

ARTIFICIAL DEVELOPMENT APPROACH TO PRESENCE TECHNOLOGIES

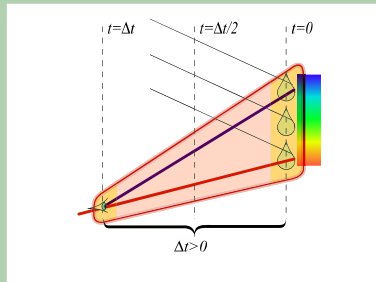


Intentionality

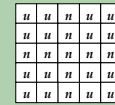
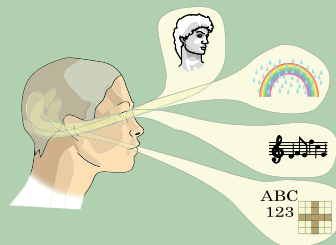
A process view of phenomenal experience is developed. The special process and causal relationships are termed *Onphenes* subsuming in a unitary perspective the existence (ontos) and the appearance (phenomenon) of things. Onphenes refers to processes of reciprocal causation where apparent cause and effect need to be considered as two views of a single process

Consciousness:

- 1 Instead of considering the problematic dualistic approach of the mental separate and distinct from the physical world, the theory proposed here includes a single concept. This single concept is a process
- 2 Representations are consequently only the interpretation given by an external observer to part of the events due to the unfolding of this type of process. This "activation" can only be acquired during epigenesis through the interaction with the environment



Example of the rainbow



30	8	17	25	28
18	15	11	9	14
31	3	5	23	29
10	22	19	4	20
16	8	7	6	12

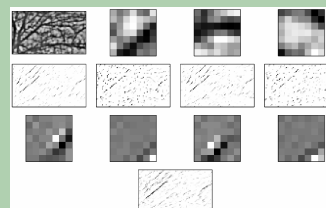
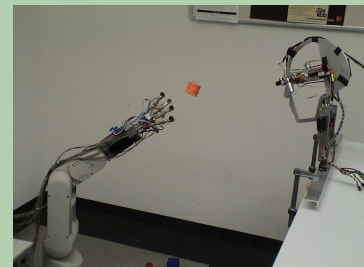
Three crosses: do they exist in the same way?

The conscious mind is a process that extends to include external reality which the subject is conscious of. In other words, there are no "external objects" and "internal phenomenal representations": there are just processes originating in the external world. Yet they take place thanks to the existence of a particular brain

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Morphology

- 1 The influence of materials (e.g. soft surfaces) and morphology into control and the acquisition of representations is being investigated. A robotic hand embedding softness, tactile sensing and an active vision platform has been employed
- 2 The specific design and material of the robot can simplify tremendously the complexity of the control strategy. This is being investigated by carefully choosing material and embedded sensors, actuation and joint coupling characteristics
- 3 Motor control and contextual information can guide the formation of features especially in vision. Unsupervised learning methods can be efficiently employed in individuating these features



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