



“If There Were an Eye on the Back of the Heaven...” (Plotinus, *Ennead* 4.5,3 and 8)

Andrei Cornea

Volume 63, Number 3, octobre 2007

URI: <https://id.erudit.org/iderudit/018172ar>

DOI: <https://doi.org/10.7202/018172ar>

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Publisher(s)

Faculté de philosophie, Université Laval

Faculté de théologie et de sciences religieuses, Université Laval

ISSN

0023-9054 (print)

1703-8804 (digital)

[Explore this journal](#)

Cite this article

Cornea, A. (2007). “If There Were an Eye on the Back of the Heaven...” (Plotinus, *Ennead* 4.5,3 and 8). *Laval théologique et philosophique*, 63(3), 459–472.
<https://doi.org/10.7202/018172ar>

Article abstract

Our paper discusses two curious passages of Plotinus’ treatise *On some difficulties concerning the Soul III. On vision* (*Enn.* 4.5,3 and 8), where the philosopher seems to contemplate the possibility of another universe outside this one. Yet we could never know this other universe, nor could we even decide whether it exists or not, even if “there were an eye on the back of the Heaven” able to look at it at close range. In fact, Plotinus explains, different universes cannot communicate at all among themselves. If they could, they would no longer be separate universes, but only parts of the same universe, because communication (or in Plotinian terms, *sympathy*) flows only within the same universe. We compare this interesting argument to some modern astrophysical ideas, as well as to the “philosophy of possible worlds” of David Lewis, while trying to avoid any “modernizing” perspective on Plotinus.

“IF THERE WERE AN EYE ON THE BACK OF THE HEAVEN...” (PLOTINUS, *ENNEAD* 4.5,3 AND 8)

Andrei Cornea

University of Bucharest
Romania

RÉSUMÉ : Notre article analyse deux passages curieux du traité *Sur les difficultés relatives à l'âme III*. De la vision (Enn. IV.5,3 et 8), dans lesquels Plotin paraît concevoir la possibilité d'un autre univers, situé en dehors du nôtre. Or, cet autre univers doit rester inconnu pour nous à jamais, quand bien même il y aurait un « œil placé sur le dos du Ciel » qui voudrait le voir. En outre, nous ne saurons même pas décider si cet univers existe ou non. En effet, explique Plotin, plusieurs univers ne peuvent absolument pas communiquer entre eux, précisément parce qu'ils forment des univers différents. S'ils communiquaient, ils seraient autant de parties du même univers et non pas des univers séparés, parce que la communication (la sympathie dans les termes de Plotin) circule seulement à l'intérieur du même univers. Nous rapprochons cet intéressant argument de certaines idées astrophysiques modernes et de la philosophie « des mondes possible » de David Lewis, sans pour autant pratiquer une lecture « modernisante » de Plotin.

ABSTRACT : Our paper discusses two curious passages of Plotinus' treatise *On some difficulties concerning the Soul III*. On vision (Enn. 4.5,3 and 8), where the philosopher seems to contemplate the possibility of another universe outside this one. Yet we could never know this other universe, nor could we even decide whether it exists or not, even if "there were an eye on the back of the Heaven" able to look at it at close range. In fact, Plotinus explains, different universes cannot communicate at all among themselves. If they could, they would no longer be separate universes, but only parts of the same universe, because communication (or in Plotinian terms, sympathy) flows only within the same universe. We compare this interesting argument to some modern astrophysical ideas, as well as to the "philosophy of possible worlds" of David Lewis, while trying to avoid any "modernizing" perspective on Plotinus.

I

Are there any other universes besides this one? How can a plurality of universes be conceived of? And, provided there are more than just one, how can we make sure that they are really universes on their own and not just remote regions of our universe? One of the first principles of contemporary cosmology is that *the universe is a closed and completely interconnected system*, which means that it does not

present interior regions among which causal information cannot flow.¹ The same idea has been advanced by some of the philosophers of “the possible worlds”, such as David Lewis : “There are no spatiotemporal relations at all between things that belong to different worlds”, he writes.² This entails that, even if other universes existed, we could receive no data from them, for otherwise they would be just parts of our universe.³ (And conversely, the objects from which we do receive data or which causally influence us must be parts of the same universe as we.) But since we cannot receive any data from other universes, *we cannot decide whether or not they really exist*. Therefore, this proposition (*P*) “our universe is unique” is necessarily neither true, nor false : it is intrinsically *non-decidable*.

Contemporary cosmology actually admits that there may be regions of our universe that are completely disconnected from each other and thus unable to causally interfere with each other, at least at present and perhaps also in the future. *Ex hypothesi* they are considered “regions of our universe”, but if it is closure and interior connectedness which define a “universe”, nothing seems to conceptually distinguish between these disconnected regions of one single greater universe and a few “separated universes” on their own. The explanation of this phenomenon is the so-called “horizon problem” : we cannot receive any information from objects lying beyond the distance light could travel from the beginning of the cosmological expansion.⁴ This distance fixes the size of our “horizon” and is estimated around 14bn light years ; it is the reverse of the so-called “Hubble constant”. Hence, “if some region of the universe lies outside the horizon of some other region, at some time *t* after the Big Bang, then these two regions are causally disconnected at time *t* : they have not yet had time to communicate with each other via light signals.”⁵ And if there is enough distance between them (say, for instance, 100bn light years), they may never have time to communicate, because they may be both extinct until their respective horizons expand enough to overlap. Therefore, nothing forbids us to consider these so-called regions to be universes on their own.

Consequently, propositions such as : “there are (or there are not) regions of our universe beyond our horizon”, or rather “there are (or there are not) other universes outside this one”, or “there are so many colors, umbrellas or cats in other universes”, etc., and especially “this universe is the only one” (*P*), as well as “*P* is true (or false)” are intrinsically *non-decidable* : although they refer to the present and to the past, *they are simply neither true, nor false*, insofar as some of their direct or indirect references are not part of the universe we live in. In other words, *we can never tell whether or not an assertive proposition is true, unless both we who are uttering it*

1. Luc BRISSON, F. Walter MEYERSTEIN, *Inventing the Universe. Plato's Timaeus, the Big Bang and the Problem of Scientific Knowledge*, New York, State University of New York Press, 1995, p. 67, 77 ; Lee SMOLIN, *Three Roads to Quantum Gravity*, Orion Publishing Group, 2000, p. 28.

2. David LEWIS, *On the Plurality of Worlds*, Oxford, Basil Blackwell, 1987, p. 2.

3. *Ibid.* According to him if two objects are spatially and temporally related, they are necessarily *worldmates*.

4. BRISSON, MEYERSTEIN, *Inventing the Universe*, p. 116.

5. *Ibid.*

and all its explicit and implicit references belong to the same universe. Obviously, the result seems to be an observer-dependent logic.⁶

In fact, if we define the “universe” as a closed, interconnected system, Aristotle’s logic, which concedes the infringement of the principle of the excluded third only to singular propositions referring to the future (the “contingent futures”), may not suffice⁷: the propositions “*x* exists” and “*x* existed”, where *x* is an object beyond our horizon, or (which amounts to the same) belonging to a different universe than ours, can be said to be neither true, nor false *by us*, although the former proposition refers to the present, and the latter to the past. The truth-value of these propositions varies according to the location of the person who is expressing them, whereas in Aristotelian logic it solely depends on the concordance between speech and facts, irrespective of the location of the speaker.

Thus, in addition to the Aristotelian “contingent futures”, one has to accept certain “contingent presents” and certain “contingent pasts” whose truth-values are non-decidable as well. Therefore, we either have to modify our standard logic by adopting a *topical*, observer-dependent viewpoint, or, if we prefer to keep our Aristotelian, standard logic, we have to stick to “God’s viewpoint” — and by this syntagm I mean the condition of someone who thinks he “knows” that all *P*-like propositions *are necessarily true*.

II

All these considerations are intended to serve as introductory remarks to a discussion about a rarely tackled passage from a treatise of Plotinus.⁸ There the philosopher surprisingly calls into question the uniqueness of our universe by inventing a *thought experiment* and examining whether and how different universes, provided there are more than just one, can interfere with each other. Why “surprisingly”? Because since Plato’s *Timaeus* and Aristotle’s *De Caelo* and *Metaphysics*, the dogma of the uniqueness of the universe was so well established that no one (and least of all a Neoplatonist) was likely to raise any doubts concerning its validity.⁹ Did Plotinus question it? Not explicitly, at least. Yet the following discussion may shed light on Plotinus’ astonishing freedom of thought with respect to his masters.

6. SMOLIN, *Three Roads to Quantum Gravity*, p. 42. This is what he calls “intuitionist logic” and “topos theory”; compare also L. WITTGENSTEIN, *Tractatus logico-philosophicus*, 5.6-5.62.

7. ARISTOTLE, *De Interpretatione*, 9, 19a, 30-39, 19b, 1-4. For the whole range of interpretations of the problem of the “contingent futures”, see Marcello ZANATTA, *Aristotele, Dell’Interpretazione. Introduzione, traduzione e commento*, Milano, Rizzoli, 1992, p. 53-55.

8. Most reference works on Plotinus’ philosophy do not even mention this passage. H.-R. SCHWYZER, “Plotinos”, *Pauly-Wissowa, Realencyclopädie der Classischen Altertumswissenschaft*, Stuttgart, 1970, 21, 1, p. 538, does mention it, but wrongly construes it as proving the falseness of what I called Plotinus’ hypothesis 1 (H1): *there is something outside the sky*. See footnote 20. A.H. ARMSTRONG comments the passage in a long footnote, in *Plotinus. The Enneads*, trans. A.H. Armstrong, Cambridge, Mass., Loeb Classical Library 1966-1988, 4, p. 315. See footnote 38. É. BRÉHIER explains more satisfactorily Plotinus’ argument but fails to understand its real metaphysical significance. See footnote 31.

9. A.H. ARMSTRONG, *loc. cit.*

In his third treatise entitled “On problems concerning the Soul” — which Porphyry also named “On Vision”¹⁰ — Plotinus reflects upon how vision and perception, in general, are possible. Taking up and developing Plato’s argument in *Timaeus*, he claims that sensations occur because we are all part of one unitary, complete, cosmic Animal <ἐν ζῳον>, in possession of a unique Soul. So, since everything lives within the same cosmic Animal, the sense organs and the sensorial objects <ἀντιληπτά> are bound together by a universal *sympathy*. “They feel together”, only because they were purposely created by one and the same Soul to be similar and to correspond to each other, as living parts of one and the same cosmic Animal.¹¹ Then Plotinus argues against the Aristotelian theory, which considers light to be an actualization of a “transparent body” <σῶμα διαφανές> which, supposedly, is potentially present in air, water and various transparent solids.¹² This Peripatetic theory implies that, in order to travel, light needs a medium, so that the eye cannot see through void. But to Plotinus the medium is just accidental, while sympathy and cosmic correspondence are essential. He says :

[If we do not see], it is not because there is no medium, but rather because any sympathy of the Animal towards its parts is destroyed and so is sympathy of the parts with one another, which is due to the unity of the Animal.¹³

Further, the philosopher restates his main point : sensation is possible only because “this universe is an Animal sympathetic to himself” <συμπαθές τὸ ζῳον τόδε τὸ πᾶν ἑαυτῷ>. Immediately afterwards, and quite unexpectedly, he embarks on a strange *counterfactual* thought experiment :

We have to investigate this point : if there were another cosmos <εἰ ἄλλος κόσμος ἦν> and another Animal with no contribution to this one <μὴ συντελοῦν πρὸς τοῦτο>, and if there were an eye on the back of the heaven <ἐπὶ τοῖς νότοις τοῦ οὐρανοῦ>, could it see the other cosmos from a moderate distance, or would there be no connection between this and that world ?¹⁴

Let us mention that ἐπὶ τοῖς νότοις τοῦ οὐρανοῦ is an approximate quotation from Plato’s *Phaedrus*.¹⁵ In that passage, Socrates describes the wonderful sight that the blessed souls of the gods can enjoy when their chars climb up to the top of heaven. There “they behold the things outside the heaven” <τὰ ἔξω τοῦ οὐρανοῦ>. Yet, as Léon Robin noticed¹⁶, their is only a contemplation of the intelligible world, expressed in mythical terms, not a physical observation of some bodies located beyond

10. As it is well known, *Enn.* 4.3, 4.4 and 4.5 form one single long work which Porphyry cut into three separate treatises.

11. *Enn.* 4.4,32, 13-14 : “this universe is a *sympathetic* whole (συμπαθές διὴ πᾶν), like one animal, and in it what is far is close.” *Enn.* 4.4,35, 8-12 : συμπαθές αὐτὸ ἑαυτῷ. Armstrong translates : “to have an internal communication in its experiences” (t. 4, p. 245). The same formula occurs in *Enn.* 4.5, 3, 19.

12. Cf. Aristotle, *De Anima*, 2,7, 418b, 8-9 : “light is the actualization of this one — *i.e.* of a transparent body as transparent.”

13. *Enn.* 4.5,3, 15-18.

14. *Enn.* 4.5,3, 21-25. (My translation.) Plotinus literally says “sight” (ὄψις), which is less naturalistic and also, perhaps, diminishes the clash with *Timaeus*, 33C, 1-2.

15. PLATO, *Phaedrus*, 247B-C.

16. Platon. *Œuvres complètes*, trans. Léon Robin, Paris, Gallimard, 1955, 2, p. 1412, endnote 96.

the vault of heaven, as in the thought experiment imagined by Plotinus. So Plotinus seems to have abusively taken Plato’s phrase out of its context (which is not rare with him), perhaps wishing to allude to the fact that it was Plato himself who had contemplated the possibility of an exterior eye looking at *something* existing in the outer space. Nevertheless, in *Timaeus* (whence the idea of the universe as cosmic Animal originated and whose text was cited many times in this treatise of Plotinus), Plato plainly stated that the universe had been made unique, spherical, smooth and *with no eyes on its outer side* : “for of eyes it had no need, since outside of it there was nothing left over.” (In a different context, within the same long treatise [4.4,24, 34-35] and about forty pages earlier, Plotinus quoted the same passage. It is noteworthy that he avoids mentioning it again at 4.5,3, 21-25, as he presents his counterfactual thought experiment.)¹⁷ Clearly, Plato was not Plotinus’ best ally for his counterfactual thought experiment, but at least Plotinus found the textual pretext for it precisely in Plato’s *Phaedrus*. To produce such a pretext was really important to someone who used to claim that his own philosophical endeavor was nothing but mere explanation and development of Plato’s doctrine, quite exempt of any genuinely original intervention.¹⁸

So far, Plotinus postpones the solution to his odd question until the last chapter of the treatise. There he resumes his *thought experiment* and also presents his response :

If there were a body outside the heaven and an eye on that exterior side, and no obstacle preventing it from seeing, could this eye see a body which is not in sympathy with it, if sympathy is due to the nature of the unitary Animal ? I answer that if sympathy exists because the sense objects and the sense organs belong to one and the same [cosmic] Animal, there will be no sensation, unless that body was the outer part of this Animal <εἰ μὴ τὸ σῶμα τοῦτο τὸ ἔξω μέρος τοῦδε τοῦ ζώου>. For if it were so, probably it could [be seen] <εἰ γὰρ εἴη, τάχα ἂν>.¹⁹

(Interestingly enough, in chapter three, as he first introduced his thought experiment, Plotinus used the imperfect, a tense which the Greek language assigns to “unreal” [counterfactual] clauses. But here, in chapter eight, he switches to the optative, which is the tense of possibility. So what at first sight seemed to be pure counterfactuality later became a *possible* hypothesis, the consequences of which he explored.)

What immediately strikes in both texts, apart from the strangeness of this image of an eye which, like a contemporary space vehicle, tries “to take pictures” of objects located beyond the sky, is the distinction (however implicit) Plotinus makes among no less than four ways of conceiving the “universe”, which were not distinguished prior to him : 1) Our system (universe 1), also called “heaven”, contained within the sphere of the fixed stars ; 2) Our cosmic Animal (universe 2) part of which, but not necessarily the only part, is universe 1 ; in that case, universe 1 is not really a universe in our sense, since it is not a closed system ; 3) Another possible cosmic

17. PLATO, *Timaeus*, 33C, 1-2. (Trans. R.G. Bury.) However, in *Enn.* 4.4,24, 39-40, Plotinus does not rule out that such a body like the heaven could see, irrespective of whether its regard is inwardly or outwardly directed.

18. PLOTINUS, *Enn.* 5.1,8, 11-15.

19. ID., *Enn.* 4.5,8, 1-7.

Animal (universe 3) with no “contribution” to our cosmic Animal ; 4) An inevitable (though unnamed) “total” universe (universe 4, the All), holding two or more cosmic Animals, disconnected from each other, because “sympathy” exists only within the same “Animal”-universe. (However, “universe” 4 is not a universe in our sense, either, because its constitutive universes do not communicate among themselves.)

This important conceptual distinction suggested by Plotinus explains why the philosopher probably felt the need to introduce here his thought experiment, thus breaking in the middle of the discussion about how sight is possible : in fact, if “universe” 1, universe 2 and “universe” 4 coincide, while universe 3 is non-existent, as Plato and Aristotle believed, there is no point in talking about eyes seeing objects floating outside the heaven’s vault. For if this world is definitively thought to be unique and contained within the solid sphere of the fixed stars, as it was generally believed up until Bruno and Galilee, Plotinus’ thought experiment will seem meaningless and anyone will be able to dismiss it on the pretext of advancing absurd ideas. On the contrary, if there is even a slight possibility that at least “universe” 1 and universe 2 (let alone universe 3) might be distinct, then such outer objects might exist too, and if so, they might be either visible, or not. According to a Peripatetician, they cannot be seen in any event, because of the void. According to an Atomist (a follower of Epicurus, for instance), they must be visible in all cases, because their *eidola* are supposed to be able to travel through the void. What would be the answer of a Platonist ? — Plotinus could have asked himself. Therefore, if we admit that the philosopher took his thought experiment seriously (which seems to me to be inevitable), we are entitled to accept *that he was not fully convinced* that the world was limited by the sphere of the fixed stars.

In fact, Plotinus advanced the following hypothesis H1 : *there is something outside the sky* (“universe” 1). Hence, two mutually exclusive hypotheses necessarily follow :

Either H2 : *This something is part of our cosmic Animal* (universe 2), together with our system (“universe” 1). The consequence of it is C1 : *This object is visible to an observer from our world, the intermediary void notwithstanding.*

Or H3 : *This something is part of universe 3.* Then C2 follows : *This object is necessarily not visible to an observer from universe 2, irrespective of how small the distance between the object and the observer may be.* And C3 : *The object can be seen or generally perceived only by the inhabitants of that universe 3.*

Finally, we have to notice one last, extremely interesting and necessary conclusion of all this, C4 : *If the eye fixed on the back of the heaven sees nothing outside “universe” 1, this may happen either because there is simply nothing outside “universe” 1* (C4a) — which is thus identical with universe 2 and, consequently, H1 is denied) —, *or because there really is a universe 3 outside universe 2* (C4b), *which cannot be seen* (and thus H1 is affirmed), because *ex hypothesi* two universes cannot interfere with each other. Which of the two (either C4a, or C4b) is true *is non-decidable*. Moreover, which of H1 and ~H1 is true is *essentially non-decidable*, either, in case the eye sees nothing outside the sky, although both hypotheses refer to

the present and not to the future. So the principle of the excluded third (H1 V ~H1) appears to be more seriously restricted than Aristotle would have permitted.

While Plotinus discusses C1 and C2 and suggests C3, he never takes C4a and b into consideration, a fact which is puzzling in itself and which we shall address in what follows.

So far, the question is : did Plotinus *ultimately* accept the possibility of H1, against all what Plato, Aristotle and so many others philosophers taught ? Moreover : had he any suspicion that proposition *P* — “our universe is unique” — was neither very sure, nor decidable after all ? H.R. Schwyzer believed that Plotinus’ conclusion was that there was really nothing outside our universe or heaven, because one could see nothing outside it.²⁰ Yet, nowhere in this passage or elsewhere in the treatise does Plotinus formally state that there is really nothing outside heaven (and thus he leaves open the alternative of either H2 or H3), nor does he infer the absence of a body from our incapacity of seeing it. On the contrary, what he actually says is very different : *there might be* an outer body, yet it could not be seen *were it not part of our universe*.

Our view is that Plotinus *did accept* H1 (*there is something outside the sky*) as a possibility. For otherwise, as we have already shown, all the engaged discussion looks meaningless, since his theory of sympathy as the foundation of sensation did not need such a funny and implausible argument in its favor. It would have meant no more than attempting to prove an *obscurum per obscurius*. On the contrary, the thought experiment solely makes sense if we assume that Plotinus took the theory of universal sympathy for granted and merely sought to follow its necessary consequences should one accept the possibility of H1. He meant to add no further confirmation of the theory, but rather to examine how a more *flexible concept of the universe* could exploit it.

III

At this point it is worth noticing that there may have been at least two theoretical precedents that could have encouraged Plotinus to advance H1 and, consequently, H2 or even H3. Thus, it is well known how important Stoicism was to Plotinus, even if he failed to recognize this debt. On the one hand, although inspired by *Timaeus*, his theory of sympathy and universal life that bind everything together within one and the same cosmic Animal was Stoic to a large extent.²¹ On the other hand, unlike other ancient philosophers, the Stoics used to distinguish between the Whole <τὸ ὅλον> and the All <τὸ πᾶν> :

20. H.R. SCHWYZER, “Plotinos”, p. 538 : “Außerhalb unseres Weltalls könnten wir wegen Fehlens der συμπάθεια nicht sehen, *doch gibt es nichts außerhalb*” (my underline). The conclusion is a *non sequitur*.

21. See, for instance, Frédérique ILDEFONSE, *Les Stoïciens. Zénon, Cléanthe, Chrysippe*, Paris, Les Belles Lettres, 2000, p. 31 ; Victor GOLDSCHMIDT, *Le système stoïcien et l'idée de temps*, Paris, Vrin, 1998, p. 59 : “L’univers est un *tout organique* (ζῶον) dont les parties sont *unifiées*.”

According to the Stoics, the All was different from the Whole. They called the Cosmos the Whole, while they called [the Cosmos] taken together with the void the All.²²

The Stoics thought the void was not just nothingness, but “something” <τι> surrounding “the Whole” ; so they listed it among the so-called “incorporeal entities”.²³ Consequently, Plotinus could find an initial impulse in the Stoic theory of the universe, as he had already found one in the Stoic theory of sympathy. He had learned from these philosophers that “universe” 1 — the Whole — was possibly less than the whole universe — the All. He had also learned from them that, *unlike the All*, the cosmos had to be considered a “whole” — a complete system, bound together by sympathy. Therefore, if the surrounding void was already thought to be “something”, why not continue this line of speculation and imagine that there might be also some other “things” out there ? Of course, by advancing H1, Plotinus made a big step further in comparison with the Stoics ; yet he had built his hypothesis on some already present, Stoic foundations.

Perhaps he built it on some Aristotelian ones, too ! Indeed, Aristotle himself inadvertently could have prompted Plotinus to think that the uniqueness of the physical universe, despite being so intensively sustained, was not beyond any doubt. Aristotle, though the staunchest supporter of this uniqueness, allowed however for a certain, very interesting exception to it, which he presented in a passage of *De Caelo*, while trying precisely to refute the thesis of the plurality of universes :

These universes <κόσμους>, being at least similar in nature to ours <ομοίους γ' ὄντας τὴν φύσιν>, must all be composed of the same bodies as it. Moreover, each of the bodies, fire, I mean, and earth and their intermediates, must have the same power as in our world. For if these names are used homonymously, if the identity of name does not rest upon an identity of form in these elements and ours, then the whole <τὸ πᾶν> to which they belong can only be called a universe by homonymy.²⁴

Further, Aristotle argues that, if supposedly distinct universes are made of bodies similar to each other *in nature* — having the same substance or essence —, they will end up composing one single greater universe, which is precisely what he intends to prove.²⁵ Therefore, in addition to this universe of ours, other universes remain possible, *insofar as they are homonymous* : that is, they must have no community of nature or substance with ours ; hence there is no point at all in calling them “universes” rather than “cigars”, “glasses”, “presidents” or “cats”. Consequently, the idea of a plurality of universes seems to have been convincingly refuted.

In fact, “homonymy” is a complex concept in Aristotle’s philosophy, because of the twofold meaning it acquires in some works, like the *Metaphysics* and the *Nicomachean Ethics* : here the concept refers not only to things brought together under the

22. *Stoicorum Veterum Fragmenta*, ed. VON ARNIM, 2, 522-525 ; DIOGENES LAERTIUS, *Vitae*, 7,140.

23. See GOLDSCHMIDT, *Le système stoïcien et l'idée de temps*, p. 26-28. Contrary to this opinion, Aristotle believed that “there is nothing outside the heaven, neither void, nor place, nor time” (ARISTOTLE, *De Caelo*, 1,9, 279a, 12).

24. ARISTOTLE, *De Caelo*, 1,8, 276a, 30-276b, 4. Trans. David Ross, slightly adapted.

25. *Ibid.*, 1,8, 276b, 18-21.

cover of the same name by mere chance <ἀπὸ τύχης> (like “dog” the animal, and “dog” the constellation), as the case is in the *Categories*, but also to entities that, though different in species and genus, are called by the same name with good reason. These form a kind of *unity by analogy* <κατ’ ἀναλογίαν>, which means that they relate to each other as the terms of a *proportion* do.²⁶ Aristotle shows, for instance, that within each genus and even within each category we likewise meet what we usually call “matter”, “form”, “privation”.²⁷ However, these universal principles, though they play similar roles within each category, have no unity of species and genus, because they belong to different categories which are incommensurable <ἄσύμβλητα> and irreducible to a unique super-genus. Nevertheless, they still keep a loose *unity by analogy* (i.e. by means of a proportion : $a:b = m:n$) and, thus, it is reasonable to call them by the same names (“matter”, “form”, “privation”).

Maybe unfortunately, Aristotle did not contemplate the possibility of another homonymous universe *by analogy*, rather than *by chance*, and, thus, reasonably deserving to be called a “universe” as well. Alexander of Aphrodisia, in his *Commentary on De Caelo* (quoted by Simplicius), seems to have not completely dismissed the idea of several homonymous universes, provided one could “explain <διδάσκειν> how each one’s nature is”.²⁸ Did he mean homonymy *by analogy* while asking for “explanations”? At any rate, arbitrariness cannot provide explanations, while analogy can.

Again, Plotinus made a step further. I believe he actually hinted at how one could develop and explore this implicit possibility which the idea suggested in *De Caelo* seemingly contained. So could Plotinus’ universe 3 be a “homonymous” one, clearly not only numerically different from ours, but also in species and genus, therefore *completely other* in “nature” and disconnected from our universe, yet still a real universe κατ’ ἀναλογίαν, and not ἀπὸ τύχης, and so keeping a *kind of loose unity* with our world?

IV

Once he *affirms* H1 and its consequences, Plotinus tries to make his idea about what a universe is like more convincing, by responding to an objection :

If this outer body were not part of our universe, but were nevertheless colored and in possession of all properties, like the bodies of our universe, and being of the same species <ὁμοειδέες> with the organ of sight, couldn’t it be seen, however ?²⁹

No — Plotinus answers —, it couldn’t be seen, for one must hold on to H3 (the outer object is no part of our universe) up to the end. In fact, this outer body cannot be of the same species with the eye at all, because things belonging to different

26. ARISTOTLE, *Nicomachean Ethics*, 1, 4, 1096b, 23; see also F. von BRENTANO, *Von der mannigfachen Bedeutung des Seiendes nach Aristoteles*, 5,3 (many editions).

27. ARISTOTLE, *Metaphysics*, 12, 5, 1071a, 3-5 and further. Cf. *Metaphysics*, 5, 6, 1016b, 31-35.

28. SIMPLICIUS, *In Cael.*, 7,251,1.

29. PLOTINUS, *Enn.*, 4.5,8, 8-11.

universes *can be said neither similar, nor specifically the same*. In fact, it is our cosmic Soul who made the sense organs and the sense objects to be kindred and sympathetic to each other — Plotinus explains — and they are similar just because they are parts of the same cosmic, unitary Animal, *and not the other way round*. It is the Soul, as it were, who *created similarity itself*.

Here Plotinus expresses a very new and strange idea for his time : *resemblance, similarity, kindred* and other relational properties simply make no sense, *if absolutely conceived of* as generally and objectively shared, physical or geometrical properties of bodies, irrespective of the place these bodies occupy in “universe” 4. An old universalistic, all-knowing, absolute perspective is, thus, called into question in favor of a topical and relativist viewpoint. This idea is in agreement with his famous theory of beauty : accordingly, things are not beautiful because they possess a few objective, absolute, mathematical properties, but because they are “unified” by the Soul.³⁰ What Plotinus struggles to explain is that two bodies cannot be *generally and absolutely* said to be similar, of the same species, or sympathetic to each other, as though they were looked at from the outside of the universe by “God’s eye”. Similarity is meaningful only within the same cosmic Animal.³¹ Therefore it is preposterous and inconsistent — Plotinus argues — to presuppose both a plurality of universes and one single, general, objective, absolute similarity, connecting bodies across distinct universes :

If the creative principle from there were a Soul completely different <εἰ τὸ ποιοῦν ἐκεῖ ψυχὴ πάντη ἑτέρᾳ> [from our cosmic Soul], the things which we suppose to exist out there would not be similar at all to our cosmic Soul.³²

Now let us ask ourselves what meaning Plotinus is likely to have assigned to ψυχὴ πάντη ἑτέρᾳ. He is not explicit, but I do not see why we could not clarify his excessively concise formulation and thus somehow continue the line of his thought experiment. Obviously, the two cosmic Souls must differ not only numerically and specifically (for they are not ὁμοειδεῖς), but also generically. For otherwise, they still might communicate with one another and be similar. Indeed, only “things that differ in genus admit no transit between them ; they are very distant and incommensurable to one another,” Aristotle said.³³ Therefore, as I have already suggested, ψυχὴ πάντη ἑτέρᾳ should rather point to a *homonymous Soul κατ’ ἀναλογίαν*. The proportion Plotinus obviously keeps in mind has, indeed, four terms which make up the following relation : *as our cosmic Soul is the creative principle <τὸ ποιοῦν> in our universe, so is the other Soul the creative principle in the other universe* (τὸ ποιοῦν 1 :

30. ID., *Enn.*, 1.6,1-2.

31. In his otherwise lucid commentary, E. Bréhier gives a hint of this extraordinary idea, yet he is short of noticing how revolutionary against the background of “classic objectivism” it actually was : “À cette instance, Plotin répond : la similitude ou correspondance que vous supposez entre l’œil et l’objet extérieur à l’univers ne peut avoir d’autre cause que l’unité de l’âme qui a fabriqué l’un et l’autre ; or, si étant semblables, ils ont été fabriqués par une même âme, c’est qu’ils font partie d’un même univers” (PLOTIN, *Les Ennéades*, ed. and trans. E. Bréhier, Paris, Les Belles Lettres, 1924-1938, 4, p. 63).

32. PLOTINUS, *Enn.*, 4.5,8, 29-30. This is the text of Henry-Schwyzler’s *editio minor* (Plotini Opera, ed. P. HENRY-H.-R. SCHWYZER, Oxford, 1964-1982), followed by ARMSTRONG, *Plotinus. The Enneads*, p. 312.

33. ARISTOTLE, *Metaphysics*, 10, 4, 1055a, 6-7.

our universe = τὸ ποιοῦν 2 : the other universe). Therefore, we can call them both “Souls” by analogy and we can also call “universes” what they created. Clearly, Soul and “Soul” are not similar at all with respect to their substance or nature, since they have no common matter or form which only the unity of genus and species can provide, and so their φύσις is “completely different”. Nevertheless, they *occupy the same position* (or have the same function) — that of τὸ ποιοῦν of each one’s universe — in a proportion made up of four terms. They might be called “counterparts” as well, if we wish to use David Lewis’ concept. If it is so, then the All (“universe” 4) will still hold a certain unity, though one of the loosest kind — *the unity by analogy* described by Aristotle in the *Metaphysics*.³⁴ Yet, it will be enough to the All *to be one and not many*. On the contrary, the difference in genus will be blocking any flow of information and any direct causal relation among those *analogous*, though not similar, universes which *will be many and not one*.

Confined to its own universe, the eye, which Plotinus speaks of, will see nothing outside, even though *analogically* there may be plenty of “colors”, “umbrellas” or “cats” out there. But we, as humans, can never tell, for that eye, though raised so high “on the back of the heaven”, is still all ours and never God’s !

V

This is the clear result of Plotinus’ thought experiment — a result not very remote from what the philosophy of the “possible worlds” has taught us : we are in no way privileged with respect to the inhabitants of other *possible universes*, not even in what regards our “actuality”. So we should give up an absolute, all-knowing viewpoint, detached from *our* peculiar position of inhabitants of *our* world. For instance, David Lewis considers “actual” to be just an *indexical* term, which means that any inhabitant of a certain universe can say : “My universe is actual, and not just possible.” “This [indexicality], he says, makes actuality a relative matter : every world is actual at itself, and thereby all worlds are on a par.”³⁵

Moreover, Plotinus’ thought experiment meets some modern cosmological representations, such as the idea that for regions lying beyond our “horizon”, since they are forever unknowable to us, there is absolutely no way to decide whether an assertive statement, such as : “*A* is (was) *B*”, or “*A* is (was) not *B*” is true, or false. (Only a conjoint statement : “*A* is [was] either *B*, or not *B*” is necessarily true.)

Yet, for all his intellectual courage, Plotinus did not go any further. He never explicitly formulated this obvious result. He never explicitly admitted C4 (a,b). He never said that proposition *P* (*our universe is unique*) was intrinsically non-decidable, though he probably suspected it was. Nevertheless, *he did not deny the possibility of the existence of more universes than just one, either*. What he strongly and rightly denied was only that a world could be both a *universe* and be in *sympathy*, or in

34. ID., *Metaphysics*, 5, 6, 1017a, 1-3.

35. David LEWIS, *On the Plurality of Worlds*, p. 93.

communication with another world — that it could be “both complete and incomplete”, as he put it, which is an extremely important, logical conclusion. Thereafter, the philosopher closed the chapter, as well as the whole long treatise entitled “Problems regarding the Soul”. He will never resume his thought experiment which, to the best of my knowledge, has passed little noticed, probably considered by most interpreters to be a sheer curiosity.

Several likely reasons for Plotinus’ reticence can be given :

a) Plotinus (as well as his followers, such as Porphyry, Jamblichus, Proclus, etc.) was not very much interested in the physical universe. We know that “he looked like someone who felt ashamed of living in a body.”³⁶ His main philosophical concerns lay with investigating the superior hypostases : Soul, Intellect, the One. No wonder he abandoned a research to a large extent (though not entirely) dedicated to the physical world.

b) Plotinus could have faced some metaphysical problems had he tried to conciliate the hypostatic Soul with a plurality of analogically homonymous, cosmic Souls. Technically and logically, such a conciliation would not have been impossible had he assigned, for instance, the hypostatic Soul the central role substance plays in the system of the Aristotelian categories. In that case, the many cosmic Souls would have held the position of the “secondary categories” (such as quantity, quality, place, etc.) and would have just referred to the unique, superior hypostasis Soul, without sharing the same genus either with her, or with each other.³⁷ A.H. Armstrong sees a kind of conciliation possible, because earlier in the same long treatise (*Enn.* 4, 3,2 ; 8, 3-4) Plotinus had alluded to the fact that the hypostasis Soul *was not identical* with the cosmic Soul. However, Armstrong misinterprets the force of the counterfactual thought experiment, because, in my opinion, he lacks a clear concept about what a universe actually is : “Plotinus would have had to consider the possibility that there might be two (or more) such partial souls of distinct universes, united by sympathy, as being parts in some sense of the hypostasis Soul,” he writes.³⁸ Yet, as we have shown (following in Plotinus’ footsteps), the very idea of “universe” is incompatible with the idea of communication between universes. Distinct “universes” united by sympathy would be just parts of the same greater universe and not universes on their own at all. Only *analogy* can conciliate the plurality of universes and their incommunicability.

Nevertheless, the whole Plotinian metaphysics (which is actually a “henology”) is dominated by the effort to radically reduce multiplicity to unity and to derive the former from the latter. So how could he have condoned a hypostasis Soul that, for all her superiority over the many cosmic Souls, could have neither identified herself with them, nor done away with their separations ? It would have meant to ascribe too nice a role to multiplicity — a quite un-Neoplatonic attitude. Between strictly synonymic

36. PORPHYRY, *Vita Plotini*, 1,1, 1-2.

37. ARISTOTLE, *Metaphysics*, 4, 2, 1003b, 4-19.

38. A.H. ARMSTRONG, *Plotinus. The Enneads*, 4, p. 315, footnote.

and strictly homonymic predication, analogy (understood both as a proportion and as a reference to one single nature) offered a middle way that perhaps only Thomas Aquinas would be able to fully make use of. But by then, one stood right before the threshold of modernity.³⁹

c) In a moment of genial inspiration (we know from his biographer, Porphyry, how characteristic of Plotinus such moments were!⁴⁰), perhaps also pressed by the questions of his students, Plotinus could put forward H1, then examine the alternative of H2 or H3 and their consequences. He presumably sensed the fragility of asserting the absolute validity of *P* (*our universe is unique*) and the weakness of some of the traditional arguments upon which it rested. Yet, a few moments later, he couldn't help but recoil. He was not a modern philosopher after all, though his counterfactual thought experiment was certainly well ahead of his age. The times of Leibniz and Kant were not ripe yet. Plotinus could not say like Wittgenstein that, as one cannot see one's own eye, so there is no “metaphysical subject” in the world able to contemplate both the world and himself within it.⁴¹ He was well prepared to imagine a “cosmological possible”, but hardly to contemplate the idea of a “noological possible” — *i.e.* a world the existence of which is only due to the possibility of constituting an object of thought.⁴² Ultimately, like many other Neoplatonists, especially pagan, Plotinus could not, but for a brief moment, admit a radical disentanglement between God's mind and man's reason, well guided by philosophy. This is why he was short of appreciating the full significance of his own thought experiment, which called into question precisely an accepted quasi-synonymy between man and God.

VI

Therefore, after a very modern, innovative, breathtaking gaze, Plotinus' “philosophical eye” retrieved its traditional way of seeing. As it were, the philosopher continued (and so many thinkers after him did the same) “to hire God's eyes” for the benefit of metaphysics, theology, physics or ethics, and, accordingly, to look at the world as from outside of it, while imagining this “externalist” perspective as being all natural.⁴³ How could he have abandoned it, he who urged : “strive not to be blameless, but to be God” ?⁴⁴

39. THOMAS AQUINAS, *Summa Theologiae*, 1, 13. art. 5. While discussing on the status of the names which men use in order to describe God positively, Thomas says that these names are neither synonymously, nor homonymously said both of God and of creatures, but analogically : “Dicendum est igitur quod huiusmodi nomina dicuntur de Deo et creaturis secundum analogiam, idest proportionem [...]. Et iste modus communis est inter puram aequivocationem et simplicem univocationem. Neque enim in his quae analogice dicuntur, est una ratio, sicut est in univocis ; nec totaliter diversa, sicut in aequivocis [...]”.

40. PORPHYRY, *Vita Plotini*, 8.

41. WITTGENSTEIN, *Tractatus logicophilosophicus*, 5.633.

42. J.-M. NARBONNE, *La métaphysique de Plotin*, Paris, Vrin, 2001, p. 24.

43. I used H. PUTNAM's formula. See *Reason, Truth and History*, Cambridge, Cambridge University Press, 1990, p. 49.

44. PLOTINUS, *Enn.* 1.2,6, 2-3.

If so, we are beginning to understand that, among so many things which have made modernity, one seems decisive : a certain *modesty*.