

The Cybersemiotic approach to FIS

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Abstract: The present paper discusses various suggestions for a philosophical framework for a trans-disciplinary information and communication science that encompasses the phenomenological-hermeneutical, social interpretive as well as the computational, natural scientific and evolutionary aspects of signification. These are: the mechanical materialistic, the pan-informational, the Luhmanian second order cybernetic approach, Peircean biosemiotics and finally the pan-semiotic approach. The limitations of each are analyzed. The conclusion is that we will not have to choose between either a cybernetic-informational or a semiotic approach. A combination of a Peircean-based biosemiotics with autopoiesis theory, second order cybernetics and information science is suggested in a five-leveled Cybersemiotic framework. The five levels are 1) a level of Firstness, 2) a level of mechanical matter, energy and force as Secondness, 3) a cybernetic and thermodynamic level of information, 4) a level of sign games and 5) a level of conscious language games.

These levels are then used to differentiate levels of information systems, sign and language games in human communication. In our model Maturana and Varelas description of the logic of the living as autopoietic is accepted and expanded with Luhmanns generalization of the concept of autopoiesis, to cover also to psychological and socio-communicative systems. Adding a Peircean concept of semiosis to Luhmanns theory in the framework of biosemiotics enables us to view the interplay of mind and body as a sign play. I have in a previous publication (see list of references) suggested the term sign play pertaining to exosemiotics processes between animals in the same species by stretching, Wittgenstein's language concept into the animal world of signs. The new concept of intrasemiotics designates the semiosis of the interpenetration between the biological and psychological autopoietic systems as Luhmann defines them in his theory. One could therefore view intrasemiotics as the interplay between Konrad Lorenz' biological defined motivations and Sigmund Freud's Id, understood as the psychological aspect of many of the natural drives. In the last years of the development of his theory, Lorenz worked with the idea of how emotional feedback introduced just a little learning through pleasurable feelings into instinctive systems because, as he reasoned, there must be some kind of reward of going through instinctive movements, thus making possible the appetitive searching behavior for sign stimuli. But he never found an acceptable way of modelling motivation in biological science. This is taken up by biosemiotics. I am suggesting a Cybersemiotic model to combine these approaches, defining various concepts like thought-semiotics, phenosemiotic and intrasemiotics, combining them with the already known concepts of exosemiotics, ecosemiotics, and endosemiotics into a new view of self-organizing semiotic processes in living systems. Thus a new semiotic level of description is generated, where mind-body interactions can be understood on the same description level. This is the direction suggested to work in to create a broad philosophy of information, cognitive and communication science that makes it possible for us to see the different approaches not as mutually exclusive, but rather as mutually complementary in accepting an ontology where reality do have structures and processes, but the foundation is hypercomplex and therefore not to be captured truly by any knowledge system.