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Challenger to Einstein's theory of time

The New Bergson - Duration and Simultaneity

Henri Bergson is perhaps most remembered for his bold challenge to Einstein's theory of the relativity of simultaneity. Bergson maintained that Einstein's theory did not cope with our intuition of time, which is an intuition of duration. Einstein retorted that there may be psychological time, but there is no special philosopher's time. For Einstein, time forms the fourth dimension of a so-called Parmenidean "block universe".
The world posited by the ancient Greek philosopher Parmenides is known as a block universe because the whole of reality - past, present and future - is thought of as fixed. Any subjective feeling of duration is merely an illusion. For Parmenides there was nothing new under the sun. Einstein's theory, in which all space-time points within it are fixed, was a testable version of such metaphysics. Common sense has it that it is only the past that is fixed, while the future is, in some senses, fluid. At the other extreme, Heraclitus taught that everything is in flux: one cannot step into the same river twice, as new waters continually flow in upon one. Bergson's philosophy of time is somewhere between these two extremes. He argues that the universe shows a real succession of events, and grows by the emergence of radically unforeseeable new things that cannot be reduced to what went before. The emergence of life and the self-conscious mind are examples. The world itself is creative in as fundamental a way as is possible.

Bergson focused his criticism on Einstein's special theory of relativity. This theory led to paradoxes from a common sense point of view such that Bergson's thought undermined Einstein's theory. The most well known of these paradoxes is the twin paradox, in which one twin stays on earth while the other goes on a rocket journey. Einstein's theory implies that the twin in the rocket comes back younger than the one who stayed on earth, because the time relative to the traveller has passed at a slower rate. Bergson argued that there would be no such effect because the Lorentz transformations performed on the two reference frames were reciprocal.

However, many physicists pointed out that Bergson's criticism was flawed, as he had not taken into account the fact that the traveller has an accelerated frame of reference. This naturally led to diverse reactions from physicists and philosophers.

However, as John Mullarkey points out in *The New Bergson* , this did not prevent Bergson's influence from being monumental in many fields of thought. But he suggests that it was dissipated by being assimilated by innumerable intellectual movements. Robin Durie, in his latest edition of *Duration and Simultaneity* , has very usefully collected together some important and substantial appendices, one containing the famous exchange between Bergson and Einstein at a meeting of the Philosophical Society of Paris in 1922, and also those between Bergson and the physicist André Metz.

Mullarkey points out that there has been a resurgence of interest in Bergson's philosophy, beginning in the 1990s, and the collection of essays in *The New Bergson* has been brought together with the intention of appraising the importance of his ideas - unassimilated by other theorists - to current debates in materialism, reductionism, environmentalism and so on. Mullarkey, suggests that Bergson's ideas are substantial enough to compare with Stuart Kauffman's work in complexity theory, Garrett Barden's in environmentalism and Thomas

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Nagel's work in the philosophy of mind. Bergson's ideas, Mullarkey wants us to accept, do not simply foreshadow more recent philosophical debates.

You can assess this for yourself by reading the essays. But Mullarkey could have pointed out that when we look back at thinkers from our intellectually privileged position, we must be on our guard not to read into their work ideas and levels of sophistication that we take for granted in modern theories. For example, it would be silly to suggest that Democritus's atomic theory - though important in the development of the testable modern atomic theory - has anything new to say about modern quantum theory. A while ago it was popular to read Jung's work as containing important ideas for sociobiology, completely overlooking the fact that Jung's theory of the collective unconscious is Lamarckian through and through, whereas sociobiology is Darwinian and has no truck with the inheritance of acquired characteristics, which is an essential component of Jung's theory. Is Bergson's work as substantial as Kauffman's work? After all, Kauffman's work has testable implications.

Reflecting Bergson's wide influence, there are sections on history and method (Richard Cohen and Garrett Barden), ontology (Gilles Deleuze and Timothy Murphy), mind (Bergson, Frederic Worms, Marie Carion, Eric Mathews and F. C. T. Moore), life (Keith Ansell Pearson and P. A. Y. Gunter) and art (Mark Antliff and Paul Douglas).

These two books make a useful and convenient resource for students on any course that touches on Bergsonian problems.

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