

The Unraveling of Scientific Materialism

Phillip E. Johnson

Copyright (c) 1997 First Things 77 (November 1997): 22-25.

In a retrospective essay on Carl Sagan in the January 9, 1997 *New York Review of Books*, Harvard Genetics Professor Richard Lewontin tells how he first met Sagan at a public debate in Arkansas in 1964. The two young scientists had been coaxed by senior colleagues to go to Little Rock to debate the affirmative side of the question: "RESOLVED, that the theory of evolution is as proved as is the fact that the earth goes around the sun." Their main opponent was a biology professor from a fundamentalist college, with a Ph.D. from the University of Texas in Zoology. Lewontin reports no details from the debate, except to say that "despite our absolutely compelling arguments, the audience unaccountably voted for the opposition."

Of course, Lewontin and Sagan attributed the vote to the audience's prejudice in favor of creationism. The resolution was framed in such a way, however, that the affirmative side should have lost even if the jury had been composed of Ivy League philosophy professors. How could the theory of evolution even conceivably be "proved" to the same degree as "the fact that the earth goes around the sun"? The latter is an observable feature of present-day reality, whereas the former deals primarily with non-repeatable events of the very distant past. The appropriate comparison would be between the theory of evolution and the accepted theory of the origin of the solar system.

If "evolution" referred only to currently observable phenomena like domestic animal breeding or finch-beak variation, then winning the debate should have been no problem for Lewontin and Sagan even with a fundamentalist jury. The statement "We breed a great variety of dogs," which rests on direct observation, is much easier to prove than the statement that the earth goes around the sun, which requires sophisticated reasoning. Not even the strictest biblical literalists deny the bred varieties of dogs, the variation of finch beaks, and similar instances within types. The more controversial claims of large-scale evolution are what arouse skepticism. Scientists may think they have good reasons for believing that living organisms evolved naturally from nonliving chemicals, or that complex organs evolved by the accumulation of micromutations through natural selection, but having reasons is not the same as having proof. I have seen people, previously inclined to believe whatever "science says," become skeptical when they realize that the scientists actually do seem to think that variations in finch beaks or peppered moths, or the mere existence of fossils, proves all the vast claims of "evolution." It is as though the scientists, so confident in their answers, simply do not understand the question.

Carl Sagan described the theory of evolution in his final book as the doctrine that "human beings (and all the other species) have slowly evolved by natural processes from a succession of more ancient beings with no divine intervention needed along the way." It is the alleged absence of divine intervention throughout the history of life—the strict *materialism* of the orthodox theory—that explains why a great many people, only some of whom are biblical fundamentalists, think that Darwinian evolution (beyond the micro level) is basically materialistic philosophy disguised as scientific fact. Sagan himself worried about opinion polls showing that only about 10 percent of Americans believe in a strictly materialistic evolutionary process, and, as Lewontin's anecdote concedes, some of the doubters have advanced degrees in the relevant sciences. Dissent as widespread as that must rest on something less easily remedied than mere ignorance of facts.

Lewontin eventually parted company with Sagan over how to explain why the theory of evolution seems so obviously true to mainstream scientists and so doubtful to much of the public. Sagan attributed the persistence of unbelief to ignorance and hucksterism and set out to cure the problem with popular books, magazine articles, and television programs promoting the virtues of mainstream science over its fringe rivals. Lewontin, a Marxist whose philosophical sophistication exceeds that of Sagan by several orders of magnitude, came to see the issue as essentially one of basic intellectual commitment rather than factual knowledge.

The reason for opposition to scientific accounts of our origins, according to Lewontin, is not that people are ignorant of facts, but that they have not learned to think from the right starting point. In his words, "The primary problem is not to provide the public with the knowledge of how far it is to the nearest star and what genes are made of. . . . Rather, the problem is to get them to reject irrational and supernatural explanations of the world, the demons that exist only in their imaginations, and to accept a social and intellectual apparatus, Science, as the only begetter of truth." What the public needs to learn is that, like it or not, "We exist as material beings in a material world, all of whose phenomena are the consequences of material relations among material entities." In a word, the public needs to accept materialism, which means that they must put God (whom Lewontin calls the "Supreme Extraterrestrial") in the trash can of history where such myths belong.

Although Lewontin wants the public to accept science as the only source of truth, he freely admits that mainstream science itself is not free of the hokum that Sagan so often found in fringe science. As examples he cites three influential scientists who are particularly successful at writing for the public: E. O. Wilson, Richard Dawkins, and Lewis Thomas,

each of whom has put unsubstantiated assertions or counterfactual claims at the very center of the stories they have retailed in the market. Wilson's *Sociobiology* and *On Human Nature* rest on the surface of a quaking marsh of unsupported claims about the genetic determination of everything from altruism to xenophobia. Dawkins' vulgarizations of Darwinism speak of nothing in evolution but an inexorable ascendancy of genes that are selectively superior, while the entire body of technical advance in experimental and theoretical evolutionary genetics of the last fifty years has moved in the direction of emphasizing

nonselective forces in evolution. Thomas, in various essays, propagandized for the success of modern scientific medicine in eliminating death from disease, while the unchallenged statistical compilations on mortality show that in Europe and North America infectious diseases . . . had ceased to be major causes of mortality by the early decades of the twentieth century.

Lewontin laments that even scientists frequently cannot judge the reliability of scientific claims outside their fields of speciality, and have to take the word of recognized authorities on faith. "Who am I to believe about quantum physics if not Steven Weinberg, or about the solar system if not Carl Sagan? What worries me is that they may believe what Dawkins and Wilson tell them about evolution."

One major living scientific popularizer whom Lewontin does *not* trash is his Harvard colleague and political ally Stephen Jay Gould. Just to fill out the picture, however, it seems that admirers of Dawkins have as low an opinion of Gould as Lewontin has of Dawkins or Wilson. According to a 1994 essay in the *New York Review of Books* by John Maynard Smith, the dean of British neo-Darwinists, "the evolutionary biologists with whom I have discussed his [Gould's] work tend to see him as a man whose ideas are so confused as to be hardly worth bothering with, but as one who should not be publicly criticized because he is at least on our side against the creationists. All this would not matter, were it not that he is giving non biologists a largely false picture of the state of evolutionary theory." Lewontin fears that non-biologists will fail to recognize that Dawkins is peddling pseudoscience; Maynard Smith fears exactly the same of Gould.

If eminent experts say that evolution according to Gould is too confused to be worth bothering about, and others equally eminent say that evolution according to Dawkins rests on unsubstantiated assertions and counterfactual claims, the public can hardly be blamed for suspecting that grand-scale evolution may rest on something less impressive than rock-solid, unimpeachable fact. Lewontin confirms this suspicion by explaining why "we" (i.e., the kind of people who read the *New York Review*) reject out of hand the view of those who think they see the hand of the Creator in the material world:

We take the side of science *in spite of* the patent absurdity of some of its constructs, *in spite of* its failure to fulfill many of its extravagant promises of health and life, *in spite of* the tolerance of the scientific community for unsubstantiated just-so stories, because we have a prior commitment, a commitment to materialism. It is not that the methods and institutions of science somehow compel us to accept a material explanation of the phenomenal world, but, on the contrary, that we are forced by our a priori adherence to material causes to create an apparatus of investigation and a set of concepts that produce material explanations, no matter how counterintuitive, no matter how mystifying to the uninitiated. Moreover, that materialism is absolute, for we cannot allow a Divine Foot in the door. The eminent Kant scholar Lewis Beck used to say that anyone who could believe in God could believe in anything. To appeal to an

omnipotent deity is to allow that at any moment the regularities of nature may be ruptured, that miracles may happen.

That paragraph is the most insightful statement of what is at issue in the creation/evolution controversy that I have ever read from a senior figure in the scientific establishment. It explains neatly how the theory of evolution can seem so certain to scientific insiders, and so shaky to the outsiders. For scientific materialists *the materialism comes first; the science comes thereafter*. We might more accurately term them "materialists employing science." And if materialism is true, then some materialistic theory of evolution has to be true simply as a matter of logical deduction, regardless of the evidence. That theory will necessarily be at least roughly like neo-Darwinism, in that it will have to involve some combination of random changes and law-like processes capable of producing complicated organisms that (in Dawkins' words) "give the appearance of having been designed for a purpose."

The prior commitment explains why evolutionary scientists are not disturbed when they learn that the fossil record does not provide examples of gradual macroevolutionary transformation, despite decades of determined effort by paleontologists to confirm neo-Darwinian presuppositions. That is also why biological chemists like Stanley Miller continue in confidence even when geochemists tell them that the early earth did not have the oxygen-free atmosphere essential for producing the chemicals required by the theory of the origin of life in a prebiotic soup. They reason that there had to be some source (comets?) capable of providing the needed molecules, because otherwise life would not have evolved. When evidence showed that the period available on the early earth for the evolution of life was extremely brief in comparison to the time previously posited for chemical evolution scenarios, Carl Sagan calmly concluded that the chemical evolution of life must be easier than we had supposed, because it happened so rapidly on the early earth.

That is also why neo-Darwinists like Richard Dawkins are not troubled by the Cambrian Explosion, where all the invertebrate animal groups appear suddenly and without identifiable ancestors. Whatever the fossil record may suggest, those Cambrian animals had to evolve by accepted neo-Darwinian means, which is to say by material processes requiring no intelligent guidance or supernatural input. Materialist philosophy demands no less. That is also why Niles Eldredge, surveying the absence of evidence for macroevolutionary transformations in the rich marine invertebrate fossil record, can observe that "evolution always seems to happen somewhere else," and then describe himself on the very next page as a "knee-jerk neo-Darwinist." Finally, that is why Darwinists do not take critics of materialist evolution seriously, but speculate instead about "hidden agendas" and resort immediately to ridicule. In their minds, to question materialism is to question reality. All these specific points are illustrations of what it means to say that "we" have an a priori commitment to materialism.

The scientific leadership cannot afford to disclose that commitment frankly to the public. Imagine what chance the affirmative side would have if the question for public debate were rephrased candidly as "RESOLVED, that everyone should adopt an a priori commitment to materialism." Everyone would see what many now sense dimly: that a methodological premise useful for limited purposes has been expanded to form a metaphysical absolute. Of course people

who define science as the search for materialistic explanations will find it useful to assume that such explanations always exist. To suppose that a philosophical preference can validate a cherished scientific theory is to define "science" as a way of supporting prejudice. Yet that is exactly what the Darwinists seem to be doing, when their evidence is evaluated by critics who are willing to question materialism.

One of those critics, bearing impeccable scientific credentials, is Michael Behe, who argues that complex molecular systems (such as bacterial and protozoan flagella, immune systems, blood clotting, and cellular transport) are "irreducibly complex." This means that the systems incorporate elements that interact with each other in such complex ways that it is impossible to describe detailed, testable Darwinian mechanisms for their evolution. (My review of Behe's *Darwin's Black Box* appeared in FT, October 1996.) Never mind for now whether you think that Behe's argument can prevail over sustained opposition from the materialists. The primary dispute is not over who is going to win, but about whether the argument can even get started. If we know a priori that materialism is true, then contrary evidence properly belongs under the rug, where it has always duly been swept.

For Lewontin, the public's determined resistance to scientific materialism constitutes "a deep problem in democratic self-governance." Quoting Jesus' words from the Gospel of John, he thinks that "the truth that makes us free" is not an accumulation of knowledge, but a metaphysical understanding (i.e., materialism) that sets us free from belief in supernatural entities like God. How is the scientific elite to persuade or bamboozle the public to accept the crucial starting point? Lewontin turns for guidance to the most prestigious of all opponents of democracy, Plato. In his dialogue the *Gorgias*, Plato reports a debate between the rationalist Socrates and three sophists or teachers of rhetoric. The debaters all agree that the public is incompetent to make reasoned decisions on justice and public policy. The question in dispute is whether the effective decision should be made by experts (Socrates) or by the manipulators of words (the sophists).

In familiar contemporary terms, the question might be stated as whether a court should appoint a panel of impartial authorities to decide whether the defendant's product caused the plaintiff's cancer, or whether the jury should be swayed by rival trial lawyers each touting their own experts. Much turns on whether we believe that the authorities are truly impartial, or whether they have interests of their own. When the National Academy of Sciences appoints a committee to advise the public on evolution, it consists of persons picked in part for their scientific outlook, which is to say their a priori acceptance of materialism. Members of such a panel know a lot of facts in their specific areas of research and have a lot to lose if the "fact of evolution" is exposed as a philosophical assumption. Should skeptics accept such persons as impartial fact-finders? Lewontin himself knows too much about cognitive elites to say anything so naive, and so in the end he gives up and concludes that "we" do not know how to get the public to the right starting point.

Lewontin is brilliantly insightful, but too crankily honest to be as good a manipulator as his Harvard colleague Stephen Jay Gould. Gould displays both his talent and his unscrupulousness in an essay in the March 1997 issue of *Natural History*, entitled "Nonoverlapping Magisteria" and subtitled "Science and religion are not in conflict, for their teachings occupy distinctly

different domains." With a subtitle like that, you can be sure that Gould is out to reassure the public that evolution leads to no alarming conclusions. True to form, Gould insists that the only dissenters from evolution are "Protestant fundamentalists who believe that every word of the Bible must be literally true." Gould also insists that evolution (he never defines the word) is "both true and entirely compatible with Christian belief." Gould is familiar with nonliteralist opposition to evolutionary naturalism, but he blandly denies that any such phenomenon exists. He even quotes a letter written to the *New York Times* in answer to an op-ed essay by Michael Behe, without revealing the context. You can do things like that when you know that the media won't call you to account.

The centerpiece of Gould's essay is an analysis of the complete text of Pope John Paul's statement of October 22, 1996 to the Pontifical Academy of Sciences endorsing evolution as "more than a hypothesis." He fails to quote the Pope's crucial qualification that "theories of evolution which, in accordance with the philosophies inspiring them, consider the spirit as emerging from the forces of living matter or as a mere epiphenomenon of this matter, are incompatible with the truth about man." Of course, a theory based on materialism assumes by definition that there is no "spirit" active in this world that is independent of matter. Gould knows this perfectly well, and he also knows, just as Richard Lewontin does, that the evidence doesn't support the claims for the creative power of natural selection made by writers such as Richard Dawkins. That is why the philosophy that really supports the theory has to be protected from critical scrutiny.

Gould's essay is a tissue of half-truths aimed at putting the religious people to sleep, or luring them into a "dialogue" on terms set by the materialists. Thus Gould graciously allows religion to participate in discussions of morality or the meaning of life, because science does not claim authority over such questions of value, and because "Religion is too important to too many people for any dismissal or denigration of the comfort still sought by many folks from theology." Gould insists, however, that all such discussion must cede to science the power to determine the *facts*, and one of the facts is an evolutionary process that is every bit as materialistic and purposeless for Gould as it is for Lewontin or Dawkins. If religion wants to accept a dialogue on those terms, that's fine with Gould—but don't let those religious people think they get to make an independent judgment about the evidence that supposedly supports the "facts." And if the religious people are gullible enough to accept materialism as one of the facts, they won't be capable of causing much trouble.

The debate about creation and evolution is not deadlocked. Propagandists like Gould try to give the impression that nothing has changed, but essays like Lewontin's and books like Behe's demonstrate that honest thinkers on both sides are near agreement on a redefinition of the conflict. Biblical literalism is not the issue. The issue is whether materialism and rationality are the same thing. Darwinism is based on an a priori commitment to materialism, not on a philosophically neutral assessment of the evidence. Separate the philosophy from the science, and the proud tower collapses. When the public understands this clearly, Lewontin's Darwinism will start to move out of the science curriculum and into the department of intellectual history, where it can gather dust on the shelf next to Lewontin's Marxism.

Phillip E. Johnson is Professor of Law at the University of California at Berkeley and author, most recently, of *Defeating Darwinism by Opening Minds* (InterVarsity Press).

Copyright/Reproduction Limitations:

This data file is the sole property of FIRST THINGS. It may not be altered or edited in any way. It may be reproduced only in its entirety for circulation as "freeware," without charge. All reproductions of this data file must contain the copyright notice (i.e., "Copyright (c) 1991-2000 by First Things") and this Copyright/Reproduction Limitations notice.

This data file may not be used without the permission of FIRST THINGS for resale or the enhancement of any other product sold.

FIRST THINGS
156 Fifth Avenue, Suite 400
New York, NY 10010

Phone: (212) 627-1985
Email: ft@firstthings.com