

THE PRIESTHOOD OF SCIENCE  
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Undoubtedly you've all heard of the "Large Hadron Collider" [LHC], a 27-kilometer circular underground tunnel beneath the Jura Mountains along the border between France and Switzerland, designed to carry out experiments in subatomic physics. Among other things, it is designed to smash particles together at velocities very near the speed of light—to be exact, 99.9999991%—and in so doing, to recreate the conditions in the interactions of matter and energy that are theorized to have occurred within the first two moments of the "Big Bang," the creation of the universe some 14 billion years ago.

It is, therefore, a quintessential moment in the history of our very secular modern science, whose origins date to the seventeenth century in Europe—that science which, unlike every comparable system of human thought about the natural world that had preceded it, is based on one overarching and distinctive principle: That the natural world we inhabit can be understood as a self-originating and self-subsisting entity, entirely complete in and of itself; in other words, a world not created by any non-material force or entity, a world whose mode of action can be comprehended, in its entirety, as the product of "laws" that are inherent in its own structure.

The best way to understand this singular principle on which modern science is based is to recall the answer given by Pierre-Simon Laplace (1749-1827), the astronomer and physicist often called the "French Newton," who was once asked by Napoleon why his book on astronomy made no mention of God: "Sire, I had no need of that hypothesis." Precisely.

With this background in mind, it would be unsurprising if you were puzzled when you read the following account in a front-page article, written by Doug Saunders, in *The Globe and Mail* exactly one month ago today: "In scale and appearance, it can only be compared to a cathedral. The chambers that hold the particle detectors, the biggest of

them built and maintained by Canadians, are indeed larger than most European cathedrals, buried a hundred metres below the earth, charged with a city's worth of power and filled with an unholy light. In its function, too, the Large Hadron Collider this morning will become something of a secular cathedral for the millions of people watching [over the Internet] and the thousands of physicists on the site, which spans the Swiss-French border. Here, inside the largest science experiment ever conducted, is the stuff of meditation and prayer, mysteries of the sort that only religion and Big Science can unveil with such grandeur."

That's not all. In the same issue another article, by Anne McIlroy, was entitled: "Inside the search for the God particle." The real name for this elusive subatomic particle is the Higgs boson, named for Scottish physicist Peter Higgs; but its better-known nickname, the "God particle," coined by Leon Lederman, is irresistibly fascinating for journalists. The rationale was simple: The Higgs boson, which has never been observed so far, is a theoretical construct needed to explain the rather important proposition that all matter has mass. In other words, the conjecture by Peter Higgs seeks to explain why there is anything at all in the universe that we can actually observe, such as stars, planets—and ourselves, of course. So you can see why Lederman hit upon this name. Physicists hope to spot this particle running around somewhere inside their big tunnel.

Scientific cathedrals, inside which the priest-scientists are desperately hoping to find good evidence for the existence of something called the God particle. These are metaphors, and potent ones at that. Thus my title: *The Priesthood of Science*.

Over the course of the preceding four centuries, modern science has pushed ever closer to the traditional domains of religion. In terms of matter and energy, nature's basic constituents, even without the Higgs boson the science of physics has an explanation powerful enough to provide definitive proofs to get the job done, in the form of theories such as those of relativity and quantum mechanics, as well as technologies that can actually make things all of us can actually see, such as atomic bombs, which are based squarely on those theories. Neither physics nor chemistry needs God in order to do its work. Nor does biology: Evolutionary and molecular biology sweeps away religion's old

creation story about Adam and Eve and shows it to be nothing more than a pitiful rationalization for implausible beliefs. In academic research at universities, the personal experience of God becomes just another experiment performed by clever neuroscientists using their favorite toy, fMRI [functional magnetic resonance imaging], who are looking for the “God spot,” the exact location inside our heads where our brain lights up when we are asked to think about the idea of a supreme being. For science it is our brain, not God, which makes the machine light up.

But the old structures die hard, and they are not dead yet by any means.

Thus we live in a very peculiar world at the moment. In fact, for many people there are two parallel universes running independently, side by side. The one universe is talked about in their places of worship: For billions of believers on earth, the religious story still commands their allegiance, and, at least for the monotheists among them, a single all-powerful, non-material entity holds the fate of the world in His hands (not Her, by the way, definitely not Her). For them—religious Jews, Muslims, and Christians alike—this Being has a plan: to bring the whole world crashing down in flames one fine day, incinerating all of creation, including most humans now living, and whisking away the lucky few to an eternal paradise located somewhere out there in the heavens. This coming space flight is known to evangelical Christians as “the rapture,” and, as we have learned recently, due to the focus on a woman called Sarah Palin, apparently the State of Alaska is one of God’s chosen launching-pads for the big event.

The second of our two parallel universes is science. Our scientists are quite convinced that they are well on their way to proving that it is we humans, not God, who are the real masters of the universe. We may not ever know where exactly it all “came from,” before the Big Bang, but really, who among us really cares what was happening before the Big Bang? What’s really important is that we’re getting close to figuring out how everything works, and at that point, we’ll be able to do whatever we want: visiting other galaxies light-years away, sending colonies of settlers to other planets, having fun jumping around with teleportation and time-travel back to the past, having unlimited amounts of energy for our wants, creating whole brains from scratch, and, **best of all**: being

blessed with eternal life, all thanks to science. When we've got all of these neat little tricks at our disposal, do any of you really think anyone will still need priests, heaven, and holy sacraments?

What fascinates me is how, for the first time in human history, these two stories, one rooted in the idea of divine power, the other in the steady growth of human power, seem to be running together, side-by-side, on parallel tracks. But is that really the right image, do you think? Or is there in fact instead only a single track, and are the two great world-systems, monotheism and science, both running on the same track, rushing headlong toward each other from opposite directions? And if the single track is the better image, should we expect to witness a spectacular head-on collision at some point?

To explore these questions I turned to the very old tradition known as “utopian fiction.”

Utopian fiction, which is, in a way, non-fiction masquerading as fiction, is one of the oldest literary genres in modern history, going back to the book, published in 1516 (and still in print!), that started it all: Thomas More's *Utopia*. [You may have seen the 1966 movie, “A Man for all Seasons,” starring Paul Scofield. That's the author I'm referring to, the man who was Lord Chancellor of England, who defied Henry VIII, and who was beheaded for his trouble.] Utopian fiction encourages the reader to think about a future society that is very different from the present one—either very much better, or very much worse; if the latter, it's called “dystopia,” for example, Aldous Huxley's *Brave New World* or Margaret Atwood's *Oryx and Crake*. Utopias are fictional works, but not really novels; typically they were written by philosophers—and that's what I am.

There are two volumes in the series so far, which I call *The Herasaga*, and I'm now writing a third. For more information, click on the link to [www.herasaga.com](http://www.herasaga.com).

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