Reilly Center Reports

Intelligent Design: Any Wrinkles in this Old Idea?

Author: Christopher Hamlin

Intelligent design is presented as an induction from the current state of scientific knowledge. Certain phenomena, mainly biological, are said to require a combination of contingent events so unlikely that an intelligent contriver (AKA God) is a far likelier explanation for them than an assemblage of natural events. To its advocates, ID is seen as a new master theory that will displace the regnant Darwinism, seen as the flagship of a naturalistic and atheistic world view.

Intelligent design is not new. It is a central part of natural theology, the attempt to prove God’s existence and infer God’s attributes through the study of nature. The history of natural theology has been little studied; hence the contemporary discussion is taking place in a context of profound ignorance – on both sides.

The debate over whether the phenomena of nature indicated an intelligent designer is very old. The heyday of the design argument (that nature proves a designer) was in certain Protestant communities from 1650 to 1850. It was never the predominant Christian view, however, and by the middle of the nineteenth century it had pretty well been jettisoned – by theologians, philosophers, and scientists, each for somewhat different reasons – following far more searching discussions than those currently occurring. Below are some common assumptions about ID with my historian’s observations.

1. **Assumption**: the period before Darwin was a golden age of faith in which people believed that God had designed a world that had not changed since the Creation.

   No: Charles Darwin was a synthesist. Most of his ideas were in circulation long before. What we call evolution – the change in forms of life over time rather than their persistence since the Creation – was not a new idea. Some pious and orthodox Christians, like the Swedish naturalist Linneaus, had theorized a good deal of species change in the earth’s history, particularly following the flood.

2. **Assumption**: evolution, the origin of species, was, is, and should be the key issue for people who were thinking about how to reconcile the nature that science disclosed with religion.

   Despite the attention it currently gets, the question of biological change was not the key issue. More important was materialism, but even materialism – the idea that the soul and all other things were material and subject to natural laws – could be accommodated within a view of a divine plan. Most problematic was the underlying question: whether life, the universe, and all that, had meaning and purpose instilled in it at the beginning by some entity with a plan and a degree of control, or whether everything was a pointless, meaningless, random, amoral, and often bloody and miserable mess. That is, the ulterior issue was (and probably still is) theodicy. How do we reconcile the horrific and confusing things which keep happening with the rule or design of a God who is good, all-knowing, and all-powerful? Or must we abandon belief in design and assume that these things are the product of random processes?

3. **Assumption**: the argument from design, the view that explains adaptation as a product of God’s plan and a proof of God, was developed around 1800 by the English clergyman William Paley

   The argument from design, and the larger debate about the plan and purpose of the world, was much older. For most of the history of the west, the most important sources of this debate came from first century BC Rome. The greatest text to take the design position was Cicero’s *Dialogue on the Nature of the Gods*. While the dialogue is a debate among three philosophers who take different points of view on the question,
it is the design view of Balbus the Stoic, which is most fully developed (at least in the portion of the text that survived the dark ages; the original contained a criticism of that view, which has was lost). The greatest text to embody the “all is random” position was (and still is, in my view), Lucretius’ poem On Nature. The early Christians drew on both Stoicism and Lucretian Epicureanism in seeking an intellectual response to Greek and Roman philosophy. From the Stoics they drew a description of how God’s goodness was manifest in the marvelous integration of the disparate parts of the universe; from Lucretius, a message of the need for humility in a fallen and unpredictable nature ruled by a God holy and just, but mysterious, and often not benign with regard to the immediate desires of particular humans.

4. Assumption: Believers in a single Creator God (Christians, Jews, and Muslims) would have taken the design position

While believers may have agreed that God was intelligent and had designed, by no means did they take the view that a natural theology was viable; that one could prove the existence of a God through nature or learn about God’s plans and attributes from nature. Islam and Judaism emphasized God’s will; to hold God accountable to human expectations about what comprised goodness or intelligence was impious. Within Christendom, natural theology was not particularly important prior to the mid-seventeenth century, when it became important in some communities of Protestants in Germany, England, and Holland.

5. Assumption: Natural theology, the argument from design, would have appealed more to Conservative Christians, concerned with biblical inerrancy and the immediate rule of God while liberals would be more apt to be comfortable with a meaningless world in which God was distant.

In fact, while the allegiances were complicated, and “conservative,” and “liberal” are inadequate labels, the poles were opposite. Those looking to nature to reveal the intelligent design of the universe were generally theological liberals. Among them were some radicals and deists, like Thomas Paine (The Age of Reason) and the chemist-theologian Joseph Priestley, who made much of a beneficent and supremely ingenious Creator, but had little room for a redeeming Christ. Even the Anglican William Paley, who had some of the same teachers as Priestley, spent most of his career at the borders of unorthodoxy (though not mainly because of his natural theology). Some of these authors substituted a personified “Nature” but their views were very similar to those who invoked God. To many Christians, these natural theologians were seen to be replacing scripture and tradition with nature as a means of acquiring religious knowledge. English Conservatives, following the lead of Joseph Butler, were uneasy with this so called “natural religion” of rationalism.

6. Assumption: Darwin killed the argument from design

In fact, as a serious theological-scientific-philosophical enterprise, natural theology had been pretty well abandoned before 1859 when Darwin published his ideas on On the Origin of Species. As a nature piety – a view of the world as wonderful and beautiful and a means to commune with God – it has lived on in popular natural history and is manifest in some strains of modern ecotheology and environmental ethics. Two important communities of Protestant theologians had given it up before Darwin. Evangelicals, following William Wilberforce and Thomas Chalmers, had seen the optimism of Paley as a distraction to the central redemptive mission of Christianity, and they complained that Paley’s world neglected the fall. Not all features of the world did seem to be designed; a great deal about nature did seem cruel and arbitrary, and perhaps the fall could account for that. Other theologians, inspired by the German philosopher Kant, held that the transcendent realm of the divine could not be accessed by modes of thinking used for studying the natural world. One of them, H.L. Mansel, declared in 1858 that it would be foolish for theology to stake its truths on mere philosophy, much less the tentative inductions of natural scientists. Philosophers, meanwhile, following David Hume, had found a number of logical flaws in the design argument. Most important was that the conclusion of a designer was smuggled in with the premise. Once you acknowledged something as a design, of course it had a designer. Another was the problem of how to explain intelligence itself, which increasingly was being seen as a question of natural science: natural theology begged that question.
7. **Assumption**: Prior to Darwin all Christian scientists would have been natural theologians.

While most scientists certainly believed in a God of some sort, whose creation they were studying, only rarely did they see science as a means to prove God, or see the explanation of nature as design as a worthwhile goal of scientific research. The principle of Occam’s razor against the positing of unnecessary hypotheses, also made them uneasy with natural theology. Accounts of what God’s purposes might be for some feature of nature were superfluous, if plausible, hypotheses, which could not be readily tested. While in some universities natural theology was taken up in introductory lectures, it never became a learned discipline – its methods were too arbitrary.

8. **Assumption**: while the natural theology of the past may have been rejected in favor of a Darwinian account, greater scientific knowledge has revealed phenomena which are anomalous or inexplicable on that account, and which therefore point to intelligent design.

Then as now, makers of the design argument drew their examples from phenomena which seemed hard to explain according to known natural laws – e.g., the existence of the eye. Many of these – e.g. the workings of muscles – were relatively quickly explained in the succeeding decades, however, if not at an ultimate metaphysical level. (One concern of theologians who were critical of natural theology was that to attribute to the direct design of God a phenomenon that might later be explained as a product of natural laws would make theology look foolish and arbitrary.)

A common argument of more recent creationism-ID proponents (and one lodged against early advocates of Darwinism) has been that the lack of a complete explanation for every phenomenon invalidates the theory. But many scientists and philosophers of science have argued that it is the claim of complete and systematic knowledge that we should be wary of. For them the hallmarks of science will be the ongoing process of finding explanations for novel phenomena, and sometimes, in the course of that endeavor, revising our understandings in profound ways. The provisional character of science, its willingness to privilege open-endedness over dogma, has seemed to them its most important characteristic. Experience suggests however that the problems that appear baffling in one age are solved and become the stuff of basic science courses. They may be no less remarkable, but we get used to them as aspects of how the world works.

9. **Assumption**: to disprove Darwinism would be to prove design

Proponents of ID sometimes make reference to the history of scientific revolutions. While the neo-Darwinian synthesis is a robust scientific theory, it is not inconceivable that it could be replaced. It is not clear that ID would be the obvious replacement, but could it be? The answer to this question depends on what an ID position entails. One of the issues in the 19th century debate was whether the claim that some feature, say the eye, was designed entailed the claim that all of nature was designed, including anomalous features like male nipples. While there was no logical requirement that a designer who took responsibility for one part of nature would take responsibility for all of it, to say that God designed only some parts of nature raised the question of where the boundary between the designed and the random lay, and why? Most critics pointed to things God could have made better but hadn’t, leading to the very theodicy problem considered above. There were many answers to this problem, but no good way of testing them; hence the uneasiness of scientists in allowing God’s will to serve as an answer to a scientific question. To make ID a robust competitor to Darwinism would seem to require that the working principles of the Intelligent Designer would have to be sufficiently clearly spelled out so the hypothesis could be tested against actual experience. Even then, this would not constitute proof: the similarity could be coincidental.

10. **Assumption**: ID’s detection of the improbability of the existence of certain biological structures and processes (the improbability or contingency argument) is a very strong proof of their non natural origins.

Contemporary ID proponents deploy two arguments which in the nineteenth century were seen to point in quite different directions. The first of these is the standard design argument associated with Paley, which sees the designer as a great engineer. That is, when one finds a natural mechanism as an excellent and
efficient adaptation for achieving an end, the conclusion is drawn that it was the work of a designer seeking
to meet this end, often a designer whose skill were far beyond human capacity. As early nineteenth-century
biologists began to suggest, however, there might be natural processes inherent to living matter which
would generate such adaptation. A common template was the way in which a seemingly homologous
fertilized egg over time acquired the differentiated features of an organism well adapted to its environment.
Accordingly, by about 1830, following the lead of the Scottish evangelical Thomas Chalmers, natural
theologians had switched to the contingency argument. The functioning of biological systems, they argued,
required a series of independent events, each one relatively unlikely. To calculate the improbability of all
these events occurring one multiplies together the improbabilities of each of those independent events. E.g.,
if there are ten independent determinants, each with a probability of .5, their total improbability would be .5
to the power of 10. Rather than seeing ourselves and our structures as obvious ways a supremely clever
inventor meets design ends, this view then argued that the phenomenal improbability of these structures
must represent the interference with what would otherwise be the normal course of nature. (Some
nineteenth-century authors took the unnecessary complexity of natural processes and features as an
indication that God wanted us to be natural theologians and was showing off in a particularly ostentatious
way.)

The argument hangs on the broader question of how we confront contingency. While it is true that the
outcome that gives us our world is a highly unlikely one, so too would be most other particular outcomes. If
we privilege ourselves as the appropriate outcome of cosmic processes, that unlikeliness really does point
to an intervention, but the unlikeliness itself brings no reason to make that assumption; if anything, it makes
our existence less likely to have been a product of design on the grounds that a god who had really wanted
to make us would have taken a more obvious plan. To accept the proof of improbability then, one must
already be convinced by intelligent design. In fact, most of the time we operate successfully in a world
where very many events are massively contingent. Historians in particular come to be quite comfortable
with much more complicated trains of contingencies than those posited by natural theologians (who could
have gone much further with the list of contingencies if they had desired to). The course of history is
determined by the randomness of infection, weather, bullets, chance meetings, and so forth. Well into the
eighteenth century, many would have held that none of these contingencies truly were random; all were
 providential. In 1688, when the so-called “Protestant wind” blocked the fleet of James II, for example, that
marked God’s approval of the Glorious Revolution. Providentialist thinking has been, and remains
powerful in the shaping of American outlooks, even if it not entirely respectable in the public media. To
move it beyond a matter of faith requires again a consistent and non arbitrary way to distinguish the doings
of God from human free will or the doings of nature.

11. Assumption: natural theology was rejected because religion was not being taken seriously in an age of
increasing secularism.

In fact, natural theology was rejected because it was taken seriously by devout philosophers, scientists, and
theologians, many of whom wished that science could provide them with reassurance on questions of
purpose and destiny. Their rejection of it was often gradual, and sometimes deeply wrenching. Their search
for an alternative, non Theist, moral view of the world and our place within it was by no means uniformly
successful. In a modern age brutalized by twentieth century calamities such as the first world war, the
holocaust, and the prospect of nuclear annihilation, we have perhaps become particularly contemptuous of
those who did think deeply about such issues and wanted to take seriously the moral government of the
universe.

12. Assumption: Intelligent design is a scientific hypothesis and should be debated in public fora with other
scientific hypotheses.

ID is not a scientific hypothesis; it is an axiom of faith, which might however be a widespread public faith
rather than simply the view of some persons. The fact that it was found wanting a century and a half ago in
discussions generally more sophisticated than those currently occurring, is not necessarily a reason to halt
discussion, even if that could be done. Issues of the plan and purpose of nature and of the human enterprise
are eternal issues; it is appropriate for a culture to address them anew as circumstances change.
In my view, the changed circumstance is not the arrival of much more detailed biological knowledge. The problems that led 18th century natural theologians to the design argument seemed as baffling to them as some of the purportedly unexplained aspects biology appear to us now. What has changed is that science, more than ever, is no longer merely a way of seeing and understanding the mechanisms of nature; it is a way of profoundly transforming them. Questions of purpose often arise when we think about the propriety of human cloning, for example, and also when we think about obligations to preserve endangered species and sustain the environment more generally. While science can, to some degree, predict the implications of certain of our actions, it is not a normative endeavor: it cannot tell us what purposes to enact. For many people these questions of “how shall our actions shape our destiny?”, are genuinely religious questions; they will address them in terms of their ideas of how we are to enact God’s design. That debate is already, and one might say always, occurring. Only if we welcome that debate, and engage in it honestly, can we prevent debate on intelligent design from remaining what it seems to be now, a facile proxy for ulterior political purposes. Should these matters be taught in schools? It would be wonderful if students could be persuaded to take the welfare of their world, and their role in achieving that welfare, seriously. That can only come from testing their metaphysical ideas. But that is no substitute for teaching the best science we have. In the context of science-teaching, intelligent design is at best an unhelpful distraction, and an invitation to cease to use our human ingenuity to explain nature.