Another non-creationist critique of scientific materialism

Science Set Free: 10 Paths to New Discovery
Rupert Sheldrake
Deepak Chopra Books, New York, 2012

John Woodmorappe

Rupert Sheldrake has a Ph.D. in Biochemistry from Cambridge University in the UK. His interests, however, go far beyond this subject. The author devotes relatively little time to evolutionary theory, yet his work is yet another secular voice on the inadequacies of conventional materialistic science.

The author's position

The author is in no sense a creationist. In fact, he accuses creationists, like materialists, of using skepticism to discredit ideas that do not fit their predetermined conclusions. He also dismisses ID (Intelligent Design) thinking with this common fallacious reasoning:

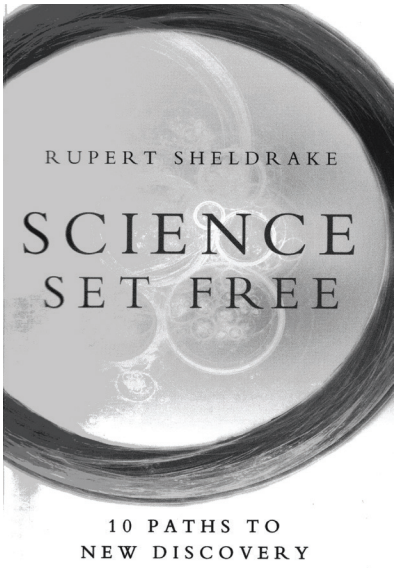
> "The problem with the design argument is that the metaphor of a designer presupposes an external mind. Humans design machines, buildings and works of art. In a similar way the God of mechanistic theology, or the Intelligent Designer, is supposed to have designed the details of living organisms" (p. 37).

In actuality, the external designer is not an assumption. It is a deduction based on the realities of complex objects and machines. All of our experience teaches us that specified complexity does not arise spontaneously and all our experience teaches us that only an external intelligent designer of some sort can create specified complexity. For instance, consider the discovery of a complex hieroglyphic on the moon. No prior assumptions about a designer would be necessary to realize that the solar wind could not account for it. Nor could the hieroglyph create itself. An external designer would be necessary to explain this form of specified complexity.

Sheldrake hardly ever mentions the Bible and shows extreme ignorance when he does. He asserts that Genesis 1 teaches that plants were not created by God, but created by the earth. Doing so not only confuses what 'brought forth' means but also makes no sense in the light of other Bible facts. Even if the earth could create plants, it could not do so in a day or so. Finally, throughout the Bible, it unambiguously states that everything that exists was created by God.

The author does not believe in God in the sense of an external designing mind (p. 339). Interestingly, he chides militant atheists, such as Richard Dawkins, who are fond of asserting that religious belief is a meme—an imitated behaviour that spreads from person to person like a virus. This charge is ironic. Exactly the same can be said about atheistic ideas and scientific materialism in general!

Sheldrake is labelled, correctly or incorrectly, as a New Age thinker. In any case, the Eastern philosophy behind his thinking is obvious. For instance, he believes that, while the separate existence of one's capability to remember may or may not survive death, all human memory goes into a collective unconscious.



Some exotic topics

This book is full of seldom-mentioned information. For instance, he mentions unconventional scientific enterprises, such as the competition to design a human-powered flying machine. This eventually led to the Gossamer Condor, an ungainly leg-powered contraption that can fly at least a mile.

Sheldrake touches on many aspects of science in general and takes seriously many matters that are commonly dismissed as pseudoscience or outside of science. Owing to the unusual nature of many of his claims, they are difficult to evaluate for the non-specialist and my discussing them does not imply an endorsement of them.

The author dutifully rejects the possibility of true perpetual-motion machines. Oddly enough, however, Sheldrake accepts the potential seriousness of harnessing 'free' energy from unknown sources. For instance, he tackles the subject of inedia—the ability, or purported ability, of humans to go years without eating. This was widely claimed for certain Hindu mystics. Does it imply the ability to tap into unknown sources of energy, or does it imply the clever ability to eat deceptively? The author does not elaborate if there ever was a controlled experiment, preferably under the

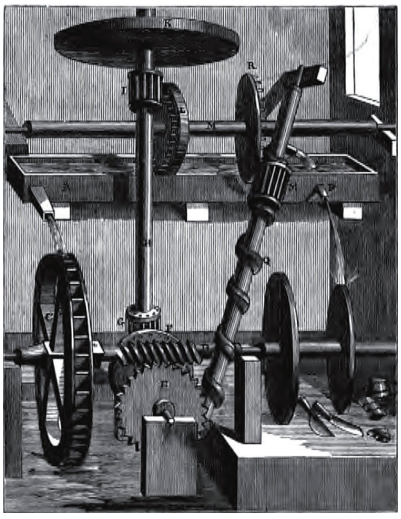


Figure 1. Although Sheldrake rejects the possibility of a perpetual-motion machine, he nevertheless accepts the possibility of harnessing free energy from unknown sources.

supervision of illusionists (magicians), to rule out surreptitious eating. (Many so-called claims of certain professing psychics, such as telekinesis, were debunked with carefully controlled experiments, designed by magicians, designed to rule out trickery by the professed psychic.)

However, the author definitely believes in psychic phenomena. He notes that skeptics dismiss it out of hand with Carl Sagan's famous dictum, "Extraordinary claims require extraordinary evidence". To begin with, that which is extraordinary and that which is ordinary begs the question and depends upon the presuppositions of the one making the judgment. He points out that skeptics "move the goalposts" so that no evidence is ever good enough. Sheldrake addresses the contention that successful psi experiments exist by chance, having been cancelled by the numerous negative results that are never published. He objects that there would have to be an implausibly high number of unsuccessful experiments in existence to lower the overall probability to chance levels. Finally, he turns Sagan's dictum around, asserting that it is the skeptics who need to provide the extraordinary evidence that all the many experiments supportive of psi phenomenon are fraudulent or irredeemably flawed. (Personally, I like to apply Carl Sagan's dictum to molecules-to-man evolution. The evidence, for example, that life could arise from non-life is hardly evidence at all, let alone extraordinary evidence.)

Creationist physicists, take note

Are fundamental physical constants really so? The author addresses this subject. He suggests there is evidence that fundamental physical constants, such as G, the gravitational constant, can change slightly. He also discusses evidence for changes in the speed of light—something explored by creationists a long time ago, beginning with Australian Barry Setterfield.

Intelligent design rejected and yet …

The author professes a third view to that of Intelligent Design and conventional materialistic evolution. He comments:

"Yet we are not forced to choose between chance and an external intelligence. There is another possibility. Living organisms may have an internal creativity, as we do ourselves" (p. 37).

However, he provides no evidence to support this contention. How do collections of gas and dust 'know' that they are destined to become stars, planets and galaxies, and to act accordingly? What impersonal mechanism would affect such a transformation? How are living things supposed to anticipate the needs of their descendants and, even if they could, pass it on to their offspring? If there is some kind of invisible cosmic 'template' in existence that governs, and drives, things to evolve at all, let alone in a certain way, where is the evidence for the existence of this 'template'? Certainly, Sheldrake does not provide any and so his self-creation hypothesis is no more tenable than the conventional blindly acting materialistic evolutionary scenario.

Sheldrake discusses the Anthropic Cosmological Principle, which states that the 'laws' and 'constants' of nature are tuned exactly for life to exist. A slight deviation from them and the universe as we know it could not exist. He notes that, to get around the obvious implications for an Intelligent Designer, multiple universes are postulated, with our universe just happening fortuitously to have the characteristics for life to exist in it and for us to be even in a position to talk about it. Although not supporting the need for an external Creator, Sheldrake then revealingly admits there is no evidence for this attempted dodge of the Creator:

> "Some physicists and cosmologists are unhappy with these speculations. A vast number of unobserved universes violate the canon of scientific testability. Multiverse supporters claim that mathematics itself, in the form of string and M-theories, provides evidence in favor of their speculations. But string and M-theories themselves, on which many of these speculations are based, are untestable. … Even generic predictions that superstring theory shares with other theories … have not fared well" (p. 95).

Inadequacies of scientific materialism: genes, development, etc.

The author strongly rejects the materialistic reductionism that pervades modern science in general and evolutionary theory in particular. For instance, the essential function of a computer cannot be elucidated by grinding up the components and analyzing the silicon, copper, and germanium that form it. The homing behaviour of a pigeon cannot be reconstructed from an analysis of its molecules.

Ironically, materialistic reductionism suffers from the same defects as earlier explanations for the essence of living things. Consider, for example,

the biological reductionism that is misapplied to genetic encoding. Sheldrake writes:

> "Mechanists have always accused vitalists of trying to explain the mysteries of life in terms of empty words, such as vital factors and souls, that 'explain everything and therefore nothing'. But the vital factors in their mechanistic guises have exactly this characteristic. How does a marigold grow from a seed? Because it is genetically programmed to do so. How does a spider instinctively spin its web? Because of the information encoded in its genes. And so on" (p. 165).

The author then describes the unexpected similarities in genes among diverse organisms, which demonstrates that many biological phenomena cannot be reduced to genetic encoding and provides examples of non-genetic factors in living things. For instance, epigenetic inheritance allows the passing of some traits, from parents to offspring, outside of encoded genetic information. This is a fast-growing field of research.

Sheldrake also alludes to the inadequacy of developmental biology as, in itself, containing a mechanism for evolution. He comments:

> "The study of genes involved in the regulation of development is part of a growing field called evolutionary developmental biology, or evo-devo for short. But here too, molecular biology is a victim of its own success: it has shown that morphogenesis itself continues to elude a molecular explanation. The molecular control systems turned out to be very similar in widely different animals. Homeobox genes are almost identical in flies, reptiles, mice and humans. Although they play a role in the determination of body plan, they cannot explain the organism's shapes" (p. 171).

The author goes to the other extreme of scientific materialism. He seriously suggests that atoms, crystals, cells, tissues, planets, and galaxies all have some form of experiences and feelings (p. 127)! How can one even conceive of a test for such a premise? The fact that Sheldrake emphasizes testable hypotheses makes his suggestion especially ironic.

Mind or brain? Or mind *and* brain?

Sheldrake analyzes materialistic reductionism, especially when it is applied to the mind/brain question. Is everything we think and experience completely explicable in terms of neurons firing in our brain? He quips:

> "But to say that consciousness is an illusion does not *explain* consciousness: It presupposes it. Illusion is a mode of consciousness" (p. 113, emphasis in original).

The author rejects the contention that the mind simply *is* the brain, as well as the opposite explanation of dualism between the mind and brain. Sheldrake suggests that the mind is in the brain but not limited to the brain.

As support for this premise, he points out that large sections of the brain can be surgically removed without destroying memories. In the case of hydrocephalus, the brain can be unusually small, yet the person can have fully developed intelligence and personality.

In addition to psychic phenomena, which Sheldrake believes in, as an argument for the mind being more than just the brain, he focuses on remote viewing. This is known otherwise as "unseen gaze detection", "remote attention", or scopaesthesia. He presents experimental evidence that a person knows that he or she is being watched by another person, above chance levels, even when not seeing the viewer, or possibly getting indirect clues from sounds, odours, etc. This supposedly works even when the person is being viewed remotely, as through a telescope, or even on a distant computer monitor. Sheldrake suggests this shows that the human mind of a person exists, in some way, far beyond the brain.

The weird world of morphic resonance and morphogenetic fields

The author believes that various entities, ranging from atoms all the way to societies, are governed by invisible fields that they create. This clearly is taken from Eastern philosophy.

Much of Sheldrake's reasoning, on this subject, is very dubious. Consider his argument about molecules in crystals and the novel molecules synthetized by scientists. The comparison is invalid. There is no doubt that the atoms that are locked in crystals influence the positioning of neighbouring add-on molecules, facilitating the formation of more crystals identical to the previous ones. However, this has nothing to do with supposed morphic resonance. It is simply the "lining up" of newly arriving atoms according to the spaces and charges created by their pre-existing neighbour atoms.

Consider, by contrast, what occurs when scientists synthetize a new molecule and then, soon thereafter, scientists elsewhere synthesize the very same molecule. Sheldrake would have us believe that the morphogenic field created by the first new molecule makes it easier for a second copy of the same new molecule to appear elsewhere. Is such thinking necessary? What happens when scientists, working on the same problem with the same equipment, unremarkably arrive independently at the same solution? What happens when the success of one group of scientists creates a psychological impetus for other scientists to work harder, buoyed by the added knowledge that a solution is definitely possible?

The entire morphic resonance idea seems to be superfluous in other contexts. For instance, Sheldrake suggests that, once a squirrel learns a new way to open a package, other squirrels do the same because the new behaviour is reinforced by a morphogenic field. Why so? How about simple imitation? One squirrel

sees another squirrel act in a certain way and imitates it. Alternatively, if the new squirrel behaviours are observed in different places on earth, how about convergent behaviours by squirrels? (This reminds me of ancient shipbuilding. Are there similarities between ancient Egyptian boats and ancient Chinese boats because the Chinese copied the Egyptians? Is it because the Egyptians copied the Chinese? Is it because the Chinese and the Egyptian shipbuilders, using the same reasoning and the same materials, and operating under the same physical constraints, arrived at very similar solutions independently? Clearly, no morphogenic fields are necessary.)

Some of Sheldrake's examples of alleged morphic resonance border on the ridiculous. For instance, he suggests that similarities in behaviours of identical twins, even when raised apart, exist because the morphic resonance created by one twin influences the other. If so, consider the eminent creationist, Dr Duane T. Gish, who recently passed away. He had an identical twin who had died many decades earlier. Following Sheldrake's morphic resonance ideation, Duane T. Gish should also have passed away long before he did, influenced by the morphic resonance created by his dead twin brother. Instead, Dr Gish lived into his 90s.

Conclusion

The author raises topics that are rarely raised by those commenting on conventional science. This makes them hard to evaluate. Some, quite frankly, seem far-fetched.

Although not focusing on evolutionary theory itself, Sheldrake has provided insights into the inadequacies of materialistic evolutionary theory. However, his proposed self-creating universe is no more factual. Special Creation by an Intelligent Designer remains the best explanation for why everything exists.