

Abstract for the Gatherings in Biosemiotics in Prague 2016

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Science as (bio)semiosis

In his fundamental work on semiotics, Charles Peirce was very much concerned with the evolution of knowledge and science. Biosemiotics, which incorporates the observing system in form of living organisms and the necessary interaction involved in the act of observing by way of different senses, is also important not only within science, but to our understanding of science. Science is a cognitive system, or a type of cognitive systems, with unique capabilities for observation and learning. In this sense science can be compared to organisms capable of observing and learning. Of course science is much else and, in particular, science can be seen as an autopoietic, communicative social system in the sense of Niklas Luhmann, a system that differentiates into still more specialized systems and perspectives. Nonetheless, the cognitive aspects of science are crucial to understanding science, and in this regard it is fruitful to consider science as a process of semiosis, especially from the perspective of biosemiotics. Vice versa, the new cognitive approaches to philosophy of science may also be of value for (bio)semiotics. Some examples: Firstly, Jakob von Uexküll's notion that each species has its own Umwelt, or phenomenological world, provides a strong analogy for the different phenomenological worlds of scientific perspectives and an importantly modest view of what each perspective can observe. Secondly, together with this perspectivist view, the Peircean distinction between the immediate and the dynamic object of the sign is of key importance for enabling interdisciplinary research involving very different scientific perspectives with different immediate objects working on the same dynamical object. Thirdly, the distinction between immediate and dynamic objects can also contribute to the understanding of scientific phenomena as including the whole observational apparatus in Niels Bohr's sense, and to a more general understanding of complementarity. Reversely, new strands in philosophy of science suggests that the key semiotic concept of representation should be understood not only in a traditional semiotic sense, but also in an interacting, or intra-acting and performative (cf. Karen Barad), sense. This paper explores the challenges and ideas that emerge from the notion of science as (bio)semiosis.