Defenders of the faith

Michael Sharratt

Galileo for Copernicanism and for the Church. By Annibale Fantoli. *Vatican Observatory Publications*: 1994. Pp. 540. \$21.95 (pbk).

A Defense of Galileo, the Mathematician from Florence. By Thomas Campanella, OP of Calabria, translated with an introduction and notes by Richard J. Blackwell. *University of Notre Dame Press*: 1994. Pp. 157. \$27.95.

THE 'rehabilitation' of Galileo by Pope John Paul II in 1992 concluded the work of a group he had set up 11 years earlier to study the Galileo case impartially. The Pope's official and handsome apology for the notorious condemnation of 1633 did not, of course, exhaust the topic. So Annibale Fantoli's book on Galileo's work both for Copernicanism and for the Roman Catholic Church is not just tacked on to the *Studi Galileani* initiated by the papal commission, as though it had missed a deadline. That George V. Coyne, the Jesuit director of the Vatican Observatory, has translated Fantoli's original Italian volume, which appeared in the same series in 1993, may be a sign that the observatory will continue to encourage interest in Galileo.

This is not a full biography of Galileo or a complete survey of his contributions to science. Instead, it deals with Galileo's attempts to have Copernicanism at least tolerated and his consequent endeavours to save the Catholic Church from making a damaging mistake. So Galileo's work on mechanics is treated only at the general level necessary to understand his Copernican cosmology. Naturally, Fantoli is fuller on Galileo's work on astronomy, although even here he does not provide a specialist's contribution to the history of science; rather he highlights the ideological, conceptual and religious influences on Galileo. Within these limitations the book is a very useful account of the development of Galileo's thought.

That Jesuits figure prominently in the story is not due to fact that Fantoli himself was formerly a Jesuit but simply because they were the most influential Catholic teachers. To understand why Galileo, whether fairly or not, eventually blamed them for many of his troubles is an essential part of appreciating the context in which he worked.

The influence on the young Galileo of Jesuit teachers at the Roman College has come to light only in the past 25 years. Fantoli, along with many others, accepts William Wallace's thesis that Galileo had access to written notes of lectures given at the college. There is no mention of Alistair Crombie's argument that the undoubted Jesuit influence on Galileo

could have come from easily accessible printed works. If Crombie is right, then Wallace's dating of Galileo's early Aristotelian manuscripts would be considerably upset. Another omission in an otherwise well documented survey is the

IMAGE
UNAVAILABLE
FOR COPYRIGHT
REASONS

Galileo before Pope Urban VIII, 1633.

work of C. B. Schmitt on the University of Pisa and contemporary Aristotelianism.

Fantoli is particularly good on Galileo's dealings with Jesuit astronomers, to whom Galileo turned to for help and cooperation after making his observational discoveries. We gain a proper understanding of why Galileo was initially wary of the mathematicians of the Roman College. Fantoli describes their public endorsement of the discoveries to which they were beginning to contribute; and he brings out well the limitations of Jesuit educational policy. One could say that for Galileo, novelty was attractive, almost a recommendation for an idea, whereas for the Jesuits novel opinions were suspect until proved harmless.

Fantoli traces the first signs of incipient alienation in the controversy between Galileo and Scheiner over sunspots. The disastrous intervention of Church authority is soberly set out, with welcome emphasis on Galileo's own attempt to provide a better way of interpreting scrip-

ture than that insisted on by Cardinal Bellarmine (another Jesuit). Equally even-handed is the treatment of the controversy with the Jesuit Grassi over comets, a controversy that led to Galileo's *Assayer* of 1623, itself a manifesto in favour of Galileo's way of doing science and against the Aristotelian way of the Jesuits and most universities. Finally the ill-fated *Dialogue* is usefully surveyed, although there could have been more emphasis on how much of it attempts to settle old scores with Scheiner.

Fantoli uses all this background (and a good deal more about other defenders of Aristotelianism) to take the reader through Galileo's trial and condemnation. He is judicious in his use of sources. In particular, he employs Grienberger's letters to telling effect to sift what is credible from the gossip of Galileo's friends. More than once he courteously dismantles a fragile conjecture of the late Stillman Drake. On those occasions when he blames Galileo for rash judgement, unfairness or arrogance he gives his reasons for doing so; but his admiration for a great scientist who was trying to save his Church from calamity comes out clearly, both in his chapter on the trial and in his comments on official Catholic attitudes to Galileo in modern times. The translation, apart from minor blemishes, is adequate. Despite Fantoli's modesty in describing his aims, this book is one that any specialist in the history of science could learn from.

In 1615, when Galileo was expanding an earlier essay on how to interpret scripture, he was encouraged by the publication of a similar essay by a Carmelite priest, Foscarini. Richard Blackwell included a translation in his *Galileo, Bellarmine, and the Bible* (University of Notre Dame Press, 1991). He has now translated the defence of Galileo written in 1616 by the brilliant although unfortunate Dominican priest, Tommaso Campanella. As this defence of Galileo's right to advocate Copernicanism was not published until 1622 and was in any case completed too late to prevent an official ruling that Copernicanism could be no more than a mere calculating device, it seems that Campanella's work was largely wasted. But it is still well worth having this short work made accessible. The only weakness is in the translator's introduction, where Aristotelianism is emphasized to such a great extent that Ptolemaic techniques are scarcely mentioned. The part of the introduction dealing with Campanella's defence of Galileo is succinct and helpful, and the translation and annotations are good. □

Michael Sharratt is at Ushaw College, Durham DH7 9RH, UK.