

ON GALILEO FROM THE GIFFORD LECTURES, BRAND BLANSHARD

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REVELATION AND ASTRONOMY

First, astronomy. Here a name that springs to mind at once is that of Galileo. His famous case is somewhat threadbare now, but it remains important both in history and in theory. The essential facts are as follows.

(1) On 26 February 1616, Galileo was commanded ‘in the name of His Holiness the Pope and the whole congregation of the Holy Office’ to abandon the view that the earth moves.

(2) On 5 March of that year the congregation of the Index, at the instigation of Pope Paul V, condemned ‘that false Pythagorean doctrine, wholly opposed to sacred scripture, which Nicholas Copernicus [and others] teach as to the mobility of the earth and the immobility of the sun’.

(3) 1633, at the urgent desire of Pope Urban VIII, Galileo was brought before the inquisition, and under threat of severe punishment, compelled to recant ‘the error and heresy of the movement of the earth’.

(4) This condemnation was inscribed in the Index, to which in 1664, a third Pope, Alexander VIII, prefixed a bull *Speculatores Domus Israel*, signed by himself and binding the proscriptions of the book on all good Catholics. In this bull he condemned ‘all books teaching the movement of the earth and the stability of the sun’.

(5) In 1835 this condemnation was at last and silently removed.

Here is a clear case in which the church, speaking officially, took one view, and science, speaking through the voice of the greatest living scientist, took an opposite one. For centuries Catholic apologists have been trying to explain this opposition away. They have suggested that Galileo was condemned not for his science but for his contumacy and disrespect. They have said that he was condemned not for his astronomy but for an attempt to interpret Scripture as according with his astronomy. They have said that God may have seen fit to test our faith with Scriptural texts difficult of interpretation. Cardinal Newman admitted the conflict, but threw up his hands about it. ‘Scripture... says that the sun moves and the earth is stationary; and science, that the earth moves, and the sun is comparatively at rest. How can we determine which of these opposite statements is the very truth, till we know what motion is?’⁶ He would no doubt have welcomed Einstein as showing that if one body is moving relatively to another there is a sense in which it is arbitrary which we take as at rest. Even so, Newman might have had trouble in fitting into his moral and astronomical system the sun that stood still for a day over Gibeon, neither body moving relatively to the other. The chief recourse, however, has been to the familiar contention that in condemning Galileo the church did not act in a fully official way.

It is not a very convincing defence. In the congregation of the Holy Office that condemned his teaching, Pope Paul himself was apparently present, and the demand for abjuration, made through Cardinal Bellarmine, was made expressly in the Pope's name; the congregation of the Index, which also condemned the view, was commissioned by the same Pope to inquire into the doctrine, and again its verdict was issued with his approval; the sentence of the inquisition in 1633 was sent by a second Pope, Urban, to all Apostolic nuncios ‘to the end that so pernicious a doctrine’ might ‘spread no further’; a third Pope, Alexander, republished the decrees in a book which he ‘confirmed and approved’ both ‘as a whole and in its parts’. The spectacle of a powerful organisation threatening and imprisoning a scientist of the first rank, compelling him to recant, denouncing his teaching throughout Europe as heretical, suppressing books that contained it, excluding it from the schools, and then, when it was proved beyond question to be true, maintaining that the three popes had never meant, in condemning it, to condemn it quite authoritatively is not a pleasant passage in the history of apologetics.

Suppose, however, that this extenuation is accepted; where does that leave the church in its relation with astronomy? Unhappily, in an awkward position still. For whether Paul and Urban and Alexander were speaking infallibly or not, their denial of the earth's motion was either true or untrue. Assume that it was true and that Galileo was really wrong. A major thesis of modern science never stands alone. This thesis about the motion of the earth has implications for the whole of astronomy and indeed the whole of scientific method. If, in spite of the thousands of observations and calculations that have verified the theory, the earth does not rotate on its axis or revolve round the sun, then not only will the map of the universe have to be redrawn, but the very method of gaining truth by observation must be rejected as unreliable; and if reason is as unreliable as this, its use in theology itself must be suspect.

Suppose on the other hand that the condemnation was mistaken and that Galileo was right. Then the church must admit not

only that the head of the church and his most responsible official advisers may make grave mistakes about matters they expressly designate as matters of faith; it must also admit that the plain sense of Scripture may be in error. For even if Paul, Urban, and Alexander were mistaken in denying the motion of the earth and the fixity of the sun, they were still surely correct in saying that both doctrines are repeatedly denied in Scripture. 'He hath made the round world so fast that it cannot be moved'; that denies the first. The sun 'runneth about from one end of the heavens to the other'; that denies the second; and if these are taken as metaphorical, the sun's halting its motion over Gibeon was certainly no metaphor. Now to admit that Galileo was right would be to admit that such passages were not true. But this would imply that Scripture was untrustworthy, and that would be disaster, since the church has pronounced infallibly that it is inerrant.

Rome has never extricated itself from this dilemma. What it has actually done is to adhere to its principle that the Bible is inerrant, while at the same time dropping its case against modern astronomy. That solves nothing in theory. The Biblical passages are still there, and they still mean what the three popes thought they did. And the earth still moves, as Galileo continued to mutter. The course of the rationalist in this difficulty is straightforward; he says that the Biblical writers were human beings who wrote according to their lights but, knowing little astronomy, made perfectly natural mistakes; further, that to set up their groping opinions as a tribunal by which to judge professional astronomers is to invert the true order of things. The Catholic cannot take this view without sacrilege. As a son of the church, he must bow to an inerrant Scripture. As a citizen of the modern world, he must accept the findings of astronomy. And he is deluding himself if he thinks that he can consistently do both.

Vatican II was not allowed to forget Galileo. Bishop Eichinger of Strasbourg, after reminding his colleagues of the intellectual deficiencies commonly charged to the church's account—limitation of intellectual interest, an assumption that faith, in virtue of its certainty, could extend that certainty to other fields, 'a morbid fear of rationalism and the critical spirit'—went on to say:

'The case of Galileo remains a symbol of all these deficiencies in the history of modern times. Let it not be said too quickly that it is part of ancient history. The condemnation of this man has never been revoked.... It would be an eloquent gesture if the Church, during this year [1964] which marks the fourth centenary of Galileo's birth, would humbly agree to rehabilitate him.'

The rehabilitation did not come. How indeed could it come without compromising the teaching authority of the church? To rehabilitate Galileo would be to admit that he was right. If he was right, three popes were wrong, not merely on an issue of fact, but on an issue of faith. For either they had misinterpreted to their flock the meaning of Scripture or, if their interpretation was correct, Scripture itself was in error.