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HENRI BERGSON: TIME AND FREE WILL

Precognition has been an ongoing feature of "alternative" belief. From the Biblical Witch of Endor to the Mystic Megs at the back of today's glossy magazines, via Nostradamus and Mrs Piper[1], few ages or societies have not had its share of those who know the future. The skeptic often forms the view that some seers are tempted to protect themselves in one of three ways: First, they so vaguely word their predictions that they can twist the meaning of the prophesy to match any eventuality. Secondly, they refer to statistically likely events (the outbreak of war, the assassination of a politician, the divorce of a film star), thus stacking the odds in their favour. Thirdly, they can give an unknown individual what professional fortune tellers call a "cold reading." This involves passing on information that will almost certainly be correct—the precognitive equivalent of a doctor telling the people that it might be a good idea if they stopped smoking, exercised more and lost a little weight.

However, even if we have grave misgivings about the majority of fortune tellers, it would only require a single genuine case—one of William James' *White Crows*—to show the possibility of precognition.[2] But under what circumstances can precognition be even a theoretical possibility? Foremost, these circumstances must relate to the nature of Time itself. For someone to be able to know the future, it must either in some sense already exist, or, alternatively, be precisely determined in advance. Ever since Einstein, scientists have depicted reality as a four-dimensional entity, inside a twisted mingling of Time and Space. This raises the possibility that an observer on a higher plane could see the past, present and future in one immense rolling panorama. If we can see the future, is the future written in advance?

Henri Bergsen was a French Philosopher who died nobly during the German occupation of Paris in 1940. His thinking about the nature of Time throws some light on this question. What, asked Bergson, was Time, and what was future Time? Was it something that was real, external, and continually coming into existence, or was Time simply a human construct, an abstract measurement used to indicate the passing of human events? Assuming Time was real and external, the question was whether the events that would occur in future Time were predetermined and knowable, as a belief in precognition appeared to demand. If this was the case, logic seemed to require a completely material and mechanistic universe where all future events were predictable.

Intellectually, Bergson was a product of the later nineteenth century. Like most of his peers, the young Bergson was "wholly imbued with mechanistic

theories."[3] This was the notion that the Universe and everything in it was indeed entirely mechanical, and was therefore bound by predictable and unaltering laws. It was a world view that encouraged the idea that one could foresee what the future held. William Whewell, the man who coined the word: "scientist," and one of the most interesting thinkers of the nineteenth century, explained this position thus:

> [Imagine] an intelligence which, at a given instant, should know all the forces by which nature is urged, and the respective situation of the beings of which nature is composed. If, moreover, it was sufficiently comprehensive to subject these data to calculation, and could include in the same formula, the movements of the largest bodies of the universe and those of the slightest atom. Nothing would be uncertain to such an intelligence, and the future, no less than the past, would be present in its eyes.[4]

This position, often known as Laplacian determinism in memory of the sternly materialistic Frenchman who first articulated it, would theoretically permit precognition. God—or the Big Bang—had preordained the future movement of everything in the universe. All that was left was for a scientist to calculate, or a fortune teller to intuit, the programmed sequence.

Henri Bergson's study of Time completely changed his view after 1883. He recorded that "the analysis of the notion of Time, as it entered mechanics and physics, overturned all my ideas. I saw to my astonishment that scientific Time does not *endure*."[5] What Bergson meant was that Real Time (*duré e ré elle*) could not be proven to exist by standard scientific methods. By definition the past and the future are either "not here any more" or "not here yet," and consequently cannot be felt in a direct empirical sense. The past, Bergson conceded, could be recollected through *experience*. But the future was nonexistent in the sense that it was, by definition, still waiting to be created.[6]

Laplacian determinism was central to, and interdependent with, nineteenth century materialism. Bergson raises at least two objections to Laplacian determinism, both of which, for Bergson, are in themselves sufficient to refute it. The first objection is based on the continuity of psychological life. Determinism claims that in the same conditions, the same phenomena will occur. Bergson argues that the same set of conditions can never occur in the life of a being that lives in, and has an awareness, of historical time. Each artificially isolated moment of time includes the entire past, which is, necessarily, different for each moment. As the memory of the past must be part of any given situation experienced by a being with memory, the same set of conditions can never occur twice to such a being. For example, if I eat exactly the same meal in exactly the same way under the exact same conditions on

two consecutive days, the second experience is still not the same as the first. The second time around, I am *repeating* an experience, and the first time around, I am not. In view of this, and because Time is irreversible, neither the same cause nor the same effect can ever reappear in the history of the universe.

Bergson's second objection was based on the notion of free will, which, if real, makes determinism untenable. If free will exists the future is not determined, and therefore cannot be known, until the very instant the future becomes the present. The future's yet-unborn pattern is dependent upon, among other things, the unpredictable exercising of billions of unmade-up free minds, and is as such completely random and unpredictable. It was a position shared by Bergson's admirer, the physicist Sir Oliver Lodge

> Wherever life has entered in, the predictions of physicists and astronomers and mathematicians are spoilt. Laplace's calculator might reckon the behaviour of every particle in the universe so long as it was not interfered with by life and mind. I have looked sometimes at the ripples coming over the sand at a sea beach and leaving a deposit of foam. I have thought whether a mathematician given sufficient data could predict every ripple and every line of foam. Yes he could, theoretically, provided there were no boats, nor any fish. The splash of a fish, the ripples of a boat, would put his calculations out. Given even a spark of free will, there are no data that can be supplied.[7]

This is more than sophist logic chopping. This view necessarily questioned earlier deterministic notions that we could predict the future—and that therefore the future in a certain sense "already existed"—if we could only get sufficient knowledge of the position and trajectory of all the atoms in the universe.[8] The further significance of Bergson's freewill defence is that it seriously challenged a popular nineteenth century scientific belief: that humans were automatons who only *appeared* to be conscious and autonomous.

The views of Lodge and Bergson had implications for psychology and the then popular science of psychical research (parapsychology). Bergson maintained that his notion of Time refuted the mechanist's view of psychology. Mechanists had favoured a deterministic theory based on the well-established doctrine of associationism. Associationism said that the mind of a sentient being consists of a succession of *material* atomic states. The implication was that its actions were therefore totally preordained in a Laplacian sense.[9] Associationists argued that if the mind consisted of a succession of purely material states, then any changes in its condition must be entirely mechanical. If these changes are entirely mechanical, they must be entirely predictable, and if they are entirely predictable, there could be no free will. (It also left no room for a soul—consciousness and personality were no more than the byproducts of bio-electrical activity within the Brain).

Instead, Bergson argued that our actions spring spontaneously from our entire personality as it had evolved up to the point of action. This creates an infinite set of variables and possibilities, and therefore the mind is both free and unpredictable.[10] Bergson claimed that the very existence of this spontaneous action proved that Time was not a human construct, but something we exist in and travel through; Time is real in a metaphysical sense. This final point is significant, for it acknowledges that this awareness of Time could not be founded on intellect, but on intuition and experience.

Bergson's view of free will and of the future was derived from his critique of the scientist's very notion of Time. Bergson claimed that the scientist saw Time as a mathematical construct, divided up into an endless, arbitrary and abstract series of seconds, minutes and hours. He felt that this division of time into an enormous sequence containing distinct sections perpetuated a fallacious interpretation of the very notion of Time itself. Instead, Bergson saw the need to think of Time as a Whiteheadian "process." It was something that flows and acts, which is immediately experienced as an active, ongoing and concrete reality.

Bergson's view of Time has its uses: for example it resolves Zeno's famous paradox of the arrow fired from a castle wall. This is the notion that an arrow in flight must necessarily occupy a certain space at any given time, and therefore is never in motion. It was a paradox created by the "scientific" view of Time that Bergson disputes. Of course, an arrow in flight will cease to be motionless as soon as the problem ceases to remain an abstract one. In the concrete world, we know Zeno's reasoning to be wrong, even if we cannot immediately say why. Experience assures us that any soldier who refuses to take cover on the basis of Zeno's logic will probably soon become an ex-soldier. Bergson's resolution of Zeno's paradox would be that because Time is a seamless process rather than an infinite succession of discreet moments, the arrow flows through Time just as it flows through the air. Zeno made space the final irreductability of his paradox, where in reality (according to both Bergson and the evidence of the late soldier's experience), the final irreductability is *Time.*

However, Bergson's refutation of determinism creates another paradox. While it took away the only scientific explanation for precognition, it also weakened the mechanico-materialist position. Thus it greatly strengthened the rationale for further research into the possibility of paranormal phenomena such as precognition. Bergson's philosophical justification of the reality of Time and of freewill was also a philosophical justification of the dualist—or more accurately anti-materialist—principle: that humans had both material bodies and non-material minds—souls—both subject to the same laws as everything else in the universe.

How can we reconcile Bergson's view with contemporary post-relativity theories? For relativity, the cosmos is like a vast block of glass stretching from the creation to the end of Time. Each moment of Time is a segment cut through the block, and events are strung together into Time lines embedded in the glass.[11] If this is true, then Plato's ancient idea of a realm of Forms may be near the mark. The space-time continuum might best be described as a complete collection of snapshots of all possible universes, and all possible arrangements, existing simultaneously.[12] So where does Bergson's and Lodges's sense of onward rolling cause and effect, and free will come from? Contemporary theorist Julian Barbour suggests, not unlike Bergson, that each instant contains a sort of fossil record of its neighbour, creating an illusion of the passage of Time.[13] But finally, what is it that creates the shape of this instant? The perplexed may join in Dr Johnson's exasperation, and say, "We *know* our will is free, and that's an end to it."

Endnotes

1. The story of the "Witch of Endore"—later used as the inspiration for a memorable anti-spiritualist poem by Kipling—is in the book of *Samuel.* Leonora Piper of Boston, (1859–1950), was the most convincing and intensively studied of all nineteenth century mediums.
2. Even if one has seen a million crows, and all have been black, one can never be sure that the next one will not be white, and only one white crow is needed to prove that not all crows are black. The point being, that scientific knowledge must always be tentative and open to revision.
3. H. Bergson, *Essai sur les donees immediate de la Conscience,* Felix Alcan, Paris, 1889.
4. W. Whewell *Bridgewater Treatise, Astronomy and General Physics considered with reference to natural theology,* William Pickering, London, 1833, 374–5.
5. Quoted in R.B. Perry, *The Thought and Character of William James,* Little & Brown, Boston, 1935, vol. 2, 622–3.
6. F. Burwick and P. Douglas (eds), *The Crisis in Modernism: Bergson and his Critics,* Cambridge University Press, Cambridge, 1992.
7. Sir Oliver Lodge, untitled column in *Nature,* 24 October 1934, 744.
8. For Bergson's critique of "Laplacianism," see Bergson, *L'Evolution Creatrice,* Felix Alcan, Paris, 1907.
9. This school held that a personality was no more than an associated set of memories—such as all the memories "remembered" by one mind. John Locke is often regarded as its founder.
10. H. Bergson, *Essai sur les donnes immediates de la Conscience,* Felix Alcan, Paris, 1889, 171.

11. D. Broderick, "Spaced Out, Temporarily" in *The Weekend Australian,* 12–13 February, 2000.
12. J. Barbour, *The End of Time,* Weidenfeld and Nicholson, London, 2000.
13. *Ibid.*