

## Relational ontologies, Biosemiotics and Autopoietic Enactivism

Technological advances in biology and neuroscience have opened up the way for new perspectives on life. Two nascent fields, biosemiotics (Hoffmeyer, 2009) in biology and autopoietic enactivism (Varela et al., 2016, Di Paolo et al., 2018, Gallagher, 2019, Stewart et al., 2014) in philosophy of mind and neuroscience, are both proposing alternative frameworks to the leading perspectives in their fields. While both work from a different angle, and both are not uncontested, they share considerable overlap in the view that life and mind are a continuity (Bateson, 1980) and consequently place an emphasis on sense, meaning creation and signification on all strata of life. Meaning however is decoupled from universal *telos*, and becomes meaning for that particular organism, in that particular process.

It is surprising that considering the theoretical overlap not a lot of research has been done on how these two fields can strengthen their respective positions. Given that both work from a relational ontology, this paper will focus on the ways on which these disciplines converge by looking at a number of the philosophical underpinnings used in both fields.

The central argument of this paper is that meaning and sensemaking occur on all levels of life. This produces a shift in perspective from *nominalist* views on life (Wheeler, 2016) and information to a more cybernetic (Pickering, 2010) semiotic (Peirce, 1992a, 1992b) process, where mind and life, and to an extent nature and culture, are seen as a continuity. Consequently technology, as a product of culture, occupies a significant place in meaning making in the *Umwelt* (Uexküll, 2010) of life. Enactivism, biometrics and dynamic complexity systems studies complement each other in an empirically based analysis of life as a process of relations (Rosen, 1991) of signs.

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