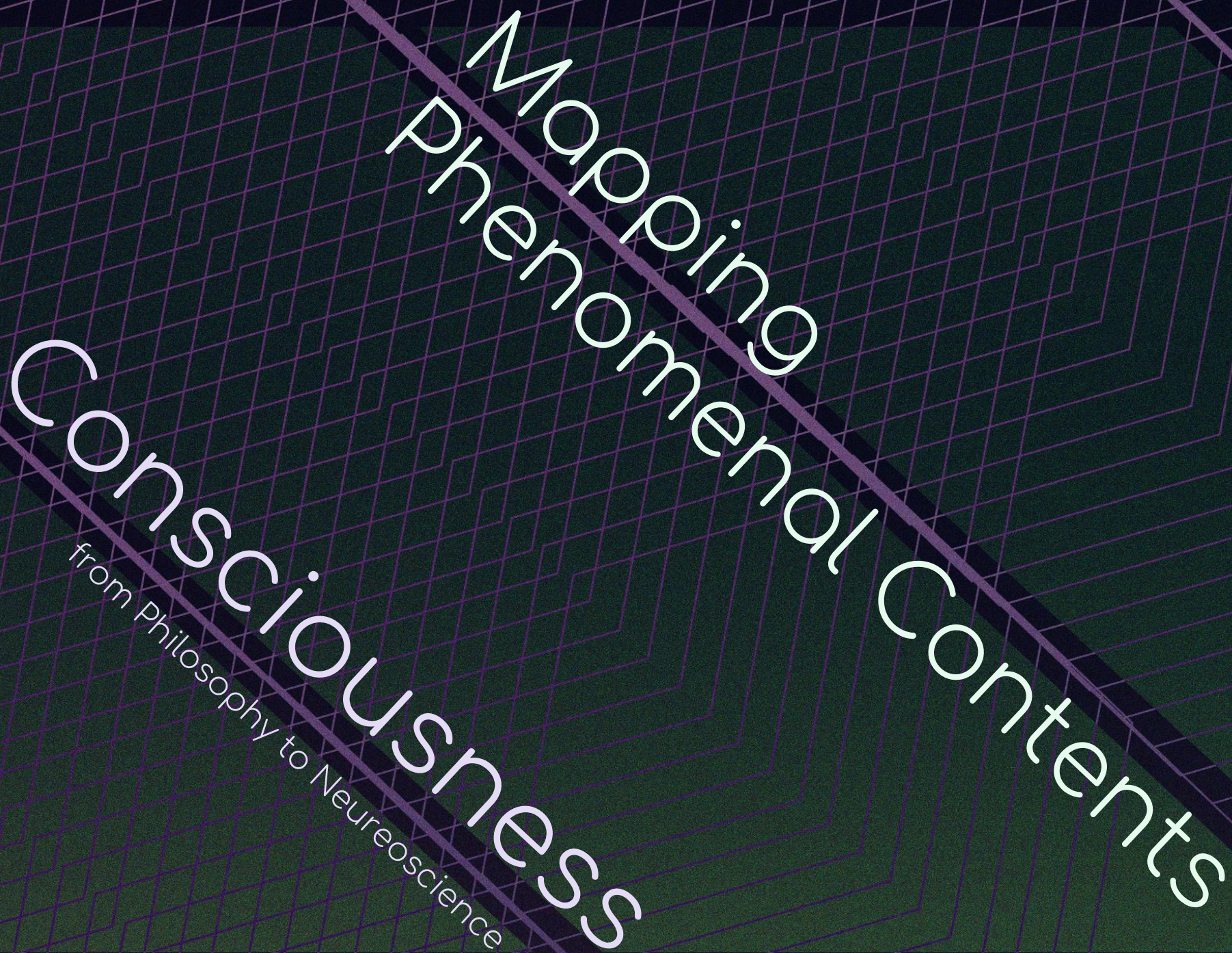


Consciousness

from Philosophy to Neuroscience



Mapping Phenomenal Contents Consciousness

from Philosophy to Neuroscience

Consciousness/Content Fallacy

Process of consciousness
vs
Content of consciousness

Consciousness/Content Fallacy

States of consciousness (SoC)

states are set to be equal to content not the process

Problem

process is not a content

Brihadaranyaka-Upanishad
“You cannot see the seer of sight”

Problems with Altered States of Consciousness (ASoC)

Ludwig 1966

ASoCs are mental states induced by various means leading to sufficient deviations from the norm in subjective experience or functioning.

E.g. Alterations in thought, time, body image, emotional expression, perception, meaning, level of volition, sense of ineffability, rejuvenation, hypersuggestibility, ...

Problem

What is the norm and a sufficient deviation thereof?

What is a normal state of consciousness?

What is an altered state?

Clinical operational definition

Arousal

wakefulness, vigilance

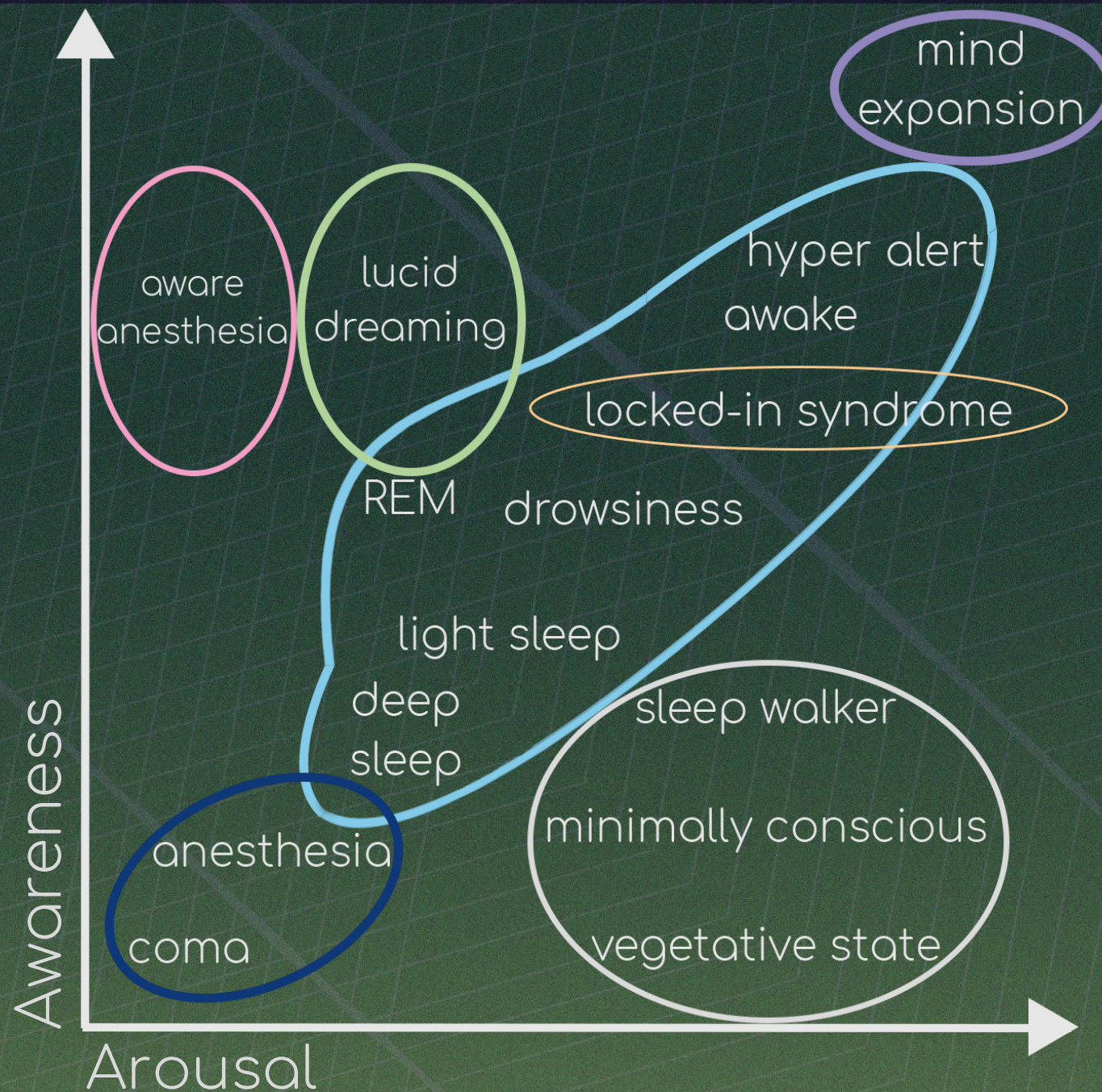
prolonged opening of eyes

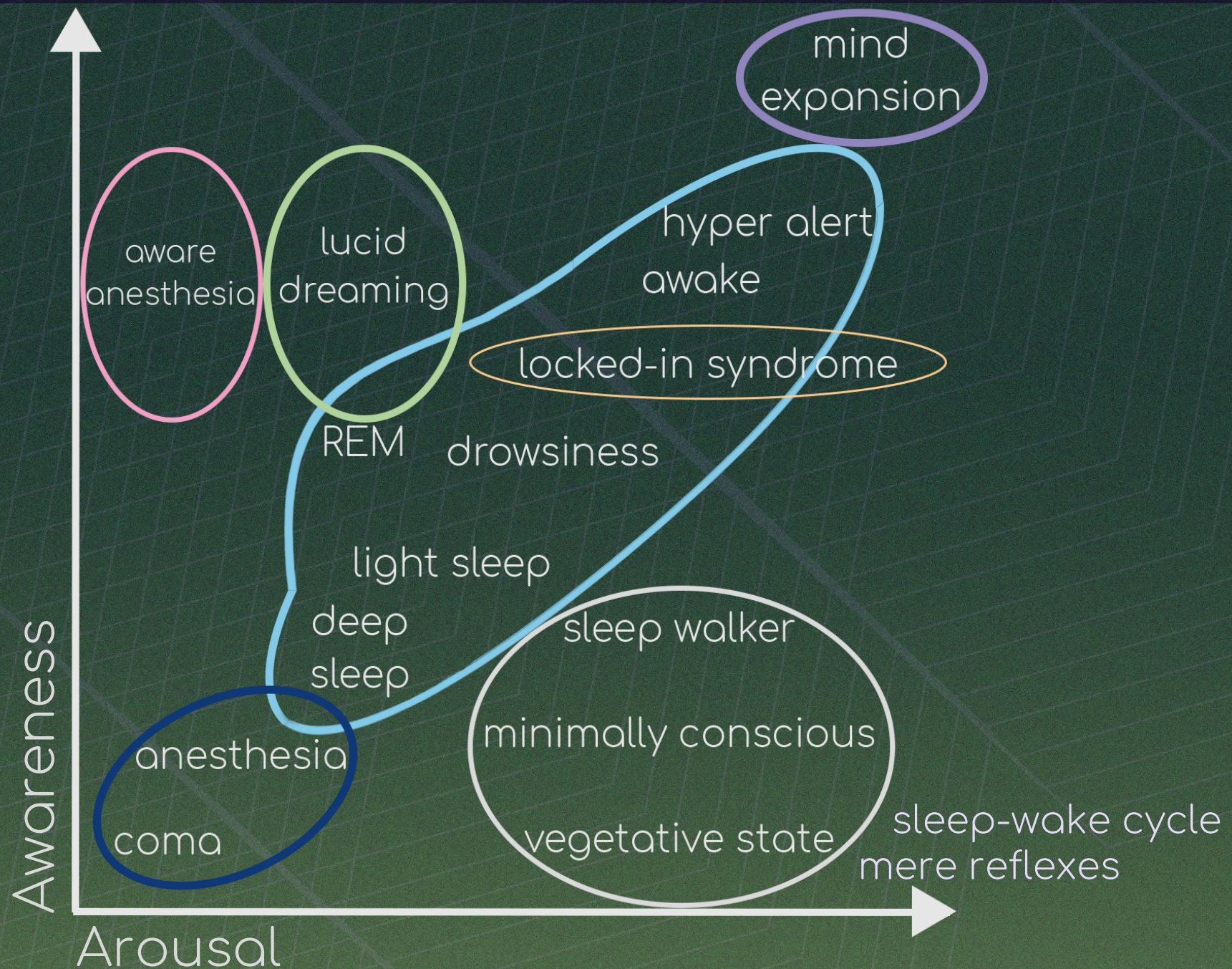
Awareness

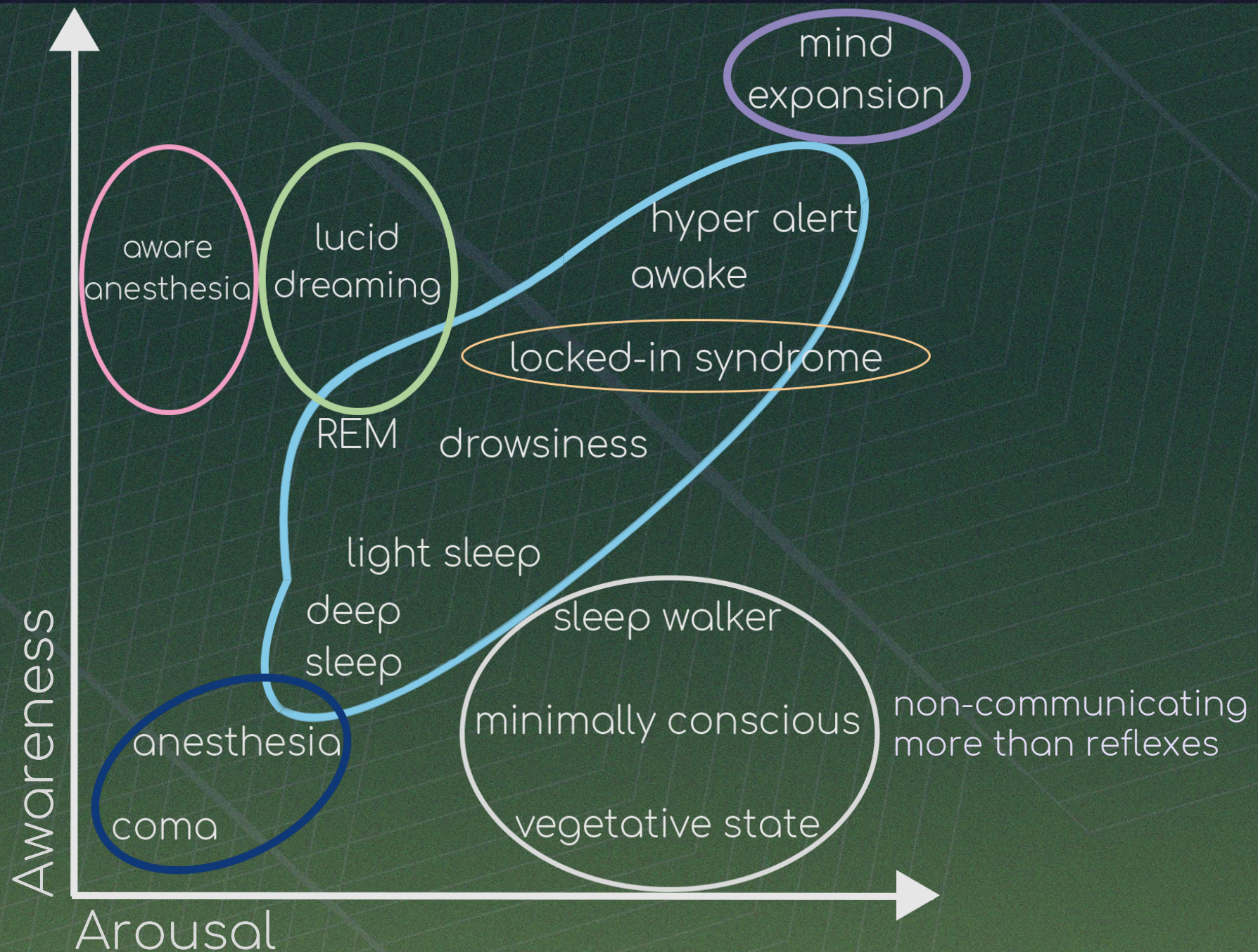
contents of consciousness: environment and self

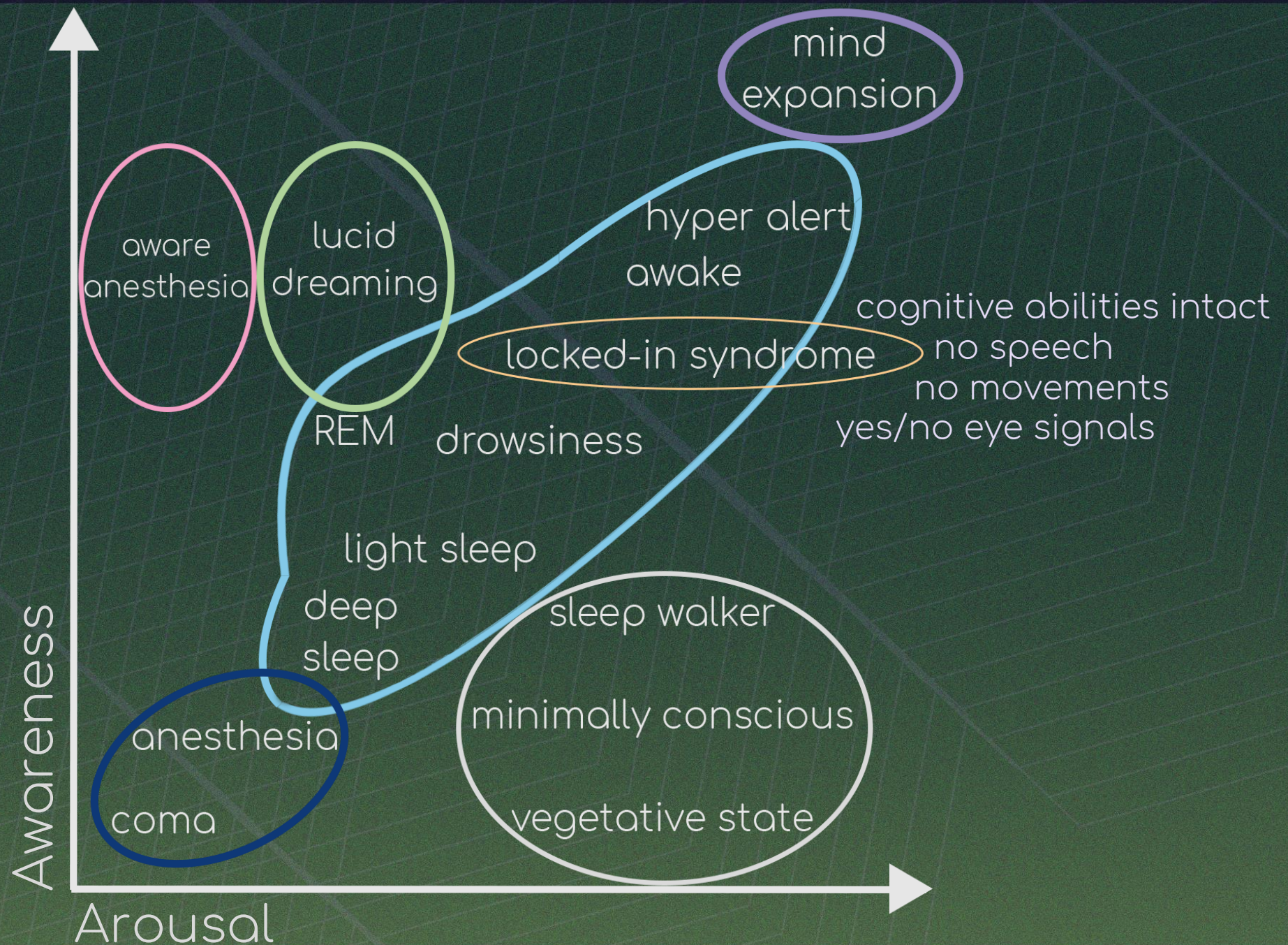
Environment -> command following, eye tracking and responses to pain

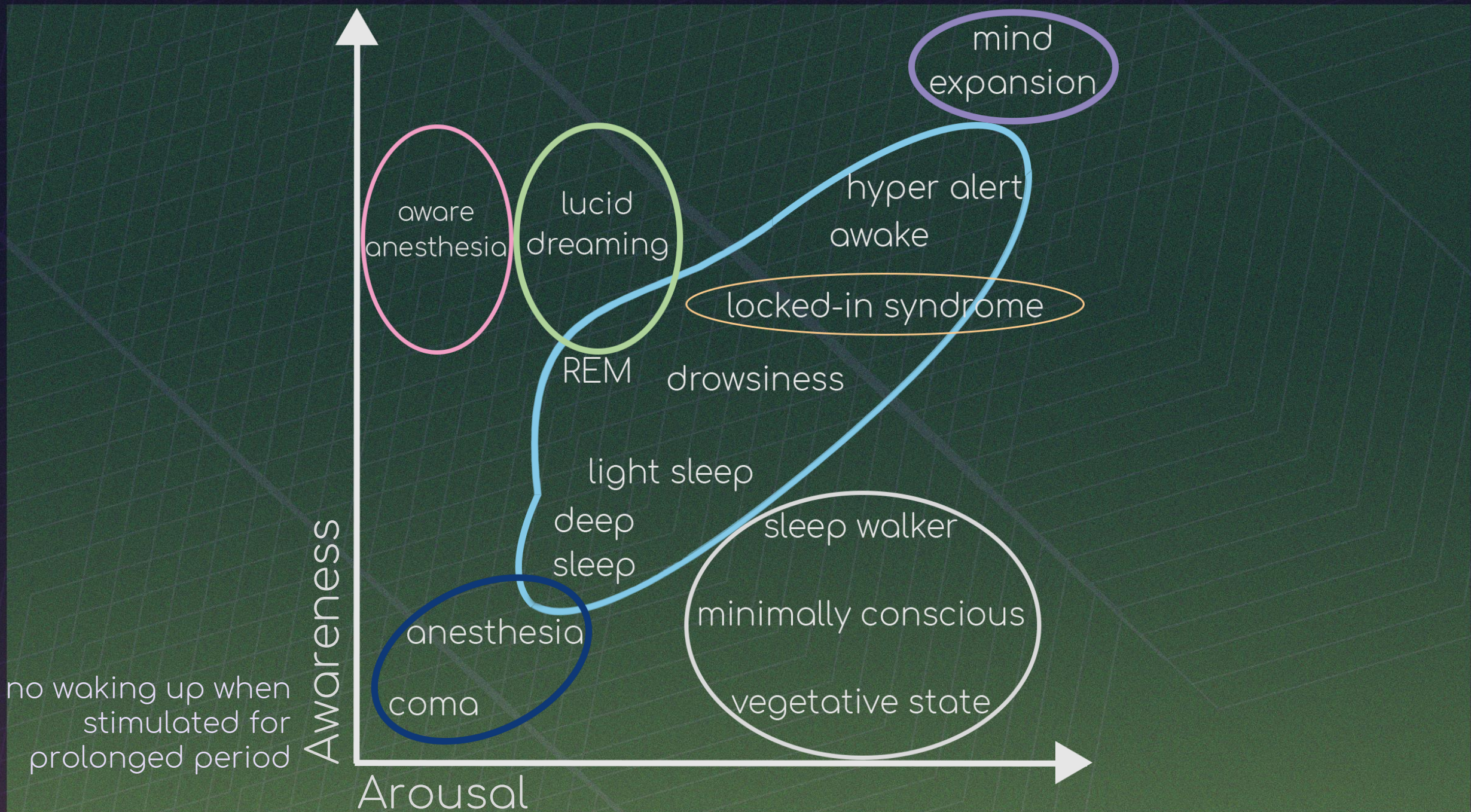
Self -> stimuli like own's face or name

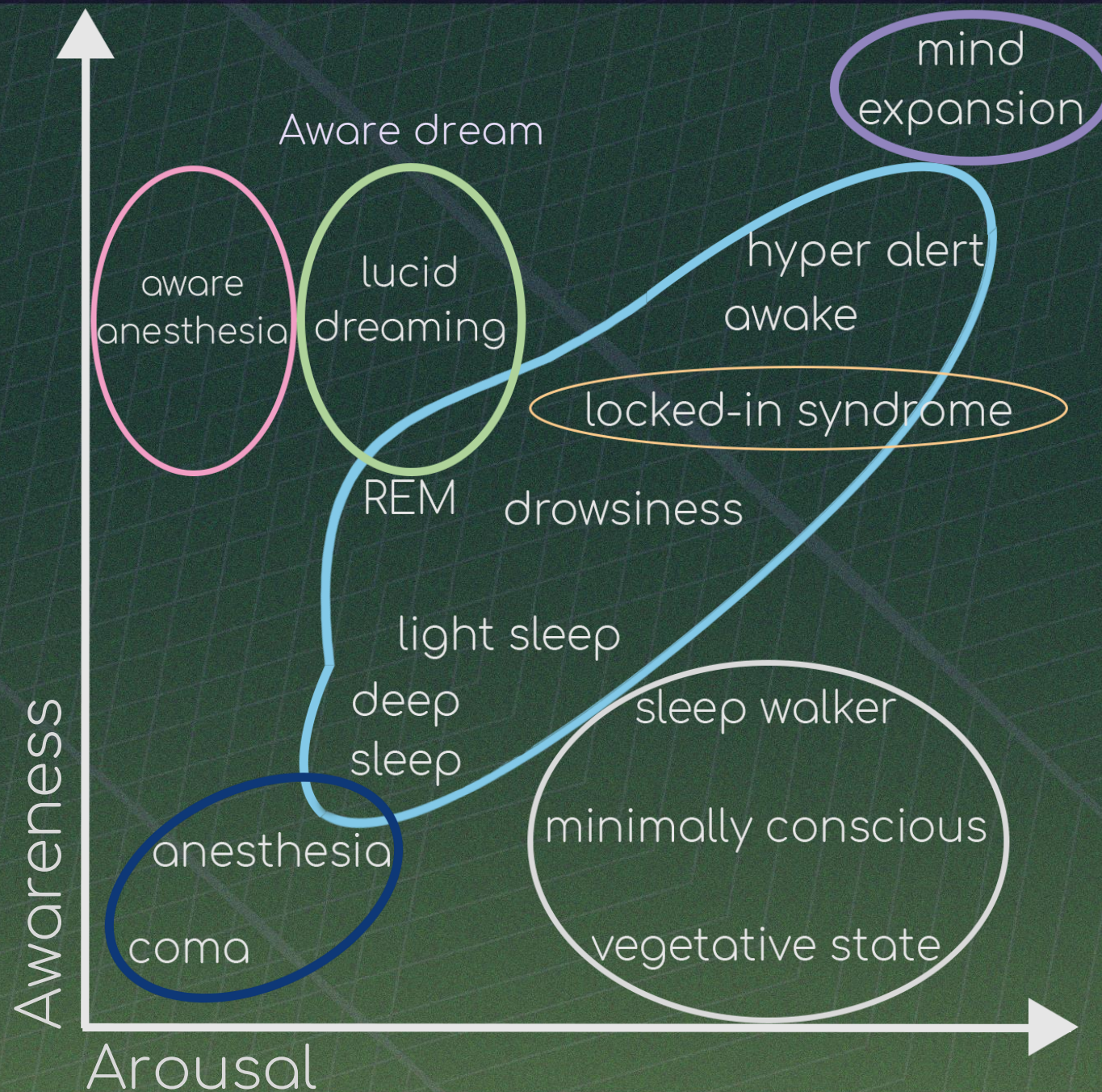


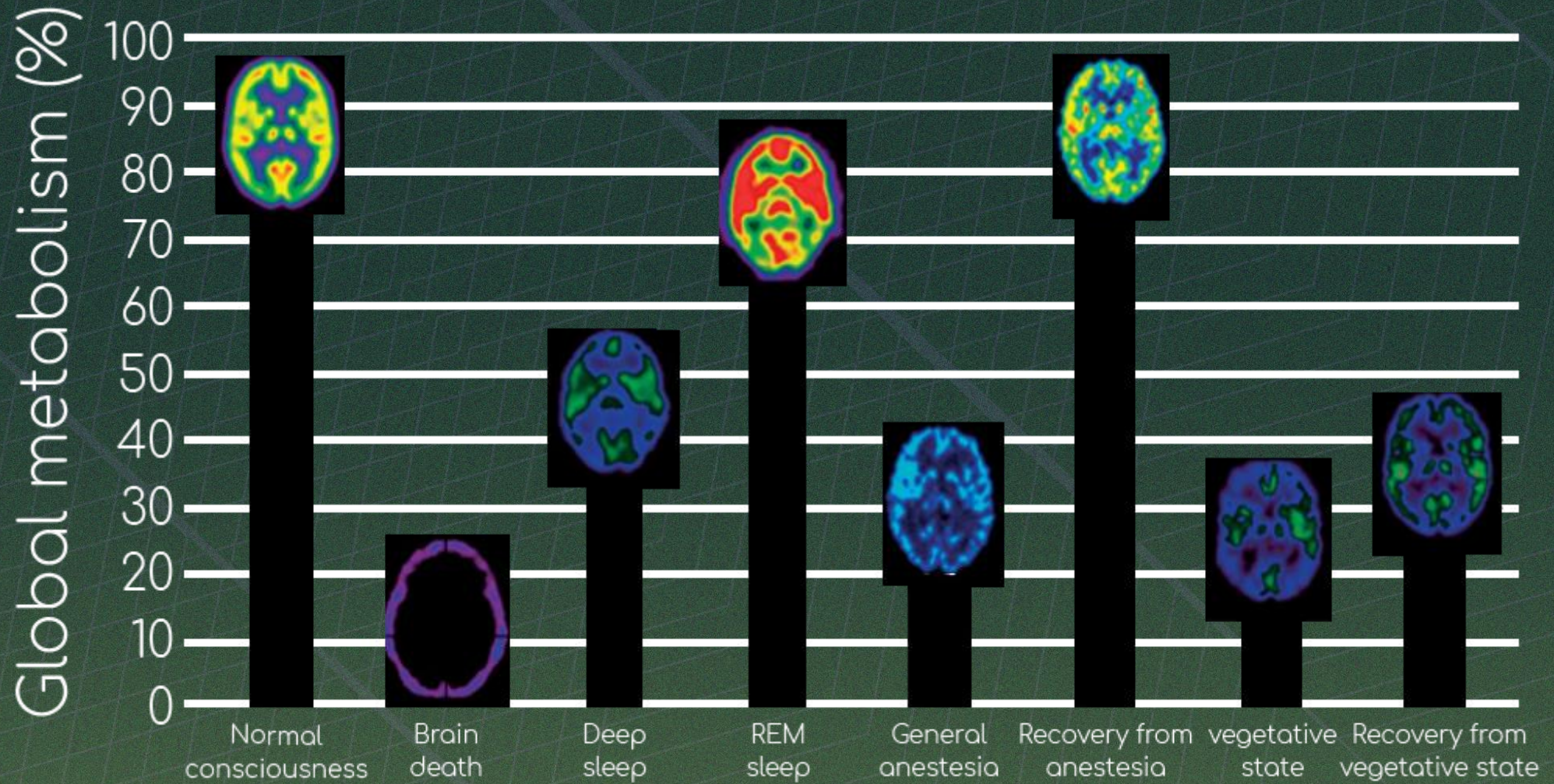












AIM model

(A) Activation

Energy processing level
measure: eeg activation, ...

e.g. large parts of the brain less active during NREM

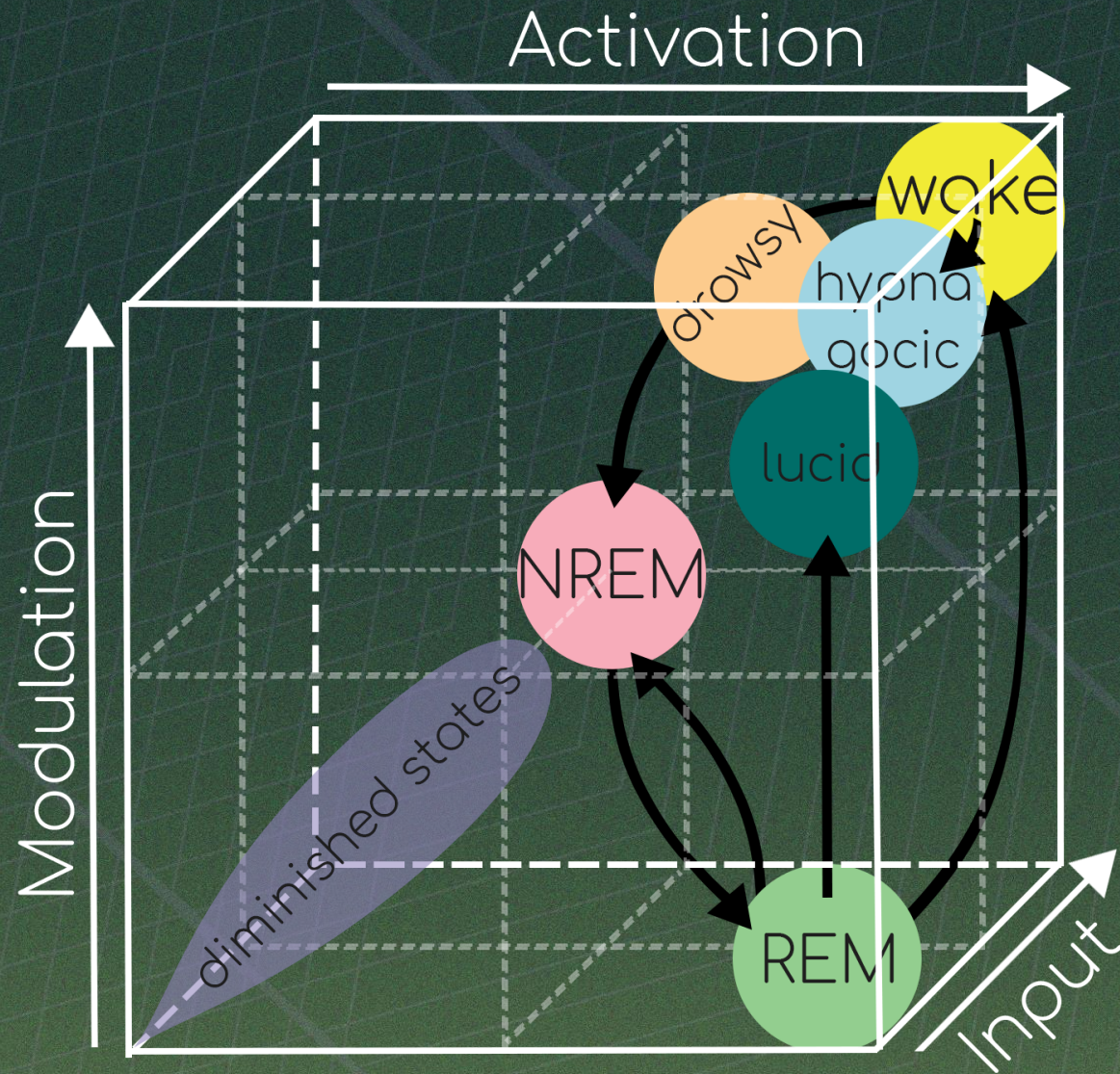
(I) Input-Output Gating

Internal or external
measure: spinal motor neuron inhibition
e.g. inhibition of muscle tone during REM

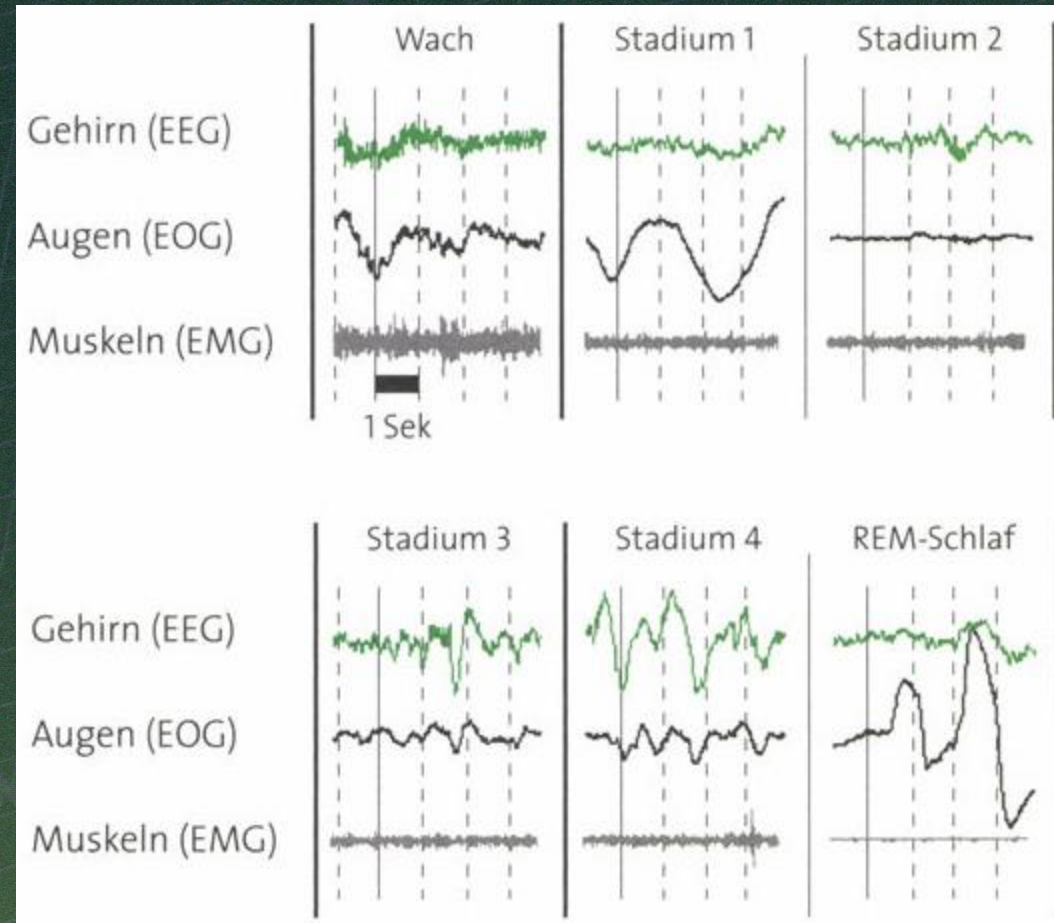
(M) Modulation

Chemical microclimate (in brainstem)
measure: aminergic / cholinergic ratio

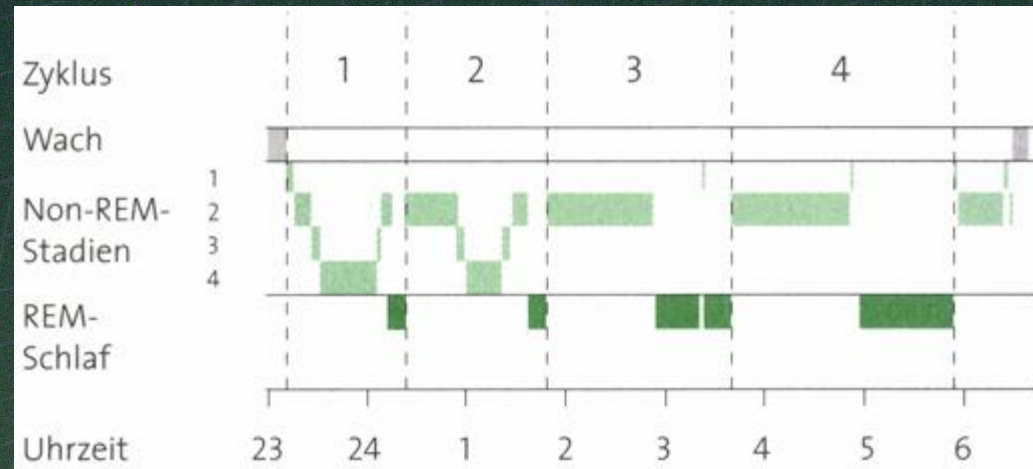
AIM model



Sleep

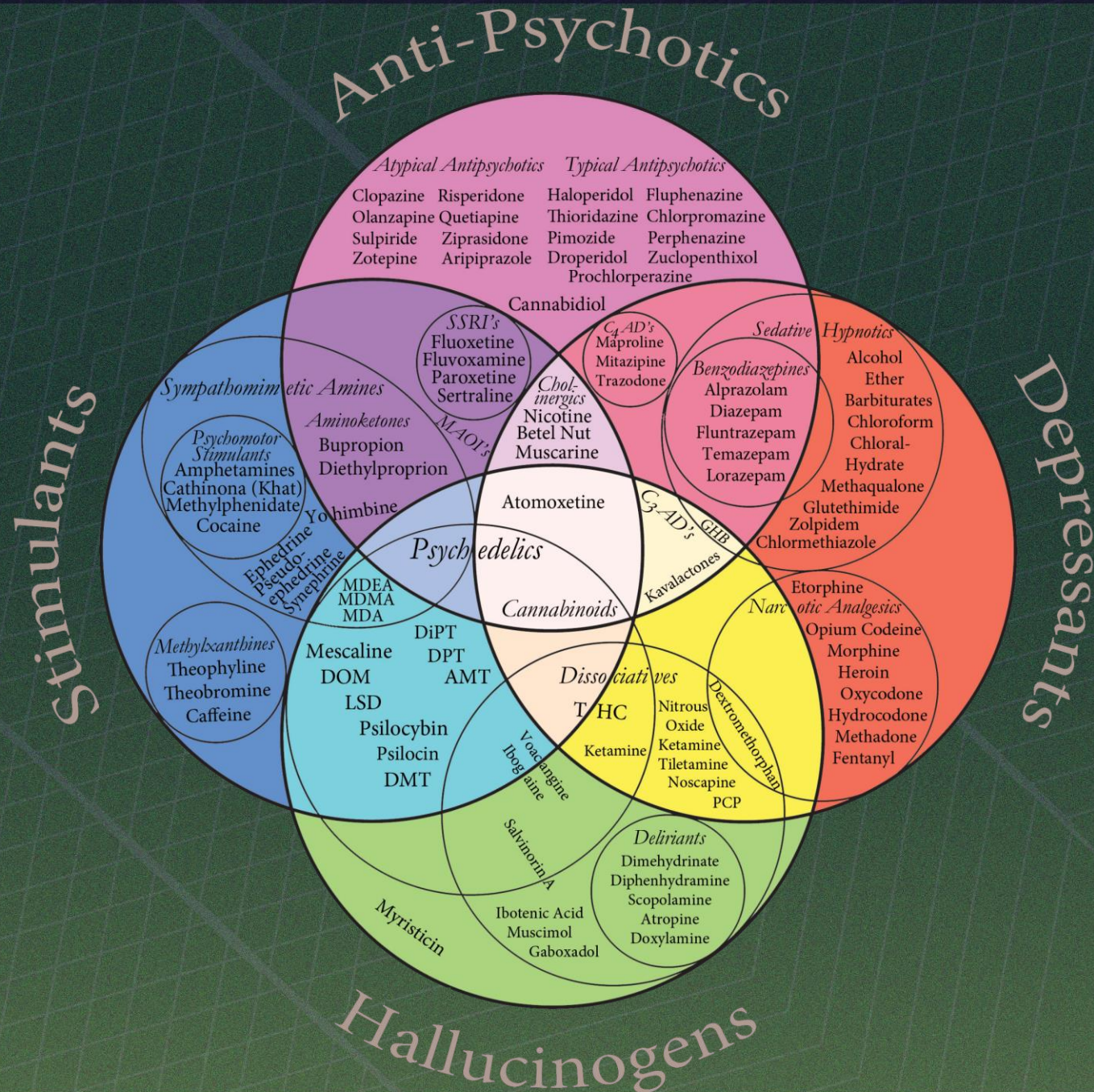


Sleep



Sleep

State of being experience		Frequency (upon questioning)	Content
Wakefulness	Daydreaming (mind-wandering)	80%	Mainly thoughts. Dreamlike in up to 25%.
REM sleep	Dreaming	71-93%	Vivid, hallucinatory experiences.
NREM sleep	Dreaming	23-75%	Early in the night: thought-like and conceptual. Later in the night: vivid and hallucinatory experiences.
Wake -> sleep transition	Hypnagogic hallucinations	80-90%	Short static images ('snapshots'), or brief sequences of disconnected frames. Sensation of falling.
Sleep -> wake transition	Hypnopompic hallucinations	13%	Flying or floating sensations. Autoscopic or out-of-body experiences. Perception of distorted objects. Sensed presence hallucinations.



Meditation

Focused attention

focus on object, detect distraction, refocus on object

Open monitoring

object is all that arises, open and alert mode

Automatic self-transcending

no control of attention or monitoring, form of surrender into pure consciousness

Meditation

Levels of awareness (yogasutra, vedas)

- i. Externally oriented senses
- ii. Discursive mind
- iii. Discriminating mind
- iv. Assigning “mine/my/I”
- v. Pure positive affect
(Savikalpa Samadhi)
- i. Pure consciousness
(Nirvikalpa Samadhi)

States of Self-Loss

Disruption of self narration

thoughts about self (in time) suppressed

Disruption of embodied self

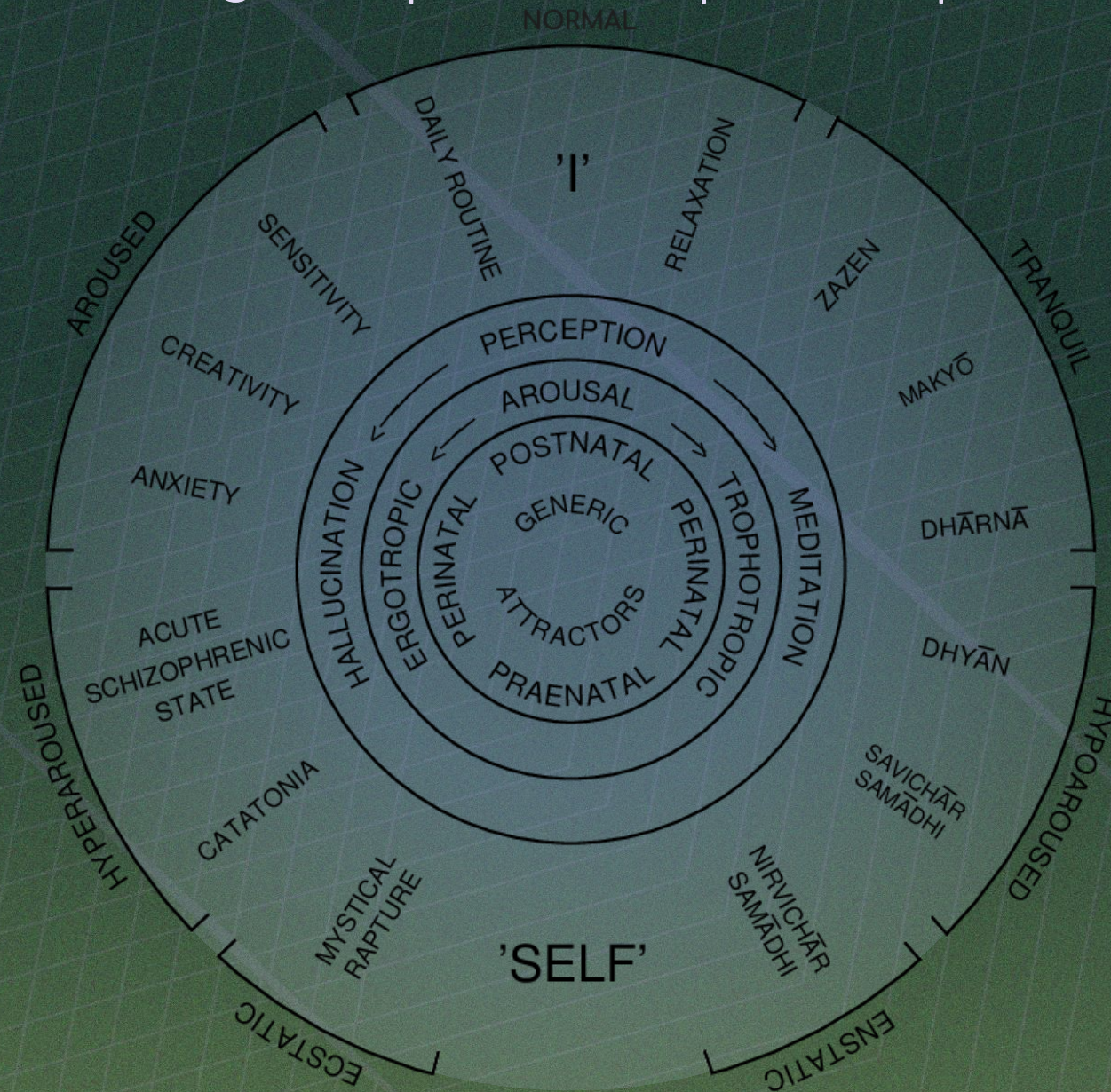
loss of

A) body ownership B) bodily awareness in general C) spatial self-location

States of Self-Loss

	Self-loss in psychedelic states	Self-loss in meditation
Body ownership	---	---
Bodily awareness	---	--
Self-location	---	---
Phenomenal richness	+++ (except 5-MeO-DMT)	--
Self-related thoughts	--	---
Access to semantic autobiographical information	--	-

Ergotropic / Trophotropic



Can consciousness lose all of it's content?

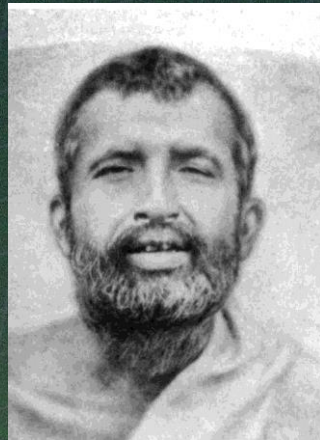
Pure consciousness (Nirvikalpa Samadhi)

transcending

experiencer —————> process of experience —————> content of experience

Can consciousness lose all of it's content?

Pure consciousness



Ramakrishna: "all vanished from my sight, leaving no trace whatsoever and in their stead was a limitless infinite, effulgent ocean of consciousness"

Can consciousness lose all of it's content?

Pure consciousness



Meister Eckhart: "...there is only unity in the Godhead and there is nothing to talk about. [...] The difference between God and the Godhead is the difference between action and non-action."

Can consciousness lose all of it's content?

Pure consciousness

Pure consciousness can happen

- i. Isolated
 - absence of content (Kevala Nirvikalpa Samadhi)
 - Introvertive Mystical Experience (IME)
- i. Co-emergent
 - along with experience as its ground (Sahaja Nirvikalpa Samadhi)
 - Extrovertive Mystical Experience (EME)

Pure consciousness

Some arguments against and for

Steven Katz

all experience culturally shaped

per definition absent of cultural content

Rocco J. Gennaro

cannot have memory of no content

descriptions point to pure consciousness being self-evident and non-dependent on memory

Absolutely contentless or residuals?

eastern traditions:

- Theravada: all states have some content
- Tibetan Buddhism: contentless experiences exists
- Yoga: states differ but experientially indistinguishable

Mark Woodhouse

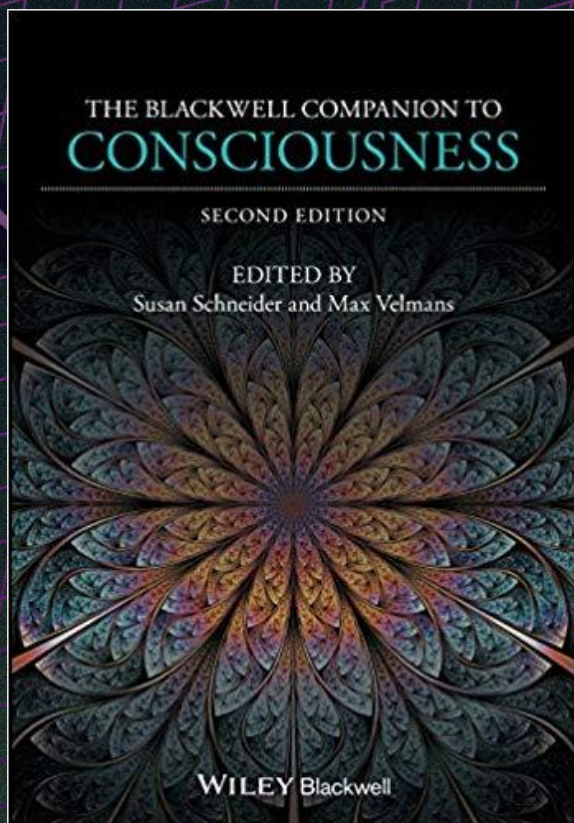
consciousness depends on change

change presupposes a changeless backdrop

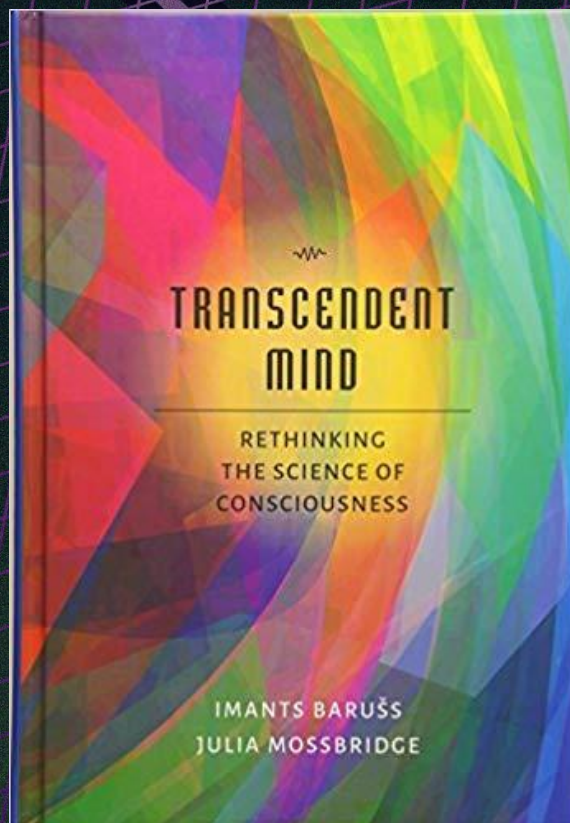
Bertrand Russell

Meditation is an unusual experience,
therefore inherently suspect.

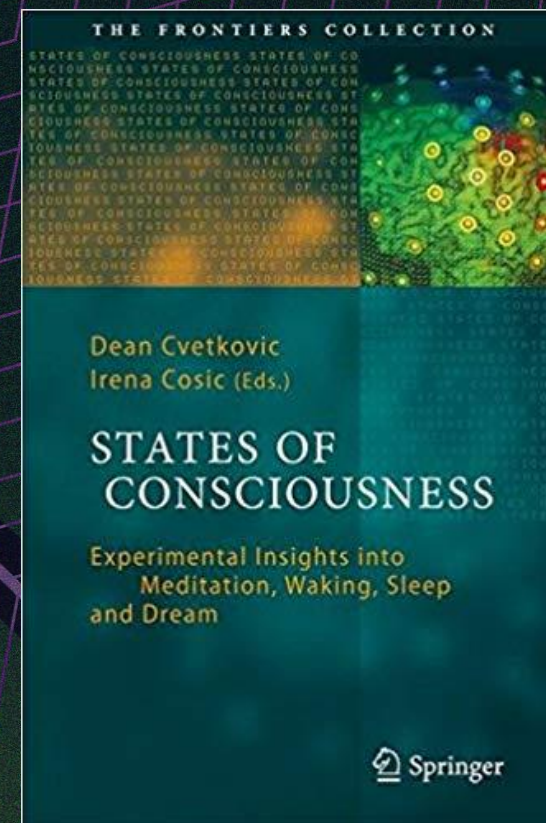
There is no usual experience.
Having contrast is crucial.



The Blackwell Companion
to Consciousness



Transcendent Mind



States of Consciousness