



# The promises and problems of purpose

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**T**he questions of **what** purpose is, and where it resides, underpin some of the basic problems of existence, and some of the most controversial debates in science. They are questions with ancient origins: Aristotle was convinced that the whole universe sparkled with purpose (telos), and that all things, not matter how menial or insignificant, had a 'final cause' – an end state towards which they tended over time and which contributed towards purpose at higher levels. Purpose in Aristotle's scheme was not externally dictated by a creator, but rather was internal to nature itself, like the purpose of the heart to pump blood is internal to the body.

The life sciences of biology and psychology have found that purpose is indispensable to their subject. Like Aristotle, Darwinians are happy to admit that nature is suffused with purpose. Richard Dawkins recently gave a talk entitled 'The Purpose of Purpose' (search for the title in Youtube to watch it) – he describes how the non-random selection of natural selection leads to purposive adaptations. He states that the physical features of organisms emerge from random mutations, but only those that have a purpose for their host are retained and become widespread. Therefore when we look to explain any part of an organism's physiology, we seek its purpose. For example; why do humans have an appendix? Recently that problem may have been solved; the appendix is a store of friendly bacteria that has the purpose of replenishing the gut when gastric illness may lead to a dangerous loss of such bacteria. If indeed a purpose has been found, then the mystery of the appendix has been solved. And that is the way with physiology; purpose is like the explanatory glue that holds organisms together.

With animal and human behaviour, purpose is even more central to scientific description and explanation. Even tiny creatures manage extraordinarily complex purposive actions. Monarch butterflies in Canada every September fly thousands of miles on a migration to a spot in Mexico. Every one of the millions who make it are doing it for the first time (they only live for seven months), and yet somehow instinctually head towards the goal of a tiny destination in the distant rainforest.

This is only explicable by way of purpose and feedback loops that link perception and action in the service of a goal. In more complex animals and humans, purpose becomes more intricate; mice have been shown to show remarkable foresight in purposive behaviours. Humans have the capacity to actually imagine future outcomes before undertaking an action, and to combine purposes into collective meta-purposes, the pursuit of which can last lifetimes.

So materialist/physicalist science has no problem with purpose in physiology and behaviour – it does however have a big problem when purpose is implied at any level above the physical organism, or over a timeframe that precedes the emergence of complex life. Alfred Russell Wallace, the co-founder of natural selection theory, thought that while natural selection was the tool for selection, the source of the variation was not random – he thought it was guided by a purposive intelligence. He describes this theory in his book *The World of Life: A Manifestation of Creative Power, Directive Mind and Ultimate Purpose*. This was considered an act of scientific heresy, and the book was effectively hushed up (although is now available on Amazon).

This taboo against cosmic purpose goes back to science's early years, when early scientists and natural philosophers decided to avoid final causes and to focus science only on physical and efficient cause. In the life sciences this purposeless project failed magnificently, and I can't help but wonder whether it is on the edge of failing in the physical sciences too. Gaia theory finds evidence of purposive processes operating in the biosphere as a whole, and increasingly the universe looks rather purposive too – the anthropic principle shows how scientific laws are fine-tuned in ways that are programmed for life. The implications of the anthropic principle are endlessly debated, but perhaps we should back up a bit... are not mathematical laws themselves a product of purpose, irrespective of their fine tunings? When a law is set in the human sphere, it is always the product of an aim. If we are going to use humanoid metaphors such as laws, principles and rules for the ordering structures of the cosmos, we may as well admit that they only

work in the context of purpose. Or perhaps a change of language is needed.

Higher purposes and final causes were dropped by science in an age where they were central to theology. Purpose meant a designer God. But not any longer. We now know that in biology and psychology, purposes can be immanent to systems and organisms. When I purposively aim to buy water because I am thirsty, I am not commanded externally to do it – it is my own goal, which then creates a pull on every molecule of my being to achieve the purpose. I am thus 'autotelic' to a degree. Perhaps that is the case for the universe too; perhaps it is autotelic. But why can't we see purpose in nature – surely for it to be an empirical issue, it must be visible? Well, it seems to me that science is full of invisibles, so that's no big issue. Like gravity or magnetism, purpose is only visible by its effects.

The Network is open to the idea that nature is purposive, hence it supports thinkers like Rupert Sheldrake who stick their head above the parapet by suggesting it might be. So perhaps it's time for us to turn the question of purpose back on ourselves: What is *our* purpose? What is our vision of the SMN's future, towards which we can galvanise our efforts? And what is our reason for pursuing it? Without such a statement, writ bold, we are in danger of going round in circles. I very much hope that soon the SMN will be able to publish a purposive vision for the organisation to our members, to show that we have a clear plan for positive development, with a timetable and set of milestones. It should be a way forward that ignites the passions of those who believe in our aims, which renews our core principles while striving to be more than we are now. Who knows, we may even be able to align ourselves with a cosmic purpose. Of course we will never know for sure if our own purpose contributes to something higher, just as the muscle cells in my fingers will never know that they are contributing to the purpose of writing these words. They just get the information and do it. They have no choice. We do.