After the Ptolemy-Copernican Debate - Catholicism resolves the faith-science divide

The Ptolemy-Copernican debate and the imprisionment of Galileo was a historical watermark against which many point as the beginning of a divide between religious faith and scientific reasoning. During the 1990s, Pope John Paul II's (PJPII) moved towards reconciliation between the Catholic religious, philisophical and scientific communities. Whether one's belief system is Socratic or humanist, atheist or agnostic, or mainstream or alternative religion, Pope John II's philosphical resolution of this issue, as revealed by various papal letters and an encyclical, is a useful analysis of the question.

- Rejection of literal interpretation

1998, Sept. 14 PJPII's generally rejects literal interpretation of scriptures as inconsistent with the Catholic Church's existance as a tradition of continuous reinterpretation of scriptures within the historical and social context of individual eras:

94. The truth of the biblical texts, and of the Gospels in particular, is certainly not restricted to the narration of simple historical events or the statement of neutral facts, as historicist positivism would claim. Beyond simple historical occurrence, the truth of the events which these texts relate lies rather in the meaning they have in and for the history of salvation. This truth is elaborated fully in the Church's constant reading of these texts over the centuries, a reading which preserves intact their original meaning. There is a pressing need, therefore, that the relationship between fact and meaning, a relationship which constitutes the specific sense of history, be examined also from the philosophical point of view.

PJPII, Encyclical, Fides et ratio [Faith and reason], para. 94 (footnotes omitted).

Faith, Reason and Science - PJPII resolution - Rejection of literal interpretation and Galileo

1992, Nov. 4 - Vatican publishes Galileo: Report on Papal Commission Findings, by Cardinal Poupard, and Pope John Paul II rejects literal interpretation of scriptures as it relates to the Galileo affair:

"Thanks to his intuition as a brilliant physicist and by relying on different arguments, Galileo, who practically invented the experimental method, understood why only the sun could function as the centre of the world, as it was then known, that is to say, as a planetary system. The error of the theologians of the time, when they maintained the centrality of the earth, was to think that our understanding of the physical world's structure as, in some way, imposed by the literal sense of Sacred Scripture."

PJPII, "Faith can never contradict reason", para. 12, published in L'Osservatore Romano N. 44 (1264).

1992, Nov. 4 - Vatican publishes Galileo: Report on Papal Commission Findings, by Cardinal Poupard, and PJPII discusses how the Galileo affair relates to the modern divide between religion and science, calling it a "tragic misunderstanding":

10. From the beginning of the Age of Enlightenment down to our own day, the Galileo case has been a sort of "myth", in which the image fabricated out of the events was quite far removed from reality. In this perspective, the Galileo case was the symbol of the Church's supposed rejection of scientific progress, or of "dogmatic" obscurantism opposed to the free search for truth. This myth has played a considerable cultural role. It has helped to anchor a number of scientists of good faith in the idea that there was an incompatibility between the spirit of science and its rules of research on the one hand and the Christian faith on the other. A tragic mutual incomprehension has been interpreted as the reflection of a fundamental opposition between science and faith. The clarifications furnished by recent historical studies enable us to state that this sad misunderstanding now belongs to the past.

Speech to the Pontifical Academy of Sciences, para. 10, published in L'Osservatore Romano N. 44 (1264) (Emphasis added).

1992, Nov. 4 - PJPII reasons that are two realms of knowledge - one based on faith and another on reason - that are not in opposition and that have "points of contact." Moral development is needed to provide guidance to society on what to do with the fruits technology:

- 12. . . . To the latter belong especially the experimental sciences and philosophy. The distinction between the two realms of knowledge ought not to be understood as opposition. The two realms are not altogether foreign to each other, they have points of contact. The methodologies proper to each make it possible to bring out different aspects of reality.
- 14. Humanity has before it two modes of development. The first involves culture, scientific research and technology that is to say whatever falls within the horizontal aspect of man and creation which is growing at an impressive rate. In order that this progress should not remain completely external to man, it presupposes a simultaneous raising of conscience, as well as its actuation. The second mode of development involves what is deepest in the human being, when transcending the world and transcending himself, man turns to the One who is the Creator of all. It is only this vertical direction which can give full meaning to man's being and action, because it situates him in relation to his origin and his end. In this twofold direction, horizontal and vertical, man realizes himself fully as a spiritual being and as homo sapiens.

Speech to the Pontifical Academy of Sciences, L'Osservatore Romano N. 44 (1264).

1998, Sept. 14 - PJPII poetically's describes the two modes as "two wings of the human spirit" and concludes the division between faith and reason is artificial:

"Faith and reason are like two wings on which the human spirit rises to the contemplation of truth; and God has placed in the human heart a desire to know the truth—in a word, to know himself—so that, by knowing and loving God, men and women may also come to the fullness of truth about themselves.

17. There is thus no reason for competition of any kind between reason and faith: each contains the other, and each has its own scope for action. . . . The desire for knowledge is so great and it works in such a way that the human heart, despite its experience of insurmountable limitation, yearns for the infinite riches which lie beyond, knowing that there is to be found the satisfying answer to every question as yet unanswered."

PJPII, Encyclical Letter, Fides et ratio [Faith and reason]. Introduction and para. 17. (citations omitted).

1998, Sept. 14 - PJPII's expands the theme of faith and reason in an encyclical on the division between faith and modern philosophy, concluding that a "point of contact" between faith and science is the ethical use of its discoveries for the benefit of mankind:

"Finally, I cannot fail to address a word to scientists, whose research offers an ever greater knowledge of the universe as a whole and of the incredibly rich array of its component parts, animate and inanimate, with their complex atomic and molecular structures. So far has science come, especially in this century, that its achievements never cease to amaze us. In expressing my admiration and in offering encouragement to these brave pioneers of scientific research, to whom humanity owes so much of its current development, I would urge them to continue their efforts without ever abandoning the sapiential horizon within which scientific and technological achievements are wedded to the philosophical and ethical values which are the distinctive and indelible mark of the human person. Scientists are well aware that 'the search for truth, even when it concerns a finite reality of the world or of man, is never-ending, but always points beyond to something higher than the immediate object of study, to the questions which give access to Mystery."

PJPII, Encyclical, Fides et ratio [Faith and reason], para. 106 (footnotes omitted).

Faith, Reason and Science - PJPII resolution 1979, Sept. 28 - PJPII notes the role of astronomy in that "neverending" search:

"Not for nothing has the view of the cosmos in different periods and different cultures always been closely connected with, and had a strong influence on, the view that the cultures themselves had of man. Now, if knowledge of the boundless dimensions of the cosmos has cancelled the illusion that our planet or our solar system is the physical center of the universe, not for this reason has man been diminished in his dignity. On the contrary, the adventure of science has made us discover and experience with new vividness the immensity and transcendence of man's spirit, capable of penetrating the abysses of the universe, of delving into its laws, of tracing its history, rising to a level incomparably higher than the other creatures that surround him."

PJPII, Sep. 28, 1979. "Study the world to know man." Speech to the Conference on the Problem of the Cosmos, Inst. of the Italian Encyclopedia. (Comments on the first centenary of the birth of Einstein).

1997, Jan. 11 - PJPII notes that science can only counteract the destructive side effects of its creations by incorporating ethics into its decision-making:

"Through you, who have kindly wished to share the deliberations of your conference with me, I address an appeal to all your colleagues in the various fields of scientific investigation: Make every effort to respect the primacy of ethics in your work; always be concerned with the moral implications of your methods and your discoveries. It is my prayer that scientists will never forget that the cause of humanity is authentically served only if knowledge is joined to conscience."

PJPII, "Science serves humanity only when it is joined to conscience." Speech to the International Conference on Space Research, University of Padua, Italy, Jan. 11, 1997, published in L'Osservatore Romano (Jan. 22, 1997) (comments concerning the Galileo spacecraft and the Italian National Telescope).

1988, June 1 - PJPII points to the inevitability of science and religion to cooperate in solving crisises that mankind faces and in preventing destructiveness that technological advances have created in recent history:

For the truth of the matter is that the Church and the scientific community will inevitably interact; their options do not include isolation. Both the Church and the scientific community are faced with such inescapable alternatives. We shall make our choices much better of we live in a collaborative interaction in which we are called continually to be more. Only a dynamic relationship between theology and science can reveal those limits which support the integrity of either discipline, so that theology does not profess a pseudo-science and science does not become an unconscious theology. Our knowledge of each other can lead us to be more authentically ourselves. No one can read the history of the past century and not realize that crisis is upon us both. The uses of science have on more than one occasion proved massively destructive, and the reflections on religion have too often been sterile. We need each other to be what we must be, what we are called to be.

Pope John Paul II. June 1, 1988. Letter to Reverend George C. Coyne, S.J. Director of the Vatican Observatory, June 1, 1988, para. 28 (On the 300th anniversary of the publication of Netwon's Principia, emphasis added).

Faith, Reason and Science - References

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