Neural Representations of Sensory Discrimination

Propositions

1. The hippocampus is important for recollection, but not familiarity (this thesis).

2. Hippocampal trajectory dependent neuronal firing occurs less in a non-hippocampal dependent, discrete trial, tactile-visual conditional discrimination task than in a continuous spatial alternation task (this thesis).

3. The hippocampus mediates both spatial and non-spatial processing (this thesis).

4. Whisker responsive receptive fields in cerebellum are larger via mossy fiber inputs than climbing fiber inputs in the anesthetized mouse (this thesis).

5. Cerebellar plasticity facilitates a whisker dependent conditional discrimination task (this thesis).

6. The cerebellum and hippocampus are brain regions that facilitate learning (this thesis)

7. If not thinking enough can be a handicap, so can thinking too much. In both cases, thinking is only the precursor to action, and action the premise from which we base living.

8. If we sometimes feel like our heart is in pieces, then our plight is to find those pieces in the people around us.

9. Measure everything; a neuron's spiking frequency, a mouse's licks, a plant's pH, the steps from your living room to your bedroom and rational thought with emotion.

10. The reciprocal relationship between complex environments and synaptic growth may facilitate questions about the human species for a very long time.

11. "That I question the being participates in the transcendence of being"

-Jean-Paul Sartre