

*Reductionism: Analysis and the Fullness of Reality.* By Richard H. Jones.  
Lewisburg, Pa.: Bucknell Univ. Press, 2000. 409 pages. \$60.00.

This book is a surprisingly comprehensive analysis of the myriad efforts to explain a “higher” event in terms of something “lower.” The spectrum of reductions, attempted and contested, is a broad one. Hardly an area of the arts and sciences is untouched, and in that sense reading this book is an exercise in liberal education. Jones’s ultimate interest is religion; the last third of the book is devoted to it. But Jones builds toward this end, starting with reductionism “lower down”—whether, first, reduction works even within physics, then whether biology can be reduced to physics; then on to the social sciences, whether psychology can be reduced to physiology, sociology to psychology.

The sweep of the book argues that reduction (if distinguished from interlevel connections) is not working well anywhere, and, if not lower down, there is even less reason to suppose that it will work higher up. Is there anything superphysical, anything superbiological, anything superpsychological, anything supersociological, and, in the end, more generically, anything supernatural, super to the natural?

Hundreds of reductionists have been at work, especially in the sciences. But doubts not only persist; they grow. “During an era that outside of philosophy is an ‘Age of Reductionism,’ the majority of philosophers who have actually explored the issue have become antireductionists of one stripe or another” (p. 67). This partly reflects the popularity of pluralism; scholars do not favor unified accounts or grand narratives, including grand simplifications. Reductionism seems too close to foundationalism. No unified account of reality seems possible, and such an account probably is not desirable either. “Modern science is a patchwork, not a unified system” (p. 124). The current advice is: Enjoy the multiple accounts, and don’t get too worked up about reducing them one to another, bot-toming out in subatomic physics.

As Jones moves across the spectrum, there are good discussions of some puzzle pieces—for example, of the ambiguities in the popular term *supervenience*, showing how, often, “reductionists use the same term as the antireductionists but mean something very different” (p. 65). There is a useful analysis deflating the sought-after Theory of Everything as essentially a misnomer (pp. 164–69). There are teasers: “Some branches of science, such as evolutionary biology, have proven especially resistant to the reductive approach” (p. 151). One wishes that Jones had said more here, since evolutionary biology is the most troublesome science, seemingly the universal acid (claims Daniel Dennett) that dissolves all. But, looked

at from the reductionist perspective, this acid does not reduce everything it touches so easily. The problem is that there is too much emergence and perennially innovative history and rather little lawlike predictability.

Working through the natural sciences, as the best examples of epistemological reduction, Jones concludes: "Reductionists also now generally agree no single account of reduction can cover all the relations of theories in the sciences, but rather a variety of accounts is needed. And, more importantly, there may be instances where no reductions are possible at all" (pp. 150–51). In fact, the scientists, as scientists, do not seem to be able to settle the reductionist question(s). "The important point here is simply that science itself is a selective point of view—one way of approaching reality—and this in itself entails no implicit final metaphysical commitments. Reduction and antireductionism, on the other hand, are metaphysical in nature in the sense of going beyond science and providing views on the nature of scientific findings" (p. 117).

Meanwhile, most thinkers, reductionists and antireductionists alike, are naturalists of some stripe or other, and so Jones has a problem looming. Many naturalists are not reductionists; they do not think that biology can be reduced to physics or culture to nature. But still they are naturalists, and that does seem to make them substantive reductionists of a kind: they reduce any supernatural or transcendent to the natural. So that becomes the pivotal question.

The best example of attempted substantive reduction is the mind-body problem. Here Jones concludes,

But although both reductionism and antireductionism are logically viable options on the basic question of ontological reductionism, antireductive materialists present the stronger case today. . . . Consciousness and other mental phenomena are not the impotent appearances of some underlying reality but are irreducible realities themselves. They may be open to explanation, but they cannot be explained away. . . . Antireductionists do have something on their side: the obvious. . . . In short, it is more reasonable today to believe consciousness is part of the blueprint of the universe than to deny it. (pp. 110–12)

So, we may still be naturalists, but we have consciousness very much on our explanatory agenda; and, if consciousness, then "spirit" remains a possibility.

In the social sciences, religion is a pivotal test case. The first inquiry here is whether religious phenomena are *sui generis* or can be teased into various parts and reassigned to other disciplines. "Structural reductionists argue that actions ostensibly driven by religious reasons are really done for economic, psychological, or other reasons; only the nonreligious sociocultural bases are real, and they alone explain religious actions. The structural antireductionists' central tenet is that religious people really do act for religious reasons—whether or not the transcendent is in fact real—and not just for political or other reasons" (p. 237).

Religious studies, contrasted with theology, is a comparatively recent discipline. But there is a danger that, by its desired academic framework, it reduces religion to something less than full-bodied religion. Jones concludes that, for the most part, those engaged in religious studies are not very sophisticated about this. "The need for the clarification of terminology concerning reductionism is greater here than in any of the other areas covered in this book, since the disputants bandy the word about while spending little time on what the term means or on the fact that there are different types of reductionism" (p. 326).

There are five general problem areas with naturalistic reductions of religion: “(1) the need to defend one particular natural explanation as plausible today; (2) the broadness and looseness of natural explanations; (3) the lack at present of a complete and detailed explanation; (4) that all beliefs are equally open to such explanations; and (5) the compatibility of natural and religious explanations” (p. 279).

There is no single, commanding naturalistic explanation; there are in fact many, often incompatible with one other, often problematic, and none offers a convincing account. Many have been discredited, even by those who are not religious, as inadequate (Freud’s religion as wish fulfillment, or E. O. Wilson’s myth enhancing reproductive fitness). The explanations are quite plural and mostly promissory notes. “The naturalists’ position is far from readily convincing” (p. 294).

Reductionists may hold on rather tenaciously “in principle” to some forthcoming more complete account. But this in-principle belief, in view of the messy evidence, suggests that their orientation is driven by metaphysical commitments more than by any actual science (pp. 282–84). Many of the reductionist explanations of religious beliefs apply just as well, *mutatis mutandis*, to nonreligious beliefs. Science is as easily socially deconstructed as is religion; science like religion is a survival-enhancing technique; science too is in the service of wish fulfillment, or status, or power, or need for complete explanations. What’s sauce for the goose is sauce for the gander.

Does religion encounter a transcendent sacred? Naturalistic accounts, even so far as they should prove plausible (religion conveying survival benefits), still leave open the question whether, when the religious behavior has been explained as “natural,” explanations are over—or are perhaps also compatible with transcendent accounts (God gave us this religion that we might long survive in the land). Here is the brain chemistry that goes with the religious experience of the Hebrew prophets, but where is the proof that there is nothing more to it? Here is the brain chemistry that goes with relativity theory, also some more chemistry that goes with astrology, but we still have the truth questions to wonder about. There will be some brain chemistry to that wondering, too, but that does not dissolve the truth question.

Naturalists may argue that theirs is the default position, the simplest one, but default does not mean faultless; it often means not very advanced. Yes, naturalistic explanations are better than religious ones by scientific standards, but that just defaults to the scientific standard, which, everybody knows, is not very sophisticated at interpreting meanings in life, at judgments of good and evil, at the limit questions.

Reductionists claim that when the more is explained in terms of the less, this less is really more—a more unified and satisfying explanation. Antireductionists claim that what really needs explanation is a universe in which there is forever more out of less, configurations surprisingly reconfigured, more diversity and complexity later on than there were earlier, first in nature and then in culture. Jones’s sympathies clearly lie with antireductionism. “The conclusions to the above chapters can be easily summarized: antireductionism in its various forms today appears more convincing in the areas of mind and body, the natural sciences, the social sciences, . . . and religious studies. . . . Whether one rejects the substantive reductionism and accepts a transcendent religious reality underlying

the natural order or any other transcendent realities turns more clearly on broad metaphysical considerations rather than issues related to reductionism alone" (p. 333).

It does not follow from this that Jones holds that the religious antireductionists are the clear winners. They are running out front until we reach the home stretch, and then Jones is mostly insistent only that they are still running strong. "We are left with two alternative groups of metaphysical systems, neither of which is more compelling at present." And, alas, "this may remain our situation forever" (p. 297; cf. pp. 329–30). The race may never be over.

One could think this is bad news, but Jones frames it differently. The greatest mystery is this unknown future, in which novel emergence is possible, indeed expected. The creativity in the world, so far, resists reduction owing to continuing emergence, and that creativity is still with us. "Such emergence may be an intractable *mystery*—that is, not just a problem awaiting further scientific study, but something forever beyond our abilities to know in principle. It may be a basic, brute fact about reality that will remain impregnable" (p. 333–34). One is reminded of Robert Louis Stevenson: "It is true that we shall never reach the goal; it is even more than probable that there is no such place. . . . Little do ye know your own blessedness; for to travel hopefully is a better thing than to arrive" ("El Dorado," *Virginibus Puerisque* [Boston: Maynard & Co., 1907], 163).

The feature of the universe most likely to resist explanation is this mysterious creativity. The reductionist "attitude misses something fundamentally important. In their zeal to explain or replace the complex with the simple, reductionists are looking the *wrong way*. Reality has been getting more and more complex, but reductionists keep looking for the simpler and simpler. Complex levels are emerging, and reductionists are looking only for the lowest, most general levels. . . . This [creative] process is both extraordinary and yet recurring throughout the history of the universe" (p. 334). Some readers will make connections with theologies of the future, others with current theologies that feature God's hiddenness.

Maybe what we still need at the end is a discussion of Pascal's wager. One cannot wait forever, or even a decade, lingering on the edge, for these issues to be settled, before living one's life. Willy-nilly, unless we just drift, we will be oriented by religion or nonreligion, theism, monism, naturalism, humanism, or scientism, or something. Maybe there is more orientation than first appears to find ourselves in a universe with so much going on over our heads.

Readers who pick up this book will first discover that Jones, though impressively educated, is currently a lawyer; and they may worry whether such an outsider can competently address these issues. Readers who continue will be surprised and also reminded that one thing lawyers are often good at is assessing the strength of evidence on both sides of controverted events. Jones does that quite well. Perhaps he is an outsider to many of these disciplines (as are we all; there are too many); but he has felt the power of encounter with a mysterious universe.

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