

# TO TAKE YOU FURTHER...

## *The limits of reason*

*'Give to the emperor the things that are the emperor's and to God the things that are God's.'* (Mark 12:17)



The Pharisees came trying to trick Jesus with a question about whether taxes should be paid to the occupying Roman power. It was an apparently no-win situation. If Jesus said yes, then he was a traitor to the Jews; if he said no, a traitor to the Romans. His answer sidestepped the problem neatly, but also pointed out something deeper, that there are different areas of authority in life and that each of them serves a different purpose and deserves respect in its own sphere.

Sitting at the Hawking family dinner table, Jane is quickly made aware of a certain amount of scorn emanating from family members towards her religion and her love of the arts. It is a sphere of understanding that for them, all immersed in science, does not deserve much respect or serve a very useful purpose.

This sort of scorn is very evident today from a vocal minority known as the New Atheists, of whom Richard Dawkins is the most vocal of all, implying that belief in any entity you cannot empirically prove must necessarily be a delusion. It is the same sort of View once stated by Bertrand Russell: 'What science cannot tell us, mankind cannot know,' and perpetuated by another New Atheist, former Oxford Professor of Chemistry, Peter Atkins,

who claims that 'There is no reason to suppose that science cannot deal with everything.'

It's not hard to see why claims like this overstep the mark. If you define things that can be known, as those that can be measured, predicted, repeated, or proven with statistics or algebraic formulae, then Russell is right, but most things in life are not like that. If by claiming that science can deal with everything, Atkins is saying that science should be allowed to examine everything, then that too is fair enough, but there are many things that even if examined are far from being 'dealt with' and understood. There are still vast areas of life in which science does not and cannot offer us any explanation or help at all. Science can define the

chemistry of ink on paper and the workings of the laptop, but it can't explain the meaning of the words. Science can explain how the muscles work to raise an arm, but it can't explain whether that arm is raised in aggression, in praise of God, or to make a point. What has science to say about beauty, love, compassion, joy, anger, determination, fear?

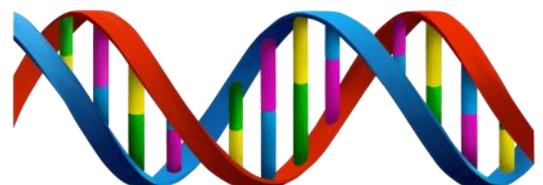
It is a problem memorably defined as 'nothing buttery', or more technically as 'reductionism'. Take for example this statement by Frances Crick:

*You, your joys and your sorrows, your memories and ambitions, your sense of personal identity and free will, are in fact no more than the behaviour of a vast assembly of nerve cells and their associated molecules.*

Or this by Stephen Hawking:

*It is hard to see how free will can operate if our behaviour is determined by physical law, so it seems we are no more than biological machines and that free will is just an illusion.*

Crick, co-discoverer with James Watson of the DNA molecule, knows a thing or two about the behaviour of the human body, and Hawking clearly understands a great deal about physical law, but beware the 'no more than'. If you hear anyone saying, 'This is nothing but ...', be they scientists, ministers of religion, economists, neurologists or any expert in anything, then be careful. Have they made the mistake of seeing only one of the



trees and not the forest? And are they trying, with their 'nothing but ...', to shut down all disagreement?

It might also be interesting to ask whether they really believe their 'nothing but' applies to themselves. If Francis Crick's claim is true then surely he would not be in a position to make it, because not only are his joys and sorrows no more than molecular behaviour then so are his brain processes. He has relegated rational thought to 'no more than' as well. And does Stephen Hawking really believe that 'free will is an illusion'? If so, then shouldn't he refute rather more vigorously all those accolades that speak of him as an example of the triumph of the human spirit? In a recent TV interview with Dara O'Briain, he suggested that his long-term survival 'must have something to do with my commitment to science', adding that 'I'm damned if I'm going to die before I have unravelled more about the universe.' But if he doesn't have free will, then however strong his commitment and determination, they would be to no avail.



But isn't it evident that there is a good deal more going on in life than just physical laws? Another Oxford professor, John Lennox, mathematician and philosopher of science as well as an outspoken apologist for the Christian faith, uses the example of Frank Whittle, inventor of the jet engine:

*It is clearly nonsense to ask people to choose between Frank Whittle and science as an explanation for the jet engine. It is self-evident that the laws of physics could not have created a jet engine on their own. The task also needed the intelligence, imagination and scientific creativity of Whittle. Science asks the 'how' questions, how does the jet engine work? It also asks the 'why' question regarding function: why is this pipe here? But it does not ask the 'why' question of purpose, why was the jet engine built?*



Nor does it ask the question of how this jet engine should be used: for war planes, for ever-increasing long-haul flights using up the earth's resources and polluting the environment as they go? These are questions which science itself cannot answer. Even Richard Dawkins admits that science has no methods for deciding what is ethical.

So we see that science has its limitations. To understand life fully we need so much more: religious faith, the arts, philosophy, moral values, compassion, humour, common sense and many other such qualities that can never be defined in an equation or a graph. Some people have suggested that science

and religion are such different areas of understanding that they should be completely separated out and that neither should trespass on the territory of the other. The American scientist Stephen Jay Gould has coined the phrase Non-Overlapping Magisteria (NOMA) to define this. But there are overlaps - philosophy is probably the term that best defines this overlapping area, and of course there is the vital common ground of ethics, when it comes to putting scientific discovery to practical use. So ultimately such a stand-off satisfies no one. As Alister McGrath, yet another Oxford professor, insists: 'Discussion must be had.' This short chapter is not the place for such discussion (though at the back of the book I suggest some materials that cover it). Rather, its place is to point out that all areas of knowledge have their limitations, that science and religion are not mutually exclusive (plenty of scientists believe in God) and that these different areas of knowledge demand respect from both sides.