Book Review

Title: The Science Delusion

Author: Rupert Sheldrake

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The Science Delusion is the latest book from Rupert Sheldrake, a noted scientist and Fellow of the University of Cambridge. Dr. Sheldrake is well-known in science for his work in developmental biology, but he is more familiar to the general public for his controversial views on psychic phenomena such as telepathy and extra-sensory perception.

From the title, one might have expected a religious polemic against scientist and atheist Richard Dawkins (author of *The God Delusion*). Sheldrake does have a bone to pick with Dawkins, but his concern is not with the interaction of science and religion, but with certain assumptions that he believes are hampering the practice of modern science.

The writer's main target is the philosophy of materialism - the belief that all reality is physical in nature. He argues that this philosophy is both widespread and unexamined in modern science, and hinders progress by causing working hypotheses to harden into rigid dogma. Examples of such dogma are the assumption that the laws of nature are fixed, that nature is purposeless, that all matter is unconscious and that human consciousness is simply a by-product of the physical activity of the brain.

Sheldrake examines these and other assumptions in detail. He gives an excellent introduction to each hypothesis, describing how it developed in the context of the history and philosophy of science. Questioning how such hypotheses harden into accepted truths, he invites the reader to consider alternative worldviews. Along the way, he introduces his own philosophy, a theory known as 'morphic resonance'. In essence, this theory posits that the fundamental constituents of nature are not matter and energy, but self-organising systems that resonate with their environments. In this worldview, atoms, molecules and cells are not unconscious material, but have patterns of behaviour and habits. The author uses his theory to examine whether the universe is alive, whether the laws of physics are habits that change and evolve, whether all biological inheritance is material, and whether the mind is really confined to the brain. In the most controversial chapter, he suggests that his theory can offer an explanation for disputed phenomena such as telepathy and precognition.

Many readers will find the author's thesis fascinating, if a little far-fetched. The book is beautifully written, with scientific and philosophical concepts described in clear language. Each chapter ends with a useful summary and a list of probing questions for materialists.

However, there are also some major flaws in the book. The most obvious is that much of the material cited as evidence for 'scientific dogma' is not drawn from the scientific literature,

but from review articles in popular science magazines. Most scientists would argue that such publications offer only a superficial version of scientific theories, and that many of the 'dogmatic principles' identified by Sheldrake are in fact open questions in scientific research.

This 'straw man' approach is most noticeable in the discussions of modern physics. Sheldrake asserts that the principle of the conservation of energy has become unquestioned dogma in physics; in fact, the principle is the subject of intense research in fields such as cosmology and particle physics (it is thought to be linked to a deep symmetry of time in nature). Indeed, Sheldrake's discussion of energy conservation in the context of the big bang model shows a poor grasp of modern cosmology.

Similar criticisms apply to a chapter on the fundamental laws of nature. The investigation of possible variations in the fundamental constants of nature is a thriving field of research in physics; it is not assumed that these laws are inviolable, as claimed by the author. (A good example is the recent 'faster than light' experiment at Gran Sasso and the planned re-runs in America and Japan). Sheldrake's description of such experiments contains many misconceptions.

A second major issue is the writer's description of the methodology of science. Instead of engaging with the views of sociologists of science such as Harry Collins and Bruno Latour, Sheldrake cites their views uncritically as support for his own beliefs. The result is a rather unbalanced view of scientific practice that emphasizes the failings of the individual scientist, and understates how science overcomes these limitations using the principles of scepticism, repeatability and universality. For example, a lengthy discussion of experimenter bias fails to mention the simple laboratory procedures used to minimize such problems. (It is interesting that the discovery of anthropogenic global warming, a scientific discovery of immense importance to society, merits only one paragraph in the book).

The most enjoyable and controversial part of the book is the section on psychic phenomena. The writer describes many intriguing experiments that he and others have performed to investigate phenomena such as telepathy, premonition and precognition, in animals and in humans. However, a little research shows that for many of the experiments cited, the results are disputed amongst the experimenters themselves. Much of this work has been criticized by scientific bodies and remains controversial.

All in all, a highly original and thought-provoking book. The writer poses a clear and incisive challenge to modern science that scientists and non-scientists alike will enjoy, whether or not they agree with his conclusions.

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