Comments on Intelligent Design

The so-called Intelligent Design movement (ID) is quite different from such views as Young Earth Creationism (YEC) or Old Earth Creationism (OEC) in that it arose primarily out of questions surrounding science itself rather than from a distinctively Christian starting point. Nevertheless it has become very popular among evangelicals with a number working within the ID ranks, and for obvious worldview reasons. Design arguments for the existence of God have been with us at least since Medieval times, and made their way into scientific discussions in the early rise of science. One of the most famous instances of such an argument well known to almost everyone comes from William Paley’s *Natural Theology*, first published in 1801:

In crossing a heath, suppose I pitched my foot against a *stone*, and were asked how the stone came to be there… [I could answer] it had lain there for ever… But suppose I had found a *watch* upon the ground… I should hardly think of [the same answer because] when we come to inspect the watch, we perceive… that its several parts are framed to point out the hour of the day… The inference, we think, is inevitable, that the watch must have had a maker; that there must have existed, at some time, and at some place or other, an artificer… who formed it for the purpose… and designed its use.¹

Although, the present ID movement has some similarities with arguments of this type, according to Thomas Woodward, the author of a history of the Intelligent Design movement, the origin of the present movement is actually relatively recent.² According to Woodward, the movement can be traced to the 1960s, perhaps not coincidentally when on the one hand, Henry Morris’s book, *The Genesis Flood*, had recently appeared offering an alternative to the science of the day, and on the other hand, Thomas Kuhn’s *The Structure of Scientific Revolutions*, came out, pointing to the importance of worldviews or “paradigms” behind the scenes in determining what scientific theories dominate. Shortly thereafter, we have some other early dissenters such as noted French zoologist Pierre

---


² Woodward, Thomas. *Doubts About Darwin*. pp. 33-45. Note that an important theme of Woodward’s treatment is one of the rhetoric used on both sides of the discussion. While we do not highlight this theme, it is a very important one in view of the current dialog.
Grassé who published *L’Evolution du Vivant*, in 1973. The book was translated into English in 1977. In the book, Grassé suggests that the fossil evidence is not enough to provide a mechanism, but that the process must be governed by some other “mysterious internal factors.” In a similar vein, Stephen Jay Gould, a well known Harvard paleontologist, and Niles Eldridge, the Curator of Invertebrates at the American Museum of Natural History, concluded in the 1970s that the fossil record did not warrant a gradual evolution of all species as then typically supposed, but that there must have been periods of rapid change followed by long periods of stability or *stasis* of species. They called their theory a theory of “punctuated equilibria” to denote the alternating periods of equilibrium and change. This set off a debate within the scientific community as to what the fossils actually do tell us. In this climate, in 1985, Michael Denton, a British educated Australian biochemist and medical doctor, published his seminal attack on Darwinism which he entitled *Evolution: A Theory in Crisis*. Even though none of these works were motivated by theological commitments, a fledgling movement casting doubts on orthodox Darwinism was born. Denton’s book turns out to be crucial in the next stage, having a large influence on both Phillip Johnson and Michael Behe who represent two thirds of what we will call a three pronged emphasis. Indeed, Denton speaks of Darwin’s theory as paradigm driven, just in the sense that Thomas Kuhn meant.

**Phillip Johnson**

Perhaps the present ID movement can be said to have begun in early October 1987, when Phillip Johnson, a law professor at the University of California, Berkeley, was on sabbatical and looking for a research project. As the story goes, he inadvertently ran across Denton’s book in a London bookstore at the same time as he ran across *The

---


7 This account follows Woodward’s treatment in *Doubts about Darwin*, pp. 69ff.
Blind Watchmaker, by Richard Dawkins, the ardent Darwinist and anti-creationist. Johnson was struck by the use of rhetoric in each account, and as a lawyer, began to realize that an assessment of that aspect of the debate would be well within his expertise. Becoming critical in the process of whether the Darwinists are actually able to make their case, he set himself on a project first to understand the science being represented and then to try out his critique of the Darwinist rhetoric on other scholars. Convinced that he was on to something, he continued by making many acquaintances in the academic world to critique his own work to make sure it was sound, and then to recruit others with greater expertise in the sciences to further the critique. Note that at no point is religion mentioned in this account, and indeed, although Johnson is up front about his belief that there is a designer, his main focus has always been on the claims of the Darwinists rather than formulating something to put in the place of Darwinism. His first book on the subject, Darwin on Trial, summarizing his early formulation of the issue, was published in 1991, after testing the waters through a number of debates and encounters with noted Darwinists.8

Among Johnson’s “recruits” to his efforts within the ID movement are Michael Behe, author of Darwin’s Black Box, and William Dembski, author of The Design Inference. There are many others working in the movement, but these three, Johnson, Behe, and Dembski, have each focused on a somewhat distinct emphasis within the ID movement as it appears today. While Johnson focuses on rhetoric and the argumentation used by Darwinists, Behe’s focus is on what he calls “irreducible complexity,” and Dembski focuses on a method of detecting whether something originated from design as opposed to an origin from law or chance, which he calls “the explanatory filter.” To put the work of these two in the context of Johnson’s movement, it is important to note that Johnson’s primary focus has been to question how good the evidence actually is for Darwinian evolution. He does this without regard to any potential theory to be put in its place, and even indicates that he is open to accepting the theory of evolution if the evidence is compelling enough. But an important question arises: as a sociological

---

8 Notably, Woodward gives an account of a particularly unsatisfying encounter with Stephen Jay Gould, who despite his own role in raising questions about Darwinism, was quite dogmatically opposed to Johnson, referring to him as a “creationist.” See Woodward, Doubts about Darwin, pp. 79-84.
phenomena, how can a scientific paradigm be unseated without something to be put in its place? In this vane, in a review of Johnson’s *Darwin on Trial*, David Hull made the claim that scientists really have no choice but to make naturalistic assumptions. Otherwise, as he argues through a *reductio ad absurdum*, science would cease to be possible. To this, Johnson rightly replies that to deny a purpose does not mean there is no purpose; theists recognize that reducing everything to naturalism leaves out something important, and that one should at least be open to the idea that there is design. As Woodward points out, while this is an effective rhetorical strategy to counter Hull’s critique, it cries out for raising one more question: would it be possible to scientifically detect design? In other words, is there a positive paradigm to replace the naturalistic one? Johnson contented himself to remain on the attack, leaving this question for others to address, a task that was taken up by both Behe and Dembski in their own contributions to the movement.

*Michael Behe*

Michael Behe is a professor of biochemistry at Lehigh University. Like Johnson, Behe’s reading of Michael Denton’s book caused him to raise his own questions concerning Darwin’s theory. Indeed, as he began to see the case Denton made for undermining Darwin’s theory, by his own admission Behe says that he got quite angry that he had been misled for so long. As he began to rethink his position, he considered the biological origin of systems in his own area of expertise, concluding that many systems, a primary example of which is the flagellum that acts for all practical purposes like a tiny motor, had interdependent parts that, should any be missing, would not allow the system to function. In other words, there is no way to get from a non-working version of such a system to a working version, step by step as Darwinian evolution calls for, in any way that is advantageous to the survival of the origin. If any part were missing, the

---

9 Thomas Kuhn’s analysis included this point.

10 Woodward, *Doubts About Darwin*, p. 139.

system simply would not work, and no benefit would be derived. His term for such a
system is that it is “irreducibly complex.” He also noted that nowhere in the literature was
the supposed evolution of such systems discussed, an omission in his mind which meant
that there was no such explanation. Thus he concluded, there must be an intelligent being
behind the design of such systems, and in 1996 he published *Darwin’s Black Box* to
report his newfound change of insights. Behe evidently sees a revolution in biology afoot
that is not unlike the one that took place in astronomy last century. Reminding his readers
that the Big Bang model of cosmology, when first proposed, was often touted as evidence
of a beginning and therefore a creator, the theory of intelligent design should be seen in
similar light. For just as the latter theory is criticized as one ultimately motivated by
religious convictions, so it was said of the Big Bang. Indeed, many well-known physicists
and philosophers of the time, including Einstein himself, were wary of the theory
because it appeared to let God into science, and many years later some were still working
on ways of viewing the cosmos as having an eternal existence. Even today, many
proposals for alternative views of the universe entail naturalistic assumptions.12 Thus
Behe suggests that the theory of intelligent design is no less scientific than that of the Big
Bang.13 In his closing chapter, he explains it thus:

> Now it’s the turn of the fundamental science of life, modern biochemistry,
to disturb. The simplicity that was once expected to be the foundation of
life has proven to be a phantom; instead, systems of horrendous,
irreducible complexity inhabit the cell. The resulting realization that life
was designed by an intelligence is a shock to us in the twentieth century
who have gotten used to thinking of life as the result of simple natural
laws. But other centuries have had their shocks, and there is no reason to
suppose that we should escape them. Humanity has endured as the center
of the heavens moved from the earth to beyond the sun, as the history of

---

12 Take for example the multiverse theory, put forward by physicists such as Andrei Linde. In this theory,
many universes are born and die, and so it is viewed inevitable that a universe such as ours would one day
be among them. This theory effectively removes the question of how our universe appears specially suited
for the likes of us, since there are so many universes to choose from. Eventually one of them would support
life.

13 Ironically, nowadays the Big Bang Theory of cosmology is entrenched in the scientific community, and
many Christians associate the theory with biological evolution, therefore finding it suspect.
life expanded to encompass long-dead reptiles, as the eternal universe proved mortal. We will endure the opening of Darwin’s black box.\textsuperscript{14}

Thus Behe faults many scientists who “just don’t want there to be anything beyond nature.”\textsuperscript{15} They should, rather, accept what nature is telling us, and not bring their own philosophical materialistic assumptions into science.

\textit{William Dembski}

In 1996, a conference entitled \textit{Mere Creation}\textsuperscript{16} was held at Biola University with the purpose of bringing many scientists and others together who were critical of naturalism as a philosophical foundation for science. A goal of this conference was to begin to formulate a coherent vision for science centered around the concept of intelligent design. This conference perhaps could be considered Dembski’s “coming out party,”\textsuperscript{17} for according to Woodward, “in terms of conceptual innovation, the most important presenter at Mere Creation was William Dembski.”\textsuperscript{17} A University of Chicago trained mathematician with a second Ph.D. in philosophy from the University of Illinois at Chicago, as well as theological training from Princeton University, at the conference Dembski spoke on the topic of his forthcoming book from Cambridge Press, entitled \textit{The Design Inference}.

Dembski’s research stems from an already well-respected line of inquiry concerning the detection of intelligent actions, coming from such fields as probability theory, information and complexity theory, and more practical areas such as forensics. Dembski’s main proposal is embodied in what he calls the “explanatory filter.” This filter contains a three-tiered layer of judgments to decide whether something is due

\begin{itemize}
\item \textsuperscript{14} Michael Behe, \textit{Darwin’s Black Box}, pp. 252-3.
\item \textsuperscript{15} Behe, p. 243.
\item \textsuperscript{16} The proceedings of the conference, \textit{Mere Creation}, edited by William Dembski, was published in 1998 by Intervarsity Press.
\item \textsuperscript{17} Woodward, p. 173.
\item \textsuperscript{18} Dembski, William. \textit{The Design Inference}. Cambridge: Cambridge University Press, 1998.
\end{itemize}
to regularities, i.e. known laws, due to chance, or due to design.\footnote{Dembski, \textit{The Design Inference}, p. 36.} We are all pretty familiar with what law-like behavior looks like. For example, falling objects obey the law of gravity and it is pretty easy to judge from experience when gravity is at work. Such law-like behavior is considered of high probability. This is the first tier of Dembski’s explanatory filter. If however, according to Dembski, a phenomenon occurs that is not deemed of high probability, but it is of sufficient probability that it is reasonably likely to occur even though another event could have occurred instead, we may judge that it occurred “by chance.” This is the second tier. However, if something occurs that is of such small probability that it cannot reasonably be attributed to a regularity or to chance, we have a third situation. Being very unlikely does not alone require that an event must have an intelligence orchestrating it however, even though we may highly suspect so. Highly improbable events do occur. For example, if you play the lottery, the odds against you winning may be some sixty million to one, so the odds that you win are lower than that you would be hit by lightning. But someone wins, and whoever that is had just as poor odds of winning as you do. So clearly such highly improbable events occur just because the odds that someone will win are actually fairly high. To distinguish between those highly improbable events that we should attribute to chance as opposed to those for which we should infer to have an intelligence behind them, Dembski suggests an additional criterion. This last step is in some sense the heart of the argument that adds robustness to the “filter.” Dembski suggests that in order to attribute an event to design, it must not only be of small probability, but it must also be “specified.” What does it mean to be specified? While Dembski’s definition is somewhat more complex, in essence, an event of specified complexity is an event that is both highly improbable, and also specified beforehand outside the context of its probabilistic likelihood, in the sense that it is in some sense identifiably special. In exactly what sense is difficult to define, short of providing examples. One of Dembski’s often repeated examples is that of a safe with five
The combination of such a safe is one sequence of five numbers out of ten billion possible sequences. But suppose you recall that the safe was locked, but you now notice that it is open. You would obviously surmise that someone knew the combination, rather than that the safe was somehow opened randomly. But perhaps more importantly, Dembski offers several real life situations in which there is no dispute about detecting design, such as in forensic science and cryptology. His explanatory filter seems to work well when applied to these areas, so the question is why would it not be a compelling test of design in areas of biology? This is of course where Dembski is headed, suggesting that detecting design should be as objective in biology as it is in other areas of science.

In summary, we have chosen to look primarily at three representatives of the ID movement, Phillip Johnson, Michael Behe, and William Dembski. There are many others in this movement we could mention, but along with the general kinds of design arguments Hugh Ross raises in the context of the anthropic principle, the three issues that were raised here, the rhetoric of the argument, the idea of irreducible complexity, and the explanatory filter, provide a good cross section of the major arguments of the present-day ID movement.

Strengths and Pitfalls of the Intelligent Design Movement

Now what are we to make of the this movement. Perhaps the first thing to do is to commend all those working on issues in intelligent design, because they have undoubtedly opened up an interesting discussion concerning the merits of evolutionary theory, and to this we owe them a great debt. From Phillip Johnson forcing the issue of just what assumptions go into evolutionary theory to the attempts of Behe and Dembski to objectify ways of identifying complexity in creation, these efforts have enriched the present day discussions concerning science. But having said that, we must also raise some issues that seem to us important to understand.

---

20 See e.g. Dembski, William A. The Design Revolution: Answering the Toughest Questions About Intelligent Design. Downers Grove, IL: Intervarsity Press, 2004, p. 82. This example also occurs in Dembski, The Design Inference. p. 43ff.
The first issue, which should be viewed as an “in-house” issue, is that we should not overestimate the role that intelligent design plays in our endeavors to spread the Gospel. Whether or not we can argue someone into believing that the flagellum, for example, was designed by some intelligence does little for evangelism. At best, the intelligent design arguments can lead to an abstract intelligence behind the scenes, but there is no compelling reason that that intelligence would be the Triune God who actually did create, nor is there any connection with the abstract intelligence and the conviction of sin. Sure it is nice to be able to argue that intelligence is (most likely) behind creation, but at best that can only function as a sort of pre-evangelism, and nothing more. When man is in rebellion against God, whether he believes in evolution or not is in itself of little consequence.

Having said that, we also need to consider how compelling the arguments for intelligent design really are. As anyone who has followed the debates over the last decade knows, no matter what is said on either side, neither seems to convince the other that their view is correct. If you are going to believe that all creatures arose via naturalistic means, this is a faith that will not be easily broken by making arguments of probability, even if such probabilistic arguments would work in other contexts. Other potential problems lurk under the surface as well. For example, in Dembski’s explanatory filter, he is careful to separate events into three disjoint categories, law, chance, and design. However, someone else may not see these categories as disjoint. For example, Howard VanTill argues that creation ought to be such that it has “functional integrity” built in, in that all that has arisen has come about by a natural evolutionary process, but that God built in all the information necessary into the system so that we would be the end product. This position is clearly a theistic evolutionary position that admits a designer. It is just that the designer worked by embedding the design in the laws. In other words, the laws already contained the information to give rise to specified complexity according to this view, so law and specified complexity are not distinct categories. Evidently if one takes this view, then the best the explanatory filter can achieve is a kind of theistic evolution, which is hardly where most Christians want to end up. Also this view is strikingly similar to a view
advocated by Stuart Kaufmann and others,\textsuperscript{21} that rather than Darwinian randomness at the root, perhaps the laws are such that complexity arises through complex non-linear systems as studied in what is known as chaos theory.\textsuperscript{22} This view, which was somewhat motivated by Gould’s theory of punctuated equilibrium, considers the laws to already have the necessary complexity in some sense built in, without ever acknowledging a builder. The question then becomes, where did such laws come from? For if the laws already contain the information necessary to produce creatures like us, it would seem that they must have been designed.

Design theorists such as Dembski often seem to suggest that if the naturalists would only be more objective, they would see the need for intelligent design behind nature. This would imply that perhaps the naturalists are being less than honest in their thinking.\textsuperscript{23} It should be a telling point both against the idea that evolution (as a biological ancestor-descendent story) is a fact, and the idea that science is objective, that despite the number of objections to intelligent design arguments, they simply are not objectively convincing to all parties. What accounts for the difference of opinion? Obviously there must be prior assumptions coming into play. If people on opposite sides want to make progress in understanding each other, all parties need to be brutally honest not only with each other but with themselves in order to uncover not only the real status of evolutionary theories, but also their own motivations. It is obvious that if you limit the possibility of anything other than a naturalistic explanation for the appearance of life, you will have to come up with a theory something like evolution. But the question here is why do you limit yourself to naturalism? That is a faith issue. And why deny a designer if it has nothing to do with the issue? Clearly at the very point of denying the possibility of a creator/designer, the person committed to naturalism has brought religion into the

\textsuperscript{21} Stuart Kaufmann is one of a number of Darwinist dissenters who point to complexity theory (chaos theory) as a possible mechanism that would allow the rise of complexity within a naturalist approach to the connection between the present and the past. See e.g. \textit{The Third Culture}. See also Stuart Kaufmann, \textit{At Home in the Universe}, and Kaufmann, Stuart, \textit{The Origins of Order: Self Organization and Selection in Evolution}.

\textsuperscript{22} See e.g. Gleick, James. \textit{Chaos}.

\textsuperscript{23} In the preface of \textit{The Design Revolution}, Dembski seems to embrace Michael Denton’s notion that a Kuhnian revolution is at hand in science and it revolves around intelligent design.
discussion. And while some believers in an intelligent designer may accept evolution as the way through which the designer worked, the real question here is, what constitutes a convincing argument for people who do not accept an intelligent designer? People committed to naturalism have no choice but to adopt some sort of evolutionary theory, but those willing to entertain miracles for example have many avenues open to them. It is on this backdrop that evolutionary theory as an origin for all biological species has come up unconvincing to all parties.

Can a whole century and more of biologists be blind to the fact that their assumed theory of how everything came about does not have a compelling argument to support it? Perhaps a comparison with physics will help. In the case of cosmological evolution, or the “Big Bang” theory, the arguments are much more apparent. If one accepts the assumption that Einstein’s theories, which are supported by all present experiments thus far, were actually valid descriptions of the universe going into the distant past, then the inevitable conclusion from the data we have now (evidence of an expanding universe, WMAP data of inhomogeneities in the cosmic background radiation, etc.) is that the universe came into being around 14 billion years ago. Here we have a clear set of assumptions that can be judged. We have on the one hand a mathematical equation, and on the other we have the present data of the universe. It is the mathematical equation, extrapolated back in time, which gives astrophysicists some confidence that the theory is correct. If we only had the present data with no definite way of connecting it to the past, we would not have a reasonably compelling picture of the Big Bang. In the case of biological evolution we have no such compelling underlying mechanism. It is therefore much harder to make a convincing argument that such a scenario occurred. But on the other hand, what would stand in the place of the current biologists’ assumption of a continuous connection with the past through natural processes? The physics story can be told in the context of a deist model “at worst,” with just a designer to get things going. But deism in biology relies on some theory such as evolution and the alternative is quite radical: a theory of intervention along the way, or at least a theory such as punctuated equilibrium in which large changes take place rather rapidly even if presumed to be
within a naturalistic framework. Clearly the naturalistic focus of present-day biology would want to have at least a paradigm replacement that would fit in the naturalistic framework.

In this context, one might ask the question, does the Intelligent Design movement offer enough of a paradigm replacement to be acceptable to present-day biologists? Bill Dembski evidently thinks so. For the very title of his book, *The Design Revolution*, is a throwback to Kuhn’s terminology concerning scientific revolutions. Is design theory really a “new kind of science” as part six of Dembski’s book declares, or is it just addressing an interesting question that deserves discussion within the present paradigm of science? In my opinion, if there is a revolution upon us, it will probably have to do with the whole issue of information, and not just design per se. Within that context, design theory certainly has its place as an interesting addition to the discussion.

There are serious questions being raised here, however, that go hand in hand with the discussion of methodological naturalism we will study under the topic of Mere Science. On the one hand, within science it is certainly not very fruitful to invoke God as an explanation for everything. Without particular information concerning His intentions, this would not provide much of an explanation for any particulars. On the other hand, suppose scientists attempt to rule out the very idea of design, even when it is the case that a God is responsible for the design of what they are studying? In this case, scientists may have to accept naturalism even though it is false. So there is a real question here for science. As Phillip Johnson has said, though science cannot study purpose, that is no reason to deny that the universe has a purpose.\(^{24}\) It only tells us that we will not find the purpose through science. This leaves us with the important meta-question; can we have a theory that tells when design should be considered?

A quote from the preface of *The Design Revolution* is perhaps helpful in summarizing my overall assessment of the intelligent design movement.

The fundamental claim of intelligent design is straightforward and easily intelligible: namely, *there are natural systems that cannot be adequately*...

---

\(^{24}\) Woodward, *Doubts about Darwin*, p. 140.
explained in terms of undirected natural forces and that exhibit features which in any other circumstance we would attribute to intelligence.\textsuperscript{25}

Any Christian would likely say a hearty Amen to that. So we end this section with a cheer and a warning. Bravo to the intelligent design theorists for opening up an intriguing and increasingly rich discussion about the nature of creation. But we ought not ask more of the arguments than they can deliver.\textsuperscript{26} Just as in the days of Natural Theology when a reasonable inference was made to the existence of a designer God, it is impossible to get to the God of the Bible from the “bottom up.” The design theorists, when they talk about theism, sometimes have a tendency to lump all theisms together. But in view of our earlier discussion, this leaves us with the question: knowing what we know about God and the Gospel, is it faithful science to ignore the Triune Creator?

So as interesting as the ID movement is for the Christian, the bottom line is that we should take it for what it is and not more. There will always be a naturalist story even if it sounds unreasonable to us, and the reason is quite simple; whether we see design or do not see design in the universe is not simply a matter to be determined through reason and experimentation alone, but ultimately it is a matter of the heart.

\textsuperscript{25} Dembski, \textit{The Design Revolution}. p. 27.

\textsuperscript{26} To their credit, some of the design theorists have been quite explicit about this point as indicated in the previous discussion of Phillip Johnson.