

The background features a vibrant, abstract composition of overlapping organic shapes in shades of yellow, orange, pink, and teal. A large, semi-transparent sphere with a blue-to-white gradient is positioned in the upper center. The word "CONSCIOUSNESS" is written in a thin, dark, sans-serif font, curving around the top half of this sphere. A thin vertical line descends from the bottom of the sphere, passing through the word "to" in the title below.

CONSCIOUSNESS

from  
Philosophy  
to  
Neuroscience

Benjamin Stucky

Prof. Daniel Kiper



Dr. Benjamin Stucky

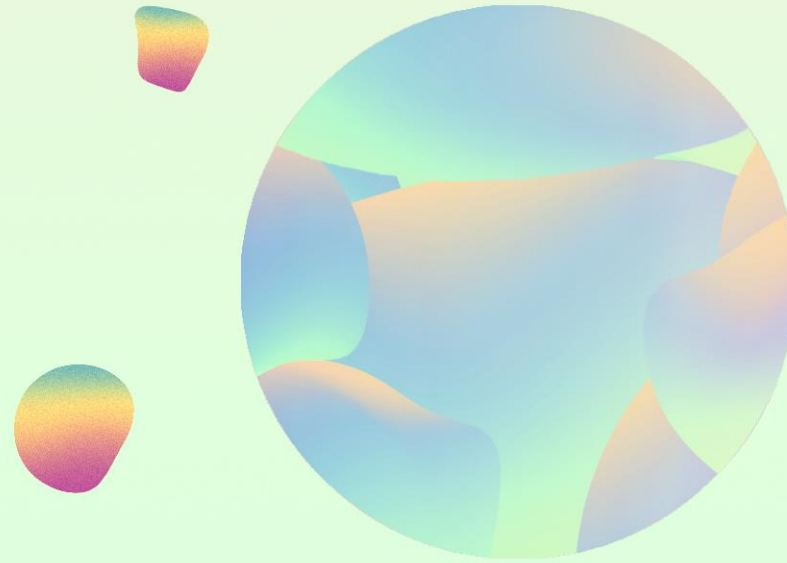
reading  
material

3 credits



3 quizzes  
best 2 count

discussion  
oriented



I know that  
I know nothing

- attributed to Socrates

accepting  
other views

How would you define



consciousness is needed to discuss

A circular graphic with a rainbow gradient, transitioning from purple at the bottom to blue at the top. Two white arrows are positioned on the circle, one pointing clockwise and the other pointing counter-clockwise, creating a continuous loop.

Consciousness

=

Qualia

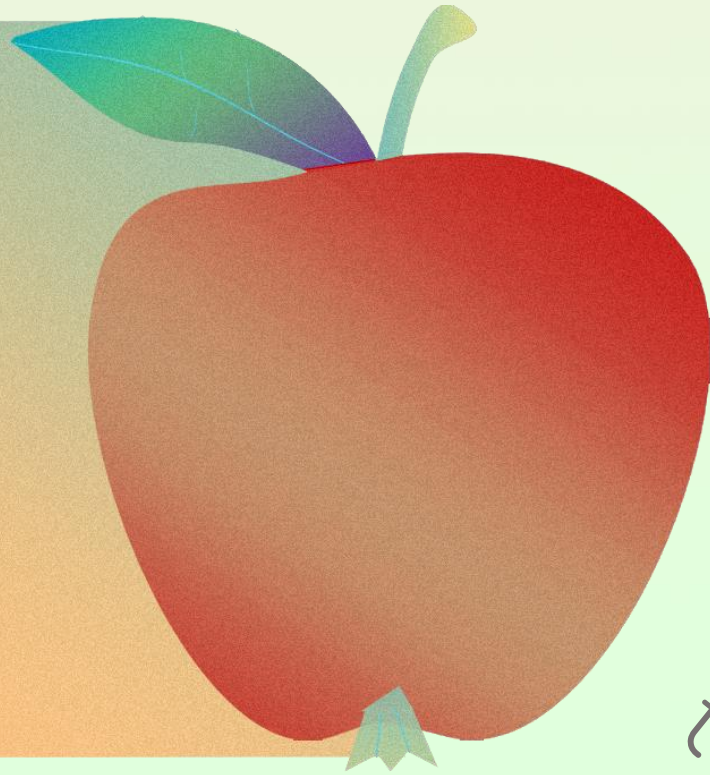
(phenomenal experience)

there is  
something it is  
like to be

- Thomas Nagel



# Qualia Sensory



seeing

hearing

smell

touch

taste



# Qualia Moods



disgust

joy

surprise

anger

fear

sadness

anticipation

# Qualia Sensations

*movement*

tickling

vibration

heat

blanace

itching





# Qualia Others

thoughts

memory

sense of self

...?



Where to  
draw the  
line

?

?

What is  
unconsciousness

We might not be able to  
communicate a conscious state to  
ourselves and others without meta-  
consciousness

Kastrup B. There Is an 'Unconscious,' but It May Well Be Conscious. Europe's  
Journal of Psychology, 2017

e.g. a state without  
memory can't be  
remembered  
afterwards

# Inference about subjective character of other organisms may be impossible



Nagel T. What is it like to be a bat?  
The Philosophical Review, 1974



# plant behaviour

Elhakeem N. et al. Aboveground mechanical stimuli affect belowground plant-plant communication, 2018

Trewavas A. What is plant behaviour? Plant Cell and Environment, 2009



# physarum polycephalum

Nakagaki T. et al. Obtaining multiple separate food sources: Behavioural intelligence in the Physarum plasmodium. Proceedings of the Royal Society B. 2004

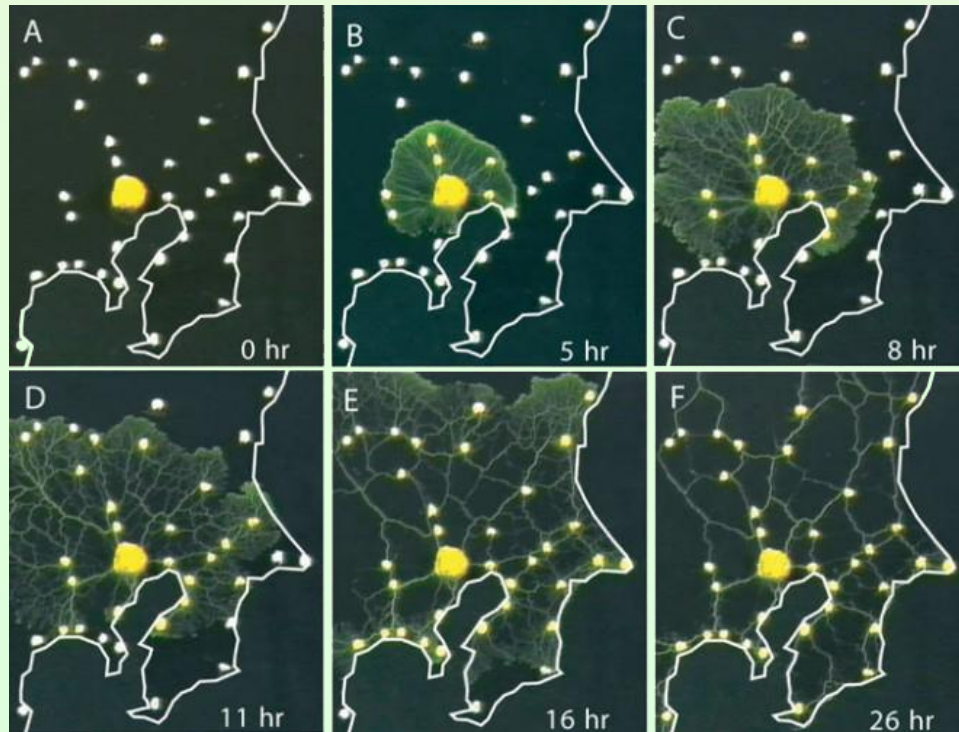
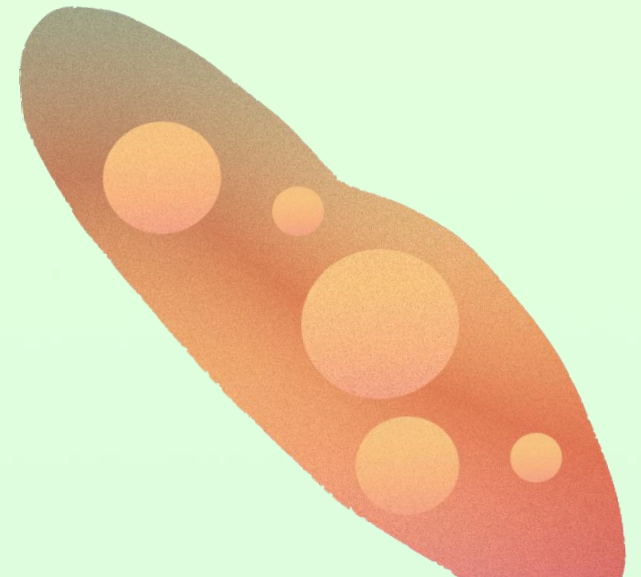


Image: Science/AAAS

# Paramecium learning

Alipour A. et al. Possible Molecular Mechanisms for Paramecium Learning. Journal of Advanced Medical Sciences and Applied Technologies, 2017



# Artificial Intelligence

Reggia J. The rise of machine consciousness: studying consciousness with computational models. Neural Networks ,2013

Searle, John. R. (1980) Minds, brains, and programs. Behavioral and Brain Sciences



# Hard Problem of Consciousness

Why should physical  
processing give rise to  
a rich inner life at all?

- David Chalmers

# Easy Problems of Consciousness

explanation of  
cognitive abilities and  
functions

- David Chalmers



# philosophical zombie

-Kripke 1972, Chalmers 1996

From a world made of  
matter and governed  
by laws, a copy of you  
is conceivable without  
having any qualia.





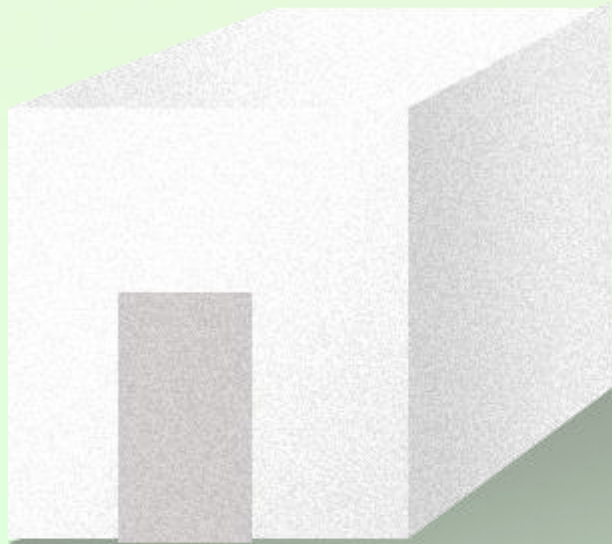
# philosophical zombie

Similarly,  
a copy of you is  
conceivable with  
inverted qualia.



# Knowledge Argument

-Jackson 1982



Mary is enclosed in a white room, has never seen color but learns every detail about the visual system. Then she is set free and sees color for the first time. Will she *learn* more?

Next Time:

We will discuss  
various views of the  
Hard Problem of  
Consciousness.