

Temporal integration

Sensory incompleteness and higher order perception

Fernando Rover, Anindya Ghosh, Oluwaseyi Jesusanmi.

We usually think of our perceptual experience as a sequence of frames following each other; like a movie.



However, sensory samplings are asynchronous and the world changes constantly without waiting for them.

A sensory present would be incomplete in terms of the physical present, but our perceptual experience of it is not.

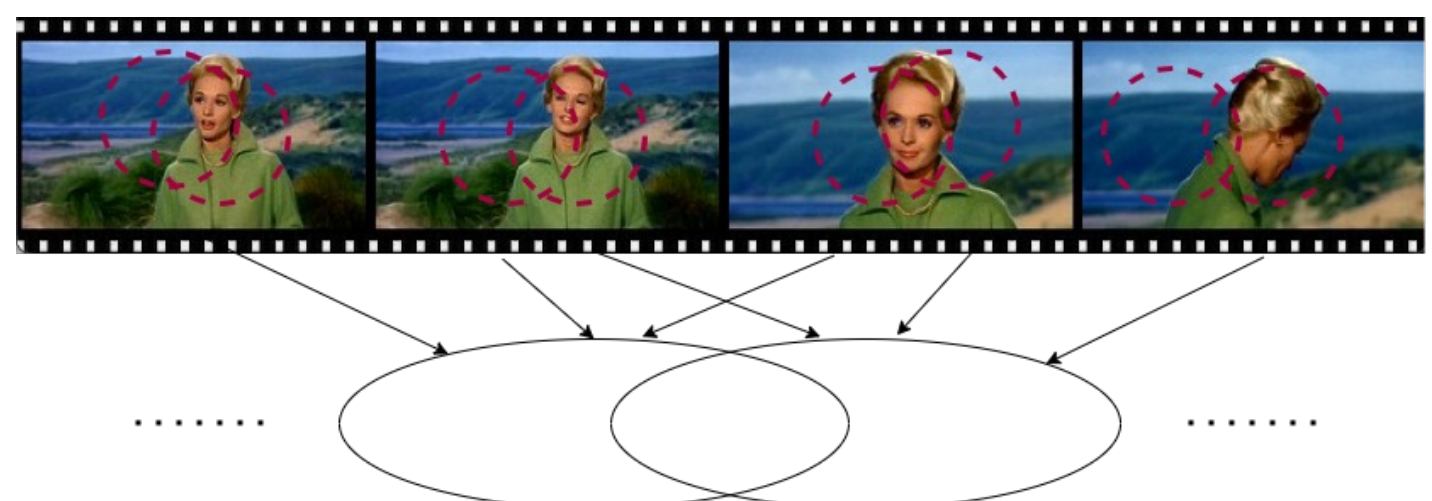


Is it really plausible, a one-to-one sensory-to-perception relation?

Our working hypothesis is that embodied sensorimotor dynamics provide a ground, but cannot account for perceptual experience on their own.

A higher order process of integration is needed in order to form the coherent lapses of perception that underpin the temporal nature of experience.

A perceptual frame would require a series of sensory sampling coherently integrated into a unified construction.



Biological evidence of presence or absence of cognitive mechanisms capable of implementing these processes could help us eventually tracing a line between sentient and non-sentient forms of life.

