# The Cosmic Cycles in Plato and Plotinus

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## The Cosmic Cycles in Plato and Plotinus

### Ina Schall

#### I. Introduction

In treatise V. 7 [18] ('On the question of whether there are also Forms of individuals'), Plotinus discusses the topic of individuation, specifically addressing the principles of sensible individuals (*kathekaston*), such as humans and animals.<sup>1</sup> In his examination, Plotinus posits that rational forming principles (*logoi*) play a crucial role in the formation of sensible individuals and their individual properties. These *logoi* interact directly with matter, imparting specific forms to it. Importantly, each individual *logos* (the singular form of *logoi*) can only bestow its corresponding form and property onto matter; for instance, a *logos* associated with a snub nose can produce no feature other than a snub nose. Given that a human individual comprises an array of body parts and properties, Plotinus concludes that such complexity must result from a combination of numerous *logoi*. Furthermore, Plotinus argues that all individuals in the cosmos are unique and that each is produced by a unique *logoi*-combination.

The vastness of the cosmos and the huge number of individuals born in it compel Plotinus to consider the potential implications of an infinite number of principles in the intelligible world – an issue that challenges the notion of the intelligible world as a finite unity. To reconcile this potential contradiction, Plotinus introduces a doctrine of cosmic cycles (V. 7 [18], 1, 13). He argues that since a cosmic cycle is inherently limited, it can only contain a limited number of individuals. Consequently, the generation of a finite number of individuals necessitates only a finite number of principles (V. 7 [18], 1, 13–14). Plotinus further asserts that in the process of creating individuals within

<sup>&</sup>lt;sup>1</sup> The publication of this paper has received the generous support of the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme through the ERC Advanced Grant 'Not another History of Platonism', grant agreement No. 885273 (https://hiw.kuleuven.be/dwmc/not-another-history-of-platonism).

a new cycle, the same *logoi* are employed as in the preceding cycle (V. 7 [18], 1, 22-23).

Several scholars, including Blumenthal (1966), Ferrari (1998), Nikulin (2005), and Aubry (2008), have proposed that in V. 7 [18] Plotinus makes reference to the Stoic theory of cosmic cycles. This assertion, however, presents certain challenges, notably the absence of any mention within the *Enneads* of the Stoic concept of the periodic annihilation of the cosmos in the divine fire (*ekpyrôsis*) and its subsequent rebirth – a fundamental tenet of Stoic doctrine. Plotinus instead appears to view his cosmic cycles in Platonic terms, consistently addressing the topic in the context of Platonic philosophy.<sup>2</sup> Indeed, as this paper shows, his theory of cosmic cycles is equivalent to the Platonic notion of the 'perfect year' (*Ti.* 39d4), which is completed when all the celestial bodies of our solar system return to their original positions.

However, a point of contention arises in V. 7 [18], where it is asserted that in all cosmic cycles "the same things are produced according to the same forming principles", suggesting that the cosmic cycles are identical.<sup>3</sup> This is a position that could be mistakenly seen as echoing the Stoic influence. Notably, the Stoics claimed that after destruction and the rebirth, the cosmos evolves in exactly the same way each time, producing the same individuals as in the cycle before. As this paper shall demonstrate, Plotinus did not envision an absolute identity of these cosmic cycles, as is characteristic of Stoic philosophy. Rather, Plotinus posits that cosmic cycles adhere to an intelligible pattern which is identical for each cycle. However, the lives of individuals may evolve differently, depending on the plan of Providence and the individual's free will. This is an idea that resonates strongly with Platonic thought.

Like Plotinus, Plato also associates the concept of cosmic cycles with infinity, although he emphasizes different features of this association. While Plotinus seeks to eliminate infinity and thereby indeterminacy from the intelligible realm with the help of cosmic cycles, Plato employs cosmic cycles to forge a *mimetic* relationship between the eternality of the transcendent Forms and the time-bound but endless life of the sensible cosmos. As Plato writes in the *Timaeus*, cosmic cycles serve

<sup>&</sup>lt;sup>2</sup> Compare Kalligas (2023) 332 and Dillon (2015) 231.

<sup>&</sup>lt;sup>3</sup> There are a total of three text passages in V. 7 [18] that suggest that the cosmic cycles were conceived by Plotinus as identical. The text passage quoted here is V. 7 [18] 1, 23-25, translated by I. Schall. The other two are V. 7 [18] 1, 12-13 and V. 7 [18] 2, 22-23.

the purpose 'that this universe of ours might, by imitating the eternity of the perfect, intelligible living being, be as similar as possible to it' (*Ti.* 39d–e1, translated by R. Waterfield).

In short, this paper explores the concept of cosmic cycles in Plato and Plotinus, taking as its point of departure Plotinus' treatise V. 7 [18], in which Plotinus introduces these cycles to maintain the limited unity of the intelligible world. During my analysis of cosmic cycles in V. 7 [18], I will argue that Plotinus' theory of cosmic cycles strongly aligns with Platonic thought rather than Stoic philosophy. After establishing a Platonic origin for Plotinus' doctrine of cosmic cycles, I then go on to compare the relationship between cosmic cycles and the concepts of infinity in the philosophies of Plato and Plotinus.

II. The Platonic Origin of Cosmic Cycles in Plotinus

II.1. Cosmic Cycles in Plotinus' treatise V. 7 [18]

The text V. 7 [18], a brief treatise from Plotinus' early period, holds a dual distinction as one of the most frequently referenced and hotly debated texts in Plotinian scholarship. Some notable scholars, including Rist (1963), Blumenthal (1966), and O'Meara (1999), claim that, in addition to the universal Platonic Forms of genera and species, Plotinus postulates here Forms of sensible individuals.<sup>4</sup> Unlike the traditional universal Form of Human Being, the Form of an individual, such as *Autosôkratês* (V. 7 [18] 1, 4), would only apply to Socrates. This individual Form would explain Socrates' particular individuality, implying that his bodily properties and character traits are present in the universal Intellect.<sup>5</sup>

The scholarly discourse surrounding V. 7 [18] has predominantly focused on the question whether Plotinus introduced Forms for individuals in this treatise. However, this short-sighted perspective has regrettably obscured other profound philosophical themes, including individuation, the transmigration of souls, embryology, cosmic cycles,

<sup>&</sup>lt;sup>4</sup> More simply, there are three different readings as to what is at issue in V. 7 [18]: (a) V. 7 [18] is about Forms of sensible individuals (Rist (1963), Blumenthal (1966), O'Meara (1999)); (b) V. 7 [18] is about individual intellects (Armstrong (1977), Gerson (1994), Tornau (2009)), or about undescended soul parts (Kalligas (1996), Ferrari (1997, 1998) et al.); (c) V. 7 [18] is about forming principles (*logoi*) of sensible individuals and their properties (Remes (2007, 2008), Aubry (2008), Wilberding (2017)).

<sup>&</sup>lt;sup>5</sup> Compare Remes (2007) 60.

and the unique nature of individuals, including identical twins. In all these areas, as I argue in my dissertation, the *logoi* – rather than Forms - play a pivotal role.<sup>6</sup> These *logoi* are images of the transcendent Forms, vet they primarily constitute the soul and function as the soul's creative principles in the cosmos. As Plotinus writes, the entire development of each cosmic cycle, i.e. its size, the number of individuals inhabiting it as well as their appearance is determined by the *logoi*.<sup>7</sup> The totality of what comes into being in the sensible cosmos is linked to the process of the 'unrolling and unfolding of the sum-total of the forming principles', i.e. when the *logoi* are actualized, the things manifest themselves accordingly within the sensible cosmos. When the process of actualisation of the *logoi* reaches completion, 'all things come to an end' and 'there will be another beginning' of a new cosmic cycle, akin to a computer program initiated by the World Soul.<sup>8</sup> This actualization process of the logoi bears resemblance to an algorithm, which, once fully executed, initiates anew. The question is, what happens 'when all things come to an end?? Will there be an end of the world? This question will be explored in detail later.<sup>9</sup> The aim here is to provide a concise summary of the argument presented in the first chapter of V. 7 [18] and to shed light on Plotinus' intention behind incorporating the theory of cosmic cycles into his philosophical framework.

<sup>&</sup>lt;sup>6</sup> In my dissertation (defended 2022) entitled *The Principles of Individuals in Plotinus - Between Metaphysics, Biology/Embryology, and Transmigration of Soul; A Study of Ennead V. 7 [18], Text, Translation, and Commentary, I attempt to resolve the heated debate about the Forms of individuals in Plotinus. My analysis shows that Forms of individuals in V. 7 [18] is a marginal issue and that the principles of individuals that Plotinus is concerned with here are the <i>logoi.* The book based on my dissertation is scheduled to be published in *Ancient and Medieval Philosophy Series 1* by Leuven University Press in 2025 under the title *Plotinus on Individuation. A Study of Ennead V. 7 [18], Text, Translation, and Commentary.* 

<sup>&</sup>lt;sup>7</sup> 'And if the creation process involves a random number of individuals, another explanation will be necessary; but if there is a measure of how many individuals there are to be, the quantity (of individuals) will be determined by the unrolling and unfolding of the sum-total of forming principles; so that when all things come to an end, there will be another beginning. For how vast the cosmos has to be, and how many individuals he [the cosmos] will pass through in the course of his life, is grounded from the very beginning in that which contains the forming principles' (V. 7 [18] 3, 13-18, translated by I. Schall).

<sup>&</sup>lt;sup>8</sup> V. 7 [18] 3, 15-16, translated by I. Schall.

<sup>&</sup>lt;sup>9</sup> See Chapter II.2. 'Identity of Cosmic Cycles - A Stoic Element?', p. 6-9.

The doctrine of cosmic cycles does not occupy a prominent position within the *Enneads*. Rather than being the central focus of a dedicated treatise, references to this doctrine are scattered sporadically throughout various texts. It is also in V. 7 [18] that the cosmic cycles are only tangentially mentioned, primarily to support the overarching theory of individuals. However, it is essential not to underestimate the significance of cosmic cycles in Plotinus' theory of individuals.

The primary inquiries addressed in the first chapter of V. 7 [18] revolve around understanding the intelligible principles governing sensible individuals and determining the quantity of these principles. These two questions are inherently interconnected, for as Plotinus progresses in his examination of the principles of individuals, the scope of the individuals examined increase. Initially, Plotinus confines his investigation to human individuals (V. 7 [18] 1, 1-8). Subsequently, he asserts the necessity of principles extending to encompass all living beings within the cosmos (V. 7 [18] 1, 11-12). Ultimately, Plotinus concludes that principles must also exist for individual properties (V. 7 [18] 1, 20-21).

As I have highlighted in the introduction, Plotinus posits that rational forming principles, the *logoi*, underlie the creation of individuals and their properties. These *logoi* interact directly with matter, imparting upon it a specific form. If a distinct forming principle is indeed requisite for each individual property, this could potentially imply an infinite number of principles within the intelligible realm. Proposing the existence of something infinite or unlimited within the intelligible realm poses a dilemma, given that the intelligible world is a distinct and well-defined unity. Consequently, suggesting an unlimited number of *logoi* in the intelligible realm becomes untenable. To circumvent the notion of an infinite number of *logoi*, Plotinus invokes the doctrine of periodic cycles in the universe (V. 7 [18] 1, 12-13). By virtue of the fact that each cycle possesses inherent limitations, a cosmic cycle can only give rise to a finite number of individuals. This finite population, in turn, necessitates a finite number of principles:

#### V. 7 [18] 1, 7-13

But if the soul of each individual possesses the forming principles of all those individuals through which it passes in succession, then again all will be there [in the intelligible world]; for we do also say that as many forming principles as the cosmos possesses, each soul also possesses. Consequently, if the cosmos possesses [the forming principles] not only of the human being, but also of individual living beings, so, too, does the soul; the whole of the forming principles, then, will be unlimited (*apeiron*) unless it keeps turning in periodic cycles (*periodois*), and thus the unlimitedness (*he apeiria*) will be limited (*peperasmenê*), whenever the same result is produced. (translated by I. Schall)

In this passage, Plotinus introduces the theory of cosmic cycles as a means to impose constraints on the number of individuals that come into being in the sensible cosmos and the corresponding number of intelligible principles required to generate these individuals. Without such limitations, these quantities would be otherwise 'unlimited'— analogous to the Greek term *apeiros*, which typically conveys notions of indefiniteness or infinity and is frequently encountered in the *Enneads*.<sup>10</sup> I have chosen to translate *apeiros* as 'unlimited' because it comprises the privative prefix *a* combined with *peras*, signifying 'limit' or 'end.' Thus, the translation 'unlimited' remains faithful to the literal meaning of the Greek expression, encapsulating the idea of transcending established boundaries and seemingly disregarding order.

Blumenthal (1966) 79, Ferrari (1998) 649-650, Dmitri Nikulin (2005) 291, and Aubry (2008) 279 posit that Plotinus may be alluding to the Stoic doctrine of cosmic cycles in V. 7 [18]. I align rather with Kalligas (2023) 332 and Dillon (2015) 231, who argue that Plotinus is more aligned with the Platonic understanding of cosmic cycles. There are, indeed, compelling reasons for this claim.

The Stoics held an exclusively materialistic worldview. Unlike Plato, who divided reality into an intelligible world (the world of real being) and a material world (the world of becoming), the Stoics rejected the existence of the intelligible and saw the whole of creation as material.<sup>11</sup> Although they envisioned a rational and ensouled cosmos, their supreme and divine principles governing the cosmos are physical.<sup>12</sup> White (2003) 129-130 characterizes the Stoic primary principle as a 'God as demiourgos or craftsman [who] is immanent in the cosmos as its active, rational, *and corporeal* principle, and is particularly identified with the

<sup>&</sup>lt;sup>10</sup>Sleeman (1980) lists thirteen contexts to which *apeiros* might refer: matter (*hyle*), body (*soma*), the evil (*kakia*), being and essence (*on, onta, ousia*), Intellect and the intelligible (*Nous, noeta*), Soul (*psyche*), life (*zoe*), *logos*, God and Good (*theos, to agathon*), time and eternity (*chronos, aion*), number and limit (*arithmos, peras*), to be numerically infinite, to be infinite in size, length and grandeur, and to be indefinite in the sense of vague. As can be seen, Plotinus ascribes *apeiros* not only to matter and numbers, but also to the intelligible realm.

<sup>&</sup>lt;sup>11</sup> Ti. 27c-29d.

<sup>&</sup>lt;sup>12</sup> On Stoic theology, see Keimpe Algra (2003) 153-178.

creative fire (*pur technikon*) from which the world cycle arises and into which it periodically returns'. Consequently, the Stoic concept of cosmic cycles implies periodic cosmic extinction through conflagration (*ekpurôsis*), followed by rebirth.<sup>13</sup> In the words of White (2003) 129, 'god, being the "demiurge" of the cosmic cycle, in certain periods of time consumes the whole substance [sc., of the cosmos] into himself and then again brings it forth from himself.'<sup>14</sup>

It is rather unlikely that Plotinus believed in the complete extinction of the cosmos by fire and its subsequent rebirth from that fire. According to the *Lexicon Plotinianum*, the term *ekpurôsis* does not occur once in the *Enneads*. The term *periodos*, meaning cycle, occurs a few times. If one looks at the passages in which *periodos* is mentioned, one finds that the context is generally a discussion of the laws according to which individual souls descend into the material world and ascend again into the intelligible. Plotinus describes that the transmigration of souls follows the cosmic order, meaning that there is a harmonious alignment between the souls and the cycles of the universe:

IV. 3 [27] 12, 19-30

The harmonious adjustment of the souls to the order of this All of ours witnesses to this; they are not cut off from it, but fit themselves in in their descents and make one harmony with its circuit (*periphoran*), so that their fortunes and their lives and their choices are indicated by the figures made by the heavenly bodies and they sing, as it were, with one voice and are never out of tune. (And this is more properly the hidden meaning of the doctrine that the heavenly spheres move musically and melodically.) But this could not be if the action and experience of the All was not on all occasions in accordance with the intelligible realities, in its measuring of periods (*periodôn*) and orders and the living through of the lives according to their kinds which the souls live through, sometimes in the intelligible world, sometimes in heaven, and sometimes turning to these regions. (translated by A. H. Armstrong)

<sup>&</sup>lt;sup>13</sup> The Stoic idea of the universe perishing in the divine fire and then being reborn from it might resonate with Heraclitus' view of fire as the primary substance. However, he might interpret it in his own terms, seeing the fire not just as a destructive and creative force but as a symbol of the ever-changing reality.

<sup>&</sup>lt;sup>14</sup> White's account of the Stoics' divine principle is based on the words of Diogenes Laertius (VII 137).

According to this, a harmonious relationship between the souls and the cosmic order would not be possible if the All, representing the totality of existence, did not consistently adhere to intelligible realities. Plotinus highlights the importance of the All's conformity to intelligible principles, which encompass the measurement (i.e. duration and number of individuals born within) of cosmic cycles, the establishment of order, and the souls' experience of wandering between the intelligible and the physical realms. Similar formulations about the connection between the soul and the cosmic cycles can be found in the *Republic*. Indeed, it seems that the text under consideration echoes the myth of Er (R. 614b-619b): the souls' transmigrations are bound to the revolutions of the different stars and planets moved by the Spindle of Necessity (*Anankê*) attended by Sirens that create the melody of the heavenly spheres.

Also in the *Timaeus* we can find a similar connection between the intelligible cosmos and the physical cosmos. There, Plato describes the revolutions of the *Same* and the *Different* in the soul that are linked to revolutions of planets and fixed stars respectively (*Ti*. 36c-d; *Ti*. 39b-c). There is also fitting passage in the *Phaedrus*:

#### Phdr. 247d

Now a god's mind is nourished by intelligence and pure knowledge, as is the mind of any soul that is concerned to take in what is appropriate to it, and so it is delighted at last to be seeing what is real and watching what is true, feeding on all this and feeling wonderful, until the circular motion brings it around to where it started. (translated by A. Nehamas and P. Woodruff)

By contrast, the Stoics repudiated the existence of an intelligible reality, thereby eschewing the doctrine of the transmigration of souls. These observations lead to the inference that Plotinus likely employed the term *periodos* in a Platonic rather than Stoic sense.

#### II.2. Identity of Cosmic Cycles - A Stoic Element?

In the *Enneads*, there is no trace that Plotinus assumed a conflagration of the world (*ekpurôsis*) like the Stoics did. However, his theory of cosmic cycles incorporates elements reminiscent of Stoicism. The Stoics held that the universe cyclically perishes in the divine fire, only to be reborn from the same fire. Each rebirth leads the cosmos through an identical evolution to its previous cycle. The continents, oceans, mountains, animal species, humans, tribes, and cultures emerge just as they did before. The Trojan War repeats, with Achilles' heel pierced by the same arrow. Socrates is reborn, relives the same dialogues, and faces his iconic death, influencing Western thought with each recurrence. And in every cycle, this very paper is written and read by the same audience. Each cycle unfolds in perfect repetition, leaving no room for the slightest change. To a materialistic view that sees the universe operating mechanistically under consistent natural laws, such a concept might be conceivable. In V. 7 [18], Plotinus seems to have adopted this idea as he claims that 'the whole cosmic cycle contains all the forming principles, and again the same things are produced according to the same forming principles'.<sup>15</sup> Again, at the end of the second chapter, he writes that 'the absolute identity is possible across different cosmic cycles' (V. 7 [18] 2, 23).

Within Plotinus' philosophical framework, the idea of cyclically identical universes poses several challenges. First, he refutes the concept of the universe's periodic destruction and renewal. According to Plotinus, there is only one cosmos that perpetually emanates from the One. The idea that there might be an interruption in this continuous emanation would imply the One's incompleteness. Such a notion would lead to the disintegration of not just the sensible cosmos, but also the realm of transcendent Forms and the soul. Such a scenario is inconceivable to Plotinus. Moreover, in II. 1 [40], he affirms the world's everlastingness, suggesting that the World Soul effortlessly maintains the cosmos through all of time:

II. 1 [40] 4, 16-33

[And regarding the universe,] to think that the World-Soul, having proceeded from a god, is not stronger than every bond is a notion of men who are ignorant of the cause that holds all things together. For it would be strange if the World-Soul could hold all things together for any time at all—however short—and did not do so for ever [...] And the fact that the universe never had a beginning (for its having a beginning was already said to be bizarre) gives assurance concerning its future. For why should there be a time when the universe no longer exists? For the elements do not wear out like wood and such. And if the elements persist, the universe persists. Even if the sublunar elements are constantly changing into one another, the universe persists; for the cause of elemental change perists. And it has been shown that it is empty to suppose that this soul changes its mind, since its administration of the

<sup>&</sup>lt;sup>15</sup> V. 7 [18] 1, 22-23, translated by I. Schall.

universe is without toil or harm. Even if it were possible for all body to perish, nothing would be much different for this soul. (translated by J. Wilberding)

How then should we interpret the notion of repeating, identical cosmic cycles in his philosophy? Might Plotinus have envisioned a universe that, upon concluding a cycle, mystically reverts to its inaugural state? The passages from V. 7 [18] that we already looked at and the following text could indeed be read in that sense:

## IV. 3 [27] 12, 12-19

For what it has is the All already complete; this is and will be sufficient to itself: it completes its course periodically according to everlastingly fixed rational principles, and everlastingly returns to the same state, period by period, in a proportionate succession of defined lives, these here being brought into harmony with those there and completed according to them, everything being ordered under one rational principle in the descents of souls and their ascents and with regard to everything else. (translated by A. H. Armstrong)

Plotinus describes the universe as being complete and self-sufficient, evolving in cycles based on eternal, fixed, and rational principles. This cyclical nature of the universe implies that the movements of the stars and planets always bring them back to their starting point which is, one could say, is Plato's notion of the perfect year.<sup>16</sup> Moreover, within these cycles, there is a specific sequence of life or existences. Everything in the universe, both here and there (i.e. in the sensible and the intelligible cosmos), is in harmony with each other and complements each other. The souls descending into this world are harmoniously integrated into the order of the entire universe.

Yet, a question arises: What does Plotinus mean when he says that the universe 'everlastingly returns to the same state, period by period'? If a cycle were to end today, would it mean that human achievements, architectural wonders, and geological transformations will just disappear, letting Earth return to its primal state – whatever primal state might mean within the context of emanation? Returning the cosmos 'to the same state' would mean that the World Soul would produce the same

<sup>&</sup>lt;sup>16</sup> All the same, it's still possible to understand that the perfect number of time makes up a perfect year at the moment when all the eight revolutions (*oktô periodôn*), with their relative speeds, attain completion and regain their starting-points [...]. (*Ti*. 39d2-e1, translated by R. Waterfield)

individuals, individual souls would transmigrate into the same bodies, and Providence would set these souls on the same life path all over again. Such a reading seems rather at odds with what Plotinus might have intended. What purpose would there be for souls to undergo the same experiences eternally? And what does this suggest about the reasoning of the World Soul? Is it likened to a cassette tape, rewinding at the cycle's end, only to replay the same tune all over again? This seems inconsistent with Plotinus' philosophy and the ensuing discussion on divine Providence offers insight into how one might address the notion of recurring cosmic cycles:

III. 2 [47] 13, 1-30

Then we must not discard that argument, either, which says that the rational principle does not look only at the present on each occasion but at the cycles of time before, and also at the future, so as to determine men's worth from these, and to change their positions, making slaves out of those who were masters before, if they were bad masters (and also because it is good for them this way); and, if men have used wealth badly, making them poor (and for the good, too, it is not without advantage to be poor); and causing those who have killed unjustly to be killed in their turn, unjustly as far as the doer of the deed is concerned, but justly as far as concerns the victim; and it brings that which is to suffer together to the same point with that which is fit and ready to execute what that unjust killer is fated to endure. [...] We must conclude that the universal order is for ever something of this kind from the evidence of what we see in the All, how this order extends to everything, even to the smallest, and the art is wonderful which appears, not only in the divine beings but also in the things which one might have supposed providence would have despised for their smallness, for example, the workmanship which produces wonders in rich variety in ordinary animals, and the beauty of appearance which extends to the fruits and even the leaves of plants, and their beauty of flower which comes so effortlessly, and their delicacy and variety, and that all this has not been made once and come to an end but is always being made as the powers above move in different ways over this world. So the things which are changing change, not changing and taking new shapes without due cause but in a way which is excellent and appropriate to their making by divine powers. (translated by A. H. Armstrong)

Plotinus posits here the rational principle (logos) as an overarching cosmic order or cosmic justice that perceives not just the current actions of individuals, but also their past behaviors and potential future impacts across multiple lifetimes. Those who misuse power or resources in one life (e.g., cruel masters or the wastefully wealthy) might find themselves in the opposite situation in another life cycle. The principle ensures that those who cause harm unjustly (like murderers) face the same harm they inflicted, aligning the fate of the wrongdoer with their past deeds. This order, Plotinus writes, is valid not only for the present but also for "the cycles of time before (prosthen periodous), and also in the future." The order and design of the universe are consistently maintained. This design is evident in everything, from the biggest to the tiniest aspects of existence. Things in the universe do not merely change haphazardly. They transform with purpose and reason, adhering to a design set by divine principles. This perspective, I contend, offers insights into the repetitive nature of cosmic cycles. Each unfolding of the cosmic cycle adheres to the same intelligible pattern as in the previous cycle, meaning there will always be someone committing wrongs and someone suffering them – but Providence will assign these roles to different souls in each instance.<sup>17</sup> Every cycle will resemble the previous one, because the stars, which indicate the course of events, are eternal and follow the same cosmic orbits.<sup>18</sup> Within any given cycle, the emergence of something wholly new is an impossibility, just as the omission of even the most subtle detail is precluded.<sup>19</sup> The sensible cosmos, as a

<sup>&</sup>lt;sup>17</sup> Plotinus compares the soul's various reincarnations to an actor in a theater, embodying different roles throughout their career: 'If, then, death is a changing of body, like changing of clothes on the stage, or, for some of us, a putting off of body, like in the theatre the final exit, in that performance, of an actor who will on a later occasion come in again to play, what would there be that is terrible in a change of this kind, of living beings into each other? [...] And even if Socrates, too, may play sometimes, it is by the outer Socrates that he plays' (III. 2 [46] 15, 24 -29, 59-60, translated by A.H. Armstrong).

<sup>&</sup>lt;sup>18</sup> It must be said that Plotinus rejected an overly strong astrological influence on people's lives. He was convinced that the stars do not determine our lives or our character, but are merely signs from which we can read what Providence has planned for us or what *logoi* have been put in us by the World Soul. See III. 1 [3] 6, 1-25.

<sup>&</sup>lt;sup>19</sup> Unlike in Plotinus, Plato's cosmic cycles can differ greatly from one another. Consider the cosmological myth in the *Statesman* (268-274e), in which Plato describes two very contrasting periods of the cosmos. During the first cosmic cycle, which was ruled by Kronos, the entire cosmos turned in the opposite direction, meaning that people came into the world as old men and grew younger over time

reflection of the perfect noetic cosmos, is also complete. In every cosmic cycle, all *logoi* are actualized, thereby ensuring that no new elements can arise and no elements can be excluded. The end of a cycle does not imply the annihilation of what has already come into being. There also cannot be a primal state of the cosmos since such a state implies that the cosmos had a beginning which – as we shall see in the next text – Plotinus denies. Plotinus asserts that the cosmic cycles are infinite in number, but unified by the World Soul, which he refers to as Zeus here:

IV. 4 [28] 9. 1-19

But Zeus who sets all things in order and administers and directs them for ever, who has a "royal soul" and a "royal mind" and foresight of how things will happen and authority over them when they have happened, and arranges the heavens in order and sets their cycles turning and has already brought many cycles to completion, how could he not have memory when all this is going on? In his devising and comparing and calculating how many cycles and of what kind there have been, and how thereafter they may come to be, he would have the best memory of all, just as he is the wisest craftsman. Now the matter of his memory of the cycles is in itself one of much difficulty; there is the question of how great the number is and whether he could know it. For if the number is limited it will give the All a temporal beginning; but if it is unlimited, he will not know how many his works are. Now he will know that his work is one and a single life for ever-this is how the number is unlimited-and will know the unity not externally, but in his work; the unlimited in this sense will always be with him, or rather follows upon him and is contemplated by a knowledge which has not come to him from something other than himself. For as he knows the unlimitedness of his own life, so he knows his activity exercised upon the All as being one single activity, but not that it is exercised upon the All. (translated by A. H. Armstrong)

According to Plotinus, a cosmos ensnared in such a repetitive cycle would possess both a beginning and an end, disqualifying it from

<sup>-</sup> a blissful (*makarios*, 269d8) existence. According to this myth, we currently live in the age of Zeus, in which people grow old and live a burdensome life. It is rather unlikely that Plotinus would permit such great differences between the cosmic cycles.

achieving the status of an eternal cosmos. By extension, it would also challenge the notion of an eternal intellect responsible for generating this cosmos. Therefore, the assertion from V. 7 [18] that "the whole cosmic cycle contains all the forming principles, and again the same things are produced according to the same forming principles" should not be read in an absolute sense.<sup>20</sup> Events within the world do not come to a standstill at the close of a cosmic cycle, nor do they revert to an initial state. Instead, they perpetuate a pattern that is similar to that of previous cycles. To illustrate this, one might examine the cyclical history of empires. Distinct cultures emerge, reach their zenith, and eventually wane. While the outward appearances of these empires and cultures may differ across cycles, the underlying principle governing their rise and fall remains consistent.

## III. Infinity and Eternity in Plato and Plotinus

## III.1. Aiôn and apeiria in Plato

In the *Timaeus*, the term *periodos* emerges in diverse contexts, addressing a range of subjects. Predominantly, this term is associated with two domains: the cyclical motions of celestial bodies and the intellectual revolutions – or reasoning processes – within the soul. These domains are profoundly interconnected, as the planetary cycles are the image of the soul's intellectual revolutions. By envisioning the soul with a spheroidal form and situating it within a congruent spherical cosmos, Plato makes both the soul and the cosmos finite and well-defined entities. Additionally, the spherical stars and planets that revolve in the universe serve as instruments and markers of time, thereby constituting a form of 'Celestial Clock'. A complete cosmic cycle, i.e., when all the planets and stars return to their original positions, is what Plato calls the 'perfect year':

### *Ti*. 39c1-5

This is how and why night and day were created, which make up the circuit of the most intelligent revolution (*periodos*), the undivided one. A month is when the moon has completed a circuit of its circle and caught up with the sun, and a year when the sun has completed a circuit of its circle. (translated by R. Waterfield)

<sup>&</sup>lt;sup>20</sup> V. 7 [18] 1, 22-23. Kalligas (2023: 333) in his commentary on the cosmic cycles in V. 7 [18] writes: "Each cosmic period will contain all formative principles, but this does not mean that the forms will be realized each time in the same manner."

## Ti. 39d2-e1

All the same, it's still possible to understand that the perfect number of time makes up a perfect year at the moment when all the eight revolutions (*oktô periodôn*), with their relative speeds, attain completion and regain their starting-points when measured against the movement of the ring of identity and sameness. And so this is the reason for the creation of all those bodies which turn as they travel across the heavens: they exist in order that this universe of ours might, by imitating the eternity ( $\tau \eta \varsigma \delta \iota \alpha \iota \omega v \iota \alpha \varsigma$ ) of the perfect, intelligible living being, be as similar as possible to it. (translated by R. Waterfield)

The central element in this passage is the theme of imitation (*mimesis*). It is a recurring motif in the *Timaeus* that the sensible cosmos should resemble the intelligible cosmos as closely as possible.<sup>21</sup> Beyond being animate, rational, and beautiful – which the sensible cosmos owes to the soul (*Ti*. 30b) – the cosmos should also possess an enduring nature. The demiurge, in an attempt to represent the eternal existence of the intelligible within his creation, creates stars and planets. These celestial bodies are endowed with self-rotation and cyclical movement across the celestial sphere. Their motion, set within the confines of time, is designed "to progress eternally" (*Ti*. 37d9). This perpetual, cyclical movement of the planets is termed as "the moving likeness of eternity":

Ti. 37c6-d7

When the father-creator saw that his creation had been set in motion and was alive, a gift to please the immortal gods (*aidiôn theôn*), he was pleased and in his joy he determined to make his creation resemble its model (*homion pros to paradeigma*) even more closely. Since the model was an ever-living being (*zôon aidion*), he undertook to make this universe of ours the same as well, or as similar as it could be. But the being that served as the model was eternal (*aiônios*), and it was impossible for him to make this altogether an attribute of any created object (*tô gennêtô*). Nevertheless, he determined to make it a kind of moving likeness of eternity (*kinêton tina aiônos*), and so in the very act of ordering the universe he created a likeness of eternity (*aiônion eikona*), a likeness that progresses eternally (*aiônios*) through the sequence of numbers, while eternity abides in oneness

<sup>&</sup>lt;sup>21</sup> *Ti*. 28c-29b; 30c-d.

(*aiônos en heni*). This image of eternity is what we have come to call 'time' [...]. (translated by R. Waterfield)

Ti. 38b8-c3

In any case, time was created along with the universe, and since they were created together, they will also perish together, if they do ever perish. And the creation of the universe conformed to the model of eternity (*diaiônias*), so as to be as similar to it as possible. For the model exists for all eternity (*paradeigma panta aiôna estin on*), while the universe was and is and always will be for all time. (translated by R. Waterfield)

To describe the eternal life and essence of the intelligible realm, Plato employs three key terms: aidios, aiônios and diaiônios. Among these terms, the adjective *aiônios* and its corresponding noun *aiôn* appear with greater frequency than the other two. By consulting the Greek-English Lexicon Liddle-Scott, we gain insights into why the terms aiôn and aiônios are deemed most appropriate for describing the eternity of the intelligible cosmos. While aidios and diaiônios are translated as "everlasting" and "eternal," respectively, the term *aiônios*, apart from its translation as "eternal," also signifies "lasting for an age." This nuanced usage arises from the fact that *aiôn* traditionally conveys meanings such as "lifetime," "life," "age," "generation," and "period of existence." Plato's terminological choice is fitting, as he often refers to the intelligible cosmos as a living being.<sup>22</sup> While *aidios* and *diaiônios*, denoting "everlasting" and "eternal" respectively, highlight the supratemporal nature of the intelligible, *aionios* accentuates that the intelligible cosmos is a living entity, thereby emphasizing its unity, completeness, and defined nature. As Pleshkov (2013: 39) remarks in his extensive article on *aiôn* in Plato, "The noun *aion*, then, helps Plato to reinforce the meanings of completeness and wholeness by emphasizing the perfect, resting in itself, nature of the intelligible model."23

A notable detail stands out from Plato's choice of words. He deliberately avoids using the term *apeiros* (i.e. infinite or unlimited) when discussing the motions of celestial bodies or the lifespan of the sensible cosmos. Contrary to what one might expect, Plato never states in the *Timaeus* that the cosmos will last indefinitely. Moreover, he never

<sup>&</sup>lt;sup>22</sup> Ti. 30d3; 31a6; 37d1; 39e8

<sup>&</sup>lt;sup>23</sup> My translation of Pleshkov's Russian text.

designates *apeiria* (i.e. infinity or unlimitedness) an image of eternity. Instead, he consistently refers to time and the cosmos as a "likeness of eternity" without further characterization (*Ti.* 37d6). However, within the *Timaeus*, Plato does introduce the term *apeiros* when contemplating the potential existence of an infinite number of worlds:

Ti. 31a1-b3

Now, we've been speaking of a single universe, but is this right? Or would it be more correct to speak of a plurality, even an infinite plurality (*pollus kai apeirus*), of universes? No, there can be only one, if it is to have been created by the craftsman-god so as to correspond to its model. [...] So, to ensure that this universe of ours resembled the complete and perfect living being in respect of its uniqueness, the maker did not make two or an infinite plurality of worlds, but this world of ours is and always will be a unique creation (translated by R. Waterfield).

Ti. 55c8-d1

Now, suppose someone took all this into consideration and wondered whether it would be right to say that there is an infinite (*apeirous*) number of worlds, or a finite (*peras*) number. This wouldn't be an outrageous question to ask, but he would conclude that only a man of boundless (*apeirous*) ignorance of matters he should know about could think that there is a boundless (*apeirou*) plurality (translated by R. Waterfield).

These passages suggest that there exists only one sensible cosmos, grounded in the premise that its corresponding model or archetype is itself unique. Furthermore, the sensible cosmos is complete, encompassing everything that can exist; thus, there is no external existence beyond its boundaries. Timaeus goes so far as to criticize those who posit an unlimited number of things, accusing them of boundless ignorance. This underscores the argument that the entirety of creation is circumscribed and functions as a coherent unit. Consequently, the concept of *apeiria*, or unlimitedness, is conspicuously absent in Plato's cosmological framework, deemed not just improbable but essentially impossible.

III.2. Two meanings of infinity in Plotinus

The theme of unlimitedness (*apeiria*) in the *Enneads* is a puzzling one. At first, unlimitedness seems problematic for both the intelligible and the sensible cosmos, so Plotinus introduces periodic cosmic cycles in order to dispense with it. At the end of the first chapter of V. 7 [18], however, Plotinus again addresses the issue of unlimitedness, but this time proclaiming that 'one must not fear unlimitedness in the intelligible world' (V. 7 [18] 1, 24). Plotinus mentions unlimitedness a third time in the penultimate sentences of the treatise, and here again he asserts that 'there is no need to fear the unlimitedness in seeds and forming principles' (V. 7 [18] 3, 21-22). He adds that 'in the same respect as in the Soul, also in Intellect, there is again unlimitedness of those principles that in the Soul become available' (V. 7 [18] 3, 22-24).

It seems that in V. 7 [18], we are dealing with two different attitudes to unlimitedness. The first kind is the numerical unlimitedness, which is indeed a problem and is eliminated with the theory of cosmic cycles as we saw it. But in the other two passages of V. 7 [18] (i.e., V. 7 [18] 1, 25-26 and V. 7 [18] 3, 21-23), unlimitedness is spoken of in terms of the creative power of the Soul and Intellect:

## IV. 3 [27] 8, 36-38

Its [the Soul's] infinity lies in its power; it is infinite because its power is infinite, and not as if it was going to be divided to infinity. For God too is not limited (translated by A. H. Armstrong).

### II. 4 [12] 15, 26-37

That which is there, which has a greater degree of existence, is unlimited [only] as an image, that which is here has a less degree of existence, and in proportion as it has escaped from being and truth, and sunk down into the nature of an image, it is more truly unlimited. Are, then, the unlimited and essential unlimitedness the same? Where there is a formative principle and matter the two are different, but where there is only matter they must be said to be the same, or, which is better, that there is no essential unlimitedness here; for it will be a rational formative principle, the absence of which from the unlimited is the condition of its being unlimited. So matter must be called unlimited of itself, by opposition to the forming principle; and just as the forming principle is forming principle without being anything else, so the matter which is set over against the forming principle by reason of its unlimitedness must be called unlimited without being anything else. (translated by A. H. Armstrong)

Plotinus frequently attributes this kind of unlimitedness to the intelligible, especially to the First principle:

VI. 9 [9] 6, 11-13

And it [the One] must be understood as infinite not because its size and number cannot be measured or counted but because its power cannot be comprehended. (translated by A. H. Armstrong)

In Plato's system, as previously discussed, the intelligible and the physical realms are devoid of infinity. The intelligible cosmos, described as a living being, abides in eternity, while the sensible cosmos is depicted as a moving image of that eternity. In contrast, Plotinus incorporates both eternity (aiôn) and infinity (apeiria) into the intelligible realm. Crucially, when Plotinus speaks of infinity in this context, he alludes to a meaning that diverges from a mere numerical understanding. The numerical infinity is entirely expelled from the domain in which intelligible principles operate. The type of infinity that Plotinus attributes to the intelligible principles represents their boundless power. In his nuanced reading of the term *apeiria*, Plotinus seems to agree with Plato's rejection of the idea of unlimited plurality. At the same time, he incorporates *apeiria* within his metaphysics in a manner that remains consistent with Platonic thought.

#### **IV.** Conclusion

In the cosmologies of both Plato and Plotinus, the doctrine of cosmic cycles is an essential component of the cosmic structure. Building on Plotinus' treatise V. 7 [18], this paper explores the nature of these cosmic cycles and their significance in Plotinus' metaphysics. While some scholars may perceive Stoic elements in Plotinus' doctrine of cosmic cycles, a more compelling case can be made for its roots in Platonism. Like Plato, Plotinus holds that the universe is everlasting, in contrast to the Stoics, who believed that the cosmos is periodically consumed by divine fire only to be reborn anew. Notably, Plotinus' understanding of cosmic cycles bears resemblance to Plato's concept of the 'perfect year' from the *Timaeus*. Moreover, while the Stoics viewed the cosmic cycles as absolutely identical, Plotinus posited that each cycle follows the same intelligible pattern. However, life in the universe progresses according to the Plan of Providence, allowing for variations between cycles.

A comparison of Plato's and Plotinus' theories reveals both similarities and distinct approaches regarding cosmic cycles, as well as their relation to eternity and infinity. While Plato emphasized the mimetic relationship between the eternal cosmos of transcendent Forms and the temporal, yet perpetual, sensible cosmos, Plotinus aimed to limit the number of principles in the intelligible world by invoking the doctrine of cosmic cycles, seeking to uphold the well-defined unity of the intelligible realm. In conclusion, V. 7 [18] provides compelling evidence that Plotinus' understanding of cosmic cycles aligns more closely with Platonic than with Stoic doctrines. This alignment not only affirms the profound Platonic influences in Plotinus' philosophy but also brings to light nuanced distinctions in how both philosophers related cosmic cycles to the broader themes of eternity and infinity.

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