



# The Holy See

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**ADDRESS OF THE HOLY FATHER  
POPE JOHN PAUL II  
TO THE PONTIFICAL ACADEMY OF SCIENCES**

*Tuesday, 27 October 1998*

*Mr President,*

*Dear Academicians,*

1. I am pleased to welcome you this morning and to offer you my cordial greetings during the plenary assembly of the *Pontifical Academy of Sciences* on the changes concerning the *concept of nature*. I thank Prof. Nicola Cabibbo for his kind words. I cordially greet Archbishop Giuseppe Pittau, former Chancellor of your Academy, and I thank Mons. Marcelo Sánchez Sorondo, who has agreed to succeed him.

The reflection you are engaged in is particularly fitting. In ancient times, Aristotle crafted certain expressions which were taken up and enriched in the Middle Ages and used by St Thomas Aquinas in developing his theological doctrine. One would hope that scientists and philosophers will continue to make their contribution to theological research and to the different forms of human knowledge, so that the mysteries of God, of man and of creation may be more and more deeply understood. The interaction of disciplines, in fraternal dialogue (cf. Encyclical *Fides et ratio*, n. 33), can be very fruitful, for it broadens our vision of what we are and what we are becoming.

2. Down the centuries, the concept of nature has been at issue in many ways, especially in theology and philosophy. The concept developed by Ulpian reduced nature to man's biological and instinctual aspect (cf. *Inst.*, I, 2). In a certain number of current theories, we again find this temptation to reduce the human being to a purely material and physical reality, making man a being who merely behaves like other living species. The broadening of the scientific field has led to an increase in the senses of this term. In some sciences, it refers to the idea of law or model; in others, it is linked to the notion of regularity and universality; in yet others, it suggests creation,

taken in a general way or according to certain aspects of living being; finally in others, it explains the human person in his unique unity and human aspirations. It is also linked to the concept of culture, to express the idea that the gradual formation of man's personality, in which the elements he has been given — his nature — are combined with the elements acquired from contact with society — the cultural dimension by which man fulfils himself (cf. Aristotle, *Politics*, I, 2, 11-12). Recent scientific and technological discoveries about creation and man, in what is infinitely small or is infinitely large, have significantly altered the meaning of the concept of nature applied to the visible and intelligible created order.

3. In view of these conceptual differences in the area of scientific and technological research, it would be good to ask ourselves about the senses of this concept, because the repercussions for man and for the way scientists look at him are far from negligible. The principal danger consists in reducing an individual to a thing, or regarding him in the same way as the other elements of nature, thereby relativizing man, whom God has placed at the heart of creation. To the extent that one is primarily interested in elements, one is tempted no longer to grasp the nature of a living being or of creation in their entirety, and to reduce them to a series of elements with multiple interactions. Hence man is no longer seen in his spiritual and corporal unity, in his soul, the spiritual principle in man which serves as the form of his body (cf. Council of Vienne, *Constitution Fidei Catholicae*, DS 902).

4. In Catholic philosophy and theology and in the Magisterium, the concept of nature has an importance which it would be good to point out. First of all, it calls to mind the reality of God in his very essence, thus expressing the divine unity of "the holy and ineffable Trinity, Father, Son and Holy Spirit, [who] is one God by nature, of one substance, of one nature, and of one majesty and power" (11th Council of Toledo, DS 525). The same term also explains creation, the visible world which owes its existence to God and is rooted in the creative act by which "the world began when God's word drew it out of nothingness" (*Catechism of the Catholic Church*, n. 338). According to the divine plan, creation finds its purpose in the glorification of its maker (cf. *Lumen gentium*, n. 36). Thus we see that this concept also expresses the meaning of history, which comes from God and advances towards its end, the return of all created things to God; therefore history cannot be understood as cyclical, for the Creator 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, and who reveals himself as the Father of our Lord Jesus Christ" (Encyclical *Fides et ratio*, n. 34).

Through reason and the various intellectual operations belonging to the nature of man as such (cf. Thomas Aquinas, *Summa Theologiae*, I-II, q. 71, a. 2), man "by [his] nature can discover the Creator" (Encyclical *Fides et ratio*, n. 8) from contemplating the work of creation, for the Creator makes himself known through the greatness of his work. Its beauty and the interdependence of created realities spur scientists to admire and respect creation's own principles. "Nature, philosophy's proper concern, can contribute to the understanding of divine Revelation" (ibid., n.

43). This rational knowledge does not, however, exclude another form of knowledge, that of faith, based on revealed truth and on the fact that the Lord communicates himself to men.

5. The concept of nature acquires a particular meaning when applied to man, the summit of creation. The only being on earth that God willed for his own sake has a dignity stemming from his spiritual nature which bears the mark of the Creator, for he was created in his image and likeness (cf. Gn 1:26) and endowed with the highest faculties a creature can possess: reason and will. These make him capable of free self-determination and enable him to communicate with God, to answer his call and to fulfil himself in accordance with his own nature. In fact, because he has a spiritual nature, man can receive supernatural realities and attain the eternal happiness freely offered by God. This communication is made possible because God and man are both spiritual beings. This is what Gregory of Nazianzus meant when he spoke of the Lord having assumed our human nature: “Christ heals like by like” (*Oratio 28*, 13). In the view of this Cappadocian Father, the metaphysical and ontological approach enables us to learn the mystery of the Incarnation and Redemption, by which Jesus, true God and true man, took on human nature (cf. *Gaudium et spes*, n. 22). Speaking of human nature also reminds us that there is a unity and solidarity belonging to the whole human race. For this reason, man is to be considered “in the full truth of his existence, of his personal being and also of his community and social being” (Encyclical *Redemptor hominis*, n. 14).

6. At the end of our meeting, I encourage you to continue your scientific work in a spirit of service to the Creator, to man and to the whole of creation. Thus human beings will praise God, since all things come from him (cf. 1 Chr 29:14); they will respect the dignity of every individual and will find the answer to the fundamental questions about their origin and their ultimate end (cf. Encyclical *Fides et ratio*, n. 1). They will care for creation, which “God willed as a gift addressed to man, an inheritance destined for and entrusted to him” (*Catechism of the Catholic Church*, n. 299), and which is good by its nature (cf. Council of Florence, *Bull Cantate Domino*, DS 1333).

In wishing you fruitful work in a rich dialogue between the different disciplines you represent, I cordially give you my Apostolic Blessing.