Creationists and the Pope’s statement. (The Pope’s Message on Evolution and Four Commentaries)

by Eugenie C. Scott

The Pope’s statement on evolution to the Pontifical Academy of Sciences in Oct 1996 should have a greater effect on the general American public than on scientists. Design theorists and conservative Christians believe the Pope’s statement supports their contention of evolution as a materialist philosophy. Creationists contend the Pope’s statement is incompatible with the Christian position and has come at a time when the evolution theory is in crisis.

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IN LATE OCTOBER, 1996, Pope John Paul II addressed the Pontifical Academy of Sciences in Rome, reiterating the Catholic view that the human body evolved according to natural processes, but God specially infused the soul which, like other spiritual phenomena, cannot arise from material causes. He added that the evidence for evolution has increased greatly since Pius XII’s Humani generis, emphasizing that the convergence of independent lines of evidence pointing to the same conclusion provides considerable support for evolution. Evolution is “more than a hypothesis”; it is a well-accepted theory of science (Thavis 1996).

How will this recent statement on evolution affect the creation/evolution controversy in North America? In order to answer this question, we must look at different elements of the controversy. First, let us consider the reaction of the general public.

Forty-six percent of Americans believe that humans were specially created about 10,000 years ago (Witham 1997), and this has been a fairly stable statistic for the past dozen or so years. The idea that evolution and religion are incompatible is deeply rooted in the U.S. This opinion was certainly reflected by newspaper, magazine, radio and television reporters who contacted the National Center for Science Education (NCSE) in October of 1996: they wanted quotable statements from us about the “news” that Catholics “finally believe in evolution.” I recall telling a talk show host that this was a “dog bites man” story—there was no surprise here, because Catholic theology has long accommodated evolution. I said, “I have yet to meet a biology teacher at a Catholic school who does not teach evolution,” and the responses elicited from amazed journalists were “Wow! really?.” The long-standing official Catholic position on evolution has indeed been a candle kept under a bushel.

North American English-language newspapers prominently featured the story with headlines such as USA Today’s “Pope: evolution, religion don’t clash” (Marklein 1996:3A). The New York Times titled its story, "Pope bolsters church’s support for scientific view of evolution" (Tagliabue 1996:1A), while the Washington Post stated, "Pope backs acceptance of evolution" (Goldstein 1996:1A). The press generally credited the Pope with embracing evolution as factual, extending the view of his predecessor Pius XII. NCSE members from around the country sent us clippings of "letters to the editor" that expressed surprise (and pleasure) that the Pope had finally caught up with modern science; their writers were apparently unaware of the long tradition of theistic evolution in both Catholicism and mainline Protestantism. On the whole, then, the Pope’s statement helped inform the general public that one can be religious and still accept the science of evolution.

One especially positive element was the strengthening of support for evolution as a scientific theory. The Pope said in his message that at the time of Humani generis, evolution could be considered a "serious hypothesis, worthy of investigation and in-depth study equal to that of the opposing hypothesis" (John Paul II 1996, this issue p 382). Now evolution was "more than a hypothesis": it was a full-blown theory. From the standpoint of public understanding of evolution, this is a positive step. In North America today there is a concerted campaign to have evolution taught as "theory rather than fact," with "theory" being used in its nonscientific sense of "hunch" or "whim." The Pope (or his advisors, at any rate) understand what the word means in science:

A theory is a metascientific elaboration, distinct

from the results of observation but consistent

with them. By means of it a series of independent
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Data and facts can be related and interpreted in a unified explanation. A theory’s validity depends on whether or not it can be verified; it is constantly tested against the facts; wherever it can no longer explain the latter, it shows its limitations and unsuitability.

It must then be rethought (John Paul II 1996, this issue p 382).

Would that school boards had as clear an understanding of the term "theory"! Perhaps those who are trying to keep evolution in the science curriculum will use the Pope’s statement to support teaching evolution without unnecessary qualifications. At least the general public may now have a more accurate view of the official acceptance of evolution by the largest Christian denomination in the world.

But beyond the general public, there are other players in the creation/evolution controversy, notably the Biblical literalist, "young-earth" creationists. The mainstay of the present day antievolution movement are the followers of "young-earth" creationist Henry Morris, of the Institute for Creation Research (ICR). Morris-inspired organizations such as the ICR, Answers in Genesis (AIG), the Bible-Science Association, and others favor a six-day, special creation that occurred a relatively short time ago, i.e., within the last 10,000 to 15,000 years. A literal interpretation of the Bible leads them to view Noah’s Flood as an historical event, with modern day geological features as its result. They have produced a large amount of literature and educational materials over the years, and their views are still the ones most frequently encountered. They have since been augmented by neocreationists, as discussed below.

Creationist organizations are composed mostly of conservative Protestants, especially Baptists. Their response to the Pope’s message was predictable. AIG spokesman Mike Zovath said, "It’s a complete compromise of God’s words…. It directly contradicts the Bible. It can’t be compatible with the Christian position . . ." (Marklein 1996:3A). Bible-Science Association director Ian Taylor stated:

With the Pope’s statement the Roman Catholic Church takes another step toward embracing one of the greatest deceptions ever foisted on mankind. The irony is that this comes at a time when the theory of evolution is poised on the very brink of collapse. Honest scientists who know their business, such as Dr. Michael Denton and more recently Dr. Michael Belie (a practicing Catholic) have very forcefully pointed out, for example, that the irreducible
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complexity of the living cell makes chance-driven evolution absolutely impossible (Taylor 1996:11).

Bill Hoesch, speaking for the Institute for Creation Research (ICR), sniffed, "Obviously, the Pope has a lot of followers, and if he said the moon was made out of green cheese, a lot of people would believe him on that too, but it doesn’t mean it’s true" (Applebome 1996:A4).

For these very conservative Protestants, the Pope’s statement fell upon deaf ears, for they do not consider Catholics to be true Christians. They define Christians as "Bible-believers" (i.e., literalists) who in addition have a personal, "born-again" relationship with God. They could easily have ignored entirely the Pope’s views. On the other hand, their theology stresses evangelizing, and thus it is important to reach the unreached with the message that the Pope’s views are wrong—and also to shore up the opinion that evolution is a "theory in crisis" that is being abandoned by scientists, and therefore should not be taught in our schools.

But it wasn’t only conservative Protestants who objected to the Pope’s statement. Conservative Catholic columnist Cal Thomas, working from the Vatican press release (as were all journalists when the story broke) bemoaned the "more than a hypothesis" phrase as proof that the Pope had capitulated to the idea that humankind was a product of a gradual evolutionary process, "a philosophy that stands at the core of communism" (Thomas 1996:A18). Thomas regretted the Pope’s "remarkable shift" because "if man is not a unique creation of God, he is of no greater value and has no greater moral standing than an animal ..." (p A18).

Fairly quickly, however, Thomas’s dismay was assuaged by an apparent translation error, which he felt allowed him to reinterpret the Pope’s statement. The Vatican press release quoted John Paul II as having said (in French) that evolution was "more than a hypothesis" ("la theorie de l’evolution plus qu’une hypothese"). The subsequent official English-language translation of the speech, published 30 October 1996 in the Vatican newspaper, L’Osservatore Romano, translated the section to read that new knowledge "has led to the recognition of more than one hypothesis in the theory of evolution" (John Paul II 1996, this issue p 382). Seizing upon the relative ambiguity of "more than one hypothesis," Thomas wrote a second column claiming, "it is clear that the Pope was not watering down or liberalizing the church’s view that the origin of man remained open to debate. He said that there are several theories of origin within the scientific community" (Thomas 1997:118).

Thomas was joined in his enthusiasm for the revised version by the conservative Catholic World Report, which lambasted the news media for the "more than a hypothesis" translation, claiming that the preferable "more than one hypothesis" reflected "a lack of unanimity within the scientific community itself as to which particular hypothesis best explains the theory of evolution . . ." (Delano 1996:51). Like conservative Protestants, conservative Catholics also feel it necessary to devalue evolution by attacking its scientific underpinnings. Perhaps reflecting the idea that "if you repeat something three times, it’s true"; outside of the scientific community, the idea that scientists are giving up on evolution has taken on a life of its own (Bailey 1997).

A correction to the official translation (the "more than one hypothesis" wording) was issued by the Catholic News Service on 19 November 1996. The English-language translation was wrong, according to Father Robert Dempsey, editor of L’Ossevatore, and "more than a hypothesis" more accurately reflected the Pope’s views (Thavis 1996). Given the Pope’s subsequent comments on evolution being a scientific theory, the "more than a hypothesis" seems indeed more accurate.

In 1987, the Supreme Court decided in Edwards v. Aguirard that equal-time laws for creation science were unconstitutional. The antievolution movement evolved in some new directions, primarily in the avoidance of any form of the word "creation" or "creationism." Phrases like "intelligent design theory," "abrupt appearance theory," "evidence against evolution," and the like, have sprung up, although the content of many of the arguments is familiar. This view can be called "neocreationism" (Scott 1996).

Neocreationists are by no means identical to their predecessors, however. Although they often attack the science of
evolution, they appear to be more concerned with evolution's philosophical implications. Prominent among the neocreationists is a recently-emerged group of scholars who call themselves "design theorists" (Scott 1997a). Design theorists are atypical antievolutionists, because most of them have appointments at secular institutions, rather than being associated with independent not-for-profit organizations such as the Institute for Creation Research. They are "old-earth creationists" who accept modern physics, chemistry, astronomy, and geology, but have a difficult time accepting biological evolution. Neither biblical creationists nor theistic evolutionists, they are holdouts for a God who has something important to do, a God who can "make a difference" (Johnson 1993:117). Most of them are "progressive creationists" who believe that as part of the creation process, God intervenes directly and actively, possibly creating new living things through time or directing the emergence of new forms from preceding ones, or both (Scott 1997b).

Design theorists are concerned not only with evolution but also with the nature of science. One of the key strategists of design theory is University of California lawyer, Phillip Johnson. His first antievolution book, Darwin on Trial (1993), claimed as usual that evolution isn't really supported scientifically, but he also argued that evolution is a materialist philosophy. "The important claim of evolution is that life developed gradually from nonliving matter to its present state of diverse complexity through purposeless natural mechanisms that are known to science" (Johnson 1990:33). It is common for design theorists and other conservative Christians to define biological evolution (descent with modification) not merely as a scientific explanation for great numbers of observations from such fields as paleontology, comparative anatomy, and biochemistry, but also as a personal philosophy. Cal Thomas (1996) accused evolutionary scientists of making "claims we are matter and energy shaped by pure chance in a random universe, with no Creator, no purpose, no destiny, and no hope" (p A18).

Some prominent scientists do indeed confuse personal philosophy and science. Perhaps contemplating the erratic path and obvious contingencies of life through time may have stimulated G G Simpson (1967) to say, "Man is the result of a purposeless and natural process that did not have him in mind" (p 344), but this is a philosophical rather than a strictly scientific statement. After all, if an omnipotent being exists--which most Americans believe--then omnipotence would allow it to create in any way it chose, including via the zig-zag and contingent history we see unfolded in rocks and molecules. What we can say from our scientific data is that the record of the history of life shows a lack of obvious orthogenesis. We cannot say that there is no absolute or ultimate "plan or purpose" to life without stepping outside of what the empirical data can show us. To the degree that some scientists have been careless about promoting their personal philosophies as science, critics have a point.

Design theorists and other conservative Christians can draw support from the Pope's statement because it separates evolution as a materialist, scientific enterprise from "the various philosophies on which it is based" (John Paul II 1996, this issue p 382). It appears that the Pope is aware of the difference between the methodological materialism characteristic of evolution and all science, and philosophical materialism the philosophy that matter, energy and their interactions are sufficient to explain the natural world because there are no supernatural forces such as gods. Critic John Wiester (1997), in referring to the Pope's statement, agrees to the "more than a hypothesis" phrase, but sharply criticizes scientists and teachers for converting evolution into a grand metaphysical scheme that "claims that the entire living world is the product of blind natural forces" (p 10). Separating evolution as a science from the philosophies that may be derived from it is part of the thinking of both the Pope and conservative Christians as well.

Scientists are also players in the creation/ evolution controversy, but the effect of the Pope's statement on them is going to be less than the effect of scientists on future encyclicals and statements. This has to do with the sometimes checkered relationship between the Church and science.

Historically, the Catholic Church (and Christianity in general) has ceded to science more and more authority for explaining the natural world. Geocentrists are scarce these days, although at one time it was considered appropriate for the position of the planets to be determined through revelation. But this "rendering unto science" causes theologians to worry about the "God of the gaps" problem. This occurs when explanations for natural phenomena (such as lightning, rainbows, or tides) are acquired through the methods of science, and thus supersedes the belief that God is directly responsible. We conclude that God isn't out there adjusting the tides every day, although religious people are content that in some way he "maintains" his creation. Natural phenomena that are not (yet?) explained by science could be accredited to God, but that means that as more natural explanations are found, God is diminished by having less to do.
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To theologians wrestling with the increase in scientifically-derived knowledge, the solution is to not use direct supernatural activity to explain the workings of the natural world, while still retaining a place for God as “maintainer.” This creates a separate problem of creeping deism, which remains an area of contention between conservative and liberal Christian theologians.

Current "gaps" in scientific understanding include a naturalistic explanation for the origin of life, as well as for the appearance of the multiplicity of invertebrate body plans in the Cambrian. Design theorists zero in upon these as candidates for supernatural explanation, arguing "intelligent design" for such "irreducible complexity." Currently, a "gap" in the emergence of "spiritual" entities is filled in Catholic theology by the direct hand of God. The Pope claims that phenomena such as metaphysical knowledge; self-awareness, moral conscience, freedom, aesthetics, and religious experience, must be explained only through divine intervention.

Future conflicts between science and religion may emerge if evidence for a natural origin of these traits is put forth: this may be another "gap" currently plugged by God, but one that science may be able to explain. In fact, extant research suggests that some of these "spiritual" characteristics are presaged by behaviors seen in great apes. Self-awareness, aesthetics and rudimentary conscience have been alleged to exist in chimpanzees. Will the discoveries of science encourage a future Pope to conclude that even some "spiritual" phenomena may have evolved? It will be interesting to see how theology responds should this occur.

The Pope's statement, on the whole, should increase the number of Americans who accept evolution, largely because of the publicity it has received. Especially important is the Pope’s recognition that evolution is "more than a hypothesis," that it is a well-supported, valid scientific theory. Considering that antievolutionists hammer away at the factual bases of evolution, support from the Pope on this issue is quite welcome.

John Paul II’s statement will have a larger effect on the general public than it will among scientists, since an overwhelming number already accept evolution. Scientists should use this opportunity to reflect on the similarities and differences between their views and those of the general public, however, and to consider possible reasons for the low level of acceptance of evolution among the general public. How scientists present evolution may be a factor.

A 1990 poll conducted by the graduate school of the City University of New York, concluded that 90% of Americans describe themselves as believers in God (Kosman and Lachman 1993), a percentage higher than in any other developed country. It appears that, in the United States, we have the choice of having a religious population that accepts evolution, or a religious population that rejects it. Since I assume that public support for science is good, and that public scientific literacy is good, I believe that it would be better to have greater numbers of the public accepting evolution than at present. If this is desirable, then what can be done to increase public acceptance of evolution?

Table 1 shows that scientists' attitudes towards evolution reveal a different pattern from that of the general public. To a statement implying materialist evolution, "Man evolved over millions of years from less developed forms of life. God had no part in this process," scientists agreed by 55%, while only 9% of the general public agreed. On the other hand, a statement implying theistic evolution showed 40% of both scientists and the general public agreeing that "Man evolved over millions of years from less developed forms of life, but God guided the process, including the creation of man." While 46% of the general public believes in the essence of young-earth, special creationism, only 5% of scientists do. There are substantial numbers of scientists who accept God, but also a far larger proportion of nonbelievers (or deists) than are seen in the general population.

TABLE 1 Views of scientists and the public on evolution

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Man evolved over millions of years from less developed forms of life, but God guided the process, including the creation of man. 40% 40%

Man was created pretty much in his current form at one time within the past 10,000 years. 5% 46%

Data taken from Witham 1997.

From my experience in dealing with conservative Christians (and even middle-of-the-road Christians), it appears that the "scientist as atheist" view is quite common, although not an accurate reflection of the variety of religious beliefs among scientists. Those who are not believers may perpetuate the "scientist as atheist" view if they allow their personal philosophical beliefs to intrude in the classroom. I suggest that one’s personal beliefs should be kept out of the classroom, whether one is a believer or nonbeliever. Using the classroom to indoctrinate students to any belief or nonbelief is, first of all, a violation of the First Amendment of the Constitution’s establishment clause; second, it will be misleading to students who will have difficulty separating science as a way of knowing from personal philosophy; and third, it is bad strategy for anyone concerned about the public understanding of evolution. Antievolutionists propose that evolution inherently is a materialist philosophy rather than a science, and should therefore be eliminated from the classroom. Scientists should not support this false claim by their actions. Keeping a science class a place of religious/philosophical neutrality will allow more of the general public to accommodate evolution with their religious beliefs, much as Catholic doctrine has done.

John Paul II’s statement reiterating but also extending the Catholic acceptance of evolution is a welcome event, especially for increasing the public understanding of science--perhaps it will provide an opportunity for scientists themselves to reflect on the respective roles of science and religion.

REFERENCES


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