

**“Philosophy versus Science:
Must We Choose?”**

*Mind and Cosmos:
Why the Materialist Neo-Darwinian Conception
of Nature Is Almost Certainly False*
(New York: Oxford University Press, 2012)

By
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As this book’s subtitle suggests, the author proposes to demonstrate, through philosophic argument, that Darwinian explanations are not reliable sources for understanding key elements in nature. In fact, one might well reverse the order of title-and-subtitle so that the subtitle becomes the book’s main message, while both “mind” and “cosmos” are to receive alternate explanations. However, as my present commentary will suggest, the philosophic issues and arguments are somewhat more complicated and subtle than implied by the book’s title-and- subtitle alone.

The author, Thomas Nagel, is a well-known, widely respected philosopher, author of several notable books, winner of prestigious awards for his work, and whose ideas resonate positively in academic circles. While his views in this book often project a philosophy-establishment flavor, Nagel’s analysis of natural phenomena does stray rather farther afield from generally accepted understandings of fellow philosophers. For all these reasons, one should pay close attention to, and respect, the novel arguments presented.

The book is of modest proportions: six short chapters, 128 text pages plus a two-page index, and thus is readily accessible. What might be called “philosophy talk” may occasionally send readers, including this one, to the dictionary or encyclopedia for fuller definitions, but the central ideas emerge without great difficulty.

Nagel’s central theme is that neither mind nor cosmos can be fully understood as the outcome of Darwinian natural selection. Other factors, some of them nature-based or nature-derived, are thought to be present and active, thus generating consciousness, cognition, value, and the entire natural order itself. For example, he speaks of “other elements”, “some other factors”, or says that “physical law alone” is an “improbable” explanation of genetic coding. He proposes that these “other” factors “were inherent in the universe long before there was life, and inherent in early life long before the appearance of animals.” That’s quite a claim, which deserves closer attention (see below). So, from the book’s very beginning, Nagel offers readers a

choice between an evolutionary Darwin-like explanation versus a broader, more inclusive account of life, mind, and cosmos.

Five main ideas anchor Nagel's argument: anti-reductionism, consciousness, cognition, value, and teleology. My capsule accounts here attempt to capture the essential meaning of each idea.

Anti-reductionism. As noted above, Darwinian evolutionary explanations based on the analysis of physical, chemical, and biological components are *reductionist* and therefore incomplete. The term, *reductive*, means to reduce, or parse, a whole entity into its most basic individual parts so as to explain how the whole entity functions. An example would be the human brain which is composed of some 100 billion neurons: a reductive analysis would involve identification of how individual neurons and their intertwined networks generate ideas, thoughts, reason, and values. However, for Nagel, reductive studies do not tell the whole story because "there is more to reality" than physical-chemical-biological analysis can discover among such a complex set of neurons; "the mental is not itself merely physical" and "cannot be fully explained by physical science" because the brain's overall functions "are not physically reducible" (pp. 14-15). When this extra-physical condition occurs, the term, *reductionist*, rather than *reductive*, is used by Nagel (fn. 14, p. 54). Thus, the term, ***anti-reductionism***, implies the presence of these extra-physical components that should be recognized and included in the analysis. It would be easy to read this view as a spiritual-like interpretation, although Nagel rejects theism, intelligent design theory, the presence of a "transcendent individual mind" or "a perfect being," and identifies himself as an atheist (p. 95). Rather, he seeks "an expanded but still naturalistic understanding that avoids psychophysical reductionism" (p. 32), saying that "if life is not just a physical phenomenon, the origin and evolution of life and mind will not be explainable by physics and chemistry alone" (p. 33).

Consciousness. Nagel's definition of "consciousness" is elusive: he seems to assume that consciousness is somehow separate from, or above and beyond, the merely physical components of the human mind. Following his anti-reductionist reasoning, he emphasizes "the irreducibility of conscious experience to the physical" (p. 68) and speaks of "the irreducibly subjective centers of consciousness." (p. 42) For him, consciousness and conscious experiences are completely *subjective* phenomena, i.e., personal and individual, and for that reason are not reducible to *physical* components of the human mind.¹ So, consciousness should be studied and understood in-and-of itself, although he believes it could be part of "an integrated naturalistic explanation of a new kind" (pp. 68-69). More about that in a moment.

Cognition. The principal, and distinctive, function of cognition, i.e., the mind, allows humans to explore realms of nature beyond *subjective* individual awareness that exhibit an *objective* reality. This trait, presumably not present in other organisms, is an expansion of consciousness to an *objective world view*, well beyond biological evolution *per se*, while also being aided by "a collective cultural process" (p. 71).

¹ Nagel often uses the terms *physical* and *materialist* interchangeably to emphasize the presence and importance of *extra-physical* and *extra-materialist* components excluded from Darwin-like reductionist analyses.

Value. Value, including moral judgment, is a natural feature of the world and is said to be inseparable from life, consciousness, and presumably cognition. Values are not an accidental side-effect of Darwinian evolution but are part of a much larger *cosmic propensity* to form creatures that recognize both good and bad aspects of life. In other words, values are, or become, inherent natural components of the universe. Such a propensity goes well beyond the ordinary John Deweyian instrumental values that guide day-to-day life and decision making. Nagel puts it bluntly by saying there is “*a cosmic predisposition* (emphasis added) to the formation of life, consciousness, and the value that is inseparable from them” (p. 123). Just how, and why, these cosmically-generated organic and normative components appear calls for further explanation.

Teleology. Although “teleology” usually means the presence of purpose or intention, Nagel believes that the concept of *natural teleology* can explain the presence of a non-purposive, non-intentional condition in nature. Natural teleology allows or permits the “temporal development” of natural phenomena whose pathways exhibit a kind of on-going naturalistic outcome with a “significantly higher probability than entailed by the laws of physics alone” (pp. 92-93). Such processes, having this “higher velocity,” produced organisms capable of consciousness, cognition, reasoning, and values, as “an irreducible part of the natural order” (p. 93). This natural teleological process reveals the universe “gradually waking up” (p. 117), and becoming “not only conscious and aware of itself but capable . . . of choosing its path into the future” (p. 124). Overlooking for the moment the presumed credulity of an entire universe “choosing its future path,” such an action sounds perilously close to exhibiting a teleological purpose or intention.

Some Questions from a Non-Philosopher

Nagel’s philosophic speculations about Mind and Universe are indeed imaginative, innovative, and far-reaching in their implications, but simultaneously they raise questions and create doubts about their veracity, or at least their completeness. Hence, the following comments identify some of the uncertainties that remain.

Issue One: The proposed presence of a temporal development process exhibiting differential rates of development, including a higher velocity for humans. This process presumably replaces Darwinian evolution as a prime organic change agent in nature.

Setting aside for the moment a similarity of these two change processes (see more discussion below), Nagel offers nothing but speculation to support his proposal: no evidence from observations, no demonstrable examples, no philosophic principles, not even a logical rationale, nothing whatsoever beyond pure speculative assertion. It might be assumed that the greater complexity of human organisms that manifest consciousness, cognition, and values would justify their presumed higher developmental velocity, although no such case is explicitly made.

Issue Two: The major conceptual components – consciousness, cognition, values – are either undefined or only partially defined.

Such treatment of *consciousness* may well be justified by the current limited and uncertain state of knowledge and theory about its meaning, function, and early emergence, as

well as its possible presence among different types of organisms. The processes of *cognition* and *reasoning*, on the other hand, have been greatly clarified by neuroscience research, which is largely ignored by the author. In an entirely (and admittedly) speculative sense, *values* are said to be linked to *all* forms of organic life, especially conscious life forms such as humans, due to a kind of “cosmic propensity” to do so. The source of, or reason for, such a cosmic-wide propensity is attributed to a natural teleological tendency to produce organisms that recognize values. Such a tautological explanation or justification provides no acceptable reason or rationale.

Issue Three: The presumption that consciousness, cognition (and therefore reasoning), and values are entirely subjective, personal, and individual phenomena, although *human* consciousness is said to have evolved to include an objective form of collective culture.

The author’s proclamation of subjective individuality may reflect a longstanding conceptual misalignment between philosophers and cultural anthropologists. If so, then philosopher Nagel is to be commended for at least a partial acceptance of the presence and behavioral influence of sociocultural elements. However, there continues to be an unexplained contradiction between what he calls the “irreducibly *subjective* centers of consciousness” and the subsequent “*objective*, world-encompassing form” that consciousness is said to manifest via collective cultural phenomena.

Issue Four: The depiction of the Universe as awakening, becoming consciously alive, and making choices about its future.

Such a version of the universe is totally unsupported by what has been discovered and revealed by astronomical research and observations of the universe. First of all, the only known organic life in the universe exists solely on planet Earth, which is located in our Solar System that is a miniscule part of our Milky Way galaxy, which is only one of billions and billions of other galaxies throughout the known universe. (The on-going search for extra-terrestrial life has been fruitless thus far.) Second, the extensiveness, breadth, depth, and dynamics of a still-evolving universe simply dwarf the contention that the universe itself exhibits life-like traits or that it displays a “mental character.” Not even the Earth itself does so, except through the actions of its multitudinous diverse organisms that have emerged, survived, and evolved over the past 10-billion years.² Third, nor are readers offered an explanation (beyond speculation) for the existence of an inherent order that “governs the natural world from within”, or that such potentials were present in the universe “long before there was life” and even “in early life before the appearance of animals.” Nagel does say that conscious beings are “*specific expressions . . . of the physical and mental character of the universe*,” which may explain but not justify his otherwise erroneous contention that the universe *per se* is an alive, conscious phenomenon. So, it would seem that it’s not the *universe* but the Earth’s *organisms* that are alive and conscious (at least, some of them are). Even then, however, organisms, both individually and collectively, including humans, have only a very limited (if any) capacity to “choose their future.”

² James Lovelock’s Gaia concept proposed that planet Earth is “alive” due to interactions between organisms and their environments – a metaphorical picture that misidentifies, distorts, and confuses cause-and-effect as well as organic activity occurring within geo-physical surroundings.

These four contentious issues may be somewhat offset or compromised by areas of seeming agreement or at least suggestive parallels of the two approaches advocated by Nagelian philosophers and Darwinian scientific researchers and theorists.

- Both seek a nature-based or nature-derived explanation of earthly and cosmic phenomena
- Both agree that a long-term historical/chronological process describes the appearance and development of organisms, including humans
- Both agree that cognitive reasoning, consciousness, and value-orientation are central components of human behavior
- Both agree – Nagel explicitly and Darwinians implicitly – that purposive or intentional theistic or transcendental beliefs provide inadequate accounts of human behavior and its evolution

One wonders, therefore, if agreement might one day replace the current, rather contentious differences of opinion and argumentation found in the literature of both philosophy and science. If so, that would call for Darwinians to be willing to consider the possible presence of broader and more comprehensive processes at work in the cosmos – and for Nagelian philosophers to embrace, rather than doubt, the empirical findings of natural scientists concerning the appearance and evolution of Earthly organisms.

Such an outcome could well be “a bridge to nowhere,” of course. But Nagel, the philosopher, is to be commended for his speculative views about yet-undiscovered cosmic possibilities, noting, perhaps correctly, that “the present right-thinking consensus will come to seem laughable in a generation or two.” When that point is reached, philosophers and scientists might well lift their glasses in a shared congratulatory toast to each other.