

Biosemiotics, Aboutness, Meaning and Bio-intentionality.

Proposal for an Evolutionary Approach

C. Menant – Bordeaux--

- 1) **The possibility for a Biological Intentionality**
- 2) **Evolution => Bio-intentionality as Meaning of Information in Biological Systems**
- 3) **Meaning of Information in Biosemiotics. Usage for Bio-intentionality**
- 4) **Meaning Management and Meaning Generation. The MGS**
- 5) **Biosemiotics and Bio-intentionality. A Common Evolutionary Approach?**
- 6) **Conclusion and Continuations**

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* Intentionality as ‘aboutness’ of mental states. Deals with ‘meaning’ (Searle, ..)

* ‘Animal intentionality’ is not new (Searle, Varela, Allen, Bekoff, Hoffmeyer, Asma,...)

* ‘Evolutionary intentionality’ (Hoffmeyer) => Possibility for biological intentionality

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2) ‘Aboutness’ in the ladder of evolution

*** ‘Aboutness’ of human mental state:**

- For humans « la Joconde » is about beauty

*** ‘Aboutness’ of animal representation:**

- For a mouse: Presence of a cat is about/means « danger » (survival)

*** ‘Aboutness’ of sensed information for an insect:**

- For an ant: Pheromone means « track to follow for food » (survival)

*** ‘Aboutness’ of sensed information for a unicellular living entity:**

- For a paramecium: Presence of acid means « danger » (survival)

**=> Bio-intentionality:
meaning of information in biological systems**

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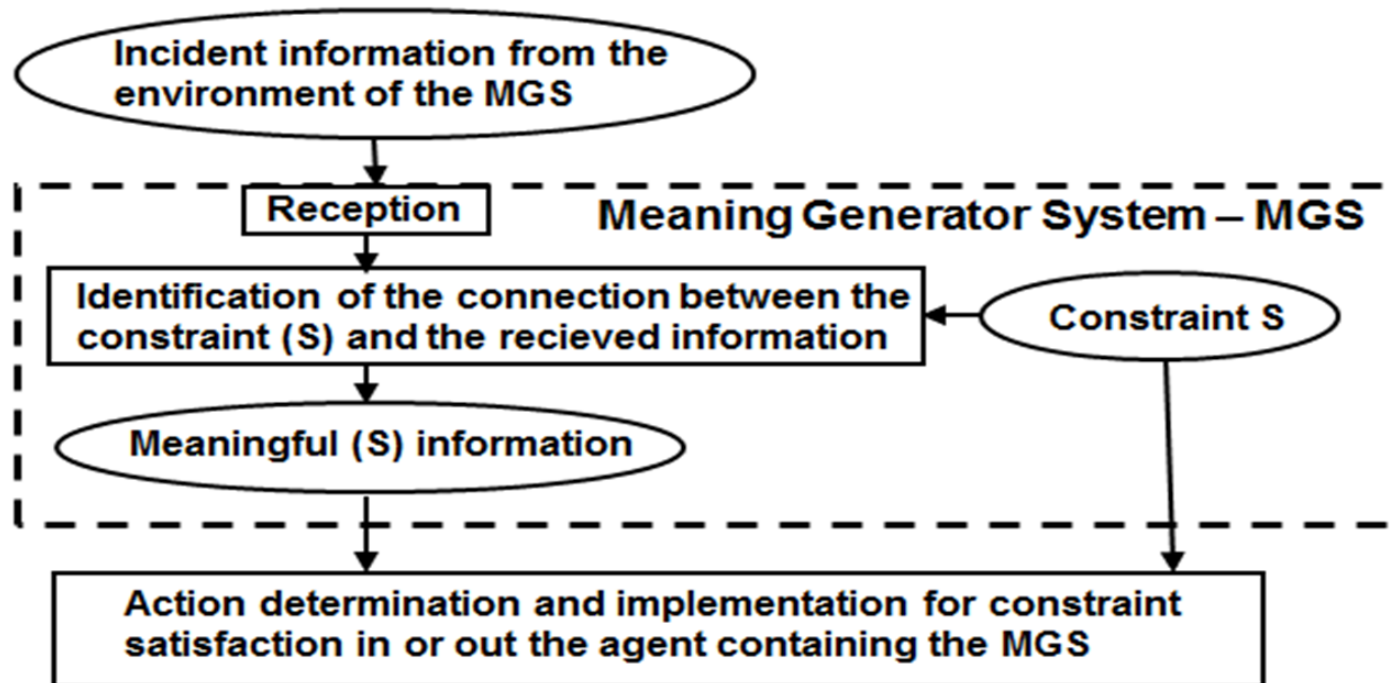
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4) Meaning Management and Meaning Generation. The MGS

*** Meanings do not exist by themselves. Meanings have to be generated by and for agents***



*** *Animal constraints:***
- Stay alive
(individual & species)
- Live group life

*** *Human constraints:***
- Look for happiness
- Limit anxiety
- Valorize ego
-

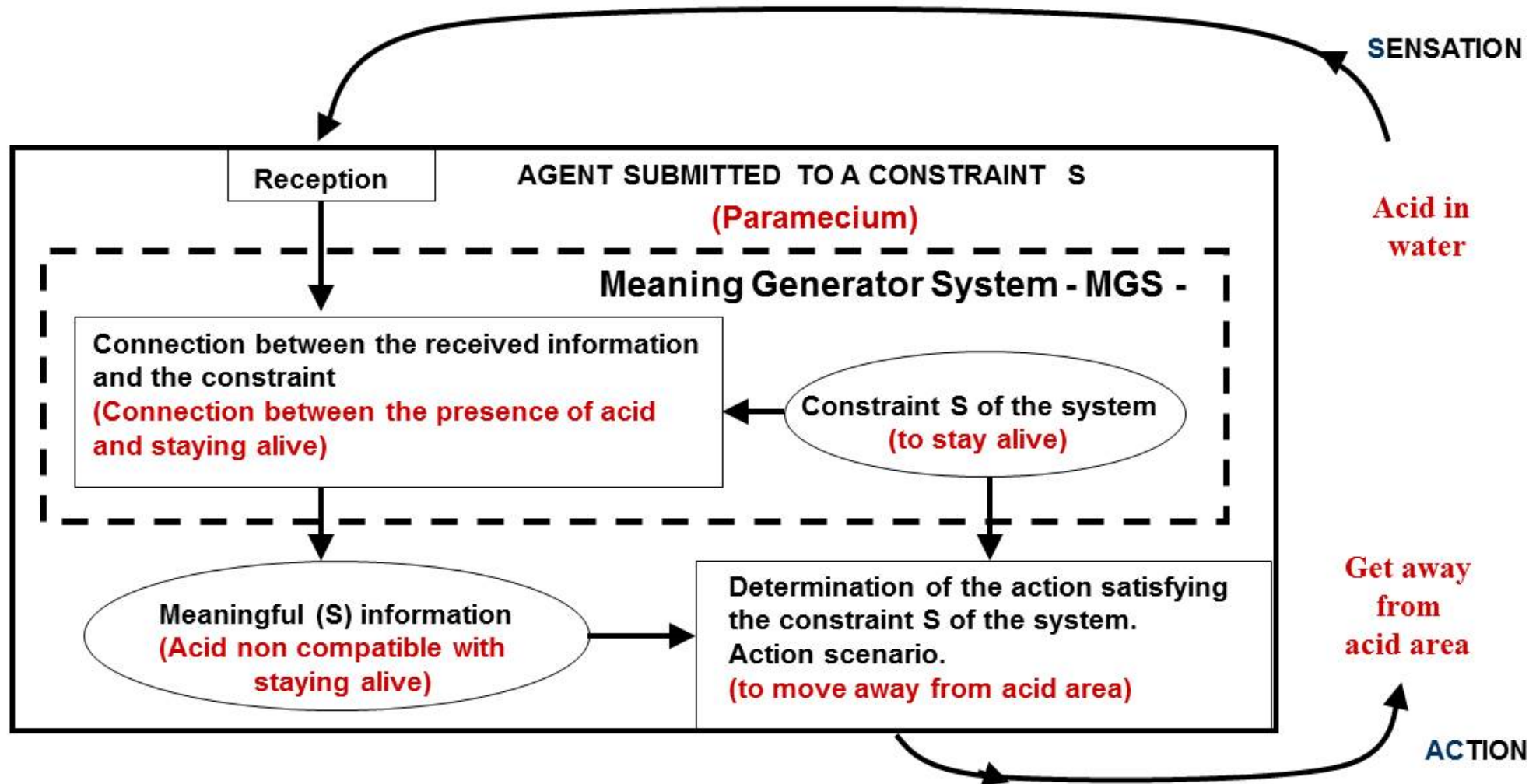
‘When an agent submitted to an internal constraint receives from the environment an information that has a connection with the constraint it generates a meaning usable for the implementation of an action satisfying the constraint’

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4) The Meaning Generator System for Basic Life. Stay alive constraints



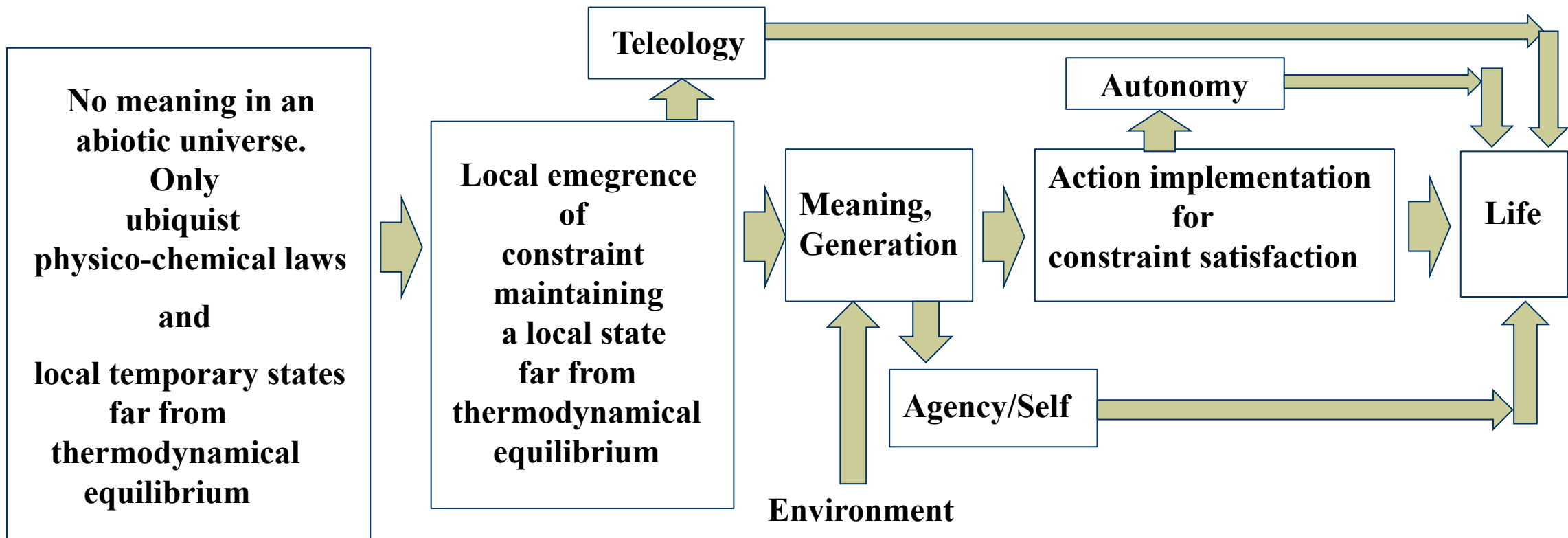
MGS brings in a modeling of the significance of the chemical gradient for the organism

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4) Emergence of Meaning from an Abiotic Universe. Local constraints



Emergence of local constraints, teleology, meaning, agency/self, autonomy and life

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- * Meanings have to be generated by and for agents. The MGS for constraint satisfaction
- * Meaning generator system for basic life. Stay alive constraints. (individual & species)

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- * Biosemiotics and bio-intentionality deal with meaning management in biological systems
- * Proposal for a common evolutionary approach based on meaning management

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6) Conclusion

- * **Bio-intentionality introduced as the meaning of information in biological systems.**
- * **Meaning management in biosemiotics can be an entry point for bio-intentionality.**
- * **Possible common evolutionary approach for biosemiotics and bio-intentionality.**

6) Continuations

- * **Development of bio-intentionality per se via biosemiotics through meaning generation processes.**
- * **Look at how bio-intentionality can introduce an evolutionary approach to intentionality.**
- * **Address endo/exo bio-intentionality and possible links with ‘coding.’**
- * **Evolutionary history of ‘meaning’: Emergence of local constraints in an abiotic universe of ubiquitous laws leading to teleology, meaning generation, agency, autonomy and life**

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