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On the Celestial Bodies in the Coimbra Commentary on *De caelo*

Os corpos celestiais no comentário conimbricense sobre o *De caelo*

Abstract

I discuss in this paper some evidence of possible influence by Philoponus of Alexandria over the authorship of *Coimbra Commentary on De caelo*. Thus, I will analyze how Philoponus' objections against the Aristotelian idea of nongenerated and imperishable heavenly bodies are integrated to the commentary, considering both explicit and implicit references to Philoponus that are present in the text. This discussion might add a valuable contribution to the studies of the reception of Ancient commentators in Early Modern natural philosophy.

Keywords: Ancient cosmology; Jesuit scholasticism.

Ancient and medieval authors: Aristotle; Simplicius; John Philoponus; Thomas Aquinas; Conimbricenses.

Resumo

Discuto neste artigo algumas evidências da possível influência de Filopono de Alexandria sobre a autoria do *Comentário Conimbricense ao De caelo*. Examino o modo como as objeções de Filopono à idéia aristotélica de corpos celestes ingênitos e incorruptíveis são trabalhadas no comentário, considerando tanto as referências explícitas a Filopono quanto as implícitas. Esta discussão deverá contribuir para o estudo da recepção dos comentadores antigos na filosofia natural do Início da Idade Moderna.

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Palavras-chave: Cosmologia antiga; Escolástica jesuíta.
Autores antigos e medievais: Aristóteles; Simplício; João Filopono; Tomás de Aquino, Conimbricenses.

It is a known and well-established fact that, after Copernicus' contribution to cosmology, the modern philosophers of nature increasingly questioned the Ptolemaic mathematical model and the Aristotelian cosmological division between celestial and terrestrial bodies, gradually replacing these views by a heliocentric and unitary system, in which all bodies are composed by the same matter and all of them move according to the same physical principles. This revolution in cosmology is even elected by authors such as Alexandre Koyré[1] as one of the fundamental turning-points in the overcome of Ancient science and in the foundation of the modern one. Yet, another fact was brought to light more recently by the studies of Samuel Sambursky[2], Richard Sorabji[3], Christian Wildberg[4], Edward Grant[5] and Fátima Évora[6], showing that, among the ancient commentators of the Aristotelian *corpus*, John Philoponus of Alexandria sustained the material and physical unity of the universe. It is true that, for Philoponus, some aspects of the Aristotelian-Ptolemaic cosmos continued to be valid, *e.g.* the world was made of concentric spheres, and Earth was in the center; nevertheless, this world was no longer divided in two distinct regions, because Philoponus rejected the existence of aether, the so-called fifth element, supposedly eternal and the matter of the celestial bodies.

In fact, not only Philoponus but also many Ancient and Medieval philosophers rejected the Aristotelian reasons for the existence of aether and the division of the

1 A. Koyré, *From the Closed World to the Infinite Universe*, The John Hopkins Press, Baltimore 1957.

2 S. Sambursky, «The Unity of Heaven and Earth», in *The Physical World of Late Antiquity*, Michigan University – Basic Books, New York 1962. pp. 165-166.

3 R. Sorabji, *Philoponus and the Rejection of the Aristotelian Science*, 2nd edition. Institute of Classical Studies, London 2010.

4 C. Wildberg, *John Philoponus' Criticism of Aristotle's Theory of Aether*. (Peripatoi; Bd.16), De Gruyter, Berlin – New York 1988.

5 E. Grant, *Planets, Stars and Orbs. The Medieval Cosmos 1200–1687*, Cambridge University Press, Cambridge 1996 [1994].

6 F.R.R. Évora, «O mundo materialmente uniforme de Filopono», *Analytica*, v. 17, n. 2 (2013) 105–138.

universe in two distinct regions[7]. Despite of that, scholars like Sorabji (1988) and Grant (1996) stress the great historical importance of Philoponus' objections as likely the main and most influential source for arguments against the existence of the fifth element[8]. As far as I can see, there are, indeed, several signs of Philoponus' criticism being present in medieval and modern philosophies, a fact that is also recognized by an extensive bibliography. But the mere quotation of arguments is not enough to state an authentic case of influence, being necessary to check out how the reproduced arguments work within the "methodological order", in each occurrence. By means of such careful reading, we can deepen our understanding of how to interpret the use of Philoponus' objections and determine what is truly evidence of his influence.

For the sake of my discussion here, I choose three commentaries on *De caelo*: one of Simplicius, another one of Thomas Aquinas and the last one published by the Coimbra Jesuits. The three commentaries contain Philoponus' objections that were originally part of a book against the Aristotelian cosmology. This book was known to Greek and Arabic readers, but it was lost at some point in the Middle Ages, never being translated into Latin. In fact, to the Latin and Christian Europe, Philoponus' objections became available mainly through the commentary of Simplicius, wich was translated by William of Moerbeke, in 1271[9]. For centuries, the "Simplicius Latinus" would be used by teachers and commentators, as Thomas Aquinas did, synthesizing in his own commentary (*c.*1272) the main positions

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7 «Philoponus' rejection of a fifth element is not new. He sees himself as returning from Aristotle to Plato, and once again there was a precedent within Aristotle's own school. For Xenarchus in the first century BC had rejected the fifth element, and Simplicius accuses Philoponus of plagiarising Xenarchus' work (now lost). Even Aristotle's immediate successor, Theophrastus, had expressed doubts, and although he appears to have remained orthodox, the next head, Strato, did not», (R. Sorabji, «New Findings on Philoponus: Part 2—Recent Studies», in R. Sorabji (ed.), *Philoponus and the Rejection of the Aristotelian Science*, 2nd edition, Institute of Classical Studies, London 2010. pp. 65–6).

8 Sorabji, *Philoponus and the Rejection of the Aristotelian Science*, cit., p. 66.

9 Simplicius, *Commentaire sur le traité du Ciel d'Aristote*, trad. Guillaume de Moerbeke, v. 1, ed. F. Bossier – Ch.V. Veire – G. Guldentops, (Corpus Latinum Commentariorum in Aristotelem Graecorum VIII, 1) De Wulf – Mansion Centre for Ancient, Medieval & Renaissance Philosophy – Leuven University Press, Leuven 2004. For complete references, whenever I quote Simplicius or his reporting of Philoponus' words I will add information about the Greek text, edited by I.L. Heiberg, *Simplicii in Aristotelis De caelo commentaria*, (Commentaria in Aristotelem Graeca VII) Berlin 1894.

to be attributed to Philoponus[10]. As the Thomist interpretations and doctrines became standard inside the Dominican order and, after the Catholic Reformation, the model for all theologians in the Church, his commentaries and *summae* were largely adopted by schools and educational systems loyal to the Roman pontiff, such as the institutes founded by the Jesuits, in the sixteenth century. Meanwhile, since 1498, new editions of Aristotle's works were being prepared and printed by Aldus Manutius, in Venice[11]. Following the humanist genius, Manutius and his collaborators intended to restore the teachings of Greek and classical wisdom, a project that conducted those men to publish, after Aristotle, his Ancient commentators, including Philoponus' commentary on *Physics* (1535) and his objections against Proclus (1535). Besides, the "Simplicius Latinus", translated by Moerbeke, was still being printed in the 1600s, in Venice, by Hieronymus Scotus.

Simplicius' commentary was being used by teachers as reading support to understand Aristotle's *De caelo*, giving them access to Philoponus' objections against the existence of aether, the imperishability of celestial bodies and the material division of the universe. On the other hand, the Thomistic interpretation of these objections was inclining theologians and philosophers to defend aether, imperishable heavens and distinction between celestial and sublunar regions, against Philoponus.

In this context, the *Coimbra Commentary on De caelo* is written, supposedly by the hand of Manuel de Góis, and published (1593), by Simão Lopes, in Lisbon[12]. As the title of the book indicates, *Commentarii Collegii Conimbricensis*

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10 Cfr. Aquinas' commentary on *De caelo,* I, c. 3, lect. 6. I discuss Aquinas' synthesis of Philoponian positions later in the article.

11 It is important to consider the role of Aldus Manutius in the context of the fifteenth and sixteenth centuries. In Venice, he did a remarkable work of editing and publishing several books of Ancient authors, especially the Greek edition of Aristotle's works as well as of his Ancient commentators. While this edition was finding its public mostly among humanistic groups, new Latin translations started being written and circulating within scholar and other intellectual environments, in regard to those readers, mainly students of philosophy, who had familiarity more with Latin than Greek. See J. Sellars, «Aldus Manutius and the Aristotelian Commentators», in P. Adamson – H. Baltussen – M. Stone (eds.), *Science and Exegesis in Greek, Arabic and Latin Commentators*, *Bulletin of the Institute of Classical Studies Philosophy Supplement*, vol. 83, n. 1 (2004) 239-268.

12 Cfr. C. Casalini, *Aristóteles em Coimbra: Cursus Conimbricensis e a educação no Collegium Artium*, Imprensa da Universidade de Coimbra, Coimbra 2015, p. 141. The *Coimbra Commentary on De caelo* had several editions since its first publication at the end of the sixteenth century. The differences between those editions still should be looked and examined carefully, but regarding the excerpts considered in my analysis I have not found any significant difference between

Socieatatis Iesu in quatuor libros De coelo, the text belongs to the gender "commentary", which had been used by philosophers since Late Antiquity, at least. The "commentators" were supposed to explain the concepts and arguments from the commented text, in order to systematically present the difficulties and, at some point, give them a reasonable solution. By doing so, they were not only clarifying the meaning of the text, but they were also sharing their own understanding of the topic under discussion. The Coimbra commentary preserved the essence of this task, but it did so, because the intention was to introduce students to scholastic disputations, not necessarily to transmit them a doctrine or to convince them of an interpretation. As the authorship was officially collective, attributed to the Coimbra College of the Society of Jesus[13], so it was the purpose of the commentary. It was created, first of all, for teaching, what should make us wonder whether the questions, arguments and solutions, presented to the readers, were really representative of an actual philosophical activity to be ascribed to someone, or just an illustrative, yet conscious, selection of authoritative reasons, intended as a guide of studies or a textbook for teachers and students.

Like other contemporary publications designed for academic education, the *Coimbra Commentary on De caelo* was based on a treatise, written by Aristotle, which was traditionally used in universities for the studies of philosophy of nature and cosmology. In the commentary, one could find the Aristotelian text in Greek and Latin, followed by a paraphrase of the fundamental ideas and, finally, discussed in articles and questions, as a kind of scholastic disputation[14].

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them. I consulted the editions of 1594, published in Lyon, and of 1603, published in Cologne. 1. *Commentarii Colegii Conimbricensis Societatis Iesu in quatuor libros De caelo.* Cum priuilegio et facultate superiorum. Hac secunda editione, graeci contextus latino e regione respondentis accesione auctoriores, ex officina iuntarum, Lugduni MDXCIIII. Cum priuilegio. 2. *Commentari Collegii Conimbricensis Societatis Iesu in Quatuor Libros De Caelo, Meteorologicos et Parua Naturalia, Aristotelis Stagirita*. Hac quinta in Germania editione, partim Graeci contextus latino e regione respondentis accesione auctiores, partim per omnia correctiores in studiosorum gratiam editi. Cum gratia et privilegium Caesar Maiestate Coloniae, impensis Lazari Zetznesi, MDCIII.

13 Cfr. Casalini, *Aristóteles em Coimbra*, cit.

14 In the fifteenth century, some universities of the Italian Peninsula adopted as handbooks some Greek editions, including those of works of Ancient commentators. «Greek became inevitable in the humanist curriculum, and some claimed that it was indispensable for philosophy. Writing in 1520, by which time humanists had Latinised the whole Aristotelian corpus, Thomas More told Martin Dorp that 'Aristotle himself… could not be completely known to you without a command of Greek letters… for nothing of his has been so aptly translated that it would not better penetrate the mind of it were heard in his own words» (B.P. Copenhaver, «Translation, terminology and style in philosophical discourse», in C.B. Schmitt – Q. Skinner – E. Kessler – J. Kraye (eds.), *The*

In book I, chapter 2, the author set the questions asking, first, for the composition of celestial bodies in terms of form and matter (question 4) and, secondly, for their "substantive nature" (question 5) and their respective logical "species" (question 6). Then, in chapter 3, it is presented the controversy about the imperishability of celestial bodies[15]. The author answers these questions by recourse to a wide range of authorities, from Fathers of the Church to pagan philosophers[16]. Regarding the celestial bodies, it is worth noticing that, despite the variety of authorities, the fundamental divergence revolves around the names of Plato and Aristotle. The exception is question 4, which deals with an Averroistic interpretation of celestial bodies as immaterial beings. In general, the resultant so-lutions for the questions are the affirmative composition of celestial bodies with form and matter; the substantive distinction (the heavens are made of aether) and, consequently, the material distinction regarding species; and, last but not least, the imperishability of celestial bodies. For the readers, that might have been seemed a full defense of Aristotelian positions according to a Thomistic interpretation, but it was not that simple, though. In the commentary, before the solution, in each question, there was a considerable amount of controversy, whose reflection could always be seen in the final answer. There it was the name of Philoponus, in midst of controversies, as of someone saying that celestial bodies have matter (*Conimb. in Aristotelis De caelo*, I, c. 2, q. 4, a. 2) and that they can perish (ibid., I, c. 3, q. 1, a. 1).

Cambridge History of Renaissance Philosophy, Cambridge University Press, Cambridge – New York 1998, p. 95).

15 It is important to notice that the conclusions obtained in former questions have impact on the latter. Throughout history, the commentaries on *De caelo* have consistently connected the topics of matter, generation, perishability and duration. For instance, something immaterial cannot suffer changes of any kind, so it must be eternal (*aeternus*), leaving theologians with the question whether it could have been created by God or not. But something material can suffer changes at some level, unless it has a different kind of matter associated with a different sort of motion, maybe constant locomotion that never affects the substance, in which case it should be called "imperishable" (*incorruptibilis*). However, does it mean that the thing is everlasting (*sempiternus*)? If also not generated, could it be something created by God? As anyone can see, the questions are connected somehow, having a determinant influence on the Christian image of the world as a hierarchical order, created by God from nothing (*ex nihilo*) and since a beginning in time (*in principio*).

16 This is evidence that the author and the Coimbra Jesuits believed that solutions could come up by a process of remembering, and clarifying, what have said the wisest men, a process that should ultimately reveal their fundamental agreement, compatible with the unity of truth. That belief, to some extent rooted in the dialectical reason of *Topics* and very akin of the spirit of medieval *summae*, inspired the author to present their positions as belonging to one of two sides of each question.

The first reference to Philoponus is allegedly taken from *Contra Proclum*, books VI and XII, where Philoponus discusses the notion of generation according to Plato and he argues that, based on Platonic propositions, one should conclude that it is not necessary to assume a different matter for celestial bodies. By similar reason, one ought to agree that the heavens and the whole universe were generated and could perish. However, these discussions apparently do not take part of question 4 whatsoever. It seems that Philoponus is listed among the authorities in favor of the material heavens only as a recommended reading, for further complementary studies. If that was the case, either the author of Coimbra commentary was willing to instruct students about the subtle connections among matter, generation, corruption and duration, or he could be more interested in the disputes over the correct interpretation of Platonic philosophy—an interest, at least, confessed by those responsible for the translation of *Contra Proclum*, published in 1537[17].

Differently, the second time the name of Philoponus appears does not give any reference, although I have reasons to believe that the author had in mind Aquinas' commentary on *De Caelo,* I, c. 3, lect. 6. Aquinas read the commen-tary of Simplicius and he selected from it, at least, five objections of Philoponus: first, that the heavens and the entire world were generated, and Plato proved it; second, that a finite body cannot last infinitely in time; third, that the celestial bodies, being material entities, can have privation of form; fourth, that the Aristotelian proof for celestial imperishability is based on some ambiguity of the term "contrary"; fifth, that the circular motion has contraries. Some of these objections can be found, in the same order of presentation, in *Conimb. in Aristotelis De caelo*, I, c. 3, q. 1, a. 1:

> Besides, reasons in support of this position are not in lacking. Firstly, John Grammarian, who supported this position [celestial bodies can perish], argued as it follows. A finite power—as it is evident from what Aristotle taught in *Physics,* VIII 10 (text 78)—cannot last for an infinite time, since it is necessary to exist a proportion between the power and its duration; but the power of heaven is finite as well as the heavens themselves, which have a finite and limited perfection. Therefore, heavens cannot last for an infinite time, but they might eventually go weakened over time or vanish by some corruption.
> Secondly, that which undergoes contrary motions is breakable and perishable, and the celestial spheres undergo contrary motions, since everyone below the first sphere moves from dawn to west and from west to dawn again, whose different places are opposite to each other. Then it is necessary that the celestial machine is feeble and decaying.

17 See the preface written by Clément Mahot for the Latin translation of *Contra Proclum*, done by his brother Jean Mahot, teacher of philosophy, in the service of Cardinal François of Tournon. Clément declares that Philoponus, arguing against Proclus, corrected some interpretations about Platonic philosophy.

> Thirdly, Aristotle and his followers intend to prove the immortality of heavens based on the strongest reason, saying that no signs of perishing are found in those bodies. But this reason assumes a false proposition, therefore there is no reason for us to say the heavens are imperishable. The minor reason is defended. Based on Varro, Augustine says, in *City of God* (21, 8), that the Evening Star once changed of size, direction and shape, an event that was reported by the noble mathematicians Adrastus of Cyzicus and Dion of Naples as having occurred by the time of Ogyges. Besides, in the year 1572 of our salvation, a new star appeared in Cassiopeia and disappeared after two years. That is why there is no reason to affirm the celestial bodies are exempt from every decay and signs of destruction[18].

The absence of the first and of fourth objections should be remarked, but not exaggerated. The author of Coimbra commentary discusses the "Platonic doctrine" at the beginning of article 1 and, one more time, in article 2. He also comments more extensively the notion of "contrary" in book I, c. 4, q. 1, about whether Aristotle correctly proves that no movement is contrary to the circular locomotion. In addition, I believe that the third objection is somehow present in book I, c. 2, q. 6 — what we shall see later, in detail. But here, in book I, c. 3, q. 1, a. 2, it is fundamental to observe that the name of Philoponus is directly associated with only one of the given reasons, although, clearly, the second reason is in Aquinas' list, too. It indicates that some arguments and propositions of Philoponus are not explicitly attributed to him, leaving the readers with the onus of knowing the consulted bibliography or looking for it. Before we reflect more

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18 «Praeterea non desunt ad idem institutum confirmandum argumenta. In primis enim Ioannes Grammaticus, qui eam partem tuetur, ita fere disputat. Virtus finita, ut constat ex iis, quae docuit Aristoteles lib. 8 Phys. cap. 10 tex. 78 nequit persistere infinito tempore, cum necesse sit proportionem dari inter uirtutem eiusque durationem : atqui uirtus caeli finita est, sicut et ipsum caelum, quod finitam ac limitatam cohibet perfectionem: sit igitur consequens, ut caelum non possit infinito tempore durare, atque adeo ut debeat tandem aliquando fatiscere uetustate, aut uitio aliquo extabescere. Secundo id quod contrarias subit motiones frangitur ac labefactatur, sphaerae caelestes subeunt contrarias motiones : siquidem omnes infra primam commeant simul ab ortu ad occasum, et ab occasu ad ortum, quae locorum differentiae inter se oppositae sunt. Necesse est ergo machinam caelestem flaccidam et ruinosam esse. Tertio tam Aristoteles quam eius sectatores ea potissimum ratione caelorum immortalitatem astruere nituntur, quod in eis nulla corruptionis indicia deprehendantur : sed haec ratio falsum assumit, non est igitur cur caelos indissolubiles putemus. Minor propositio suadetur. Nam ut ex libris M. Varronis D. Augus. 21 de Ciuit. Dei, cap. 8 refert, stella Veneris dicitur semel mutasse magnitudinem, cursum et figuram, id quod accidisse Rege Ogyge nobiles Mathematici Adrastus Cyzicenus et Dio Neapolites tradiderunt. Praeterea anno salutis nostrae quingentesimo septuagesimo secundo supra millesimum apparuit in Cassiopea noua stella, quae post biennium euanuit. Quare non est cur affirment corpora caelestia ab omnia labe et dissolutionis nota aliena esse». *Conimb. in Aristotelis De caelo*, I, 3, q. 1, a. 1.

on these implicit references, let us, first, consider the impact of the explicit ones in the solution.

As I said, the author concludes that celestial bodies are imperishable[19]. First, he distinguishes many senses of "imperishable" (*incorruptibilis*). So it is God, because He is the most perfect; angels, because they are immaterial; glorified bodies, because they are supernaturally endowed with some quality stopping them from suffering corruption; and celestial bodies, because their substrate does not have "desire" (*appetitus*) towards any other form but their own. In the sequence, he gives an argument of authority, from Aristotle, and some empirical evidence. The evidence is, essentially, the observation of "remarkable subsistence" (*mirabilis constantia*), in heavens, and wide multiplicity and uninterrupted change among bodies, below the Moon[20]. If celestial bodies were perishable, one should have been seeing them often burning, as if they were in a big fire in the sky, since they are so close to the sphere of fire. But such distinct event has never been observed by anyone[21].

With these arguments in mind, the author responds to the three objections against celestial imperishability.

> To the first of reasons we enumerated in the same article, we shall say with Thomas Aquinas, in *Summa contra gentiles* I 20, but omitting another answer of the Commentator [ibn Rush], which is refuted there, that the thing whose being is not affected by time in the proper sense, but that is entirely simultaneous and completely fixed, or immutable, and once it has a power which is finite in this respect, then it is possible that that being lasts for infinite time. Because, since it is always found in the same way, accordingly its power is somehow infinite, and there is no difference between lasting daily or for a moment; however, according to this way the celestial bodies have being in their substance. Because it is never required equality between their native perfection and their duration, as if it were necessary these bodies be extended as much as they

19 Cfr. Ibid., I, c. 3, q. 1, a. 2.

20 For the author of Coimbra commentary, the distinction between imperishable heavens and perishable earthly bodies is consistent with "the beauty and perfection" of the universe, where one can find similar divisions, such as between living beings and non-living beings (as minerals), immortals and mortals, etc.

21 The solution is presented, but, for the author, one proposition still must be discussed: what if the celestial bodies are perishable by nature, although they will never be destroyed because of divine intervention? The proposition relies on the authorities of Fathers of Church and of Plato—or a version of Plato, as he is understood by Neoplatonists such as Philoponus. While the Christian authorities offer biblical and religious reasons to support celestial bodies naturally perishable, Plato's *Timeus* allegedly suggests that the demiurge is always moving the heavenly entities. Cfr. Grant, *Planets, Stars and Orbs*, cit., p. 267.

> are made perfect or known. But in *Physics,* VIII, as quoted, Aristotle deals with the finite power of the mobile, which weakens over time, as it is solved by Thomas Aquinas and [Francesco Silvestri], from Ferrara, in the same book [*Summa contra gentiles*].
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> About the second we answer that what is moved by truly, properly contrary motions, either it perishes as a whole, such as the living entities, or it perishes in part, such as the elements. However, neither of these notions is proper to heavens, because heavens do not lie under alterations, which are between properly contrary qualities; for instance, heating and frizzing. Besides, a proper contrary of motions is not found but in the motion that happens in a straight line, as Aristotle demonstrated in chapter 4 (text 26) of this book. Furthermore, the motions of celestial spheres from East to West, and from West to East, are not opposed to each other, since both motions neither happen upon the extreme points nor towards contrary parts, as if they could be higher or lower in respect of their place.
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> About the third, once the major proposition is accepted, the minor must be denied. We shall say that, if the Evening Star lied under a motion like that, it was not due to any natural power, but by reason of a miracle or by the divine power […][22].

The first objection, the only one expressly attributed to Philoponus, is answered with recourse to Aquinas' *Contra Gentiles,* I, c. 20. To sum up, the author of the Coimbra commentary says, with Aquinas, that a body with a finite potency, such as celestial bodies, can last indefinitely once its being may not be affected by time. Consequently, he disagrees with Philoponus that finite potency can only last during a finite time. Is this the end? I do not think so. The author could know

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22 «Ad primum uero argumentum eorum, quae in eodem articulo proposuimus, dicendum cum D. Tho. I cont. Gent. c.20 omissa alia quadam responsione Commentatoris, quam ibidem refellit, id cuius esse a tempore per se non attingitur, sed est totum simul et omnino fixum atque immutabile, et si uirtutis, quoad intensionem, finitae sit, posse tempore infinito persistere. Nam cum semper eodem modo se habeat, hac ex parte eius uirtus quodammodo infinita est, ac nihil differt diu ne, an momento duret : atque hoc modo sese habere corpora caelestia quoad suam substantiam. Quare minime requitendam esse aequalitatem inter natiuam eorum perfectionem et moram, qua perdurant, quasi necesse sit quantum haec extenditur, tandudem illam intendi ac perfici. Aristot. autem 8 Phys. loco cit. agit de uirtute mouente finita, quae tempore laugescit. consule D. Tho. loco citato et Ferrarien. ibid. Ad secundum respondemus id quod motibus uere ac proprie contrariis cietur, dissolui aut ex toto, ut animantes, aut ex parte ut elementa, sed tales motus non conuenire caelo. Quia non subit alterationes, quae uersantur inter qualitates proprie contrarias, ut calefactionem, et frigefactionem. Item quia propria lationum contrarietas non deprehenditur nisi in motu qui per lineam rectam sit, ut cap. 4 tex. 26 huius libri demonstrauit Aristoteles. Nec uero motus orbium caelestium ab Oriente in Occasum, et ab Occasu in Orientem sibi mutuo repugnant; cum non fiant super eosdem polos, nec uersus partes simpliciter repugnantes, ut suo loco planius ac plenius dicendum erit. Ad tertium concessa maiori propositione neganda est minor : dicendumque si Veneris stella eiusmodi subiit mutationem ; id non ad aliquam naturae uim referendum esse, sed ad miraculum et ad diuini numinis potentiam. [...]». *Conimb. in Aristotelis De caelo*, I, 3, q. 1, a. 3.

that Philoponus is behind the finite-potency-finite-duration argument only if he had read Aquinas' commentary on *De caelo*, because no reference to Philoponus is made in *Contra Gentiles*, whereas anyone could see an explicit, and careful, addressing to him in Aquinas' commentary on *De caelo,* I, c. 3, lect. 6. Similar circumstances apply to his answer to the second objection against celestial imperishability, for it is very similar to Aquinas' response to Philoponus, in I, c. 4, lect. 8.

In the answer to the third objection, experience seems to give place to doctrine. We have seen that the author appealed to the "remarkable subsistence" of heavens, in his solution, but here he dismisses the testified changes in the sky as events of some miraculous cause, and he uses the Aristotelian "proved" doctrine to justify his procedure. He says that, if it is true that the celestial bodies are imperishable (major proposition), for they lack contrariety, so it is not possible to accept they can naturally suffer generation or perishing (minor proposition). For him, this conclusion could be confirmed by experience in case the celestial bodies were never consumed by fire from the sublunary sphere. Thus, if they could not occur for natural reasons, so it only remains for them the supernatural explanation.

These words may give the wrong impression of "dogmatism", as if the author has created excuses to sustain the Aristotelian image of the world despite evidence to the contrary. But I would like to stress some important features of his answer indicating an essential shift in the discussion. First, the original argument from *De caelo,* I, c. 3 was meant to prove celestial imperishability relying on physical principles, discovered, and explained, in *Physics*. A short reference to astronomical observation is only made at the end of chapter 3, and even there, it is more a rhetorical move than a fundamental element of the main argument. On the other hand, the author of Coimbra commentary says, with all words, that "experience" is the strongest reason against celestial perishability. So, for him, the problem regarding the "new stars" is that they do not show signs of some interaction between celestial and sublunary spheres, an interaction assumed as the decisive consequence of perishable celestial bodies. Second, the author of Coimbra commentary offers an entire article to discuss the phenomenon of the new star in Cassiopeia[23]. In the article, for example, he did not neglect the astronomical events, commented by Tyco Brahe, but he made efforts to give them an alternative explanation instead. Basically, the author adduces some different opinions, emphasizing their speculative basis, whose possible causes could still be absorbed by Aristotelian cosmology.

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23 Cfr. Ibid., I, 3, q. 1, a. 4.

At first glance, no sign of Philoponus' influence is found there, except that he is mentioned and, at least, one of his objections is discussed. But if we look deeper in *Coimbra Commentary on De caelo*, searching now for implicit and indirect references, I believe that our search could come along with two interesting findings: Simplicius' debate with Philoponus[24] gave the author the main reasons for refusing celestial perishability and, likely, it was responsible for making observation so important to the debate.

For this new search, it is important the question prior to the discussion of celestial imperishability, that is, the question on the difference between celestial and sublunary bodies (I, c. 2, q. 6). As the background of the question is Aristotle's *De caelo* and Simplicius' commentary, which included fragments from Philoponus' *Contra Aristotelem*, it can be helpful to remind the main ideas of the former and the discussion undertaken in the latter.

In *De caelo,* I, 2, Aristotle offers some arguments to prove the existence of a fifth element, besides earth, water, air and fire. Basically, he argues that every simple movement ought to be assigned to one single simple nature, and if there are two simple movements (the rectilinear and the circular), and if the rectilinear movement is already assigned to the four known elements, therefore the circular movement must belong to a new element, henceforth called aether, the matter of celestial bodies. Then, in chapter 3, Aristotle adduces other reasons to prove that the aether (and the bodies constituted by it) does not have weight and, by absence of contrariety in its movement, it could never be generated or destroyed.

These arguments are rejected by Philoponus, in *contra Aristotelem*[25], mainly because of their lack of logical necessity. Philoponus uses Aristotelian principles

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24 Philoponus, *Contra Aristotelem*, frag. II/45 apud Simplicius, *In De caelo*, Heiberg edition, cit., 73, 9–15; Moerbeke translation, cit., 97,65–98,75. The possibility of change in heavens is raised in the discussion whether the celestial and sublunary bodies may have the same nature, in the sense that, for Philoponus, in the Aristotelian physical system, it is not impossible that those bodies have the same natural movement.

25 Philoponus wrote the treatise *De aeternitate mundi contra Aristotelem* in the sixth century. The original work is lost, but its existence and part of its contents are known, firstly, because Philoponus alludes to *contra Aristotelem* in other work, *contra Proclum*, and, secondly, because Simplicius (contemporary of Philoponus) reproduced and commented several of his arguments in a commentary on *De caelo*. It is by means of the commentary written by Simplicius, and translated into Latin by Moerbeke (c. 1271), that Thomas Aquinas and many others until the sixteenth century could know the objections of Philoponus and answer to them. See C. Wildberg, *John Philoponus' Criticism of Aristotle's Theory of Aether*, (Peripatoi, 16) De Gruyter, Berlin – New

and examples to reveal, from within, the limits of Aristotle's demonstrations for the existence of aether, the imperishability of heavens and the eternity of the world[26]. As part of his criticism, he defends the possibility of generation and corruption for heavenly bodies, saying that celestial bodies do have contrariety and that all bodies in the universe share the same fundamental substrate. Basically, Philoponus argues that "contrary" can be said in two ways: one is the proper sense, as a form opposite to another one within a continuous spectrum (for instance, hot and cold, up and down); the other one is the non-proper sense, as a form and its respective privation in a substrate (for example, man and non-man, horse and non-horse). Philoponus understands that the Aristotelian demonstrations rely fundamentally on "contrary" in the proper sense, but, by doing so, they fail to conclude about the generation and perishing, since these kinds of movement are defined by "contrary" in the sense of form and privation. Thus, for Philoponus, if something is a body, it has form and substrate. As privation is made possible by the existence of the substrate, and because generation is coming-to-be after not existing and perishing is ceasing-to-be after form getting apart from matter, all bodies are, then, generated and can perish, including the celestial bodies.

Against that conclusion, Philoponus anticipates two objections: one is that celestial bodies could be immaterial, with no substrate; the other one is that they could have a different kind of substrate, not susceptible to privation. He rejects the first objection, because, *ex hipotese*, it would mean that celestial bodies are as pure forms, being imperceptible to the human eye. But human beings can see

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York 1988. In places where I make reference to *contra Aristotelem*, I will do it by giving the number of the fragment according to Wildberg edition (1987), followed by its respective pages and lines in the original bibliographical source.

26 Simplicius understands that, in general, the strategy of Philoponus is based on answering two Aristotelian premises: «And in order to demonstrate this [the heavens are nongenerated and indestructible] <Aristotle> uses two premises, as has been said before, one saying that what is generated is generated out of a contrary and perishes into a contrary, and the other saying that there is no movement contrary to circular movement. So this man [Philoponus] sets out to object to these two <premises>, and he begins with the former first» (frag. IV/64 apud Simplicius, *In De caelo*, Heiberg edition, cit., 121,4–8). Nonetheless, at the beginning of *contra Aristotelem*, Philoponus supposedly draws several reasons in support of bodies being with different motions but having the same nature (frag. I/4 apud Simplicius, *In De caelo*, Heiberg edition, cit., 28,1–11). One of the many consequences he would infer is that celestial and sublunary bodies can have the same matter (for instance, the celestial bodies can be made of the pure parts of fire). I intend to discuss these topics more deeply in a future article to be called «Philoponus against the incorruptibility of celestial bodies».

those entities in the sky, a fact that certifies their materiality, by consequence[27]. Philoponus also denies the second objection. For him, to propose the difference between celestial and sublunary matters implies, necessarily, the assumption of something in common between them, for both are called "matter", but different sorts of one "common nature"[28]. Basically, Philoponus is applying, to this discussion, the logical formula of defining things by genus and difference. But Philoponus suggests a further consequence: the common nature is not only an idea, something in the intellect, but it also signifies something real, a substrate in the bodies, the three-dimensional extension[29]. In the solution of these objections, two points show to be fundamental for Philoponus: the expression "prime matter" must have meaning, and it shall be applied for all bodies. In *Contra Proclum* XI 6, Philoponus manifests his concern that the first substratum being defined as formless and incorporeal could result in empty words, useless to explain movement. Thus, there is no wonder why he defines prime matter "by its form" (the three-dimensional) and, eventually, affirms that celestial and sublunary bodies have the same substratum.

In Simplicius' commentary on *De caelo*, each of these arguments and explanations are followed by the author's opposition. For Simplicius, Philoponus is mistaken for assuming the identity of nature from the likeness of terms[30]. Celestial and sublunary entities are called "bodies" and they both are said to "have matter", but, for Simplicius, the terms cannot mean the same in all cases, unless one supposes that celestial matter could receive sublunary forms; and, conversely, sublunary matter celestial forms[31]. However, such transformation (*transmutatio*) among heavenly and earthly bodies was never observed by anyone, as Aristotle has said. That should be one more evidence that the celestial bodies have a different substratum, not susceptible to alterations that prepare generation and perishing.

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27 «Omnino ridiculum, [Philoponus] ait, dicere celum immateriale; neque enim intellectuale est, sed sensibile» (Philoponus, *contra Aristotelem*, frag. IV/70, apud Simplicius, *In De caelo,* I, Moerbeke translation, cit., 177,37–38).

28 «Sed si different, [Philoponus] ait, celestis materia ab ea que sub luna, composite erunt materie ex communi ipsarum natura et differentis que in ipsa» (idem, frag. IV/72 apud Simplicius, *In De caelo,* I, Moerbeke translation, cit., 179,94–96).

29 Philoponus give more details of the three-dimensional matter in his work *contra Proclum* XI, mentioned by Simplicius. It is likely that *contra Proclum* remained inaccessible to European readers until the sixteenth century, when its Greek edition was published by Victore Trincavello in 1535, in Venice, and, then, it was translated into Latin by Gaspare Marcello, in 1551, in Venice, and by Jean Mahot, in 1557, in Lyon.

Someone, after reading Simplicius' commentary on *De caelo*, translated into Latin by Moerbeke, would know the argument of Philoponus stating the equality of celestial and sublunary matters in respect of species and the respective objection of Simplicius. In *Coimbra Commentary on De caelo*, the same person would see some resemblance between what Philoponus and Simplicius said and what is written in question 6 (Book I, chapter 2): "whether the matters of celestial and of sublunary bodies are different from each other in species or not"[32].

First, it is important to recognize that, for both alleged adversaries in the controversy, the proposition of the perishability of celestial bodies is an undesirable conclusion. On the one hand, in article 1, some authorities say that celestial and sublunary matters can be the same in species and different from each other regarding the form they are united with. Thus, for them, material unity and celestial imperishability are two non-contradictory ideas. On the other hand, in article 2, other authorities defend the difference between matters with respect of species. They intend to show that saying the contrary inevitably will lead to the conclusion of celestial perishability. Therefore, it does not matter the chosen position in the debate, the celestial imperishability is already assumed as true, even before being discussed. What makes disputers so certain of that? Observation. They agree that no one has ever seen transformation involving celestial and sublunary bodies.

In article 1, one particular argument (let us call it "Argument A") begins with these words:

> For the philosophers, things do not exist exempt from the necessity of being multiple, but no necessity makes us declare that the celestial and the inferior matters are different in species. Therefore, philosophize more correctly who locates them in the same species. The minor premise is proven, because the necessity referred by adversaries is the one drawing to the conclusion of the imperishability of celestial bodies. But these adversaries say that the imperishability, here understood otherwise, cannot be defended by anyone willing to assign the same matter to both heavens and inferior bodies. The reason is that, if matter were the same

30 «[...] nisi quia uidetur putare quoniam triquaque dimensionata sunt et caelestia, et quae [corpora] sunt sub luna, nihil differe ab inuicem, ualde abutens communitatibus nominum» (Simplicius, *In De caelo,* I, Moerbeke translation, cit., 178,56–58).

31 «Quis enim utique dicet corpus celeste esse eiusdem nature cum his que hic? Qualiter autem hec scribens: 'Quid igitur mirum, sicut mille speciebus eorum que sub luna unam et eandem subici materiam conceditur habentem se idonee ad omnes species, ut transmutatio omnium in inuicem ostendit, sic utique et celestium species eandem materiam natas esse suscipere?', non intellexit quod, siquidem eadem materia celestium et eorum que sub luna est et earundem specierum est susceptiva, et oportebat semper transmutare in invicem?» (Simplicius, *In De caelo,* I, Moerbeke translation, cit., 178,59–66)

32 «Vtrum ne materia caelestis et sublunaris inter se specie distinguantur an non».

> for both bodies, so it should be necessary the desire (*appetitus*) for the same forms. Thus, the matter of fire would desire the form of Moon, and vice versa, the matter of Moon the form of fire. Hence, it follows the transmutation (*transmutatio*) of subject and the reciprocal changing of forms upon matter matter of both bodies, and then the perishing of celestial spheres[33].

It starts defending that the multiplicity of entities does not imply by itself an equivalent division of ideas, because it is possible that the same idea, or intelligible species, signify many entities. The argument does not prove that the celestial and the sublunary matters are necessarily identical, and it is not as definitive as the argument of Philoponus. However, even though its conclusion prevents a necessity (of being distinct), and it opens up a possibility (of being identical), one can recognize the recourse to the definition by common and difference, a strategy similar to the one followed by Philoponus.

In the sequence, there are some objections and responses. In the present case, I believe we are before a version of the objection of Simplicius against Philoponus, but now with broader consequences. The objection is: the celestial and the sublunary matters cannot be identical, because it implies that celestial bodies can receive sublunary forms, as if the sphere of the Moon had some "desire" for the form of fire. If it were the case, then one could see transformations among celestial and sublunary bodies and, consequently, the perishing of celestial bodies.

In reply to the objection, one says that the conclusion is not necessary:

> However, if one supposes that the celestial bodies are made up of the same matter it does not follow from it that they can perish, not if they are associated with a form that refrains the indeterminate desire of matter. And one does not conclude that the matter receives any corruptive quality, but must say that that [refraining] form is the one which compounds the celestial spheres[34].

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33 «Accedit commune illud argumentum. Res non sunt a philosophis absque necessitate multiplicandae : sed nulla necessitas cogit affere materiam caelestem et inferiorem esse specie diuisas : rectius ergo philosophantur, qui utramque sub una specie collocant. Probatur minor, quia necessitas, ac praecipua ratio, quae ab aduersariis affertur, est ea, quam a caelestium corporum incorruptibilitate ducunt. Aiunt enim incorruptibilitatem, quam alioqui ratam esse uolunt, defendi non posse ab iis, qui caelo, et inferioribus eandem tribuunt materiam, propterea quod si utrobique eadem materia sit, idem erit utrobique communis appetitus ad easdem formas : sicque materia ignis appetet formam lunae : materia lunae formam ignis. Ex quo sequitur transmutatio subiecti, et mutua formarum vicissitudo in utraque materia: atque adeo caelestium sphaerarum dissolutio. […]». *Conimb. in Aristotelis De caelo*, I, 2, q. 6, a. 1, 5 argum..

34 «At quod haec ratio non concludat, probatur: quia esto, caelestes orbes ex eadem materia componantur, non continuo sequitur eos posse dissolui si constent forma, quae uagum materiae appetitum refrenet, nec finat materiam recipere qualitates interitus effectrices, qualem formam putandum est esse eam, ex qua caelestes globi compacti sunt». Ibid., I, 2, q. 6, a. 1, 5 argum..

This answer does not come from Philoponus, neither from Simplicius himself, but it has some resemblance with one solution proposed by the mature Thomas Aquinas, in his commentary on *De caelo,* I, 3, l.6: the celestial and the sublunary matters are different because of their respective forms, since the celestial form acts in matter in such a way that it prevents matter to receive other forms. But, differenttly than Aquinas, the supposed supporter of the unity of matter thinks, firstly, that the form holds matter from receiving other forms—the emphasis being in a sort of obstacle or prohibition[35]—and, secondly, that celestial and sublunary matters can be identical inasmuch as they are matter, whereas they diversify in reality in their connection to form[36]. Of course, these remarks only focus on Aquinas' thought, but not its reception. It is still possible that the readers, including the author of Coimbra commentary, have found different reasons and inspirations in Thomistic scripts, which is made evident by the many traditions associated with Thomas Aquinas.

In article 2, we can also recognize some positions of Simplicius, some of Philoponus[37] and some of Thomas Aquinas, but it is undeniable that the intention

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35 I have reasons to believe this is the sense assumed here, because the author of the Coimbra commentary, in response to this position, will deny that the form has the power to refrain the desire (*appetitus*) of matter for other forms.

36 Aquinas would never agree with these propositions. Even in earlier works, he does not accept the material unity of the universe and he does not conceive that the celestial matter has potencies that are blocked by the action of its form, but he rather thinks that the celestial matter has no potency to other forms. In Summa theologica, the reason is in the order of matter towards form, and in the commentary on De caelo, it is in the celestial form, which fulfills all potentiality of matter. The literature about the Thomistic doctrine over the celestial matter is not extensive, but it is still controversial. Although Litt (1963) presents good reasons to support that, in general, Aquinas defends that prime matter is different for celestial bodies because of some order relating matter to its respective form, I follow the understanding of Baldner (2004), that the mature Aquinas, as he is found in the commentary on *De caelo*, seems to develop a quite different explanation: the prime matter is different because of the form and its capacity of fulfilling the potentiality of matter. I hope to comment more on this topic, opportunely. See T. Litt, *Les corps célestes dans l'univers de saint Thomas d'Aquin*, (Philosophes Médiévaux, t. VII) Publications Universitaires – Béatrice-Nauwelaerts, Louvain – Paris 1963; S. Baldner, «Thomas Aquinas on Celestial Matter», *The Thomist: A Speculative Quarterly Review*, vol. 68, n. 3 (July 2004) 431–467.

37 The author considers that B5 is a sentence "commonly taught by philosophers" (*ut philosophi communi assensu docent*), but this is not accurate. It is true, indeed, that Aristotle formulated the sentence in *Physics*, in the discussion about generation and corruption as kinds of motion, and this sentence had a large influence over further discussions, developed by other philosophers; however, the interpretation of Aristotle's words was neither consensual nor definitive. For instance, while Simplicius understood that Aristotle was referring only to terrestrial bodies, whose

there is completely different from theirs. The author introduces the "positive" position, according to which the matters of celestial and of sublunary bodies do differ in species; firstly, because each one has its own order in respect of form—celestial matter is connected to form by an indissoluble nexus, and sublunary matter does that by a dissoluble nexus[38]—; secondly, because the celestial bodies would be perishable if they had the same species of matter as the sublunary bodies (let us call it "Argument B"). This is a long argument. For my purposes here, I am going to present it separating its fundamental parts, like the following[39]:

B 1. If the matter of celestial and inferior bodies were of the same species, so the celestial bodies would be ordained towards the same forms.
2. Privation of form or desire (*appetitus*) to other forms is found in matter only if the matter is not occupied by any of the forms potentially or eminently in it.
3. But the form of celestial bodies has every form that satisfies every desire (*appetitio*) of matter, and because it provides power (*uis*) and motion (*concursus*) to every form of sublunary bodies in motion, it also contains potentially in itself those other sublunary forms (it has in potency, but not in act).

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4. So the matter of celestial and of sublunary bodies are said to have privation of form and to have desire (*desiderius*) towards all the forms.

5. If something has privation of form, then it is perishable.
6. The celestial bodies have privation, (= B4)

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7. The celestial bodies are perishable.

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motion has contraries, Philoponus read the sentence in a broader sense, comprehending all the bodies, above or below the sphere of the Moon. In the present case, I believe that the author of Coimbra commentary understands it in the same way as Philoponus did.

38 «Quod ergo materia orbium caelestium a materia inferioris mundi specie dissideat hunc in modum ostenditur. Materiae cum ad formas respectu transcendenti referantur, necessario per eas distingui debent, non quidem secundum cuiusque naturam praecise spectatas (sic enim materia elementaris, quae complures formas specie distinctas respicit, non posset esse unius speciei) sed secundum diuersum informandi modum: at qui is modus in materia caelesti et sublunari non idem est, cum illa indissolubili, haec dissolubili nexu informetur. Necessario igitur haec materia ab illa, specie disiungitur». *Conimb. in Aristotelis De caelo*, I, 2, q. 6, a. 2, 1 ratio.

39 Cfr. *Conimb. in Aristotelis De caelo*, I, 2, q. 6, a. 2, 2 ratio.

One must not ignore the elements that seem to be new in the discussion: a form may have other forms, either eminently or in potency; the celestial bodies somehow act upon the sublunary bodies or have some influence in their motion. In these last two propositions, it is supposed the idea that the form by its degree of perfection is determinant in the difference between celestial and sublunary bodies, an idea very sympathetic to the Thomistic solution[40]. But here the idea works with the distinctions of perfection and causality, which are not present in Aquinas' commentary on *De caelo*, but are not incompatible either[41].

At this moment, I believe the author is not following Philoponus, Simplicius or Aquinas' conceptions. His discussion is not completely independent from them, but somehow original, exploring the difficulties and bringing other perspectives to the discussion. Thus, in article 3, he sums up the important propositions to be considered in the solution, and he declares that, in this question, one can be persuaded by any of the two positions. For him, what is still possible to do is a good defense of the Aristotelian position. That, let us make clear, does not necessarily imply to offer reasons which Aristotle would agree with. This defense simply brings on propositions supporting the difference between celestial and sublunary matters as well as the superiority of celestial bodies[42]. In article 4, we

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40 Perhaps a version of it, since Thomas Aquinas appears among the authorities supporting this position.

41 The form of celestial bodies may contain other forms, in the sense that the form, being a principle of perfecting the composite, does not happen to be multiplied in "many" forms when it contains "many" perfections. Then, considering the form of the composite (the celestial body), some of its perfections are in act and in the highest degree, whereas other perfections are in potency, depending on external factors to become actual being. How a "perfection", whose definition is to be complete and totally realized, is at the same time not actual, not perfect? This apparent incongruence could be explained by the notion of active potency, but it does not seem to be the case here. While it is part of the argument to say that the celestial bodies have power (*uis*) to somehow induce the motion of sublunary bodies, the main reason to "have in potency" is the hierarchy between forms: what does the more can also do the less. That is why the celestial form alone is thought to be capable of stopping matter of receiving other forms: it has all of them.

42 «In utramque partem probabile est materiam caelestem specie distingui, uel non distingui a sublunari. Hanc assertionem probant primi et secundi articuli rationes, quas qui aequo et atento animo expenderit partia fere momenta, uti nobis uidetur, habere iudicabit. Non tamen in de cursu nostrarum commentationum in Aristotelem, cuius doctrinam saltem cum aequa probabilitate defendi potest, profitemur, decreuimus eam partem tueri, quae praedictas materias inter se specie disiungit, ne cum de huiusmodi distinctione mentio inciderit, quod non raro accidit, cogamur ambiguitate sententiae nos ad utramque partem accomodate». *Conimb. in Aristotelis De caelo*, I, 2, q. 6, a. 3, 2 assertio.

see the main solution proposed by the author, and in articles 5 and 6, his reply to the positions denying and affirming the difference in species between celestial and sublunary bodies.

The author apparently is willing to avoid some problems raised by the two main positions, presented in the first two articles. By his perspective, the authorities behind the controversy agree that the celestial bodies do not perish, that those bodies do not transform into one another and, absolutely, do not transform into sublunary bodies. However, the word "matter" needs a proper meaning and an explanation to its differences (concern of Philoponus); matters of the same species can receive the same forms (concern of Simplicius); the body with privation of form may have a desire for it and can perish (another concern of Philoponus); and the celestial forms, of each celestial body, are more perfect than the sublunary forms and they fulfill every potentiality in matter (concern of Aquinas). How to harmonize these concerns maintaining together material distinction and celestial imperishability?

First, the author defines that "the essence of matter consists in being an order either potential or transcendent towards the forms"[43], that is to say that matter, being a potency, is entitled of a possibility of order, which becomes an actual reality only by the action of certain form or certain species of forms. Matter itself offers some positive resistance to other forms: like a locker and its respective key, matter is only activated by the form that corresponds to the potential order. And the potential order is different for celestial and sublunary bodies: in heavens, the potential order is completely realized and is permanent; below the Moon, it is incompletely realized and the connection between matter and form is breakable.

Then, the term "matter" has a proper sense, and its kinds or species are due to the "*modus informandi*", the sort of connection with the forms. In the composite bodies above the Moon, the matter of a star and the matter of a planet belong to the same species, and they do not have privation of the form one of another, because the form present in these celestial bodies narrows the limits of the desire of matter, in the sense of being the only one to fulfill the potential order of matter, and no one else. Then, they do not transform into each other and cannot perish. But, in the composite bodies below the Moon, one observes the transformation among the mixtures of fire, air, water and earth. And because their matter can be

43 «[...] cum essentia materiae in ordine, potentiaue, siue respectu transcendenti ad formas consistat». *Conimb. in Aristotelis De caelo*, I, 2, q. 6, a. 4.

connected to any form of the mixt bodies, it has to be of one and same species[44]. But, as the connection between matter and form is fragile, and since the sublunary bodies diversify among themselves according to their natural places and different combination of qualities, when one of them is somehow moved by another body with different qualities, the moved loses qualities and receives others from the mover. In this sense the matter in a composite may have privation of form and desire for the form of other composites. Thus, it is not the weakness of the form that explains the possibility of transformation between bodies, but it is the "*modus informandi*" of the matter, the difference of qualitative forms and the interaction between those bodies.

In response to argument A (I, c. 2, q. 6, a. 1, ratio 5), the author follows the form of the objection of Simplicius to Philoponus: if celestial and sublunary matters were of the same species, then the celestial bodies would be capable of transformation and perishing. As such transformation is not observed, or at least not recognized, one should conclude that the matters of celestial and sublunary bodies have different *modos informandi*. Furthermore, in opposition to argument A, the perfection of form does not explain, by itself, the imperishability of celestial bodies.

In response to argument B (I, c. 2, q. 6, a. 2, ratio 2), some propositions suffer a slight correction. The celestial bodies do have some power upon the movement of sublunary bodies, but their matter is not deprived of sublunary forms, "not completely", because these forms, even being of different species, do not constitute objects properly correspondent to the potential order of celestial matter. Then, there is no privation or frustrated possibility in celestial bodies, "because 'frustrated' is not said of something, be it one or many, that does not come into act, but it is said of what happens differently than expected" (I, c. 2, q. 6, a. 6, *ad* ratio. 2).

The evidence of explicit and implicit presence of Philoponus' arguments, discussed all through this paper, will probably leave someone with the question of whether they could be real evidence of Philoponus' influence in Coimbra Commentary. And what to say about his influence in Early Modern philosophy? I understand "influence" in a broader sense, assuming that, even in disagreement with Philoponus and without naming him, his readers could have seen relevance in his

44 It is not evident which aspect is taken into account in this species. It could be the capacity of rectilinear motion or of qualities such as heat, cold, dry and wet.

arguments and objections, for comprehension or solution of certain questions[45]. In this sense, I defend that the debate of Simplicius with Philoponus somehow has influenced the author of the Coimbra commentary and, potentially, generations of philosophers throughout the sixteenth century. But it is too soon to decide whether this influence was direct or indirect. We cannot disregard the possibility of other influences here, nor I intend to make my readers have the impression that, based on the evidence hereto presented, one can decide undoubtedly whether the author of Coimbra Commentary has read Simplicius and Philoponus; whether he was faithful to Thomistic interpretations; whether he was really persuaded of anything he wrote. Let us keep in mind that, up to the end of the sixteenth century, a vast bibliography of commentaries was available in schools, universities and religious orders. Many theologians of the fourteenth, fifteenth and sixteenth centuries are mentioned in the Coimbra commentary, so it is possible that some arguments resembling reasons from different Ancient and Medieval authors, in fact, have been found in other books and sources, not necessarily connected to Philoponus or Simplicius. I am aware of the fragility inherent to my suggestions of "influence". Nonetheless, my point is: although the author of the Coimbra commentary propounds a solution (to the question of celestial matter) different from Philoponus, Simplicius or Aquinas' conceptions, his solution is not historically independent from them. Philoponus has made an important contribution to the discussion, such that it somehow resonated across the centuries, unto the Coimbra commentary on *De caelo*.

45 C. Schmitt, «Philoponus' Commentary on Aristotle's Physics in the Sixteenth Century», in R. Sorabji (ed.), *Philoponus and the Rejection of the Aristotelian Science,* Cornell University Press, Ithaca, New York 1987, pp. 253–268. Schmitt discusses the topic of influence, by considering the different factors involved: the available works and the access to them, their *fortuna* and their reception. About the reception, Schmitt distinguishes three circumstances: first, some author is quoted by other, but the ideas of the former are not assimilated by the later; second, the ideas are rejected or become object of refutation; third, the ideas are assimilated in some degree. I would add to this list the division of problems, concepts and arguments. It seems to me that it is possible for an author to reject concepts (definitions) or arguments, but to accept the problems, the order of exposition or any other element of the other's philosophical method.