

What Kind of Revolution is the Design Revolution?

- A reflection on William Dembski's *The Design Revolution*.

by

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Abstract

William Dembski calls the intelligent design theory a *scientific* revolution in his new book *The Design Revolution*. This paper argues that this is inaccurate. The design revolution is a revolution of the presupposition and the regulative idea underlying biology and not a revolution of biology as a natural scientific project. Apparently Dembski thinks that all knowledge of nature that is not mere subjective belief is natural science. Such a definition is too broad, it conflates elements that should be kept apart and thereby causes confusion. We should distinguish between scientific knowledge of nature and analogical knowledge of nature, and we should distinguish between the natural science project and the presupposition and regulative idea underlying the natural science project. The natural science project is explaining natural phenomena in terms of natural, immanent causes alone, and this project should not be revolutionized by intelligent design theory. Rather, intelligent design theory should revolutionize naturalism and scientific materialism as the presupposition and regulative idea underlying biology as a natural science project.

As Dembski begins his book by saying: “Ever since Thomas Kuhn published *The Structure of Scientific Revolutions* in the 1960s, just about every idea in science has been touted as the latest scientific revolution.”¹ Indeed, Dembski was himself involved in chaos theory, a development hailed as a revolution in science in the late 1980s. “But after the revolution ran out of steam, our scientific conception of the world remained largely unchanged.” Most scientific revolutions are overblown. But this experience notwithstanding, Dembski now proclaims a “Design” revolution.

I share Dembski's view that the Intelligent Design theory (hereafter ID theory) has the makings of a revolution, but I am not sure that I agree with him on the nature of the revolution the theory has

the potential to bring about. Dembski calls it a *scientific* revolution, but what exactly does that mean? The problem is that the term *science* is not a well-defined term. We face a huge problem when we have to decide whether something is science or not because we do not have a clear definition that tells us what to rule in and what to rule out.

Larry Laudan has argued that it is impossible to define the term *science* in the abstract.² If true, that poses a problem, but not one that dismays Laudan since what ultimately matters, he claims, is not whether or not a theory is science, but whether or not it is true. This is surely a valid point. After all, the debate about Darwinism and ID theory is primarily about which position is correct and not whether ID theory qualifies as science. However, the latter question frequently crops up in discussion and is not an irrelevance. It is particularly important when we are interested in clarifying exactly what kind of revolution ID theory, should it fulfil its protagonists' expectations, will bring about.

One way to define something is to delimit it: you specify what something is by saying what it is not. Dembski pursues this tack. He points out that ID theory is not scientific creationism. The theory is not deduced from religious dogma, it is inferred from the data of nature. I concur. Nor, he adds, is ID theory what has traditionally been termed *natural theology*. If "natural theology" is taken to refer to the project of seeking to establish the existence of a God possessed of specific attributes, I accept this too. All that ID theory claims is that the natural order exhibits intelligent design, a phenomenon that is open to a religious interpretation, but the interpretation is not part of the theory. Dembski denies that ID theory is identical with the design arguments encountered in the philosophical and theological tradition. Traditional design arguments are often loosely formulated, and closer scrutiny shows them to be predicated on projections and illusions. By contrast, the design arguments of ID theory are precise and susceptible of formalization. I agree. Dembski further claims that ID theory is not based on mere intuition, it is scientific: "Proponents of intelligent design, known as design theorists, are not just content to regard such signs as mere intuition. Rather, they insist on studying them formally, rigorously and scientifically."³ I agree that ID theory is a formal and rigorous study of the relevant signs, but I do not go with the idea that it is natural science in any precise acceptance of that term.

My own position is that ID theory is indeed based upon a species of intuition: it is based on an intuitive analogy.⁴ When we observe a complex biological system that performs a particular function, we are struck by its similarity to a man-made machine. This intuitive insight is as old as

philosophy and as near-universal. As Dembski is concerned to point out, ID is a simple and straightforward idea, commonly shared. It is even shared by Darwinists, although they consider it an illusion. Richard Dawkins says it with the quotation, “Biology is the study of complicated things that give the appearance of having been designed for a purpose.”⁵ But is it only an “appearance”? Are the Darwinists able to prove that it is? I suspect not. The intuitive analogy in play is not subjective arbitrary, it is intersubjective and involuntary, spontaneous. The contribution made by ID theory is to have studied this intuition formally and rigorously. Michael Behe’s work on irreducible complexity and Dembski’s work on specified complexity each represent very significant advances. Another very important achievement of ID theory is its detailed criticism of Darwinian theory. Strictly speaking, this critique does not further ID theory so much as it makes a contribution to natural science theory in that it constitutes a critique of a particular piece of natural science on its own terms. All the same, it offers indirect support for the plausibility of ID theory. For ID theory claims to be doing something more than providing an account of some subjective belief: it purports to account for an objectively cognisable natural phenomenon. The apprehension of this phenomenon involves a subjective element, but that fact does not have the effect of turning it into an arbitrary opinion. On the contrary, it is intersubjective and involuntary. Dembski devotes some discussion to this point, drawing on John Searle’s *The Construction of Social Reality*.⁶ The fact that a given cognition involves subjectivity does not disqualify it as an epistemic claim. Indeed, hermeneutical philosophy has shown that all cognition involves subjectivity. The definition of the natural science project as a project in which only natural, immanent causes properly occur in explanations of natural phenomena also involves subjectivity: somebody has defined that project.

I am not altogether happy with the appeal to John Searle’s work. I think that the characterization of the intelligent design intuition as a cognition in its own right as found in Kant and phenomenological philosophy is more to the point. Kant had a hard time deciding where to place this mode of cognition in his system. It did not belong in the *Critique of Pure Reason*: it is not natural science. He called it teleological judgement and placed it alongside aesthetic judgement in the *Critique of Judgement*. It is an analogical mode of cognition and, to repeat, it is a mode of cognition *in its own right*. It is not merely a pre-scientific cognition that attains scientific status as a result of formal and rigorous study. ID theory bolsters the intuitive analogy but the latter does not thereby become part of the natural science project. It remains an analogy, but a strengthened one. For instance, Dembski’s explanatory filter does not make the design inference scientific rather than

analogical. To determine that something exhibits specified complexity involves, as Dembski explains, the identification of an *independent pattern*, but the identification of this pattern is an analogical recognition and it will never be more than an analogical recognition. If we say that the sequence of the nucleotide bases in the DNA molecule is a “code” that resembles a text written in a human made alphabet, it is just an analogy. If we say that the DNA molecule contains “information”, it is just an analogy, because we only know of information as something caused by human intelligence. – By the way, if everybody agrees on Nobel Laureate David Baltimore’s remark, “Modern biology is a science of information”⁷, then everybody in fact agrees that the object of biology is intelligently designed. The Darwinist try to avoid this consequence by saying that information in biological systems only give the appearance of being information, because the evolution of this “information” can be explained by unintelligent causes, so it is not really information.

I get the impression that Dembski thinks that all knowledge of nature that is not mere subjective belief is natural science. I find such a definition of science too broad. To define science so liberally is to conflate elements that should be kept apart. Confusion results. I miss a particular distinction in Dembski. I think we need to distinguish between scientific knowledge of nature and analogical knowledge of nature. Both modes of cognition are objective, but they are distinct. It is surely to concede far too much to scientific imperialism to claim that epistemic claims that amount to more than subjective belief are ipso facto scientific. We can think of any number of analogical and phenomenological insights which clearly qualify as more than subjective belief without thereby qualifying as science. Dembski operates with just one distinction: science / philosophy and theology. I miss a demarcation between science and analogical cognition.

Larry Laudan is probably right in claiming that it is impossible to define what science is *in the abstract*, but that does not mean that there is no definition of what science is in our common historical *tradition*, to which we are committed and by whose old-established understandings we are to some extent bound. To imagine that we can elect to separate ourselves off from that tradition is to fall prey to an illusion. That is not to say that we cannot question our tradition and seek to renew it, but it does mean that there are limits to how far it may be revolutionized. Tradition has framed natural science as a project whose defining purpose is the explanation of natural phenomena in terms of natural, immanent causes alone. Natural science originated as a revolt against the religiously-informed explanation of nature. The process began when the Ancient Greeks conceived the radically new idea that the action of natural phenomena is not the consequence of the free

decision of the gods but is impelled by forces internal to nature itself. For centuries, natural science was commingled with religious ideas and ID theory. Kepler, for instance, explained the correction of planetary movement along elliptical rather than circular orbits by reference to the agency of angels, who brushed the planets in place with their wings. Over time, the scientific tradition was purged of such religious and ID theory elements, leaving the natural science project in a purer state. Natural science, as tradition conceives it, admits only those explanations that refer to natural, immanent causes. This clear demarcation has been key to its progress. Any purported explanation that invokes God as the cause of some natural phenomenon disqualifies itself as a contribution to science. There is common agreement on that.

The history of science has seen many paradigm shifts. One such occurred when Darwinism and quantum physics introduced chance into scientific explanation. Chance, like necessity, was enfranchised as an explanatory concept. For his part, Einstein refused to countenance it. All his instincts as a scientist were against it. One of the marks of science is that its explanations turn primarily on necessity. The reason why, despite initial repugnance, chance was accepted in science is that chance proves to be an immanent, mechanical factor in explanation. Quite clearly, this paradigm shift respected the overall definition of the natural science project. It respects the intrinsic integrity of the natural science project.

Today, while science admits chance, it does not admit intelligent causes. Is it conceivable that intelligence might similarly qualify as a cause in a scientific explanation? I think not, and nor do I think it would be desirable since its admission would undermine the natural science project as such. It is de facto impossible not to conceive of an intelligent cause in natural science as a transcendent cause. In archaeology and other human sciences, an intelligent cause is not a transcendent one since in these cases the relevant intelligence is human intelligence. But in the natural sciences, it is highly unlikely that an intelligent cause would be anything other than a transcendent cause. True, the relevant intelligence might stem from aliens, but what, then, is the cause of the intelligent alien? We quickly end up with a universe-transcendent cause. So once we admit intelligence as a cause in natural science, we admit a transcendent cause. A paradigm shift that admitted intelligence would not be a paradigm shift that respected the overall definition of the natural science project.

Dembski conceives of the design revolution as a paradigm shift that permits reference to intelligence as a cause in a natural science explanation. This version of the design revolution is one

I am unable to accept. It would not simply lead us to rethink natural science, it would change it into something entirely different.

There is, I believe, widespread acceptance that ID theory is not natural science in any traditional sense. Both Darwinists and ID theorists would agree. To Darwinists, this means that ID theory is not natural science and is therefore a false theory. To Dembski, the corollary is that the natural science tradition itself is in need of total transformation. I take issue with both sides. Darwinists are mistaken in thinking ID theory to be erroneous. It is supported by valid and weighty arguments. I disagree with Dembski, firstly, because when he seeks to assimilate ID theory to natural science confusion follows, and secondly, because it is immodest to want not merely to inject new thinking into a centuries-old tradition, but to transform it into something else – into an amalgam of natural science and ID theory.

While believing ID theory to be true, I would contend that it is not part of natural science. However, the fact that ID theory is not part of natural science does not mean that it is irrelevant to natural science. It is highly relevant, and to biology in particular. When I say that ID theory is not science, Darwinists tend to breathe a sigh of relief, reassured to hear that no serious challenge is being posed. ID theory, they conclude, is apparently a species of philosophy or theology that has no real bearing on biology. But that conclusion is mistaken: ID theory has important consequences for both Darwinism and biology. So while I do not consider it our task to seek make ID theory a part of biological science, I consider it utterly crucial that we clarify the relationship between biology and ID theory.

It is important to stress that this relationship is not an either-or. A biologist may accept both ID theory and the natural science project. A biologist's conviction that ID theory is correct in no way compromises his or her commitment to the natural science project of explaining nature in terms of unintelligent causes. The biologist should say: "The biological system I am studying is intelligently designed, but when I am engaged in biological research I am only looking for unintelligent causes." Unless some such stance is adopted, the subject would not be advanced – research would never get off the ground. For we are interested in doing more than establishing that a given biological system is intelligently designed. When studying a car engine, we are not content to conclude that the engine is intelligently designed: we also want to take it apart and find out how its internal mechanisms interact. By the same token, the whole aim of the natural science project is to take the biological

system apart to discover how its internal mechanisms interact. As said, establishing that a biological system is intelligently designed is not internal to science in this strict sense. It relates rather to the presuppositions of biology. Moreover, we are faced with a problem of nomenclature when describing what we are engaged in when seeking to substantiate the claim that complex biological systems are intelligently designed, since there is currently no term for that project that attracts a consensus. I am led to call it phenomenology or analogical understanding. In my view, it is of paramount importance that we become better at identifying and acknowledging this mode of cognition, which is a mode of cognition in its own right.

The endeavour to explain the origin and evolution of life by means of the Darwinian mechanism remains meaningful even after ID theory has been accepted. Again, the biologist can say: “I know that life is designed, but my project focuses on how much we can explain by reference to unintelligent causes alone.” This remains a cogent form of inquiry for two reasons. First of all, we cannot know in advance how far this mode of explanation will take us, and secondly, it enables us to test ID theory – to seek confirmation that it is not an illusion. Darwinian research is fully compatible with ID theory so long as a distinction is made between scientific project and regulative idea.

Am I advocating methodological naturalism? That depends on how the term is construed. The proponents of theistic evolution do indeed advocate methodological naturalism. They are not ontological naturalists since they also claim that God created the world, but they are methodological naturalists inasmuch as they believe that nature can be fully explained by reference to immanent causes alone. I do not subscribe to this kind of methodological naturalism because I do not believe that nature can be explained by reference to immanent causes alone. I would contend that natural science proceeds on the basis of a methodological reduction. The biologist recognizes, or should recognize, that life, the object of biological inquiry, is intelligently designed while abrogating this knowledge when he or she is engaged in empirical research meaning looking for immanent, mechanical causes. He or she should however not abrogate this knowledge as a regulative idea for his or her research. This reductionist strategy is perfectly legitimate. It represents a deliberate choice made in the interests of furthering research. The difference between the undogmatic biologist and the Darwinist is that the undogmatic biologist is aware of the reduction involved, whereas the Darwinist is not – he or she has no inkling of its existence.

My conclusion, in sum, is that the design revolution does not represent a paradigm shift in natural science. It is a shift rather in our conception of the basic presuppositions and regulative

ideas underpinning biology. Present-day orthodoxy is the Darwinian theory, which contends that precisely scientific materialism is the presupposition and the regulative idea underlying biology. The most commonly held perspective on the natural science project sees it not just as a research project but also as the correct expression of a complete ontology. By contrast, ID theory claims that precisely design is the presupposition and regulative idea informing biology. The knee-jerk reaction against ID theory shows just how ingrained is the view that scientific materialism and naturalism are the proper presuppositions of biology. The recognition on the part of biologists that the object of biological research, life, is designed, and that the natural science project involves a methodological reduction, will amount to nothing less than a revolution, I am sure. Our conception of nature will be utterly transformed and I would expect to see huge ethical implications flowing from it.

Dembski calls ID theory “a new kind of science”.⁸ If by that he means only that natural science qua project will be enriched and invigorated if the insight takes hold that ID theory is the regulative idea on which it is predicated, I agree with him. A new regulative idea may lead to new empirical findings. But if he means that the natural science project as such will be revolutionized by ID theory, then I disagree. For what I fundamentally miss in Dembski’s account is a distinction between science, on the one hand, and the presuppositions and regulative ideas that underpin it, on the other.

¹ William A. Dembski, *The Design Revolution* (InterVarsity Press) Downers Grove, Illinois 2004, p.19.

² Larry Laudan, “The Demise of the Demarcation Problem”, in: *But is it science? The Philosophical Question in the Creation/Evolution Controversy* ed. Michael Ruse, New York 1988.

³ *The Design Revolution* p.33.

⁴ See Jakob Wolf, “The Intelligent Design Theory and the Rehabilitation of Analogical Knowledge”, in *ISCID Archive* 2003.

⁵ Richard Dawkins, *The Blind Watchmaker* New York 1987.

⁶ *The Design Revolution* p. 100-5.

⁷ Op.cit. p.139.

⁸ Op.cit. p. 269f.