

Nowness and the Limits of Experiencing

Academia Engelberg Conference
“At the Limits”

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Outline

1. What is phenomenology?
2. How does it conceptualize
nowness?
3. What is neurophenomenology?
 - i. Methods
 - ii. Examples
4. Neurophenomenology and Limits
5. Discussion





Phenomenology

- “the study of consciousness as experienced from the first-person point of view”
(*Stanford Encyclopedia of Philosophy*)
- Can be understood as an ontology
 - But not as metaphysics
- Edmund Husserl, Martin Heidegger, Jean-Paul Sartre, Merleau-Ponty





Phenomenology

- Experience is always directed towards something (intentionality)
- Temporality is an intrinsic part of consciousness and neither can be experienced without the other
- Time is experienced in the now and always as a continuum



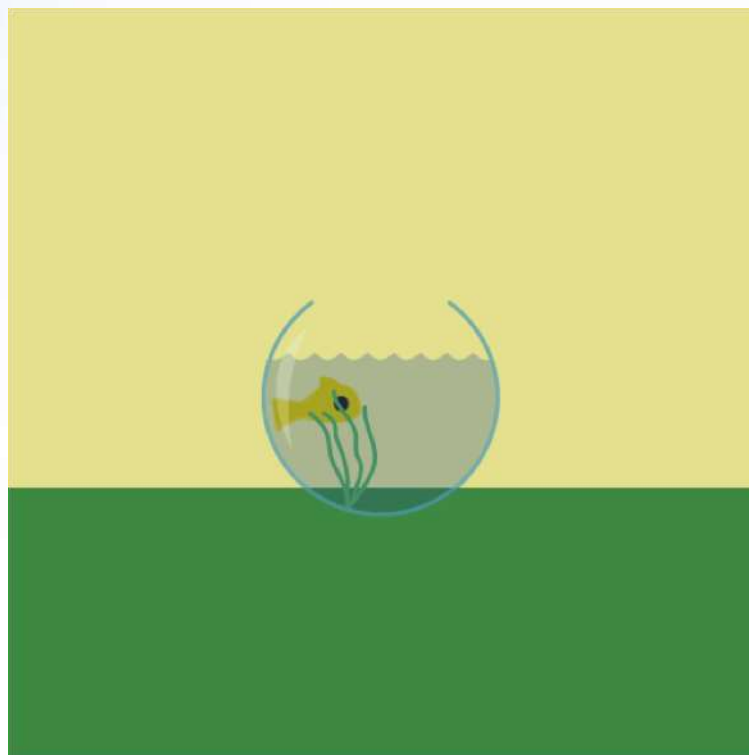


Physical Time





Is our perception
of the present
based on
discrete
moments in
time?

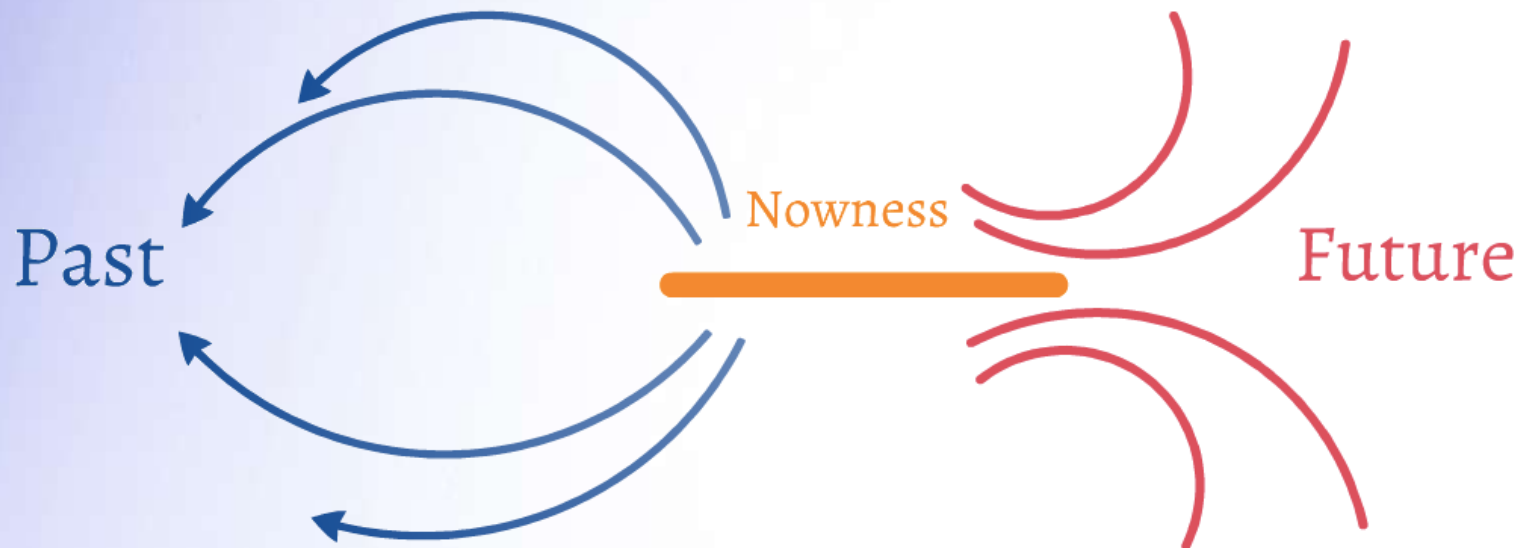


<http://giphy.com/gifs/alboardman-remember-forget-goldfish-3o85xxwPQycJ7h81nW>





The Specious Present



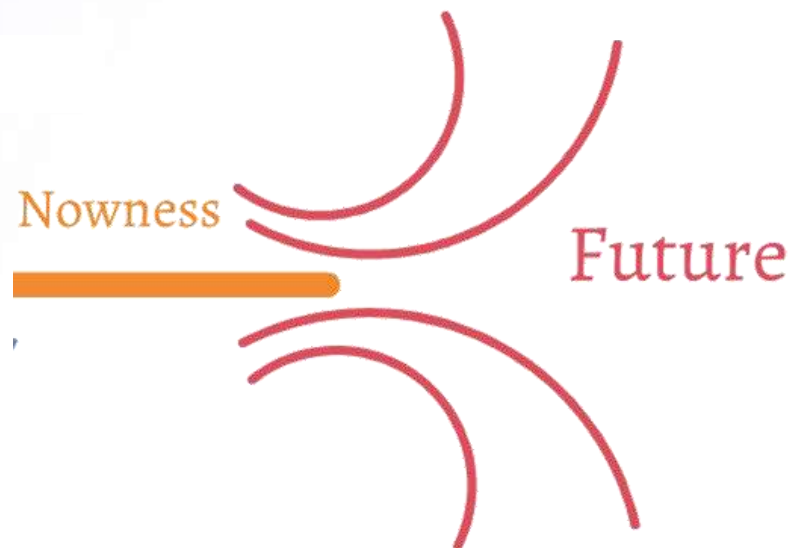


Retention





Protection





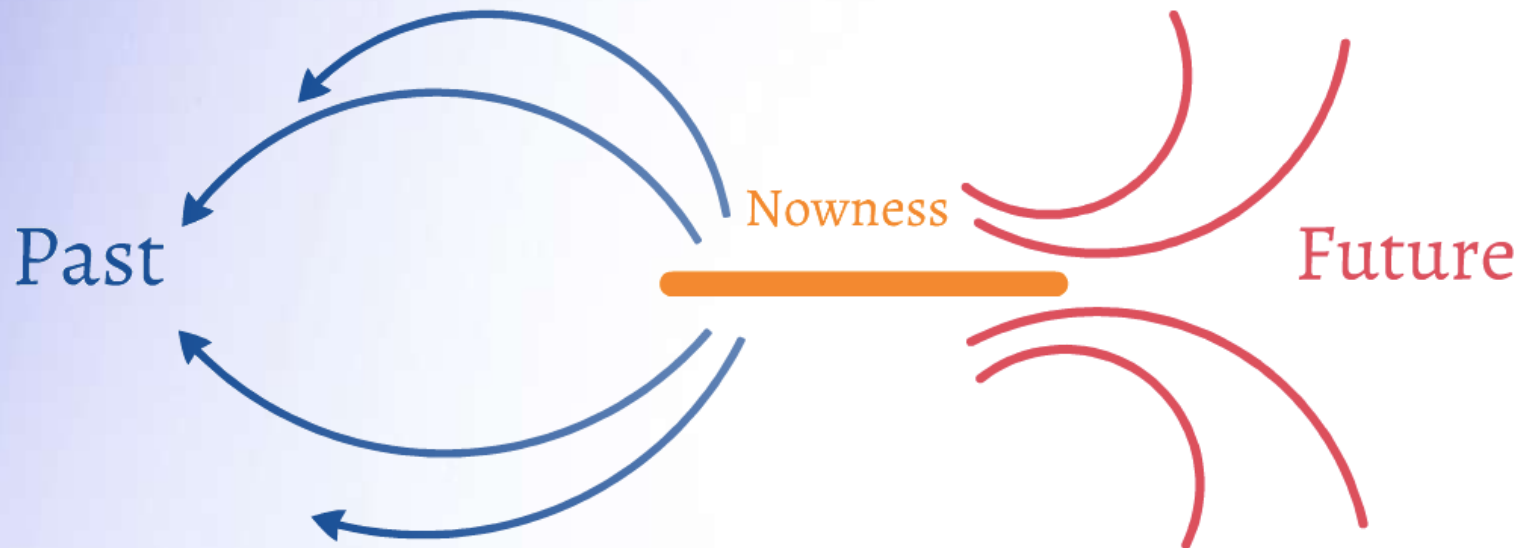
“I hate it when a sentences doesn’t end the
way you think it octopus.”

(Bill Murray)





The Specious Present





Neurophenomenology

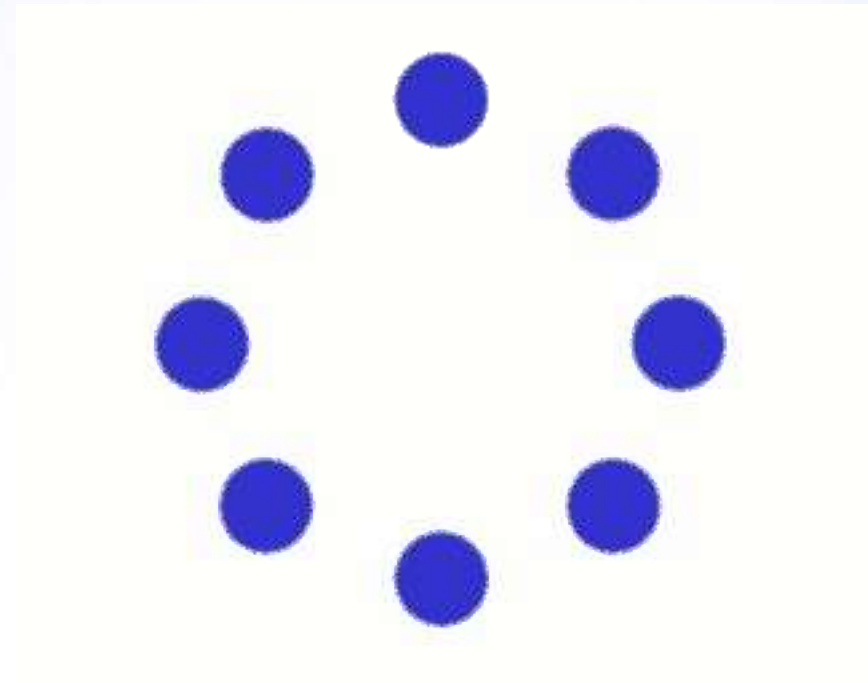
- Francisco J. Varela
- Reconciling phenomenology and cognitive neuroscience
- Deals with:
 - What are the *mutual constraints* that delimit both
 - a) our first-person experience of the world
 - b) the physiological processes that give rise to consciousness
 - What is the neuronal correlate of present-time consciousness?





Mutual Constraints

Phi Phenomenon

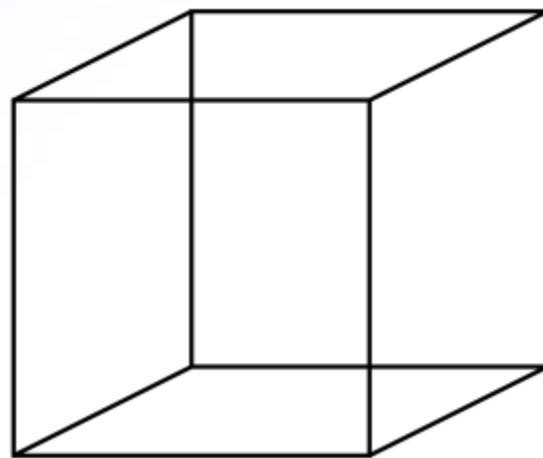


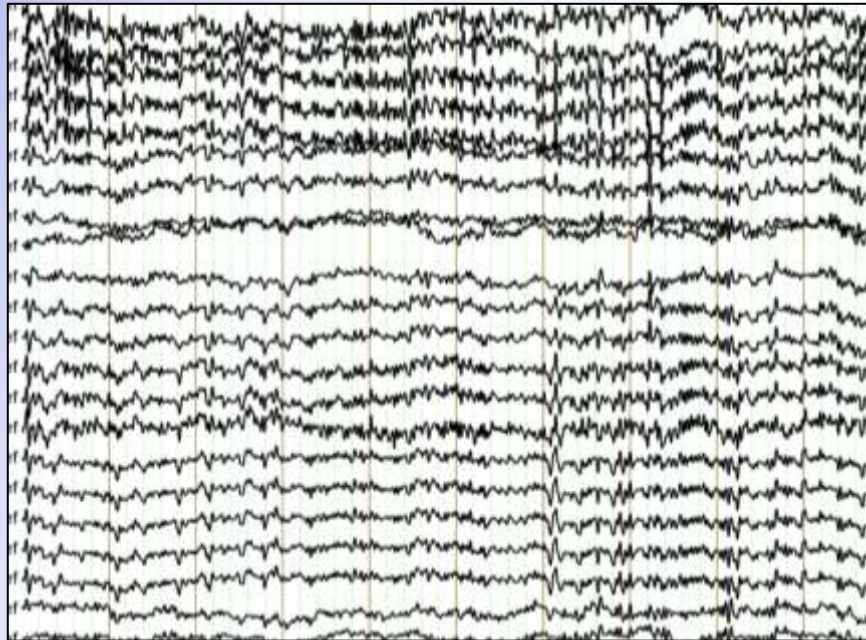
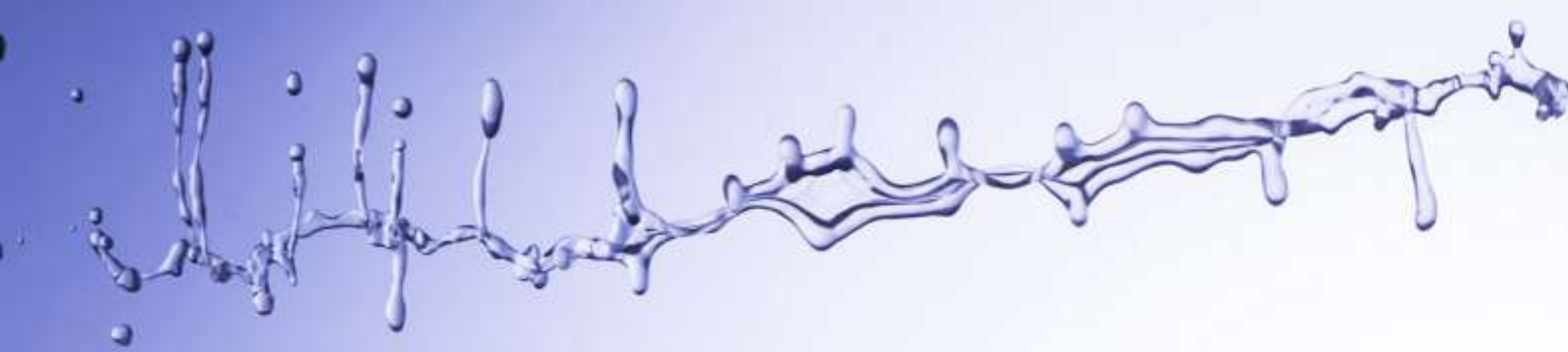
→ 1/10 Scale



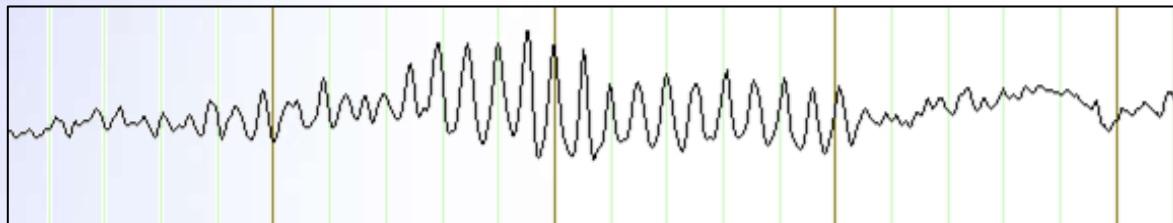
Mutual Constraints

- 1 Scale
 - The duration of each act of consciousness
 - The time each cycle of neuronal ensembles (cell assemblies) takes to emerge, flourish and subside





EEG and Oscillations

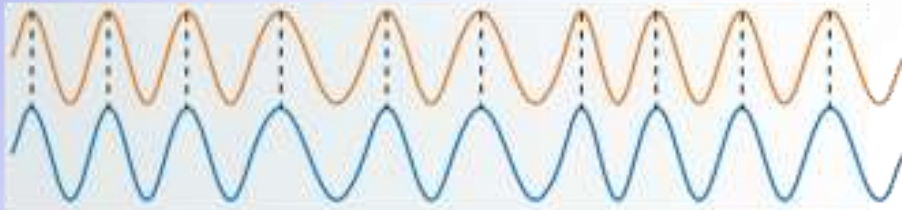




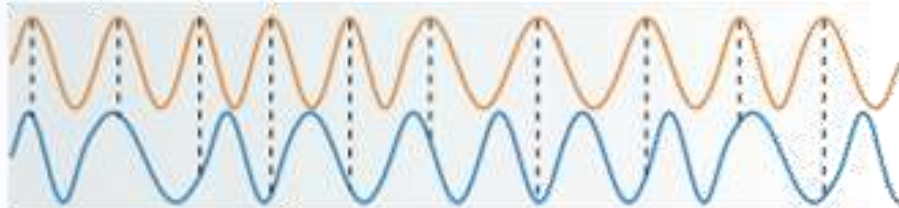
Oscillations

A

Phase synchronization



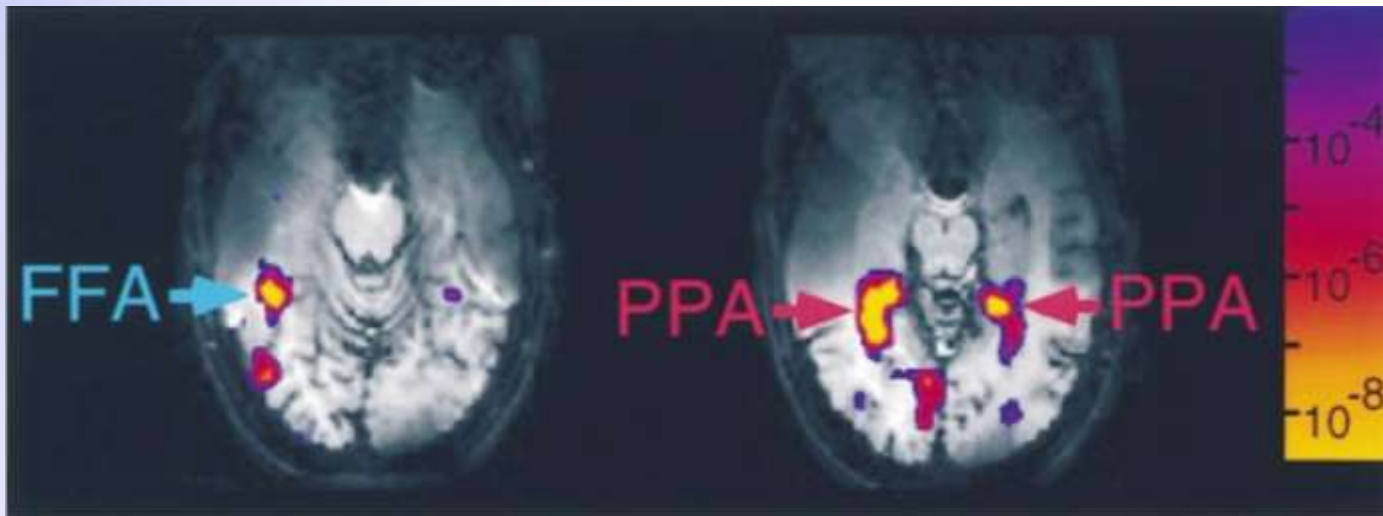
No phase synchronization



Fell and Axmacher, 2011

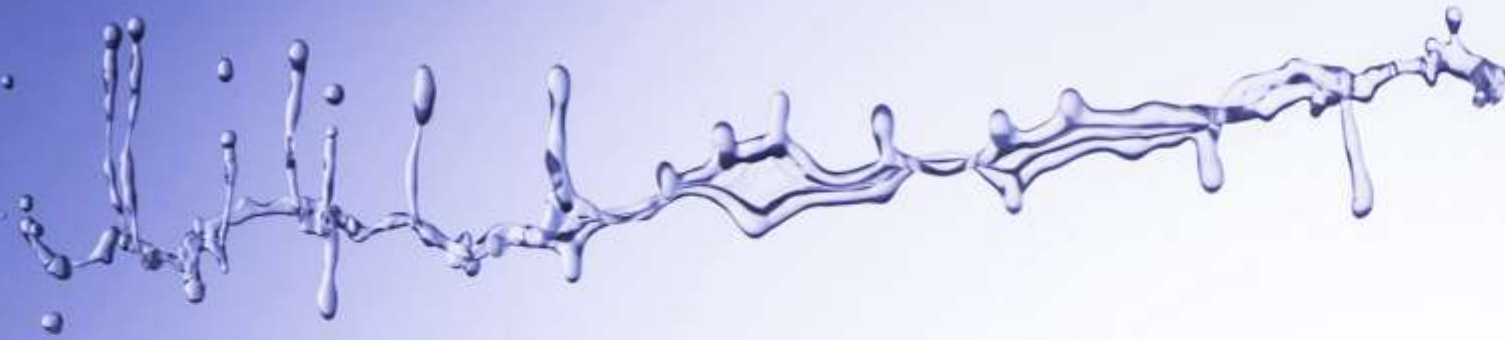


Consciousness by Synchrony Hypothesis



Tong et al., 1998





Consciousness by Synchrony Hypothesis

- neuronal synchronization as “a valuable physiological candidate for the emergence and the flow of cognitive-phenomenal states” (Lutz and Thompson, 2003)





Consciousness by Synchrony Hypothesis

Have we really solved the riddle?





Neurophenomenology and Limits

1. Past and future
2. Limits of the human mind
3. The neuronal correlate of consciousness
4. Philosophy and science
5. First-person and third-person perspective





“I have realized that the past and future are real illusions, that they exist in the present, which is what there is and all there is.”

(Alan W. Watts)





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Questions