

Emergent Information. When a Difference makes a Difference...

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Gregory Bateson's famous saying about information makes a difference. It can be looked upon as a good foundation of a Unified Theory of Information (UTI).

The presentation will have three parts. Part one will discuss the hard and the soft science approaches to information. The first is characterised by objectivism, materialism and externalism; the second by subjectivism, idealism and internalism. It will be argued that a UTI approach needs to overcome these divides and can do so by adopting an historical and logical account according to which historical manifestations of information emerge from earlier manifestations but do not derive from them logically. With each historical manifestation that is to be conceived of, the concept of information is enriched by features not characteristic of it so far and extended so as to make the universal and the concrete unify in order to include the manifestation in the extension of the meaning.

Part two will give a system theoretical sketch of such an information concept. It is based upon assuming a co-extension of self-organisation and information. Information will be defined as a tripartite relation such that (1) Bateson's "making a difference" is the build-up of the self-organised order; (2) Bateson's "difference" that makes the difference is the perturbation that triggers the build-up; (3) Bateson's difference that is made is made to the system because the perturbation serves a function for the system's self-organisation. In semiotic terms, (1) a sign (= the self-organised order) relates (2) a signified (= the perturbation) (3) to a signmaker (= the system).

This universal notion can be differentiated to cover the whole universe of information. In a concluding part, consequences of this concept for the knowledge about information processes and information structures of different evolutionary system types on intrasystemic, intersystemic and suprasystemic levels will be discussed. In particular, social information will be focused on.