

William Dembski
THE DESIGN REVOLUTION

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People almost invariably arrive at their beliefs, not on the basis of proof, but on the Basis of what they find attractive. Blaise Pascal, *The Art of Persuasion*

One of the chief proponents of Intelligent Design is Dr William Dembski, who as a graduate physics student in Chicago University worked under Prof. Kadanof, of chaos-theory fame. He is convinced that Intelligent Design is, not merely a religious way of regarding Nature but, a *scientific* theory. Not only does it challenge Darwinism but changes the ground rules by which natural science is conducted. It does so by challenging the naturalism (i.e. practical atheism), which refuses to see intelligent design in natural objects.

Acceptance of radical ideas

Prof. J. B. S. Haldane said that revolutionary ideas pass through four stages: 1. They are rubbished; 2. Then they are regarded as interesting but wrong; 3. Next people say they are true but unimportant; 4. Finally, everyone says they are obvious. Dembski's aim is to facilitate the transition from stages 2 to 3—'from pernicious to possible'. His aim is provide defenders of Intelligent Design with answers to critics.

What is Intelligent Design?

It is the science that studies signs of intelligence. That should cause no problems—but you can find signs of intelligence in the wrong places! Archaeologists know the signs. [NASA scientists have criteria by which they will possibly identify extra-terrestrial intelligence – SETI] but biologists resist the idea that biological structures were designed. C. S. Lewis in his book, *Miracles*, [on this website] blames naturalism, for this state of affairs: Nature is seen as a 'self-contained system which works by blind, unbroken laws'. The naturalist does not mind religion, but will not tolerate a God who creates Nature *and can alter it* if He wants.

Naturalism

Theism holds that an Intelligent God (source of all intelligence) created the world, but naturalism regards intelligence as a product of evolutionary forces. Human beings are not designed and created, but accidental products of natural processes. Since Nature is self-contained, naturalists expect that science will one day produce a 'theory of everything'. However this is so far an unfulfilled hope. Meanwhile Intelligent Design says that there *never* will be a 'theory of everything'. You simply cannot sensibly explain designed objects in terms of accidental origins.

Irony!

The naturalist think that his world is rational because it is ruled by unbroken laws. On the other hand the world of Intelligent Design is irrational, because the Designer is free to break the laws, if He feels like it. Unbroken law is thus replaced by caprice, making science impossible. So for naturalism the world can only be rational if it begins without intelligence! Only then can it be explained. [Ed. This is silly! Your TV operates as the designer intended it to operate, and is not the least capricious because it originated in intelligence and can be modified if required.]

Specified complexity

This is the trade-mark of intelligence—the 'finger-prints' of intelligence, so to speak. (1) This is complexity which is not readily repeatable by chance. (2) The specifications are objectively given, not just thought up after the fact. It's not good painting bulls' eyes round arrows shot at random: only if the bulls' eyes were there before the arrows could the arrows be said to be aimed at them (designed).

Biological organisms

Identifiable systems, such as molecular structures, metabolic pathways, &c, are specified in virtue of function and complexity. But design theorist argue that nature is unable to generate complexity without intelligent direction. Dembski uses a Dürer woodcut as an example. Its specified complexity (its design) is not accounted for by the materials involved—wood, ink and paper. We have to find its origin ultimately in Dürer himself.

Fact: Irreducible complexity

Prof. Michael Behe argues that biological systems, which would break down if even one element were removed, are irreducibly complex (and therefore could not have evolved). The flagellum, a biological machine, is one such system. Remove the rotor, the O-rings or bushings &c and the thing simply would not work. *Therefore it could not accidentally evolve bit by bit: it had to be entire and intact from the start, therefore it was designed.* [Ed. Opponents of ID assert that it is a mere belief while evolution is (scientific) fact. But *Prof. Behe has put his finger on a fact*, which evolutionists cannot gainsay, for all their bluster!]

WYCG welcomes Intelligent Design, though Biblical creationism goes further, by identifying the Designer as the God of the Bible, who sent His Son, Jesus Christ into the world. However we are glad that design can be characterised in mathematical, not merely, aesthetical, terms.

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What's the difference between ID and creation?

Critics say that they are the same. Untrue! Creation is about how the world came into existence: ID is about signs that point to intelligent design. The two are quite different [though complementary, Ed]. The idea of creation does not necessarily involve design: design does not necessarily imply creation. For instance, the carpenter gets his timber from the timber-merchant and designs a hut: creating the timber out of nothing would be more difficult!

Biblical creation

Of course creationists believe that God's creation shows marks of intelligence. See Psalm 19:1 ('The heavens declare the glory of God') and Romans 1:20 ('since the creation of the world God's invisible qualities...have been clearly seen', &c).

How does the world show marks of intelligence?

ID people argue that specified complexity is the mark of design discoverable *in science*. Some theists however—unwilling to allow the implications of the science—believe that design in nature is only seen through the eyes of *believers*. [You believe it's there and you 'see' it! Ed]

Theological resistance to ID

Many theologians resist ID frankly because its implications make God too active and obtrusive for their liking. They prefer their philosophical idea of God to the real thing. [Moreover they are evolutionists, and the heart of evolution is that the appearance of design is produced in nature without the assistance of a designing intelligence. Their idea of 'God' has been adapted to this atheistic scenario. Ed]

Isn't ID just a form of 'creation-science'?

No, it isn't. The allegation that it is is simply propaganda. Creation-science is based on Biblical premises. It argues that the world shows evidence of Biblical creation. ID on the other hand has no necessary Biblical commitment and does not aim to show that Genesis is true. *It does not identify the Designer*. [In fact people criticise ID for not doing so, yet illogically allege that it is creationism! Ed].

Propositions of ID

1. Specified complexity & irreducible complexity are the hallmarks of design. 2. We find these in biological systems. 3. Purely natural causes are insufficient to account for them. 4.

ID is therefore very modest. It leaves the identity and nature of the Designer to theology. It avoids moral and spiritual issues. It is concerned only with the scientific. It does not invoke Genesis. It is not Christian or Muslim or anything else. It purports to be and is a purely *scientific* programme.

Editor: Superstition?

Irreducible complexity is a scientific phenomenon. No scientist has ever *observed* the step-by-step evolution of the flagellum, for instance. It is one thing to 'explain' the 'evolution' of the flagellum, quite another to show it happening. In fact evolution assumes an atheistic world-view: *ID begins with the facts* and considers their implications.

Doesn't ID have theological implications?

If ID has theological implications, it must be a theological enterprise, surely! Not at all. Stephen Hawking admits the theological implications of Big Bang [hence his anxiety to avoid them! Ed] but no one thinks that Big Bang cosmology is a theological matter. Why can ID not be considered simply on its merits? The question which ID faces is simply: Can natural systems be explained apart from a designing intelligence?

The driving force behind ID?

It is alleged that fear of Darwinism drives ID theorists! Not so. ID theorists oppose Darwinism on *scientific* grounds. Is it not possible that there should be *scientific* criticism of the theory? [How bigoted can we get? Darwinism is now thought to be beyond criticism! John Sanford, geneticist of Cornell University, was scared of upsetting the establishment with his book reported on this website. Prof. Andy McIntosh and others pleaded in the TES some years ago for *freedom of thought in the classroom!!* Ed].

'Intelligent' design?

It is alleged that some of the 'design' in nature is anything but intelligent. But this may assume that intelligent design should be optimal. This is not the ID position. So why the word 'intelligent'? Answer: to distinguish design in nature from the *apparent* design of Darwinism. However an artefact (e.g. a car) need not represent the very best in design in order to have been designed by intelligence. The human eye is alleged to be poorly designed. But, as Dembski points out, there are no concrete proposals showing how it may be improved! And those, who make the criticism, depend on the (sub-optimal) eye to make it!

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How does ID differ from The design argument?

The design argument, for instance, of William Paley, was natural theology— 'Evidences of the Existence and Attributes of the Deity'. British natural theology in the 17th and 18th centuries could be similarly described. ID on the other hand seeks only to discover objective signs of intelligence in nature in order to generate scientific insights. It is not a modern 'design argument', because it does not have a theological component.

II DETECTING DESIGN

The design inference

What is the 'design inference'? Is there a rational, objective way of distinguishing natural causes from intelligent causes? , Dembski cites archaeology, cryptography and SETI (Search for Extra-terrestrial Intelligence) as areas of research which use objective criteria for identifying (or attempting to identify) the products of intelligence. In particular he cites the case of a physicist (p75) who published several scientific papers based on falsified data. In fact, graphs, in different papers, representing data from different devices, *most improbably* purported to show almost identical patterns (=specified complexity). This led an independent panel to conclude that they were falsifications. This demonstrated the difference between the design argument and ID: the design argument is philosophical and theological, whereas the design inference identifies intelligence regardless of whose intelligence it is.

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Why doesn't design have a role in the scientific conception of natural causes?

Science in general understands natural causes in terms of the blind forces of chance and necessity, specifically excluding design. Necessity is illustrated by a calculator: make 2 multiply 2 and the result will necessarily be 4. The opposite of necessity is contingency, where more than one result is possible. For example, a roulette wheel may stop anywhere! A contingency therefore is a future possible event, which may not happen. Where all possibilities are equally likely we have pure chance or randomness. This is rarely the case

Illustration: the agitator

An agitator shakes rocks and of itself produces a random arrangement. But gravity necessarily pulls the largest rocks to the top, the smallest to the bottom. Chance

and necessity work together.

Darwinism

Is the theory that chance and necessity have jointly produced the appearance of design in nature. Artificial selection in animal breeding uses the characteristics (produced by chance) to produce only those shapes, sizes, &c that are desired. According to Darwin nature itself is the supreme animal breeder. Intelligence is in fact a by-product of chance and necessity. If this is true, obviously human intelligence has resulted from blind, natural forces. [C. S. Lewis examines the question of its possible validity in his book entitled *Miracles*. See it on this website.]

What is specified complexity?

There are five ingredients:

Probabilistic complexity. Probability is a form of complexity. Imagine a combination lock. The more complicated it is, the less probable it is that it can be opened by chance.

Conditionally independent patterns. These are not patterns imposed on events after they occur but are independent of the event whose design is in question. For example, suppose an archer aims at ten difficult targets and hits them all. This is very different from shooting and random, the subsequently making each hit a 'target'. The targets are *specified* in advance.

Probabilistic resources. These refer to the number of opportunities for an event to occur or be specified. Suppose you deal yourself some cards: you would be unlikely to deal four aces in a row. But if you dealt yourself millions of cards, you might very well do so.

Specificational complexity. This is the minimum length of the description of the specificational resources factored in when assessing the improbability which precludes chance. For instance in tossing a coin, which is the more likely sequence - HHHHHHHHHH or HHTHTTTHTH. Both are equally 'probable' (1 in a 1000), but the first is more simply described— 'Ten heads in a row' - and more likely the result of design, i.e. high improbability + low specificational complexity.

Universal probability bound

Probabilities come in limited supplies. It is estimated that there are 10^{80} elementary particles in the universe and that transitions from one physical state to another cannot occur at more than 10^{45} per second. That means that the total number of events in cosmic history can be no more than 10^{50} . An event whose probability is less than this cannot be the result of chance. Other estimates of this figure are as low as 1 in 10^{120} and 1 in 10^{50} . Specified complexity must therefore have a probability less than the universal probability bound.