

The Book of Nature and the God of Scientists according to the Encyclical *Fides et Ratio**

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Abstract

The relevance of John Paul II's encyclical *Fides et Ratio* for the dialogue between science and theology is briefly analyzed. This document emphasizes that a natural knowledge of God must be considered as an "actual" knowledge of human intellect, and not a mere possibility of it. For the first time the Book of Nature is presented as "the first stage in divine *Revelation*", a term used until now, to indicate only historical and supernatural revelation. Though the encyclical gives less attention to scientific thought and more to philosophical thought, nevertheless its teaching supports the conclusion that the question about God raised from the natural sciences is related to the one God who revealed himself in Jesus Christ.

Within the broad argument of our Conference "The Human Search for Truth: Philosophy, Science and Faith: The Outlook for the 3rd Millennium", I will focus in this paper on two main subjects which seem to have long characterized the debate among those three fields of human knowledge. The two subjects are the so-called "Book of Nature" and the relationship between the God of Abraham and the God of the philosophers and scientists. And I wish to take my cue from the encyclical by John Paul II on the relationship between faith and reason, *Fides et Ratio* (14.9.1998), published less than two years ago. Although the encyclical was evaluated in different ways by different authors, most of them seem to share the same feeling, that the document contains something truly relevant for the dialogue among different images of God. That is to say, the image of God associated with the Judaeo-Christian Revelation, that which corresponds to the *classical* philosophical tradition and, finally, also that "image" or "notion" of God which seems today to come out from the reflection of some scientists.

The Book of Nature as the First Stage of Divine Revelation

Fides et Ratio dedicates ample space to the issue of “natural knowledge of God”, as both an ascending pathway of reason towards faith (implicit in the question about truth, explicit in nn. 24-35) as well as a descending pathway from Revelation toward the universality of reason (treated in nn. 16-19), simultaneously offering a link between the two routes (cf. no. 34). This teaching proposes again, on a deeper biblical basis, what was already indicated by the First Vatican Council constitution *Dei Filius* (1870). In addition to the usual reference to the Epistle to the Romans — “since the creation of the world his [of God] attributes are clearly seen being understood through the things that are made” (Rm 1:20) — *Fides et Ratio* now adds a large quotation from chapter 13 of the Book of Wisdom. The human capability of a “natural knowledge of God” was also maintained in other documents of the Catholic Church issued after the First Vatican Council, namely the anti-modernist encyclical *Pascendi* (1907) and the declaration *Sacrorum Antistitum* (1910). The theme was again mentioned, but not thoroughly treated, by the Second Vatican Council in its constitution *Dei Verbum* (1965), and was later touched upon in relation to the task of the theologian in the document *Donum Veritatis* (1990)¹. From the point of view of the terminology used, we are reminded that the fathers of the First Vatican Council expressly chose the verb “to know” (*cognosci*) rather than “to demonstrate” (*demonstrari*)², a verb that will be used later, in the antimodernist writings, but one that does not appear at all, in this context, in *Fides et Ratio*.

But, we ask, what kind of knowledge is this? In the 20th century theology, some authors proposed a “minimalistic interpretation” of the natural knowledge of God as presented by the magisterium of the Catholic Church. According to them, the magisterium spoke of this “capacity” in terms of a “possibility of reason”, but a possibility which never came into effect in human history precisely because of the presence of sin. Such interpretations originated from observing that both the Vatican I and II made a reference to Thomas Aquinas' doctrine about the “moral convenience” of the divine revelation of the existence of God, that is such revelation was convenient, because of sin, though theoretically unnecessary³. Moreover, it was also noticed by those same authors that the classic biblical passages about the natural knowledge of God (see Wis 13:1; Rm 1:21; Acts 17:27) present the context of a humanity which, despite the capacity to recognize the Creator by observing the creatures, was not able to do so, historically speaking. For its part Pious XII's encyclical *Humani Generis* (1950) mentioned two reasons for which not all men arrive at a natural knowledge of God, namely the profound psychological and existential weight of the theme at stake, and the necessity of proper intellectual formation.

The encyclical of John Paul II seems to rule out a “minimalistic interpretation” of that knowledge. *Fides et Ratio* speaks of a “capacity”, but a capacity that has to be seen historically in act. It speaks of a reason that, though wounded by sin, is able to know the Absolute; a knowledge, however, that can be partially, or even totally obscured, only if human beings remain in a state of sin, and allow their will be attracted by the concupiscence for finite and limited goods. *Fides et ratio* drives home the idea that human reason has the “capacity to discover” the existence of God. The verb “to discover” — quite common in the work of scientists — is largely used and applied by the Pope about thirty times, either to the discovering of God, the discovering of the Truth, or to the discovering of the meaning of our lives. When observing that the “problem of God” is the central object of philosophy and the notion of God lies at the heart of every religion and culture, *Fides et Ratio* argues that the *existence* of God represents a *conclusion* adequate for the human intellect, a knowledge that goes beyond sense experience, but something that man “discovers” at the end of the two classic philosophical routes towards the Absolute: the cosmological path (or outer path) and the anthropological path (or inner path).

A further point is worth being emphasized here. *Fides et ratio* presents a clear dogmatic development when it explicitly speaks of creation as the *first stage of Revelation*. Until now the magisterium of the Catholic Church preferred to reserve the term “Revelation” to refer to historical-supernatural word of God only; when speaking of “creation” or “nature” other attributes were used, such as testimony, witnessing or manifestation of God. Commenting on chapter 13 of the Book of Wisdom (13:1-5), John Paul II affirms: “This is to recognize as a first stage of divine Revelation the marvelous “book of nature”, which, when read, with the proper tools of human reason, can lead to knowledge of the Creator” (no. 19).

Creation itself is the initial stage of Revelation because of its direct relation to the Word, by which creation took place, and because of that Christological dimension which permeates the created world as a whole, a world made through him and for him (cf. Col 1:16). If creation can be said to be the Revelation of God, then it must have the capacity to appeal, to bear meaning, to incarnate an end. Man can not limit the experience he has of creation to the aesthetic level, but must ask himself about the Author of beauty (see Wis 13:5). For those who have not received the historical revelation of God, the word of creation can play the role of a truly salvific revelation, to work in place of the historic and prophetic word thanks to its link with the salvific humanity of Christ, the center and the scope of creation (cf. Col 2:9; Eph 1:10).

Theology is invited to re-open the “Book of Nature”, a book that in previous centuries many had, in a way, suggested “closing”: because it was too difficult to read, because it would deal only with a uncertain knowlege, a knowledge always subject to revision, or because after Galileo and Darwin, that book was primarily considered by

theology a source of trouble rather than a source of positive speculation. That the reading of the Book of Scripture, in order to be well understood, had to be associated with the Book of Nature, was a belief shared in the past by many authors: from the Apologetic Fathers to Basil; from Gregory of Nyssa to Augustine. By the words of St. Augustine: “It is the divine page that you must listen to; it is the book of the universe that you must observe. The pages of Scripture can only be read by those who know how to read and write, while everyone, even the illiterate, can read the book of the universe”⁴. In medieval times great strides were made in this area by St. Bonaventure⁵. Also in this epoch a third book gradually appeared, that is the “Book of the Cross”: because of sin, the book of creation is no longer easily read and therefore it becomes necessary to interpret that book in light of the Book of the Cross.

Galileo Galilei resumed the use of the metaphor of the two books in the context of his defense of the compatibility of the heliocentric system with Sacred Scripture. As is well known, in his *Letter to Maria Cristina of Lorena* (1615), Nature and Scripture are presented by Galileo as two books that proceed from the same divine Word; the glory of God can be known by means of the works that He has written in the “open book of heaven”⁶. Some years later he would write in *The Assayer* (1622): “Philosophy is written in this immense book that is continually before our eyes, the universe, but that it cannot be understood if we first do not learn to understand the language, and the very letters with which it is written”⁷. Johannes Kepler, contemporary of Galileo’s, would also speak about the Book of Nature as a book where God is revealed just as much as in the Sacred Scriptures, a book that has its own priests, that is, those who by studying it, pray and give glory to God⁸.

However, beginning with the scientific revolution, the history of the two books developed independently. The easiest way to affirm their compatibility was, unfortunately, to recommend their complete separation. The attempt to reconcile the two Books, brought about especially by apologetics of the 18th century Anglican theology, did not offer a credible explanation, but, paradoxically, gave place to a drift towards Deism and later, in the 19th century, towards Atheism⁹. The course of events during the 20th century and the new opportunities that have arisen in the last decades for a new dialogue between the two “books”, are known by everyone¹⁰ and our presence here is probably a major step of this very interesting intellectual process. The position adopted by *Fides et Ratio* concerning the “Book of Nature” is also a part of this process. But the encyclical even goes beyond the relationship between science and theology. It indicates that the “Book of Nature” is a field of dialogue among the religions of the Earth, because through the language of creation all human beings are capable of hearing, in the past as well as the present, the Word of the one true God.

The God of Abraham and the God of philosophers and scientists

The natural sciences are not the primary speakers in *Fides et Ratio*. Instead it is philosophy that leads the discussion. Although modern and contemporary thought is essentially analyzed within the frame of history of philosophy, giving attention to its relativistic and nihilistic outcomes, the encyclical contains a number of interesting references to the sciences. Despite the occasional criticism of “scientism” (cf. n. 88), that is in fact a *philosophy*, the natural sciences are generally mentioned in a positive manner, often emphasizing the way in which they participate in obtaining a knowledge of the truth (cf. nn. 25, 29, 31, 96, 106). That part which we hold noteworthy for our theme is when John Paul II states: “The unity of the truth is a fundamental premise of human reasoning, as the principle of non-contradiction makes clear. Revelation renders this unity certain, showing that the God of creation is also the God of salvation history. It is the one and the same God who establishes and guarantees the intelligibility and reasonableness of the natural order of things upon which scientists confidently depend, (29) and who reveals himself as the Father of our Lord Jesus Christ” (no. 34). The footnote (29) associated with this passage refers to a speech given by John Paul II to the Pontifical Academy of Sciences and quotes a passage of Galileo from one of his letters where he frequently refers to the divine Word as the sole Author of Scripture and Nature.

To admit that the same God, who founds and guarantees the intelligibility and reasonableness of nature – the object of study for scientists – is the same God who is revealed in Christ, brings to mind the classic confrontation between the God of Abraham and that of philosophers and scientists, stigmatized by Paschal’s words in his *Memorial* and used afterwards in theological discussion, probably beyond the intentions of the French philosopher and mathematician. This is nothing but another way of posing the question about the relevance that the philosophic notion of God has for the intelligibility of Revelation, or searching for a connection between the Book of Nature and the Book of Scripture.

It does not go unnoticed by theology that some philosophical reflections proposed by the scientists themselves have returned in recent times to raising the notion of God. The question is without a doubt complex, because the claim for that notion can be read in many different ways¹¹. Nevertheless, the fact that we can now speak of issues such as “God and the New Science” or, if you prefer, “Science and the New Theology”, is a sign of a new intellectual climate that I will try to formulate in the following way: in the context of today’s scientific thought there is a surge of ultimate questions, the kind of questions which can be properly and thoroughly formulated *only* on a philosophic level, but the kind of questions which, already on the scientific level, the researcher *recognizes* as “reasonable and meaningful”: the

problems of the origin and of the end, of the whole and of the scope of everything, the problems of the foundation of knowledge and of the ultimate cause of being, etc.; in other words, the kind of questions that open up the possibility for a discourse about God¹².

In this situation, theology can move along two possible paths. On one hand, one could retain that the notion of God glimpsed by the sciences does not have anything in common with the God of Abraham. In other words, theology is not interested in that “God, who establishes and guarantees the intelligibility and reasonableness of the natural order of things upon which scientists confidently depend” — spoken of in *Fides et Ratio*. In doing so, it would subscribe an exclusively apophatic (that is *silent*) approach to the Absolute. Human reason has no words to speak of God, and science has even less.

But on the other hand — and this is the second possible path to move along — theology could courageously examine the question of God that has arisen in the context of scientific rationality, though after performing some necessary epistemological clarification: that is, if the universe of science is real, then it must necessarily be the same universe that God created. This last route is certainly more difficult to navigate because of the stumbling blocks of Deism and Pantheism, but it would assure theology some room, a link of intelligibility, to render its discourse about God more meaningful for scientific rationality — a discourse, we add, whose ultimate justification always lies in Revelation¹³.

An indirect proof of the importance of this “link” is the split that some scientists perceive between the “unconventional God”, whose notion finds place in their reflections, and the image of a “conventional God”, associated with traditional religions. I guess that when theology presents the descending, revealed image of God as something detached from the human ascending search for truth — scientific truth included —, then it runs not only the risk of a new “fideism”, but also pays the price of a new “deism”, as the only way out left to reason.

A notion of God conceived as a “foundation and guarantee of intelligibility and of reasonableness in the order of nature” does not mean to endorse a new kind of onto-theology, nor to back the image of a sort of “Super Entity”. That notion of God would, instead, remain open to a progressive awakening of ever new levels of intelligibility, according to that “search without end” typical of every truly scientific spirit. In addition, this notion, or this “room for a notion” of God, would be recognized by science as a gift, because science realizes that it does not have the ultimate reason for the existence of nature and for why it is so and so and not otherwise. The notion of God we approach, starting from the study of nature, is not necessarily that of a “stopgap” or that of a *Deus ex machina*. Instead it transcends the rationality of science. The *logos* that the scientist perceives has not only the meaning of a *ratio* (i.e. order,

rationality), but also that of a *verbum* (i.e. a word which calls), because creation possesses a dialogic structure, capable of revealing and appealing. It is a *logos* whose call originates out *in nature* but ends *in the person*, because it gives rise to questions and experiences at the existential level. To affirm that the “God of Abraham, Isaac, and Jacob” *is also* the “God of philosophers and scientists” does not penalize the Biblical image of God, because we are not maintaining the identity of an image, but the identity of a subject.

Concluding Remarks

I will conclude by saying that a re-evaluation of the Book of Nature and of the unity of scientific and theological truth does not respond to a “strategy”, nor to an “apologetic” motive. In the first place this re-evaluation is necessary for theology itself. The appeal to “God who created the heaven and the earth, the sea and all that is within it”, which appears as a refrain not only in the First Testament, but also in the apostolic preaching in the New Testament (cf. Acts 14:8-18 and 17:22-31), is necessary to understand the intelligibility of Revelation. The events that took place at Listra and Athens spoken of in the Acts of the Apostles are clear enough. Without a reference to God that made heaven and earth, the Apostles could by no means explain “who this God is” whom they now said had been revealed in Christ. Many Fathers of the Church did the same. In the words of Saint Basil (IV century): “In “believing” in God there is a “knowing” of the existence of God that is preliminary; and we draw this knowing from the created world”¹⁴. It is worthwhile to note that *Fides and Ratio* underlines exactly the same idea: “To make themselves understood by the pagans, the first Christians could not refer only to ‘Moses and the prophets’; they had to also appeal to the natural knowledge of God and the voice of the moral conscience in every man” (no. 36).

Regarding the dialogue between Christian faith and natural reason, we can say that faith has nothing to fear from a reason that understands itself as capable of knowing the truth; but also reason has nothing to fear from a faith that speaks of God not as a private or unknown subject, but as He who made heaven and earth.

* Published in in "The Human Search for Truth: Philosophy, Science, Faith. The Outlook for the Third Millennium", St. Joseph's Univ. Press, Philadelphia 2001, pp. 82-90.

¹ Cf. VATICAN COUNCIL I, dogm. const. *Dei Filius*, DH 3004-3005; St. PIO X, enc. *Pascendi dominici gregis*, 8.9.1907, DH 3475; Motu proprio *Sacrorum Antistitum*, 1.9.1910, DH 3538; Cf. VATICAN COUNCIL II, dogm. const. *Dei Verbum*, nn. 3 e 6; CONGREGATION FOR THE DOCTRINE OF FAITH, *Instruction on the ecclesial vocation of the theologian "Donum Veritatis"*, 24.5.1990, n. 10.

² Cf. J.D. MANSI, *Sacrorum Conciliorum Nova et Amplissima Collectio*, Graz 1961, vol. 51, coll. 276 e 296.

³ Cf. ST. THOMAS AQUINAS, *Summa theologiae*, I, q. 1, a. 1, resp.

⁴ St. AUGUSTINE, *Enarrationes in Psalmos*, XLV, 7 (PL 36,518).

⁵ Cfr. ST. BONAVENTURE, *Collationes in Hexaëmeronem*, XII, 12, Edizione Quaracchi, vol. V, pp. 389-390; *Sermones de Tempore*, Feria VI in Parasceve, Sermo II, II, *ibidem*, vol. IX, pp. 263-264; cf. also UGO DI SAN VITTORE, *De sacramentis*, lib. I, Pars VI, cap. 5 (PL 176,266-267).

⁶ Cf. G. GALILEI, *Lettera a Maria Cristina di Lorena* (1615), in *Opere di Galileo Galilei*, ed. Nazionale, ed. A. Favaro, Giunti Barbera, Firenze 1968, vol. V, pp. 309-348 (cfr. pp. 316 e 329)

⁷ G. GALILEI, *Il Saggiatore*, in *ibidem*, vol. VI, p. 232

⁸ Cf. J. KEPLERO, *Mysterium Cosmographicum. Praefatio*, «Gesammelte Werke», München 1937–, vol. I, p. 5; *Epitome Astronomiae Copernicanae*, *ibidem*, vol. VII, p. 25; *Letter to Herwath von Hohenburg*, *ibidem*, vol. XIII, n. 91. Cf. also. PEDERSEN, *The Book of Nature*, Lib. Editrice Vaticana e Univ. of Notre Dame Press, Città del Vaticano - Notre Dame (IN) 1992, pp. 44-45.

⁹ Cf. M.J. BUCKLEY, *At the Origin of Modern Atheism*, Yale Univ. Press, New Haven - London 1987.

¹⁰ A brief account can be found in my essay *Culture Scientifique et Foi Chrétienne*, in "Après Galilée: Science et Foi, nouveau Dialogue", ed. P. Poupard, Desclée de Brouwer, Paris 1994, pp. 215-243.

¹¹ In addition to the many well known books on the theme, a general overview is given, for instance, by J.F. HAUGHT, *God in Modern Science*, in «New Catholic Encyclopedia», The Catholic Univ. of America Press, Washington 1989, vol. XVIII, pp. 178-183; R. RUSSELL, W. STOEGER, G. COYNE (eds.), *Physics, Philosophy and Theology. A Common Quest for Understanding*, Lib. Editrice Vaticana and Univ. of Notre Dame Press, Città del Vaticano 1988; H. MARGENAU, R. VARGHESE (eds.), *Cosmos, Bios, Theos. Scientists Reflect on Science, God, and the Origin of the Universe, Life and Homo Sapiens*, Open Court, La Salle (Illinois) 1992.

¹² A development can be found in my article *Il significato del discorso su Dio nel contesto scientifico-culturale odierno*, in «La Teologia, annuncio e dialogo», ed. G. Tanzella-Nitti, Armando, Roma 1996, pp. 61-82.

¹³ Deism of French and English Enlightenment was originally conceived as a religion in itself, a religion closed by definition to any historical revelation of a personal God. To be relevant to the science-theology dialogue, the notion of God emerging from the work of scientists must remain open to the possibility of a real historical Revelation, so that it could even be considered a certain preparation for it. To avoid pantheism, on the other hand, the theologian must be sure that the Logos, or the "cosmic code" which scientists indicate as the

warrant of the natural order, is something capable of pointing beyond itself, that is outside the realm of contingent world, not just a divine substratum, immanent to nature.

¹⁴ ST. BASIL THE GREAT, *Epistles*, 235, 1: PG 33,872B.