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Comment

The disease and the treatment: some remarks on the Darwin – Moratti issue

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Organized creationism is not widespread in Italy. It is a rather limited resource politicians and columnists draw upon when wishing to stir up a "debate". Judging by its results, Italian creationism is old-fashioned, still comparing Darwin's theories with the Bible, hoping to find the wreckage of Noah's Ark, holding conferences on the origin of apes, questioning fossil dating and distorting science debates with out-of-context quotations from disparate sources. It is not a lobby that could obtain considerable electoral support, win favour or drag scientists to court.

Politicians have actually been dealing with evolution over the past few years, and particularly with Darwin, in a context that does not substantially differ from the one found in other developed countries. An identity crisis has been diagnosed among Italians that can be treated with grand reform projects and cosmetic measures. The basic concept is that the Italian identity crisis has little to do with the abject condition scientific research is in and that rediscovering one's own roots is enough to regain confidence and, possibly, a little faith. Every classroom is provided with a crucifix, thousands of religion teachers are employed in schools, and education reforms offer the opportunity to get rid of quixotic, indigestible or badly digested bits of culture. No one matches these three features better than Darwin.

Early in 2004, Italy witnessed the removal of the theory of evolution from middle schools. Why? To allow pupils to study it more in-depth in the years to come! Pedagogy expert and professor Giuseppe Bertagna became the spokesperson for the group introducing such reform and advocated this choice by claiming that young teenagers cannot understand the difference between theory of evolution (science) and evolutionism (ideology). Thus it seemed better to take the responsibility of explaining what science is off teachers' shoulders and not to speak about scientific theories at science classes.

However, not everyone was convinced by the logic in the reform and two petitions were started calling for the re-introduction of evolution studies into school programmes: one was drawn up by the Museum of Natural History in Milan and another one by the Italian newspaper *Repubblica online*. The latter collected tens of thousands of signatures within a few days and inevitably ended up obscuring and engulfing the former. Former Minister for Education and Research Letizia Moratti subsequently announced that "the teaching of Darwin's theories will be ensured from elementary school" (Ministry Statement, 28th April 2004) and, in order to dispel all doubts, she appointed a Commission of Experts to advise on how to deal with the issue. Newspapers interpreted this decision as a back-off and, with a very few exceptions, no one worried about it any more. In the meantime, new curricula without the theory of evolution entered into force.

The "Darwin Commission" was headed by Senator Rita Levi Montalcini, Nobel Prize winner in medicine, and included Carlo Rubbia (Nobel Prize winner in physics), professor Roberto Colombo and professor Vittorio Sgaramella. The Commission worked for several months and produced a document that the Ministry for Education and Research never made public. On the other hand, the above mentioned scientists could not have been more reserved if they had discussed on uranium enrichment instead of Darwin's theory of evolution. Two versions of the above mentioned document were circulated and published in the 6/2005 issue of *Micromega* bimonthly magazine. The Ministry for Education described them as "internal documents of the Commission of Experts delineating the progress made" (Ministry Statement, 3rd November 2005), i.e. they were provisional documents the authenticity of which was, however, implicitly confirmed.

Both versions made reference to a debate, within the Commission, between those considering the decree an irreparable mistake, and those believing that, after a "laborious ameliorative process",

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something positive could be obtained. In both cases comments were not particularly flattering, but the second option seem to have prevailed in the end. Some "improvements" were certainly made, but it is worth noting that the Commission's work seems to have gone well beyond facing the question of teaching the theory of evolution in schools. In the draft documents members quite rightly wondered whether primary school curricula should safeguard "the freedom and the justice of citizens", they reported misprints, pondered on the reason why the noun "religion" is always accompanied by the adjective "catholic", and expressed puzzlement at the fact that "all the specific learning objectives are modelled on the synthesis and hologram principle" (the sentences that were commented upon are contained in the Decree issued on 19th February 2004, Encl. B, and the principle mentioned really exists).

The laborious, encyclopaedic editing process carried out by the Commission's scientists was not used much by Ministerial officials. The improvements put forward on some points of the curricula for third-year classes, however, were accepted, even if simplified (Encl. F dated 12th October 2005). The recommendation to include Einstein's theories because pertaining to the evolution of the universe was accepted. His name was, however, added to those of Galileo and Newton in the "hypotheses of contemporary science" section regarding the solar system. Mention was made to the "evolutionary meaning" of reproduction, but the distinction proposed by the scientists between sexual and asexual reproduction, which could have given the sentence a meaning, was completely omitted. Recommendations relating to the role of the human nervous system in the cultural evolution were also approved together with – as everyone expected – "mutual interactions between geosphere, biosphere and their co-evolution, i.e. Darwin's theories".

In their document, the Commission of Experts apparently referred to Wallace as well, but this is the only element that was left out. Rita Levi Montalcini actually confirmed that "the theory of evolution has been reintroduced into curricula, as requested" (statement dated 17th November 2005). *Mission accomplished*.

It is therefore a shame that the Commission's scientists seem to have forgotten to recommend, as accurately and unmistakeably as possible, that ministerial officials refer to the evolution of humankind. The increase in brain dimension as a particular feature characterising the evolution from the first hominids to *Homo sapiens* would have been preferable to the puzzle relating to the role of the human nervous system in cultural evolution. Furthermore, despite their praiseworthy attempt to highlight the interaction between environment and organism, they seem to have forgotten to recommend as accurately and unmistakeably as possible that reference be made to biological evolution per se. Descent with modification – that would not have been a bad simplification – is a purely biological phenomenon, not a geological one. Everything has been triggered by "Darwin", a single word that only seemed a predictable point of departure.

Young students will have to accept Einstein's theories on the solar system and the role of the nervous system in cultural evolution. Teachers will have to do the hard part of the job in explaining these theories. Yet, what is most regrettable is that Italy has missed its chance to have some guidelines on biological evolution. Documents like those produced by the US National Center for Science Education that can be easily referred to by teachers and scientists and where anyone can find well-structured and serious answers to the most common questions. Besides introducing Darwin in primary schools, the "Darwin Commission" was supposed to be aiming at something similar. It did not. Readers can verify for themselves how the teaching of evolution has been facilitated.

But after all we should be pleased just by having obtained Darwin. We will have to be happy with this for a long time, at least until someone wants to remove the theory of evolution from schools, running up against logic and attracting the media's attention. Attention will also have to be paid, however, to those who will want to introduce something new in science classes, something that did not exist before: the "debate" evolution vs. creation. Italian politicians and columnists following President Bush's example are certainly aware of his stance with regard to this "debate", nor do they overlook the consent existing within the Catholic Church in favour of Intelligent Design. Not even President Bush could bypass legal obligations ensuring the secular nature of education and the transparency of public administration. In Italy, however, the secular nature of the State is a matter of interpretation. Yet, this situation would not be a cause for concern if an "identity crisis" had not proved to have spread over the past few years and many important Italian decision-makers had not shown a complete lack of interest in scientific knowledge and its cautious processes.

The need arises to wonder if, in the future, we will face another improvised and farcical initiative or if, to conclude with the words of Pope Benedict XVI, what is ahead of us will be the result of an "intelligent project".

Translated by Quickline

Notes and references

Documents and statements of the Ministry for Education and Research were verified on the Ministry's website on 8th May. The document produced by the "Darwin commission" is not available, but some excerpts can be inferred by comparing texts published in the *Micromega* magazine and in Encl. F. The criticised omissions referring to human and biological evolution are, instead, pure guesswork.

Author

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