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# Papal bull on the meaning of life

BY JOHN POSTGATE

**EVOLUTION EXTENDED:  
BIOLOGICAL DEBATES ON THE  
MEANING OF LIFE**

EDITED BY CONNIE BARLOW  
MIT Press, 301pp, £22.50  
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Connie Barlow, a US science writer and freelance editor, rightly describes her book as "a collage of writings". Within each of four grand biological themes she has rearranged passages from writings by some of the best-known intellectuals of biology to form wholly new essays, and added contributions from journalists, non-scientists, Pope John Paul II and the US Supreme Court. These are elegantly decorated with etchings and drawings, and a poem as a sort of colophon, and all are linked by Barlow's introductions and comments which, he warned, some may find off-puttingly effusive. Living authors have approved her rearrangements of their material, and the scholar can use a concordance at the end of the book (included, it seems, on the wise advice of Richard Dawkins) to track down her sources precisely.

But how about deceased authors? On her first grand theme, "Is Evolution Going Anywhere?", she has assembled an essay on behalf of Julian Huxley, on whether evolution has been progressive, by stitching together passages from four of his books, spanning 1923 to 1957. Though it is a masterly editorial patchwork which reads seamlessly, and has

the approval of Huxley's family, I still doubt whether Huxley would have allowed his 1923 line, "If we accept the doctrine of evolution... (my italics), with its overtone of both unreasoned doubt and authoritarian rigidity, to go unmodified in the 1950s. Has Barlow done Huxley less than justice? Probably. Does it matter?

My instincts tell me that it does: but as a pragmatist I have to recognise that there is enough of Huxley's mature thinking in the excerpts here to override a single doubtful impression. And I doubt whether many biologists read Huxley's reflective writings these days, let alone the students and non-scientists towards whom I think this book is primarily directed. We live in an era of abridgements, of digests and of three-minute attention spans; today Barlow's rearrangements render a service by drawing renewed attention to some fine and thoughtful writing by distinguished biologists on their sub-

ject's wider implications. On her first theme: having been influenced by mid-century linguistic philosophy I find it amazing that the idea of progress in biological evolution should have generated so much elaborate discussion: "progress" is a term which can range in meaning from the bald antonym of "regress" to a composite of moral, spiritual and structural improvement. Stephen Jay Gould (quoted here) would expand it from biology. Yet provided its sense in context is clear to both writer and reader, it is a useful term and these considerations of evolutionary "progress" — mainly as excerpts from Huxley, F. J. Ayala, E. O. Wilson, Clayton Simpson, J. T. Bonner and D. Raup — take the reader on a rewarding series of trips through fascinating highways and byways of general biology.

Barlow's second grand theme, "Tools and Metaphors of Evolution", concerns the way evolution comes about. Appropriately she has drawn her first major contribution from Darwin's *The Origin of Species*, indicating the kind of evidence that led him to his seminal concept of natural selection, and his reflections on its religious and philosophical implications. Dawkins's writings are then tapped for a lucid account of

more modern views on natural selection (the likens inter-species competition to an arms race), alluding also to the question of how sexual differences evolved, and introducing the factors that influence and regulate the directions of evolution. Excerpts from G. Bateson and F. Jacob take up the latter topic; passages by L. Margulis, M. McMenamin and P. A. Corring emphasise that cooperative and symbiotic processes have been as important as competition in evolution. An extract from J. Bronowski — which includes the only reference to chemical evolution, that backwards extension of biological evolution — illustrates evolution's basic irreversibility, and leads to contributions on self-organising systems and cultural evolution.

Barlow's selections for her first two themes are excellent: enlightening and intellectually stimulating. With her third grand theme, "Enriching the Cosmos", things get a little hairy. First come extracts from Teilhard de Chardin's attempts to merge evolutionary theory with Jesuit Christianity, work banned by the Vatican for 15 years, with the result that, when it was ultimately published, his obscurantism was taken more seriously than it deserved. Huxley, in particular, was sym-

pathetic, perhaps because he was groping on analogous lines towards his own ethic of evolutionary humanism. Excerpts from Lambert, dismissive writings by P. Medawar and J. Monod provide only transient relief from the mystical tendency, because the final contributions, partly written by Barlow herself, present "biospheric" world-views and parallel Teilhard de Chardin in their baroque obscurity.

The fourth grand theme, "Evolution and Religion", is a very important and rather frightening section. I have insufficient space to survey its 17 major contributions: they include the sociology of religion, evolutionary humanism, and assertions and details of the conflict between science and theistic religion. Then the views of those strange dinosaurs of biology, the creationists, are presented, and refuted, with contributions from the Pope (anti-fundamentalist, but no mention of evolution) and the US Supreme Court (on teaching evolution in Louisiana).

A dispiriting but salutary display: never underestimate the influence of flat earthers and their ilk. Finally the idea of replacing religion by a scientific holist mythology is floated. In particular, the Gaia metaphor (or

hypothesis if you insist) has acquired feminist, environmentalist and mystical overtones which have captured the imagination of the "New Age" generation. Gaian books, rock music, poetry and painting may seem harmless, even beneficent, but I find it alarming to learn that "tens of thousands of New Yorkers" seeking a new myth, rejoice in the ritual of the Gaia Institute of the Cathedral of St John the Divine.

Barlow exultantly among them. Look around you, Barlow! In Yugoslavia, Kashmir, the Middle East, Ulster, Sudan, ex-Soviet Georgia and a dozen other places people are killing each other, sometimes in huge numbers, because of their religious myths. Do you want to see, for example, Gaian activists bombing in response to Militant Creationist terrorism? Many of us profoundly hope that science may yet save the world from the worst excesses of religion, but to create, even condone, an alternative religious mythology is no way to set about it.

An informative, idiosyncratic and exasperating collage, well worth reading.

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