

Science, Technology, and Religion II

Disenchantment and Its Discontents

Joseph Bottum

I would rather live in a world with a thousand saints than a thousand scientists. A land rich with the red of the blood of martyrs, green with the vivid revelation of God's creation, not the washed-out pale of science. *The Atoms of Democritus / And Newton's Particles of Light*, as William Blake knew, *Are sands upon the Red Sea shore, / Where Israel's tents do shine so bright.*

I would rather live where the metonymies of alchemy are simple truth, and the angel with a glowing sword guards the gates of Eden. Where everyday life is thick with prophecy, and the ghostly dead sit beside us in the cafes and barber shops, calmly reading the newspaper's obituary pages. Where Avenue C bears the initial of Christ into the New World, and baseball is theology: *Rookie phenom Yasiel Puig lifts the Dodgers, and Christ is one in being with the Father! Southpaw Locke carries the Pirates, and the greatest of these is love!*

I would rather be where Elizabeth's apron is always full of roses, and the woman selling flowers on the corner wraps her bouquets in Bible verses: Genesis for tulips and Ecclesiastes for her mums. Where the New York Public Library's lions are growling stony sermons, though no one understands them, and Manhattan's schoolchildren sit unfrightened on their backs to listen. Where Jesus appears in the kitchen and asks for a small glass of ginger ale. Where physicists are like stadium cleaners, doing their necessary work only once the game is over and everyone else has gone home. Where biotechnologists have to whisper furtively about their perverse imaginings, slinking down to disreputable clubs after dark. Where paparazzi camp outside the anchorite's cave, and fans gather at monasteries to shout out encouragement: *Good prayer, Brother John! Way to be, Abbot Cyprian!*

Forced to choose, I would take a world where my new poem about the apocalypse is worth more than an apocalyptic atom bomb. Or worth enough, anyway, that I could trade it for a haircut and a tailored suit—our

Joseph Bottum, a contributing editor at the *Weekly Standard*, is an essayist and the author of numerous works of poetry and fiction. His book *An Anxious Age: The Post-Protestant Ethic and the Spirit of America* will be published by Image/Random House in 2014.

religious poets as sleek and successful as performing seals or private bankers, keeping bankers' hours. Why wouldn't we long for the place where God is alive and magic afoot, when divinity hides in the shadows while tabescent science walks in the noonday sun? Forced to choose, I would dwell where the dragons are, where the Grail is sought, where prayer is efficacious, where the stones cry out, where miracles are so common they seem almost unmiraculous, where human life is thick and rich and sacramental.

Forced to choose—but, then, we are not actually *forced* to choose. Any of a dozen factors could seem to set science and faith in opposition: social pressure, sin, Satan, bad philosophy, worse theology, the usual sort of difficulties the human mind encounters while attempting to hold many thoughts at once. But the sheer logic of Catholic Christianity will never be one of them.

To examine that logic, even to gesture at its implications, probably requires a tone cooler and more abstract than poetic honesty about our actual experience in this God-haunted world. And why not? A use in measured language lies, and if we speak in that more philosophical way, we can begin with the proposition that Catholicism holds itself out as a complete system of thought. Every truth is *His* truth, and if science discovers genuine facts, then those facts must be part of the whole that is the Catholic truth. By its own internal coherence, Catholicism is not allowed to reject science or undermine science or even fear science, trembling behind darkened church doors when mobs of angry chemists take to the streets.

The Whole Truth

It's unfair, in a way, the asymmetrical relation: Science doesn't have to account for anything besides its own limited domain of natural phenomena, while poor Catholicism has to encompass science. And poetry. And philosophy, and law—anywhere that truth and consistency settle. But such is the fate of comprehensive systems, and Catholicism should have a logical problem with science only when scientists imagine that their successful pursuit of truths within a partial discipline gives them authority to claim complete truth. The whole has trouble with the part only when the part rebels, sets up a gimcrack throne in its tiny dukedom, and proclaims itself emperor of all.

Unfortunately, the actual situation is often more complicated. We live in a fallen world, and nothing involving human beings is ever completely clean. Consider the process just in the history of astrophysics. Even before the collapse of Rome, both Catholic thought and popular Catholic

piety had internalized the best available science (essentially a Ptolemaic astronomy joined a little awkwardly to an Aristotelian physics). Catholic use of that science would last through most of the Middle Ages—and, indeed, beyond: Much of the great Renaissance and early modern mathematical reformation of the discipline happened under the auspices of the Church, which was generally supportive of all science (every truth being *His* truth) and particularly interested in astronomy because of an abiding need for an accurate calendar.

Nevertheless, the modern turn in astrophysics, from Copernicus to Kepler to Newton, was not a happy or simple progression. Some of the dispute concerned the philosophy of science, occurring within the Church-sponsored scientific community. In modern anti-Catholic, religion-hates-science retellings of the story, the Dominican friar Giovanni Maria Tolosani usually gets cast as the narrow-minded and superstitious villain of the melodrama and cautionary tale. But he was, in fact, an astronomer of some distinction, and his 1546 attack on Copernican heliocentrism is actually an interesting defense of the proposition that science begins with observation and purely mathematical deductions cannot be taken as proof about reality. (As late as 1935, one of the leading astrophysicists of the time, Sir Arthur Eddington, would use precisely the same reasoning to reject the mathematical work of Subrahmanyan Chandrasekhar that would lead to the theory of black holes.)

More of the problem with the modern turn of science, however, came from the long years of acceptance of the old account of the solar system. An enormous investment had been made in that account, on the assurance of scientists that it was accurate and stable: calendar-making, similes in poetry, illustrations in sermons, analogies in theology, metaphysical derivations in philosophy—the bulk of the intellectual life of the Church. A good portion of the religious unhappiness with the new science can be traced simply to an easily identifiable facet of fallen human nature: the grumpy and lazy inertia of an enormous intellectual system when faced with the complete reworking of a large set of its common metaphors. And so the Church resisted modern astrophysics for a while. Not as much as the tale is often told, but nonetheless to some real degree.

And yet, instead of Catholicism's opposition to science, the more interesting topic might be the opposition of science to Catholicism—for these days, writers and thinkers are far more likely to be denounced and ostracized from intellectual society for religious belief than they are for heretical science. I can't think of the last time the Church excommunicated a scientist just for being a scientist, but if someone like Sam Harris had his way,

plenty of people would be banished just for being religious. And the orthodoxy demanded by science—the doctrinal test and auto-da-fé—grows only stricter, more inquisitorial, every year.

Some of this has its roots down in the black legends of Catholic superstition and benightedness that Protestantism developed to justify Britain's rule of Ireland, Switzerland's anti-Catholic Sonderbund War, America's nineteenth-century attempts to suppress Catholic immigration, and other adventures in imperial Protestant ascendancy. Of course, serious Protestantism is much less hostile to Catholicism these days (and likely to be lumped in with Catholicism as far as religious hostility is concerned). But even though the old Protestant antagonism is mostly dead, its antique stalking horses still go galloping on—whipped along by the general anti-Christian and anti-religious sentiments of those who claim to speak for science. Take, for example, the once pro-Protestant and later pro-science calumny that everyone in Catholic Europe before Columbus believed the earth was flat. It's like an intellectual's version of Whac-A-Mole: No matter how many times we beat the damn thing down, it keeps popping back up.

A Thick World Again

A deeper relation to Protestantism, however, may lie in the concept of disenchantment, which Max Weber began to explore in 1905. In *The Protestant Ethic and the Spirit of Capitalism*, Weber looks at the modern loss of faith and mystery, the emphasis on rationalization, and the rise of economic capitalism, and he ties them intimately to the new spirituality of Protestantism that was born in the Reformation.

Admittedly, Western disenchantment was a complicated phenomenon. The general rejection of sacraments in Protestant religious sensibility acted as only one of what Weber (borrowing from Goethe) called the “elective affinities” of modernity. The bureaucratization required by the powerful new nation-states is another of those affinities that helped produce the modern world—as are the prestige of mathematical science (particularly after Descartes), the new social relations created by the rise of the middle class, the enthusiasm for democracy, and the hatred of Catholic religious authority implicit in Enlightenment philosophy. (And often explicit; notice, for instance, the affinities of democracy and anti-Catholicism blending indistinguishably in Diderot's oft-quoted *philosophe* epigram, “Men will never be free until the last king is strangled with the entrails of the last priest.”)

Still, the disenchantment of the world quickly came to define the powerful Protestant cultures of Western civilization, and it infected far too many of the Catholic cultures, as well. The “great enchanted garden” of traditional societies, as Weber called it, withered to small growths on the verges and glebes. And like Ozymandias in the desert—*Look on my works, ye Mighty, and despair!*—science rose above the other modern affinities to claim epistemological rule of the conquered ground, the wasteland where the lone and level sands stretch far away. *This is the dead land / This is cactus land*, as T.S. Eliot saw, where *Lips that would kiss / Form prayers to broken stone*.

Why science would want to rule such a desert, I couldn't say, except perhaps to ascribe the desire to the general pride and *thumos* of this fallen world, the arrogance of men who hunger not merely to be right but for all others to be wrong. Still, the key lies in the realization that follows from an awareness of modern disenchantment: the realization that science studies broken and dissected objects. Catholicism, in other words, does not reject the truths that science discovers about the partial things it investigates; Catholicism only rejects certain philosophies of science—the ones claiming that scientific partiality discovers *all* that is true about those things.

Think of it this way: Francis Bacon has been proved manifestly right in his prediction that science would gain speed by streamlining Aristotle's old account of causation. Where ancient and medieval investigators thought they needed to account for final and formal causes, modern science (in Bacon's powerful 1620 description) sets aside all consideration of what things *are for* in the scheme of God's creation and even what they *are* in their forms. Material and efficient causes, what things are made of and how they work, prove more than enough for science to play with. Lung transplants, air conditioners, electrical lights, computers, airplane flight—all the fantastic technological advances of modernity: We owe much that is good to the modern discovery of scientific truths about stripped-down reality.

Of course, we also owe much that is *bad* to philosophies of science that mistake those scientific parts for the whole, as the thinness of modern reality reveals. Earlier this year, Richard Dawkins reiterated his insistence that bringing up children religiously is a kind of “child abuse.” But I worry more about the rest of us in our modern culture—we children of science, brought up by anti-religious dogmatists in narrow, cramped little doctrines. No art, no richness, no sense of living symbols, nothing poetic, nothing sacramental: *That* is a truer kind of child abuse—a thinning of the experienced world, a willed privation.

It is only when I encounter the anti-religious adherents of this impoverished philosophy of science that an evangelizing impulse swells in me. Come, I want to say to them, and meet the flower lady down on the corner. She sells angiosperms of the tribe *Anthemideae*—but you can call them mums, and in the true floriography of courtship, a red one means “I love.” Come, I want to say, and see this green marble stone for what is: recrystallized limestone, dolomite protolith tinged with serpentine, and within it waits an image of the Blessed Virgin, needing only a sculptor’s hand.

That granite up along the river banks, as well: feldspar, tectosilicate, quartz, amphibole—a poem in every word. No contradiction, no small-mindedness, no cheap escape through relativism and double truth. The recursion of the fractals in the edges of those sheep-like clouds, meadowed in the blue sky, transcribes strange messages of God’s creation. Every Carlos Gómez triple illustrates the Trinity, and each Elvis Andrus sacrifice bunt testifies to faith. Your father’s ghost walks beside you, along the cracked sidewalks, and the angels are hovering near.

Come, leave the city, walk out in the fields, and see the night’s vast planetarium for what it is—the stars dancing in their formal Newtonian quadrillions, in honor of God’s order, even while Aries fears for his golden fleece and Andromeda longs for rescue. The world is graced with magic and wonder, Christ’s sacrifice pours through creation, and infinity lives in a grain of sand. All truths blend toward the one truth. Come, we were blind, but now, if only we open our eyes, we *see*.