

Santo Antão

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VOLUME 6

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Santo Antão

The Jesuit College in Lisbon and Its History

Edited by

David Salomoni
Luana Giurgevich
Henrique Leitão



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This book was supported by the ERC-funded project *RUTTER: Making the Earth Global*. The *RUTTER* project has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 Research and Innovation Programme [grant agreement No. 833438].



European Research Council
Established by the European Commission

Cover illustration: Salão Nobre, Hospital de São José, Lisbon.

The Library of Congress Cataloging-in-Publication Data is available online at <https://catalog.loc.gov>
LC record available at <https://lcn.loc.gov/2025011433>

Typeface for the Latin, Greek, and Cyrillic scripts: "Brill". See and download: brill.com/brill-typeface.

ISSN 2542-5536

ISBN 978-90-04-71994-1 (hardback)

ISBN 978-90-04-71995-8 (e-book)

DOI 10.1163/9789004719958

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Acknowledgments

This volume has greatly benefited from the generous support, conversations, and encouragement of many people. We would like to thank the contributors to this volume for their enthusiasm for the project and their exceptional scholarship. We also extend our appreciation to the anonymous reviewers, whose insightful feedback and thoughtful suggestions greatly enriched the content of this book. Furthermore, it is worth noting that this book was conceived and written during a period of global crisis—the COVID-19 pandemic imposed limitations on archival research, particularly on primary sources that have not been digitized. The “Santo Antão Project” received crucial support from the Centro Interuniversitário de História das Ciências e da Tecnologia, Faculdade de Ciências, Universidade de Lisboa, 1749-016 Lisboa, Portugal and from the RUTTER project. The RUTTER project has received funding from the European Research Council (ERC) under the European Union’s Horizon 2020 research and innovation programme (grant agreement no. 833438).

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The Teaching of Philosophy at the College of Santo Antão (1590–1690)

Paula Oliveira e Silva

1 The Teaching of Philosophy at the College of Santo Antão¹

This study aims to enhance the existing body of knowledge on the organization of philosophy teaching at the College of Santo Antão during the sixteenth and seventeenth centuries. At first glance, this might appear to be a relatively straightforward task. In 1553, the year in which this college was founded, there were already Jesuit institutions in Europe that can be used as analogues to understand how the teaching of philosophy at Santo Antão was organized. There are also numerous studies on the Jesuits' pedagogical activities at the time, both in Europe and in Portugal, which allow us to reconstruct how the Society's colleges were organized in terms of syllabuses and school life, as well as to identify the impact they had on the society of their time. Moreover, not only was the College of Santo Antão the first Jesuit college in Portugal but it was also, together with the Colleges of Coimbra and Évora, one of the three most important colleges of the Society in this country. Yet, although there are several studies on how philosophy courses were organized in the Jesuit Colleges of Coimbra and Évora in the sixteenth and seventeenth centuries, so far there has been no systematic study of how these courses were structured at the College of Santo Antão.

The history of this college is not easy to reconstruct, either in terms of its foundation and development or in terms of the teaching that took place there. It is possible to identify at least two different phases regarding the teaching activities at Santo Antão. The first comprises the period from its foundation in 1553 up to 1590, whereas the second period corresponds to the teaching carried out in its new premises, the construction of which was needed due to

1 This publication is funded with National Funds through the FCT—Fundação para a Ciência e a Tecnologia/Foundation for Science and Technology—in the framework of the Thematic Line Medieval and Early Modern Philosophy research group Aristotelica Portugalensia and of the Exploratory Project “Does God Know the Contingents?”—EXPL/FER-FIL/1410/2021 of the Institute of Philosophy, U&D unit with the reference UIDB/00502/2020.

the success of the courses it offered. There are indications that the College of Santo Antão distinguished itself since its foundation in the teaching of disciplines such as rhetoric and grammar, both Latin and Greek, and there is also evidence of the teaching of subjects related to moral theology, the so-called “cases of conscience.” From 1555, the sources report the introduction of the “Aula de Esfera” (Class on the Sphere), the relevance of which, both for the history of science and for a better understanding of the role the Jesuits played in it, has been abundantly documented. Yet, both in the primary sources and in the secondary literature, there are only sparse references to the teaching of philosophy at Santo Antão.

As mentioned above, the college’s initial facilities proved inadequate given the growing demand for the courses it offered. In 1573, the Jesuits obtained from Cardinal-King Henrique (r.1578–80) financial support for this particular college and projected a large building, whose construction began in 1579. In return for a perpetual income for the college, a royal decree issued in 1574 required the Jesuits to open public classes in philosophy and mathematics. However, for various reasons these two public courses did not start until 1590, when the new college was inaugurated.

Today, we have numerous studies on the teaching of natural philosophy related to the Class on the Sphere, which covered subjects such as mathematics and astronomy. These studies demonstrate that not only did the teaching of these sciences play a significant role in the advance of knowledge in these two domains during the period in question but that the body of knowledge of mathematics and astronomy in Santo Antão was perfectly aligned with these advances.

On the other hand, there is a lack of information about the philosophy courses taught at Santo Antão, and this knowledge is necessary to understand the social and scientific impact of the teaching activity at this college. A better insight into the nature of these courses and the content taught is important for several reasons. First, such knowledge will facilitate a more detailed perception of the Jesuit teaching network in Portugal, particularly in the three major colleges of Évora, Lisbon, and Coimbra, concerning both the circulation of teachers, the doctrines taught, and the use of teaching manuals. Furthermore, comprehending the philosophical theories imparted at Santo Antão will enhance our understanding of the doctrines disseminated by Jesuits in their colleges during this period. It is now widely acknowledged that the subjects studied in the Jesuits’ philosophy courses had a significant impact on the theological debates of the time. This is evident in discussions such as the philosophical demonstration of the immortality of the soul and the reconciliation of human free will with divine foreknowledge and grace. In addressing the

latter question, philosophy professors faced two challenges: first, they needed to ensure that any description of the order of the universe did not contradict human freedom; second, they had to avoid any explanation of God's nature that might compromise human free will.

In the history of science and philosophy, the study of astronomy and mathematics has invariably been associated with issues of cosmological and theological determinism. It is generally accepted that these subjects were taught in the Class on the Sphere and that these classes were prominent in the curriculum of the College of Santo Antão. Consequently, a more profound understanding of the manner in which issues pertaining to cosmological and theological determinism were addressed in the philosophy courses at this college will contribute to the discernment of the link between the doctrines disseminated in the Class on the Sphere and those elucidated in the teaching of philosophy. It will also shed light on the interrelationship between the teachings of natural philosophy and the theological debates of that time.

With the aim of contributing to the history of philosophy teaching at the College of Santo Antão, the chapter will address two related issues. It begins by presenting the information we have been able to collect on the organization of the teaching of philosophy at this college between the sixteenth and seventeenth centuries in terms of the curricula, the masters who taught there, and the teaching materials they used. As we have been able to identify two complete, printed philosophy courses, whose authors taught philosophy at the College of Santo Antão, the chapter examines how they deal with determinism, both cosmological and theological. Finally, the chapter concludes with a state-of-the-art account, emphasizing the need for further research into the history of philosophy teaching at Santo Antão during the sixteenth and seventeenth centuries.

2 Teachers, Philosophy Courses, and Textbooks

To better understand the institutional context for the teaching of philosophy at the College of Santo Antão, it is important to ascertain how many courses were taught there, what their duration was, who the assigned teachers were, and which materials were used. Yet, the historiographical sources with information about these topics consist mainly of descriptions of the activity of the Society of Jesus in Portugal and are, as such, not focused on the subject of the current research.

As mentioned earlier, most of the specialized literature on the College of Santo Antão consists of studies on the history of sciences that are focused on

the teaching of mathematics in the Class on the Sphere. Taking into account the research available on the teaching of mathematics at Portuguese Jesuit colleges, it is possible to accurately characterize the institutional context of this kind of teaching in the two schools where it took place: the Colleges of Coimbra² and of Santo Antão.³ Now, considering the importance the Jesuits placed upon the teaching of philosophy and theology in their colleges, when it comes to the teaching of philosophy at Santo Antão, the fact that it is not easy to reconstruct the institutional context of this type of teaching is cause for some perplexity.

One explanation for this dearth of information might be that the College of Santo Antão was considered a minor college. According to Ugo Baldini, in minor colleges, philosophy was taught in two simplified ways: either there was only one teacher (and the students who aspired to enter the Society had to wait for end of a cycle and the beginning of a new one); or the program was shortened, and all the disciplines of philosophy were explained in only one year. In the case of Santo Antão and for the period under consideration, philosophy was sometimes taught in one of these simplified forms, while in other years it was not taught at all.⁴

An added difficulty is the state of conservation of the late sixteenth- and seventeenth-century manuscripts on the teaching of philosophy at Portuguese Jesuit colleges. Undated and with no identification as to their provenance, many of these documents consist of anonymous courses. Furthermore, a considerable proportion of these manuscripts exhibit signs of deterioration, attributable to the passage of time and inadequate preservation methods. The following paragraphs present the information it has been possible to collect

2 Mário Santiago de Carvalho, "Coimbra Jesuit Mathematicians: A Possible Reasoned Catalog," last modified December 9, 2022, <http://www.conimbricenses.org/encyclopedia/coimbra-jesuit-mathematicians> (accessed November 5, 2024); Ugo Baldini, "A escola de Christoph Clavius: Um agente essencial na primeira globalização da matemática europeia," in *História da ciência luso-brasileira: Coimbra entre Portugal e o Brasil*, ed. Carlos Fiolhais, Carlota Simões, and Décio Martins (Coimbra: Coimbra University Press, 2013), 51–76, esp. 62–64, 72–74; Baldini, "The Teaching of Mathematics in the Jesuit Colleges of Portugal, from 1640 to Pombal," in *The Practice of Mathematics in Portugal*, ed. Luís Saraiva and Henrique Leitão (Coimbra: Imprensa da Universidade de Coimbra, 2004), 293–465; Bernardo Machado Mota, *O estatuto da matemática em Portugal nos séculos XVI e XVII* (Lisbon: Fundação Calouste Gulbenkian & Fundação para a Ciência e a Tecnologia, 2011).

3 See below, note 4.

4 See Baldini, "Teaching of Mathematics," 303–7. For the main differences between major and minor colleges, see Paul F. Grendler, *Jesuit Schools and Universities in Europe 1548–1773* (Leiden: Brill, 2019), 12–19, 23–27.

about the lecturers, courses, and materials used in the teaching of philosophy at Santo Antão between 1590 and 1690.

The first piece of evidence of the existence of a philosophy course in Santo Antão can be traced back to 1590, when it was taught by the Portuguese Jesuit Valentim de Carvalho. De Carvalho remained in the position of professor for a period of four years, until 1594,⁵ at which point he departed for Japan and was succeeded by Diogo de Areda,⁶ who began teaching philosophy at the college in that same year. Areda remained a teacher between 1594 and 1598, once again, for a four-year period. As Baldini explains, the Jesuit philosophy courses in Portugal during this period and until the *Ratio studiorum* of 1599, had a duration of four years.⁷ It can, therefore, be surmised that both of these Jesuits lectured an entire philosophy course. We also know that the much-anticipated *Cursus Conimbricensis* (Coimbra philosophy course), which had by then largely been concluded,⁸ was being used in teaching in Lisbon. One plausible hypothesis is that both teachers may have used this set of manuals, the publication of which had been designed to facilitate the teaching of philosophy.

In addition to the two Jesuits mentioned above, four other Jesuits who also taught philosophy at Santo Antão during the seventeenth century can be identified: Baltasar do Amaral, Francisco Macedo, Bento de Lemos, and

5 A biographical note on Valentim de Carvalho is given by Francisco Rodrigues, *História da Companhia de Jesus na assistência de Portugal* (Porto: Livraria Apostolado da Imprensa, 1944), 2-2:477: "Valentim de Carvalho, de 34 anos de idade e 17 de Companhia, fora o primeiro lente de Filosofia do Colégio de Santo Antão em Lisboa, sua patria [...]"; 2-2:14: "[Carvalho] ensinou durante sete anos no Colégio de Santo Antão e ia no quarto ano de ensino da Filosofia quando partiu para o Oriente, onde foi o primeiro Provincial do Japão e provincial de Goa, onde morreu em 1631." See also Juan Ruiz-de-Medina, "Carvalho, Valentim de," in *Diccionario histórico de la Compañía de Jesús: Biográfico-temático*, ed. Charles E. O'Neill and Joaquín María Domínguez (Madrid: Universidad Pontificia Comillas, 2001), 1:675.

6 José Vaz de Carvalho, "Areda, Diogo de (Silveira)," in *Diccionario histórico*, 221, states that Diogo de Areda used the surname "Silveira" until around 1588 and that he taught philosophy at Santo Antão College from 1594 to 1598. See also Robert Martins Junqueira, "Areda, Diogo de (Silveira)," last modified February 12, 2019, <http://www.conimbricensis.org/encyclopedia/areda-diogo-de-silveira/> (accessed November 5, 2024).

7 On the duration of philosophy courses in the Portuguese province, Baldini writes: "In most provinces the philosophy course covered three years of logic, physica (natural philosophy) and metaphysics (ethics was sometimes added to metaphysics, sometimes taught by another teacher). In Portugal, from the very beginning, it usually covered four" (see Baldini, "Teaching of Mathematics," 302). The final version of the *Ratio studiorum* (1599), however, signaled that philosophy courses should be taught for three years, and this principle must have been applied at Santo Antão right from the beginning of the seventeenth century.

8 For the dates and subjects of the *editio princeps* of the different volumes of the *Cursus Conimbricensis*, see Mário Santiago de Carvalho, *O curso aristotélico jesuíta conimbricense* (Coimbra: Imprensa da Universidade de Coimbra, 2018), 161–62.

Agostinho Lourenço. Although there is only limited biographical information on Amaral, it is known that he taught philosophy at Santo Antão⁹ and that he published a work entitled *Doctrina philosophica* (Philosophical doctrine) under the pseudonym of “Luís Dias Franco.”¹⁰ Information on Macedo’s presence in Santo Antão is also scarce, with only one of the biographies consulted referring to his activity as a teacher of philosophy at the college.¹¹ In contrast, there is abundant biographical data on Francisco de Macedo given the peculiar

9 Carlos Sommervogel, ed., *Bibliothèque de la Compagnie de Jesus* (Louvain: Martino Publishing, 1960), 1:261: “[Amaral, Balthaser] né à Cunha Baxa, entra dans la Compagnie en 1601. Il enseigne la Philosophie aux collèges de Lisbonne et de Coimbra.”

10 Luís Dias Franco [Baltasar do Amaral], *Doctrina philosophica* (Lisbon: Pedro Craesbeeck, 1618). Some details of this work will be discussed further below. Recent catalogs and biographies, such as Scholasticon, https://scholasticon.msh-lse.fr/Database/Scholastiques_fr.php?ID=448 (accessed November 5, 2024), and *Iberian Books*, ed. Alexander S. Wilkinson and Alejandra Ulla Lorenzo (Leiden: Brill, 2016), suggest that this work was written by Luís Dias Franco, as is apparent in the work, without, however, mentioning that this was a pseudonym. In the *Diccionario histórico*, there are no entries for these names. On Amaral, Diogo Barbosa Machado writes: “Balthazar do Amaral natural de Cunha Baxa no Bispado de Viseu, e filho de Gaspar Paes, e Catherina do Amaral. Na idade da adolescência abraçou o Sagrado Instituto da Companhia de JESUS [sic] em o Collegio de Coimbra a 14 de Junho de 1601. Foy igualmente perito nas letras humanas que nas subtilezas filosóficas que dictou nos Collegios de Lisboa, e Coimbra. Com o suposito nome de Luiz Dias Franco publicou Doctrina Philosophica [...] Ulyssipone apud Petrum Craesbeeck. 1618. Conserva-se o Original com o nome próprio do Author na Livraria da Casa Professa de S. Roque em Lisboa” (see *Bibliotheca Lusitana histórica, crítica e cronológica* [Lisbon: António Isidro da Fonseca, 1741], 650). Barbosa Machado mentions the existence of the *Doctrina philosophica* under the name Baltasar do Amaral, its true author, in 1741. However, in 1759, the Jesuits were expelled from Portugal and stripped of their property by order of the marquis of Pombal. In the absence of the manuscript, Machado’s claim is possibly the oldest testimony as to the real authorship of that work. Rodrigues, *História da Companhia*, 3:165 follows Machado. Amaral is also known to have produced a “Conclusiones” paper: “Conclusiones metaphysicae: Quaestio disputanda; Num possit produci aliquid corporeum supernaturale? Praeerit P. Georgius Cabral; Tuebitur Balthasar d’Amaral” (Coimbra: Diogo Gomes Loureyro, 1607).

11 Of all the biographical studies consulted, the only one that explicitly refers to Macedo as having taught philosophy in Santo Antão is José Vaz de Carvalho, “Macedo, Francisco de,” in *Diccionario histórico*, 2454: “Cursó humanidades y filosofia en el Colégio das Artes, y teologia en el Colégio de Jesus. Enseñó retórica, filosofia y cronologia en el Colégio de Santo Antão en Lisboa y en el Colégio das Artes.” In 1620, Macedo was teaching rhetoric at Santo Antão (Rodrigues, *História da Companhia*, 3:182). See also Ilídio de Sousa Ribeiro, *Frei Francisco de Santo Agostinho de Macedo* (Coimbra: Universidade de Coimbra, 1952), 11, who adds that this was Macedo’s favorite subject to teach. Of the studies and biographies mentioned above, Vaz de Carvalho’s is the most recent. If Macedo did indeed teach philosophy at the college, it would have been between 1620, the year that Macedo taught rhetoric at Santo Antão, and 1625, when he was teaching at the College of Santarém.

characteristics of the religious path he took and his intense political and diplomatic activities.¹²

With regard to Lemos, the most complete biographical note was written by José Vaz de Carvalho,¹³ who states that this Jesuit “taught rhetoric and humanities at this university [Évora] and philosophy at the College of Santo Antão in Lisbon.” Vaz de Carvalho refers to him mainly as a theologian and royal preacher, and it was in this latter capacity, in fact, that he left for London in 1675, together with the Jesuit Lourenço, where both remained at the service of Catherine of Braganza as preachers. In the case of Lemos, it was not possible to gather any more information about his teaching at Santo Antão, but the same cannot be said for Agostinho Lourenço. Vaz de Carvalho states that the latter’s activity was linked to the teaching of several subjects in various colleges of the Society. At Santo Antão, he taught philosophy for three years, possibly between 1672 and 1675. Vaz de Carvalho points out that, once in London, both Lourenço and Lemos used the time they had to spare after their preaching chores to devote themselves to writing. Lemos wrote on biblical themes and never harbored the ambition of publishing his work, which has now been lost. Lourenço, on the other hand, published an extensive three-volume treatise on philosophy.¹⁴

To summarize, the extant data demonstrate that between 1590 and 1690 philosophy courses were taught at the Colégio de Santo Antão by the Jesuits Valentim de Carvalho, Areda, Amaral, Lemos, and Lourenço. These courses corresponded, at least in duration, to the model established in the Jesuit colleges for teaching this subject. Francisco de Macedo’s philosophy teaching is less well documented and can be included in the kinds of courses referred to by Baldini as simplified.¹⁵ Although it has not been possible to find the manuscript textbooks in which these lessons were recorded, their existence remains

12 Due to his involvement in politics or, as claimed by Rodrigues (*História da Companhia*, 3-1:343–44), because of the enmity directed toward him by senior members of the clergy, Francisco de Macedo was confined to the professed house in Lisbon for two years. In 1640, he managed to escape to France, where he sought to resign from the Society of Jesus, having joined the order of St. Augustine in 1641. With regard to this episode in Macedo’s life, see, e.g., Dauril Alden, *The Making of an Enterprise: The Society of Jesus in Portugal, Its Empire and Beyond 1540–1750* (Stanford: Stanford University Press, 1996), 97.

13 See José Vaz de Carvalho, “Lemos, Bento de,” in *Diccionario histórico*, 2330.

14 Agostinho Lourenço, *De triplici ente cursus philosophicus: I. De ente logico; II. De ente physico; III. De ente metaphysico* (Liège: Guilielm Henricus Streel, 1688). Lourenço also published two volumes on theology entitled *Syntagmata theologica* (Liège: Guilielm Henricus Streel, 1690–92). For a biographical note on Agostinho Lourenço, see Vaz de Carvalho, “Lourenço, Agostinho,” *Diccionario histórico*, 2425–26.

15 See above, note 7.

a valid line of research given the large number of anonymous manuscripts preserved from this period that are undated and of undetermined provenance. It was, however, possible to identify two printed works that bear witness to the teaching of philosophy at the Colégio de Santo Antão during the period we are considering: one, by Amaral, was published in Lisbon in 1618; the other, by Lourenço, was published in Liège in 1688. As they were written by professors on whom there is reliable information about having taught philosophy at Santo Antão, these two published works are, therefore, important to understand what the philosophy courses were like in this institution.

To the best of my knowledge, there have been no systematic studies conducted on either of these two works. In this chapter, I will be examining some of the theories proposed by these two Jesuits in their philosophy courses concerning issues that tackle cosmological and theological determinism. As previously reported, the selection of these issues is due to their connection to subjects explored in the Class on the Sphere, as well as to contentious debates that were prevalent within the theological discourse of that time.¹⁶

3 On Human Freedom, Divine Foreknowledge, and Astral Determinism

In the ancient and medieval philosophical tradition, obstacles to human free will were considered to be of two types: either those derived from the omnipotent and omniscient nature of God as the absolute efficient cause of the universe, or those caused by fate or other cosmic forces, such as celestial bodies. In the Scholastic tradition of commentary on Aristotle's works, which was still practiced in the Jesuits' sixteenth- and seventeenth-century philosophy courses, questions related to theological determinism deriving from the need to affirm the divine prescience of future contingents were discussed in the teaching of logic, more precisely when commenting on Aristotle's *De interpretatione* (On interpretation). In turn, issues related to cosmologic determinism were traditionally broached when commenting on Aristotle's *De caelo* (On the heavens). In their respective philosophy courses, both Amaral and Lourenço

¹⁶ Issues concerning the epistemic value of astrology were discussed in the Class on the Sphere and in the part of the philosophy courses on Aristotle's natural philosophy. On the question on whether astrology is scientific knowledge as explained in the Class on the Sphere at Santo Antão, see Luís Ribeiro, *Jesuit Astrology* (Leiden: Brill 2023), chapter 10, 254–352. A comparative study between the doctrines explained on the scope and legitimacy of astrology in both courses, the sphere and philosophy, at the College of Santo Antão has yet to be carried out.

comment on these two works by Aristotle. By analyzing their comments, it is possible to understand the general lines of the theories they defended on the alleged conflict between human freedom and the external and superior forces that threaten this freedom. This analysis shows that both Amaral and Lourenço claim that human freedom is not constrained by God's absolute power over the universe nor is it by the power of cosmic forces.

4 *Amaral's Doctrina philosophica*

In the prologue to his *Doctrina philosophica*, Amaral dedicates his work to the College of Santo Antônio, to its rector, and to the priests who taught there. He praises the efforts of the Jesuits in the education of young people, acknowledging the positive outcomes of this teaching, including the salvation of individuals from the menace of barbarism and the establishment of strong human connections within the family, society, and the state.¹⁷ In addition to the prologue, he also composed a dedication to the reader, a practice that was customary at the time, in which he sets out his objective of producing a compendium of philosophy that will facilitate and enhance the reader's experience of studying the subject. In this dedication, he explains that the reason for writing this compendium is to overcome the obstacles to learning that he perceives in the works currently available for the teaching of philosophy.¹⁸

As Amaral points out, these manuals are marked by a methodological error in that they are based on numerous author testimonies, debate many arguments put forward by different schools, and analyze many issues that are not relevant to the subjects under discussion. His *Doctrina philosophica* aims to remedy this state of affairs by explaining philosophy in a more didactic way. In order to achieve this objective, he asserts that his work will adopt a descriptive method in terms of content that facilitates memorization, without neglecting the specific characteristic of philosophy, which is comprehensive knowledge pertinent to wisdom.

Amaral's *Doctrina philosophica* is organized into treatises, separated by questions, which are in turn subdivided into chapters. Treatise 1 is devoted

17 See Amaral, *Doctrina philosophica*, "Collegio Olysiipponensi D. Antonii Societatis Iesy hanc Doctrinam Philosophicam, dicat, et consecrat Ludovicus Dias Francus."

18 Amaral, *Doctrina philosophica*, Praefatio ad Lectorem: "Nam qui Philosophicum tyrocinium adiere, in ijs, quae a diversis scripta sunt, plurimum solent impediri, vel propter quaestionum diffusarum multitudinem, et argumentorum, hinc inde insurgentium farraginem; vel etiam quod ij, qui hactenus totam Aristotelis Philosophiam commentarijs suis illustratunt non doctrinae ordinem, sed librorum expositionem videntur sequuti."

to the study of “natural objects in general, their principles and characteristics” and begins with a brief introduction to the nature of philosophy and the parts that make up this science. According to Amaral, philosophy should be understood as the science that explains the nature of things in the light of their causes and principles, a position that is clearly in line with that of Aristotle. This science is divided into three parts—physics, mathematics, and metaphysics—which, although belonging to natural philosophy, “are not integral parts of a total science but [consist of] distinct sciences.”¹⁹ In the preface to treatise 1, Amaral also describes the kind of knowledge that characterizes natural philosophy and the degree of certainty this science achieves. He then proceeds to describe the primary characteristics of the object of study, invoking the doctrine of *minima naturalia* (the minimal parts of natural beings), which is founded on the premise that natural beings are limited in extent.²⁰ As natural beings are defined by the presence of extension and form, it can be concluded that they are hylomorphic compounds. The subject of natural philosophy is precisely this type of compound. However, as Amaral explains at the very beginning of his work, as a science, philosophy aims to provide exact and evident knowledge of its object. This presupposes that it is capable of explaining the causes and principles of the kinds of beings it is studying, which in this case are natural beings.

Natural philosophy is initiated through an examination of the fundamental principles that underpin the existence of natural phenomena. This is followed by an analysis of how these principles give rise to their own effects and how these entities interact with one another as a result of causal procedures. In explaining these issues, Amaral makes two important statements. On the one hand, he claims that, as far as existence is concerned, hylomorphic compounds originate in the action of God, who is an absolute, omnipotent principle of being, extrinsic to all created things. On the other hand, he states that no other principle different from the union of matter and form to which God gives being is involved in the origin of natural beings.²¹ Natural beings are,

19 Amaral, *Doctrina philosophica*, 1–2.

20 This theory was developed during the Middle Ages to explain the finite character of natural beings as hylomorphic compounds. On the persistence of this theory in philosophy courses taught by Portuguese and Spanish Jesuits of the sixteenth and seventeenth centuries, see Paula Oliveira e Silva and João Rebalde, “The Diagram of *Minima naturalia* in Marcos Jorge’s Commentary on Aristotle’s *Physics* (*Physica*, 1, 4),” in *Per cognitionem visualem: The Visualization of Cognitive and Natural Processes in the Middle Ages*, ed. José Higuera (Turnhout: Brepols, 2023), 217–37.

21 Amaral, *Doctrina philosophica*, 6: “Res autem naturales, quae secundum se totas fierent per creationem, non haberent alia principia, praeter materiam, et formam, quae simul

therefore, radically dependent on God's creation—that is to say, they are contingent in nature.

After this description of the elementary principles of natural beings as holomorphic compounds, whose existence depends on God, Amaral proceeds to explain how God acts when causing the natural world. His explanation is extensive and takes up nearly the entirety of treatise 1. He carries out this analysis in light of the Aristotelian theory of four causes, placing special emphasis on efficient and formal causality. In his explanation, he poses the question of divine concurrence and elucidates the manner in which divine causality interacts with second, created causes—both natural and free. In this context, he tackles the problem of divine foreknowledge and its compatibility with free agents. His position concerning this complex issue favors a compatibilist solution according to which under all circumstances divine foreknowledge and concurrence preserve human free will.

After a long metaphysical explanation on the causal principles of natural beings, which occupies twelve of the seventeen questions of treatise 1, Amaral briefly analyzes the nature of movement in general. In fact, the treatise is primarily concerned with the study of the processes of causality that give rise to the natural world, and with the manner in which God acts in this creation. Only questions 14 to 17 of treatise 1 are devoted by Amaral to the nature of physical movement, a question that was at the core of Aristotle's natural philosophy. In treatise 2, he explains the content of Aristotle's *De caelo*, studying the movement of celestial bodies in terms of its effect on the sublunary world. In the philosophical tradition, the possible influence of heavenly bodies on human free will was discussed when explaining this question. Amaral analyzes this issue while examining the question on "whether celestial bodies can influence our will."²² In his answer, he admits that the celestial bodies can in fact indirectly influence human will. He states that the movement of the spheres, by affecting the flow of blood, affects the disposition of organs in the human body, which can cause a change in humors. The latter, in turn, are the cause of the passions of the soul, which act upon the human soul at the level of irrational appetites. As such, although it is true that the movement of the celestial bodies cannot directly and immediately influence human will, whose

producerentur per una, impartibilem actionem, et ideo materia non praesuponeretur prius cum privatione formae."

22 Amaral, *Doctrina philosophica*, 130: "Vtrum corpora coelestia possint influere in nostram voluntatem?"

nature is not material, their movement affects it indirectly. This occurs because of the hylomorphic structure of humans as part of the natural world.²³

A further question traditionally addressed in the commentaries on Aristotle's *De caelo* is that of the capacity of astrologers to predict both cosmic phenomena and future events that occur in human life. If the first type of predictability can be scientifically validated as part of astronomy, the power astrologers claim of predicting future contingents represents a threat to human free will. If such predictability were to be established, it would signify that the actions of free agents would be determined by necessary causes, thereby rendering their actions no longer unpredictable. However, unpredictability is an intrinsic quality of free action. Amaral asserts that the nature of human actions cannot be predicted, whether by astrologers, angels, or even God himself.

In analyzing such issues, Amaral draws a clear line between the relative certainty that human knowledge can achieve about natural phenomena and the false knowledge that astrologers claim to possess when they make predictions regarding future contingents. In the domain of natural philosophy, specifically as to the branch that concerns the movement of celestial bodies, the human mind can attain relatively certain knowledge concerning the movement of celestial bodies, which is substantiated by observational evidence and reasoning. For instance, it can be deduced with a reasonable degree of certainty that the planets move in orbits and undergo eclipses and analogous phenomena.

The predictability of such knowledge rests on the constancy of natural laws, which ultimately reveals the causal order impressed upon the world by God. For the same reason, astrology is able to predict with some degree of certainty changes that are causally linked to the movement of planets, such as rain, drought, and storms, since these are effects of celestial bodies that can be observed on the sublunary world.

However, Amaral recognizes that this knowledge is difficult to obtain. This is mainly due to the very nature of the object of study, which is far removed from sensory experience and prevents astrology from going beyond its rudimentary

23 Amaral, *Doctrina philosophica*, 130–31: “Corpora igitur coelestia non possunt agere in nos-
tram voluntatem motione directa, et immediata*. [*Marginalia: sed ad summum indirecta
et mediata]. Ratio prima pars est quia voluntas est subiectum spirituale, caelum vero est
agens corporeum, et ideo voluntas non potest à coelo aliquid pati, neque caelum agere
directe in illam. [...] 21. Secundam pars probatur, quia licet stellae per se non moveant,
nec possint movere voluntatem, possunt tamen eam movere interventu organorum, in
quibus incidente potentiae corpórea, ut calefaciendo cordis sanguinem, quo efferveres-
cente, appetitus irascibilis ad iram concitetur, et sic propter sympatiam potentiarum
secum deferat voluntatem; nam iuxta Aristotelem, ut quisque affectus est, talis ei finis
videtur.”

state. For this reason, even with regard to valid and legitimate knowledge, Amaral states that, concerning astrology, “human reason cannot but confuse itself.”²⁴ As to the astrological-based knowledge of the future effects of free agents, he clearly states that “astrologers cannot know contingent events, not even those that are produced by chance.”²⁵

Such are, therefore, the two main explanations of the relationship between the human knowledge of future contingents and human freedom put forward in treatises 1 and 2 of Amaral’s *Doctrina philosophica*. The first is given in the context of a long explanation of causality and divine concurrence regarding the natural world. The second, which is much briefer, is focused on the relationship between secondary causes, such as heavenly bodies, and human freedom. With the caveat that human beings possess a corporeal structure susceptible to material influences, according to Amaral human will functions as an immaterial, autonomous cause and cannot be affected by any extrinsic force, be it created and immanent to the world or uncreated and transcendent to it, as is the case of God.

5 *Agostinho Lourenço’s Cursus philosophicus de triplice ente* (*Philosophy Course on the Three Kinds of Being*)

Lourenço’s *Cursus philosophicus de triplice ente* takes up three large volumes—on logic, physics, and metaphysics—and follows an expository methodology that is in complete contrast to that of Amaral. As previously stated, Amaral’s objective was to educate in philosophy by setting aside controversies between various authors and schools. Doing the exact opposite, Lourenço’s method makes his explanations significantly more complex than those presented by Amaral on the same subjects. Yet, it is for this very reason that Lourenço’s philosophy course constitutes an important source for our knowledge of the relevant debates that affected the intellectual milieu of that time.

In particular, and as far as the problem of future contingents is concerned, Lourenço’s *Course* is an excellent testament not only to the controversy between the Jesuits Pedro da Fonseca and Luis de Molina about the authorship of the concept of middle knowledge but also to the philosophical and theological polemic concerning the doctrine of middle knowledge that strongly divided Jesuits and Thomists. The crux of this controversy concerned the

²⁴ Amaral, *Doctrina philosophica*, 130.

²⁵ Amaral, *Doctrina philosophica*, 131–32. This criticism is targeted at the false and vain knowledge of astrologers who practice divination based on palmistry and on physiognomy.

compatibility between divine foreknowledge and free will and was rooted in the two schools' different understanding of divine science, particularly with regard to the divine science of future contingents. Lourenço discusses this problem in disputation 3 of *De ente logico*—"on whether created, contingent futures, are intrinsically and really present in the eternity of God."²⁶ In his explanation, he defends the Jesuits' position on God's knowledge of future contingents by appealing to their theory on the existence, in God, of a middle knowledge. The identification of this type of knowledge, which corresponds to the conditioned knowledge God has about future contingents, was established by the Jesuits Fonseca and Molina at the end of the sixteenth century. From that point onward, the middle knowledge doctrine was used by the Jesuits as a conceptual device to defend positions that render divine foreknowledge and human freedom compatible. According to Lourenço, the difference between the Thomists and the Jesuits on the concept of middle knowledge lies in their detailed and precise analysis of how a future object can be known by God. Following the Thomist view, in order to affirm that God has perfect knowledge of future contingencies, it is necessary to affirm that there is a real presence of that future object in God. Therefore, the Thomists affirm that there are real concepts (*conceptus realis*) of future events in God. The Jesuits, on the other hand, claim that a future event is known by God through an objective concept (*conceptus objectivus*), because if, as the Thomists claim, there is a knowledge of the future in God in the form of a real existence, then God would really know the future as being present. In this case, divine knowledge of the future would be false, meaning that God does not actually know the future. This debate is extremely technical, and its detailed analysis goes far beyond the remit of this chapter. For present purposes, it is sufficient to say that the middle knowledge theory was important for the Jesuits in the construction of compatibilist arguments between human free will and divine concurrence.²⁷ However, Thomist

26 Lourenço, *De ente logico*, 390: "Utrum futura creata intrinsece contingentia fuerint realiter presentia Dei in aeternitate?"

27 The concept started to become popular among Portuguese Jesuits in the Colleges of Coimbra, Évora, and Santo Antão at the end of the sixteenth century. The term can first be found in Luis de Molina's *Concordia*, published in Lisbon in 1588. However, Pedro da Fonseca claimed that he first authored the term; Molina, in turn, stated that he had been plagiarized by Fonseca. Lourenço's text, published in Liège precisely one hundred years after the publication of the first edition of *Concordia*, is an interesting testament to the way this discussion was perceived among Jesuits at the end of the seventeenth century. The following can be read in *De ente logico*, 404: "Praeter has scientias celebrem adhuc dari aliam, quae dicitur Scientia Media, sive conditionata, hanc primo invenit Aristoteles ille Lusitanus P. Petrus à Fonseca, et primo typis mandavit P. Moli[na]. Illam unanimi

theologians did not admit this kind of knowledge in God. From the Jesuit viewpoint, the Thomists' position brought them closer to deterministic positions, in the wake of those the reformists also defended.

Lourenço's detailed survey and analysis of the arguments put forward by Jesuits and Thomists on the problem of divine knowledge of future contingents, carried out in treatise 4 of *De ente logico*, serves, for the contemporary reader, as a kind of conceptual map of the period from the late sixteenth century until the end of the seventeenth century on one of the most important doctrinal controversies of that time. Lourenço uses the concept of middle knowledge to refute a wide range of objections that he believes would compromise affirming the freedom of rational agents. His arguments demonstrate that by the end of the seventeenth century, the doctrine of middle knowledge was already an integral part of the conceptual apparatus used by the Jesuits to rebut philosophical and theological questions about divine foreknowledge and human free will.

With regard to the problem of the influence of the movement of celestial bodies on human will, Lourenço also argues for a non-deterministic position. His explanation on this issue is found in *De ente physico* (On physical being). Treatise 1 explains the nature of the principles of natural beings, while treatise 2 examines the nature and modes of causality both with regard to the actions of the absolute prime cause over the created world and to the causal action that creatures have on one another. As for the order of exposition of the subjects related to natural philosophy, Lourenço follows a plan similar to that of Amaral's *Doctrina philosophica*. Like Amaral, Lourenço also studies the question of divine concurrence, giving particular relevance to the problem of efficient causality. Similarly to Amaral, Lourenço begins by establishing the fundamental metaphysical principles of natural beings (treatises 1 to 4), and he proceeds to analyze the nature of movement in general (treatise 5) as well as some issues related to extension and movement, such as the nature of infinity and of the continuum (treatise 6). In treatise 7, he begins to expound on the movement of certain types of entities, starting with heavenly bodies and analyzing issues traditionally debated in the commentaries on Aristotle's *De caelo*. The main questions related to cosmological determinism are discussed in treatise 7, disputation 4, sections 4 and 5. Section 4 deals with the influence of heavenly bodies on human free will, and section 5 discusses the type of knowledge that astrologists may have about the future. In his explanation for this type of knowledge, a parallel can once again be drawn with

consensu tenente omnes nostrae Societatis Jesu Doctores. Et pene omnes religionum familiae et Scholae, una excepta Dominicana, illiusque sectatoribus."

Amaral's statements. Lourenço establishes a distinction between the realm of astrology, whose predictability is based on the knowledge of true and immutable principles to which natural beings are subject, and other kinds of astrology, which constitute false and vain knowledge about contingent events. In his explanation, he admits that astrologers can predict events with relative certainty when they observe the regularity of the movement of celestial bodies. But even in this case, the certainty they achieve is of a physical rather than of a metaphysical kind, the former being no more than contingent and probable. The fact that human knowledge of natural phenomena cannot achieve absolute evidence is due to Lourenço's metaphysical and theological belief that the existence of the world and its intrinsic laws depend on divine will. As God is omnipotent and free, he can alter the regular course of events, meaning that human knowledge cannot provide total certainty about objects subject to physical laws.²⁸ Apart from the relative and imperfect predictability mentioned above, which is based on observing the constancy of physical phenomena, no other type of forecast is legitimate for astrologers. As Lourenço clearly states, "they cannot under any circumstance predict future contingents, which depend upon human free will."²⁹ Astrological predictions, such as those based on the relationship between birth dates and the positions of planets, or on palmistry, can at best reveal traits of character. If, by mere chance, astrologers ever tell the truth about future contingents, this happens "under the teaching of the devil," because "as far as the human will is concerned, they can only derive fables and hallucinations."³⁰

6 Conclusion

This chapter has presented the results of research into the teaching of philosophy at the College of Santo Antão between 1590 and 1690 with regard to the Jesuits who taught philosophy courses there and the works that resulted from or are related to this teaching. During this research, it was possible to identify

28 Lourenço, *De ente physico*, 289: "Astrologus possunt ex diuturna observatione hujusmodi motuum leges certo comprehendere; ergo etiam ex illis certo praedicere effectus assignatos; non quidem certitudine Metaphysica, sed tantum Physica; potes enim Deus, si velit, immutare siderum ordinem, ut fecisse dicitur Josue 10 et 4 Reg. 20, et Isai. 30."

29 Lourenço, *De ente physico*, 289: "Astrologi nullo modo praescire possunt futura contingentia, quae ab humana voluntate pendente."

30 Lourenço, *De ente physico*, 290: "Pleraque illas divinationes, (siquando verae sunt) fieri Doctore daemone, ut saepe docet D. August.; [...] ex manuum lineis dignosci quidem hominis temperamentum; quoad ea tamen, quae pertinente ad voluntatem, non nisi hallucinationes deprehenduntur, mera nugae et fabulae."

two printed philosophy courses written by Jesuits who taught in Santo Antônio: Baltasar do Amaral and Agostinho Lourenço. As well as presenting an overview of the historiographical data, the chapter briefly analyzed some of the theories that were at the center of the philosophical and theological debates of the time, which are present in these works. These theories concern, in particular, the defense of human free will in the face of possible obstacles emanating from cosmological or theological causes. With regard to potential cosmological threats, the main arguments given by Amaral and Lourenço concerning two fundamental questions were reported: whether the movement of celestial bodies can influence human free will, and whether it is possible for astrologers to predict future contingents. As for the potential theological obstacles, the chapter also briefly analyzed the explanations each author provides to make God's eternal omniscience compatible with the contingency of future events that depend on human action.

Regarding the works of the two Jesuits in question, although there is a noticeable divergence in terms of the method of exposition, the theories they defended in response to this set of questions largely coincide. Amaral and Lourenço both hold that neither the fact that the world depends, in terms of its existence, on an absolute, all-powerful, and all-knowing cause, nor the fact that celestial bodies interfere with the activity of bodies in the sublunary world, compels us to claim that human will is predetermined in its action or limited in its freedom. As to the explanations about divine action, Amaral's course, due to its methodology, does not reflect either the epochal controversy between Thomists and Jesuits about middle knowledge or the internal discord among the Jesuits with regard to the authorship of the concept of middle knowledge. Conversely, Lourenço reflects extensively on both of these issues, and his work can therefore be seen as an important source for better understanding both the historical context of the origin of the doctrine of middle knowledge and the theories relating to divine foreknowledge and future contingents.

The explanations put forward by the two Jesuits are also convergent in terms of the debates about both the influence of celestial bodies on human freedom and the ability of astrologers to predict the future. Both Jesuits consider that human free will may be affected in a very indirect way by the movement of heavenly bodies, due to the holomorphic structure of human beings, in which the higher faculties, such as mind and will, are united to an organic body, which, in turn, is subject to the influence of astral movements. As for the predictive capacity associated with the knowledge held by astrologers, both Jesuits make a clear distinction between predictability based on observation and subsequent knowledge of physical laws, which is the scope of astrology as part of natural philosophy, as opposed to predictability based on palmistry, horoscopes, or physiognomy. The first instance belongs to physical science

and, despite its limits, provides valuable knowledge. As for the ability of astrologers to predict future human contingents, both Jesuits agree that this results in merely false knowledge, which gives rise to superstition, and both therefore affirm that knowledge of futures does not produce science and is totally beyond the scope of human reason.

Lastly, if we consider the historiographic facts put forward in this chapter about the teaching of philosophy at the College of Santo Antão, we can see that the data that have been collated need to be consolidated. With respect to the courses taught by Carvalho and Areda, the hypothesis that each lectured a four-year course was taken into consideration as well as the possibility that, on their course, they made use of the *Cursus Conimbricensis* as a textbook. Yet, both of these premises need further research. In this respect, it is worth noting that in the dedication notes of the *Doctrina philosophica* to the academic community of Santo Antão, Amaral is extremely critical of the ineffective way in which philosophy is taught. The aspects he criticizes in this teaching correspond precisely to the characteristics of the *Cursus Conimbricensis*. Was Amaral indirectly referring to this course and the subsequent difficulties resulting from its employment in the teaching of philosophy at Santo Antão? Was this criticism, and the corresponding change in methodology used in his compendium, the reason he published his *Doctrina philosophica* under a pseudonym? Answering to these questions requires a study on the use given to the *Cursus Conimbricensis* in the philosophy courses at Santo Antão, a subject that clearly deserves further investigation.

Before concluding, it is important to say that, besides those mentioned in this study, other names were identified in the teaching of philosophy at Santo Antão during the period in question. Information related to them, however, is extremely diffuse. Such is the case with the Jesuits Francisco Rodrigues,³¹ Francisco da Costa,³² and Bento Rodrigues.³³ Of the latter two, nothing is

31 Barbosa Machado, *Bibliotheca Lusitana*, 240 states that this Jesuit taught mathematics and moral theology at Santo Antão. Baldini states that some scholars affirm that Rodrigues taught philosophy in Lisbon (1553–66) at Santo Antão and that, together with this teaching, he taught mathematics as well (see Baldini, “Assistências ibéricas SJ. e a atividade científica nas missões Asiáticas,” *Revista portuguesa de filosofia* 54, no. 2 [1998]: 195–246, here 229).

32 Carvalho (see “Costa, Francisco da,” *Diccionario histórico*, 976) states that Francisco da Costa taught humanities and philosophy between 1558 and 1600. See also “Francisco da Costa,” in *Sphaera mundi: A Ciência na Aula de Esfera; Manuscritos científicos do Colégio de Santo Antão nas coleções da BNP*, ed. Henrique Leitão (Lisbon: Biblioteca Nacional de Portugal, 2008), 113–20.

33 Carlos Sommervogel, ed., *Bibliothèque de la Compagnie de Jésus* (Louvain: Martino Publishing, 1895), 6:1940.

known about the philosophy courses they supposedly taught. The case of Francisco Rodrigues, meanwhile, is shrouded in mystery, since in the General Library of the University of Coimbra there is a handwritten philosophy course that is attributed to him,³⁴ on the frontispiece of which there are references to place (Lisbon) and date (1629) as well as a mark of ownership. The course would have been taught by Father Rodrigues and was supposedly written by Diogo Perez de Arellano, who introduces himself as his disciple. If it is true that this course was authored by the Jesuit Rodrigues—the same person who taught mathematics and/or philosophy, and moral theology, at Santo Antão between 1553 and 1556, the year in which he left for India—we would have before us a testimony to the oldest philosophy course taught at this college. However, there are a number of questions that will have to be answered before this hypothesis can be validated. Why would someone refer to himself as a disciple of Rodrigues seventy-three years after this Jesuit had left Santo Antão en route to India? Besides, there has been no proof of identity of a Jesuit by the name of Diogo Perez de Arellano. Moreover, the manuscript also has the following inscription: “Order of the Discalced Hermits of Saint Augustine. College of Santa Rita, Coimbra.” Would this course, and even this copy, really belong to a Jesuit from Lisbon? The solution to these puzzles demands further research. In light of the unresolved issues addressed in this chapter, its research findings should be regarded as provisional and preliminary.

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