Bergson, Complexity and   
Creative Emergence

By David Kreps

## Chapter Abstracts

1. **Introduction**
   1. The Life and Legacy of Henri Bergson
   2. This opening chapter offers a brief ‘life’ of Henri Bergson – born in 1859, the year Darwin’s *Origin of Species* was published - and his legacy, particularly in poststructuralist philosophy. It gives a general abstract of the book, and an introduction to Kreps’ notion of Creative Emergence: a post-Darwinian understanding of evolution using both Bergson’s insights and the findings of contemporary complexity science.
2. **Bergson’s** **Core Ideas**
   1. Bergson’s Core Philosophical Insights
   2. A succinct introduction to one of the great French philosophers and his characteristic dualisms as philosophical method, this chapter elucidates Bergson’s key insights. It gives clear explications of (i) the notion of philosophical intuition, by which philosophers may grasp gestalt understanding, (ii) Bergson’s foundational concept of real time – the *durée reélle –* as distinct from scientific time, which does not endure, (iii) his understanding of the fluidity of perception, the active and multiple nature of matter, and the location of memory quite literally in the past, and (iv) contextualised in modern evolutionary theory, his famous answer to the question of evolution: the *élan vital,* or vital impulse, which acts in opposition to entropy as the means by which consciousness enters into inert matter through life.
3. **Bergson Redux**
   1. The Legacy of Henri Bergson
   2. Kreps explores Gilles Deleuze’s rediscovery of Bergson’s ideas at the foundation of poststructuralism, using intuition as a method to unpick the false problems of analytical philosophy. The chapter offers a general introduction to poststructuralist thought, suggesting that poststructuralism – Deleuze, Derrida, Foucault, Butler etc – owes much to Bergson’s insights into time, multiplicity, and fluidity, alongside the ideas of Saussure and Nietzsche. It then considers briefly some of the other texts devoted to Bergson in recent decades, concluding that Bergson’s fall from favour between the 1930s and 1960s is well and truly over, and that his fame and influence are returning.
4. **Systems Theory Grows Up**
   1. A Genealogy of Systems Theory
   2. Kreps offers an insightful genealogy – using Foucault’s methodology – of systems theory, from its 19th century roots up to the 1970s. The role played by the individualism of Adam Smith’s economics in the formation of Darwin’s ideas is explored, along with the development of the 20th century concept of ecosystems, and how, through biologist Bertalanffy, this became a more generalised systems theory. Through World War II and the pervasive influence of mathematics this then developed into cybernetics. A composite – or false problem - of two root metaphors in these systems theories, that of mechanism, and, paradoxically, also that of organicism, Kreps shows has led modern ecologists to see them as theories to which the facts simply do not fit.
5. ***Durée Complexe***
   1. The Irreversibility of Time and the Complexity of Life
   2. Addressing the scientific notion of time Kreps retells how Bergson and Einstein clashed publicly in the 1920s on the question of time, and how quantum theorist Louis de Broglie two decades later saw how Bergson’s insights chime with those of quantum mechanics. Focussing on the role of consciousness in Bergson’s understanding of a universe that endures, however, this chapter then aligns the key notions of complexity theory – emergence, order at the edge of chaos, attractors, the shortest description – with Bergson’s notions of the *élan vital*, tendencies in evolution, and a universe in which life is not an accident, but an inevitability.
6. **Creative Emergence**
   1. The Responsibilities of Humanity
   2. In this concluding chapter Kreps offers the notion of *creative emergence* as a composite of Bergson’s ideas and those of complexity theory, with humanity at the top: not because we are inevitable or perfect, but because something like us is the ultimate point of creative emergence - for life to become self-aware. This human exceptionalism runs counter both to religiously inspired notions of our innate perfection, and biodeterminist notions of our accidental irrelevance. It places on us a responsibility to know that we are in it together, we can fail as a species just as likely as we can succeed, and we will only have ourselves to blame – or praise - if we do. Creative emergence means nothing but life itself is inevitable.