Reasons, Causes and Explanations

In this talk I wish to discuss a number of philosophical puzzles which I have struggled with over the years. The common thread in the various puzzles regards *explanation* – what aspects of reality can we explain, and what is the nature of these explanations? I discuss three challenges: (1) How can we explain human behaviour? (2) How can we explain changes in the natural world? and (3) How can we explain why there is something rather than nothing? I start with item (1).

Explaining human behaviour

Compare my behaviour this evening with the behaviour of a tin can being blown around a street during a strong wind. Is there an essential difference between the tin can and me? Sure, my behaviour is more complex, but is the difference in behaviours just complexity? If you think there is no essential difference, then you are a philosophical naturalist. If you think there is an essential difference, then you are a non-naturalist.

One way to differentiate between me and the tin can is to say that, a lot of the time at least, I act from reasons whereas the tin can is only subject to causes. The gusting wind causes the can to roll this way and that. In my case, I answer your critical questions by giving reasons for my philosophical views.

Let me distinguish between the 'space of causes' and the 'space of reasons'. Tin cans, planets, insects, clouds, rivers, leaves move about in accordance with the laws of nature. Events involving things like these can be explained in terms of causes. What was the cause of the school burning down? Was it faulty electrics or was it the match struck near the spilt petrol by disgruntled ex-pupil Johnny Watson? What caused the tsunami? Was it an earthquake under the ocean or something else?

When each of us is asked to explain something we did, we usually give an explanation in terms of our desires, our beliefs, what we expected to achieve by the action. We give reasons for our action. We argue that the action was the reasonable thing to do in the circumstances, all things considered. Occasionally we may give another type of explanation in terms of causes – the drink, the drugs, the medication caused me to act out of character. But these non-rational explanations are the exception – most of the time we justify our actions as intentional actions under our full control. We see ourselves as predominantly rational.

Further, we tend to see others this way too. We sometimes attribute destructive behaviour down to rage or love or some other not fully rational explanation, but again, most of the time, we take our companions, neighbours, work colleagues to be predominantly rational, just like we take ourselves to be.

Most philosophers agree with this commonsense approach to human behaviour but there is some tension between this higher-level account of human behaviour and our views as to what is going on at a lower level – say the level of neuronal firings in our brains. Most of us reject Descartes' idea that we have an immaterial soul which somehow interacts with the physical brain. Rather, we are all materialists now in believing the behaviour of our bodies, and our brains in particular, follows the same natural laws as events outside our bodies.

But if the neuronal firings in our brains obey the laws of physics, chemistry and biology, how can our higher-level rational explanations make any difference? Aren't our cherished reasons just *epiphenomena* – non-causal effects of lower-level causes? Doesn't Occam's razor suggest that

essentially I am like the tin can blown about in the wind, just more complicated? Aren't rational explanations just rule-of-thumb explanations which may be a help to us in communicating with each other and getting along with each other, but not causes in their own right?

If we insist that reasons are the real causes of our actions, how can our higher-level mental states affect the lower-level neuronal firings in our brains? (We discussed this issue a bit during Geoff's talk on the Kevin Mitchell book.)

Finally, in this section, I note that the distinction between the space of reasons and the space of causes is part of our view that the natural world is 'disenchanted'. Before the Enlightenment (around 1500 to 1700 ce) the commonsense view was that the world was enchanted with the presence of supernatural powers (both for good and ill) which caused natural phenomena. The angry God caused the flood, the evil demons caused the plague or the catalogue of bad luck affecting the whole village. In those pre-modern days there were *reasons* for good fortune and bad fortune as the supernatural beings had intentions. Disenchantment of the world meant that reasons were banished from the natural (i.e. non-human) world and were only applicable to human beings and events brought about by human beings.

Explaining natural phenomena

Let me move on to puzzle (2) above – the question of explanations of events in the world outside of human planning and human behaviour. Admittedly there is less and less of the natural world left which does not have the stamp of human interference upon it. Take an example which supposedly occurred to Isaac Newton. We see an apple blown off a tree and fall to the ground. How do we explain the apple falling to the ground? Answer – gravity, or, more generally, Newton's law of attraction between two bodies.

All well and good so far, but what status does Newton's law of attraction between two masses have? Here philosophers divide between those who say nature's laws are powers which necessitate the behaviour of particles and bodies and those who say nature's laws just describe regularities that we observe. Let's call the first group of philosophers 'Necessitarians' and the second group 'Regularists'. Necessitarians say their view of powers within nature which necessitate the observed regularities of behaviours give us genuine explanations of phenomena, whilst the Regularists are happy to admit that regularities in nature cannot be explained – that's just how objects regularly behave.

Both Necessitarians and Regularists agree that higher-level phenomena can be explained to some extent by lower-level phenomena. For example, the position of the sun, moon and earth can explain an eclipse and the presence of a virus in the body can explain the flu-like symptoms. The difference seems to be that Necessitarians can explain phenomena 'all the way down' whereas Regularists say at some point, 'this is just how bodies behave'.

Are you a Necessitarian or a Regularist about the laws of nature? Both views can be objected against. The main objection to the Regularist is that they cannot give a satisfactory account of the difference between a law of nature and an accidentally true generalisation. The main objection to the Necessitarian is that the physical necessity which 'governs' the laws of nature is rather like the pre-modern belief in an omnipotent God who governs the laws of nature.

When thinking of causal explanations there seem to me to be three types: (1) lower-level explanations of higher level phenomena (e.g. the virus in the blood explains the flu-like symptoms); (2) more general regularities explain specific regularities (e.g. Newton's

gravitational law explains the movements of the planets); (3) token causes are explained by type causes (e.g. the gas explosion at number 5 Derby Street is explained by the general rule that escaped gas explodes when matches are lit).

Why is there something rather than nothing?

The final of my three puzzles goes down to ground zero, or at least to the big bang. It concerns the quasi-religious question: Why are we here? Why is there something (a room full of people discussing philosophy) rather than nothing at all – just empty space where 'nothing ever happens' to quote a Talking Heads song?

Most of us broadly accept the science of our day and would point to a point around thirteen billion years ago when the universe was created with a 'big bang'. But why the big bang? What caused the big bang? I have read an explanation – which I did not understand – by quantum physicists who insist a big explosion – like the big bang – can actually occur 'out of nothing'. But my understanding gives out here – I cannot comprehend how something can come out of nothing. Can you make sense of this idea? Can you answer the question as to why there is something rather than nothing?

My own views

It seems to me that explanations only go so far: they give out eventually. Think of the annoying child who asks why she has to go to bed now and can't stay up to watch another television programme. "Because you have to get up early for school tomorrow", the parent explains. "But why do I have to get up early for school tomorrow?" – "Because otherwise you'll be late for school" – "But why do I have to arrive on time?" – "Because arriving late will be annoying to your teacher and disrupt the lesson" – "But why can't I disrupt the lesson?" The child can continue with 'why' questions until the parent finally loses patience and says, "That's just how it is!"

Explanations are rather like this. For example, after appealing to the laws of nature – whether you are a Regularist or a Necessitarian – a further question can be asked "Why are the laws of nature as they are, and not different?" Explaining this is more difficult and I think that explanations give out eventually, and we just have to say, "That is a mystery". So, I'm saying science doesn't have all the answers.

In fact, in my view, human behaviour is less mysterious that the natural world. Explaining human behaviour in terms of reasons is a satisfactory end point to 'why' questions in a way the laws of nature are not a satisfactory end point to 'why' questions about the natural world. In my view, to repeat, science does not have all the answers. Over to you.

References

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