Thomas Nagel *Mind and Cosmos: Why the Materialist Neo-Darwinian Conception of Nature Is Almost Certainly False.* Oxford and New York: Oxford University Press 2012. x + 130 pages \$24.95 (hardcover ISBN 978-0-19-991975-8)

In this book, Thomas Nagel seeks to demonstrate that materialistic and evolutionary accounts of the mind fail. Given this failure, we must reconceive the whole scientific process so that it can explain the presence of minds, "since the problem cannot be quarantined in the mind" (53). In other words, given that minds are the end-product, we have to reverse engineer the process so that the beginning stages make it likely that they would eventually lead to minds. This means that the universe must be more than just physical objects, properties, and processes, there must be some sort of mental aspect, one that is present from the very beginning.

While Nagel thinks some of the criticisms offered against evolution by the Intelligent Design crowd harbor genuine insights (10–11), he remains "strongly averse" to the notion of God (12, n. 10), so he does not take this in a theistic direction. Rather, he argues that there must be teleological laws built into the universe in addition to the laws on which science has (hitherto) focused. This is not a denial of evolution itself, something Nagel remains convinced of (30), but of *materialistic* evolution. Anything less than teleology is bound to treat the mind as an accidental by-product of the struggle for survival.

Of course, many philosophers and scientists have no difficulty treating the mind as an accidental by-product. Nagel gives two reasons for his refusal to acquiesce. First, this is a failure to look for the right kind of explanation. He gives the example of several members of a family dying in close succession. "We may know the causes of the deaths ... but that will not explain why several members of that family died, as such, unless there is some relation among the causes of the individual deaths that makes it antecedently likely that they would strike the group—such as a vendetta or a genetic disease" (47–48). The way science is currently conceived, Nagel argues, is to explain the individual causes of death and then end any further discussion. But this cuts off the potential discovery of a larger explanation. Of course, this analogy only goes so far: the deaths may actually be a coincidence without any overarching explanation to unite them. The presence of minds, however, is a conspicuous and significant aspect of the universe, and "systematic features of the natural world are not coincidences" (47). To explain it away as an accident does not comport with the credit we ascribe to it.

Eventually the attempt to understand oneself in evolutionary, naturalistic terms must bottom out in something that is grasped as valid in itself, something without which the evolutionary understanding would not be possible. Thought moves us beyond appearance to something that we cannot regard merely as a biologically based disposition, whose reliability we can determine on other grounds. It is not enough to be able to think that *if* there are logical truths, natural selection might very well have given me the capacity to recognize them. That cannot be my ground for trusting my reason, because even that thought implicitly relies on reason in a prior way. (81) This leads to Nagel's second reason for rejecting the materialistic account: such a view is "radically self-undermining" (25, italics mine). "Evolutionary naturalism provides an account of our capacities that undermines their reliability, and in so doing undermines itself" (27). This is most evident with an area such as ethics. Many philosophers argue (and Nagel spends his final chapter of *Mind of Cosmos* agreeing with them) that when we explain our moral beliefs in an evolutionary manner, it voids their content. According to such an account, we do not believe that murder is wrong because murder actually *is* wrong, but because it was useful for our evolutionary forebears to believe it. But while some of Nagel's opponents argue that this renders our moral beliefs defunct, Nagel presents the *modus tollens* to their *modus ponens*. Our moral beliefs are valid, and if materialism is incompatible with this, it is materialism that must go.

Yet this problem applies far beyond ethics. "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). If all of our beliefs are subjected to evolutionary explanations, then they are just as empty as our moral beliefs. This may seem counterintuitive— wouldn't the propensity to believe truths about our environment promote survival?—but this would only apply to our senses, not to our rationality: "the judgment that our senses are reliable because their reliability contributes to fitness is legitimate, but the judgment that our reason is reliable because its reliability contributes to fitness is incoherent. That judgment cannot itself depend on this kind of empirical confirmation without generating a regress" (125). Materialistic evolution gives us a reason to reject all of our beliefs as veridical, including our belief in materialistic evolution itself.

Nagel's solution, the insertion of teleology into the natural order, would expand our concept of naturalism as well as science. This is an awkward position, however. To have causes directed towards an end without a mind to do the directing is difficult to hold together. The very concept of teleology seems to entail a directing mind, and the introduction of teleology into the universe as a whole suggests an overarching mind to the universe that is strikingly similar to the theism Nagel decries.

Perhaps it is for this reason that *Mind and Cosmos* has received more than its fair share of criticism. Nagel's detractors argue that his skepticism about the explanatory power of materialistic evolution is a departure from the philosophical rigor and depth that characterizes his career and isolates him from both the scientific and philosophical communities. Some have sought to answer this charge by pointing out that Nagel's teleological naturalism has its share of advocates within the scientists' guild, although it certainly remains a minority position (see Michael Chorost's review in *The Chronicle of Higher Education*). A similar case could be made for philosophy: Nagel points out that "The view that rational intelligibility is at the root of the natural order makes me, in a broad sense, an idealist ... in the tradition of Plato and perhaps also of certain post-Kantians, such as Schelling and Hegel" (17). He also describes his proposal of "teleology without intention" as "Aristotelian" (93).

Here, however, we would like to point out that *Mind and Cosmos* is completely continuous with Nagel's earlier work. He has been arguing since the 1970s that the first-person element of mind is irreducible and bound to be left out of any purely materialistic account, and

even gives panpsychism its due in *Mortal Questions*. Since the 1980s he has expressed frustration with attempts to use evolution to paper over any difficulties one encounters, writing in *The View from Nowhere* (78) that "Evolutionary hand waving is an example of the tendency to take a theory which has been successful in one domain and apply it to anything else you can't understand—not even to apply it, but vaguely to imagine such an application"—a statement which foreshadows his reference in *Mind and Cosmos* to what he calls a "Darwinism of the gaps" (127). Since the 1990s he has argued that certain claims are the bedrock level of reality and knowledge that we cannot get behind or around. We can neither defend nor refute them, since any attempted defense or refutation must ultimately presuppose them. He even points out that chapter 4 of *Mind and Cosmos* is a continuation of chapter 7 of *The Last Word*. And his entire career has been motivated by a strong commitment to moral realism, a position many philosophers see as incompatible with materialism, so it shouldn't be too surprising that when he is forced to choose between the two, he sticks with the former.

None of this is meant to imply that *Mind and Cosmos* is just a reiteration of earlier positions. It is definitely an original work in its own right, a development, not a mere repetition, of his earlier philosophy. Rather, the point is that if Nagel's critics really find *Mind and Cosmos* to be devoid of philosophical value, then perhaps they should have been making this claim about his earlier (and much celebrated) work all along.

Jim Slagle University of Portland