. Cf. Henry (1935); Goulet-Cazé (1982: 287–294); for a concordance of the two editions, see Henry (1938).

If we consider each *Ennead* as a whole, we find that the first *Ennead* includes works on the spiritual nature of man; the second *Ennead* deals with physical matter; the third explains how the physical world relates to the intelligible realm; the fourth discusses the sensible and intelligible nature of soul; the fifth espouses Intellect as an intermediary between Soul and the One; and the sixth *Ennead* culminates in the discussion of the most difficult concepts pertinent to the intelligible realm, including those of number and the One itself.[19] This thematic arrangement moves inward from the sense-perceptible multiplicity through the hypostases of Soul and Intellect to culminate in the subject of the One.[20] It turns the multiplicity of the *Enneads* inward toward their most central topic.

Given Plotinus' understanding of the ontogenic role of substantial number in the intelligible world, detailed in the preceding chapters, the meaning of Porphyry's arrangement of the *Enneads* emerges as a multiplicity ordered by number. Just as substantial number organizes the intelligible realm as many-in-one, so does its material image, monadic number, arrange the multiplicity of the treatises into *kosmos,* which is turned inward toward its intelligible essence. If the treatises were going to present Plotinus' complete view of how the universe was organized, then they could do so only if they re-created its organization. By ordering them into six *Enneads,* the monadic number, like all material things, conveys, yet "faintly,"[21] the organization of Plotinus' universe.

"Six Along with the Nines"

Recent scholarship on the nondiscursive nature of Neoplatonic thinking has demonstrated that "the language of Neoplatonism is the language of symbols."[22] While the relation between text and symbol is more apparent in the later Neoplatonic tradition, Porphyry's contribution to this tradition will remain inevitably opaque due to the paucity of evidence in his extant works. Nevertheless, being a "Plotinian Platonist,"[23] Porphyry is intimately familiar

19. This progression does not follow the tripartite division of the Platonic corpus. The part dealing with logic is replaced by metaphysics and spirituality. See pp. 133–134. O'Meara (1993: 9) describes it as "a path for the ascent of the soul of the reader, going from the first steps to the ultimate goal of Plotinian philosophy."

20. Cf. Bréhier (1958: 30): "The style of Plotinus is one of the most beautiful we have because it always expresses the movement of a living thought."

21. VI.6.18.24: ἀμυδρῶς.

22. Rappe (2000: 117).

23. Barnes (2003: xii).

with the works of his contemporary Neopythagoreans. In his lengthy quotation of Longinus' letter in *VP* 20–21, he mentions not a few, but all the names of the "Neopythagorean underground"[24]—Cronius, Moderatus, Thrasyllus, Numenius, and Ammonius Saccas, the teacher of Plotinus himself (*VP* 3).[25] With this entourage in mind, the question of Porphyry's arrangement of Plotinus' works must be related to traditional Pythagorean and Neopythagorean numeric symbolism.[26]

The later Neoplatonic and Neopythagorean tradition elucidates what Porphyry might have implied by his notorious perfect ratio of six and nine. Despite the scarcity of original Pythagorean writings, the development of the Pythagorean numerical canon from Philolaus to Proclus is still traceable. In this continuous span, Aristotle, of course, first attempts to systematize the circulating Pythagorean views on the metamathematical and metaphysical correspondence between numbers and the universe. Although Aristotle's work on the Pythagoreans is lost, he discusses Pythagorean numerical symbolism at considerable length throughout *Metaphysics* books *A* and *M*. With the help of Alexander's commentary on Aristotle's text, Burkert reconstructs Aristotle's list in which the monad is *nous* and *ousia*; the dyad is *doxa*; the triad symbolizes a whole with a beginning, middle, and end; the tetrad is justice; the pentad is marriage; the hebdomad is opportunity; and the decad is the perfect number.[27] The symbolism of each number on this list is not our concern now; I mention the entire list to point out that there are three obvious omissions, two of which are a primary concern for us. Aristotle not only omits the hexad, the ogdoad, and the ennead from the list but does not even mention them anywhere in his works, not even in the *Metaphysics*.[28] No matter what the actual reasons for Aristotle's conspicuous lacuna, we have no reason to think that Aristotle omits them intentionally. Most likely the three numbers were not a part of mainstream Pythagorean numerology yet. This is confirmed by *Theol. Ar.* 74.10, which forcefully and unreasonably attributes to Philolaus

24. See pp. 42–43.

25. Brisson (1982: vol. 1, 56–1113).

26. Burkert (1972: 465–482) argues that the mystical notion of numbers as holding some transcendent truths about the universe does not originate with, but is articulated most eloquently by, Orpheus and Pythagoras.

27. In his commentary on the *Metaphysics,* Alexander clarifies Aristotle's text by matching the Pythagorean numbers to Aristotle's descriptions. For a complete discussion, see Burkert (1972: 466–467).

28. With the exception of the hexad, mentioned twice as a payment of six drachmas in *Oec.* 1347a34 and 1353a18.

the derivative sequence of numbers and the idea that the hexad represents ensoulment (*empsychôsis,* D-K A 12.3).[29]

In fact, ever since Plato crafted the cosmogonical role of soul in the *Timaeus,* the concept constantly gained popularity in Middle Platonic and Neopythagorean circles. While Philo places the hexad in the foundation of universal order, Moderatus calls it "a marriage" and "Aphrodite."[30] The *Theology of Arithmetic* explains these allegories better by defining the hexad as "the first perfect number" (*Theol. Ar.* 33.2), which "arises out of the first even and first odd numbers, male and female" (*Theol. Ar.* 33.5–6), and by which "the universe is ensouled and harmonized."[31] The hexad is the first perfect number, because it is a result of the sum or multiplication of the first three numbers ($1+2+3$ or $1\times2\times3$) and symbolizes the harmonious unity of the primary opposites of male and female.[32] It also ascribes to soul the animation of the universe brought together as "wholeness of limbs" (*Theol. Ar.* 36.31).[33] The hexad is *kosmos* because "the universe, like 6, is often seen as composed of opposites in harmony, and the summation of the word 'universe' is 600."[34] As a perfect number, the hexad symbolizes order of multiplicity and harmony of opposites.

If we view Porphyry's arrangement of the treatises according to the Neopythagorean hexad, the organization of the *Enneads* by the number six overtly corresponds to the organizing role Soul plays in the composition of the physical world. Plotinus does not mention the hexad anywhere in the *Enneads.* Nevertheless, this is in accord with his view, discussed earlier, that

29. *Ti.* 43b.2–5; Huffman (1993: 356–359).

30. *De Op. Mundi* 89.1: ὁ σύμπας κόσμος ἐτελειώθη κατὰ τὴν ἑξάδος ἀριθμοῦ τελείου φύσιν; Moderatus, fr. 3.5: ἐπωνόμαζεν…τὴν ἑξάδα Γάμον καὶ Ἀφροδίτην.

31. *Theol. Ar.* 33.22–23: κατ᾽ αὐτὴν ἐμψυχῶσθαι καὶ καθηρμόσθαι τὸν κόσμον. Waterfield's translation (1988); Greek according to de Falco (1975). On perfect numbers, *Theol. Ar.* 17.13; Aristotle, *Cael.* A1.268a9; Euclid, *Elementa* 7.22; Theon, *Expos. rer. math.* 45.9; Nicomachus, *Ar.* 1.16, 39, 4–47; Iamblichus, *De vita Pyth.* 152.

32. *Theol. Ar.* 34.14–15: Τὰς μὲν πρώτας αὐτῇ τῇ ἑξάδι α′ β′ γ′; *Theol. Ar.* 36.23–27: Πρώτη γὰρ ἡ ἑξὰς πυθμενικωτάτη περιέσχεν ἀριθμητικὴν μεσότητα·…τὴν πρωτίστην δέχοιτο ἔμφασιν καὶ τὴν αὐτοῦ τοῦ ἀριθμοῦ εἰδοποίησιν.

33. Later in the same text, we find the etymology of the hexad from ἕξις ζωτική, meaning "the living condition" or ensoulment (*Theol. Ar.* 64.3).

34. *Theol. Ar.* 37.8–12: καὶ γὰρ ὁ κόσμος, ὥσπερ καὶ ὁ ς′, ἐξ ἐναντίων πολλάκις ὤφθη συνεστὼς καθ᾽ ἁρμονίαν, καὶ ἡ συναρίθμησις τοῦ κόσμου ὀνόματος ἑξακόσιά ἐστιν.

Soul does not have a specific corresponding ontological role as substantial number.[35] But, since soul is substance, soul is number in general[36] as the primary underlying principle that comprises the multiplicity of the intelligible and sensible world both. Soul's role is to embody the ontological content of substantial numbers into monadic numbers counting the visible multiplicity of the universe.

For Plotinus, as for Moderatus earlier, Soul is also Aphrodite (*psyche…Aphroditê men esti,* III.5.9.33). Since a part of Soul remains in the intelligible realm and a part of it descends into the sensible world, Soul unites the material world with its intelligible paradigm by bringing order and correspondence to the universe, and because of this, Plotinus concludes that every soul is Aphrodite (*esti pasa psyche Aphroditê,* VI.9.9.31).[37] For him, as for the Neopythagoreans, Soul is order, number, and the intermediary between the visible and invisible realms. But he does not compile a list of the Pythagorean numerical canon in the *Enneads* as this is neither in accord with his interests nor with his style. His primary goal is to explain the ontogenic role of substantial number in the intelligible realm, regardless of its nominal value (which does not have any ontological meaning), and not the role of its material monadic image. Thus, we should not expect that he would refer explicitly to Soul as the hexad in VI.6 or elsewhere. In fact, through the *Enneads* and especially in VI.6, Plotinus sticks to the most popular nominal values of number as monad, dyad, triad, tetrad, pentad, and decad.[38] Perhaps the reason for this is that they have the most important ontological meaning. He uses the monad and the dyad to distinguish them from the Monad and the Indefinite Dyad. The triad is the first odd number, which represents actual extension from the Monad and the Dyad;[39] the tetrad represents the natural progression of everything in the universe;[40] the pentad

35. See pp. 112–113.

36. VI.6.16.45: ἀριθμὸς ἄρα ἡ ψυχὴ, εἴπερ οὐσία. Xenocrates, fr. 183 (Parente): Ξενοκράτης δὲ λέγων τὴν ψυχὴν ἀριθμὸν ἑαυτὸν κινοῦντα αὐτοκίνητον αὐτὴν ἔλεγεν; also reported by Aristotle, *Metaph.* 985b30. Plotinus on the number of the soul, V.1.5.9, VI.2.22.21, VI.5.9.14, and VI.6.16.45. Cf. *Theol. Ar.* 33.22–23.

37. Explicating Plato's myth of the birth of Eros and Aphrodite (*Symp.* 203b), he distinguishes two types of Aphrodite: the heavenly Aphrodite (*Aphroditê ourania*) as the Soul, always remaining in the intelligible realm, and the vulgar Aphrodite (*Aphroditê pandêmos*) as the soul, descending into the material world (VI.9.9.29–30).

38. Nikulin (2002: 85–88) is of the same mind. He does not even list all numbers to which Plotinus refers in the *Enneads.*

39. VI.3.13, VI.6.6.

40. *Theol. Ar.* 20.

"is the first number to encompass the specific identity of all number, since it encompasses 2, the first even number, and 3, the first odd number";[41] and the decad represents the Pythagorean tetractys, symbolizing the wholeness of the universe.[42]

For Porphyry, things are different. He not only comes from a strong Neopythagorean background, like Plotinus, but also responds to the revival of Pythagorean numerical symbolism in later Neoplatonism and Neopythagoreanism. Porphyry's arrangement of the treatises into six groups nondiscursively embodies Plotinus' understanding that Soul also arranges that which has separated from the One into a one-in-many universe. He animates, to use Neopythagorean language, the multiplicity of the treatises to re-create the organic wholeness of Plotinus' universe.

The numerical symbolism of the ennead is Neopythagorean too. Later Neoplatonists call the ennead "the greatest of numbers within the decad and an unsurpassable limit."[43] The limiting characteristic of the ennead is most suitable for enclosing the number of the individual treatises within itself. While the hexad represents the formation of number and order (*tên autou tou arithmou eidopoiêsin, Theol. Ar.* 36.27), the ennead "marks the end of the formation of specific identities" (*horizei goun tên eidopoiêsin, Theol. Ar.* 56.25). As the hexad, like Soul, organizes the groups of the treatises in the body of the collection, the ennead, like the comprising number of the Complete Living Being, limits the number of treatises within each group to the last original number.[44] As the ennead "brings numbers together and makes them play in concert" (*Theol. Ar.* 57.21–4), so does the ennead bring together the multiplicity of the treatises and turns them inward to its source.[45] While the hexad inscribes the cosmogonical role of soul on the *Enneads,* the ennead symbolizes the completion of the universe. This is why the treatises are not organized in nine groups of six but in six groups of nine. The enneads of the

41. *Theol. Ar.* 30–31.

42. *Theol. Ar.* 79.

43. *Theol. Ar.* 56.24–25.

44. *Theol. Ar.* 57.7–8: "There is a natural progression up to it, but after it there is repetition" (μέχρι μὲν γὰρ αὐτῆς φυσικὴ πρόβασις, μετὰ δ' αὐτὴν παλιμπετής).

45. Porphyry embeds the etymology of the ennead as "if it were the 'henad' of everything within it, by derivation from the 'one'" (ἐννέας μὲν κέκληται οἱονεὶ ἑνὰς ἡ πάντα ἐντὸς αὐτῆς κατὰ παρωνυμίαν τοῦ ἕν, *Theol. Ar.* 57.4–5) by placing the treatise, devoted to the One (*to hen*), last in his arrangement. As pointed out by one of the anonymous reviewers, Iamblichus etymologizes the ennead as "new one" (*hen neon, In Tim.* fr. 53), which also suits the idea of completing the universe as an image, albeit different, of the One and in this sense "new one."

treatises, circumscribed and thus animated by the hexad of the soul, enclose everything on the subject of the universe from beginning to end, from henad to ennead.[46] There is nothing more to be said about it outside of Plotinus' philosophy and outside of the number of the *Enneads,* homonymy intended. Therefore, in the arrangement of the *Enneads,* Porphyry reflects the growing importance of the hexad and the ennead before their formal canonization in the *Theology of Arithmetic.*[47]

Porphyry fuses Plotinus' philosophy with Neopythagorean numerical symbolism to reveal the central organizing theme of Plotinus' universe. His arrangement of the treatises encrypts numerically the perfect unity of Plotinus' universe, for which VI.6 provides the conceptual blueprint. The teacher's concept of *kosmos* as multiplicity ordered by number is the reason that his student enjoys the perfection of the mathematical ratio of 6×9. The *Enneads,* like the universe, unfold outward into multiplicity, while Porphyry's arrangement, in turn, enfolds the treatises inward to create an image of the universe according to Plotinus. Porphyry's arrangement of the *Enneads* in six groups of nine, therefore, is not arbitrary but mandatory for understanding the universe of Plotinus' thought.[48]

46. In Armstrong's words (1988: vol. 7, 6), VI.6 explains "how all reality proceeds in due order from its source, the One or Good, and how the human spirit may find its way back to that source."

47. With the exception of Plutarch, *Moralia* 744b, the philosophical meaning of the ennead is not discussed until Syrianus, *In Metaph.* 134.14; and especially Proclus, *In R.* vol. 2, 237.19, *In Cra.* 176.62, *In Ti.,* vol. 2, 127.4.

48. In relation to Thrasyllus' nine Platonic tetralogies and Porphyry's six Plotinian enneads, Mansfeld (1994: 65) notes that "such numbers and relations between numbers according to Platonist and Pythagorean thought are not just an expression of order, but a cause of order in the first place." The two sets are "a sort of micro-cosmoi."

This chapter was previously published as "Unity of Thought and Writing: *Enn.* 6.6 and Porphyry's Arrangement of the *Enneads*" in *Classical Quarterly* 58.1 (2008): 277–285. I have truncated the original section (pp. 280–281) that introduces VI.6 and the concepts of multiplicity and number in order to avoid repetition.

Conclusion: In Defense of Plato

In true Plotinian fashion, let us start from the beginning one last time. The trouble with numbers starts with the Pythagoreans, who postulate that numbers are the building blocks of the universe. Plato adapts this view to Parmenides' doctrine that real existence is beyond what the senses perceive, in the realm of thought and speech. The dialectic between One and Many, Limit and Unlimited in the *Philebus* delineates the future framework of the question about the relationship between the Forms and numbers. For Aristotle, however, number is not substance but only an arithmetical category used by man to manipulate speculatively quantity and size. The trouble with number then passes down to the Old Academy. Speusippus replaces the Forms as paradigms of existence with mathematical numbers that derive from the two primary principles of the One and multiplicity. Xenocrates, in turn, modifies Speusippus' principles into the Monad and the Dyad. The Neopythagoreans mix together the ontological and mathematical meaning of number.

In this tradition, Plotinus continues the Platonic and Neopythagorean dialogue on the dialectic between One and Many as he weaves the boundlike nature of the universe, which, like a fabric and the details of its texture, consists of unity and diversity. However, through the concept of number, he distinguishes many (*ta polla*), as innumerable diversity, from multiplicity (*to plêthos*), as multiplicity that is ordered according to number as if number agglutinates the different degrees of separation from the One into the finite and bondlike unity of the imaginary cosmic sphere.

VI.6 addresses two core questions for the understanding of the composition of the universe: What is number? What is the relationship between number and multiplicity? The importance of the questions is emphasized by the concluding argument of the treatise espousing the position that number underlies the existence of every aspect of the intelligible. As explained in VI.6.9, number supersedes the hypostases of Soul and Intellect. The ontologically paradigmatic role of number in the intelligible realm is imitated by the quantitative monadic number that enumerates physical reality. As a result, Plotinus' concept of number explains the universe as "unambiguously finite."[1]

1. To use Lewis' precise expression (1964: 98).

Ennead VI.6 is at the heart of Plotinian cosmology. The treatise begins with a discussion of multiplicity in place of number, because multiplicity is ontological expression of number as activity of substance in the *kosmos noêtos*. This ontological separation (*apostasis*) successively instantiates the separation of Intellect, the descent of Soul from Intellect that enmatters physical reality. Once multiplicity reaches complete separation from the One, it turns inward and, by seeking itself, seeks its origin. Like the progression and regression of number in Moderatus' definition, the two directions of multiplicity construct a dynamic universe, centered on the principles of the outward cosmogonical unfolding of multiplicity to the phenomenal world and the inward cosmological enfolding of all elements to the One. Everything exists as a certain degree of separation from the One substantiated by number. Thus the question of whether multiplicity is a separation from the One contains Plotinus' definition of number itself. Multiplicity is the phenomenal expression of number in the composition of the universe. Without multiplicity there is no number; without number there is no multiplicity. In order to explicate the nature of number, Plotinus has to explain first what multiplicity is.

The beginning of VI.6 depicts the bidirectional state in which multiplicity exists. The initial centrifugal movement of separation from the One reverses itself into a centripetal introspection of that which has separated from the One. In the intelligible realm, this movement is conducted according to the ontogenic participation of substantial number in the existence of Being, Intellect, and all beings. In physical reality, the separation from the One of the intelligible beings is copied by monadic number, which quantitatively enumerates individual things. Monadic numbers and their mathematical application conceal their intelligible source. As with any intelligible entity, the existence of substantial numbers is not apparent to the untrained mind but is a subject of contemplation only.

The main argument of VI.6 is that existence in the intelligible realm is not only a degree of ontogenetic separation from the One, mediated by number, but depends on and is a result of the constitutive ontological role of number. More specifically, substantial number provides a representation of the general properties of substance. With Being, substantial number is unified and thus closest to the One. With Intellect, substantial number is moving in itself reenacting the dichotomy of the Indefinite Dyad itself, and becomes ontologically separated further from the One than Being. With beings, substantial number exists in the multiplicity of beings that, facilitated by the moving-in-itself number of Intellect, have unfolded into the individual existence of beings, and constitutes the next more distant separation from the One in the intelligible. Deciphering and enacting all the properties of substantial number in its cosmic dance, soul enmatters them into quantitative monadic numbers.

The concept of separation from the One ascribes to number and multiplicity a primary role in constructing the architecture of the intelligible realm, in which number performs the function of limit, and multiplicity enacts the Platonic and Pythagorean concept of the Unlimited. Number is the likeness of the One in the sense that it constrains multiplicity to a certain limit and preserves it from slipping away into infinity. It imitates, albeit in an ontologically deteriorated way, the self-sufficiency and completeness of the One.

Wallis concludes that existence in Plotinus' hierarchy means "a fragmentation of the unity of the One."[2] Others have also established that number fulfills an ontological purpose in Plotinus' hierarchy.[3] Wallis' claim that Plotinus "never" considers multiplicity as "a valuable addition to an initial unity" should be revised in light of VI.6. The treatise elucidates that which has been left unwritten in the Platonic view of number—that number is an active actuality of Being and a power of substance that builds the architecture of the universe according to its ontological role.[4] In other words, substantial number actualizes Wallis' "fragmentation of the unity of the One" by determining every form of intelligible existence.

The current study also warrants the revision of Bréhier's view that the discussion of multiplicity in the opening chapter of the treatise does not relate to Plato's concept of number because it does not have a fixed number.[5] The definition of multiplicity as an *apostasis* from the One explains that multiplicity originates from number, regardless of what the exact finite number is. As soon as even the slightest separation or moving away from the One occurs, number and substance act together to procure the unfolding of multiplicity from the One in due ontological order. Existence, then, is Otherness from the One, actualized by the intelligible number. Multiplicity is separation from the One according to the ontological exigency of substantial number.

2. Wallis (1972: 57) explains that "Plotinus' conception of the One can best be understood if we recall that in his view multiplicity is never a valuable addition to an initial unity, but connotes rather a fragmentation of that unity (VI.6.1; VI.7.8.19–22). Hence at each stage of his universe the descent into greater multiplicity imposes fresh limits and restrictions, disperses and weakens the power of previous stages, and creates fresh needs requiring the development of new faculties previously unnecessary."

3. Krämer (1964: 300–304); Charles-Saget (1982: 124–127); and Nikulin (1998: 85–89).

4. Scholars traditionally study the central chapters (6–9) dealing with number in the intelligible: Krämer (1964: 292–311); Alexandrakis (1998); Nikulin (1998); with the exception of Pépin (1979) and Horn (1995b: 149–169).

5. Bréhier (1963: vol. 6, 7).

The seeming paradox of coexistence of Limit and Unlimited in the nature of multiplicity and number implies that, if things can be numbered, then they are not infinite. For number determines the boundaries of multiplicity, consequently the universe, by preserving it from "complete separation" (*pantelês apostasis*). For the one who numbers perceives objects as infinite because numbers in physical reality can always admit another number. The true existence of number, however, is not quantitative or a subject of mathematical speculation but is an active actuality of substance (*energeia tês ousias*). Moving in itself, substantial number provides the ability of the Intellect to think itself and thus recognize all Forms as number, which has unfolded itself in the encompassing and thus finite number of the Complete Living Being. Substantial number conducts the separation of all beings from the One at every level of the intelligible by constructing and filling up the cosmic sphere with existence.[6] The universe is finite because even monadic number is an image of the substantial number that constitutes the outermost layer of the cosmic sphere. The universe, like a sphere, is finite, with the only difference that it is alive in the sense that the ordered multiplicity expands in and out.

The concentric composition of VI.6 underlines introspectively the central theme of the treatise that number has an ontological and constitutive role in the composition of the intelligible realm. Number substantiates both the downward ontogenetic and upward ontological direction of multiplicity. The universe, as a breathing sphere, unfolds and enfolds according to number. The inward and outward properties of number in the intelligible determine the inward and outward directions of multiplicity. Number is the principle and the measure of beings and matter. In this sense, substantial number is perfect and the active actuality of Being that divides substance to create all beings. As a result, number is the building block of Plotinus' cosmos and the underlying principle for multiplicity to exist in the intelligible realm and in physical reality.

The study of this book demonstrates that the subject of number should be considered among the most important concepts for understanding Plotinus' philosophy and therefore deserves greater scholarly attention than it has received. Plotinus adopts and adapts Platonic and Neopythagorean cosmology to place number in the foundation of the intelligible realm and the construction of the universe. He is the first philosopher who fuses the Platonic true numbers and the quantitative mathematical numbers in a conceptually informed relationship, as between an intelligible paradigm and its sense-perceptible image. Throughout the *Enneads* and especially in *Ennead* VI.6, he systematically peels off the layers of mathematical and quantitative perception from the concept of number to reveal that real number is the

6. VI.7.12.23–30.

primary activity of substance, which orders the unfolding of the universe from its absolute source into a finite multiplicity.

The concept of number is the troublemaker in the history of Platonism. It separated the followers of Plato and Aristotle into two camps for generations. For Plotinus, however, the concept becomes the peacemaker that reconciles the camps. The importance of this reconciliation is central to Plotinus' philosophical system because it not only uses Aristotle to defend Plato from Aristotle himself but brings to light Plotinus' major proof that the universe is finite. For him, as for his Platonic and Neopythagorean predecessors, the universe has meaning, enciphered by number. In this light, Plotinus' concept of number is the fundamental link between the number theories of the Neopythagoreans and the later Neoplatonists.

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