



Dialogue: Response

Can Functional Logic Take the Place of Intelligent Design?

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The point at issue is not God as object but God as agent.

Walter Thorson's two-part article on the legitimacy and scope of naturalism within science attempts to identify a mediating position between the reductive naturalism of thinkers like Richard Dawkins and the complete rejection of naturalism by thinkers like Phillip Johnson. Thorson rightly notes that the purely mechanistic approach to science characteristic of reductive naturalism is inadequate. Nonetheless, he argues that science still needs naturalism as a methodological or regulative principle. Thorson's methodological naturalism leaves room for teleology in nature, though a teleology that falls short of full intelligent agency.

Thorson's rejection of reductive naturalism is in the spirit of Michael Polanyi. Though adequate for physics, reductive naturalism, according to Thorson, cannot make sense of the functional complexity of biological systems. Unlike physical systems, which can be understood scientifically purely in terms of their constitution and dynamics, biological systems—like human machines—need also to be understood in terms of their function. According to Thorson, biological systems operate according to a "functional logic" that is just as objectively real as the underlying physical mechanisms.

For Thorson, getting the scientific community to admit the reality of this functional logic and to make that logic a fundamental focus of scientific investigation would constitute the sort of paradigm shift in science with

which he would be entirely happy. He sees Michael Behe's work on irreducible complexity as feeding into such a paradigm shift inasmuch as Behe's work shows that a functional logic pervades biology all the way down to the molecular level (below which biology gives way to physics and chemistry). Nonetheless, Thorson is not willing to follow Behe to his conclusion of intelligent design. Why is that?

The problem according to Thorson is that any sort of designing agent responsible for that functional logic in biological systems would be a scientific surrogate for divine agency. Indeed, from a Christian perspective, it is hard to see what a designing agent responsible for biological complexity could be other than the Christian God. Intelligent design, if it could be developed as a scientific theory applicable to biology, would thus have immediate theological implications, not the least being that God's handiwork in nature was empirically detectable and therefore not inscrutable.

But this for Thorson is theologically unacceptable. Following Karl Barth and a theological tradition that places a premium on divine inscrutability, it is unacceptable to Thorson that God's agency in the world not be completely shrouded in mystery. In addition to Barth, Thorson cites Austin Farrer, who argued that the metaphysical joint at which divine agency intersects the created world is fundamentally inscrutable. Thorson concludes that "divine agency is essentially mysterious at every level."

I've long ceased to be impressed by claims of divine inscrutability. Whenever I'm confronted with such claims, I invariably recall G. K. Chesterton's epigram, "We don't know

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enough about the unknown to know that it is unknowable." To be sure, it might serve certain theological interests to keep God, and divine agency in particular, inscrutable. But the claim of divine inscrutability, just as any other controversial claim, needs an argument if it is to be judged in the market of ideas.

Thorson does sketch such an argument. The problem for Thorson is that God is not an object that we can name, define, comprehend, and thereby imprison in our concepts. This certainly seems right—we can never nail down God with our language. But the same is true for any human being as well—none of us is reducible to some verbal formula (even a long and complex one). Now the issue that intelligent design raises is not to objectify God in some verbal or scientific formula, but rather to come to terms with what God has done in the world. In other words, the point at issue is not God as object but God as agent.

God, after all, does act in the world. About this there can be no controversy among Christians. The nature of that activity and its epistemic support, however, are subjects of controversy. Unfortunately, Thorson's strong emphasis on divine inscrutability prevents this question from receiving fair consideration. Thorson, for instance, holds that biological systems embody information of a sort that is not reducible to blind mechanical processes. Moreover, he thinks that divine agency as the source of that information is a legitimate topic for theological reflection. But to treat intelligent agency, considered generically and without reference to the Christian God, as the source of that information holds for Thorson no scientific legitimacy.

But why should that be? Thorson holds that biosystems operate according to a certain functional logic. Thorson therefore would have a nonreductive biology focus on that logic and dispense with intelligent design and the intelligent agency it introduces. But is intelligent agency really dispensable in this way? Let me turn it around: Can Thorson's functional logic do all the scientific work that an intelligent agent does? Clearly, there are special sciences where functional logic cannot substitute for intelligent agency. Everything from archaeology to the search for extraterrestrial intelligence (SETI) are inconceivable without a robust notion of intelligent agency.

Thorson is after a general biology that gives pride of place to "certain functional rules [that] operate in biosystems." The problem is that such functional rules and the functional logic they embody may not be adequate to the functions and structures exhibited by biological systems. Thorson wants a paradigm change that makes the functional logic of biosystems that central organizing principle of biology and only then takes up what he calls "the more difficult problem of origins." But the problem of the origin of biological complexity cannot be deferred in this way.

If biological systems are in fact designed by intelligent agents, then the sort of functional logic to which Thorson

appeals cannot be adequate for understanding biological complexity. Consider the question of functional complexity more generally. What is the logic by which designing agents brought about such functionally complex objects as the Cray supercomputer, the Notre Dame cathedral, and the Hubble space telescope? To be sure, general design principles were employed here. But there was also ingenuity on the part of designing agents that introduced genuine novelty—a novelty that can never be captured by something so general as a "functional logic." There is no logic, whether explicit or tacit, to characterize inventive novelty. Invention entails the emergence of novel structures exhibiting novel functions. Agents, not logic, give rise to such novelty. Moreover, such novelty is not confined to human artifacts but also arises with biological systems (witness the bacterial flagellum).

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Ultimately, Thorson's project flounders on a category mistake—he attempts to get a functional logic do the work of a designing agent. To that end, he invokes a nonreductive naturalism as a methodological principle to keep intelligent design at bay. Yet it is hard to see how Thorson's naturalism can properly be called a naturalism at all since the functional logic upon which Thorson pins his hopes for a paradigm shift in biology cannot be squared with any traditional understanding of nature. That logic seems rather to reside in a Platonic heaven of forms rather than in a natural world of material objects.

As with so many half-measures, Thorson's project is destined to leave almost no one happy. The most glaring problem, as I see it, is that Thorson's nonreductive methodological naturalism imposes an artificial constraint on scientific inquiry. I have no problem with biologists focusing their research on the functional logic of biosystems (James Shapiro at the University of Chicago, for instance, is doing just that). I do have a problem, however, with making the study of this functional logic *de rigueur* for biology and ruling out intelligent agency from biology as unscientific, especially given that intelligent design is a live possibility with empirical consequences that go well beyond Thorson's functional logic. In particular, Thorson's functional logic is not able to account for the inventiveness of designing agents, an inventiveness mirrored in the functional complexity of biological systems. ◇