

# H-Net Reviews

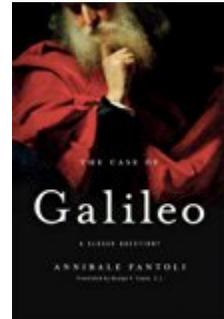
in the Humanities & Social Sciences

Annibale Fantoli. *The Case of Galileo: A Closed Question?* Notre Dame: University of Notre Dame Press, 2012. xii + 271 pp. \$28.00 (paper), ISBN 978-0-268-02891-6.

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In the Albert Einstein centenary year 1979 Pope John Paul II called for a reconsideration of the church's treatment of Galileo, anticipating that such a study "in a loyal recognition of wrongs from whatever side they come, will dispel the mistrust that still opposes, in many minds, a fruitful concord between science and faith" (quoted, p. 233). A commission to carry out this project was appointed soon afterward, leading to various studies and publications over the next decade, and it resulted in a final summation in 1992 that was widely reported at the time as the church's vindication of Galileo. *The Case of Galileo: A Closed Question?* is in many ways a response to these events. The title itself asks whether the commission's work really did close the case, and the first incarnation of this book was a monograph, *Galileo: Per il Copernicanesimo e per la Chiesa* (1993) that appeared in a series initiated by the work of the commission. The 1993 monograph was followed by later editions and translations, and *The Case of Galileo* is its descendant, aimed at a more general audience, making liberal use of the earlier versions, but without the scholarly apparatus.

Although the book stands on its own, the reader would do well to have at hand Maurice Finocchiaro's *The Galileo Affair* (1989), a collection in English of the most important and relevant primary documents. A previous acquaintance with this material can only increase the reader's admiration for Annibale Fantoli's meticulous and incisive readings in *The Case of Galileo*, and for his careful reconstructions of what might have happened behind the scenes. In this greatest of all historical mysteries we have a master detective to guide us.

The first chapter, covering Galileo's early years up to 1610 and the telescopic discoveries, has been ex-

panded beyond the corresponding material in the earlier books, where Fantoli could assume more familiarity with the background to the controversy. The Aristotelian/Ptolemaic universe is carefully described. Galileo's early interest in the (alternative) Copernican model is documented: there are the two letters of 1597, broad hints in Galileo's writings on the new star of 1604, and explicit statements in the *Starry Messenger* (1610). The nature and extent of Galileo's Copernicanism in this period is of course relevant to the coming controversy, but the evidence is so meager that any decision about it must be slightly arbitrary, however closely one reads. Fantoli's view is that Galileo's complete conversion to Copernicanism "will not happen until 1610" (p. 17), and that "The search for proofs of Copernicanism will from now on become Galileo's project for life" (p. 29). I will return to this point at the end of my review.

By 1611 the Aristotelian/Ptolemaic model was no longer tenable: the moons of Jupiter went around Jupiter, not the Earth; Venus went around the sun, not the Earth; there was something very asymmetrical about Saturn; and, most astonishing to many contemporaries, the moon was mountainous. The dean of Italian astronomy, Christopher Clavius of the Jesuit Collegio Romano, was largely convinced of these things in his old age (although he still had his doubts about the moon). By 1612 at the latest the sunspots were being studied by several observers, including Galileo and the Jesuit Christopher Scheiner. Sunspots, and within a few years comets, were yet another challenge to the immutability of the heavens as taught in Aristotelian philosophy and reinforced in Christian theology.

Fantoli brings out clearly that some of the earli-

est invocations of the Bible against Copernicanism, and against the new astronomy more generally, came from the philosophical side, not from the church. As Galileo's academic rivals failed to discredit his observations, they attacked his deductions with arguments from scripture, a development that he reacted to as if stung. It seems not to be entirely true, however, that Copernicanism had coexisted peacefully with Catholic theology from 1543, although Galileo himself argued this point in expressing his surprise at the new hostility. It may in fact be almost accidental that there was not more resistance by theologians to Copernicanism in this early period. Manuscripts were prepared but never published, heretics like Giordano Bruno were condemned (but not exactly for Copernicanism). This background to the controversy is the subject of chapter 2, "Copernicanism and the Bible."

Chapter 3, "The Scriptural Controversy Grows," describes how the question moved entirely away from observations and science to matters of theology and the interpretation of scripture. Galileo committed himself to paper in the *Letter to Castelli* and the *Letter to the Grand Duchess Christina*, arguing that scripture should not be invoked to decide questions that had nothing to do with salvation and that might later be decided by "true demonstrations." Secret denunciations of Galileo to the Roman Inquisition, relying in part on these letters, proved baseless upon investigation, but nevertheless remained in the files. In late 1614 an ambitious cleric, Tommaso Caccini, preached a sermon in Florence against mathematics generally and Galileo in particular. His superior in Rome wrote Galileo a sincere letter of apology, expressing his disgust, but clearly something was happening within some (perhaps small) clerical faction. That the contrary was also happening became public in March 1615 with the Carmelite Antonio Foscarini's attempt to reconcile the motion of the Earth with scripture. This book (soon banned) was immediately rebuked by an authority second only to the pope in such matters, Cardinal Robert Bellarmine. His *Letter to Foscarini* (in which he also mentions Galileo) is by common consent the high-water mark of scholarly Catholic opinion in the growing controversy.

The final report of the papal commission in 1992 and the pope's acceptance of it attempted a Solomonic resolution, in which the church was found to have erred, but Galileo was also found to have erred, and in which, paradoxically, Galileo had proved the better theologian (in the *Letter to Christina*), but Cardinal Bellarmine had proved the better scientific methodologist (in the *Letter to Foscarini*). As far as this last point goes, Fantoli

is having none of it. His reading of the Foscarini letter clearly reveals its weakness, along lines similar to Galileo's own analysis in the *Letter to Christina*. The letter is inconsistent: it says that the motion of the Earth is contrary to scripture, and thus cannot be true, but that if it were true (although it is not true), then we would have to re-examine our interpretation of scripture. Fantoli points out that scientific methodology is not even being discussed here. Modern admirers of the letter seem to confuse Bellarmine's insistence that he sees no proof of Copernicanism with a principle of methodology. Fantoli points out a peculiar passage in the *Letter to Christina* in which Galileo seems to fall into the same inconsistency, but since it clearly contradicts the rest of Galileo's letter, he regards it as an anomaly. Fantoli's discussion is impressively thorough.

The complex contradictions and ambiguities of 1616 are handled masterfully. A committee of theologian consultants declares the stationarity of the sun to be "foolish and absurd in philosophy, and formally heretical," while the motion of the Earth "receives the same judgment in philosophy ... and is at least erroneous in faith." Copernicus's book is "suspended pending correction," while Foscarini's book is prohibited (p. 100). In an audience with Cardinal Bellarmine, Galileo is (apparently) served by Commissary Michelangelo Segizzi with an injunction (but illegally) not to hold, teach, or defend the Copernican propositions. Hearing that his enemies are spreading rumors that he has been punished, he requests and receives a certificate from Cardinal Bellarmine to clarify the situation. Unfortunately the certificate is inconsistent with the injunction. Pope Paul V, who had personally authorized the potential injunction, has a pleasant stroll with Galileo in his gardens, and promises his support.

No attempt to summarize this material could do justice to Fantoli's chapter 4: "Copernican Doctrine is Declared to be Contrary to Scripture," which analyzes all of this remarkable material. A 2009 handwriting analysis of the Segizzi injunction, commissioned by the author, indicates that it is consistent with the other documents in the file, and was not added later, as has been suggested. The absence of signatures from principals and witnesses also does not invalidate it, Fantoli says. (This may be true as a point of law, given the Inquisition's procedures, but some part of the reader's skeptical instincts might be awakened at this point nonetheless.) The most important point of the chapter, well supported by evidence, is that the church took this disastrous misstep because those making the decision were already convinced

of the certain truth of Aristotelian philosophy and never even considered other scientific arguments, including the recent telescopic observations. For some reason the Jesuit astronomers were not consulted and did not make themselves heard. Fantoli suggests that many Jesuit astronomers were privately sympathetic to Copernicanism in these years, even if their official position had to be Tycho's model (because their founding documents committed them to teach Aristotelian philosophy).

Chapter 5, "From the Polemics on the Comets to the *Dialogue*," describes two apparently contradictory trends: Galileo's falling out with the Jesuits, on the one hand, and his increasing favor with the very highest levels of the Catholic hierarchy, on the other. With the election of his old admirer Maffeo Barberini as Pope Urban VIII, the way seemed clear to write his long projected *Dialogue on the Two Principal World Systems* (as it came to be known, and not *On the Flux and Reflux of the Sea*). Too much time is spent, in this reviewer's opinion, on the falling out with the Jesuits. This is relevant only if the Society of Jesus had something to do with the eventual trial, and there is no evidence of that, the very point that the book is trying to make, perhaps protesting too much. The relationship with Urban VIII, on the other hand, is vitally important to the developing disaster.

In chapter 6, "The Trial and Condemnation of Galileo," we have more of Fantoli's close readings of the ambiguous and contradictory documents that lie at the heart of this infamous case. It is truly a pleasure to follow him, even if it is occasionally to disagree. He is eager to establish the formal legality of Galileo's condemnation, and surely there must be a way to do that, since the tribunal had to be convinced that it was doing the right thing. Part of this argument requires establishing that the flawed Segizzi injunction was not actually necessary to the verdict. Urban VIII, implicitly at least, must have resolved an ambiguity about the status of Copernicanism, making it not merely "rash" to uphold it, but "an error in faith." Only with that clarification could upholding Copernicanism have been a heresy. These remarks only hint at the detailed argumentation in this chapter.

The presentation is such that even positions that are not favored by the author are still sufficiently represented that one could make the opposite case with just the information that is already here. I will return to this point below.

Chapter 7, "The Burdensome Inheritance of the Galileo Affair," fills in the years from 1633 to 1992, a story told at more length in Finocchiaro's *Retrying Galileo*

(2005), a useful companion volume to this chapter of *The Case of Galileo*. A recurring theme of Catholic apologists throughout this period was that the church was right to condemn Galileo at the time, because Galileo did not have "proofs." Fantoli points out, as he has done already before, that no one involved in these decisions ever examined what proofs Galileo did or did not have, and that in fact that was never the issue. But in the apologetic view Galileo is to blame for forcing, without proofs, an issue that should have waited. Fantoli points out that other people were also forcing the issue (Foscarini, for example), and that it was being taken up in any case, whether Galileo made arguments or not.

A remarkable example of an earlier attempt to re-examine the case came in 1942, the three-hundredth anniversary of Galileo's death, when the Pontifical Academy of Sciences commissioned a biography of Galileo from Pio Paschini, a professor of church history (not a Galileo scholar). The planned work was described in this way: "Pio Paschini will give us not just a life but rather he will present us the figure of Galileo by situating his work in the historical framework of the knowledge of his time [NB: inadequate!] and by thus putting again the figure of the great astronomer in its true light.... The planned volume will, therefore, be an effective demonstration that the Church did not persecute Galileo but abundantly helped him in his studies. It will not, however, be a work of apologetics" (quoted, p. 229). The implausible outcome of the investigation is already stipulated in the charge to the investigator, just as it was, essentially, also in 1979. (The Paschini story is interesting: he didn't stick to the script, with the result that his work was not published in his lifetime. When it was eventually printed in 1964 it had been altered to conform more closely to the desired result. The 1992 final report of Pope John Paul II's commission also ignored some of its best work to present a summation that most Galileo scholars found, in Fantoli's word, "perplexing.")

A brief "Epilogue to The Case of Galileo" considers the way the modern Catholic Church addresses issues of science, especially, for example, issues raised by biotechnology, without necessarily finding grounds for optimism.

Fantoli is impatient with the facile 1992 outcome of the church's investigation, the notion that everyone was equally right and equally culpable, that in the words of John Paul II the affair revealed a "tragic mutual incomprehension" (p. 243). This diffusion of responsibility to essentially everyone seems to Fantoli to spare those "at

the top,” who really were responsible, and he is therefore quick to dismiss suggestions of others who might also have been responsible: “It would not be correct to unload their responsibilities onto Galileo’s enemies” (p. 211). Galileo himself, it should be pointed out, blamed his trial and its outcome entirely on his enemies (not necessarily Jesuits), and never considered it the adjudication of a point of principle. While his information was not perfect, he was generally very well informed. This possibility seems to offer another avenue to potentially close the case: might the Galileo affair be less than it appears, the injustice done to Galileo merely the result of anonymous manipulation of the church apparatus by his rivals and persecutors?

Despite his dismissal of this possibility, there is a great deal in what Fantoli shows us to suggest it. Enemies of Galileo were clearly active in the run-up to 1616, since they engineered a warning aimed exclusively at him in the form of the Segizzi injunction and even disseminated prejudicial rumors about what had happened to him immediately afterward. In the trial of 1633, more and more prejudicial material was found in the archives and reported in summaries to the judges and to the pope, often inaccurately in ways that made it even more prejudicial. Fantoli seems to consider it an exoneration of the anonymous compilers of these summaries that the final document that accompanies the verdict corrected the errors, but it could equally well be that this was done to cover up the malicious misstatements: once they had done their damage they could disappear. Fantoli suggests that until early June 1633, the trial was apparently going

to end much more benevolently than it ultimately did. If the matter had really been that delicately balanced, it is not at all implausible that well-placed mid-level enemies were able to tip the scales.

Finally, one must notice that as far as the Catholic Church is concerned, Galileo and Copernicanism are almost synonymous, and this identification colors any re-examination that has the church at its center. What was Galileo’s real opinion of Copernicanism, and what was he trying to do when he wrote and argued about it? It is widely assumed that he was arguing for the truth of Copernicanism. The Letter to the Grand Duchess Christina, for example, is widely regarded as a pro-Copernican document. Fantoli is such a careful reader that he cannot say this, because in fact the letter merely urges prudence in such questions, and Fantoli clearly points this out. The letter argues by citing theological authority and by urging the reader to consider the consequences of a potential proof of Copernicanism sometime in the future. To make its point, the letter must remove any immediate objections that the reader might have, to the effect that there could never be such a proof, but that is not the same as arguing for Copernicanism. Similarly, Galileo’s more scientific arguments in other places, even in the *Dialogue*, usually considered pro-Copernican, are really arguments for its possibility, not for its truth. It would be quite understandable if his contemporaries had assumed him to be arguing for Copernicanism when he was actually arguing for something subtler; that misunderstanding is well represented even today.

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