



[home](#) | [about \*spiked\*](#) | [issues](#) | [support \*spiked\*](#)

Friday 26 March 2010

## **It is now blasphemy to criticise Darwin**

**Massimo Piattelli-Palmarini, co-author of *What Darwin Got Wrong* (reviewed in this issue of *the spiked review of books*), says Darwinism has become a new secular faith that you transgress at your peril.**

Massimo Piattelli-Palmarini

Some months ago an American philosopher explained to a highly sophisticated audience in Britain what, in his opinion, was wrong, indeed fatally wrong, with the standard neo-Darwinian theory of biological evolution. He made it crystal clear that his criticism was not inspired by creationism, intelligent design or any remotely religious motivation. A senior gentleman in the audience erupted, in indignation: 'You should not say such things, you should not write such things! The creationists will treasure them and use them against science.' The lecturer politely asked: 'Even if they are true?' To which the instant and vibrant retort was: 'Especially if they are true!' with emphasis on the 'especially'.

This stunning exchange exemplifies the religious fervour with which some scholars and laypersons adhere to the Darwinian doctrine. It's a secular religion, for sure, an atheistic banner under which the white knights of scientific rationality rally in their fight against the forces of darkness. There are countless manifestations of this unwholesome religious Darwinian fervour, more than can be listed here. It happened more than once to my co-author, Jerry Fodor, and myself, as we put the finishing touches to an essay entitled 'What Darwin Got Wrong' (now just published by Profile Books). We were asked if we were completely out of our minds. Some friends and colleagues did this in a protective mood, agreeing with what we say but anticipating (rightly it turns out) a volley of very unpleasant reactions.

Our secular critique of the neo-Darwinian doctrine is to be found in our book, *What Darwin Got Wrong*. It's quite detailed, grounded in a host of recent discoveries in biology and on an analysis of what is wrong with some of the most central concepts of the Darwinian theory of evolution. It would be impossible to summarise it here. What I would rather like to examine is why this theory has exerted such an unshakeable grip, for so long, on the hearts and minds of so many scientists, teachers, science writers, museum curators and cultivated readers.

Let's leave aside here the driving force of militant atheism (Fodor and I are also patented atheists) and examine what, in the very nature of the theory, makes it so irresistible.

First and foremost it combines in an original way (Darwin was indeed a genius) the two main kinds of explanations we appeal to in everyday life. One is a mechanical kind of explanation, covering the natural phenomena, involving masses, forces, chemical bonds, molecules and various other inanimate entities. The other kind, the animistic one, covers human affairs and involves means-and-ends, intentions, plans, beliefs and desires. Children have a tendency to exaggerate the power of the second, attributing desires and intentions even to various inanimate objects, such as toys, gadgets, computers and even clouds and winds.

Why is there rain? We would appeal to water vapour, condensation and temperature, a mechanistic explanation. They would appeal to the benefit of rain to crops in the fields, fruits on the trees and berries in the bushes. This is an explanation that is called teleological or finalistic, because the

goodness of the outcome is appealed to as the ultimate cause of the phenomenon.

In the past, biology has not been totally free from the need of such kinds of explanations. The progressive increase of complexity in the evolution of life, from simple unicellular organisms all the way up, in the fullness of time, to frogs and zebras and apes and humans, and the exquisite match between many traits of many species and the requirements of their ecological niche, have prompted teleological explanations. It seemed evident that it cannot be by sheer chance, by the blind action of mechanical processes, that spiders weave intricate webs to catch their prey, that salmon and eels swim thousands of miles to return exactly to the site of their origin to reproduce, that a saguaro cactus swells when it rains, and sheds tens of millions of seed in arid lands where the chance of reproducing would otherwise be dismally slim. And so on and so on, with innumerable wonders displayed by the living world.

The late French molecular geneticist and Nobel laureate Jacques Monod coined a new term, teleonomy, to indicate a semblance of teleology – only a semblance, because the real explanation has to be purely mechanical. It's notable that there is, even in the minds of the most consummate biologists, a need to acknowledge the force of finalism in biology.

Darwin made a wonderful move in this game: he offered a mechanistic explanation for the apparent finalism of the life forms. The differential reproduction of slight variations in traits, spontaneously produced one generation after the other, followed by the filter of natural selection, did the trick. It was all the teleology we needed, but based on a perfectly mechanistic process. This idea looked unbeatable. Immediately, applications of it were discovered in the diffusion of goods, in the financial markets, in the spread of fashions, songs, tunes, even scientific hypothesis. It was a smashing success.

Moreover, it's a clever idea, not something obvious, not the kind of idea that everyone discovers spontaneously. Teach it to a class of kids, and they will realise that it never occurred to them beforehand, but that it's so damn clever. They feel so damn clever just for grasping it. This is, I think, crucial. Adults also feel clever for just grasping it, and for developing on the spot an intuition of zillions of examples and applications.

It is very hard to dissuade them, to tell them that this process is indeed real and ubiquitous but cannot explain the origin of species, *pace* Darwin. An opinion now shared by many distinguished biologists (please read our book to see by whom and why). The sheer brilliance of the idea, and the elation one feels for having grasped it, voids the minds of any attention to counterexamples.

It's a bit like the most popular explanation of the tides. The moon sucks up the waters of the oceans by means of its gravitational pull. Who does not think this way? Pity that high water in one point of the Earth coincides with high water at the antipodes, and that there are places on Earth with one high tide every 12 hours, approximately, but other places that have two high tides in that timeframe. And places that are only a few hundreds of miles away from each other as the crow flies have very different tidal levels. The gravitational pull of the moon is part, only part, of the explanation, but the idea is so clever that evidence of other factors (the gravitational pull of the sun, the resonance of the masses of water) are simply neglected.

Much the same goes for the explanation of electric currents. Well, of course, it's the motion of electrons. Pity that the motion of electrons in a metal conductor is, in reality, of the order of 10 centimetres per hour, while currents are immeasurably faster, hundreds of thousands of kilometres per second. The real explanation lies in the pulsations of a gas of charges, a pulsation of the conduction field of metals. But the idea of a literal current of electrons is irresistible.

In the case of Darwinism, the synergy of these factors makes it even more irresistible. Merging the mechanical with the finalistic, doing it cleverly, polarising the mind on this triumph, plus the fight against religious ideas, ends up transcending science and turning Darwinism into a secular religion. Shame on the atheist who criticises Darwinism, especially if what he says is true.

**Massimo Piattelli-Palmarini** is co-author with Jerry Fodor of *What Darwin Got Wrong*, published

by Profile Books. (Buy this book from [Amazon\(UK\)](#).)

**reprinted from:** [http://www.spiked-online.com/index.php/site/reviewofbooks\\_article/8355/](http://www.spiked-online.com/index.php/site/reviewofbooks_article/8355/)