

# Research

I study perception, illusion, hallucination, cognition, self, embodiment, ego, mind-body questions, 'consciousness', and psychedelic drug effects. I do this using techniques from cognitive science, philosophy, psychology, neuroscience, history of science, and machine learning.

## Research Statement

I am interested in how brains distribute semantic meaning across multiple cognitive and perceptual modalities. Furthermore, I find that understanding the mechanisms of hallucinatory and psychedelic phenomena can provide unique insight into the neural mechanisms that support ordinary perception, emotion, cognition, and consciousness.

## Theory

- [Predictive processing framework](#)
- [Free energy principle](#)
- [Embodied cognition](#)
- [Panpsychism](#)
- [Nano intentionality](#)
- [Phenomenal intentionality](#)

## Methodologies

- Philosophical analysis
- History of science
- Phenomenology
- Subjective rating scales
- Psychophysics

- Neuropsychopharmacology
- Brain imaging: EEG, MEG, fMRI
- Natural language processing
- Computational modeling
- Machine learning

## Code repositories

<https://github.com/LunkRat>