BRILL

Temporality and a Metric for Created Natures in Gregory of Nyssa
Toward two recent monographs on his concept of time

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Abstract

The problem of time in Gregory of Nyssa has been reopened in several recent studies. After a review of these new solutions, the author proposes a more formalised approach taking into account our present knowledge of the logical properties of the infinite sets.

Keywords

Alexander L. Abecina

Time and Sacramentality in Gregory of Nyssa's Contra Eunomium (Early Christian Studies, 16), Strathfield: St Pauls, 2013, viii, 132 p., ISBN 978 0 980642841

Владимир Цветковић

Бог и време. Учење о времену Светог Григорија Ниског [Vladimir Cvetković (read Tsvétkovich), *God and the Time: the Doctrine of Time in Saint Gregory of Nyssa* (in

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Serbian)], Ниш: Центар за црквене студије, Ниш; Епархијски управни одбор Епархијенишке, 2013, 350 p., ISBN 978 86 84105402, English summary, pp. 329–336.

1   Introduction

Gregory of Nyssa is one of the most popular, among the modern scholars, Byzantine Fathers. Nevertheless, as might be expected, those who bravely approach renowned logical conundrums of his theology can be met relatively rarely. The problem of time and temporality is one of them, even though it is hardly possible to write anything on his theology without touching the problem of time, as well as to write on the problem of time in Gregory without dealing with his theology in its entirety.

Thus, although there are many recent studies worth to be taken into account, the basic facts of the modern "common knowledge" on the Cappadocian concept of time were described already in 1976 by Brooks Otis (1908–1977), an American classic (and not patristic) scholar, who had a fresh look concerning Gregory's ideas.[1] It seemed difficult to add something new. Since then, anybody knows that, in Gregory of Nyssa and other Cappadocians, there were two kinds of what modern scholars would call "time." First, the time properly, χρόνος, for the material beings, and second, "aeon" (αἰών), another kind of "time" never called χρόνος, for the intelligible created natures (angels, demons, and human souls), where some change and progress are still possible. God himself is above both time and aeon, he is ἀΐδιος but never αἰώνιος,[2] being absolutely

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1   B. Otis, "Gregory of Nyssa and the Cappadocian Conception of Time," *SP*, 14 (1976), pp. 327–357. Before Otis, very authoritative but less systematic studies relevant to Gregory of Nyssa's understanding of time were done, since the 1940s, by Jean Daniélou (cf. his collected papers volume *L'être et le temps chez Grégoire de Nysse*, Leiden, 1970) and Hans Urs von Balthasar (cf. his 1942 monograph *Présence et pensée. Essai sur la philosophie religieuse de Grégoire de Nysse*, Paris, 1988). I would add here a reference to Otis' earlier paper that allows considering, in particular, Gregory of Nyssa's understanding of time as relevant for the common theology of the Cappadocian circle: B. Otis, "Cappadocian Thought as a Coherent System," *DOP*, 12 (1958), pp. 95–124. Moreover, latter paper's ideas were extensively used by Cvetković in his review of Origen's and Methodius' works – indeed, without sharing Otis's disdain for the so-called Platonism of the Cappadocians. For the current "common knowledge", cf. D. L. Balás, "Eternity and Time," in: *The Brill Dictionary of Gregory of Nyssa*, ed. L. F. Mateo Seco, G. Maspero (SupVC, 99), Leiden – Boston, 2010, pp. 289–292; S. Douglass, "Diastêma," ibid., pp. 227–228.

2   For this, see now especially I. Ramelli, D. Konstan, *Terms for Eternity:* Aiônios *and* Aïdios *in Classical and Christian Texts*, Piscataway, NJ, 2007, pp. 172–199.

free from any change and progressive development. (Therefore, a significant part of the anti-Arian polemics consisted in demonstration that the Arianist subordination would imply some kind of "time" within the Trinity.)

This is why I consider the simultaneous and mutually independent appearance, in 2013, of two monographs focused on the conception of time in Gregory of Nyssa to be an important and thought-provoking event.

Moreover, in fact, there are three and not two studies in the same field published simultaneously in 2013 and without knowing each other. The third one is a very thoroughful and helpful monograph by Hans Boersma on Gregory's anthropological, ascetical, and eschatological views, where the author, moreover, pays due attention to Gregory's exegesis.[3] The first chapter of this book, published previously as an article[4], deals with the topic of temporality directly.

After having described briefly these publications I will pass to my own treatment of the main logical (and somewhat mathematical) problem of Gregory's understanding of time. My own approach will be based on the use of expressive richness of the twentieth-century logic and mathematics for making explicit patristic philosophical and logical thought, especially where it goes beyond the limits of both ancient Greek and modern Kant-affected philosophies.

2   Abecina, Cvetković, and Boersma: Anything New?

A short book of Alexander Abecina is almost undigested text of his recent (2011) PhD thesis. It is certainly not the best form of publishing someone's ideas – I would prefer a couple or triple of articles – but he managed to put a finger on the key node of the whole conceptual construction by Gregory: the concept of time when applied to the intelligible created beings. Beside this, the most of the Abecina's study is occupied by different refractions of this concept in other fields of Gregory's thought, such as human language and/or divine names, sacraments (Baptism and Eucharist), and the process of deification, the famous Gregorian ἐπέκτασις.[5] Abecina's stress on the sacraments in the

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3   H. Boersma, *Embodiment and Virtue in Gregory of Nyssa. An Anagogical Approach* (Oxford Early Christian Studies), Oxford, 2013. My discussion on this book will be mostly limited to its first chapter.

4   H. Boersma, "Overcoming Time and Space: Gregory of Nyssa's Anagogical Theology," *JECS*, 20 (2012), pp. 575–612; almost reprinted as ch. 1 "Measured Body" in idem, *Embodiment and Virtue*, pp. 19–52.

5   The term owes its popularity among the scholars to J. Daniélou, *Platonisme et théologie mystique. Essai sur la doctrine spirituelle de saint Grégoire de Nysse* (Théologie, 2), Paris, 1944; s.,

context of understanding of time is somewhat uncommon but very justified, if not long-awaited. In these fields of his study Abecina is far from being exhaustive or, at least, from going deeply enough, but he succeeded in demonstrating his main point – that these theological areas were treated by Gregory of Nyssa with the help of his specific understanding of the concept of time – or, rather, "time" – when applied to the intelligible created beings.

Vladimir Cvetković's book is a full-scale monograph dedicated to the development of some ideas relevant to the theological understanding of time in Gregory of Nyssa. He starts from such remote predecessors of Gregory as Origen and Methodius of Olympus, as well as his direct predecessors Athanasius of Alexandria and Basil the Great (as well as – also a predecessor, in some way – Eunomius of Cyzicus), but then passes through the most relevant passages in Gregory. Unlike Abecina, he has enough space to discuss other than Gregory authors (throughout about one half of the book) and to follow the relevant Gregory's passages in a larger context. At the same time, his context is narrower than that of Abecina in its conceptual dimension: he never goes beyond the familiar to the historians of philosophy restricted area that includes anthropology (together with the doctrine of ἐπέκτασις), angelology, and Triadology but excludes, e.g., sacramental and exegetical dimensions. Such a limitation of the research area could be technically unavoidable, but one has to take in mind that the real theology of Church Fathers – and that of Gregory of Nyssa in particular – has never been a theology of a philosopher but a theology of a man of the Church, which has had its primary and most natural expressions in the languages of liturgy and exegesis. It could be, of course, productive to study a fish out of its water milieu, under the microscope and with a lancet, but only if we do not forget where the fish lives. Abecina's important success in studying his topic, which I shall discuss below, is evidently explainable with his uncommon (for such studies) point of view allowing reading Gregory's philosophical texts *sub specie liturgiae*.

It is time to mark here an important achievement by Cvetković – his treatment of Methodius of Olympus's understanding of time (pp. 232–238). He provides an impartial account, rightly noticing that it became common to read Methodius in a "retrospective" manner, through the lenses of the subsequent

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for Daniélou's influence on the scholarly community, B. Pottier, "Le Grégoire de Nysse de Jean Daniélou. Platonisme et théologie mystique (1944): eros et agapè," *Nouvelle revue théologique*, 128 (2006), pp. 258–273; reprinted in: *Actualité de Jean Daniélou*, ed. J. Fontaine, Paris, 2006 (inaccessible to me); idem; "Daniélou and the Twentieth-Century Patristic Revival," in: *Ressourcement: A Movement for Renewal in Twentieth-Century Catholic Theology*, ed. G. Flynn, P. D. Murray, Oxford, 2012, pp. 250–262.

Arianism, when everything sounding somewhat ambiguous is interpreted as favourable to the Arians (pp. 232–233). Instead, one has to read Methodius in his own context. I would add that such a procedure, moreover, would certainly enrich our present understanding of Gregory's ideas on the passage from temporality to eternity. It was already Jean Daniélou who pointed in this direction,[6] and I can only wonder why nobody follows his steps in exploring millenarist expectations of Methodius in possible connexion with Gregory's eschatological ideas and his exegesis of the Jewish feast of Tabernacles.[7]

Finally, Hans Boersma published a large monograph on meanings and purposes of bodiliness and bodilessness for the human asceticism and the divine *oikonomia* in Gregory of Nyssa, where especially the first chapter is dedicated to different meanings of temporality and cognate concepts.

The three books mentioned here, those by Abecina, Cvetković, and Boersma, could be ranged according to their respective attitudes toward the present majority views on the topics of temporality in Gregory of Nyssa. Cvetković discusses historical background and various details of Nissen's views without ever transgressing the mainstream paradigm of modern scholarship, Abecina explores some now marginal but promising paths, whereas Boersma is in an overt opposition toward the mainstream in such an extent that this disagreement became one of the *raisons d'être* of his study.

3   The *Crux interpretum*: διάστημα and Related Terms

Διάστημα and related words are, in Gregory, standard terms signifying any kind of extension, distance, gap etc.; something that divides the beginning and the

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6   See J. Daniélou, *Bible et liturgie. La théologie biblique des sacrements et des fêtes d'après les Pères de l'Église* (Lex orandi, 11), Paris, 1951, where ch. 20, "Les Tabernacles," is dedicated mostly to Methodius and Gregory of Nyssa; English tr.: J. Daniélou, *The Bible and the Liturgy* (Liturgical Studies), Notre Dame, IN, 1956, pp. 332–346. Cf. further on Methodius: J. Daniélou, "La fête des Tabernacles dans l'exégèse patristique," *SP*, 1 (1957), pp. 262–279. The time of Millenium – in Methodius and Irenaeus at least – is not an ordinary time and is in many respects similar to the kind of temporality applicable to the intelligible creatures (αἰών in the Cappadocian authors). Cf. also Y. de Andía, Homo vivens. *Incorruptibilité et divinisation de l'homme selon Irénée de Lyon* (Études augustiniennes), Paris, 1986.

7   Cf., however, a very useful monograph by Ann Conway-Jones, *Gregory of Nyssa's Tabernacle Imagery in its Jewish and Christian Contexts* (Oxford Early Christian Studies), Oxford, 2014. It continues Daniélou's path in going deeply into Gregory's Second Temple Judaism background, whereas without any specific philosophical analysis. Nevertheless, Conway-Jones acknowledges the main Boersma's conclusions on the eternal state of the deified humanity (pp. 216–217).

end from each other.[8] Applied to the material world, this concept does not present any problem: this world and all its objects are finite, having both beginning and end. Therefore, it is rather evident what is διάστημα in its spatial and temporal sense for the material world.

As to the intelligible objects, the things become more complicated. The unique point provoking no discussion at all is the statement that, among the intelligible creatures, there is no spatial διάστημα, because the non-material entities do not have spatial dimensions. As to the temporal or, as some scholars say, "quasi-temporal" dimension, there is some διάστημα even in αἰών.

Then, follow two crossroads where the ways of researchers' thought parted: (1) how to apply the concept of διάστημα to the intelligible creatures, and (2) whether this concept is applicable at all to their eschatological and pre-fallen states.

(1) The mainstream view, as it was established by Hans Urs von Balthasar already in 1942, requires two different kinds of διαστήματα for the material and the intelligible creatures. Even if we put aside von Balthasar's romantic phraseology differing "vertical" intelligible and "horizontal" material διαστήματα, the real problem remains a definition of διάστημα for the endless intelligible creatures: it becomes an extension between the fixed beginning and a non-existent end, that is, an end that will never be reached.[9] This is not something that Gregory would have been borrowed from Stoic or Platonic philosophy where the term διάστημα appeared first. The majority of modern scholars including Cvetković (pp. 207, 259–261, even with von Balthasar's wording such as "verti-

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8   For an almost complete survey of the relevant passages of Gregory, s. T. P. Verghese, "Διάστημα and διάστασις in Gregory of Nyssa. Introduction to a Concept and the Posing of a Problem," in: *Gregor von Nyssa und die Philosophie. Zweites Internationales Kolloquium über Gregor von Nyssa. Freckenhorst bei Münster, 18.–23. September 1972*, ed. H. Dörrie, M. Altenburger, U. Schramm, Leiden, 1976, pp. 243–260. A paper by David L. Balás which has shaped, to a large extent, the current majority view, "Eternity and Time in Gregory of Nyssa's *Contra Eunomium*," has been published in the same volume (pp. 128–155). Indeed, unlike Cvetković, Abecina and Boersma refer to Balás mostly polemically.

9   This problem is addressed by Paul Plass, "Transcendent Time and Eternity in Gregory of Nyssa," *VC*, 34 (1980), pp. 180–192. Despite his very helpful observations on the endless duration (διάστημα) of αἰών, the author falls into unsubstantiated extrapolation when he ascribed a "quasi-extension" to the deified state of the creatures: "God is without extension. We grasp him *subjectively* and *in time* as infinite extension, but *in eternity* we *objectively* will enjoy perfected, unextended extension <...>. Instead of being abolished, time (and with it creation) is transformed into quasi-extension" (p. 183, Plass' italics). To begin with, such a distinction between "subjectivity" and "objectivity" in deification is worth to Kant but not a patristic author; this is not only an anachronistic interpretation, but simply a logical error attributing to Gregory tacit presumptions such as Kantian or even positivist concepts of objectivity and subjectivity. Cf. also Boersma's criticisms (*Embodiment and Virtue*, pp. 20–21).

cal") share the view that we need two different διαστήματα for understanding Gregory of Nyssa.

Alden A. Mosshammer challenged this already established consensus insisting that there is only one διάστημα in Gregory – the common concept for both material and intelligible creatures: "The root meaning of διάστημα is interval or difference. Rather than seeking to distinguish between two kinds of διάστημα, we should say that for Gregory interval is the common dimension of created order, with somewhat different manifestations for intelligibles as compared with sensibles. As a common dimension of createdness, this interval represents the difference between the non-being from which all things arise and the perfection for which they were intended. <...> There is therefore always an interval between what an intelligible is and what it has not yet become."[10] As it seems to me, before Abecina[11] and Boersma,[12] Mosshammer has not been followed on this path by anybody.

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10   A. A. Mosshammer, "Historical Time and the Apokatastasis according to Gregory of Nyssa," *SP*, 27 (1993), pp. 70–93, here p. 91; partially quoted in Abecina's book (p. 39) and by Boersma (*Embodiment and Virtue*, p. 20, fn. 6). For Cvetković, Mosshammer is an often quoted author, including this paper, too, but he never discusses Mosshammer's idea that there is only one διάστημα; he does not mention Mosshammer in his article: V. Cvetković, "St Gregory's Argument concerning the Lack of διάστημα in the Divine Activities from *Ad Ablabium*," in: *Gregory of Nyssa: The Minor Treatises on Trinitarian Theology and Apollinarism. Proceedings of the 11th International Colloquium on Gregory of Nyssa (Tübingen, 17–20 September 2008)*, ed. V. H. Drecoll, M. Berghaus (SupVC, 106), Leiden – Boston, 2011, pp. 369–382, cf. esp. pp. 373–374. See also another very helpful formulation by Mosshammer: "The διάστημα is no longer a physical barrier in space separating all that is material, including man, from all that is intellectual, including the angels, but the common receptacle of all creation, intellectual as well as material. This διάστημα is both the chronological space of development from beginning to ending and the ontological space that distinguishes created becoming from uncreated being." These words, however, are immediately followed by the other, which, together with Boersma, we would like to contest: "The διάστημα remains an uncrossable barrier, but it is a barrier between creator and creature, not between intellectual and sensible being" (idem, "Time for All and a Moment for Each: The Sixth Homily of Gregory of Nyssa on Ecclesiastes," in: *Gregory of Nyssa: Homilies on Ecclesiastes. An English Version with Supporting Studies. Proceedings of the Seventh International Colloquium on Gregory of Nyssa (St Andrews, 5–10 September 1990)*, ed. S. G. Hall, Berlin – New York, 1993, pp. 249–276, here p. 275).

11   Abecina elaborates on Mosshammer's idea in a very productive way (s. especially pp. 37–40, with criticisms against von Balthasar and Balás). As he rightly notices, "[t]he main dividing line of Gregory's ontological dualism <...> does not run between the intelligible and sensible natures but rather between created and uncreated" (p. 40).

12   Boersma, *Embodiment and Virtue*, 20–21. Cf., among others, Boersma's notice on Otis' attempt to introduce two different διαστήματα (cf. Otis, "Gregory of Nyssa," p. 352: "There

Abecina, with his first education in physics and mathematics, managed to find out the right word for grasping the differences in διάστημα: metric.[13] We have to return below to this topic, but, even now, one can suggest a comparison between the Euclidean and a non-Euclidean spaces: they differ from each other by their metrics, that is, by their respective definitions of the notion of distance. The sensible space-time and the measurement of the intelligible natures differ from each other by both their elements and their metrics. Thus, διάστημα is, in Gregory, the same generalisation of the notion of distance as is, in modern mathematics, the notion of metric.

Oddly enough, all modern authors including Abecina do not ask themselves about the different διαστήματα of the different angelic ranks (τάξεις). Indeed, there is no place in Gregory of Nyssa, where such topic would have been treated explicitly, but the idea of angelic hierarchies would imply some differences between their respective διαστήματα, and not only differences, but a hierarchical order between the διαστήματα. This problem remained overlooked[14] because, on the one hand, Gregory of Nyssa did not write a *De coelesti hierarchia* of his own and, on the other hand, wrote too much on the opposition between the sensible and the intelligible in general.

Nevertheless, he shared the theological tradition of his epoch (going back to the Second Temple Judaism) in acknowledging the existence of angelic hierarchies and, therefore, has spoken about the hierarchically organised differences within the intelligible nature. Thus, in *De anima et resurrectione* he wrote:

... τῶν λογικῶν δυνάμεων αἱ μέν τινές εἰσιν οἷον τὸ ἅγιον θυσιαστήριον ἐν τῷ ἀδύτῳ τῆς θεότητος καθιδρυμέναι, αἱ δέ τινες πάλιν καὶ τούτων ἐν ἐξοχῇ

are thus in effect two *diastemata* – one corresponding to what we may call the normal and uninhibited movement of angelic or immaterial spirits toward the good; the other corresponding to the interval necessitated by sin, both angelic and human"): "This solution suffers from the difficulty that Gregory nowhere suggests two distinct extensions" (Boersma, *Embodiment and Virtue*, p. 20, fn. 4).

13   "Mosshammer's suggestion is salutary, for nowhere in *Contra Eunomium* does Gregory speak of two διαστήματα. Rather Nyssen's ontology contains two *metrics* of creaturely διάστημα – one corresponding to the sensible division of natures and other corresponding to the intelligible division of natures" (p. 39).

14   Cf. also the silence about angelic hierarchies in D. L. Balás, *Μετουσία Θεοῦ. Man's Participation in God's Perfections according to Saint Gregory of Nyssa* (Studia Anselmiana, 55), Rome, 1966, esp. pp. 34–52 (where the topic of "division of beings" is explored) and in the entries of *The Brill Dictionary of Gregory of Nyssa*: J. A. Gil-Tamayo, "Akolouthia," p. 14–20; L. F. Mateo-Seco, "Creation," pp. 183–190. Symptomatically, this dictionary does not have an entry "Angels" but redirects to "Creation" (p. 36).

θεωροῦνται κεράτων δίκην προβεβλημέναι καὶ ἄλλαι περὶ ἐκείνας κατά τινα
τάξεως ἀκολουθίαν προτερεύουσί τε καὶ δευτερεύουσι.¹⁵

This passage contains such key terms as "(hierarchical) ranks" (τάξεις) put in an
"order" (ἀκολουθία), where there are – I dare to use a modern set-theoretical
term – ordered pairs: those which are the first (προτερεύουσι) and those which
are the second (δευτερεύουσι) toward each other. The ordered pair is the mini-
mal link of any hierarchical chain, that is, of any ordered row.

Even though Gregory himself did not discuss the διαστήματα of the angelic
ranks (hierarchies), we could hardly pretend to understand his concept of διά-
στημα without either being able to do so ourselves or concluding that this is
impossible at all. The latter would mean that Gregory's idea of angelic διάστημα
is incompatible with another fundamental theological idea shared by Gregory
with the theological tradition of the Church he belonged to.

(2) The applicability of διάστημα to the final deified state of both sensible
and intelligible creatures was beyond any scholarly doubt just before Boersma.
The scholars were divided, almost half by half, on another point: whether, in
the infinite ἐπέκτασις, God becomes eventually reachable or not.¹⁶ Boersma
states that, in the eschatological realm, God is reachable but any kind of διά-
στημα is abolished. The creature becomes as *adiastemic* as God.

I would summarise his main arguments in two points. The first, negative: "…
Gregory nowhere indicates that infinite progress in the thereafter requires
διάστημα."¹⁷ And the second, positive: "… Gregory regards the final restoration
of all things as a change for human beings from temporality into the eternity
(ἀϊδιότης) of God himself."¹⁸

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15   Gregorii Nysseni *De anima et resurrectione*, ed. A. Spira (Gregorii Nysseni Opera, III.3),
      Leiden – Boston, 2014, p. 102.8–12. English tr. by W. Moore and H. A. Wilson: "… among all
      the Powers endued with reason some have been fixed like a Holy Altar in the inmost
      shrine of the Deity; and that again of these last some jut forward like horns, for their emi-
      nence, and that around them others are arranged first or second, according to a pre-
      scribed sequence of rank" (*Nicene and Post-Nicene Fathers*, Ed. Ph. Schaff, H. Wace. Second
      Series, vol. 5, Buffalo, NY, 1893; revised and edited for New Advent by K. Knight <http://
      www.newadvent.org/fathers/2915.htm>).
16   Cf. Douglass, "Diastêma," for two lists of scholars representing opposite views.
17   Boersma, *Embodiment and Virtue*, p. 23; cf. ibid., p. 22, fn. 15: "… he [Gregory] explicitly
      insists on the cessation of extension (διάστημα) in the eschaton."
18   Boersma, *Embodiment and Virtue*, p. 22. Here Boersma quotes, as his predecessors, L. G.
      Patterson ["The Conversion of *Diastēma* in the Patristic View of Time," in: Lux in Lumine:
      Essays in Honor W. Norman Pittenger, ed. R. A. Norris, Jr., New York, 1966, pp. 93–111] and
      Ilaria Ramelli [Ramelli, Konstan, *Terms for Eternity*; I. Ramelli, "Αἰώνιος and Αἰών in Origen

Boersma's argumentation is very strong and almost self-evident. Probably, it has not been put forward previously by somebody else only because the difficulty it entails. Indeed, if διάστημα is no longer a feature distinguishing the created from the uncreated, then, how to avoid confusion between the two?

Boersma deliberately accepts what seems to him – as well as to me – Gregory's own answer: a paradox. "In the resurrection life, the ordinary boundaries and measurements of life on earth will no longer apply. As a result, Gregory struggles to describe this paradisal life. <...> As his frequent use of paradox makes clear, however, for Nyssen this struggle is an exhilarating joy rather than a burden."[19] He adds an important clarification: "Gregory's otherworldliness runs so deep that he cannot see human progress as being without end so long as creation retains the measurements of extended existence."[20]

In other words, the infinity still measured with any kind of διάστημα is not the highest infinity of the divine life. The highest infinity of the divine life, however, appears to the human mind only through a paradox, that is, a contradiction.

4   Created διαστήματα: A Hierarchy of Actual Infinities

As it became clear from the above discussion, Gregory of Nyssa operates with too many infinities. Normally, historians of the ancient philosophy know only two kinds of them: potential and actual. However, all the infinities of the intelligible creatures, not to say of the divine infinity, are actual. They all are actual but different. Moreover, the antiquity did not know infinities of different "size," when one is greater than the other.

The problem of difference and hierarchy among the infinities is opened, for the modern logical thought, by Georg Cantor (in the 1870–90s). Then, the development of mathematical set theory, until recently, has been directed toward the (unreachable) goal of acquiring the complete consistency. Recently, however, the development of the logics allowing contradictions (called, since the 1970s, paraconsistent logics) leaded to construction of paraconsistent set

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and Gregory of Nyssa," *SP*, 47 (2010), pp. 57–62]. Nobody of them, however, said that ἀΐδιος means that there is no longer διάστημα.

19   Boersma, *Embodiment and Virtue*, p. 52. Cf.: "... he [Gregory] holds to a paradoxical tension. On the one hand, he insists that human progress will be never-ending. This allows him to safeguard the radical difference between the infinite creator and the finite creature. On the other hand, he is equally intent on maintaining that this continuous progress will not involve the extension (διάστημα) of time and space" (p. 23).

20   Boersma, *Embodiment and Virtue*, p. 23.

theories. These intellectual achievements of the modern epoch provided us with a framework much more adequate for grasping patristic thought.

Among the problems mentioned above one is too complicated to be discussed here: that of the divine infinity and its possibility to be shared by creatures. It would be enough to say that this kind of infinity is certainly paraconsistent,[21] as well as communion to it is paraconsistent itself.[22]

The hierarchy of the created διαστήματα could be addressed here, because Gregory made explicit the most necessary concepts.

Two infinities become comparable if they are ordered. As Gregory wrote on the angelic ranks (s. above the quotation from *De anima et resurrectione*), some of them are the first and some other are the second toward each other. This is the idea of the infinite ordinal numbers by Georg Cantor (ω-numbers in the modern von Neumann's notation).

Indeed, we cannot add one to the infinity if this infinity is unordered. Once the infinity is ordered, we can. Without going into the set-theoretical considerations, one illustration would be sufficient: one cannot continue an infinite straight line even with a unique point, but it is easy to add one point somewhere outside this line and to start a new straight line elsewhere; this is like to add finite or infinite numbers to an infinite ordinal number. If, instead an infinite straight line, we would have had an infinite number of points without order, then, we would have been unable to add one new point to them. To be able to add something to some infinity, we have to choose an ordered infinity.

It is important that the resulting infinite numbers will be ordinal and not cardinal ones. Thus, these ordinals will form a hierarchy, and our quotation from *De anima et resurrectione* is in fact a "mathematical" basis of the celestial hierarchy as it was represented by Dionysius the Areopagite. All angelic creatures remain in their infinite movement toward God, but their "natural" positions are different. We can say now that those that are above "include" the lower infinities, somewhat similar to the pattern of the higher infinite ordinal numerals which include the whole row, starting from the first and minimal ordinal infinite number (the minimal infinite ordinal number is the maximal natural ordinal number, that is, the "end" of their infinite row).

21   Cf. B. Lourié, "The Paraconsistent Numbers and the Set Theory Implied in the Cappadocian Trinitary Doctrine," *Логико-философские штудии*, 13 (2016), Nr 2, pp. 56–57.

22   В. М. Лурье, "Логика иконопочитателей в период второго иконоборчества" [B. Lourié, "The Logic of the Iconophiles in the Time of the Second Iconoclasm"], *Труды института русского языка им. В. В. Виноградова*, 7 (2016), pp. 29–56; B. Lourié, "The Logic of Christology of Theodore the Studites" (forthcoming).

It is order that makes all the creatures limited, in one or other way. Even if they are intelligible and, therefore, unlimited and infinite, their infiniteness is nevertheless limited by the infinities of higher orders. The final unity with God, however, will be outside the order – and, in this way, outside διάστημα. Nevertheless, some different and paraconsistent – paradoxical, from a viewpoint of classical logic – kind of order between the creature and the Creator will appear ....

Now we are in position to define the notion of διάστημα in a more formal way. As it was noticed by Abecina, it is a kind of metric. Metric is a notion appearing in the set-theoretic definition of space, which is, in turn, a generalization of the geometrical definition of space.[23] In that generalized sense, space could be defined on the elements of any set (not necessarily points of geometrical space) with establishing a metric, that is, a function that defines the distances between the elements on which this space is defined.

Διάστημα is precisely this distance. In the "distance spaces" on the intelligible creatures it defines their infinite distance that they have to overcome for reaching the deification. All these διαστήματα are infinite but all are different. They form a hierarchy due to their different points of beginning. And this hierarchy is not overtly paraconsistent: it is, logically speaking, quite similar to that of the transfinite ordinals.

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23   Such a generalization has been first introduced by Maurice Fréchet, "Sur quelques points du calcul fonctionnel. Thèse présentée à la Faculté des Sciences de Paris pour obtenir le grade de Docteur des Sciences," *Rendiconti del Circolo matematico di Palermo*, 22 (1906), pp. 1–72, here § 49, p. 30. This is, however, still not the level of generalization required in our case, because Frenet's definition still limited the possible definitions of distance with the axioms of symmetry (the distance from A to B must be equal to that from B to A) and triangle (the distance between A and C is not more than the sum of distances between A and B and B and C). Recently, even more generalized spaces were put into consideration, the so-called distance spaces, where only one axiom is applicable to the notion of distance: the distance between any different elements of the set on which the space is defined must be more than zero. Cf. A. Kurucz, F. Wolter, M. Zakharyaschev, "Modal logics for metric spaces: Open problems," in: *We Will Show Them! Essays in Honour of Dov Gabbay*, ed. S. N. Artëmov, H. Barringer, A. S. d'Avila Garcez, L. C. Lamb and J. Woods, vol. 2, London, 2005, pp. 193–108. The distance spaces correspond to many situations relevant for human thinking. The distance spaces is the framework implied in Gregory of Nyssa's understanding of the time for the intelligible creatures. The sensible time and space are particular cases of the distance space where more limitations (axioms) are imposed.