

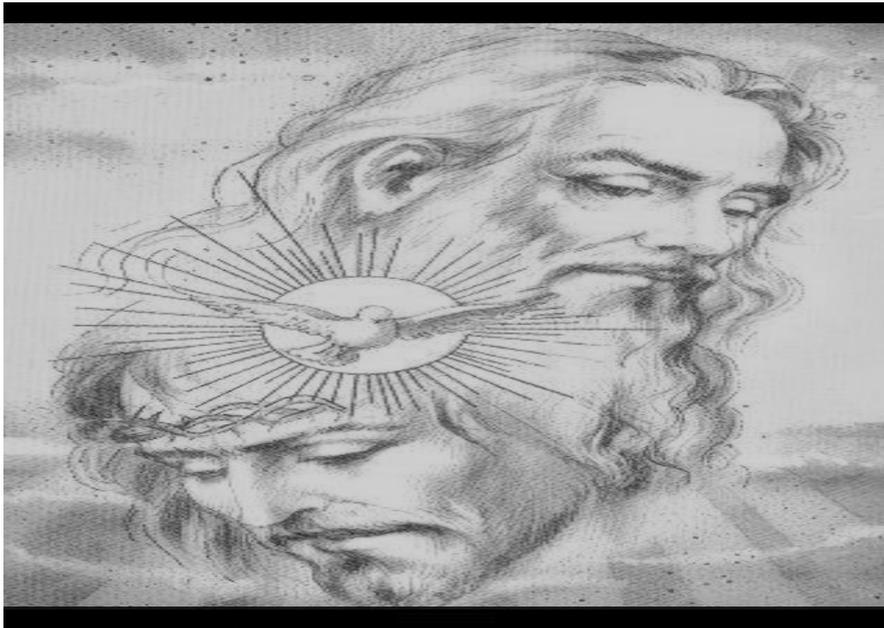
If it is indeed necessary that the Church, in the person of the Holy Father or other ecclesiastical authority, gives an edict on the truth or falsity of a scientific theory, it should employ the same standards of rigor as it does in the canonization process, when it employs a Devil's advocate to decide whether miracles due to the intervention of a saint have occurred.

#### REFERENCES

Climate Change: The Facts. A collection of articles by various authors including Delingpole, Lindzen, Watts.

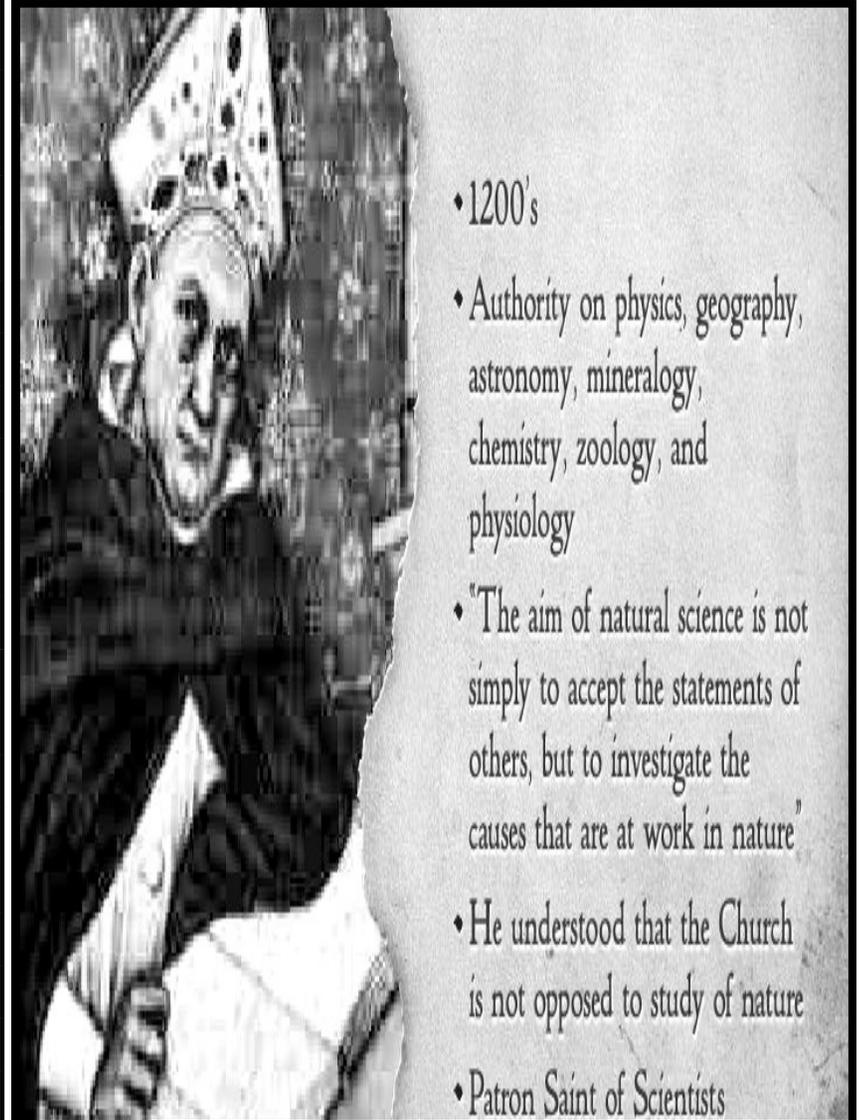
BioMedicine and Beatitude; an Introduction to Catholic Bioethics.  
Nicanor Austriaco, OP

From a series of articles written by: Bob Kurland - a Catholic Scientist



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## ***Catholic Physics - Reflections of a Catholic Scientist - Part 42 Galileo redux: When should the Church meddle in science?***



- ♦ 1200's
- ♦ Authority on physics, geography, astronomy, mineralogy, chemistry, zoology, and physiology
- ♦ "The aim of natural science is not simply to accept the statements of others, but to investigate the causes that are at work in nature"
- ♦ He understood that the Church is not opposed to study of nature
- ♦ Patron Saint of Scientists

# Galileo redux: When should the Church meddle in science?

"Do not meddle in the affairs of wizards, for they are subtle and quick to anger." J.R.R. Tolkien, *The Lord of the Rings*

"Science can purify religion from error and superstition; religion can purify science from idolatry and false absolutes. Each can draw the other into a wider world, a world in which both can flourish." St. John Paul II, Letter to Rev. George Coyne, S.J., Director of the Vatican Observatory.

The spur for this post is, of course, the rumor that Pope Francis is about to issue an encyclical proposing that we in the Church get on the AGW bandwagon (Anthropic Global Warming). My views on AGW are given in a post on this blog, *Scientific Integrity: Lessons from Climategate*, so I don't propose to debate that issue extensively here. Rather, I should like to put a more general question: what science should the Church pronounce as correct, and which should be left to the scientists.

## HISTORICAL INTRODUCTION

Let me state at the beginning that I'm with Fr. Stanley Jaki and Stacy Trasancos, that science is the child of Medieval Christianity, that belief in a rational universe ordered by God and the devotion of Catholic religious and lay scholars (Roger Bacon, Albertus Magnus, Jean Buridan, Copernicus...) laid the foundations for Galileo and Newton, who each believed in a Divine order that man could understand.

The split began in the Renaissance, with the condemnation of Galileo and his house arrest. The issue nominally involved in his arrest, whether his support of the heliocentric hypothesis contradicted Scripture, was complicated by the politics of Church leaders in the Holy See and by attempts to counter the effects of the Reformation. I've discussed this in another post, in which links and references are given to the historical context of Galileo's condemnation.

the despoilation of landscapes and loss in property values due to wind turbines;

the decimation of migrant bird and bat populations by wind turbines;

For a fuller account see Andrew Montford's "The Unintended Consequences of Climate Change Policy". The Danish statistician/economist, Bjorn Lomborg, believes in AGW but also believes that resources used to deal with it would be better expended for the Third World poor by improving water supplies, agricultural resources and dealing with disease.

## HOW THE CHURCH SHOULD DEAL WITH SCIENCE

The ideal is illustrated by St. John Paul II's efforts (see above) and the Church's stance on questions dealing with bioethics. In bioethical issues, it is the Church's position on the sanctity of life and the uniqueness of the human person created in the image of God that determines Her position on abortion, euthanasia and the use of human embryos for stem cell research. The biomedical science is settled; the point is whether the technology arising from the science should be used. An area in which confusion might arise is that of genetic modification of humans: the position of the Church is that genetic modification for therapy--to cure a genetically induced disease--is permissible but not for enhancement, not to create the "supermensch"; see "Human or Superhuman?"

How the Church deals with bioethical questions is a different thing from whether the Church should pronounce a scientific theory true. The Church has not said that one of the 17 or more interpretations of quantum mechanics is correct. She has not said that the Big Bang hypothesis is correct, even though it was suggested by LeMaitre, a Belgian Abbe and is consistent with the Church's teaching of *Creatio ex Nihilo*.

As I said above, I don't propose in this article to debate extensively the merits of AGW. On the other hand, it is essential that two points be made.

First, it is not true that a "97% consensus" of scientists support the AGW / Climate Change proposition. See, for example the 97% myth. And in any case, scientific theories and propositions are not judged by majority vote, but by empirical confirmation. Before the Michelson-Morley experiment a majority of scientists believed in the ether as the medium for propagation of electromagnetic waves; afterwards, not many.

Second, the extent of data massaging ("fudging") revealed in the Climategate excerpts and (more recently) of fiddled temperature data from Paraguayan weather stations should cause one to regard reported temperature increases with more than usual skepticism.

Accordingly, unlike evolution, global warming caused by human production of CO2 is by no means a settled scientific issue.

I'll not discuss at length the unintended consequences for the poor of measures taken by governments to combat the threat of AGW, but only mention a few:

rising food costs for third world populations due to diversion to biofuels;

replacement of rain forest by palm tree groves for biofuels;

the loss of jobs by coal miners and utility plant workers;

the risk of pollution by elements used in wind turbines and hybrid automobile batteries (there is a greater carbon footprint from mining lithium and shipping batteries than in the corresponding use of gas fuels);

## SAINT JOHN PAUL II'S INTERACTION WITH SCIENCE

The Church's error in condemning Galileo was recognized by St. John Paul II, who made an apology and an explanation of the error. (This was just one of St John Paul II's efforts to effect a rapprochement of the Church with science. ) A lesson to be learned here is that there need be no conflict between the teachings of the Church and science even though the Church should be knowledgeable about science that relates to ethical and moral issues intrinsic to Church teaching.

The ideal of Church/Science interaction is illustrated by St. John Paul II's message to the Pontifical Academy of Sciences on evolution:

"...some new findings lead us toward the recognition of evolution as more than an hypothesis....What is the significance of a theory such as this one? To open this question is to enter into the field of epistemology. A theory is a meta-scientific elaboration, which is distinct from, but in harmony with, the results of observation. With the help of such a theory a group of data and independent facts can be related to one another and interpreted in one comprehensive explanation. The theory proves its validity by the measure to which it can be verified. It is constantly being tested against the facts; when it can no longer explain these facts, it shows its limits and its lack of usefulness, and it must be revised [emphasis added]

...And to tell the truth, rather than speaking about the theory of evolution, it is more accurate to speak of the theories of evolution. [emphasis added] The use of the plural is required here—in part because of the diversity of explanations regarding the mechanism of evolution, and in part because of the diversity of philosophies involved. There are materialist and reductionist theories, as well as spiritualist theories. Here the final judgment is within the competence of philosophy and, beyond that, of theology.

The magisterium of the Church takes a direct interest in the question of evolution, because it touches on the conception of man, whom Revelation tells us is created in the image and likeness of God. [emphasis added]... In other words, the human person cannot be subordinated as a means to an end, or as an instrument of either the species or the society; he has a value of his own. He is a person. By this intelligence and his will, he is capable of entering into relationship, of communion, of solidarity, of the gift of himself to others like himself... if the origin of the human body comes through living matter which existed previously, the spiritual soul is created directly by God ("animas enim a Deo immediate creari catholica fides non retimere iubet"). (Humani Generis)

As a result, the theories of evolution which, because of the philosophies which inspire them, regard the spirit either as emerging from the forces of living matter, or as a simple epiphenomenon of that matter, are incompatible with the truth about man. They are therefore unable to serve as the basis for the dignity of the human person. [emphasis added]. St. John Paul II, Message to Pontifical Academy of Science, 22 Oct. 1996.

What a fine example! St. John Paul II shows that he knows what science is about, that it requires empirical confirmation of hypotheses. Unlike many scientists, he distinguishes the scientific fact of evolution, the descent of species, from theories/mechanisms used to explain evolution (e.g. the neo-Darwinian model). And most important, he shows why and how the Church should be concerned with theories that impinge on its teachings. We cannot accept theories which "regard the spirit either as emerging from the forces of living matter, or as a simple epiphenomenon of that matter".

## WHEN THE CHURCH SHOULD NOT PRONOUNCE ON SCIENCE

When should the Church not make judgments on scientific matters? Clearly if the science itself is not settled, Church dignitaries should carefully consider whether it is necessary that they support one of contending interpretations. Cardinal Schonbrun caused much controversy by publishing an essay in the New York Times, "Finding Design in Nature", that seemed to support the theory of Intelligent Design as opposed to the neo-Darwinian mechanism of evolution. The essay was criticized by a number of Catholic scientists, including the then director of the Vatican Observatory, and Stephen Barr in an article in First Things. (By the way, in his article I'm not sure that Barr makes the same distinction that Pope John Paul II did, between the facts of evolution, and the theories proposed for the mechanism of evolution.) Cardinal Schonbrun enlarged on his position in a later article in First Things to explain that he was not necessarily supporting Intelligent Design theory, but that God guided all events, including evolution, and that our universe is not the product of chance. And we all certainly agree with that opinion.

I'm very much afraid that Pope Francis is about to repeat the mistake made by Cardinal Schonbrun by taking an official Church position for the truth and perils of Anthropogenic Global Warming. I don't know what will be in the proposed Encyclical, but if it is based on statements in his interviews and from the article from the Pontifical Academy of Sciences and the Pontifical Academy of Social Sciences, there will be judgments and statements that are contentious, that are not held by all scientists. For example, it is not the case that polar ice and Himalayan snow are decreasing (they melt, as ice does, but the net amount is not decreasing due to global warming--see evidence from satellite images.) (For a harsh critique, see the Power Line post by John Hinderaker; for a more charitable and hopeful view of the upcoming encyclical see the post by Matt Briggs.)