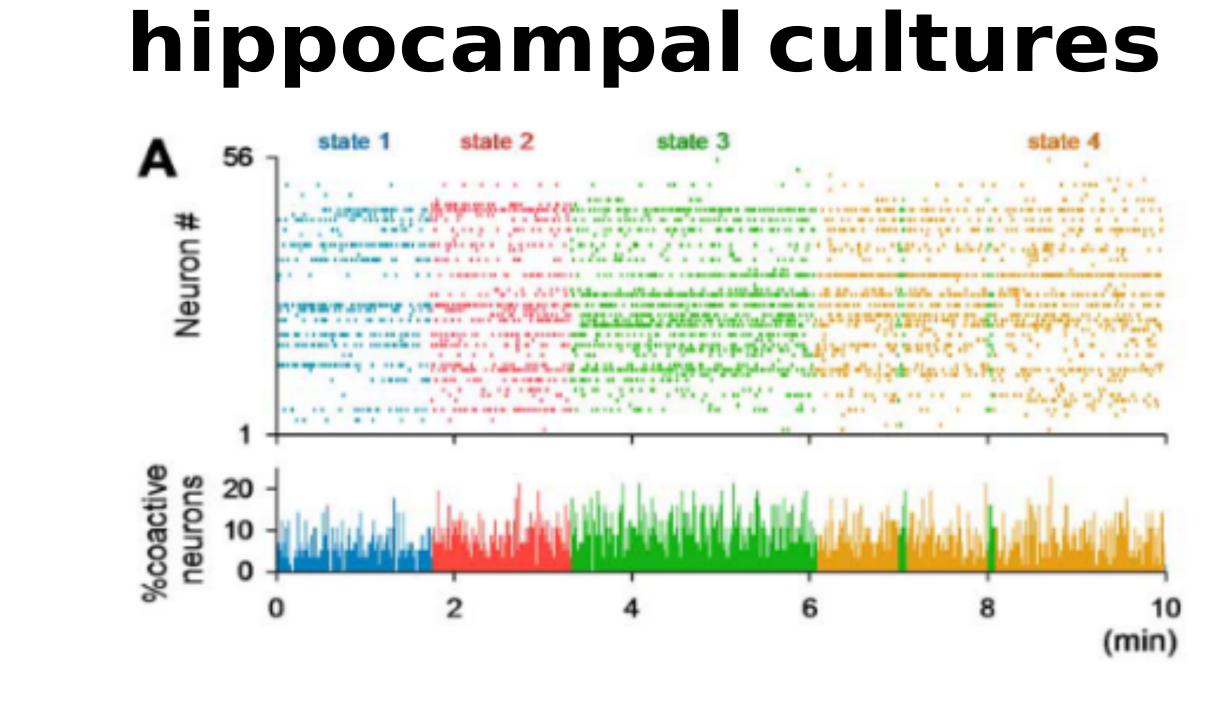
## (a) **EEG** microstates 1500

### Human scalp Spatial configuration of Spontaneous Recurrent Atom of thought

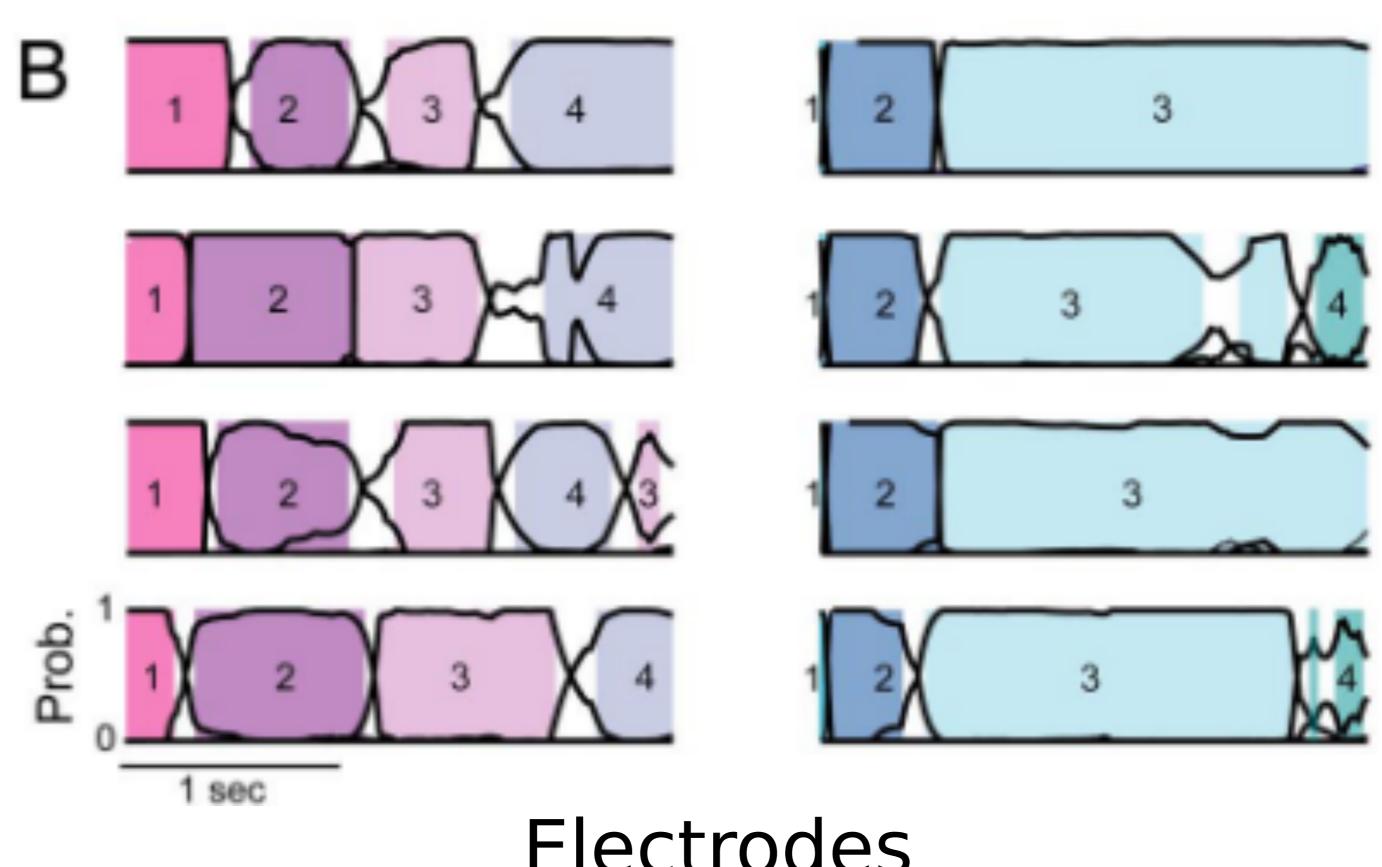
# 2000 ms EEG

## potential map (microstate) Spontaneous activity in

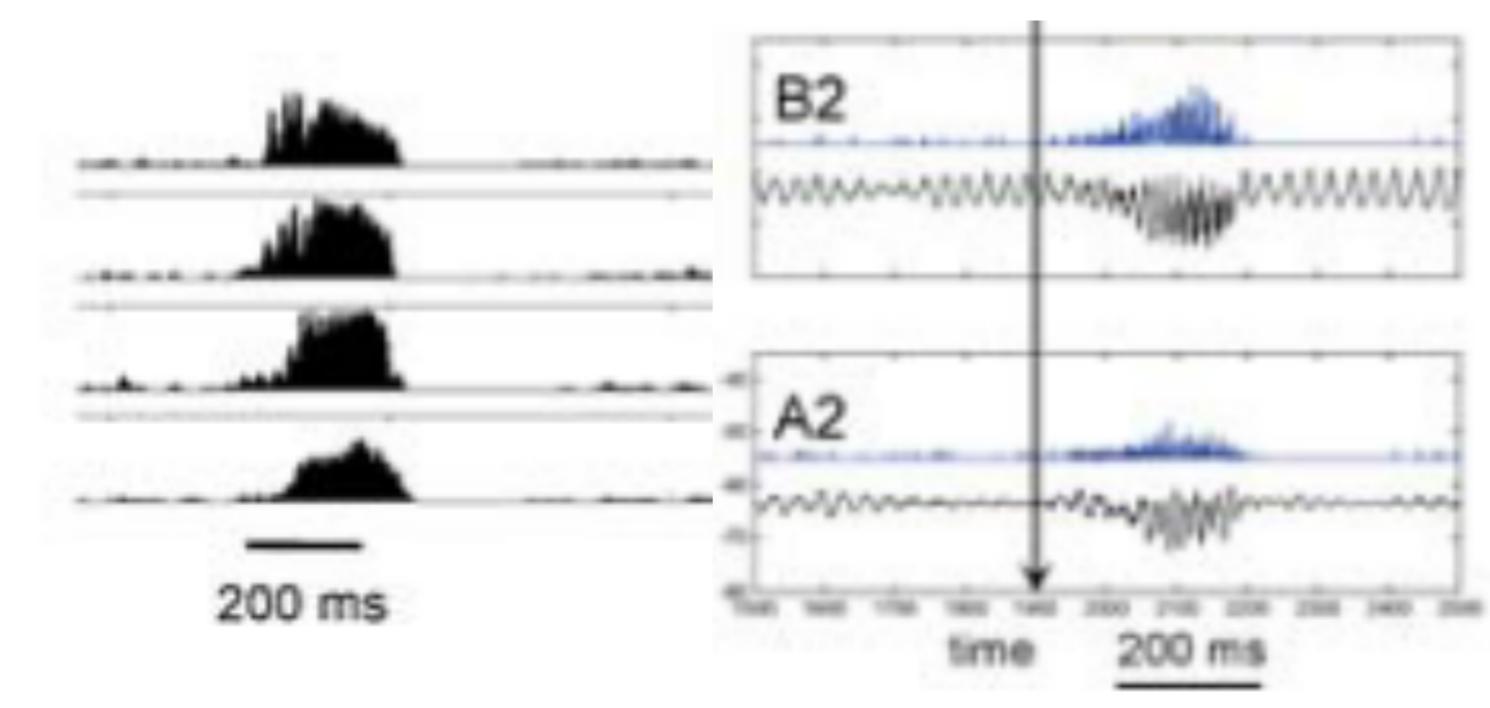


Functional multineuron calcium imaging) ! CA3 hippocampal slice cultures Cluster in PCA space of firing rate Spontaneous Not recurrent CA3 plays role in navigation.

## Hidden states



Electrodes Gustatory cortex of rats Hidden states (HMM) of firing rates Spotanenous and stimulus-evoked Recurrent Encoding of sensory stimuli, cortical computations Conscious states



Thalamocortical network in humans Period of sustained firing Spotanenous or stimulus-evoked Not recurrent Ignition for conscious access

Recovery of consciousness

## [g] Recovery of consciousness

UP and DOWN states

Electrodes

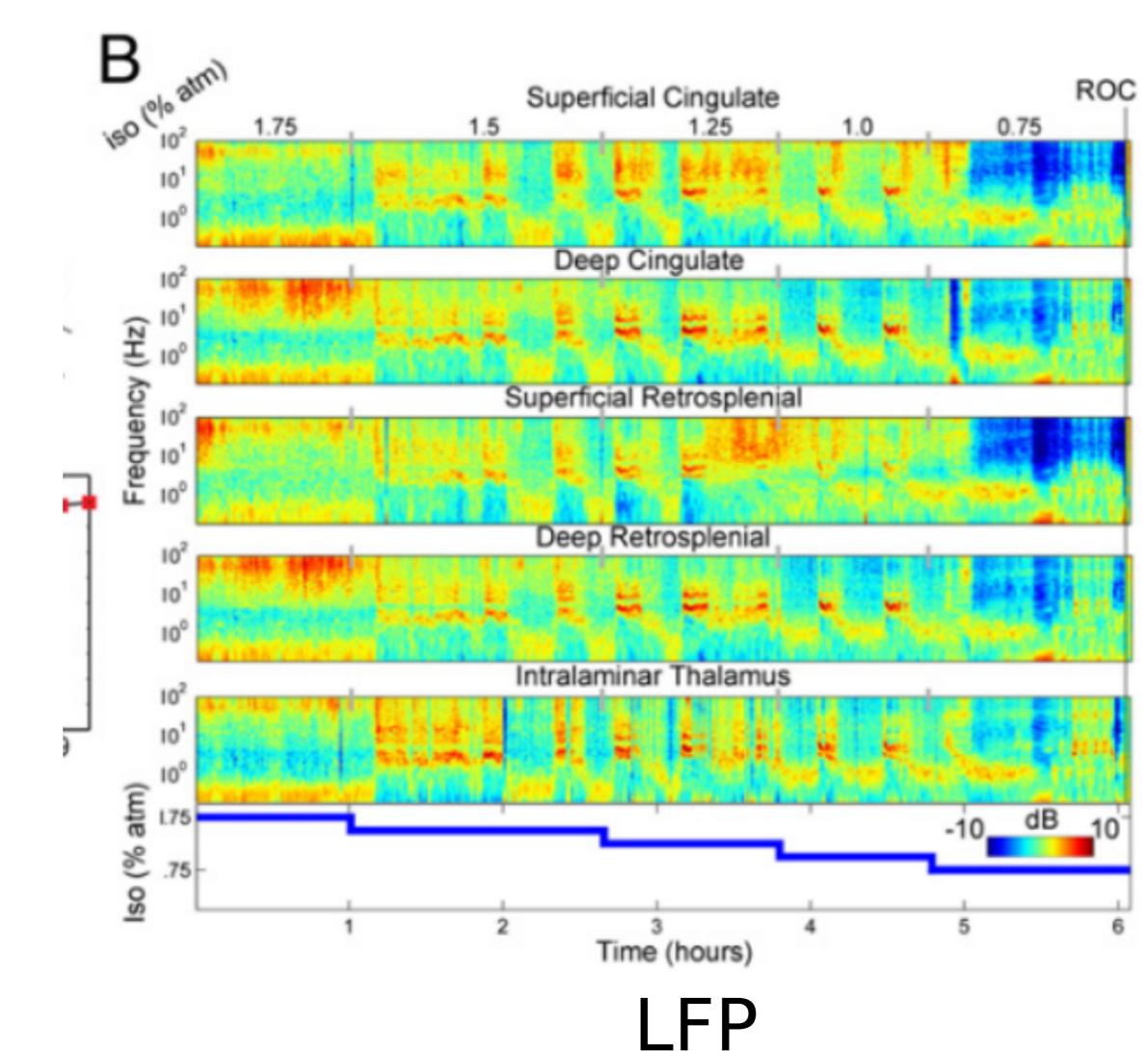
Somatosensory cortex of anesthetized

rats

UP and DOWN states

Spontaneous

Recurrent

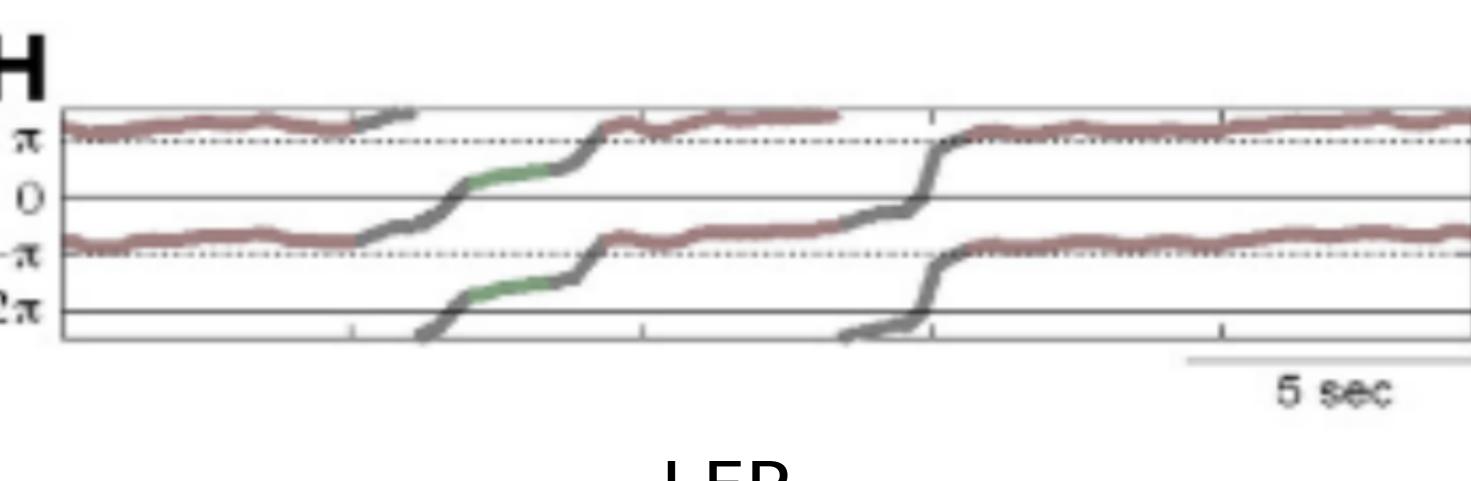


Anterior cingulate and retrosplenial Icortices and intralaminar thalamus of rats Pattern in LFP power spectrum Spontaneous change-of-concentrationevoked Network of metastable states": sequence of states with recurrences

Odor representation

Electrodes Antennal lobe of Locust Fixed point of firing rate Stimulus-evoked Not recurrent (but reliable) Encoding of sensory stimuli.

### **[(h)** LFP phases



Cat homologue of task-on task-off region Stable phase difference between two neural populations; Spontanenous Recurrent