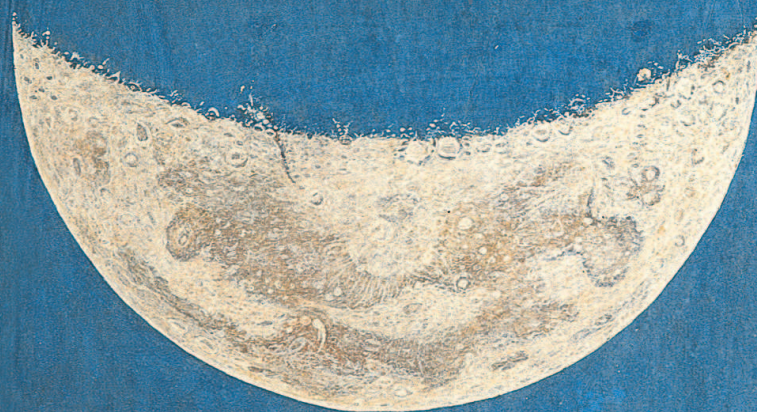


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COPERNICUS BANNED

The Entangled Matter
of the anti-Copernican Decree
of 1616

edited by
NATACHA FABBRI and FEDERICA FAVINO



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CONTENTS

<i>Introduction</i>	Pag. VII
ROBERTO BONDÌ, <i>Dangerous Ideas: Telesio, Campanella and Galileo</i> . .	» 1
NATACHA FABBRI, <i>Threats to the Christian Cosmos. The Reckless Assault on the Heavens and the Debate over Hell</i>	» 29
FRANCO MOTTA, <i>Nature, Faith and the Judge of Faith. Some Considerations on the Historical-Political Context of Copernicus' Condemnation</i>	» 57
LUIGI GUERRINI, <i>The Archbishop and Astronomy. Alessandro Marzimedici and the 1604 Supernova</i>	» 101
FEDERICA FAVINO, <i>Alchemical Implications of 1616 Affaire. On the Parish Priest Attavanti, the Knight Ridolfi and the Cardinal Orsini</i>	» 127
GIOVANNI PIZZORUSSO, <i>Francesco Ingoli: Knowledge and Curial Service in 17th-century Rome</i>	» 157
ÉDOUARD MEHL, <i>Kepler's second Copernican Campaign. The Search for an Annual Stellar Parallax after the Roman Decree (1616)</i> . . .	» 191
RIENK VERMIJ, <i>Copernicanism and the Bible in the Dutch Republic around 1616: a non-debate</i>	» 211
STEVEN VANDEN BROECKE, <i>An Astrologer in the World-Systems Debate. Jean-Baptiste Morin on Astrology and Copernicanism (1631-1634)</i>	» 223
Index of Names	» 243

STEVEN VANDEN BROECKE

AN ASTROLOGER IN THE WORLD-SYSTEMS DEBATE.
JEAN-BAPTISTE MORIN
ON ASTROLOGY AND COPERNICANISM (1631-1634)

1. INTRODUCTION

For a long time, historians assumed that astrology and Copernicanism were theoretically and historically incompatible, and that the early modern rise of the latter automatically implied a downfall of astrology's credibility. Indeed, it was often held that heliocentric cosmologies tended to destabilize astrology "as its theories were based on a Ptolemaic finite universal order".¹ There is sufficient evidence to question this assumption.² The English Copernican astrologer Christopher Heydon (1561-1623), for instance, simply observed that:

whether they be as Tycho would have it but one continued orb, or many, or whether as Copernicus saith, the Sun be the center of the world, and the earth be in the Sun's place between the sphere of Mars and Venus, the astrologer careth not.³

¹ LIANA SAIF, *Astrology: Homocentric Science in a Heliocentric Universe*, in NICHOLAS CAMPION – DORIAN GIESELER GREENBAUM (eds.), *Astrology in Time and Place: Cross-Cultural Questions in the History of Astrology*, Newcastle upon Tyne, Cambridge Scholars Publishing, 2015, pp. 159-172: 160. Similar claims can be found in: BERNARD CAPP, *Astrology and the Popular Press. English Almanacs, 1500-1800*, London & Boston, Faber and Faber, 1979, p. 278; KOCKU VON STUCKRAD, *Geschichte der Astrologie. Von den Anfängen bis zur Gegenwart*, München, C.H. Beck, 2003, pp. 265-266.

² Historiographic disavowals of the negative impact of heliocentrism on astrology can be found in: GÉRARD SIMON, *Kepler astronome astrologue*, Paris, Gallimard, 1979, pp. 93-96; JIM TESTER, *A History of Western Astrology*, Woodbridge, The Boydell Press, 1987, pp. 214, 225; NICHOLAS CAMPION, *A History of Western Astrology*, vol. 2, *The Medieval and Modern Worlds*, London, Bloomsbury, 2009, p. 168.

³ CHRISTOPHER HEYDON, *Defence of Judiciall Astrologie* (1603), quoted in: SAIF, *Astrology* (cit. note 1), p. 171.

Likewise, Johannes Kepler's prized 'aspect astrology' continued to operate with a geocentric rather than a heliocentric reference-frame, despite his cosmological Copernicanism.⁴ Bernard Capp, on the other hand, has emphasized «the pioneering role of almanacs in accepting and popularizing the new astronomy».⁵

It was only with the publication of Robert Westman's *The Copernican Question* (2011), however, that a substantially different approach to the relation between astrology and Copernicanism was proposed. According to Westman, astrology was a stimulus, not an obstacle, for the exploration of new conceptions of planetary order until the second quarter of the 17th century. It was only with the coming of a new generation of modernizing natural philosophers like Descartes, Gassendi, or Mersenne (who happened to be opponents of astrology as well) that the world systems debate became motivated by «questions of agreement with [...] physical principles and issues of biblical compatibility» rather than astrological concerns.⁶

Like all great books, Westman's study calls attention to many phenomena which would otherwise remain invisible or insignificant. One of these phenomena is the precise way in which astrologers themselves engaged the Copernican question after the 1620s. Westman's narrative seems to imply that there was no more room for astrological concerns in the newly configured world systems debate. This would also lead us to expect that astrologers were indifferent about the Roman condemnations of Copernican doctrine, and that their voice was not represented in the Copernican controversies of the late 1620s and early 1630s.

This paper focuses on an apparent exception: Jean-Baptiste Morin (1586-1656), a Parisian physician, astrologer, and professor of mathematics who published two anti-Copernican treatises in 1631 and 1634.⁷ Several of Morin's anti-Copernican arguments were derived from astrological consid-

⁴ PATRICK J. BONER, *Kepler's Cosmological Synthesis. Astrology, Mechanism and the Soul*, Leiden & Boston, E.J. Brill, 2013, p. 50.

⁵ CAPP, *Astrology* (cit. note 1), p. 191.

⁶ ROBERT WESTMAN, *The Copernican Question. Prognostication, Skepticism, and Celestial Order*, Berkeley, University of California Press, 2011, pp. 495-496.

⁷ For an excellent bio-bibliographic introduction to Morin, see MONETTE MARTINET, *Jean-Baptiste Morin (1583-1656)*, in PIERRE COSTABEL – MARTINET, *Quelques savants et amateurs de science au XVII^e siècle: Sept notices biobibliographiques caractéristiques*, Paris, Société Française d'Histoire des Sciences et des Techniques & Éditions Belin, 1986, pp. 69-87. Also see ROBERT ALAN HATCH, *Between Astrology & Copernicanism: Morin-Gassendi-Bouillau*, «Early Science and Medicine», 22, 2017, pp. 487-516.

erations, and the case can be made that Morin's opposition to a heliocentric ordering of the planets was strongly informed by his astrological convictions. By studying the precise nature of Morin's perceived conflict between astrology and Copernicanism, this paper hopes to contribute to our understanding of their parting of the ways in the period 1620-1640.

2. JEAN-BAPTISTE MORIN AND THE WORLD SYSTEMS DEBATE (1628-1634)

As Robert Westman observed, one cannot speak of a 'world systems debate' before the 1580s, while its real consolidation can be dated to the period between the publication of Kepler's *Epitome* (1618) and Galileo's *Dialogo* (1632).⁸ Alongside these two towering contributions, this period also saw the publication of several other texts arguing the merits of the Ptolemaic, Tychonic and Copernican systems. In 1629, the Calvinist minister Philips Lansbergen published *Bedenckingen op den daghelijkschen ende iaerlijkschen loop vanden aerdt-cloot*. The first extensive vernacular defense of Copernican cosmology, Lansbergen's *Bedenckingen* soon received wider exposure through a Latin translation by Maarten van den Hove (1630).⁹

In early 1631, a Catholic theologian from Louvain called Libert Froidmont rebutted Lansbergen by publishing an anti-Copernican *Ant-Aristarchus sive orbis-terrae immobilis liber*. Later that year, Jean-Baptiste Morin, physician, astrologer, and professor of mathematics at the Collège Royal in Paris, also prepared an anti-Copernican *Famosi et antiqui problematis de telluris motu, vel quiete, hactenus optata solutio*, which came off the presses in December 1631.¹⁰ Morin's *Solutio* did have a connection to the Low Countries debate. On the one hand, it attacked some of Lansbergen's pro-Copernican arguments in the Latin *Commentationes*; on the other hand, Morin had received a copy of Froidmont's *Ant-Aristarchus* through Gassendi, which allowed him to devote a few pages to its arguments in chapter 11 of *Solutio*.¹¹

⁸ WESTMAN, *Copernican Question* (cit. note 6), p. 492a.

⁹ RIENK VERMIJ, *The Calvinist Copernicans. The Reception of the New Astronomy in the Dutch Republic, 1575-1750*, Amsterdam, KNAW, 2002, p. 83.

¹⁰ JEAN-BAPTISTE MORIN, *Famosi et antiqui problematis de telluris motu, vel quiete, hactenus optata solutio*, Paris, Jean-Baptiste Morin, 1631. *Solutio*'s dedicatory letter to Cardinal Richelieu was dated 8 December 1631. In a letter to Joseph Gaultier (9 July 1631), Gassendi wrote that Morin had stopped by on 6 July while leaving for the country-side, where he planned to finish the *Solutio*. See MARIE TANNERY-PRISSET – CORNELIS DE WAARD, JR. – RENÉ PINTARD (eds.), *Correspondance du P. Marin Mersenne, religieux minime*, 17 vols., Paris, Gabriel Beauchesne & fils, 1932-1988, vol. III, pp. 173: 1-174: 16.

¹¹ MORIN, *Solutio* (cit. note 10), pp. 14 sq., 98-99.

Nevertheless, it should be pointed out that Morin's public anti-Copernicanism antedated Lansbergen's *Commentationes*.¹²

Meanwhile, back in the Low Countries, Philips Lansbergen's son Jacob authored an *Apologia pro commentationibus Philippi Lansbergi* (1633) against both Froidmont and Morin. According to Isaac Beeckman, this book was finished by 30 May 1633.¹³ Lansbergen's *Apologia* elicited a counter-reply from both Froidmont and Morin. Froidmont's *Vesta, sive Ant-Aristarchi vindex* came out in early 1634, while Morin's *Responsio pro telluris quiete* was probably published in the summer of 1634.¹⁴ After this, none of the three parties continued their exchanges.

Nevertheless, it is clear that the debate drew wider interest. In a letter to Diodati of 15 January 1633, Galileo expressed his regret that Morin's *Solutio* and Froidmont's *Ant-Aristarchus* only reached him six weeks after the publication of the *Dialogo* in February 1632.¹⁵ Through Gassendi, Morin had indeed sent an incomplete copy of his *Solutio* to Galileo, while it was probably also Gassendi through whom Galileo obtained a copy of Lansbergen's *Commentationes* and Froidmont's *Ant-Aristarchus* in March 1632.¹⁶ Morin personally sent Galileo a copy of his *Responsio* on 15 November 1634.¹⁷ Jacob van Lansbergen's *Apologia* and Froidmont's *Vesta*, on the other hand, reached Galileo around the beginning of 1635.¹⁸

The overt intention of Morin's *Solutio* (1631) was to bring closure to the world systems debate. His intervention set out from a perceived gap between what was true and what was credible. For his own part, Morin knew perfectly well what was true: the earth was perfectly at rest in the middle of the universe, and Scriptural references overwhelmingly supported this.

¹² ID., *Ad australes et boreales astrologos pro astrologia restituenda epistolae*, Paris, Jean Moreau, 1628, p. 19.

¹³ On 30 May 1633, Beeckman wrote to Mersenne that Lansbergen jr. had now responded to Froidmont and Morin, Beeckman also mentioned that it was not yet published. See TANNERY – De WAARD, *Correspondance* (cit. note 10), vol. III, p. 405: 50-52.

¹⁴ The privilege of Philip IV, for a period of nine years, for Froidmont's *Vesta* was issued in Brussels on 15 November 1633. Morin signed his dedication of the *Responsio* to Cardinal Richelieu on 24 June 1634, and sent the treatise to Galileo on 15 November 1634. See OG, XVI, p. 158: 2-4.

¹⁵ Galileo to Diodati, 15 January 1633, OG, XV, p. 23: 13-15.

¹⁶ Morin to Galileo, 15 November 1634, OG, XVI, p. 159: 13-19; Galileo to Diodati, 9 April 1632, OG, XIV, p. 340: 30-31; PIERRE GASSENDI, *Opera omnia*, 6 vols., Lyon, Laurent Anisson and Jean-Baptiste Devenet, 1658, vol. VI, pp. 45-46. For this last letter, see Gassendi to Galileo, 1 March 1632, OG, XIV, p. 334: 14-17; TANNERY – De WAARD, *Correspondance* (cit. note 10), vol. III, p. 263.

¹⁷ Morin to Galileo, 15 November 1634, OG, XVI, p. 158: 3-4.

¹⁸ Pier Battista Borghi to Galileo, 30 December 1634, OG, XVI, p. 185.

However, without common ground about *how* to determine truth, being true was not quite the same as being credible. As Morin observed in a prefatory letter to his readers, part of the trouble with the world systems debate was the impossibility of settling on shared principles.¹⁹ On both sides of the debate, he specified, arguments were deployed from astronomy, Scripture, and natural philosophy.²⁰ Concerning Scripture, Morin stated that it «confirms the rest of the earth with far more certainty and clarity than its motion», while also accepting the fact that this argument would not sway Copernicans as long as the relevant exegetical principles could be questioned.²¹ As for astronomy, Morin remained convinced that observation of the visible heavens would never provide a secure basis by which to discern whether the earth or the heavens moved.²²

Only physical arguments would work. Already in his initial address to the reader, Morin disclosed that he would introduce astrological criteria into this category:

Because astrology deals with the natures, powers and modes of action of universal causes – the stars along with the first physical cause, the first mobile –, these fix the earth at rest in the center of the heavens, as will become very clear from this book. Indeed, this book will be a forerunner of *Astrologia Gallica*, which we will publish in the next few years, if the necessary funds for reckoners and scribes are not wanting.²³

Morin's intervention in the world systems debate, then, simultaneously sought to recall astrology to its rightful disciplinary place as «the head of all physics, to whom it belongs, above all other sciences, to define the place of the earth, that receptacle or passive subject of all celestial influences».²⁴

One must be careful in characterizing Morin's experience of the world systems debate. In his mind, this was not a case of two distinct bodies of

¹⁹ MORIN, *Solutio* (cit. note 10), p. [vii].

²⁰ *Ibid.*, p. 5.

²¹ *Ibid.*, p. 11. Michel-Pierre Lerner has pointed out that Morin's engagement of Rome's censorship of Copernicanism was limited to the *Responsio*, where Morin evoked the recent condemnation of Galileo while refusing to include the relevant texts (Morin would do this, however, in his *Tycho Braheus in Philolaum, pro telluris quiete* of 1642). See MICHEL-PIERRE LERNER, *La réception de la condamnation de Galilée en France au XVII^e siècle*, in JOSÉ MONTESINOS – CARLOS SOLIS (eds.), *Largo Campo di Filosofare. Eurosymposium Galileo 2001*, La Orotava, Fundación Canaria Orotava de Historia de la Ciencia, 2001, pp. 513-547: 520.

²² MORIN, *Solutio* (cit. note 10), pp. 14, 21-23.

²³ *Ibid.*, p. [viii].

²⁴ *Ibid.*, p. 80.

knowledge vying for intellectual dominance through the use of arguments. Instead, Morin interpreted Copernicanism on the traditional model of religious heresy.²⁵ It was not so much a positive doctrinal phenomenon, but a negative deviation from the truth. This is also why Morin interpreted his discursive activity as an act of restoring Copernicans to intellectual health. A stark example of this attitude can be found in Morin's relation to Galileo. On 15 November 1634, Morin decided to send Galileo a copy of his *Responsio*, in which he qualified the *Dialogo* as a «veiled defense of terrestrial motion» while evoking Galileo's condemnation as a warning to other *savants*.²⁶ The imprudence of this move is striking, but is mitigated by considering Morin's habit of thinking of truth in pastoral rather than political terms. In his subsequent letter to Galileo of 4 April 1635, Morin fully adopted this pastoral posture by inviting Galileo to consider the example of St.-Augustine, who «wished to triumph over himself, not to be won over by someone else». ²⁷ Members of Galileo's circle clearly understood the epistemological angle Morin was coming from, but were disturbed by it all the same. On 2 July 1635, Campanella wrote to Peiresc that Morin «exhorted [Galileo] to convert to the truth by means of the arguments of his book. I will say no more». ²⁸

Morin's interpretation of Copernican convictions as a mere sign of the absence of truth also explains another feature of their portrayal in *Solutio*. Consistently presented as an intellectual seduction leading men into a labyrinth of errors and lies, it was easy for Morin to make the final step of associating Copernicanism with diabolic agency.²⁹ Likewise, Morin did not simply approach Scripture as a unique epistemic resource which could only speak truth (as Fromondus would have it).³⁰ Instead, Morin took the even stronger interpretation of Scripture as a divinely granted protective shield against human errors which the Holy Spirit had foreseen from eternity.³¹

²⁵ *Ibid.*, pp. 4, 54.

²⁶ MORIN, *Responsio pro Telluris quiete. Ad Jacobi Lansbergii doctoris medici Apologiam pro Telluris motu*, Paris, Jean-Baptiste Morin & Jean Libert, 1634, pp. 54, 56. For a more complete discussion, see LERNER, *La réception* (cit. note 21), pp. 527-528.

²⁷ Morin to Galileo, 4 April 1635, OG, XVI, pp. 251-253; esp. *ibid.*, p. 252: 39-40.

²⁸ Campanella to Peiresc, 2 July 1635, OG, XVI, p. 288.

²⁹ Seduction: MORIN, *Solutio* (cit. note 10), pp. [iv], 8, 37. Errors and lies: *ibid.*, pp. 13, 23. Copernicanism as diabolism: *ibid.*, p. [viii].

³⁰ See STEVEN VANDEN BROECKE, *Copernicanism as a religious challenge after 1616: self-discipline and the imagination in Libertus Fromondus's anti-Copernican writings (1631-1634)*, «Lias. Journal of Early Modern Intellectual Culture and its Sources», 42, 2015, pp. 67-88: 78-80.

³¹ MORIN, *Solutio* (cit. note 10), p. 138.

3. MORIN'S ASTROLOGY AS A TOOL OF SPIRITUAL SELF-MONITORING

As early as 1619, in *Nova sublunaris anatomia*, Jean-Baptiste Morin embarked on a lifelong pursuit to restore astrology's accuracy and legitimacy. From 1623 onwards, Morin explored specific topics, such as astrological house division or the universality of celestial effects, in various publications on astrological reform. By 1631, Morin's published works began to announce an astrological *summa* in which his results would be systematized. This massive *Astrologia Gallica* (1661) was only published posthumously, but seems to have been largely completed by 1648.³² Its content amply confirms Morin's claim that it was the outcome of decades of astrological research, and provides a singularly complete means of understanding the broader contours of Morin's project.

Even by pre-modern standards, *Astrologia Gallica* stood out by the extent to which it located the meaningfulness of astrology inside a Christian framework of sin and redemption. For Morin, the powers of the inferior soul were equated with the Christian flesh. Celestial influence was the agent which gave individual form to the shared effects of man's original sin.³³ The stars were identified as one of the four enemies which man had to battle unto death:

God doesn't want us to be lazy in this world, but to constantly fight in His honour against the most forceful enemies of the world, the flesh, and the Devil. In His wisdom, he allowed man's infirmity to be tempted by these, so that we would merit the crown of eternal beatitude through our victory against them. [...] the constitution of the heavens at every man's birth is the fourth enemy besides the world, the flesh, and the Devil.³⁴

Unsurprisingly, the 'Apologetic preface' of *Astrologia Gallica* described astrology as the study of natural causes which bore a double function in the economy of divine grace. On the one hand, astrological influence led men into sin. On the other hand, they served as a tool of divine retribution,

³² According to Morin's prefatory letter to the reader, the book was finished by 1648. See MORIN, *Astrologia Gallica Principiis et Rationibus Propriis Stabilita*, The Hague, Adrianus Vlacq, 1661, p. 1 (my numbering). The *Praefatio apologetica* to *Astrologia Gallica*, however, still managed to attack Gassendi's *Syntagmata* (1649) and to discuss the 'Black Monday' eclipse of 1652. Beginning with the *Solutio* (1631), announcements of *Astrologia Gallica* can be found throughout Morin's published works.

³³ *Id.*, *Astrologia Gallica* (cit. note 32), p. 264b.

³⁴ *Ibid.*, p. 264b.

leading those who embraced sinful influences to be «punished by evil influences so as to come to their senses».³⁵ Moreover, knowledge of astrology also assisted men in more accurately discerning God's supernatural action against the background of regular natural causes.³⁶

Against this background, it is easy to understand how Morin privileged astrology as an art of moral self-diagnosis and self-monitoring. Not unlike Thomas Aquinas before him (*Summa Theologiae* Ia. q. 115.a4), Morin connected the relevance of astrologers to the human tendency to follow native inclinations rather than the will. However, Morin was far more pessimistic about man's natural ability to overcome such inclinations. On the one hand, he painted a bleak picture of the interminable victory of celestial inclinations over human laws and *exempla* in the battle for human mores.³⁷ On the other hand, Morin also qualified the very possibility of fighting such inclinations as preternatural or supernatural.³⁸ Indeed, without divine grace, he figured that hardly one tenth of humanity would escape eternal damnation.³⁹

To a greater extent than most astrologers, then, Morin integrated the physical realities of celestial influence in the cosmic drama of individual sin and redemption. On the one hand, celestial bodies were thus approached as God's «representatives in nature, through which He distributes and governs the fate of natural effects». On the other hand, these celestial bodies were also created to allow man «to inspect the powers and modes of action, both theirs and His».⁴⁰ However, Morin also built in a strict distinction between 'physical' and 'moral' actions, or between natural and supernatural economies.⁴¹

It seems likely that the importance of astrology to Morin's interpretation of Christian spirituality was also instrumental in shaping his unconditional trust in astrology's forensic, diagnostic, and predictive powers. Guillaume Tronson's contemporary biography of Morin thus ascribed his wondrous ability to escape dangerous situations to his attentiveness to 'divine providence'.⁴² Morin even claimed that divine providence frequently shaped

³⁵ MORIN, *Praefatio apologetica*, in *ibid.*, p. xxvi.

³⁶ *Id.*, *Epistolae* (cit. note 12), p. 13.

³⁷ *Id.*, *Astrologia Gallica* (cit. note 32), pp. 267a-268a.

³⁸ *Ibid.*, pp. 265b-266a.

³⁹ *Ibid.*, p. 269a.

⁴⁰ *Ibid.*, p. 531b.

⁴¹ *Ibid.*, pp. 143a, 269b.

⁴² GUILLAUME TRONSON, *Vita*, in MORIN, *Astrologia Gallica* (cit. note 32), p. iii.

external contexts in such a way that they allowed innate astral inclinations to emerge.⁴³ This was especially the case in cities and courts, which Morin presented as specific *milieux* brimming with potential triggers of desire.⁴⁴

4. MORIN AND THE NEW PICONIANS

Morin's emphasis on astrology as an essential tool of spiritual self-monitoring goes a long way towards explaining his unshakeable faith in the powers of the art. However, his was also an age of, in the felicitous phrase of Robert Westman, 'new Piconianism': a new wave of astrological criticism which took up the example of Giovanni Pico's original *Disputationes adversus astrologiam divinatricem* (1496) in the newly confessionalized context of late Renaissance and Baroque Europe.⁴⁵

Morin's own position towards the Piconians was remarkably ambivalent. The 'Apologetic Preface' of *Astrologia Gallica*, for instance, candidly announced that Morin's book would be almost as critical of the astrologers Ptolemy and Cardano, as it would be of the critics Pico della Mirandola and Alessandro De Angelis.⁴⁶ In his treatment of the traditional male and female zodiacal signs, Morin stated that Pico had been quite right to ridicule this theory, which Ptolemy and Cardano had sought to defend.⁴⁷ Unlike Pico, however, Morin did not grant the vanity of true astrology. Carefully distinguishing the art from its historical incarnations, Morin claimed that critics like Pico had never attacked this true astrology, but a «most stupid vanity, suggested by the Devil for the ruin of man in this world, and his damnation in the next».⁴⁸

Earlier anti-Piconians also made a distinction between good astrologers and abusers of the art. They too diagnosed astrological criticism as targeting the latter instead of the former. Francesco Giuntini had done this in his

⁴³ MORIN, *Astrologia Gallica* (cit. note 32), pp. 249a-250b, 266b, 270b.

⁴⁴ *Ibid.*, p. 267b.

⁴⁵ WESTMAN, *Copernican Question* (cit. note 6), pp. 226-228. On the seventeenth-century tradition of astrological criticism, see VANDEN BROECKE, *From Cosmic Governance to Governmentality. Shaping Sublunary Order in Seventeenth-Century French Critiques of Astrology*, in MIGUEL ANGEL GRANADA – PATRICK J. BONER – DARIO TESSICINI (eds.), *Man and cosmos from Copernicus to Kepler*, Barcelona, Universitat de Barcelona, 2016, pp. 315-340.

⁴⁶ MORIN, *Praefatio apologetica* (cit. note 35), p. v.

⁴⁷ *Id.*, *Astrologia Gallica* (cit. note 32), p. 325a. Other examples of Morin's criticism of Ptolemy can be found in *ibid.*, chs. XIII.1, XIV.7, XV.1, XV.5-6, XV.12, XVII.3, XX.2.

⁴⁸ *Id.*, *Praefatio apologetica* (cit. note 35), p. iii.

massive *Speculum astrologiae*.⁴⁹ In 1629, Campanella too deployed Giuntini's distinction between different ways of appropriating the art,⁵⁰ in a context which singled out Pico as a formidable opponent.⁵¹ Nevertheless, Morin's version of this argument was different in two ways. First of all, it turned the phenomenon of astrological criticism into an objective measure of the art's past imperfect state, rather than of the imperfections of specific practitioners. Secondly, it diagnosed this history of astrological failure as the effect of a diabolical conspiracy against astrology and its practitioners, and hence as embedded in a Christian soteriological framework. In a very real sense, then, Morin did not see critics like Pico as astrology's main challenge. Their presence merely formed a symptom of the diabolical debasements which plagued the art for most of its history, and it was this history which required closure:

Everybody mentions Ptolemy as the prince of astrology. Cardano's commentary says the same thing about *Tetrabiblos* as one does about the Apocalypse of St. John: as many mysteries are contained therein as there are words. [...] If I am not mistaken, it is enough to call Ptolemy the prince of astrology in its current state, which contains many absurdities and dreams, [...] not of astrology as such. This great man should not be spurned, for he did what he could in such a sublime and abstruse art, depraved by the Devil's arts.⁵²

Morin's halfway position between the astrologers and their critics is, of course, very reminiscent of the attitude of Johannes Kepler. Nevertheless, there are crucial differences in the way that Kepler and Morin understood the precise nature of astrological reform. Kepler saw himself as engaged in a technical activity of separating out the good from the bad in a given art, with Pico as one of his main inspirations and natural philosophy as one of his main assaying tools. Once extracted from the dung heap of humanly invented beliefs and practices, this philosophically sound kernel would then receive a monopoly on the name of astrology.

Morin, on the other hand, was carrying out a historical activity of bringing *prisca astrologia* back to life: his point was to reform the art by going back to the pristine forms which history had deformed. Indeed, Morin considered certain parts of the art, particularly the doctrine of 12 celestial

⁴⁹ FRANCESCO GIUNTINI, *Speculum astrologiae*, Lyon, Filippo Tinghi, 1573, p. 2v.

⁵⁰ TOMASSO CAMPANELLA, *Astrologicorum libri VI*, Lyon, Jacques, André & Mathieu Prost, 1629, p. 3.

⁵¹ ID., *Astrologicorum Libri* (cit. note 50), p. 8.

⁵² ID., *Astrologia Gallica* (cit. note 32), p. 444; see also p. 208.

houses, to have been divinely inspired in Adam.⁵³ At the same time, he claimed that astrology's extraordinary potential had been obscured since its pristine existence at the time of Adam and Noah.⁵⁴ Only in his own *Astrologia Gallica* would Adamic astrology finally be restored. Accordingly, Ptolemy's *Tetrabiblos* now figured an antiquated stage in the history of astrology, not the site for an encounter with the art's original purity. Likewise, Morin distinguished modern astrologers like Offusius and Kepler from 'the ancients' of the art and their Renaissance epigones, among whom Morin particularly singled out Cardano.⁵⁵

In *Ad australes et boreales astrologos pro astrologia restituenda epistolae* (1628), Morin had already listed the central *desiderata* towards a restored astrology.⁵⁶ Particularly important was a larger base of empirical astrological data, corrected by superior astronomical knowledge. Interestingly, Morin also included 'solving the world systems debate', about which he claimed: «[...] the truth of this matter is of such importance to astrology, that Tycho and Kepler considered it necessary to overturn astrology in order to stabilize their systems».⁵⁷ The end-points of Morin's project for astrological reform were:

[...] the first causes of effects, which are also the first principles of this science. These are few in number, both in this science and others. When our universal science is stabilized through these principles, combining them will easily lead to innumerable conclusions.⁵⁸

Apparently, Morin's emphasis on the necessity of astrological self-analysis (see section 3) also led him to approach astrological reform as a matter of securing a small number of theoretical principles of astrological judgment – especially in the realm of natal astrology.

5. ASTROLOGY VS. COPERNICANISM IN MORIN'S *SOLUTIO* AND *RESPONSIO*

Morin's *Solutio* (1631) consisted of six parts: [1] a *prodromus* in which Morin laid out the historical lineage and present following of the geo-kinetic

⁵³ Id., *Praefatio apologetica* (cit. note 35), p. v.

⁵⁴ Id., *Astrologia Gallica* (cit. note 32), p. 531b.

⁵⁵ *Ibid.*, p. 349. Morin adopted Tycho Brahe's calls for astrological reform as a precursor of his own enterprise. See Id., *Praefatio apologetica* (cit. note 35), p. xvi.

⁵⁶ Id., *Epistolae* (cit. note 12), pp. 28-30.

⁵⁷ *Ibid.*, p. 29.

⁵⁸ *Ibid.*, pp. 29-30.

hypothesis (chapters 1 and 2); [2] in chapter 3, Morin distributed existing arguments for and against a moving earth over three categories (Scriptural, astronomical, and physical); [3] next, *Solutio* argued for the a priori insufficiency of Scriptural (chapter 4) and astronomical (chapters 5 and 6) arguments, leaving only natural-philosophical arguments with the capacity to settle the issue (chapter 7); [4] having established the latter claim to his own satisfaction, Morin discussed the physical arguments for the eccentricity and motion of the earth (chapters 8 and 9), as well as [5] those for the centrality and stability of the earth (chapters 10 and 11); [6] *Solutio* then ended with an epilogue (chapter 12). For our present purposes, it is to part [5] of *Solutio* that we should turn first. As we already saw, four of the eight physical arguments for the earth's centrality in chapter 10 drew on astrological considerations.

Morin's first argument attributed a double action to the planets, one by themselves and another with the first heaven. The first mode of action, Morin stated, occurs in any direction (*orbiculariter, sive undequaque*). The second mode, however, operates rectilinearly in the direction of the center of the first heaven (*directe versus Caeli centrum*), and only with that part of the first heaven that is obscured by its visible diameter.⁵⁹ Morin's 'first heaven' referred, quite simply, to the outermost sphere of the universe, situated just beyond that of the fixed stars.

For Morin, it was precisely this terrestrial goal-directedness of planetary effects, in tandem with the first heaven, which Copernicans seemed to deny.⁶⁰ More specifically, Morin associated Copernicanism with two theses on celestial influence. On the one hand, Copernicans portrayed celestial influence as moving in any direction from celestial bodies.⁶¹ On the other hand, they tended to approach rays of celestial influence as affecting every part of the earth simultaneously.⁶² In both cases, Morin saw considerable challenges for the rigor and precision of astrological analysis.⁶³

⁵⁹ ID., *Astrologia Gallica* (cit. note 32), pp. 83-84.

⁶⁰ ID., *Solutio* (cit. note 10), p. 84: «Non ergo Saturnus cum Coelo aget in Terram? Quod tamen asserere falsissimum est, quandoquidem experientijs constat Saturnum in Tellurem agere pro ratione partis Coeli, quam visibili sua diametro occupat».

⁶¹ ID., *Responsio* (cit. note 26), p. 28: «Ergo planeta suo situ corporeo tantum agit influentialiter radio ad centrum Coeli directo, cum ea parte Coeli quam abscindit sua visibili diametro».

⁶² See JACOB LANSBERGEN, *Apologia pro Commentationibus Philippi Lansbergii in Motum Terrae Diurnum & Annuum*, Middelburg, Zacharias Romanus, 1633, pp. 107-108; MORIN, *Responsio* (cit. note 26), p. 28: «nec volui quamlibet Telluris partem affici rectitudine eiusdem radij, quod mihi imponit Lansbergius; longeque abfui ab eius sententia qui Terram in Ecliptica collocans procul a concursu radiorum influentialium, ait nihilominus eam eodem modo affici, ac si esset in centro ob semidiametrum magni orbis, respectu Coeli ut voluit insensibilem».

⁶³ MORIN, *Responsio* (cit. note 26), pp. 27-28.

The second astrological argument drew on astrology's empirical data of terrestrial effects when the Sun is in a specific sign of the zodiac, such as Leo or Scorpio. Morin argued that these experiences did not agree with the effects which should occur on earth under the Copernican interpretation of these phenomena.⁶⁴ To this, Jacob van Lansbergen replied with a version of the argument which we previously encountered in Heydon's *Defence*. More specifically, Lansbergen's *Apologia* asserted the under-determination of astrological experience by cosmic distances in the planetary system:

The law of action's dependence on distance does not obtain here. Whether the earth is in one part of the ecliptic or another [on the Copernican hypothesis], it is always equidistant from the eighth heaven to the senses and in appearance. For it has often been repeated that the ecliptic is the apparent center of the world.⁶⁵

Morin was not impressed. In *Responsio*, he observed that this was the Copernicans' only remaining defense against his astrological arguments, while reasserting the reliability of astrologer's experiential data as one indicator of cosmic distances.⁶⁶

In his third astrological argument, Morin claimed that a Copernican arrangement destroyed the theory of astrological aspects, «whose force is experienced most forcefully on earth, even by Kepler, hater of astrology».⁶⁷ More specifically, Morin emphasized that the Copernican destruction of something like a first heaven, also destroyed a secure frame of reference for unambiguously defining aspects like 'conjunction', *pace* Jacob Lansbergen's alternative account.⁶⁸

Morin's final argument in chapter 10 was by far the most adventurous, developing his astrological emphasis in ways that were «partly physical, partly theological».⁶⁹ Morin began by advancing the earth's position in the center of the world as a suitable explanation why there were so many and such perfect generations in the sublunary world. Now, what would follow if one were to situate the Sun in the center instead? First of all, this

⁶⁴ ID., *Solutio* (cit. note 10), pp. 88-89.

⁶⁵ LANSBERGEN, *Apologia* (cit. note 62), pp. 108-109: «Respondeo, legem actionis in majus vel minus distans hic locum non habere, quia sive terra in una Ecliptica parte sua sit, sive in altera, ad sensum et quoad apparentiam, aequae a caelo octavo semper distat, quia Ecliptica est mundi centrum apparens ut jam saepius inculcatum fuit».

⁶⁶ MORIN, *Responsio* (cit. note 26), p. 30: «cum tamen experientia doceat contrarium, differentia etiam maxime sensibili Astrologorum iudicio».

⁶⁷ ID., *Solutio* (cit. note 10), p. 90.

⁶⁸ See LANSBERGEN, *Apologia* (cit. note 62), p. 110; MORIN, *Responsio* (cit. note 26), p. 34.

⁶⁹ ID., *Solutio* (cit. note 10), p. 94.

would mean that it would be superior to the earth in terms of quantity and quality of generation. Secondly, there would be no reason not to assume that other planets had perfect generations too and would, indeed, be inhabited.

Assuming that God indeed created corporeal intelligent creatures on other planets (albeit it non-human), then these would have to be as naturally sinful as man or the angels, and would also be subject to diabolic seduction towards sin. This would necessitate either that Christ also died on earth for the extraterrestrials, or that he had been incarnated and sacrificed in their form in their worlds as well. This, Morin opined, was in firm contradiction of the tenets of faith. Accordingly, the earth could only be in the center of the universe, and the planets could not be inhabited: all of material creation was there for humans alone.⁷⁰

Having determined the issue of the earth's centrality to his own satisfaction, Morin proceeded, in chapter 11 of *Solutio*, to settle the debate concerning the earth's rest or motion. Of the six arguments given in favor of the earth's rest, the last one («more illustrious than the others») was again taken from “the supreme physical science of astrology”.⁷¹ Morin built his argument on the ‘Copernican’ interpretation of the zodiac signs as superfluous imaginary divisions of an immobile sphere of the fixed stars, not as real divisions of a first heaven beyond the sphere of the fixed stars.⁷² Once again, Morin invoked the collective experience encoded in astrological aphorisms to argue that planetary rule over specific zodiac signs did produce very real effects on earth.⁷³

6. THE FIRST HEAVEN AND THE RESTAURATION OF ADAMIC ASTROLOGY

How should these arguments be interpreted? At first sight, they seem to support the traditional thesis that Copernicanism undermined a traditional astrological cosmos in which superlunary influences were directed to a central, immobile earth. Morin repeatedly emphasized that God's primary purpose in creating the world was to guarantee the generation of individual species. Indeed, the material universe was designed as a giant incubator for terrestrial being, making it a matter of *decorum* that the earth should be situ-

⁷⁰ *Ibid.*, pp. 95-96.

⁷¹ *Ibid.*, p. 130.

⁷² *Ibid.*, pp. 131-132.

⁷³ *Ibid.*, pp. 132-133.

ated in the center.⁷⁴ At the beginning of chapter 10 of *Solutio*, he categorically stated that «astrological reasons contradict the eccentricity of the earth».⁷⁵

But whose reasons were this, exactly? A closer look suggests that Morin's argumentation was not so much informed by a more or less timeless 'astrological world-view', but that it was consciously designed to rebut neo-Piconian astrological criticism. We can discern this deeper layer by focusing on one of the central notions which Morin deployed throughout his aforementioned astrological arguments: the first heaven (*primum caelum* or *primum mobile*). Although Morin's theory of the first mobile received its full development in *Astrologia Gallica* (which he began to announce in 1631), it had been publicly defended by him as the key to sound astrology since 1623.⁷⁶ Morin's 'first heaven' lay just beyond that of the fixed stars, and was carried around with a daily motion around the poles of the celestial equator.⁷⁷ Its importance as a cornerstone of sound astrology was situated on at least three different levels.

First of all, it secured the natural-philosophical foundations of the art. In this respect, Morin expected his first mobile to kill two birds with one stone. On the one hand, it addressed the natural-philosophical deficiencies which Morin diagnosed in earlier astrologer's theoretical accounts of the zodiac signs, including those of Ptolemy, Bellanti, and Cardano.⁷⁸ Indeed, Morin's earlier attempts to establish a scientific correspondence with southern astrologers in the vice-kingdom of Peru was designed to gather empirical evidence against the physical implications of existing astrological theories.⁷⁹ On the other hand, Morin's recourse to the first mobile seemed tailor-made to counter the critiques which Giovanni Pico, Johannes Kepler and Alessandro de Angelis launched against the zodiac signs.⁸⁰

⁷⁴ *Ibid.*, pp. 28, 38, 94.

⁷⁵ *Ibid.*, p. 81.

⁷⁶ MORIN, *Astrologiarum domorum cabala detecta*, Paris, Jean Moreau, 1623.

⁷⁷ *Id.*, *Astrologia Gallica* (cit. note 32), pp. 319b-320a and 322b.

⁷⁸ *Ibid.*, pp. 321b-322a and 323b.

⁷⁹ *Ibid.*, p. 321b: «Quod autem falsa sit haec de natura signorum sententia, inde probatur quia ex rationibus Ptolemaei et Cardani erit signum ♄ in Mundi parte australi frigidissimum, atque siccissimum». The universal validity of astrology is again defended, now especially against Cardano and Campanella, in book 15 of *Astrologia Gallica*, where Morin draws on the evidence of genitures from the southern hemisphere.

⁸⁰ *Ibid.*, p. 322b: «Idque probare contendit de Angelis, tum autoritate Kepleri et Abraham Avenesra, tum ratione, quod (inquit) primum Coelum debeat esse corpus simplex ac homogeneum, proindeque in partes diversae naturae dividi non possit». For Morin's use of the first heaven against Kepler's 'Copernican' critique of the zodiac signs, see the illuminating discussion in *Id.*, *Solutio* (cit. note 10), pp. 130-137.

Secondly, Morin's emphasis on the primacy of the first heaven expertly unified the superlunary realm as a separate agent which operated on the sublunary realm: «The first cause or Heaven only acts in these inferior things to the extent that she is determined by all subordinate causes towards a particular effect, as is most fitting to a first cause».⁸¹

True to his concern for the soundness of astrology's natural-philosophical foundations, Morin was careful to portray his first heaven as a perfectly homogeneous substance which simultaneously acted as a celestial chameleon: specific parts of this *caelum* were extrinsically activated towards specific kinds of celestial agency by the lower fixed stars or planets.⁸² When Morin, in book 14 of the encyclopedic *Astrologia Gallica*, finally made the transition to astrology proper,⁸³ he began with «the first and supreme secret of judicial astrology», the system of the zodiac signs (and their relation to planetary virtues in books 15 and 16).⁸⁴ Book 17 completed this with «the second fundament of astrology», the astrological houses.⁸⁵ In both cases, the doctrine of a first heaven provided Morin with an essential basis for theorizing these foundations.

In Morin's hands, the *primum mobile* became the most universal and most powerful of all efficient causes, directly affecting anything generated in the world.⁸⁶ On the one hand, it was a permanent and lifelong incubator of being.⁸⁷ On the other hand, it also brought universal change: «any sublunary effect, in as far as it can be considered as a whole, has to be referred to the entire Heaven in its beginning, vigor, decline, and death», and never to any single part of the first mobile.⁸⁸ Indeed, the diurnal motion of the first mobile was nothing more than a steady 'persuading' of each of the zodiac signs to play their part in the fashioning of «the whole effect [...] and whatever happens to it celestially during the time of its existence». Clearly, Morin defended a strong unity and regularity of sublunary history, in which even a thing's being was a permanent effect of its relation to the *primum coelum*.⁸⁹

⁸¹ ID., *Astrologia Gallica* (cit. note 32), p. 324a.

⁸² *Ibid.*, pp. 314b-315a.

⁸³ *Ibid.*, p. 314.

⁸⁴ *Ibid.*, p. 384.

⁸⁵ *Ibid.*

⁸⁶ *Ibid.*, pp. 314b and 384a.

⁸⁷ *Ibid.*, p. 315a.

⁸⁸ *Ibid.*, p. 384a.

⁸⁹ *Ibid.*, p. 384a-b.

Morin defended a remarkably historical and contingent interpretation of the modalities of this relation. It was because the Sun *happened* to be on the cusp of the sign of Aries at the creation of the world, and because God *happened* to move the Sun towards Taurus rather than Aquarius, that Aries was first determined to heat.⁹⁰ The distribution of different natures over the signs of the zodiac was thus premised on a historically contingent beginning. *Mutatis mutandis*, Morin added, the same pattern applied to individual births.⁹¹

Thirdly, and most importantly, Morin expected this interpretation of the first heaven to restore the traditional rigor and precision of astrological analysis. Especially in book 21 of *Astrologia Gallica*, Morin patiently uncovered a frequent methodological error in the practice of astrological judgment. In their handling of ‘universal signifiers’ (that is, planets associated with specific aspects of human life, like the Sun signifying both honors, kings, fathers, etc.), Morin claimed, astrologers often judged such matters from the signifier alone, regardless of the astrological house which it occupied or ruled. Morin’s theory of the first mobile was a solution for this problem, in as far as it sought to remind working astrologers that «the stars, although they can illuminate and heat, cannot impart a specific influence without the concourse of the first heaven».⁹² Of themselves, Morin repeated again and again, the planets were indifferent to the specific effects which they caused on earth (e.g., on one’s health or professional life). Only further determination by twelve astrological houses, themselves determined by the first mobile, unlocked this level of causal specificity.⁹³

It was this basic doctrine which constituted the quintessential key to the secrets of the Adamic *prisca astrologia*.⁹⁴ It was also this doctrine which Morin felt to be undermined by astronomical *novatores*. This conviction was particularly prevalent in the earlier *Ad astrologos epistolae* (1628). There, Morin claimed that for all of their differences, Tycho Brahe and Johannes Kepler were united in their opinion that ancient astrology could not coexist with their astronomy, «as if their astronomy was to be erected on the ruins of astrology».⁹⁵ Apparently, Morin changed his mind about Tycho by the time he wrote his *Solutio* (1631). Not only did Morin come out as a staunch

⁹⁰ *Ibid.*, pp. 318b-319b, 320b, 324a.

⁹¹ *Ibid.*, pp. 320b, 324a.

⁹² *Ibid.*, p. 497b.

⁹³ *Ibid.*, p. 499b.

⁹⁴ *Ibid.*, pp. 496, 500a, 503b.

⁹⁵ *Id.*, *Epistolae* (cit. note 12), pp. 16, 29.

defender of the geo-heliocentric system; he now found additional proof for the truth of that system in the precise order of planetary associations with the zodiac signs, concluding that «the true system of the world was known by reasoning to the astrologers, before it was known by observation to the astronomers».⁹⁶

Morin's views of Brahe's assistant, however, did not change: the *Solutio* still presented Kepler as a firm opponent of astrology.⁹⁷ For Morin, Kepler's astrological theorizing in *De stella nova* (1606) amounted to the suggestion that only planetary aspects, not the first heaven, had any real effect on earth.⁹⁸ Morin even suggested that Kepler, following Plotinus, defended astrology as an art of significations without a corresponding causal mechanism.⁹⁹

7. CONCLUSION

The *novatores* who would soon monopolize the world-systems debate remained ambivalent about Morin's astrological reform. In his letter to Joseph Gaultier of 9 July 1631, Gassendi listed Jacques de Valois, Mersenne, and himself as Morin's regular interlocutors on the motion of the earth and the principles of astrology. On both topics, Gassendi seemed more disturbed about Morin's stubborn tendency to dismiss counter-arguments than he was about the content of his astronomical and astrological opinions, even adding that «to be honest, I believe him in this».¹⁰⁰ Descartes, on the other hand, simply dismissed Morin's astrological arguments for the immobility of the earth in a letter to Mersenne, adding that there were better arguments available for this opinion.¹⁰¹ Finally, Galileo's comments, in a letter to Diodati of 15 January 1633, on Morin's project to «stabilize the certainty of astrology» consisted of equal measures of skepticism and fascination.¹⁰² Diodati clearly transmitted Galileo's interest to Morin: on 4

⁹⁶ ID., *Solutio* (cit. note 10), p. 136.

⁹⁷ *Ibid.*, p. 81: «Quod autem Keplerus libro de Trigono igneo, alibique passim Astrologiam è scientiarum numero reiecerit, cum alijs plerisque virtutum coelestium ignaris Philosophis».

⁹⁸ ID., *Astrologia Gallica* (cit. note 32), p. 501b.

⁹⁹ *Ibid.*, p. 505a-b.

¹⁰⁰ TANNERY – DE WAARD, *Correspondance* (cit. note 10), vol. 3, pp. 173: 1-174: 16.

¹⁰¹ RENÉ DESCARTES, *Œuvres*, ed. by Charles Adam and Paul Tannery, 11 vols., Paris, Léopold Cerf, 1964-1974, vol. I, p. 258: 4-10. Another reference to Morin's astrology is found in: *ibid.*, vol. 1, p. 289: 2-4.

¹⁰² Galileo to Diodati, 16 January 1633, OG, XV, p. 24: 18-24. Galileo's personal notes on

April 1635, Morin made good on his request to inform Galileo about the *Astrologia Gallica*, sending him a *précis* which had recently been printed for private distribution among Morin's friends.¹⁰³

Despite this ambivalence, Morin's astrological critique of Copernicanism could be seen as the exception which proves the rule that astrologers had become marginal to the world-systems debate by the late 1620s. Nevertheless, Morin's interventions underlined the ongoing complexity of the relation between astrology and Copernicanism in the late 1620s and early 1630s. For Morin's commitment to a rotating first heaven surrounding a central earth was not the manifestation a traditional astrological world-view, but a piece of astrological theorizing which was developed against the background of an ongoing dialogue with the Renaissance tradition of astrological criticism.

We have seen how Morin internalized this tradition to an unusual extent. Astrologers with a more modest interpretation of the need for astrological reform, such as Christopher Heydon, easily circumvented Copernicanism by claiming an under-determination of astrology's practical traditions by the true order of the heavens. They insisted on the ongoing homocentricity, for all practical purposes, of a heliocentric universe. This was not an option for Morin, precisely because he felt that astrology's practical traditions were in need of a (meta-)physical framework that could provide them with secure principles. Underlying Morin's emphasis on the first heaven, then, was a deeper concern for the epistemic order of astrological judgment, not so much cosmological inertia. In a published letter to Christian Longomontanus of 21 March 1627, Morin already regarded the Copernicans as men who subverted the "purely celestial" nature of equator and ecliptic, and thereby also the a priori derivation of the twelve astrological houses.¹⁰⁴ From the very beginning, it was Morin's commitment to a deeper form of astrological reform which shaped his experience of an incommensurability between Copernicanism and astrology.

Morin's *Solutio* suggest a rather superficial engagement with his astrological arguments. See GALILEO GALILEI, *Note per il Morino*, OG, VII, pp. 567-568.

¹⁰³ Morin to Galileo, 4 April 1635, OG, XVI, pp. 251: 5-7 and 251: 12-15 sq.


¹⁰⁴ MORIN, *Epistolae* (cit. note 12), p. 19.

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This volume deals with the anti-Copernican decree issued by the Holy Office of the Catholic Church on 5 March 1616, and is being published on the occasion of the four centenary of the promulgation of this ban. Adopting a different perspective from the mainstream of Galilean studies, this book aims to bring the ‘entangled matter’ of the anti-Copernican decree, which has hitherto been overshadowed by the 1633 trial of Galileo, into the foreground. Composed of nine essays dedicated to the causes, the protagonists and the aftermath of the decree, the book sheds light on various philosophical, theological, political and cultural aspects of the discussions that arose around the ‘temerity’ of Copernicanism and, in the end, its prohibition by the Church. The chapters form a mosaic whose pieces not only contribute to the completion of the picture outlined by other studies, both by building on their conclusions and engaging in a fruitful dialogue with them, but which also give new meaning to the whole scenario.