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## YOUR WITNESS, MR. JOHNSON

A Retrospective Review of *Darwin on Trial*

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I first met Phillip Johnson at a small Greek restaurant on Free School Lane next to the Old Cavendish Laboratory in Cambridge. It was the fall of 1987. The meeting had been arranged by a fellow graduate student who knew Phil from Berkeley. My friend had told me only that his friend was “a quirky but brilliant law professor” who “was on sabbatical studying torts,” and he “had become obsessed with evolution.” “Would you talk to him?” he asked. His description and the tone of his request led me to anticipate a very different figure than I encountered. Though my own skepticism about Darwinism had been well cemented by this time, I knew enough of the stereotypical evolution-basher to be skeptical that a late-in-career nonscientist could have stumbled unto an original critique of contemporary Darwinian theory.

I should have known better, but only later did I learn of Johnson’s intellectual pedigree: Harvard B.A., top of class University of Chicago law-school graduate, law clerk for Chief Justice Earl Warren, leading constitutional scholar, occupant of a distinguished chair at University of California, Berkeley. In Johnson, I encountered a man of supple and prodigious intellect who seemed in short order to have found the pulse of the origins issue.

Johnson told me that his doubts about Darwinism had started with a visit to the British Natural History Museum, where he learned about the controversy that had raged there earlier in the 1980s. At that time, the museum paleontologists presented a display describing Darwin’s theory as “one possible explanation” of origins. A furor ensued, resulting in the removal of the display when the editors of the prestigious *Nature* magazine and others in





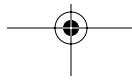
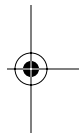
the scientific establishment denounced the museum for its ambivalence about accepted fact.

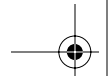
Intrigued by the response to such an (apparently) innocuous exhibit, Johnson decided to investigate further. He began to read whatever he could find on the issue: Stephen Jay Gould, Michael Ruse, Matt Ridley, Richard Dawkins and Michael Denton's *Evolution: A Theory in Crisis*. What he read made him more suspicious of evolutionary orthodoxy. "Something about the Darwinists' rhetorical style," he told me later, "made me think they had something to hide."

An extensive examination of evolutionary literature confirmed this suspicion. Darwinist polemic revealed a surprising reliance on arguments that seemed to assume rather than demonstrate that life had evolved via natural processes. Johnson also observed an interesting contrast between biologists' technical papers and their popular defenses of evolutionary theory. When writing in scientific journals, he discovered, leading biologists acknowledged many significant difficulties with both standard and newer evolutionary models. Yet, when defending basic Darwinist commitments (such as the common ancestry of all life and the creative power of the natural selection/mutation mechanism) in popular books or textbooks, Darwinists employed an evasive and moralizing rhetorical style to minimize problems and belittle critics. Johnson began to wonder why, given mounting difficulties, Darwinists remained so confident that all organisms had evolved naturally from simpler forms.

In *Darwin on Trial*, Johnson argued that evolutionary biologists remain confident about neo-Darwinism not because empirical evidence generally supports the theory but instead because their perception of the rules of scientific procedure virtually prevent them from considering any alternative view. Johnson cited, among other things, a communiqué from the National Academy of Sciences (NAS) issued to the Supreme Court during the Louisiana "creation science" trial. The NAS insisted that "the most basic characteristic of science" is a "reliance upon naturalistic explanations."

While Johnson accepted this principle of "methodological naturalism" as an accurate description of how much of science operates, he argued that treating it as a normative rule when seeking to establish that natural processes alone produced life assumes the very point that neo-Darwinists are trying to establish. Johnson reminded readers that Darwinism does not just claim that evolution (in the sense of change) has occurred. Instead, it pur-



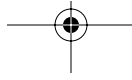
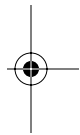
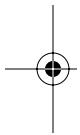


ports to establish that the major innovations in the history of life arose by purely *natural* mechanisms—that is, without intelligent direction or design. Thus Johnson distinguished the various meanings of the term *evolution* (such as change over time or common ancestry) from the central claim of Darwinism, namely, that a purely undirected and unguided process had produced the appearance of design in living organisms. Following Richard Dawkins, the staunch modern defender of Darwinism, Johnson called this latter idea “the blind watchmaker thesis” to make clear that Darwinism as a theory is incompatible with the design hypothesis. In any case, he argued, modern Darwinists refuse to consider the possibility of design because they think the rules of science forbid it.

Yet if the design hypothesis must be denied from the outset, and if, as the NAS also asserted, exclusively negative argumentation against evolutionary theory is “unscientific,” then Johnson argued that “the rules of argument . . . make it impossible to question whether what we are being told about evolution is really true.” Defining opposing positions out of existence “may be one way to win an argument,” but, said Johnson, it scarcely suffices to demonstrate the superiority of a protected theory.

To establish that such philosophical gerrymandering lay behind the success of the neo-Darwinism, *Darwin on Trial* evaluated the scientific arguments that ostensibly establish the “fact of evolution.” Johnson trained a considerable facility for analysis on the whole edifice of Darwinist argumentation. He found a panoply of euphemism and wishful thinking masquerading as evidence: the pattern of gaps and sudden appearance in the fossil record described as “rapid evolutionary branching,” superficial variations in moths or fruit flies cited to substantiate the possibility of grand “macroevolutionary” changes, elaborate depictions of human ancestors based on scanty bone fragments, and biochemical observations laden with evolutionary assumptions used to justify evolutionary claims.

Along the way, *Darwin on Trial* asks a good many questions rarely asked in polite biological society. Given the fossil evidence, how do we know that hypothetical “transitional” organisms ever existed? How do we know that natural selection can create complex organs and organisms when genetics suggests the vast improbability of random mutations producing advantageous and novel structures? How do we know that the first cells did arrange themselves from simple chemicals if we haven’t yet established that they could? In each case, Johnson argued that “we know because we have





equated scientific method with a philosophy of strict naturalism and materialism." We know because the rules of science require that some form of naturalistic evolution *must* be true.

Johnson's attempt to reopen such questions angered many members of the biological establishment who had grown accustomed to offering the public what Johnson called "proof through confident assertion." His criticism of Darwinist orthodoxy initially earned him dismissive reviews in *Science*, *Nature* and *Scientific American*, the latter written by Stephen Jay Gould. Yet these reviews also helped publicize Johnson's thesis, which has since struck a responsive chord with many scientists, including many writing in this festschrift. For example, biochemist Michael Behe, who later authored *Darwin's Black Box*, a seminal case for intelligent design, first came to Johnson's attention after Behe wrote a letter defending *Darwin on Trial* in response to the *Nature* review.

Moreover, some prominent neo-Darwinists such as Arthur Shapiro of the University of California, Davis, Michael Ruse of the University of Guelph and William Provine of Cornell University welcomed the spirited challenge that Johnson provided to their views. Shapiro, Ruse and eight other scientists and philosophers (including both defenders and critics of modern Darwinism) joined Johnson at Southern Methodist University in the spring of 1992 to debate the central thesis of his book. A much-publicized debate between Johnson and Provine at Stanford in 1993 helped propel Phil's case to even greater prominence.

The success of those events led to many others like them and a growing community of scientists and scholars willing to examine the issues that *Darwin on Trial* first raised. *Darwin on Trail* reopened long dormant questions by challenging the evolutionary establishment's reliance on philosophically tendentious rules of method. In the process, it helped inspire an intellectual movement and a scientific research program that has begun to redefine our understanding of the origin of life and the nature of science.

