



Committee on Science and Human Values

3211 FOURTH STREET NE • WASHINGTON DC 20017-1194

December 6, 2004

Your Eminence/Your Excellency:

The media report with some frequency attempts to eliminate the teaching of evolution in public schools or to introduce the teaching of "creationism" (as, for example, the literal interpretation of the creation accounts in the Book of Genesis) or other theories without scientific standing as part of the science curriculum. Sometimes "creationism" is placed on a par with evolution. The Committee on Science and Human Values, in 2001 and 2002, utilized its annual dialogue with scientists and theologians to examine present developments in evolutionary theory and theological responses. Those dialogues demonstrated that the Church does not need to fear the teaching of evolution as long as it is understood as a scientific account of the physical origins and development of the universe.

On behalf of the Committee I want to recall magisterial teaching on this issue as well as to offer some other reflections. I hope that this will be helpful to you in the event that debates regarding "creationism" arise in school districts or state legislatures within your dioceses and raise questions among Catholics. At the same time the Committee would be most interested in learning of any experiences that you may already have had in this regard.

The Catholic Church professes faith in "one God, the Father almighty, maker of heaven and earth." While all Catholics are bound to uphold the fact that God is the Creator of everything that is, our faith does not bind us to any particular scientific theory about the origins of the universe. With regard to evolution, the Church has attentively followed the progress of scientific research on this question. In 1950, Pope Pius XII took a neutral position on biological evolution in his encyclical *Humani Generis*, calling it "a serious hypothesis, worthy of investigation and in-depth study equal to that of the opposing hypothesis." By the end of the century, however, Pope John Paul II acknowledged that the scientific case for the theory¹ of evolution has grown very strong. Referring to Pius XII's comment, the Holy Father asserted that

new knowledge has led to the recognition of the theory of evolution as more than a hypothesis. It is indeed remarkable that this theory has been progressively accepted by researchers, following a series of discoveries in various fields of knowledge. The convergence, neither sought nor fabricated, of the results of work that was conducted independently is in itself a significant argument in favor of this theory. (Address to the Pontifical Academy of Sciences, 22 October 1996)

¹ All scientific assertions that are not simple statements of fact are theories, in the sense that they are open to revision through the discovery of new knowledge. Theories are ways of linking together and coherently explaining data gathered by observation. To call evolution a theory, then, is not a criticism.

As the International Theological Commission recently pointed out in *Communion and Stewardship: Human Persons Created in the Image of God*,² there is general agreement among scientists that the first organism on earth lived about 3.5–4 million years ago. Furthermore, "since it has been demonstrated that all living organisms on earth are genetically related, it is virtually certain that all living organisms have descended from this first organism" (no. 63). The theory of evolution helps to explain the diversity of living organisms over time. "Converging evidence from many studies in the physical and biological sciences furnishes mounting support for some theory of evolution to account for the development and diversification of life on Earth, while controversy continues over the pace and mechanisms of evolution" (Ibid.).

Today, therefore, recognizing that there is compelling scientific evidence for evolutionary theory—both the fact of its occurrence and the theory of how it works—the Church supports the teaching of both cosmological and biological evolution as the best available account of how nature works.

In accepting evolution as a credible account of the development of the universe and of life on Earth, however, the Church continues to reject certain erroneous philosophical theories that are sometimes associated with it. Some scientists and other commentators have strayed beyond the proper realm of science to insist that evolution requires a materialistic and atheistic understanding of the human person and of the entire universe. They attempt to use the theory to buttress a conception of the universe as entirely governed by mechanism without any sign of intelligent order. This materialist view is a philosophical position, not a conclusion based on scientific investigation. Science, by contrast, deals with physical objects and their relationships; scientific knowledge does not extend beyond the physical.

For this reason, a theory of evolution does not provide grounds for calling into question Catholic beliefs, such as that in the creation *ex nihilo* of the world by God. As the International Theological Commission explained, "the big-bang theory does not contradict this doctrine insofar as it can be said that the supposition of an absolute beginning is not scientifically inadmissible" (no. 67). Nor does the theory of evolution cast doubt on belief in the direction of the history of the world by God's Providence.

With respect to the evolution of conditions favorable to the emergence of life, Catholic tradition affirms that, as universal transcendent cause, God is the cause not only of *existence* but also the cause of *causes*. God's action does not displace or supplant the activity of creaturely causes but enables them to act according to their natures and, nonetheless, to bring about the ends he intends. . . . Through the activity of natural causes, God causes to arise those conditions required for the emergence and support of living organisms and, furthermore, for their reproduction and differentiation. (no. 68)

Many neo-Darwinian scientists contend that if a natural process is truly contingent then for that reason it cannot be subject to divine providence. Such a position, however,

² *Origins*, vol. 34, no. 15 (September 23, 2004): 233-48.

misunderstands divine causality. "Divine causality and created causality radically differ in kind and not only in degree. Thus, even the outcome of a truly contingent natural process can nonetheless fall within God's providential plan for creation" (no. 69).

It is likewise inaccurate to claim that evolutionary theory rules out the substantive difference between humanity and other forms of life. The human person, while in physical continuity with the rest of life on the planet through the processes of evolution, as the possessor of a spiritual soul created immediately by God, is qualitatively different from other living beings. As Pope John Paul II has pointed out, "With man, then, we find ourselves in the presence of an ontological difference, an ontological leap, one could say." Because of this discontinuity, there are dimensions of human existence that cannot be the objects of scientific investigation. The International Theological Commission explained:

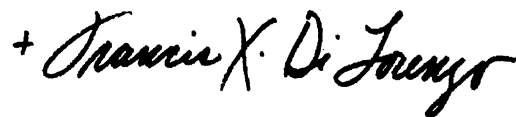
The structures of the world can be seen as open to non-disruptive divine action in directly causing events in the world. Catholic theology affirms that the emergence of the first members of the human species (whether as individuals or in populations) represents an event that is not susceptible of a purely natural explanation and which can appropriately be attributed to divine intervention. (no. 70)

Science can study the causal chains by means of which God prepared the way for such an ontological leap, but "it falls to theology to locate this account of the special creation of the human soul within the overarching plan of the triune God to share the communion of the Trinitarian life with human persons" (no. 70). Thus, while the scientific method is a very powerful instrument within its realm of competence, it is not of itself sufficient to answer all of the questions that human beings inevitably pose about themselves and their world.

What the Church affirms, then, is an understanding of evolution that is open to the full truth about the human person and about the world. Assured that scientific truth and religious truth cannot be in conflict, Catholic schools should continue teaching evolution as a scientific theory backed by convincing evidence. At the same time, Catholic parents whose children are in public schools should ensure that their children are also receiving appropriate catechesis at home and in the parish on God as Creator. Students should be able to leave their biology classes, and their courses in religious instruction, with an integrated understanding of the means God chose to make us who we are.

With my prayers and best wishes, I remain

Sincerely in Our Lord,

A handwritten signature in black ink that reads "Francis X. Di Lorenzo". The signature is written in a cursive style with a cross at the beginning.

Most Rev. Francis X. DiLorenzo
Bishop of Richmond
Chairman