

SCIENCE'S SINS OF THE EYES

by Jonathan David Carson
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Even the most secular of secularists inadvertently betray a belief in God. An assumption of the existence of God underlies all search for the truth, however buried that assumption may be, however oblivious the searcher. In the case of the secularist, unfortunately, this unconscious recognition of God stems, not from humility, but from pride, for the person assumed to be God is the secularist himself.

According to "The Self-Reproducing Inflationary Universe" by Andrei Linde, in the March 1998 *Scientific American*, the cosmos consists of "an extended branching of inflationary bubbles." These "bubbles" are "universes" that branch as each universe gives rise to others in an "eternal inflation" that makes the entire cosmos "immortal." What a magnificent cosmos Linde has conjured, having taken on characteristics traditionally associated with God.

We cannot see out of our universe, and it's unlikely that inhabitants of any other universe could see ours, but Linde, undaunted, has drawn a picture of this immortal and eternally inflating cosmos. From a tiny yellow bubble at the bottom, three universes branch off, two red and one blue. These branch in turn, forming five more universes, which themselves branch into still more universes, one of them green. "Changes in colors," explains Linde, "represent mutations in the laws of physics...."

If our universe is 1/4-inch in diameter in Linde's picture and 10 billion light-years in actuality, and if we look at the picture from a distance of, say, 15 inches, then Linde has implied a point of view 600 billion light-years outside our universe. We cannot leave our universe or even see outside it, but Linde has imagined himself more than half a trillion light-years outside of everything we know about or could know about. He has also caused us to imagine the same point of view, and to imagine it calmly, as if this impossible and vertiginous aerie, which could admit none but the immortal and eternal, were our ordinary perch.

Linde has provided us the occasion for a monstrous sin of the eyes. There we are, immortal and eternal, looking down on an immortal and eternal cosmos, gods surveying our divine realms, free from the laws that govern them, an entire

universe appearing to us as a tiny berry on a bush. And this from a scientific materialist! God-like universe and God-like man. How can this be?

"Mapping the Universe" by Stephen D. Landy in the June 1999 *Scientific American* shows in a more prosaic manner the habitual adoption by cosmologists of an impossible point of view outside the universe. The universe, said by an accompanying caption to be 10 billion light-years in diameter, is depicted as a $2^{1/2}$ -inch sphere, implying a viewing distance of 60 billion light-years.

A cosmologist might respond that Landy's picture adopts an imaginary point of view in order to convey information in a convenient manner. But what information would that be? If it is that the universe is 10 billion light-years in diameter, then how is the picture of a sphere necessary? The size of the diameter is conveyed not by the sphere but by the caption. As for the shape of the universe, no one believes that the universe is a sphere of the sort depicted, which has an "edge" a certain distance from the center. If we say that the radius of the universe is five billion light-years, then an object that travels 4,999,999,999.999999999 light-years from the center in any direction would remain within the border of the universe, but an object that travels 5,000,000,000.000000001 light-years from the center in any direction would end up outside the border of the universe, assuming that there could be a place. This would imply a sudden end to the universe, an edge beyond which it would cease to exist. So the only information that Landy's sphere conveys is the false information that there is a place from which to view the universe some 60 billion light-years away. Far from being convenient ways to convey information, all depictions of the universe from without will be found, upon analysis, to purchase convenience at the expense of truth.

In "Inflation in a Low-Density Universe," in the January 1999 *Scientific American*, Martin Bucher and David Spergel speak frankly of the "impossible perspective" of such pictures of the universe. Then they draw their own. They even discuss the perspective of "exterior observers" of an "infinite universe." They do not explain who these observers might be.

Not all cosmologists draw pictures outside the universe. Still, pictures of the universe from without are common, and not just in the politically and philosophically correct *Scientific American*. Students are taught to imagine

looking upon the universe from outside it. They are generally not taught the impossibility of such a point of view, so those who go on to become physicists and astronomers have a long habit of adopting a point of view that in reality cannot exist. It is a habit they rarely break. The textbook *Astronomy Today* by Eric Chaisson and Steve McMillan depicts the universe, which it says has a diameter of 10^{28} mega parsecs, as a $2^{1/2}$ -inch sphere, implying a point of view 6×10^{28} mega parsecs outside the universe. The University of Michigan's Windows to the Universe Website depicts the universe as a $1/2$ -inch sphere, implying a point of view 300 billion light-years outside the universe.

According to St. Paul, the existence of God is obvious, "plain" even to the ungodly (Rom. 1:19). God's "eternal power and deity" are "clearly perceived" in "the things that have been made" (Rom. 1:20). Scientists, as experts in the things that have been made, should have an especially clear perception of God's eternal power and deity.

How, then, do we explain scientists and other people who say there is no God? Or people who profess to be agnostic? Or people who, though calling themselves believers, live as if there were no God? We could say that atheists, agnostics, and worldly Christians simply hate God; that, like devils, they know well enough that God exists but have placed themselves in futile opposition to what they recognize as His eternal power. There is some truth to this explanation, but surely we encounter far more indifference to God than hatred. A widespread obliviousness seems to rule the day. Whatever hatred lies concealed by this obliviousness is incapable of explaining the entire abandon with which so many hurl themselves into spiritual peril.

Of course, we could say that St. Paul is mistaken - and destroy the authority of Bible and Tradition. Romans 1:20 is the pre-eminent rationale for Catholic natural theology, and St. Paul's words are clear enough for any biblical literalist. If St. Paul is in error, that would wreck Catholicism, orthodox Protestantism, and Eastern Orthodoxy.

The more we learn about the universe, the more oblivious to God we seem to become. So our dilemma grows with the growth of science. How is it possible for eminent scientists, who know so much about the universe, to know so little

about God's eternal power and deity? Why do we not hear great choruses of scientists singing praises of the Most High?

The easy thing to do would be to anathematize St. Paul as an archetypal white heterosexual male. The hard thing would be to trace how the plain, clearly perceived knowledge of God is suppressed (Rom. 1:18). Still harder is to trace how the plain, clearly perceived knowledge of God is suppressed even by those who do not wish to suppress it, by those who have dedicated their lives to the service of God ? to explain how believers nonetheless suffer perplexity and doubt.

God is hidden, although He is in plain view. But for many scientists, God's eternal power is attributed, not to God, but to the cosmos or universe. Eternal power is plain and clearly perceived, but now as the eternal power of the universe. Hence, all the attempts to rid cosmology of that pesky Big Bang. The perception of God's eternal power and deity is blotted out. The ungodly see them as clearly as the most prostrate saint. But the minds of the ungodly are a jumble of perceptions of God and perceptions of the universe, while the saint can tell them apart.

Some of the schizoid scientific attitude, at once materialist and New Age, is captured in a curious incident recounted by Martin Rees in his book *Before the Beginning*: "When [Stephen] Hawking received an honorary degree from Cambridge, the Orator quoted the encomium of Epicurus by Lucretius: 'The living force of his mind overcame and passed far beyond the flaming ramparts of the universe, traversing in mind and spirit the boundless whole.'" What we have here is the praise of one atomist by another echoed by the praise of one materialist by another, with *atomist and materialist praised with what can only be religious fervor*. Lucretius and Rees share the feeling that great intellects such as Epicurus and Hawking somehow transcend the material world, that there is something divine about them.

That Hawking does indeed consider himself "far beyond" ordinary universe-bound mortals can be seen in *A Brief History of Time*, where he portrays the universe as a 1 1/4-inch sphere, implying thereby a vantage point 120 billion light-years outside it.

How scientific idolatry and pride blot out perception of God's eternal

power and deity is the subject of this essay.

Contemporary science suffers a fatal contradiction. The things that have been made give evidence of God. Therefore, the more we know about the things that have been made, the more evidence we have of God. As long as scientists construe the scientific method as requiring that there be no talk of God, they will be compelled to suppress the evidence of His existence. Clearly, science cannot suppress evidence and remain science. And there is more and more evidence to suppress: an apparent beginning of the universe, proof that evolution cannot occur by chance, the fine-tuning of the universe for life.

But the more evidence of God that scientists find, the more vehement are their denunciations of religion. The more reason they have to believe in God, the less they do. The more they discover, the more they have to explain away. The more they perceive their discoveries to have metaphysical significance, the less objective they tend to be. The more their telescopes, particle accelerators, electron microscopes, and computers declare the glory of God, the more contorted are their rationalizations. The more reason they find to be humble, the more presumptuous they become.

Science has been transformed from an institution in search of the truth into one dedicated to explaining away the truth it finds. Eventually, scientists will tire of their Sisyphean labors, sit down on the stone, wipe the sweat from their reddened faces, and abandon their burden at the bottom of the hill.

Linde, who is not at all anomalous, exemplifies how destructive the suppression of scientific conscience can be. The universe is fine-tuned for life. Since tuning implies a Fine-Tuner, but since the philosophy of science has ruled God out *a priori*, there can be no Fine-Tuner. Therefore there must be an infinity of other universes, tuned in an infinity of ways. Only then, presumably, can there be fine tuning without a Fine-Tuner. There can be either God or an infinity of other universes, so there must be an infinity of other universes, must be an "eternally existing, self-reproducing inflationary universe."

But the notion of an infinity of universes is predicated on the fear of a Fine-Tuner. Take away fear of the Fine-Tuner, and an infinity of universes loses its fascination.

It is not necessary to draw pictures of the universe from without, however, to assume an extra-universal, that is, divine point of view. Drawings of universes billions of light-years below our Olympian heights are merely clues to the criminal metaphysics practiced today.

Understanding modern criminal metaphysics, which is far more pervasive than the impossible perspectives of drawings of the universe from without, is not an intellectual challenge, but a moral one. It requires courage and humility. It requires a ceaseless rejection of the insubstantial pleasure of adopting a pseudo-divine point of view, a point of view adopted by many, if not most, people every moment of every day.

Modern criminal metaphysics has its roots in heretical Christianity and secularizing philosophy, but it did not become official doctrine until Albert Einstein popularized it in 1905 with the publication of the Special Theory of Relativity. Ironically, Einstein, who is said not to have been much of a student, learned it from his teacher Hermann Minkowski.

Einstein built a rock house on sandy ground, sound physics on unsound metaphysics, but today all the public sees is rock house. Minkowski is forgotten and Einstein is widely thought to be the inventor of space-time, a dogma that implies a divine point of view.

A space-time diagram plots events on a Cartesian coordinate system. One axis is temporal, and either one or two axes are spatial. Because paper has a two-dimensional surface, allowing one temporal and one spatial dimension, a second spatial dimension can only be suggested, as a two-dimensional painting can suggest depth and thus three dimensions. Because we can see in only three dimensions, a true four-dimensional space-time diagram is impossible to draw or

visualize, which already suggests that only a mind greater than our own could perceive a truly four-dimensional universe, the universe required by space-time.

We would also have to be able to "see" a span of time in an instant in a manner analogous to the way we can see a span of distance in an instant. So if there is an audience appropriate to a space-time diagram, it is an audience not simply more intelligent than we are, but one in a fundamentally superior relationship to the material world, an audience that can survey in one glance events far apart in time, a divine audience.

Einstein's own student, John Archibald Wheeler, according to Martin Rees "an inspiration to successive generations of physicists" and inventor of the term "black hole," states unambiguously that "the paper picture of space-time [a space-time diagram] is a lie!" Like Bucher and Spergel, Wheeler is honestly dishonest, and his *Space-time Physics* is filled with the space-time diagrams he forthrightly calls lies.

There is no "now" on the temporal axes of most space-time diagrams; they are temporal axes without past, present, and future. In other words, they are temporal axes without time. (Some spacetime diagrams do depict a "now." But it is not really a "now. ") Space-time diagrams cannot portray a true "now," cannot portray past, present, and future, cannot portray time. They imply, therefore, an observer for whom time does not exist: a supernatural observer.

Time is a universal phenomenon. That is, time pertains to the universe in its entirety and to the universe alone. No part of the universe is immune from time. So a space-time diagram, which freezes our throbbing universe into an immobile image, robs it of time, removes it from the temporal realm, making it divine and making its observer divine. A space-time diagram removes all movement from the universe, and to do so, it must either remove the movement by taking a still picture of the universe (in which case it would no longer be a space-time diagram) which must encompass a span of time longer than an instant, or remove the movement by removing everything that moves, and since everything in the universe moves, by removing the universe from the universe, leaving only God and the angels. It must either cease to be a space-time diagram or cease to be a depiction of anything material. In the latter case, all that is left to populate the diagram and its observer are divine beings. We are left with an infinitely

inadequate image of God's eternal vision.

When we view a space-time diagram, we are presumably stationary with respect to the events portrayed on it: We do not move along the spatial axes. But we do "move" along the temporal axis. If we should treat the temporal dimension as truly spatial, it would be as if we were viewing the diagram while moving steadily past it, as if, for example, we were walking past it while someone held the diagram out for us to see. The appropriate audience for a space-time diagram, then, is an audience that does not move in time, a divine audience.

The scientist who draws a space-time diagram assumes divinity; when we look at it and accept it, we accept its flattering statement that we too are divine. The scientist flatters himself, and we accept his flattery of us. We both prefer pride to the truth.

Space-time diagrams are sometimes combined with pictures of the universe from places outside it to create a doubly impossible, doubly deceitful sin of the eyes. The diagrams of Linde, Bucher and Spergel, and Hawkins are of this sort, as is the cover of *The Five Ages of the Universe: Inside the Physics of Eternity* by Fred Adams and Greg Laughlin, a book that purports to foretell the future of the universe from now to eternity. The cover depicts the universe at various ages as small spheres superimposed on what appears to be the spring of a clock. From the dizzying height of hundreds of billions of light-years, we see at a glance the universe at ages separated by so much time that 10 billion years is not even a blink of an eye in comparison.

In the 16th century there arose in France the theory of the Three Unities of dramatic composition. Extrapolated from Aristotle, the theory required that a play exhibit unity of action, time, and place. Even playwrights sympathetic to it found the theory confining, which in its strictest form requires that the length of time of the events portrayed in the play equal the length of time of the play itself and that the stage represent but one place. A play should appear to spectators much as actual events would appear to them. A play about World War II would have to last four years. The Three Unities presuppose a human audience.

But our movies and television shows impute to us divine powers of observation. One minute we are in New York and the next in Los Angeles. We can see an adult one minute and the same person as a child the next. In *2001: A Space Odyssey* we see a proto-human throw a bone into the air and an instant later see a manned spacecraft on the way to the moon.

Both space-time diagrams and modern entertainment presuppose an observer who can see at a glance events widely separated by space and time. Both assign to us a divine role. Both give us a "God's-eye" view of the universe. Both appeal to our pride.

Science cannot justify looking upon the universe from a place outside it. As presently constituted, science cannot explain *why* scientists would look upon the universe from without, either in the crude physical sense of looking upon it from a nonexistent place outside it, or in the metaphysical sense of looking upon it from a position of ontological superiority.

The reason that scientists look upon the universe from a position of ontological superiority is that they are, in a sense, ontologically superior. All people are. People are body and spirit. Scientists do not recognize spirit, however, and thus cannot explain why they act ontologically superior: They are ontologically superior but do not believe in ontological superiority. They construe evidence of their ontological superiority as a manifestation of an inadmissible religious contamination of science. Instead of frankly acknowledging their superiority, they dream up unscientific and irreligious travesties of that superiority, for example, space-time.

Having denied the ontological superiority they in fact possess, they claim it implicitly, so they can be superior without having to pay homage to the divine order that creates that superiority. Furthermore, they deny the ontological supremacy of God, which they do not possess, while implicitly claiming it, so they can be supreme without having to pay homage to the God who possesses it.

Scientists cannot justify a perspective they cannot fail to adopt. Natural

reason tells them that they are ontologically superior to the purely material world. It tells them that they themselves cannot be explained in purely material terms. As ontologically superior, as both body and spirit, they must look upon the world in a way that transcends their materiality. They cannot look upon it in the way a purely material being would, for they are not purely material. They believe, however, only in matter. They do not believe in spirit.

This is not a brief for French theorizing, which entirely misses the point of art. For thousands of years poets prayed for divine inspiration. They began their epics with invocations of the Muses. The religious nature of art was commonplace.

We do not put our souls in jeopardy by watching Shakespeare. There is, however, a fundamental difference between Shakespeare's stage and the modern one. Shakespeare knew that he was assigning a divine role to the audience. Shakespeare knew that his creative activity was a tenuous reflection of God's creation and providential guidance of the world.

Bernard Becker, in an essay in *William Shakespeare: The Complete Works*, explains how the stage at Shakespeare's Globe Theatre figured the universe, and the audience sat outside that stage-universe:

In the fullest sense, the stage itself was an emblem of the universe. The loft above the stage, located under the shadow or half-roof, was termed the "heavens." Out of it gods might drop. The space beneath the stage was the hell out of which devils might spring. A trap in the center of the platform provided access from below...Between heaven and hell rose the facade of earthly life. Just as we never quite lose the sense that we are peeping into someone's home in the picture-frame theatre, so, we might suppose, the Globe audience never quite shook off the impression that it was witnessing events on a "more universal stage" than the one it sat before.

The audience sits outside the stage-universe much as the implicit audience of

a space-time diagram looks upon the diagram-universe from without. Shakespeare's audience, however, is aware not only of its ontological superiority to the material universe *but also of its ontological inferiority to God and the angels. The scientists retain the superiority but omit the inferiority.* They do so by omitting all reference to spirit while looking on the universe from without, as if they were spirit. They implicitly retain their own spirits while denying spirit to the angels and God.

There is something divine about reason. So when we reason, we use a divine instrument, whose source is God. No matter how mundane our thoughts, they are divine when they are true. That means that we do not own our thoughts. We are responsible for them, but that responsibility includes thanking God for our knowledge of the truth, our appreciation of beauty, and our love for one another. That we can solve a problem in mathematics is no reason for boasting, for to God belongs both the mathematics and our understanding of it. Scientific materialists have stolen credit from God. They praise themselves as the fount of truth, beauty, and love, and they refuse to thank God for them. Modern criminal metaphysics is a metaphysics of theft.

Sacred writings, the dialogues of philosophers, and literary masterpieces tell us that we are outsiders in a material world; that all understanding is from above; that we are in the world, but not of it; that we are both participants in this world and spectators; that we are spiritual pegs in material holes; that we are strangers in a strange land, pilgrims against the day of our return.

Ultimately, we are incapable of adopting a perspective that is not divine. God is divine, but Satan is too ? in a sense. Heaven is outside, and Hell is outside. What is crucial is whether, while remaining in the body, we, so to speak, look down from Heaven or we look up from Hell.

The public should not look to scientists for inspiration. Christians are right to say that religious truth and scientific truth must ultimately prove consistent. Just as the Constitution is not whatever the Supreme Court says it is, so science is not whatever scientists say.

The World, the Flesh, and the Devil have collaborated on a charming little fairy tale that lulls Christians to sleep like a lullaby and a goodnight kiss: You can enjoy the benefits of both science and religion, soothe the enemies of both. You

can go to those quaint churches of yours on Sunday morning, but we scientists will enrapture you with dazzling technological marvels. We will ease your pain, assuage your guilt, conquer your neuroses, increase your self-esteem, whiten your teeth, improve your memory, remove your fat, enable you to realize your potential, wake you up, put you to sleep, beautify your nose, alter your mind, expand your consciousness, replace your parts, give you hallucinations, take away your hallucinations, prescribe you day-after pills, unlock the secrets of the universe, put you in orbit, fly you to the moon, and make you stand in awe, while all that Jesus offers you are a few nails, a couple of splintery boards, and a scratchy hat. He turned us down when we made him the same offer, but we know that you are too intelligent to make His mistake. Most people do not expect religion to fare very well in competition with scientific advance. But science cannot advance indefinitely without first moving to a house with a solid foundation. God is as essential to the salvation of science as He is to the salvation of individual souls. Science was built by the sons of Abraham, and they will have to repair it.

People expect science to advance because they confuse science and technology. Technology makes machines; science seeks the truth. IBM is a company in the technology sector; NASA is supposed to be a scientific organization. IBM - or a nimbler competitor - will likely continue to produce better and better computers and software, but NASA has an almost presidential regard for the truth.

I vividly remember the intense curiosity about the natural world that my fellow students and I felt. But now, when students are asked their motivation for becoming scientists, they often say, "I want to save the rain forests," "I want to fight AIDS," and "I want to preserve the environment." Truth as the goal of science has been replaced by technological concerns, if not outright ideology. Ends like these may not be evil, but they are not scientific ends, which are truths.

"What is truth," these young scientists ask themselves, "compared to saving the planet?" But what does it profit a man if he gains the whole world and lose his own soul? And who is it who says that we would gain the whole world anyway?

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