

■ Intelligent Design:
Is it science?



David Tyler

It is widely recognised that intelligent design can be discerned by analysing computer code, an artist’s painting, or the construction of a building. In these cases, the design inference belongs within science. However, can the same methodologies be applied to nature? As described by its advocates, Intelligent Design (ID) is the affirmation that the hallmarks of intelligent design can be seen in the natural world. However, it often described by its opponents as “religion dressed up as science” and treated as a reversion to the “discredited” natural theology of the 18th and 19th Centuries. This article is a contribution to the debate about the status of ID, arguing that the roots of both the ID thesis and the controversies surrounding it go back many centuries.

In a recent essay in *The Guardian* (1 September 2005), Richard Dawkins and Jerry Coyne make strong claims about the concept of ID.

“Intelligent design is not an argument of the same character as these controversies [*i.e.* controversies within science]. It is not a scientific argument at all, but a religious one. It might be worth discussing in a class on the history of ideas, in a philosophy class on popular logical fallacies, or in a comparative religion class on origin myths from around the world. But it no more belongs in a biology class than alchemy belongs in a chemistry class, phlogiston in a physics class or the stork theory in a sex education class.”

In their view, ID offers no evidence but simply makes sweeping assertions of a religious nature. Before the “absence of evidence” claim can even be addressed, it is necessary to consider whether the rejection of ID is a matter of principle, or whether it is because of a failure to engage with scientific evidences.

Thomas Aquinas (1225-1274) is widely regarded as the theologian *par excellence* in the Medieval Catholic Church. He saw Aristotle as the greatest of human philosophers: someone achieving the highest level of human thought without the aid of revelation. Aquinas proposed a way of incorporating the essence of Aristotle into the Christian intellectual tradition. He did it by arguing that the world of nature could be known separately from the world of the spirit. The sacred could be distinguished from the secular. Using more contemporary terminology, Aquinas compartmentalised knowledge. This analysis of Aquinas’ approach is drawn from Schaeffer (1968) and was previously discussed by Tyler (1997).

Sacred	Church: grace
Secular	Aristotle: nature

Many generations later, the idea that God has revealed himself in the Book of Nature and the Book of Scripture was widely held. Galileo, for example, referred to the “two books” to explain the relationship between church teaching and science (Tyler, 1997). He argued that in the natural world, there is objectivity and clarity which may not be found by reading the Scripture – which uses words adapted to common understanding. In areas of conflict about natural phenomena, he held that the revelation obtained from the natural world should be preferred.



Francis Bacon provided inspiration for the founders of the Royal Society in England, but was the route for secular thought to enter Protestantism. © David Tyler

The influential Francis Bacon incorporated the “two books” approach into his own philosophical writings (Tyler, 2003). These are widely regarded as having supported and stimulated the rise of science as a discipline. Certainly, Bacon provided inspiration for the founders of the Royal Society in England and gave a boost to scientific work in many European countries. Bacon urged that men “do not unwisely mingle or confound these learnings together”.

A contemporary testimony to the impact of Bacon’s philosophy comes from Marston and Forster (1989):

“One could hardly exaggerate the standing and influence of Bacon, both on Western science and on the thinking of Bible-believing Christians in their attitude to it ... Other early members of the Royal Society tended to see themselves as Baconians, and his approach was standard to scientist Christians in the seventeenth and eighteenth centuries. In fact, mainstream scientist Christians in Western Europe for well into the nineteenth century (if not later) saw themselves as following the traditions of Bacon, Descartes or both” (p.265-266).

Whereas Marston and Forster see Baconianism as representing a worthy Christian tradition, Tyler (2003) concluded that Bacon was the route for secular thought to enter Protestantism.

In recent years, Stephen Jay Gould (2001) has continued this approach to compartmentalising knowledge and has called it by the name of NOMA, or “non-overlapping magisteria”. By “magisterium,” he meant “a domain where one form of teaching holds the appropriate tools for meaningful discourse and resolution.” Science and religion, he maintained, are properly understood as being different

“Theistic science does not imply that we abandon using the causal mechanisms of law and chance. Theistic science has full access to all the tools that are currently used by scientists, but it rejects the dogma that all causation must be natural (i.e. exclusively law or chance.)”



magisteria. “Science tries to document the factual character of the natural world and to develop theories that co-ordinate and explain these facts. Religion, on the other hand, operates in the equally important, but utterly different, realm of human purposes, meanings and values – subjects that the factual domain of science might illuminate, but can never resolve.”

Professor Donald MacKay has been a very influential figure in Christian circles in my own generation. He drew attention to several features that are common to both the present practice of science and to practices at the inception of the Royal Society in the mid-seventeenth century. First among these was said to be respect for the natural world, because nature was seen to be rational. “The book of nature (as they put it) ought to be read. Like the Bible itself, it could not fail to reward the man who approached it in the right spirit.” (Dimery, 1998)

The implications are explained in a way that involves two non-overlapping levels of knowledge: “MacKay was keen that God should not be seen as an explanation for events on the descriptive level of scientific explanation, but maintained that theological matters addressed different questions. Cosmology is relatively well-equipped to answer questions such as “**How** did the universe as we know it come about?” but Christianity addresses questions such as “**Why** did the universe as we know it come about?” Science is not suited to matters of teleology; neither does Genesis attempt to give a scientific textbook description of the first minutes of the universe.” (Dimery, 1998)

In this way, MacKay linked design with “why?” questions and promoted complementarity as the primary way of understanding the science and faith issues. The key arguments are to be found in MacKay (1965).

There is an obvious continuity in the thinking of the various scholars noted above. They all lead to similar conclusions about some very important questions.

- (a) Science is an autonomous source of knowledge
- (b) Science and faith questions are distinct and they should not be mingled

These conclusions have been an important legacy for successive generations. They have led to the secularisation of science and the secularisation of Christian thinking about science. According to Holton (1993, p.164), secularisation is one of the four “great novelties” that became part of the modern world picture.

Also, this approach has led to the development of a theological tradition that by-passed the Scriptures. The Two Book approach supported the development of Natural Theology in the 17th and 18th Centuries. Scientists who were Christians were willing to use their autonomous knowledge to show that God’s handiwork is manifested in the natural world. They found the marks of God’s wisdom everywhere they looked. However, Francis Schaeffer saw this trend as a legacy from Aquinas: a consequence of his dividing knowledge into two autonomous realms. Writing in *Escape from reason* (1986), he says:

“One result ... was the development of natural theology. In this view, natural theology is a theology that could be pursued independently from the Scriptures.” (page 11)

When Darwin explained “design” as “designoid”, there was no place left for the handiwork of God manifested in living things. The Creator was consigned to the role favoured by Deists: the First Cause. This is where Darwin was prepared to put Him in the last sentence of *On the Origin of Species*: “There is grandeur in this view of life, with its several powers, having been originally breathed by the Creator into a few forms or into one; ...” However, whilst Darwinism was consistent with both Deism and atheism, Deism was on the decline in the scientific community. In the 20th Century, it was effectively eclipsed by atheism and the consequence has been the complete secularisation of science.

So where does this leave us? How can we engage with these deep-seated views?

- We cannot appeal simply to the “Christian” roots of science. These roots were mixed. There were strong Christian influences, but also other philosophical emphases that were inconsistent with biblical Christianity. These roots led to the acceptance of the “Two Books” approach by many Christians, from the rise of science to the present day. What we really want to do is to change this mindset.
- What we can do is remind people that many pre-Darwinian scientists were quite prepared to recognise “design” in their scientific work. These were theists who recognised the wisdom of God in creation (Tyler, 2004). For these scholars, “design” was part of science.

- Theistic science does not imply that we abandon using the other causal mechanisms of law and chance. Theistic science has full access to all the tools that are currently used by scientists, but it rejects the dogma that *all* causation must be natural (*i.e.* exclusively law or chance).

In reviving the principle that design can be understood within science, we are not reviving natural theology (although there is obviously a danger of doing this). Rather, this strategy builds on a Christian foundation for science, where causation may be mechanism (natural law), chance (randomness) or intelligent (God's agency). The Explanatory Filter tool has been developed by Dembski (1998, 2004) to show how design inferences can be integrated seamlessly within a scientific approach without compromising law and chance. Within this approach, the issue is not the "absence of evidence" but the significance of the evidence we have in profusion.

Theistic science was practiced by the pioneers of science in the 17th Century, but it lacked a coherent theoretical foundation. Baconianism did not provide it and this led to the tradition known as "Natural Theology". The consequence was "god-of-the-gaps" thinking, inherently modified Deism, where the Creator provided the causal inputs that law and chance could not deliver. Unfortunately, design inferences were based often on ignorance rather than evidence, to the discredit of the whole tradition. To this day, design thinking is accused of being a reversion to "god-of-the-gaps" anti-science. Contrary to this, Theistic science perceives the hand of God in *all* aspects of creation: law, chance and intelligent agency. The design inference is made after considering all the relevant scientific evidence. It is not an intrusion, an add-on nor an opt-out, but an inference that is integrated *within* science. As Larmer (2002) has shown, there is nothing inherently illegitimate in invoking a supernatural cause to explain specific events.

The discussion above implies that science has operated with different philosophical roots. This is an important aspect of contemporary debate. Ultimately, the ID debate is not about details, but about foundations. Kuhn (1970) pointed out that the redefinition of science is commonly a characteristic of scientific revolutions:

"... the reception of a new paradigm often necessitates a redefinition of the corresponding science. Some old problems may be relegated to another science or declared entirely "unscientific". Others that were previously non-existent or trivial may, with a new paradigm, become the very archetypes of significant scientific achievement. As the problems change, so, often, does the standard that distinguishes a real scientific solution from a mere metaphysical speculation, word, game, or mathematical play." (p.103)

It should not surprise us that some are advocating a secularist definition of science and describing ID as unscientific. These people have spent all their lives thinking that God has nothing to do with science and now their own intellectual foundations are threatened.

This philosophical analysis also explains why Theistic Evolutionists are so opposed to ID. They have imbibed the secularist definition of science, which requires them to pursue all their scientific work with the methodology of naturalism (law and chance are causal mechanisms sufficient to explain all observations). This definition means that intelligent design in nature cannot be perceived as a "scientific" concept, so the Theistic Evolutionist *has* to locate it within the separate sphere of aesthetics and faith, complementary to the sphere of science. Baconian compartmentalisation has led them to adopt essentially the same attitude to ID as is evident in the writings of Dawkins and Coyne (2005).

The Intelligent Design Movement (IDM) offers an opportunity to restore and redefine science. It can be supported by Christians from many different backgrounds, but all with the conviction that design is part of science. The implication is far-reaching: detecting design breaks the mechanistic causal chain (the hallmark of naturalism). If design is recognised as highly probable, developing alternatives to Darwinism then becomes the responsibility of all life-scientists! ■

References

- Dawkins, R. and Coyne, J. 2005, One side can be wrong, *The Guardian*, September 1.
- Dembski, W.A. 1998. Redesigning science. In: Dembski, W.A. (ed). *Mere Creation*. InterVarsity Press, Downers Grove. 93-112.
- Dembski, W.A. 2004. *The design revolution*. InterVarsity Press, Downers Grove. 87-93.
- Dimery, R. 1998. The best of both worlds: A study in the complementarity of science and Christianity. (April). http://www.dimery.com/articles/Both_worlds/both_worlds.html#2.0
- Gould, S.J. 2001. *Rocks of ages*, Jonathan Cape, London.
- Holton, G. 1993. *Science and anti-science*, Harvard University Press, Cambridge, MA.
- Kuhn, T. 1970. *The structure of scientific revolutions*. 2nd edition, University of Chicago Press, Chicago.
- Larmer, R. 2002. Is there anything wrong with "God of the gaps" reasoning? *International Journal for Philosophy of Religion*, 52, 129-142.
- MacKay, D.M. (ed). 1965. *Christianity in a mechanistic universe*. Inter-Varsity Fellowship, London.
- Marston, P. and Forster, R. 1989. *Reason & faith*, Monarch Publications, Eastbourne.
- Schaeffer, F.A. 1968. *Escape from reason*, Inter-Varsity Fellowship, London.
- Tyler, D.J. 1997. The 'Double Revelation' approach to knowledge, *Origins*, No.23, 2-6.
- Tyler, D.J. 2003. The man who shaped science, but took it "out of the frying pan into the fire", *Origins*, No. 35, 2-5.
- Tyler, S. 2004. John Ray. *Origins*, No. 39, 2-6.

This article is expanded from a contribution to the 2004 BCS Biology Workshop, held in Oxford. Those who have interacted with the thoughts presented here are warmly thanked.