

A Review of *Mind and Cosmos: Why the Materialist Neo-Darwinian Conception of Nature Is Almost Certainly False* by Thomas Nagel

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By Thomas E. Woodward

Facing Reality; Grasping at Teleological Straws

Thomas Nagel, a household name among philosophers of our era, has produced an astonishing bombshell of a book--*Mind and Cosmos*--which continues to send tremors through the world of evolutionary biology (if not all of science),ⁱ even more than a decade after its first appearance in 2012.

Reading this slender manifesto--less than 130 pages--was an exciting adventure of learning for me, and it propelled me back to a haunting phone interview I had had with Nobel Laureate George Wald, professor emeritus at Harvard University.ⁱⁱ To properly frame Nagel's ideas, let me share that memory.

The purpose of my 1988 call was to see if Wald was standing firm on his shocking turnabout of thought, claiming a central role for "mind" in understanding the cosmos. I found Wald to be enthusiastic about his change of mind. He was animated as we discussed his 1984 article "Life and Mind in the Universe,"ⁱⁱⁱ in which he veered radically from his role as a champion of naturalistic scenarios of life's origin. (Many remember Wald for his article "Origin of Life," in the May, 1954 issue of *Scientific American*. Assembling the first cell from simple chemicals, said Wald, was no barrier for nature; "time is the hero of the plot." Given enough time, he asserted, the impossible becomes possible, and the possible becomes probable.^{iv})

In the intervening 30 years, new ideas had crept into Wald's thinking, leading him to elevate *mind* as a fundamental key to reality. Just listen to his 1984 "Life and Mind..." abstract: "*Consciousness seems to me to be wholly impervious to science. It does not lie as an indigestible element within science, but just the opposite: Science is the highly digestible element within consciousness, which includes science as a limited but beautifully definable territory within the much wider reality of whose existence we are conscious.*"

Wald then pivots to the "fine-tuning of the universe" and points to the role of mind there also:

*How is it that, with so many other apparent options, we are in a Universe that possesses just that peculiar nexus of properties that breeds life? It has occurred to me lately—I must confess with some shock at first to my scientific sensibilities—that both questions [consciousness and cosmic origins] might be brought into some degree of congruence. **This is with the assumption that mind, rather than emerging as a late outgrowth in the evolution of life, has existed always, as the matrix, the***

source and condition of physical reality—that the stuff of which physical reality is composed is mind-stuff. It is mind that has composed a physical Universe that breeds life, and so eventually evolves creatures that know and create: science-, art-, and technology-making animals. In them the universe begins to know itself.

So Wald maintained an evolutionary scenario of development, but definitely parted ways with Darwin. He gave a decisive, though mysterious (vague) role to an independently existing “mind” behind it all. There was no hint of having embraced theism; he did confess to being influenced by Eastern religious philosophy.^v

Wald’s Speculation Comes of Age in Nagel

Fast forward to June, 2012. The internet is buzzing, because Thomas Nagel, a highly respected philosopher who is accomplished in topics as diverse as law and animal consciousness, is publishing a bombshell. **This book, so very reminiscent of Wald’s ideas, proposes that scientists launch a new system of explanation, a whole new mind-friendly Weltanschauung which will carve out a place for purposeful “teleological principles” to account for the many phenomena that neo-Darwinism has failed to explain. Those puzzles include the biological realities of the origin of life (including the origin of advanced animal diversity and complexity). Also on the list are three mental phenomena in Nagel’s area of specialization: consciousness, cognition, and values.**

Nagel’s outspoken stance was not a complete surprise. He had already sent out some anti-Darwinian signals, including an article, “Public Education and Intelligent Design.” Fortunately, the criticism he received for his pro-ID comments did not deter him from fleshing out a book length treatment of his thought.^{vi} It’s slender (126 pages of text), and Oxford University Press dared to use the title *Mind and Cosmos: Why the Materialist Neo-Darwinian Conception of Nature is Almost Certainly False*. **The shock of the title is boosted by the fact that a renowned philosopher who says his atheism is as strong as ever would so openly challenge the assumption that scientific materialism and Neo-Darwinism provide robust explanations for the origin and diversity of life.**

In the book’s introduction, Nagel voices sympathy with the skepticism of “reductionism” in science that is expressed by leading intelligent design scholars. **As an atheist, he does not accept ID’s proposed solution—an intelligent cause—but strongly appreciates ID scholarship.** What’s more, he has evaluated the responses from the Darwinist side, and has found them wholly unconvincing. This comment is typical:

“In thinking about these questions I have been stimulated by criticisms of the prevailing scientific world picture from a very different direction: the attack on Darwinism mounted in recent years...by the defenders of intelligent design. Even though writers like Michael Behe and Stephen Meyer are motivated at least in part by their religious beliefs, the empirical arguments they offer against the likelihood that the origin of life and its evolutionary history can be fully explained by physics and chemistry are of great interest in themselves. . . . Even if one is not drawn to the alternative of an explanation by the actions of a designer, the problems that these iconoclasts pose for the orthodox

scientific consensus should be taken seriously. They do not deserve the scorn with which they are commonly met. It is manifestly unfair.

So there are huge problems that the academic orthodoxy has swept under the explanatory rug—major realities that can't be explained by appeal to laws of physics and chemistry and the like. Among Nagel's key issues (once more) are these: (1) a credible explanation for life itself (beginning with the horrendous complexity of a single cell), (2) animal consciousness, and then (3) reason and cognition—verifying and embracing what Nagel calls “correct answers.”

At this point, when arguing for the transcendent reality of cognitive thought, Nagel is at his best. In his chapter “Cognition” he concludes, “This then, is what a theory of everything has to explain: not only the emergence from a lifeless universe of reproducing organisms and their development by evolution to greater and greater functional complexity; not only the consciousness of some of those organisms and its central role in their lives; but also the development of consciousness into an instrument of transcendence that can grasp objective reality and objective value.”

To read Nagel's discussion of reductionist science accounting for these parts of nature is a déjà vu moment, turning one back to the discussions of C. S. Lewis in the opening chapters of his book *Miracles*. Those chapters point to human reason as a strong clue for a theistic worldview—a perspective which views “nature” as sitting side by side with “supernature,” where Reason has its ultimate home in the Uncreated Creator of nature.

In fact, the similarity of Lewis's critique of naturalism (in dealing with the reasoning ability of our minds), and Nagel's critique of naturalism nearly seventy years later, is quite striking. Yet what is equally striking is how widely the two writers diverge in the proposed solution. On the one hand, Lewis points to a great primordial source of Reason—the God of supernature—from whom our smaller (derivative, and rather intermittent) human reasoning ability comes. Nagel on the other hand admits to a strong aversion to theism, and thus prefers instead the idea that “mind is not just an afterthought or an accident or an add-on, but a basic aspect of nature.” In other words, mind is part of a newer, radically expanded notion of nature. It is when reading such lines that I felt the strong connection with Wald's odd scientific heresy expressed in the 1980s, which likewise saw a princely role of *mind* in the hierarchy of nature, but which balked at the theistic hints. (This view is now commonly called “panpsychism” because of its foundational idea of a consciousness that spreads everywhere in the cosmos.)

In effect, having tossed aside the notion of a personal designer and ruler of nature, Nagel seeks to inaugurate a new philosophical-scientific program of discovering the exact nature of this distributed mind. As to his rejection of theism, he never articulates the reasons why, but one can fill in the blank somewhat by reviewing his expressed “fear” of the existence of God, found in his 1997 book *The Last Word*.^{vii} His longing for a single fabric of nature, with mind and matter somehow interwoven together as part of a great intelligible unity, recalls the vision of Wald, and this move is understandable. At the same time, Christian philosophers would argue that a Biblical worldview can provide an equally elegant explanation—a hierarchical unity of “Creator with His created cosmos.”

So here we face an explanatory stalemate with Judeo-Christianity on the one side, and Wald-Nagelanity on the other.

Yet the stalemate is broken two ways. First, one can ask, “Where is Nagel’s careful evaluation of the theistic option?” Sadly, it is nowhere to be found, just as Wald declined to broach the subject. Secondly, the stalemate is broken by the incoherence of Nagel’s sketched system of mind-principles. In what sense would such embedded mind-like principles really deserve the label “mind” at all? He is suggesting the existence of a distributed non-material mind stuff (spirit?) and if such a thing exists, what are its theistic and non-theistic characteristics? Ultimately, what is it about this mysterious realm truly merits that name “mind”?

From the vantage of natural history, if there is a hypothetical effective mind that (as Nagel says) can influence the choice of an ideal set of chemical letters to form coherent genetic information, so as to create life and higher animal brain complexity, then why would such a mind choose to crawl through the painstaking process of gradualistic evolution in the first place, to produce that variety of life? Also, why would Nagel maintain such a “descent with modification” scenario—one that the fossils so dramatically fail to document at the highest taxonomic levels--the phyla?

In spite of these reservations with Nagel’s proposed solution, his book marshals a powerful and unforgettable set of arguments. His table holds a scrumptious mind-feast that should stir wide discussion, both in the academic towers of philosophy and science, as well as the halls of theology, apologetics and ethics. *Mind and Cosmos* should be mandatory reading for anyone who wants to understand why Darwinism now is exhausting its explanatory powers. It does its part in “arousing from dogmatic slumber” (thank you, Kant!) anyone who assumes that all is well in Darwin-land. We are witnessing the reincarnation—and further development--of George Wald’s heresy that just wouldn’t go away.

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ⁱ See “**The Heretic**,” the March 25, 2013 cover story of the *American Standard*, where Nagel is burned at the stake for his heresy by his fellow atheists. See here: http://www.weeklystandard.com/articles/heretic_707692.html

ⁱⁱ Wald’s research garnered the Nobel Prize in Medicine for elucidating the “vision cascade” that enables a rod or cone cell to convert a photon into an electrical signal. (This system is beautifully described in *Darwin’s Black Box* by Michael Behe.)

ⁱⁱⁱ This article was published in 1984 in the *International Journal of Quantum Chemistry*.

^{iv} The full quote from the May, 1954 article by Wald is as follows: **“Time is in fact the hero of the plot. The time with which we have to deal is of the order of two billion years. What we regard as impossible on the basis of human experience is meaningless here. Given so much time, the ‘impossible’ becomes possible, the possible probable, and the probable virtually certain. One has only to wait: time itself performs the miracles.”**

^v When Wald discussed his views in a 1986 talk at the Marine Biological Laboratory in Woods Hole, many scientists in attendance quietly scoffed, but some were receptive. I possess a copy of a letter from biologist Jay Roth to Michael Denton,

in which he recounted his attending Wald's talk and gives his sense of the audience reaction. Roth himself was positive, unlike the majority who indicated a lack of enthusiasm for Wald's thesis.

^{vi} That Nagel would provoke the scholarly world did not come as a total shock to those who followed his 2008 piece "Public Education and Intelligent Design," an essay not just sympathetic to ID scholarship, but also strongly critical of Judge John E. Jones's judgment in December, 2005 in the "Kitzmiller Case" in Dover, Pennsylvania. It was Nagel's endorsement that landed Stephen Meyer's "Signature in the Cell" as one of the "Books of the Year" in the Times Literary Supplement in London.

^{vii} In *The Last Word*, pp. 130-131, Nagel says (with my bold italics added), "In speaking of the fear of religion, I don't mean to refer to the entirely reasonable hostility toward certain established religions and religious institutions, in virtue of their objectionable moral doctrines, social policies, and political influence. Nor am I referring to the association of many religious beliefs with superstition and the acceptance of evident empirical falsehoods. ***I am talking about something much deeper—namely, the fear of religion itself. I speak from experience, being strongly subject to this fear myself: I want atheism to be true and am made uneasy by the fact that some of the most intelligent and well-informed people I know are religious believers. It isn't just that I don't believe in God and, naturally, hope that I'm right in my belief. It's that I hope there is no God! I don't want there to be a God; I don't want the universe to be like that.***"

Twenty Key Quotes from "Mind and Cosmos"...

"The aim of this book is to argue that the mind-body problem is not just a local problem, having to do with the relation between mind, brain, and behavior in living animal organisms, but that it invades our understanding of the entire cosmos and its history." (p. 3)

"For a long time I have found the materialist account of how we and our fellow organisms came to exist hard to believe, including the standard version of how the evolutionary process works." (5)

"It seems to me that, as it is usually presented, the current orthodoxy about the cosmic order is the product of governing assumptions that are unsupported, and that it flies in the face of common sense." (5)

"It is *prima facie* highly implausible that life as we know it is the result of a sequence of physical accidents together with the mechanism of natural selection. We are supposed to abandon this naïve response, not in favor of a fully worked out physical/chemical explanation but in favor of an alternative that is really a schema for explanation, supported by some examples. What is lacking, to my knowledge, is a credible argument that the story has a nonnegligible probability of being true." (6)

"I realize that such doubts will strike many people as outrageous, but that is because almost everyone in our secular culture has been browbeaten into regarding the reductive research program as sacrosanct, on the ground that anything else would not be science." (7)

“Doubts about the reductionist account of life go against the dominant scientific consensus, but that consensus faces problems of probability that I believe are not taken seriously enough, both with respect to the evolution of life forms through accidental mutation and natural selection and with respect to the formation from dead matter of physical systems capable of such evolution.” (9)

“Whatever one may think about the possibility of a designer, the prevailing doctrine—that the appearance of life from dead matter and its evolution through accidental mutation and natural selection to its present forms has involved nothing but the operation of physical law—cannot be regarded as unassailable. It is an assumption governing the scientific project rather than a well-confirmed scientific hypothesis.” (11)

“If the mental is not itself merely physical, it cannot be fully explained by physical science.” (14)

“The interest of theism even to an atheist is that it tries to explain in another way what does not seem capable of explanation by physical science.” (22)

“Yet the ambition [of transcendence] appears to be irresistible—as if we cannot legitimately proceed in life just from the point of view that we naturally occupy in the world, but must encompass ourselves in a larger world view. And to succeed, that larger world view must encompass itself.” (23)

“Evolutionary naturalism implies that we shouldn’t take any of our convictions seriously, including the scientific world picture on which evolutionary naturalism itself depends.” (28)

“We have not observed life anywhere but on earth, but no natural fact is cosmologically more significant.” (32)

“Consciousness is the most conspicuous obstacle to a comprehensive naturalism that relies only on the resources of physical science. The existence of consciousness seems to imply that the physical description of the universe, in spite of its richness and explanatory power, is only part of the truth, and that the natural order is far less austere than it would be if physics and chemistry accounted for everything. If we take this problem seriously, and follow out its implications, it threatens to unravel the entire naturalistic world picture.” (35)

“Materialism is incomplete even as a theory of the physical world, since the physical world includes conscious organisms among its most striking occupants.” (45)

“The existence of consciousness is both one of the most familiar and one of the most astounding things about the world. No conception of the natural order that does not reveal it as something to be expected can aspire even to the outline of completeness.” (53)

“Since moral realism is true, a Darwinian account of the motives underlying moral judgment must be false, in spite of the scientific consensus in its favor.” (105)

“In the present intellectual climate such a possibility is unlikely to be taken seriously, but I would repeat my earlier observation that no viable account, even a purely speculative one, seems to be available of how a system as staggeringly functionally complex and informationally-rich as a self-reproducing cell, controlled by DNA, RNA, or some predecessor, could have arisen by chemical evolution alone from a dead environment. Recognition of the problem is not limited to the defenders of intelligent design.” (123)

“What I am convinced of is the negative claim that, in order to understand our questions and judgments about values and reasons realistically, we must reject the idea that they result from the operation of faculties that have been formed from scratch by chance plus natural selection, or that are incidental side effects of natural selection, or are products of genetic drift.” (125)

“It would be an advance if the secular theoretical establishment, and the contemporary enlightened culture which it dominates, could wean itself of the materialism and Darwinism of the gaps—to use one of its own pejorative tags. I have tried to show that this approach is incapable of providing an adequate account, either constitutive or historical, of our universe.” (127)

“I would be willing to bet that the present right-thinking consensus will come to seem laughable in a generation of two—though of course it may be replaced by a new consensus that is just as invalid. The human will to believe is inexhaustible.”
(128)