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BOOKS ON SCIENCE; Faith, Reason, God and Other Imponderables

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Not to denounce it, but to embrace it.

That is what Francis S. Collins, Owen Gingerich and Joan Roughgarden have done in new books, taking up one side of the stormy argument over whether faith in God can coexist with faith in the scientific method.

With no apology and hardly any arm-waving, they describe their beliefs, how they came to them and how they reconcile them with their work in science.

In "The Language of God," Dr. Collins, the geneticist who led the American government's effort to decipher the human genome, describes his own journey from atheism to committed Christianity, a faith he embraced as a young physician.

In "God's Universe," Dr. Gingerich, an emeritus professor of astronomy at Harvard, tells how he is "personally persuaded that a superintelligent Creator

exists beyond and within the cosmos.”

And in “Evolution and Christian Faith,” Dr. Roughgarden, the child of Episcopal missionaries and now an evolutionary biologist at Stanford, tells of her struggles to fit the individual into the evolutionary picture — an effort complicated in her case by the fact that she is transgender, and therefore has views at odds with some conventional Darwinian thinking about sexual identity.

If his eminence in science were not so unassailable, a fourth author, the biologist E. O. Wilson of Harvard, might also be taking a chance by arguing that religion and science ought to take up arms together to encourage respect for and protection of nature or, as he calls it in his new book, “The Creation.”

Although he writes that he no longer embraces the faith of his childhood — he describes himself as “a secular humanist” — Dr. Wilson shapes his book as a “Letter to a Southern Baptist Pastor,” in hopes that if “religion and science could be united on the common ground of biological conservation, the problem would soon be solved.”

Coming as they do from a milieu in which religious belief of any kind is often dismissed as little more than magical thinking, this is bravery indeed.

But other new books, taking a different approach, also claim the mantle of bravery.

In “Breaking the Spell: Religion as a Natural Phenomenon,” Daniel C. Dennett, a philosopher and theorist of cognition at Tufts, refers again and again to the “brave” researchers (including himself) who challenge religion. In “The God Delusion,” Richard Dawkins, a professor of the public understanding of science at Oxford, once again likens religious faith to a disease and sets as his goal convincing his readers that atheism is “a brave” aspiration.

Of course, just as the professors of faith cannot prove (except to themselves) that God exists, the advocates for atheism acknowledge that they cannot prove (not yet, anyway) that God does not exist. Instead, Drs. Dawkins and Dennett sound two major themes: a) the theory of evolution is correct, and creationism and its cousin, intelligent design, are wrong; and b) a field of research called evolutionary psychology can explain why religious belief seems to be universal among Homo sapiens.

But these sermons, which the authors preach with what can fairly be

described as religious fervor, are unsatisfying.

Of course there is no credible scientific challenge to Darwinian evolution as an explanation for the diversity and complexity of life on earth. So what? The theory of evolution says nothing about the existence or nonexistence of God. People might argue about what sort of supreme being would work her will through such a seemingly haphazard arrangement, but that is not the same as denying that she exists in the first place.

In any event, as Dr. Gingerich argues, in simultaneously defending evolution and insisting upon atheism, Dr. Dawkins probably "single-handedly makes more converts to intelligent design than any of the leading intelligent design theorists."

And evolutionary psychology as a prism through which to view contemporary human behavior is open to many challenges. Some have come from critics who dismiss much of it as little more than "Just-So Stories" designed to explain or justify the status quo. So it seems strange to see its logic cited as a weapon against the story-telling aspects of religion.

All of which leads one to ask, who are these books for? The question is easy to answer when it comes to Drs. Collins, Roughgarden or Gingerich. First would be young people raised in religious families, who as they progress through school suddenly confront scientific reality that challenges Sunday morning dogma.

"I have been struck," Dr. Roughgarden writes, "by how the "debate" over teaching evolution is not about plants and animals but about God and whether science somehow threatens one's belief in God."

Or as Dr. Collins put it, when religions require belief in "fundamentally flawed claims" about the world, they force curious and intelligent congregants to reject science, "effectively committing intellectual suicide," a choice he calls "terrible and unnecessary."

But does science require the abandonment of faith? Not necessarily, and certainly not entirely, these authors argue.

Also, people who read these books will realize that it is impossible to tar all scientists with the brush of amorality. The books challenge those who fear that science and ethics may end up at war, a possibility raised by President

Bush last week, when he vetoed legislation supporting stem cell research.

On the other hand, as the (atheist) physicist Steven Weinberg has famously put it, and as Drs. Dawkins and Dennett remind their readers, good people tend to do good, evil people tend to do evil, but for a good person to do evil — that takes religion.

But it is hard to believe that people who reject science on religious grounds will stick with the Dennett and Dawkins books, filled as they are with denunciation not just of their ideas but of themselves.

This is unfortunate because, as Dr. Roughgarden points out, it is crucial in our society for people of faith, the vast majority of our population, to understand the issues of contemporary science. “I love to discuss the moral issues of biotechnology within a community of faith,” she writes. “But most church congregations and their leaders are not prepared for those discussions.”

Perhaps another book, “Six Impossible Things Before Breakfast,” can help bridge that gap. It is by Lewis Wolpert, a biologist at University College London. It has been published in England, and it is to appear in the United States in January.

Dr. Wolpert writes about the way people think about cause and effect, citing among other work experiments on how we reason, how we assess risk, and the rules of thumb and biases that guide us when we make decisions. He is looking into what he calls “causal belief” — the idea that events or conditions we experience have a cause, possibly a supernatural cause.

Human reasoning is “beset with logical problems that include overdependence on authority, overemphasis on coincidence, distortion of the evidence, circular reasoning, use of anecdotes, ignorance of science and failures of logic,” he writes. And whatever these traits may say about acceptance of religion, they have a lot to do with public misunderstanding of science.

So, he concludes, “We have to both respect, if we can, the beliefs of others, and accept the responsibility to try and change them if the evidence for them is weak or scientifically improbable.”

This is where the scientific method comes in. If scientists are prepared to state their hypotheses, describe how they tested them, lay out their data,

explain how they analyze their data and the conclusions they draw from their analyses — then it should not matter if they pray to Zeus, Jehovah, the Tooth Fairy, or nobody.

Their work will speak for itself.