

International Journal for Philosophy of Religion
47(No. 3, June 2000):179-182

Holmes Rolston III, *Genes, Genesis and God: Values and Their Origins in Natural and Human History*. Cambridge, New York, Melbourne: Cambridge University Press, 1999, xvi and 400 pages, including references and index, Hb \$59.95; Pb \$18.95

Lord Gifford, whose bequest founded the famous Gifford Lectures more than a century ago with a mandate to advance 'natural theology', would be proud of this book. It constitutes the Gifford Lectures at the University of Edinburgh, 1997–1998; and, unlike many other recent Giffords, it really does fulfill the terms of the original bequest. This fulfillment is not expressed in the traditional language that Lord Gifford would have recognized (though underneath there are still classical arguments at work), but in this volume Holmes Rolston III brings together the best of current information about nature, especially the history of this planet, with the persistent depths of classical concerns about the character of the ultimate nature of things.

There are at least three primary ways in which the book can be used with profit by readers of *The International Journal for Philosophy of Religion*. One is as a source of up-to-date information on the sciences primarily represented. A second is as a bulwark against fashionable cynicism toward, and reductionism of, generous values. The third is as a modest new style of natural theology, an argument for the continuing relevance (and intellectual usefulness) of the concept of transcendence.

Rolston has done his homework for this volume, considered under its first function as repository of information. For years he took courses in the sciences, submitting himself to a rigorous regimen of study while simultaneously fulfilling his other full-time duties as Distinguished Professor of Philosophy at Colorado State University – and handling also an extraordinarily heavy load of lecturing and other leadership duties in his various roles as international spokesman for environmental ethics and interpreter of science and religion to one another. The massive weight of learning contained in this book is reason enough to buy and keep it, like a handy reference guide or mini-encyclopedia, as a working volume in one's office or home study. In the weeks I have had it in my possession, I have several times used it to check on a fact of evolutionary history or on some term in genetics. The excellent index is a mighty help in this use, as is the well-wrought table of contents.

To review the contents, the book begins with a chapter on "Genetic Values" in which the focus is placed on what is special about genes, namely, that through them information can be transmitted and something can be *learned*. This was a first in the history of the known universe. There had been plenty of change, diversity, increases of complexity, before the arrival of life, with its information coded into genes, but from all this preorganic tumult nothing could be learned. An eloquent sample of Rolston's style comes early in this chapter: "[T]here is no . . . learning with the passing of cold and warm fronts; they just come and go. With the rock cycle, orogenic uplift, erosion, and uplift again, there is no natural selection. Nothing is competing, nothing is surviving, nothing has adapted fit. Climatological and geomorphological agitations continue in the Pleistocene period more or less as they did in the Precambrian. But the life story is different, because in biology, unlike physics, chemistry, geomorphology, or astronomy, something can be learned" (p. 1).

What is learned is how to expand, improve fitness, invade new niches, innovate, become alert to vital changes, communicate. Rolston rolls out the heavy artillery against any who try to minimize the factual reality of novelty and the tendency of life to expand in richness of diversity and complexity. His account bristles with quotations from the aristocracy of leading paleontologists. Never again need a reader of this book be without resources to refute the oft-heard canard that there is no upward thrust to the story of life. True, there

is no pre-set direction. Life burgeons in all directions. But the general trend, despite detours and setbacks, is toward complexity and toward a qualitative increase in repertoires.

This brings us to the second major area of usefulness offered by this book: namely, its grinding into dust the popular cynicism one hears about the “selfishness” of genes. Rolston goes after the purveyors of this value-laden invitation to psychogenetic egoism, people like Richard Dawkins and E.O. Wilson, and is merciless in his dissection of their views. In a running battle that begins in earnest in his second chapter, “Genetic Identity”, and runs to the end, Rolston simply demolishes that camp. Intellectual honesty does not require that we see the living world just as a single-focused struggle to maximize genetic identity. If that were the case, sexuality, which rapidly dilutes every individual’s genetic information to insignificance across the generations, would be the ultimate paradox. Cloning, not mating, would express genetic selfishness far more effectively. Evolution should never have ventured beyond the asexual bacteria. But in fact sexually reproducing species vastly outnumber asexual replicators in plants as well as animals. Evolution must have other interests to serve besides genetically selfish ones.

In the next chapter, “Culture”, the battle is continued against Dawkins and crew, as Rolston successfully uses their arguments against themselves, jujitsu style. The reductionists admit that ideas (which Dawkins calls “memes” to parallel “genes”) have an evolutionary power of their own. But still they insist on the necessarily “selfish” character of “memes” as well. The successful ones are merely the memes which exploit the cultural environment to their own advantage (p. 146). Dawkins expresses the hope that once this “fact” is exposed, we can overcome the dangerous selfishness of our memes, but Rolston uses this hope skillfully to trip him: where could the unselfish “good”, or critical, ideas (nonmemes?) *come from* that could overturn the “bad”, selfish memes? If we are really locked into psychogenetic egoism, there is no point in looking for natural leverage out of it. Whatever we come by, we come by naturally, on the reductionist’s view, and any such levers will already be dedicated to self-interest.

This brings us to the third major dimension of usefulness of this book: it tackles scientific, ethical, and religious issues in ways that return theology to a living option without abandoning nature to the reductionists. The final three chapters are devoted to three great cultural phenomena, science, ethics, and religion. Each is “naturalized” by being placed into the context of the evolutionary story; each is “socialized” by being placed into its full cultural context; and each is “evaluated” by being shown to be important in its own special way.

Science is the deeply socialized fruit of human perceptual and linguistic abilities, a product of the genius that rises from the human brain in fruitful connection with its body and beyond. As Rolston puts it: "One great story in natural history is that of the evolution of rationality in freedom; now, in science, more than ever before, we have an emergent intelligence with the power of understanding who and where it is, a marvelous thing. If this is not valuable, why not? Ought this creativity not to be defended, conserved, shared? That value ultimately is the only argument of life, the only argument for life. Science is both evolution becoming conscious of itself and evolution transcending itself" (p. 211).

Ethics is natural, too, but is not mere biology. Rolston, again: "Far from a killjoy reduction of ethics to nothing but biology, we have discovered that ethics is naturalized only at the start by way of anticipation and launching; afterward it is conceived and socialized in culture. As it matures, we are left wondering whether it does not even move beyond, glimpsing universals" (p. 291).

The "beyond", itself, is reached in the final chapter, on religion. It is a splendid chapter, not making overweening claims. It may disappoint those who want a classical God, omnipotent, omniscient, all-benevolent, to pop out at the end. Rolston's results are more modest. In his penultimate paragraph he is still fighting Dawkins, whose famous "blind watchmaker" is the mocking image Rolston refuses to accept as final or even as reasonable, given the many-splendored portrait of nature that this book has painted. Rolston urges us to "consider again the remarkable results, and the providence appropriate to a God who celebrates an Earth history, who inspires self-creativity. The word 'design' nowhere occurs in Genesis, though the concept of creativity pervades the opening chapters. . . . It is not that there is no 'watchmaker'; there is no 'watch.' Looking for one frames the problem in the wrong way. There are species well adapted for problem solving, ever more informed in their self-actualizing. The watchmaker metaphor seems blind to the problem that here needs to be solved: that informationless matter-energy is a splendid information maker" (pp. 369–370).

This book is a long song in praise of self-transcending creativity. That is the kind of God the exuberant Earth reflects, and in its living, worships. Holmes Rolston deserves our thanks and congratulations for bringing this book, itself a magnificent example of creativity, into the Gifford tradition.

Frederick Ferré, Em. Professor
The University of Georgia