

Meaning for Life

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- either **explicitly** into a theoretical concept of biosemiotics (e.g. Barbieri or Markoš)
- or **implicitly** so that some idea of meaning or meaningfulness is included in the other introduced semiotic concepts — like sign, semiosis, interpretation, *Umwelt*, information.

How meaning can be introduced to biosemiotics?

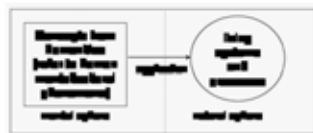
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- However, semiotic concepts contain some hidden elements that are applicable exclusively to human organisms (or societies).
- ⇒ Semiotic concepts cannot be applied as such in natural phenomena.
- ⇒ They have to be adjusted and redefined.



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Problems in introducing semiotic concepts in biology:

- The risk of falling into anthropomorphic errors still threatens, because the exclusively anthroposemiotic elements may remain deep in the structure of the biosemiotic concepts.
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- More commonly, semiotic concepts seems to be acquainted only superficially.
- ⇒ Usually, they are not the (definite) semiotic **concepts** that are tried to introduce to biology, but rather some more or less **vague ideas** or **intuitions** about meaning, sign-process, interpretation, information, etc. that we try to introduce to biology.

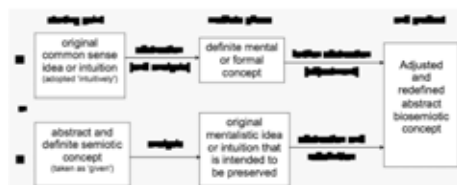
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- ⇒ These intuitions should be somehow 'de-anthropomorphized' in the process of extending redefinition of the characteristically biosemiotic concepts.

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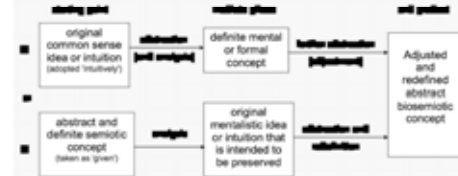
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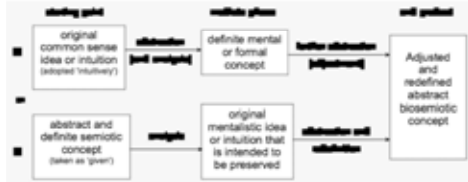
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- B starting from some already established definite concept of some semiotic tradition, analyzing and identifying its anthropomorphic elements, choosing the core-meaning that is wanted to be preserved, and eventually, making the final abstraction and redefinition of hopefully definite biosemiotic concept.

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Some possible intuitive starting points for the fixation of the core-meanings of biological meaning

	alternative structuralist or individualist mental state	epistemological or semiotic/pragmatic alternative
semiotic/structuralist alternative	<ul style="list-style-type: none"> negative intentional meaning: the semantic intention [in mental state] of the signer [Robinson, Ruddle] pragmatic meaning I: meaning as the actual use of the sign in communicative context [Robinson, Ruddle] 	<ul style="list-style-type: none"> semiotic/structuralist core meaning: the content that is essential to access the intended from the semantic structure of the utterance [epistemological or signer's intention] [Robinson, Ruddle] pragmatic meaning II: meaning as the actual use of the sign in communicative context [Robinson, Ruddle]
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These starting point intuitions are considered in relation with the end-products of the derivation of the concept of meaning, whether the argumentation leads to concept that is

Static structural, Dynamic emotional, or Dynamic pragmatic.

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Static structural concept of meaning

Saussure (semiology):

- Starts from the idea of **emotional meaning** but ends up to the conception that gives only **negative** value to subjective mental states.
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- Saussure's argumentation for his conception deconstructs its starting point intuition ⇒ problematic, or at least unconvincing.
- Application in biosemiotics: limited to fixed habits, not in evolutionary, ontogenetic, immunological, etc. processes where some **new** structures or behaviours emerge.

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Static structural(?) concept of meaning

Barbieri — organic meaning and codes

- Does not rely on Saussure but resembles his results to certain extent...
- Starts from the common sense intuition of the arbitrary correspondence between a word and an mental image (like Saussure) but emphasizes the role of mediator, human brains/mind, where the connecting rule (code) is embodied.

- ⇒ Organic meaning defined in terms of organic code and codemaker. Codemaker embodies the code that connects two distinct realms arbitrarily.
- ⇒ Most primitive organic code = genetic code. Amino acids are organic meanings of codons connected by ribotype-codemaker (mRNA+tRNA+ribosome).

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Dynamic concepts of meaning

- If the biological meaning is suspected to be involved in emerging novelties of life, static conception of meaning will not do ⇒ need for a dynamic conception.

	reference to conventional or subjective mental state	reference to an emergent/organic structure
non-referential intention	<ul style="list-style-type: none"> • no specific intention • the content is intended to be understood to be understood from the context of the situation (intentional, intention) 	<ul style="list-style-type: none"> • non-referential meaning: the content that is intended to be understood from the context of the situation (intentional, intention) • emergent meaning II: meaning that is not intended to be understood from the context of the situation (intentional, intention)
reference to non-referential intention	<ul style="list-style-type: none"> • conventional meaning: the content of the subjective feeling that is intended to be understood from the context of the situation (intentional, intention) 	<ul style="list-style-type: none"> • highest meaning: the content of the highest level of organization of a representation (self-referential, self-referential) • meaning in reference to information: the content of the information that is intended to be understood from the context of the situation (intentional, intention) • emergent meaning II: the content of the emergent meaning that is not intended to be understood from the context of the situation (intentional, intention)

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- Charles S. Peirce's **pragmatism** was developed for the theory of meaning:

"What is wanted, therefore, is a method for ascertaining the real meaning of any concept, doctrine, proposition, word, or other sign. The object of a sign is one thing; its meaning is another. Its object is the thing or occasion, however indefinite, to which it is to be applied. Its meaning is the idea which it attaches to that object." (Peirce: CP 5.6, c.1907)

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- Peirce's triadic conception of sign provides a dynamic approach and it seems to involve *both* an idea of subjective feeling (**emotional interpretant**) and detectable consequences:

"the problem of what the "meaning" of an intellectual concept is can only be solved by the study of the interpretants, or proper significate effects, of signs. (...) The first proper significate effect of a sign is a feeling produced by it. There is almost always a feeling which we come to interpret as evidence that we comprehend the proper effect of the sign." (Peirce, CP 5.475, c.1907.)

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Dynamic concepts of meaning: Peirce

- The definition of meaning, *'the maxim of pragmatism'*:

"Consider what effects, that might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our conception of the object." (CP 5.402, 1878)

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- Notice: meaning is not in actual consequences of a sign but it is a **conception** about the conditions of any 'would-be' actions in any **conceivable** circumstances.
- ⇒ Peirce's pragmaticistic concept of meaning is special type of logical meaning — meaning is a 'proposition' that can be used as guiding the possible action. It contains information what would be rational to act in different circumstances.

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- ⇒ Peirce was interested only intellectual or rational meaning:

"I understand pragmatism to be a method of ascertaining the meanings, not of all ideas, but only of what I call 'intellectual concepts,' that is to say, of those upon the structure of which, arguments concerning objective fact may hinge." (CP 5.467)

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Problems with feelings in Dynamic concepts of meaning

- ⇒ Emotional interpretant is not a proper meaning of a sign — it has only instrumental value:

"My pragmatism, having nothing to do with qualities of feeling, permits me to hold that the predication of such a quality is just what it seems, and has nothing to do with anything else. Hence, could two qualities of feeling everywhere be interchanged, nothing but feelings could be affected. Those qualities have no intrinsic significations beyond themselves." (Peirce, CP 5.467)

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- ⇒ Emotional interpretants are significant only when they are means of producing **energetic** and **logical interpretants** that are in dynamic relation with the 'external world' (and therefore detectable also by external observer).
- ⇒ Important point for possible biosemiotic application: emotions and feelings are significant only when they have behavioral effects or only when they modify the habits of possible behaviour — otherwise they are epiphenomenal.
 - ⇒ Besides, externally observable behaviour is our only access to internal world ('feelings') of animals (including other humans).

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 - ⇒ The ultimate, complete meaning of a sign is its final logical interpretant which is a habit of action. Still, not all habits are logical interpretants — only those are that are produced via *self-controlled* (or *deliberate*) formation of thought, i.e. through rational inquiry. (Cf. EP 2:414).

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 - ⇒ Peirce's concept of sign is representational concept: a sign represents its object, and its interpretants are further signs that tend to represent the object ever fuller way.
 - ⇒ Logic is a science of self-controlled thought i.e. about sign that controls its own interpretation. ⇒ Quest for truth is build in into the triadic structure of sign.

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 - Logic is a science of self-controlled thought i.e. about sign that controls its own interpretation. → Quest for truth is build in into the triadic structure of sign.
- But living systems do not search for true representations in thought, instead they try to act successfully.

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Other normative sciences

- Bateson** — definition of information:
 - "the elementary unit of information is a difference that makes a difference" (Bateson 1972: 459)
 - Possible concept of meaning of a significant difference, i.e. of a difference that is not merely detectable by some agent (i.e. that raises 'feelings'), but the detection of which has additionally some causal consequences in the agent:
 - Meaning as that difference which is made by the detected difference.
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- Logic was only one of the three Normative sciences for Peirce:
 - Logic = science of self-controlled or deliberate thought.
 - Practics (ethics) = science of self-controlled or deliberate conduct (action).
 - Esthetics = science of self-controlled formation of ideals, (i.e. of that which is admirable in itself).

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- Logic is a subspecies of Practics (thought is one kind of action).
- Practics is more general normative science than logic, thus it should be unaffected by logical considerations.

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Other normative sciences

- Peirce did not have tie to develop his Practics and Esthetics much.
- Proposal: adjustment of Peirce's pragmatic maxim to **Practics**, definition of a **Pragmatic meaning**:
 - "Consider what practical consequences could conceivably follow if a plan of action would be realized. Then their sum is the ethical/practical meaning of the action." (together with Mika Renvall).
- This together with Bateson's concept of information and with a non-representational concept of practistic sign (*anticipative representation*, cf. Vehkavaara 2003) may serve a promising starting point for determining the general concept of biological meaning.

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