

INTELLIGENT DESIGN OR NATURAL DESIGN

I'm going to begin by taking you on a personal tour of my own thinking about intelligent design over the past 60 years.

It began in 1945 when I was a 14 year old at Mt Albert Grammar. Our Fourth Form English teacher decided we should learn the skills of debating. The topic chosen was "Creation versus Evolution". And I, as an ardent young Baptist, volunteered, along with a Seventh Day Adventist, to take up the cudgels on behalf of Creation.

But even before the debate began, I found myself cast in the role of devil's advocate.

While preparing, it dawned on me that the case for what's now called intelligent design foundered on an ambiguity between two meanings of the simple word "creation": the concept of general creation, and the concept of special creation.

To believe in the theological doctrine of general creation is merely to believe in a God who created the universe. Clearly, I could, without inconsistency, believe in general creation and also believe in the Theory of Evolution. I simply had to regard Darwinian natural selection as one of the laws of nature that God built into his creation.

To believe in special creation is to believe in addition that God, in a series of subsequent acts, created the first living organisms and then, at different times, each of the different species.

The God of special creation is an intervenor in the operations of nature. The creator in whom I came to believe - for a while - is not.

Making this simple distinction gave me temporary respite from the intellectual conflict in my mind at that time. I'd already become skeptical about the *Genesis* story of God's recent rapid-fire creation. Like fifth century St. Augustine I concluded that these biblical literalists deserved to be "laughed to scorn" for their "utterly foolish and obviously untrue statements."

Adopting Augustine's more figurative interpretation, I was able to reconcile my belief in intelligent design with belief in evolution. Renouncing the beliefs of theistic anti-evolutionists I adopted those of theistic evolutionists.

So far, so good. But other questions soon arose.

How about the doctrine of revelation, belief in which is a defining condition of being a theist? Could I really accept the Christian view that God had revealed himself in the words of the Old Testament prophets and the New Testament "Son of God"? Most of the stories had the quality of myth, not

history. And many portrayed God as a worse than Satan himself, his Son's doctrine of hell-fire being most repugnant. Besides, why should I believe in this version of revelation rather than some other? There were numerous sacred texts, all claiming divine inspiration. If a supreme being existed and wanted to reveal himself to us, why didn't he do so in an indisputably authoritative way? No rational answer being available to this or other questions I was asking, I soon came to abandon belief in all forms of revealed religion.

Yet I still wasn't ready to abandon the gods altogether. For a time I sought intellectual comfort in the best arguments of natural religion: the First Cause and Design arguments. Both have appeal to those who don't believe in revelation but still believe there must be some sort of Supreme Being or Higher Power who made the universe the way it is.

Without being aware of the fact, I was embracing the position of the deists - thinkers like Thomas Jefferson, Thomas Paine, Voltaire, and David Hume - none of whose writings I'd yet read.

But that embrace was brief. It didn't take long to see that both their arguments faced the horns of a dilemma. Either the universe itself could exist without being designed or created, or the designing and creating deity must himself have been designed and created. So either we were left with the universe where we started or we launched ourselves on the path of an infinite regress.

My mother, when I was but six years old, was flummoxed by my question, "Who made God?" Not surprising! You can't explain why something exists rather than nothing by postulating the existence of something else as well. For then you've got two things whose existence demands to be explained. And appeal to a third, then a fourth, and so on, only increases the burden. Asking for explanations *within* the universe is profitable. But asking for explanations *of* the universe launches you on a quest for a cause that eludes you forever.

The last residuum of my supernaturalistic beliefs eroded away about the same time. Having rejected the gods and devils of religion, I soon rejected all other beliefs in the paranormal: those countenanced by the Psychological Research Society - disembodied spirits, and the rest.

Free at last, I embraced a wholly naturalistic ontology - a world-view that accepted the universe, its contents, and the laws of nature, as brute facts neither needing, nor capable of, further explanation. I had become an unabashed atheist (though a closet one while still living with my parents).

That all occurred before my eighteenth birthday.

Disenchanted with religion, I turned my interests to science and then to philosophy.

I would happily have followed a career in science - especially Biology - had not the appeal of Philosophy been still stronger.

The greatest philosophers in the analytic tradition (Aristotle, for example) aspired to the kind of wisdom that would enable them to put the competing demands of all belief-systems into some sort of perspective with a view to adjudicating between them. I shared their aspirations, and during my subsequent career as an academic philosopher developed some of the skills required for their achievement.

Science, I came to realize, doesn't rule out the possible existence of a supernatural world. It isn't logically committed to metaphysical naturalism. But it is committed to methodological naturalism, the view that, in our attempts to understand how the world works, we should look for naturalistic explanations rather than taking easy recourse to supernatural ones. The successes of science in bridging the gaps that used to be plugged by the gods creates a strong presumption in favour of the idea that gods not only aren't needed but don't exist. It doesn't prove, but it does probabilify to a high degree, the truth of metaphysical naturalism. And by the same token, it makes all supernatural beliefs highly improbable.

In my own mind the battle over design had been fought and won. I subsequently looked on in dismay as the intellectual troglodytes of creationism - referred to as "Scientific Creationism" since the 60s - tried to resuscitate their old arguments, singling out remaining gaps in our understanding of biological phenomena as suitable places for inserting the hand of God. Why pick on the unknowns of evolution, I wondered? Why not invoke the almighty to explain what yet remained for science to discover about the precise mechanisms behind the occurrence of earthquakes, tsunamis, and hurricanes? Or diseases, for that matter? The Old Testament made God the direct cause of all such dread occurrences. Yet Creationists were silent on the issue.

Over the years, I have increasingly come to appreciate the extent to which science gives evolutionary theory credentials as good as any other scientific theory. It rests on mutually supporting and interlocking empirical evidence drawn from a host of sciences: not just natural history, but cosmology, astronomy, physics, biochemistry, geology, plate tectonics, palaeontology, population genetics, ecology, anthropology, comparative anatomy, etc. Even Newton's theory of gravitation and Einstein's theory of relativity can't claim such a broad interdisciplinary base.

Evolutionary theory itself doesn't pretend to explain biogenesis, how the first forms of life began. That is the province of other areas of science: organic chemistry and molecular biology among them. So far as I know

scientists haven't yet reached a consensus on which account will stand the test of scientific scrutiny. But there's no good reason to suppose that present gaps in our understanding can't be filled in future.

Fast forward to the 1990s, and the latest kind of talk about intelligent design, sometimes referred to as "Intelligent Design Theory" (as if it were on a par with the grand theories of science) but nowadays more simply as "ID".

Contrary to many critics, the new ID movement isn't merely a rehash of the earlier Scientific Creationism of Henry Morris and Duane Gish. ID's high priests - the likes of lawyer Philip Johnson, biochemist Michael Behe, and philosopher William Dembski - have introduced new elements into the old debate.

First, they have introduced an alleged criterion for determining just which phenomena call most loudly for the agency of intelligence. According to them the hand of an intelligent designer is needed to explain what they call the "irreducible complexity" of some organisms - those whose simpler parts, in their view, would not have had survival value and hence could not have been put together by the mechanisms of evolution. Alleged examples include biogenesis, the flagella of *E. coli*, and the human immune system.

Second, the new ID "theory" has introduced - perhaps unwittingly - the possibility of a third theistic position between that of theistic antievolutionists who reject evolution in its entirety and theistic evolutionists who accept it in its entirety.

Behe, for example, accepts the broad outline of evolutionary theory. He accepts the idea "that all organisms share a common ancestor", for instance. But he insists that irreducible complexity can only be explained by the intervention of an intelligent designer. Behe accepts evolution so long as it is punctuated with acts of creation. His position can be described as that of a theistic quasi-evolutionist.

The chattering classes seldom explore the details of Behe's position. What matters to them is that here we have a biochemist proclaiming that no-one working in his discipline has managed to understand how life works at the molecular level. The result of their cumulative failure, Behe claims, "is a loud, clear, piercing cry of 'Design'." Continuing, he writes: "the result is so unambiguous and so significant that it must be ranked as one of the greatest achievements of the history of science."

As for just who did the designing, Behe is deliberately vague. His own candidate for that role is the God of evangelicals. But his highly generalized talk of a "designer" leaves it open as to which particular god or gods did the designing. Like his fellow ID proponents, he casts the net of verbal entrapment wide enough to snare the sentiments of anyone who merely thinks some "higher power" did it.

Little wonder that ID has beguiled many who should know better.

A case in point is that of Antony Flew, one of the icons of twentieth century atheism, a fellow-philosopher and - along with me and Richard Dawkins, Richard Leakey, and others - an Honorary Associate of the New Zealand Association of Rationalists and Humanists.

To my dismay, Flew recently announced that he now believes in some sort of God. Why? Mainly because the claims of ID had convinced him that "It has become inordinately difficult even to begin to think about constructing a naturalistic theory of the evolution of that first reproducing organism." His conclusion was that "intelligence must have been involved."

As for which intelligence did the designing, Flew has vacillated. He has flirted with a number of different candidates, the gods of pantheists, of deists, of theistic evolutionists, and of theistic quasi-evolutionists. He has even given hints of believing in the God of theistic anti-evolutionists by saying that the book of Genesis "might be scientifically accurate."

It seemed to me that Flew had lost his bearings. So, as an old acquaintance from the 1960s, I decided to tell him so. Hence my "Open Letter to Professor Antony Flew" now available on the Secular Web and about to be printed in the journal of the NZ Rationalists and Humanists.

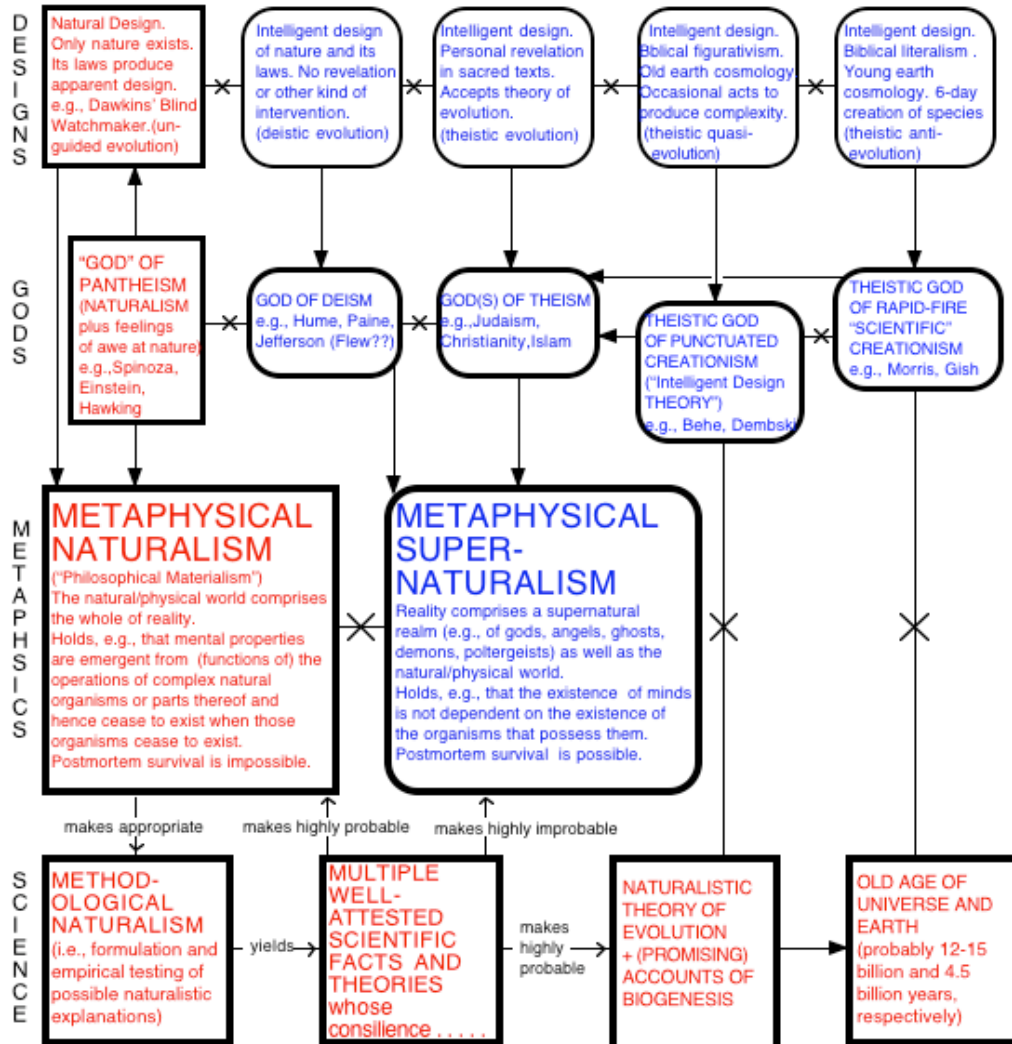
I mailed Flew an advance copy of my Open Letter, together with a covering note. I reminded him that famed Oxford philosopher Gilbert Ryle had been mentor to both of us and that Ryle used to talk of Philosophy as an exercise in "conceptual geography", the exploration of the "logical liaisons" of various concepts, doctrines and theories. I therefore enclosed a copy of a logical map which I said "should enable you to keep clearly in view the way I see the conceptual terrain into which you have ventured (a terrain in which, I submit, you have lost your way)".

Here's that map. [See attached.]

CONCEPTS OF DESIGN AND THEIR LOGICAL LIAISONS

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Note that the design concepts depicted here are not exhaustive of all possibilities.
Other design concepts include Manichean design (design by both good and evil gods).



Conventions: \rightarrow = logical implication. \times = logical inconsistency. Other arrows = weaker, nonlogical, relationships.
Rectangular boxes = naturalistic beliefs or practices. Rounded boxes = supernaturalistic beliefs.

Logical and probabilistic principles (where P, Q, R = beliefs or sets of beliefs):

- (1) If P implies Q and Q implies R, then P implies R.
- (2) If P implies Q and Q is false (or improbable), then P is false (or improbable).
- (3) If P implies Q and Q is inconsistent with R, then P is inconsistent with R.
- (4) Belief-set P is inconsistent with belief-set Q if and only if at least one member of P is inconsistent with at least one member of Q.
- (5) If P is inconsistent with Q then at least one must be false. (P and Q are contraries when both can be false; they are contradictories when only one can be false)
- (6) If P makes Q highly probable then P makes not-Q (the contradictory of Q) highly improbable.
- (7) If P makes Q highly improbable and R implies Q, then P makes R highly improbable.

CONCEPTS OF DESIGN AND THEIR LOGICAL LIAISONS

My map doesn't tell you what positions on the terrain you should choose as the habitation for your beliefs. But it does tell you, once you have found your home, what you are committed to accepting and rejecting as a matter of logic and probability theory.

Let's begin with the position at the top left-hand corner of my map.

Labelled "Natural design" this represents the set of beliefs of those who, like Richard Dawkins, believe that the natural world comprises all that exists and that the laws of nature that describe its operations suffice, by themselves, to design and produce all its complexities, from the first living creatures to its most complex structures like the human brain. Eighteenth century William Paley had argued that these could only have been produced by a Great Watchmaker. Dawkins argues to the contrary, that the laws of nature themselves - including those of evolution - have worked by themselves to produce all the wonders of nature before which we stand in awe. Nature is the designer: it is a "Blind Watchmaker" that has no prevision of its final product.

Now let's look at some of the logical liaisons between natural design and other theories.

Note, first, that it is inconsistent (as shown by the crossed line) with all versions of intelligent design, such as those described in the rounded boxes to its right, plus a host of others that don't usually feature in the current debate so are not depicted here.

Note, too, that each of these different concepts of intelligent design is a logical contrary of each of the others. Hence all could be false.

Obviously enough, belief in natural design implies (see the arrow) belief in metaphysical naturalism, a world view whose ontology comprises all and only the set of natural (physical/material) objects, their simple and emergent properties and relations. Naturalism has no room, for instance, for the idea that our minds could survive our bodily deaths. To suppose the contrary would be to commit what I call the "Cheshire Cat" fallacy, as depicted in Lewis Carroll's story of the cat that faded away until only its grin remained. As if a grin could have substantial existence independent of the physical face of which it was a property!

Although naturalism is incompatible with belief in supernatural gods it isn't incompatible with a certain kind of "god"-talk, e.g., the so-called "God" of pantheists such as the seventeenth century philosopher Spinoza and latter-day physicists Albert Einstein and Stephen Hawking. They, however use the term in a semantically deviant way. For them God is identical with nature. Thus, when asked whether he believed in God, Hawking answered: "Yes, if by God is meant the embodiment of the laws of the universe." The kind of design that pantheists admit, and before which they stand in awe, is precisely that of naturalist design. Hence, pantheists are metaphysical naturalists.

Now let's turn to Methodological Naturalism, i.e., the scientific method of searching for natural causes. Philosopher of science, Karl Popper, called it the process of conjecture and refutation. Likewise, immunologist and Nobel

laureate Sir Peter Medawar described it as "the invention of a possible world, or of a tiny fraction of that world. The conjecture is then exposed to criticism to find out whether that imagined world is anything like the real one."

Religionists frequently object to the fact that science restricts itself to the search for natural causes only. Why, they ask, do scientists close their minds to the possibility of supernatural ones?

There's a very good reason. There are too many possible deities whose agency can be invoked. Infinitely many, in fact. Just think of the range of possibilities embraced within theism. Judaism, Christianity and Islam are just the start of it. Each has its own sects and offshoots. And more are in the making every day.

Mind you, there are infinitely many possible natural agents that can also be imagined. So the difference doesn't lie in mere numbers. It lies, rather, in the fact that naturalistic explanations are answerable to the tribunal of experience and that this tribunal eliminates any that don't pass its tests. Supernaturalistic hypotheses, by way of contrast, simply don't admit any evidence to count against them. But a hypothesis that's compatible with anything and everything that might occur can't explain why in fact *this* occurs rather than *that*. In order to be a candidate for scientific status, a hypothesis must be falsifiable. That is to say, it must be possibly false. Only then can the screening practices of science get rid of those hypotheses that are actually false, and thus bring us closer to the truth. There aren't any such practices for the evaluation of supernaturalistic beliefs.

Methodological naturalism has produced the whole panoply of empirically established facts and theories that we now draw upon to explain why the world works as it does. Supernaturalistic explanations have fallen by the way. The graveyard of the gods isn't yet full. But gone are the deities of the ancient Egyptians, Vikings, Aztecs, and the like, all of whom once played a role in filling the gaps in human understanding of how nature works. Relatively few of those gaps are left. And filling them with any surviving gods won't help.

Like other scientific theories, evolutionary theory is falsifiable. Likewise, with prototype biogenetic theories. Both would be shown false, for example, if there were conclusive evidence of the universe having been created, as Lord Kelvin thought, somewhere between 20 and 400 million years ago (about 98 million, he finally thought). For then there would not have been enough time for nature to do its work.

That the universe has been in existence for probably 12-15 billion years, and the earth for about 4.5 billion years is now well attested.

Hence the logical conflict between science and all those creation myths, including those of Maori and Aborigine, which commit themselves to more recent beginnings.

Consider the creation myth of Scientific Creationists. By adding up all the "begats" in the Old Testament adherents of that myth calculate the beginnings of the universe at 4,000 BC, and that of Noah's Flood at about 2,400 BC.

What can they say when confronted by evidence of the age of the cosmos and our planet? Or evidence that life began on earth over 4 billion years ago, that dinosaurs became extinct some 63 million years ago, and that fossils of our hominid ancestors have been shown by potassium-argon dating to be well over 3 million years old?

They could, perhaps, say that all this evidence shows their beliefs to be false, hence falsifiable, and that it therefore qualifies on this score at least for the description "scientific".

But, of course, they don't say this. Rather, they tack on an ancillary hypothesis that "saves" their story by making it unfalsifiable.

They adopt the ploy of nineteenth century Philip Gosse and say that God created the universe with all this contrary evidence - all the accoutrements of grand deception - built into it. They can then say that God put the fossils, for example, in place so as to "test our faith". It seems not to bother them that this hypothesis makes God the perpetrator of an enormous hoax as well. A great deceiver, not just a great designer. Of course, a God who would play that sort of mind-game could also have created the universe just two minutes ago, replete with all evidence to the contrary including our pseudo-memories of having been alive well before that. There's no way to disprove that creation story either.

Passing from such absurdities, let's move on to the kind of intelligent design promoted by those I've called theistic quasi-evolutionists.

How scientific is it? Although scientists can literally see complexity in the biological world, especially at the molecular level, they can't, even metaphorically, see the irreducibility of any complex organs or organisms. Behe can't produce empirical evidence of irreducibility. He therefore argues for it using linguistic legislation. So you don't know how nature could have been assembled the parts of an organism exhibiting complexity? Label the complexity "irreducible" and attribute it to an intelligent designer.

His argument is a bad one, a form of the Argument from Ignorance - a rehash of the "God of the Gaps" fallacy. Faith-based. Not evidence-based.

In any case, the new ID "theory" doesn't pinpoint the identity of the supposed designer. It could perhaps, as Dembski admits, be a space alien. Or, we might add, the Flying Spaghetti Monster. The vague postulate that the designer is some intelligent being or other isn't falsifiable. So ID theory doesn't even meet this requirement for scientific status.

This brings us the position of those I've called theistic evolutionists. They don't have a problem about accepting the findings of science in general or of evolution in particular. And they don't lay claim to scientific status for the articles of their faith.

But their position is still fraught with problems, especially that of competing revelations. Like all theists, they believe in an intelligent designer who reveals himself in some sacred text or other. But which text? The Bible? The Koran? The Book of Mormon? So many alternatives. And the choice between them is usually settled by unchosen circumstances of birth and upbringing.

And there's another problem. Suppose you've settled on the text favoured by most ID supporters: the Bible. Then, whether you're a biblical literalist or figurativist, you're faced with a dilemma. Either God doesn't mean what he says in his texts, or he doesn't know how to say what he does mean. So either his word can't be relied on, or he's linguistically incompetent. Neither quite fits with the theistic concept of a perfect being.

Retreat from revelation, then, and opt for the simplest form of intelligent design, that of the deists.

Two insurmountable problems remain.

If you think an intelligent designer designed the universe, then how about the unsavoury aspects of his design? Disasters like earthquakes, tsunamis, and hurricanes. Distress, devastation and death caused by diseases like Alzheimers, cancer, and the ID theorists' favourite: the E. coli bacterium. If complexity of design demonstrates supreme intelligence, then by the same token the "god-awful" nature of much of that design demonstrates supremely malevolent intelligence. Is that the concept of a designer that you want to subscribe to?

And finally, there remains the design dilemma I talked about earlier. If you feel that rationality requires you to look for an explanation of the universe in a realm beyond it, then you'll have to find an explanation of that other world as well. Or do you think you can stop just one tier up? We know that the spatio-temporal world exists. Why not stop there and accept it as a brute fact? Why postulate a creator and then - refusing to set foot on the infinite regress of explanations - take his existence, instead, as a brute fact? Isn't it more comforting, as well as more rational, to believe in design by impersonal forces

of nature rather than design by a personal deity who's guilty of wanting it that way?