In 1600, Giordano Bruno was burned alive by the Inquisition in Rome as punishment for advocating various heresies that he was reluctant to retract. This execution was the conclusion of a long trial that had begun in Venice in 1592, when Bruno was arrested by the Venetian Inquisition after a nobleman filed a written complaint against him. These charges were so serious, and Bruno’s past as an apostate Dominican friar was so problematic, and his notoriety as a controversial author of many philosophical books was such that the following year the Roman Inquisition succeeded in having him extradited to Rome. The proceedings continued for seven more years, with Bruno being held in prison the whole time.

Although the records of the Inquisition proceedings of Bruno’s trial have not survived, many relevant documents are available. Moreover, the many books that he published, and the manuscripts which he left unpublished, provide a wealth of pertinent information. Thus, it ought to come as no surprise that the facts just mentioned have elicited many different interpretations.

A well-known scholar (Frances Yates) argued that Bruno was condemned primarily because he was seen as a magician and Hermeticist. Hermeticism was a secret semi-religious movement that approved of and practiced the magical arts, and which later led to Rosicrucianism and Freemasonry. Martínez properly rejects this account because Hermeticist ideas and practices were a very small part of Bruno’s thought and action.

A common account sees Bruno’s predicament as an instance of the conflict between science and religion, based on the fact that he believed in the earth’s motion; thus, supposedly, he was a Copernican, and a kind of precursor of Galileo. However, again, the earth’s motion plays a small role in Bruno’s thinking. In any case, Bruno’s explanation for the earth’s motion was that the earth has a soul (!); and this strikes some as unworthy of being labeled “scientific reasoning.” Alberto Martínez, at least implicitly, also rejects this interpretation. For example, he insightfully points out (pp. 274-75) that it reverses the proper chronological approach; that is, it tries to construe Bruno’s 1600 condemnation in terms of Galileo’s 1633 condemnation, rather than the other way around.

Other scholars, building on the insignificant role of Hermeticism and Copernicanism, have argued that Bruno’s condemnation was due primarily to his theological and religious ideas and practices, which contradicted Catholic doctrines and rituals. These involved Bruno’s questions and doubts, not necessarily rejection, about things like the following: the nature of the Trinity; the divinity of Jesus Christ; the virginity of Mary, mother of Jesus; the nature of the Holy Spirit; the doctrine of transubstantiation and of the Eucharist; praying to the saints; the biblical figures of Moses, Cain and Abel, the prophets, etc. Such issues do indeed loom large in the extant trial documentation. However, they arise primarily in the charges made by other witnesses, and not in Bruno’s books; in his own depositions, he basically denied such charges; and, in any case, at various points during the proceedings, he indicated that he was ready and willing to retract any unorthodox views about such topics. Thus, this religious-theological interpretation cannot be the explanation of Bruno’s condemnation.

A more tenable interpretation is along the following lines. There is another group of views that are the main
topics of Bruno’s books; which are frequently mentioned in the witnesses’ charges against him; which are also frequently discussed in Bruno’s own depositions; which he was reluctant to simply retract; and concerning which he was skeptical whether they were really heretical, and if so when exactly they had been so declared by the church. These are claims such as the following: the universe is eternal, and thus uncreated; indeed, material substances can be neither created nor destroyed, but only transformed; the universe is spatially infinite; there are many, perhaps an infinite number, of other worlds besides the terrestrial globe; these other worlds are inhabited by intelligent creatures similar to human beings; the earth, the other heavenly bodies, and the whole universe have souls; the soul of the whole universe is probably God, or at least the Holy Spirit; there is a transmigration of souls in various ways; for example, after death, a human soul usually goes into another body; sometimes souls transmigrate from humans to animals, and vice versa; sometimes souls transmigrate from one world to another. The interpretive claim here is that Bruno was condemned primarily because of such beliefs, which he explicitly and clearly advocated, which he was reluctant to retract, and which were widely regarded as heretical.

Martínez supports such an interpretation, soundly in my opinion. His main accomplishment is to elaborate an original twist to this interpretation. He shows, convincingly I believe, that such claims were generally regarded, by Bruno himself, by other proponents, and by their critics as “Pythagorean,” namely as key elements of “Pythagoreanism.” Martínez stresses explicitly that such doctrines are not Pythagorean in the sense that they can be shown to be contained in the writings of Pythagoras, because none of his writings have survived. Rather, in the two millennia from the time of Pythagoras to that of Bruno, ideas and practices attributed to Pythagoras had acquired many followers and critics. Among the anti-Pythagorean critics discussed by Martínez are such church fathers as St. Jerome and St. Augustine, such doctors of the church as St. Thomas Aquinas and St. Albertus Magnus, and such contemporaries of Bruno as Cardinal Robert Bellarmine and Cardinal Cesare Baronio. Martínez goes to great lengths in pointing out that there was a consensus among such Christian authorities that the Pythagorean doctrines were heretical.

Besides establishing such a connection between Bruno’s trial and Pythagoreanism, Martínez examines its role in the trial of Galileo. So let us now mention the factual tip of the latter iceberg. In June 1633, the Inquisition in Rome found Galileo guilty of an intermediate category of religious crime labeled “vehement suspicion of heresy,” which he had allegedly committed by publishing a year earlier a book entitled Dialogue on the Two Chief World Systems, Ptolemaic and Copernican. His punishment was house arrest for the rest of his life and formal banning of this book. This condemnation was the conclusion of a series of Inquisition proceedings that had started in 1632 when the book was published, but which were based on an earlier series of proceedings that had taken place in 1615-16. Those earlier proceedings had started when some clergymen accused Galileo of heresy for holding the astronomical theory of the earth’s motion and the hermeneutical principle that scripture is not a scientific authority but only an authority on faith and morals (and so it is irrelevant that the earth’s motion contradicts the literal interpretation of some biblical passages). The conclusion of those earlier proceedings had been twofold: the Congregation of the Index issued a public decree declaring the geokinetic theory scientifically false and theologically contrary to scripture; and Galileo, who had been neither arrested nor interrogated, was given an informal warning not to hold the theory as factually true or as compatible with scripture, but only as an hypothesis.

Martínez does admit that the role of Pythagoreanism in Galileo’s trial is not as crucial as it is in Bruno’s trial. However, Martínez does claim that its role in Galileo’s trial was an important one. To support this thesis he points out that the earth’s motion was a typical element of Pythagoreanism. Moreover, Galileo’s telescopic discoveries provided conclusive evidence that there are significant physical similarities between the earth and the heavenly bodies, especially the moon and planets. From this, it was tempting to argue that the similarities extended to the heavenly bodies being inhabited by intelligent creatures, and this extrapolation corresponded to the typical Pythagorean doctrine of the plurality of worlds. Although Galileo himself refrained from such an extrapolation, his supporters as well as his critics alleged this extra implication.

The Galilean part of Martínez’s account consists primarily of an analysis of the writings of these supporters and critics to show that they perceived Galileo as a typical Pythagorean. For example, consider what the Copernican Johannes Kepler wrote in response to Galileo’s first announcement of his telescopic discoveries in The Sidereal Messenger (1610); as is well known, Kepler stressed that many of these discoveries, especially the similarity between the earth and the moon, had been anticipated by Bruno and the Pythagoreans.
pations were also mentioned in the writings of Tommaso Campanella, an important philosopher in his own right who had his own troubles with the Inquisition but who managed to defend Galileo in various ways. And among anti-Pythagorean critics, Martínez discusses the works of Giulio Cesare Lagalla (1612), Marin Mersenne (1624-25), Lucas Holste (1630), Libert Froidmont (1631), Jean-Baptiste Morin (1631), and Melchior Inchofer (1633, 1635); the last author is especially significant not only because of the bulk and details of his criticism, but also because during the 1633 proceedings he was one of the Inquisition consultants on Galileo’s Dialogue.

However, by way of criticism, I would argue that none of this shows that the role of Pythagoreanism in Galileo’s trial was important. I would say that this role, while visible, remains insignificant. There are two main reasons for this. The first is that Galileo himself was frequently concerned with not drawing or with explicitly denying the “Pythagorean” extrapolations from his discoveries or theories. Here, by and large, Martínez tends to ignore or misinterpret such Galilean caution. For example, he ignores the very revealing fact that the Dialogue begins with a criticism of Pythagoreanism. Moreover, concerning Galileo’s denial of life on the moon, Martínez interprets as political caution what is really scientific reasoning and judgment on Galileo’s part.

The other reason is even more crucial. That is, by and large, that the Inquisition officials and the other church authorities understood that Galileo was not a Pythagorean, and so did not treat him as one. Here we come to the myriad differences between his treatment and Bruno’s. Following the accusations against Galileo by two Dominican friars in February-March 1615, Galileo was neither arrested, summoned, nor even interrogated. His criticism of the biblical objection to Copernicanism (in his "Letter to Castelli") was judged essentially unobjectionable by an Inquisition consultant. Although the consultants who evaluated the Copernican theory of the earth’s motion judged it to be formally heretical, the pope and the Inquisition cardinals did not endorse this drastic judgment, but declared it (less harshly) as "contrary to scripture" in the 1616 Index’s decree. For the writing and publication of the Dialogue, Galileo received the support and approval of Pope Urban VIII and of several reviewers and censors. The chief one of the charges against the Dialogue that started the proceedings in 1632 was not formal heresy, but rather that in 1616 the Inquisition’s commissary had issued Galileo the injunction not to discuss the earth’s motion in any way whatever, which the book obviously did. This charge was dropped after, in his first deposition in April 1633, Galileo denied receiving such a drastic injunction and supported his denial with a certificate from Cardinal Bellarmine, which said nothing about the commissary’s injunction; instead the certificate stated that, in accordance with Inquisition instructions, Bellarmine himself had informally warned Galileo not to defend the earth’s motion as factually true or as compatible with scripture, but merely as an hypothesis. Accordingly, there followed some out-of-court plea bargaining whereby Galileo agreed to plead guilty to unintentionally violating Bellarmine’s warning, by arguing in the Dialogue that the earth’s motion was a probably true hypothesis because the arguments in its favor were much stronger than those for the earth’s rest.

In all of this, Pythagoreanism is not only not the main factor, but not even a significant one. Martínez makes much (e.g., pp. 146, 273) out of the fact that four of the Inquisition officials conducting the anti-Galilean proceedings in 1615-16 had participated in Bruno’s trial: Pope Paul V (as Cardinal Camillo Borghese), Cardinal Bellarmine, Cardinal Paolo Sfondrato, and Cardinal Ferdinando Taverna. Martínez wants to suggest that these cardinals were perceiving (whether rightly or wrongly) a continuity and similarly between the cases of Bruno and Galileo. However, the fact is that they were perceiving (correctly) the profound difference between the two cases.

In short, this book deals with important and interesting topics. It is insightful and original with regard to its main thesis about the historical connection between Pythagoreanism and Bruno’s trial. And it is suggestive and instructive with regard to its secondary thesis about the role of Pythagoreanism in Galileo’s trial. That is, pace Martínez, Pythagoreanism enables us to appreciate the stark contrast between the cases of Bruno and Galileo. The Inquisition perceived and treated Bruno as a Pythagorean, and indeed, by and large, he acted and thought like one. On the other hand, the Inquisition did not perceive, and so did not treat, Galileo as a Pythagorean; and indeed, he was not one in any significant sense, and was careful not to appear like one.

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