Jean-Daniel Dessimoz, Roboptics Llc, Cheseaux-Noréaz, Switzerland , February 22, 2021, *jean-daniel@dessimoz.org*

Cognition – Basic Modelling of Reality

Real

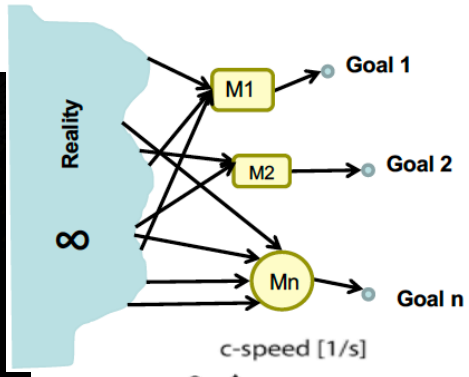
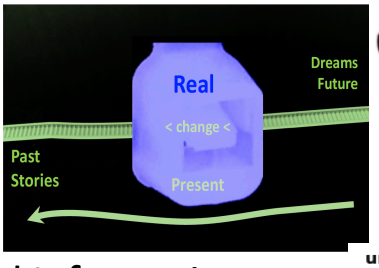
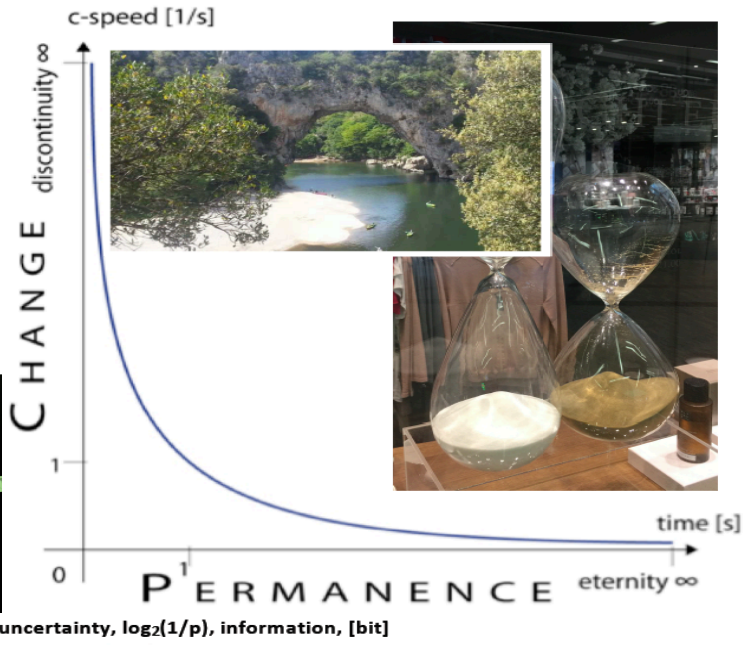


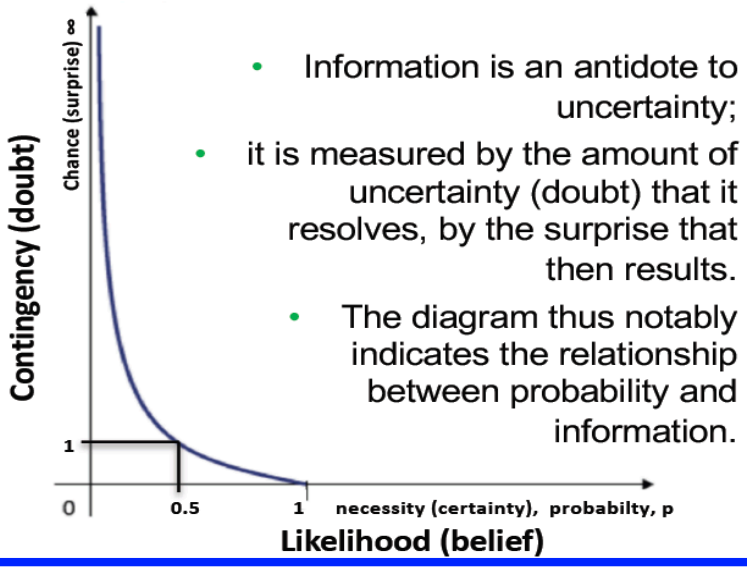
Fig. Reality is very complex but selecting a goal typically allows for convenient, infinitely simpler models.

- What is
- Infinitely complex
- Inviolable laws



- Time
  - Change
  - Permanence
- Probability and Information
- Definitions (i.e. basic models)
  - Dictionary
  - Samples and examples
- Sciences
  - Laws of physics and nature
  - Standards, units of measurement
  - Reference experiments
  - Recordings (memory)





- Information is an antidote to uncertainty;
- it is measured by the amount of uncertainty (doubt) that it resolves, by the surprise that then results.
- The diagram thus notably indicates the relationship between probability and information.

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