

A Republic of Natures

Chance or Purpose? Creation, Evolution and a Rational Faith

By Christoph Cardinal Schönborn
Ignatius Press, 2007
181 pages, hardcover; \$19.95

Reviewed by John Farrell

Chance or Purpose is a collection of catechetical lectures that archbishop of Vienna Christoph Cardinal Schönborn delivered in the Cathedral of Saint Stephen during the 2005 and 2006 academic year, the same year he published an op-ed in the *New York Times* suggesting the Church does not accept Darwin's theory of evolution. The book can be seen as a more detailed exploration of his thoughts on the subject, and it's a welcome contribution to the debate, though not without contradictions.

The Intelligent Design movement has had a lot to say over the past decade about how God could have manufactured the complex machinery of proteins and cells that form

the basis of life. And while there has been much debate (often rancorous) between the Design proponents and the more atheistic scientists who reject any argument from design, Cardinal Schönborn has seen fit to intervene and remind both sides of the debate that God is not a clockmaker, and that the world is not a machine; rather, God is the Creator, and the world is, as Jacques Maritain once wrote, a republic of natures, or inner principles, given by God. These natures are themselves creative.

Christoph Cardinal Schönborn writes: "To say that God creates 'a republic of natures' means that in his creation there is above all what is called *phyein* in Greek, growth and becoming, with all its hesitation, its trials, its failures and its breakthroughs, its instances of cooperation and of conflict, its inconceivable prodigality and its unexpected by-products—both successful and unsuccessful."

This is an excellent point, and one that would have had more force if the

cardinal himself more fully understood the mechanics of Darwin's theory. But it is here that his lectures fall short of the mark.

The cardinal goes out of his way to praise Darwin's achievement. And he insists that his issue is not so much with the scientific theory but with the overtly materialistic interpretation of it so constantly trumpeted by writers such as Daniel C. Dennett and others. But not a third of the way into the book, the evidence of his misunderstanding of the actual mechanisms of evolution begins to emerge. On page sixty-three, for example, he writes: "If it is true that everything developed from one first seed, then there ought to be innumerable transitional stages, but no one has yet discovered any of them." He writes this in response to a passage from Darwin's original book, published in 1859, where Darwin himself pointed out the relative scarcity of fossil evidence *at that time*.

Things have changed in the intervening one hundred fifty years, as any paleontologist or biologist could point out, and many transitional fossils have been unearthed. The cardinal might have been surprised and delighted, for just one example, by the recent discovery of *Tiktaalik*, an intermediate

species of fish between lobe-finned fish and tetrapods—found exactly in the layer of sediment paleontologists expected to find it. Over the past few decades, transitional species between the evolution of whales and hippos have also been unearthed where they were expected to be found. Yet Cardinal Schönborn seems oblivious to any of these discoveries.

Repeatedly throughout the book, he asserts that evolution is generally true and that molecular genetics unquestionably shows how deeply related species truly are (especially *Homo sapiens* and our simian cousins).

But then he demurs: genetic variation and natural selection can't be accepted as truly scientific, and he repeats a familiar claim that there remain many questions about the mechanisms of Darwinian evolution that need to be posed, and that Christians should keep an open mind about this.

True, but the cardinal never offers any evidence that a majority of working evolutionary biologists are not equally open-minded about the theory. The bad faith of mainstream biologists seems to be something Cardinal Schönborn, like many creationists, takes for granted.

The cardinal insists that Christianity is a rational faith. This is laudable, but one questions whether he really understands his own words in this context, when he says he accepts common descent and the genetic relatedness of all species—but resists genetic variation and natural selection as the major mechanisms by which change comes about. Regarding non-Darwinian mechanisms of evolution, such as genetic drift, sexual recombination, and related matters, he is silent.

Nor does it make any sense on the one hand to remind his readers that God is not a cosmic clockmaker—but then, on the other hand, to object to genetic variation and natural selection on account of his misunderstanding of both crucial mechanisms seems

to leave no room for that very kind of 'clockmaker' deity the cardinal so rightly admonishes us not to reduce the Creator to in the first place.

Cardinal Schönborn has stated elsewhere that the randomness of neo-Darwinian biology is "simply random," meanly purely chaotic in some ontological sense, but it isn't difficult to find examples to refute him. There is, for example, the randomness of mutation location in the genome: due to many factors in the way genes replicate, how cosmic rays pass through the body or how we are exposed to chemical mutagens, mutations occur at roughly random spots in the body. And this is entirely in keeping with the laws of biochemistry and physics. There is randomness of mutation with regard to adaptation, mutations that do occur in the genome occur without regard to the adaptive "needs" of an organism at that time. For example, mutations in the S12 ribosomal protein don't occur more frequently in a bacterium that is exposed to streptomycin—even though in one famous case, bacteria were able to evolve a resistance to the toxin thanks to mutations in that gene in direct response to massive exposure.

So the notion that randomness as understood by evolutionary biologists is ontologically suspect is unfounded. As for "the precisely ordered and extraordinarily intelligible world of living organisms," while the latter is certainly true—and the cardinal's repeated emphasis on the world's intelligibility is welcome—precisely ordering at the level of our genes is a stretch to say the least. Considering that fifty percent of the human genome consists of transposable elements, including retroviruses, one can argue that it is anything *but* precisely ordered. This is a point Cardinal Schönborn and perhaps other theologians do not want to deal with.

However uneasy the randomness at work in the root levels of life appears, it is by no means any more certain that life in the grand scheme is

somehow less meaningful because of it. And when he refers to the republic of natures and how the creative inner principles of those natures play themselves out in the natural order, the cardinal could not have written more eloquently on why Christians should accept evolution wholeheartedly and not feel the need to equivocate the way Bible-based Christians do.

In summary, the two great points of Cardinal Schönborn's book are these: the argument from design at the level of efficient causes is oversold; the everlasting reminder to Christians that God is Creator, not clockmaker, is one that has to be made more emphatically. Christians need to be open-minded about God's creativity and how it plays out in the natural order. Evolution must be recognized.

As long as theologians continue to tip-toe around Darwin's actual theory—the way one imagines St. Bonaventure once tip-toed around Aristotle's science and philosophy and fought St. Thomas Aquinas's acceptance of them—the Church will remain at a disadvantage in the debate between science and religion. The bloviations of materialist ideologues will continue—wrongly—to be taken by many rank and file Christians as representative of the scientific theory itself, and theologians will remain unwilling to fully grapple with the implications of Darwin's theory in more than superficial terms. ☞



Popularly known among scientists as the "fishapod," *Tiktaalik roseae* has also been called "the fish with elbows." This 375 year-old fossil was unearthed on Ellesmere Island, Nunavut, in Canada; to date more than ten individuals, ranging from three to nine feet in length, have been found. In addition to flippers that functioned more like feet, the creature had other features common to tetrapods (four-footed animals) including a neck and ribs capable of supporting the body for breathing air, making *Tiktaalik* the earliest link yet between ocean-going and land animals.