"Not So Fast, Mr. Wilson." A Review of Genes, Genesis and God: Values and Their Origins in Natural and Human History by Holmes Rolston.

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NOT SO FAST, MR. WILSON

Genes, Genesis, and God
Values and Their Origins in Natural and Human History
Holmes Rolston III
Cambridge, $18.95, 400 pp.

M. Therese Lysaught

Ord Gifford would be pleased. Endowed upon his death in 1888, the distinguished Gifford Lectures were established to “promote and diffuse the study of natural theology in the widest sense of the term—in other words, the knowledge of God,” as well as to address “the knowledge of the nature and foundation of ethics.” In his 1997 Gifford Lectures, Holmes Rolston, university distinguished professor of philosophy at Colorado State University, the “father of environmental ethics,” and eminent scholar of biology and religion, carries the torch admirably.

More important, however, he takes on sociobiology. With Richard Dawkins and E.O. Wilson as his primary interlocutors, the project outlined is as follows:

At issue is whether the impressive genesis across evolutionary history, which in retrospect has been linked to genes, is now, with culture in prospect, so constrained by these genes that no one can think without survival and reproduction as the bottom-line logic determining the outcome of all thought.

His simple answer is “no.” His argument, of course, is more complex. Comprising six lengthy and detailed chapters, Rolston treats sequentially the topics of “Genetic Values,” “Genetic Identity,” “Culture,” “Science,” “Ethics,” and “Religion.” Three simultaneous tasks, however, structure the book as a whole.

First, in each chapter, Rolston challenges the assumptions and arguments of those who call themselves “sociobiologists.” Again and again, he deconstructs the “selfish” gene edifice, both on genetic grounds and as applied to the realms of science, ethics, and religion. Various claims and permutations of selfish-gene theorists are presented carefully (at times, perhaps, in too much detail). Analyzed against the biological data, the canons of logic, and “our native range experiences,” one claim after another collapses. Beyond reductionism and determinism (serious problems themselves simply from a scientific standpoint), the fatal flaw of sociobiology lies in its critical sloppiness. Sociobiologists “mistakenly transfer cultural phenomena back into biological phenomena and misinterpret what is going on.” Can it be a coincidence that the theory of “selfish” genes emerged in the 1970s and 1980s, the era of the “me-generation” and “greed is good”? Culturally loaded terms and concepts exacerbate category mistakes.

Rolston’s second task is to construct an alternative reading of the biological data. If genes are not selfish, then how ought they be described? Rolston suggests that they are loci of “shared value.” At the genetic level, he clearly does not jettison the Darwinian notion of reproductive fitness. Within this framework, he trades on the contemporary metaphor that genes encode “information,” which allows organisms to navigate and flourish in environments. Through mutation, genes test different strategies for enhancing ecological survival. Those that work mark new “discoveries about life,” which are passed along to the next generation. Thus, the genome becomes a cumulative, transmissible locus of new information. Because this information confers survival advantage, it is of value. Thus, “genes can be interpreted as loci of intrinsic value.”

Moreover, through reproduction, one’s new information becomes mixed with that of others (through meiotic mating) and distributed to future generations. The central feature of genes, then, becomes “their power to send information to the next generation....[G]enetic information gets allocated and reallocated, portioned out...widely distributed, communicated, networked, and shared throughout natural history.” In other words, evolutionary history is the story of the discovery, conservation, accumulation, and proliferation of values: Kindred organisms, indeed the entire bio-

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sphere, are no longer “selfish” but rather creatures of “shared values.”

This account of biological life provides the basis for Rolston’s third task, namely, to provide an account of the genesis of culture. Here, the logic becomes more complicated. Rolston wishes to break with a dogmatized Darwinism, recasting culture as indeed rooted in biology but, more important, transcending it. Culture’s roots in biology allow Rolston to posit analogies between his account of genes and the development of the three cultural realms of science, ethics, and religion. Culture’s singularity and specific characteristics render the simplistic sociobiological mantra (that the unconscious desire to maximize numbers of offspring and enhance reproductive fitness is the sole driving force behind science, ethics, and religion) absurd.

For Rolston and most likely for many Commonweal readers, the ultimate question is that of religion. Two questions are posed: “Is there a plausible account of the genesis of religion, relating its origin to genes?” and “Is there a plausible religious account of genes and their genesis?” Rolston’s answer is that religion emerges as a response to nature—to nature’s creative generativity, prolific, profile complexity, diversity, fecundity, and fertility. Indispensably coupled with this fertility are struggle, wastage, death, pain, and suffering. Human minds, he argues, have gained the ability to perceive this wonder and properly sense in it the sacred.

But can biology point to the “truth” of religious beliefs? Arguing against those who hold that religion is simply an illusory mythology which is successfully functional (vis-à-vis reproductive fitness) or an epiphenomenal anomaly, “like dreams, that have little to do with the real world,” Rolston holds that through religion, as through science and ethics, humans achieve new levels of insight. He draws an analogy to his account of the function of genes. Certainly, he argues, religions have some functional value; in general they enhance human flourishing. If so, there must be some truth in them, for species that misperceive their environments or have false information about their world do not survive. Moreover, the fact that only approximately ten major world religions now remain out of the a hundred thousand that emerged over the course of human history mirrors the process of biological evolution as well. Just as different genetic mutations and scientific or ethical theories are generated and tested by trial and error, religions that survive do so because “they have a good deal of corroboration and have not yet been falsified.” Each successful variant encodes new information, a new discovery into the cumulative, transmissible information that structures human culture.

After providing a naturalized account of religion, Rolston turns to his final subject, that of “a plausible religious account of genes and their genesis.” God, one of the title characters, makes a relatively late appearance, not entering the discussion in more than an anticipatory fashion until page 359 (eleven pages before the end of the text). Allusions to God and examples from Christianity
(along with Judaism and Buddhism) pepper the text throughout but more substantive natural theology could be desired. Rolston's thesis at the end is relatively straightforward: God accounts for the dramatic emergent events that have occurred on the earth over the course of evolutionary history. This is not an argument from design, not the anthropic principle; for Rolston, ecological biology refutes any claim that either human life or the unique transitions in evolutionary history were inevitable. God is the "ground of information or an ambiance of information," that interjects quanta of needed "information," or value, into creative processes.

This portrays a loose teleology, a soft concept of creation, one that permits genuine, though not ultimate, integrity and autonomy in the creatures. The divine spirit is the giver of life, pervasively present over the millennia. God is the atmosphere of possibilities, the metaphysical environment in, with, and under first the natural and later the cultural environment, luring the earthen histories up the slope. God orchestrates such self-organizing, steadily elevating the possibilities, making for storied achievements, enriching the values generated.

In meeting these three tasks, Rolston provides ample fodder for his critics. Sociobiologists will counter his counter-arguments. Others may well take issue with the language which shapes his constructive account. Genes remain anthropomorphized, as smart, discovering, searching problem-solvers. As sociobiology reflects the 1970s and '80s, Rolston's rhetoric is '90s vintage—information, diversity, cybernetic, sharing, values, love, justice, freedom. Might it not be a category mistake to analogize evolution from biology to culture, to posit societies acting like species? Still others will find that his account of the divine bears little resemblance to any actual, living religion. These criticisms notwithstanding, Rolston's book is a must-read for anyone interested in this conversation. If nothing else, Rolston provides a potent counterpoint to E. O. Wilson's recent and widely-acclaimed Consilience.

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**ONE SHREWD LADY**

**Teresa of Ávila**
The Progress of a Soul
By Cathleen Medwick
Alfred A. Knopf, $26, 264 pp.

**Lawrence S. Cunningham**

Teresa of Ávila's life spanned the better part of the sixteenth century. Barely a generation before her birth in 1515 unconverted Jews were expelled from Spain in the same year that Christopher Columbus sailed west for the Indies. Both events would impact Teresa's life. Her own family came from converso stock who fell under the suspicion of the Inquisition. Later in her life, her religious foundations would benefit from the monies her brothers earned in the New World. Sixteenth-century Spain flourished both economically and culturally. This was the century of Ignatius Loyola, Philip II, Cervantes, El Greco, Zurbaran, Saint John of the Cross, to say nothing of Teresa herself. It was also the century of the Protestant Reformation as well as the Catholic reform whose energies were crystallized in the work of the Council of Trent.

The Spanish Inquisition busied itself not only with the rising tide of mainly female visionaries and mystics whose experiences needed the check of orthodoxy but also with Judaizers among the conversos, and the infiltration of Protestants who went under the generic term of los luteranos. Nor was the Inquisition disposed to tolerate vernacular translations of the Scriptures, or writers too much influenced by such humanists as Erasmus.

Cathleen Medwick pays glancing attention to these swirling eddies of intellectual and spiritual experimentation; her main focus is on the life of Teresa. Medwick traces Teresa's early years, her entrance into the genteel life of the Convent of the Incarnation in Ávila, her second conversion as a person of prayer, and her subsequent trials as a founder of reformed monasteries of women under the austerely rule of Mount Carmel. By the time of her death in 1581, Teresa had founded more than a dozen monastic houses. She accomplished this by surmounting obstructive civil authorities who saw no need for yet another convent in their cities, by surviving wrangles with church authorities over how the convents were to constitute themselves, and by besting ever intrusive aristocrats who would supply monies but felt their generosity allowed them the right to determine how the nuns were to live.

Readers disinclined to learn much about the ecclesiastical and civil machinations of the period may sigh with impatience at the author's attention to these matters. However, they will not fail to see, in Medwick's telling, how this extraordinary woman, with her relentless will (Teresa called it muy determinada determinacion), her overwhelming sense of the presence of God, her extraordinary administrative skills, her mastery of diplomacy, and her capacity for the subtle application of flattery—as well as her uncanny ability to get her way while being obedient to her superiors—became one of the most luminous and attractive figures in the history of Christian holiness.

In the midst of all her labors and travel, Teresa also managed to compose some significant books and a vast corpus of letters. She wrote, at the instigation of her confessor, her autobiography (Mi Vida), which shows the influence of Augustine's Confessions newly available to her in a vernacular translation, as well as The Way of Perfection, her book of Foundations, and a commentary on the