

# How Close is a Scientific Theory of Consciousness?

Dr. Michael Daw





**First Place – \$50,000**

## **Theories of Non-local Consciousness: A Review and Framework for Building Rigour**

**Michael Daw and Chris Roe**

In recent decades, significant scientific effort has been directed toward understanding consciousness, with most work adhering to physicalist theories that equate mind with brain activity. These theories often depict consciousness either as an illusion or a byproduct of physical processes. However, despite advancements, consciousness remains a profound

# This Talk

What is consciousness?

Brain-based theories

Disturbing phenomena

Theories of a non-local consciousness

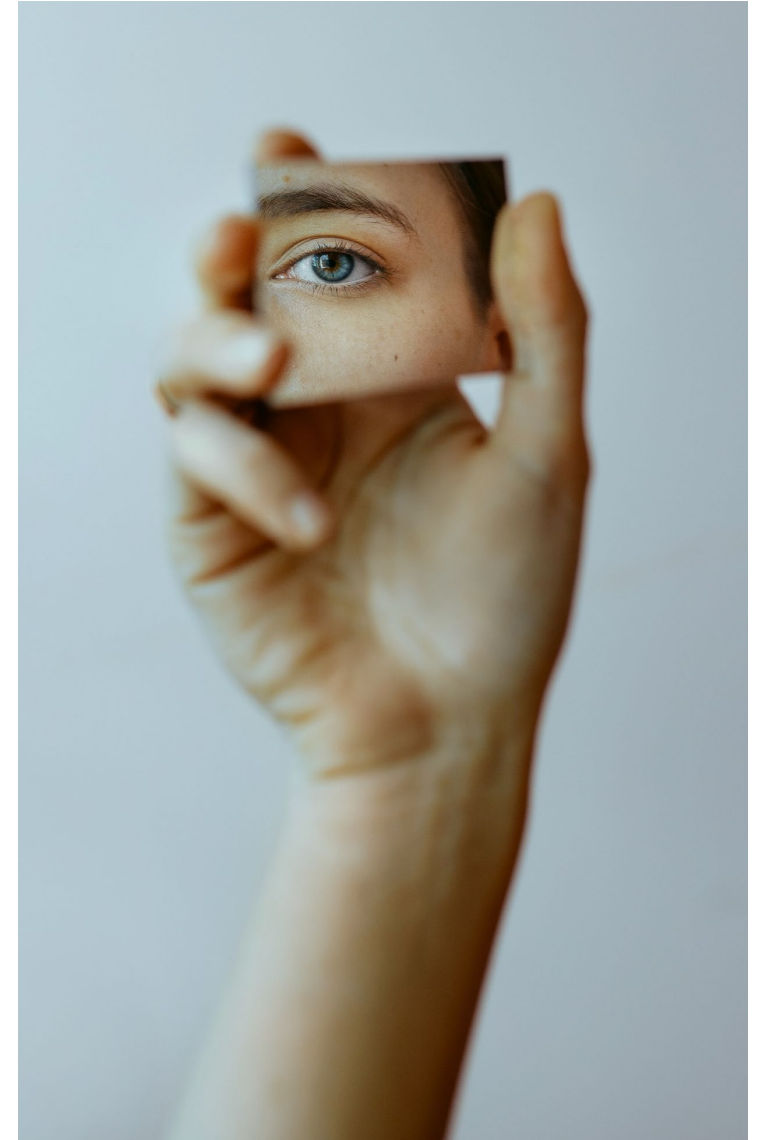
How effective are the theories?

Proposals to make better theories...



“What does it feel  
like to be you...?”

Nagel, T. (1974). What is it like to be a bat? *Philosophical Review*, 83, 435–450.







# A LANDSCAPE OF CONSCIOUSNESS

Robert Lawrence Kuhn

## 1. MATERIALISM

1. Philosophical	2. Neurobiological	3. Electromagnetic	4. Computational & Informational	5. Homeostatic & Affective	6. Embodied & Enactive	7. Relational	8. Representational	9. Language	10. Phylogenetic	2. NON-REDUCTIVE PHYSICALISM
01 eliminative	01 Edelman	1 Jones	1 computational	01 predictive	1 embodied	1 A.Clark	01 first-order	1 Chomsky	1 Dennett	1 Ellis
02 epiphenomenalism	02 Crick-Koch	2 Pockets	2 Grossberg	02 Seth	2 enactivism	2 Noë	02 Lamme	2 Searle	2 LeDoux	2 Murphy
03 functionalism	03 Baars	3 McFadden	3 complex/adaptive	03 Damasio	3 Varela	3 Loorits	03 higher-order	3 Koch	3 Jablonka	3 van Inwagen
04 emergence	04 Dennett	4 ephaptic	4 critical brain	04 Friston	4 Thompson	4 Lahav	04 Lau	4 Smith	4 value	4 Nagasawa
05 identity	05 Minsky	5 Ambron	5 Pribram	05 Solm	5 blind spot	5 Tsuchiya	05 LeDoux	5 Jaynes	5 Andrews	5 Sanfey
06 Searle	06 Graziano	6 Ulinas	6 Doyle	06 Carhart-Harris	6 Bitbol	6 Jaworski	06 Humphrey	6 Parrington	6 Reber	6 Northoff
07 Block	07 Prinz	7 Zhang	7 emergent info	07 Buzsáki	7 direct	7 process	07 Metzinger		7 Feinberg/Mallatt	
08 Flanagan	08 Sapolsky		8 mathematical	08 Deacon	8 Gibson		08 Jackson		8 Levin	
09 Papineau	09 Mitchell			09 Pereira			09 Lycan		9 James	
10 Goldstein	10 Bach			10 Mansell			10 transparency			
11 Hardcastle	11 circuits/cycles			11 projective			11 Tye			
12 Stoljar	12 Northoff			12 Pepperell			12 Thagard			
	13 Bunge						13 T.Clark			
	14 Hirstein						14 Deacon			

## 3. QUANTUM

- 01 Penrose-Hameroff
- 02 Stapp
- 03 Bohm
- 04 Pylikkanen
- 05 Wolfram
- 06 Beck-Eccles
- 07 Kauffman
- 08 Torday
- 09 Smolin
- 10 Carr
- 11 Faggin
- 12 Fisher
- 13 Globus
- 14 Poznanski
- 15 extensions
- 16 Rovelli

## 4. INTEGRATED INFORMATION THEORY

- 1 critiques
- 2 Koch

## 5. PANPSYCHISMS

- 01 micropsychism
- 02 panprotopsyshism
- 03 cosmopsychism
- 04 qualia force
- 05 qualia space
- 06 Chalmers
- 07 Strawson
- 08 Goff
- 09 A.Harris
- 10 Sheldrake
- 11 physics
- 12 Whitehead

## 6. MONISMS

- 01 Russellian
- 02 Davidson
- 03 Velmans
- 04 Strawson
- 05 Polkinghorne
- 06 Teilhard
- 07 Atmanspacher
- 08 Ramachandran
- 09 Tegmark
- 10 QRI valance
- 11 Bentley Hart
- 12 Leslie

## 7. DUALISMS

- 01 property
- 02 traditional
- 03 Swinburne
- 04 composite
- 05 Stump
- 06 Feser
- 07 Moreland
- 08 interactive
- 09 emergent
- 10 Kind
- 11 Jewish
- 12 Christian
- 13 Islamic
- 14 god
- 15 Indian
- 16 Indigenous
- 17 soul realms
- 18 Theosophy
- 19 Steiner
- 20 nonphysical

## 8. IDEALISMS

- 01 Indian
- 02 Buddhism
- 03 Dao De Jing
- 04 Kastrup
- 05 Hoffman
- 06 McGilchrist
- 07 Chopra
- 08 universe
- 09 Goswami
- 10 Spira
- 11 Nader
- 12 Ward
- 13 Albahari
- 14 Meijer
- 15 imaginative

## 9. ANOMALOUS & ALTERED STATES

- 01 Bergson
- 02 Jung
- 03 Radin
- 04 Tart
- 05 Josephson
- 06 Wilber
- 07 Combs
- 08 Schooler
- 09 Sheldrake
- 10 Grinberg
- 11 Graboi
- 12 NDEs/survival
- 13 DOPS
- 14 Bitbol
- 15 Campbell
- 16 Hiller
- 17 Harp
- 18 Swimme
- 19 Langan
- 20 meditation
- 21 psychedelic

## 10. CHALLENGE

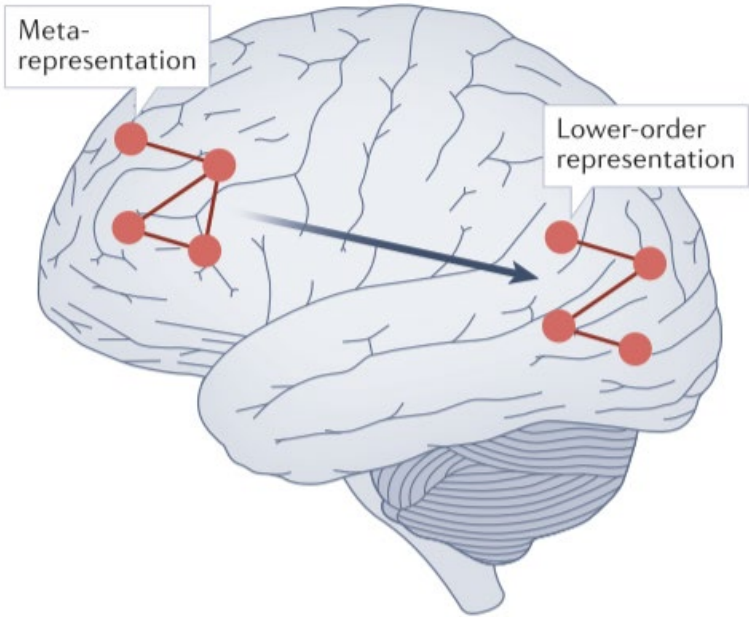
- 01 Nagel
- 02 McGinn
- 03 S.Harris
- 04 Eagleman
- 05 Tallis
- 06 Nagasawa
- 07 Musser
- 08 Davies

Figure created by Alex Gomez-Marin

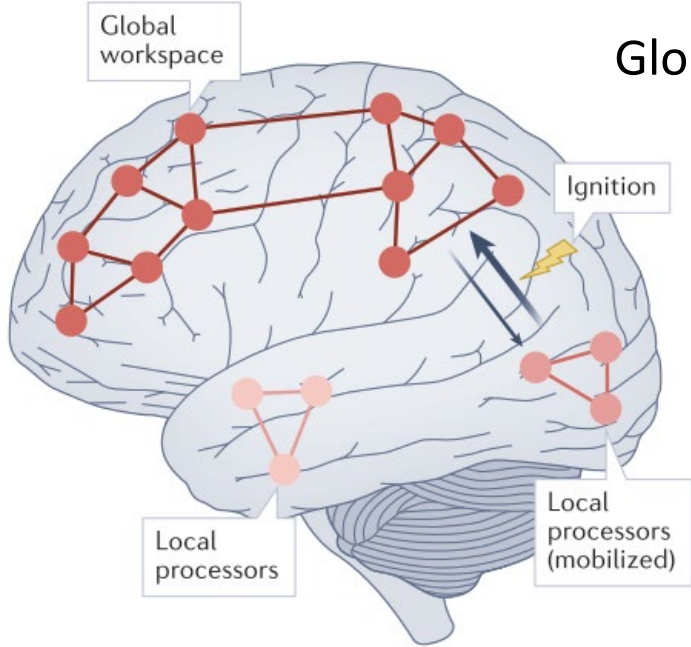
Kuhn R.L., A landscape of consciousness: Toward a taxonomy of explanations and implications, Progress in Biophysics and Molecular Biology, Volume 190, 2024, pp. 28-169



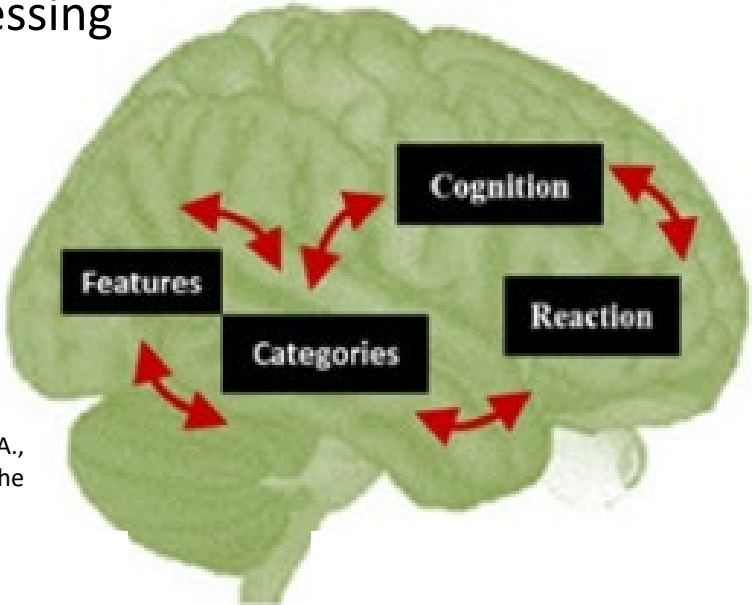
# Higher-order theories



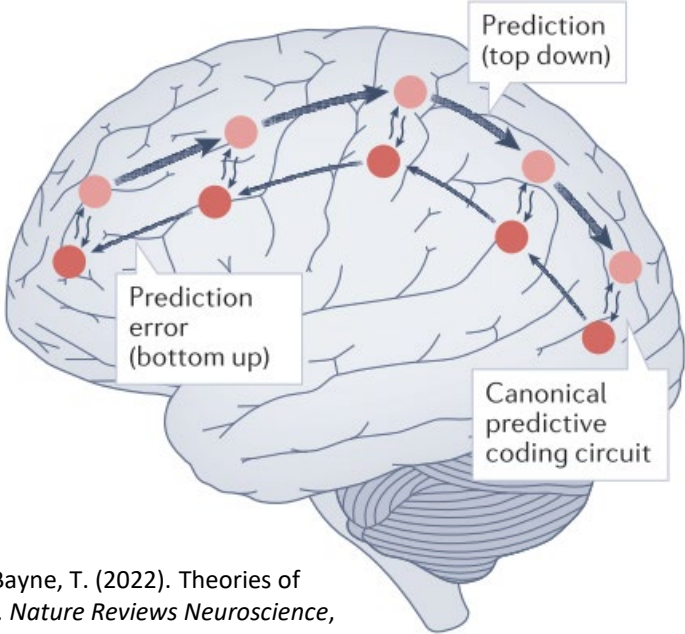
# Global workspace theories



# Recurrent processing theory

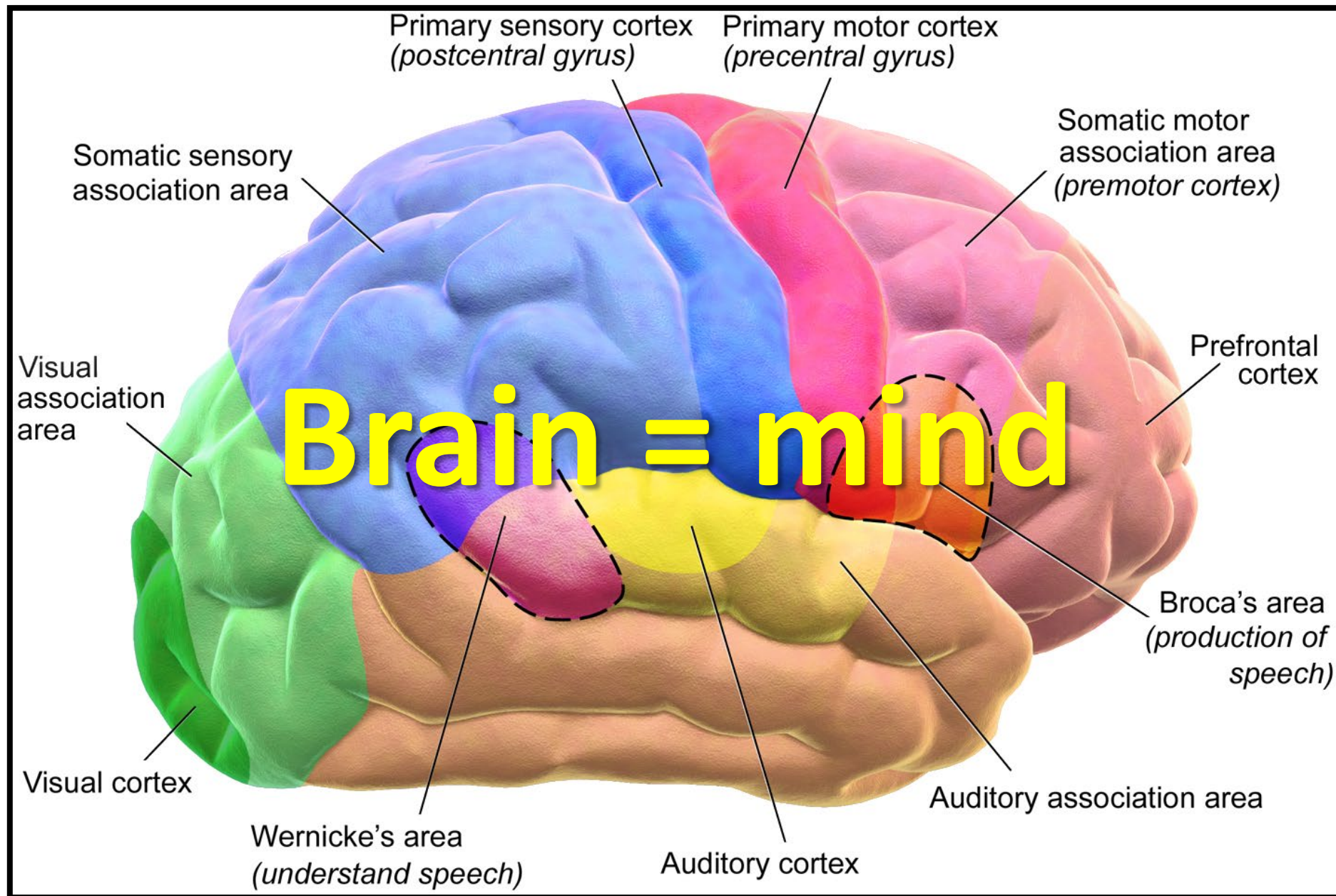


# Predictive processing theories



Mudrik, L., Boly, M., Dehaene, S., Fleming, S. M., Lamme, V., Seth, A., & Melloni, L. (2025). Unpacking the complexities of consciousness: Theories and reflections. *Neuroscience & Biobehavioral Reviews*, 170, 106053.

Seth, A. K., & Bayne, T. (2022). Theories of consciousness. *Nature Reviews Neuroscience*, 23(7), 439–452.





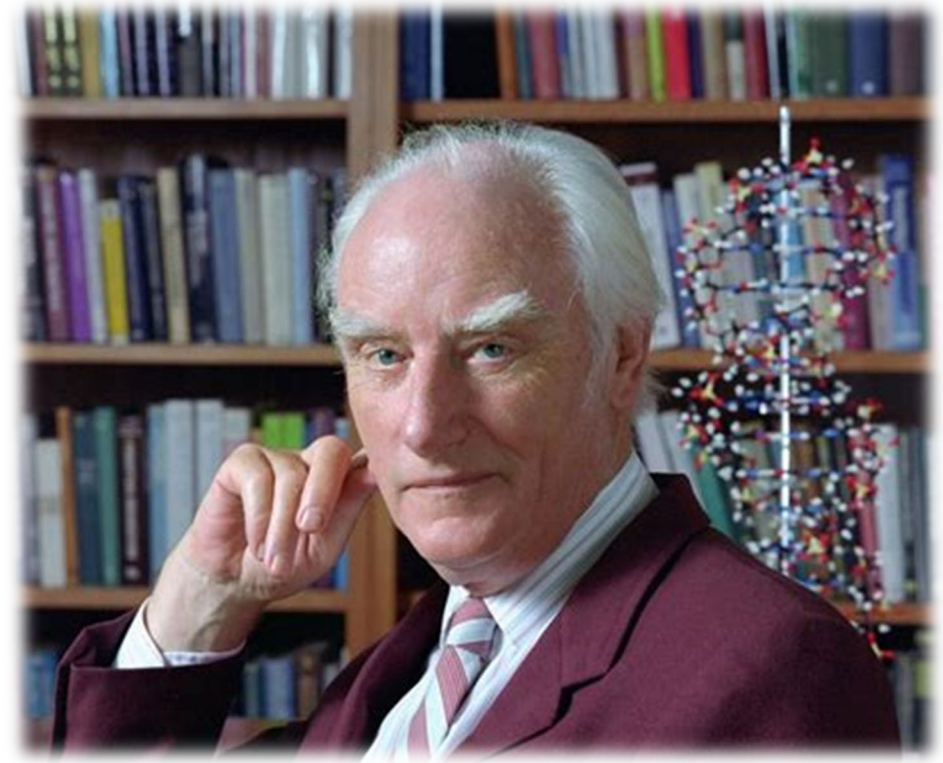
# The Astonishing Hypothesis

*“Your joys and sorrows, your memories and your ambitions, your sense of personal identity and free will, are in fact no more than the behaviours of a vast assembly of nerve cells and their associated molecules*

...

*You’re nothing but a pack of neurons.”*

Francis Crick (1994, p. 1)



## *Special Issue: Consciousness science and its theories*

### Comparing theories of consciousness: why it matters and how to do it

Simon Hviid Del Pin<sup>1,\*,†</sup>, Zuzanna Skóra<sup>1,§</sup>, Kristian Sandberg<sup>2</sup>, Morten Over

Confirmation bias  
and a lack of rigour

Conceptual  
quagmire



## **Cognitive Neuroscience**

Current Debates, Research & Reports

ISSN: (Print) (Online) Journal homepage: <https://www.tandfonline.com/loi/pcns20>

## **Hard criteria for empirical theories of consciousness**

Adrien Doerig, Aaron Schurger & Michael H. Herzog





## Animal Behaviour

Volume 194, December 2022, Pages 239-251



# Do bumble bees play?


Hiruni Samadi Galpayage Dona <sup>a</sup>  , Cwyn Solvi <sup>a b</sup>, Amelia Kowalewska <sup>a</sup>, Kaarle Mäkelä <sup>b</sup>,  
HaDi MaBouDi <sup>c</sup>, Lars Chittka <sup>a</sup>

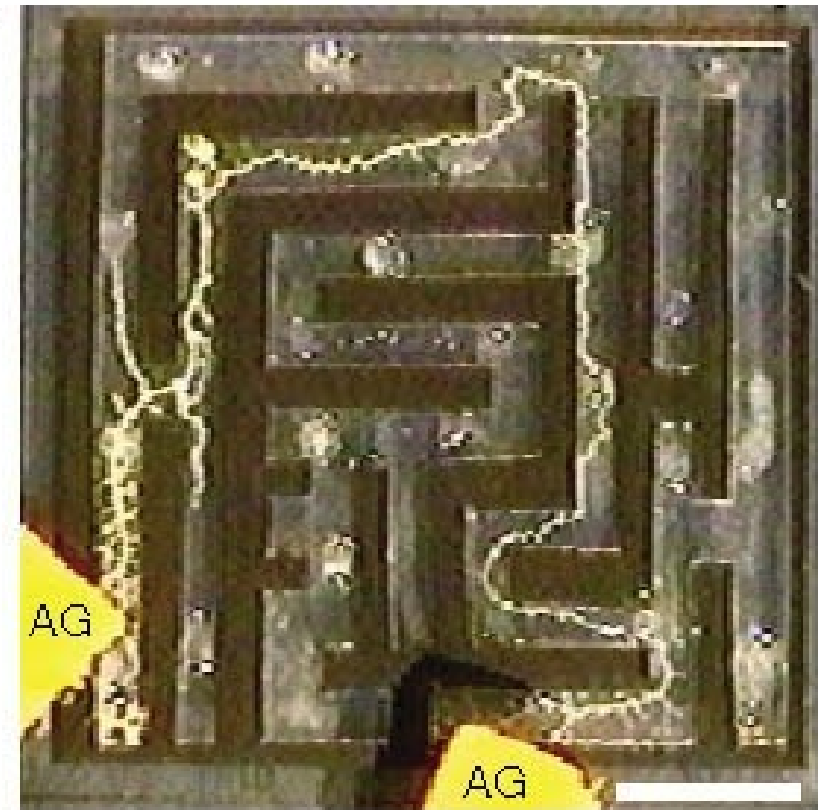
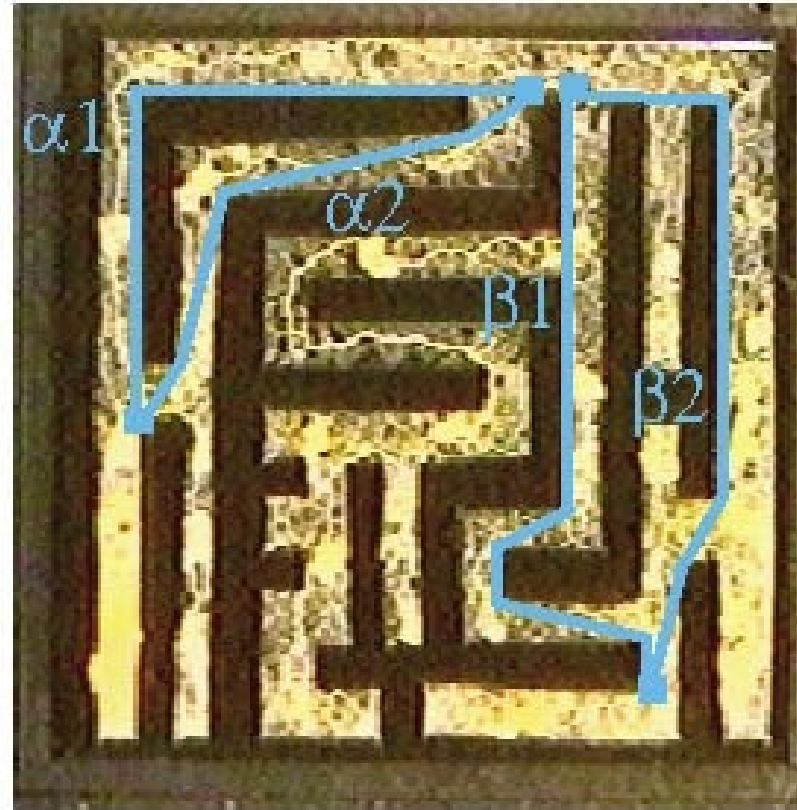


Brief Communication | Published: 28 September 2000

## Intelligence

## Maze-solving by an amoeboid organism

Toshiyuki Nakagaki , Hiroyasu Yamada & Ágota Tóth





*“As of now, no physicalist theory can explain a single specific conscious experience ...*

*We have these theories of conscious experiences that cannot explain any conscious experiences”*

Don Hoffman, 2024 Science of Consciousness, Tuscon

[https://youtu.be/YK4ML3HLgo?si=PS7xFhdBYnjG3\\_pY](https://youtu.be/YK4ML3HLgo?si=PS7xFhdBYnjG3_pY)

# 'Disturbing' Phenomena

Consciousness can...

## 1. Exist independently of the brain

- NDEs
- Terminal lucidity
- Brain impairment

## 2. Be disembodied

- After-death communications
- Mediumship
- Reincarnation





# 'Disturbing' Phenomena

Consciousness can...

3. Be unconstrained by space and time

- Telepathy
- Precognition

4. Influence matter directly

- Psychokinesis
- Energy healing

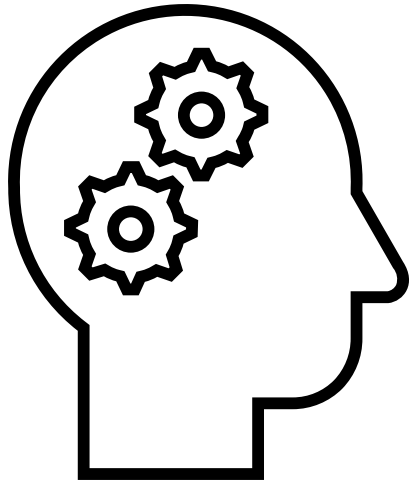


[Peace,love,happiness](#) from [Pixabay](#)

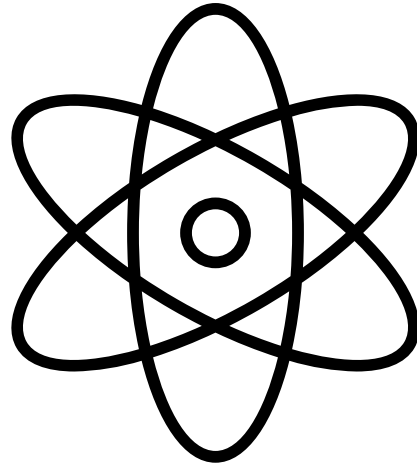
# Theories of a Non-Local Consciousness



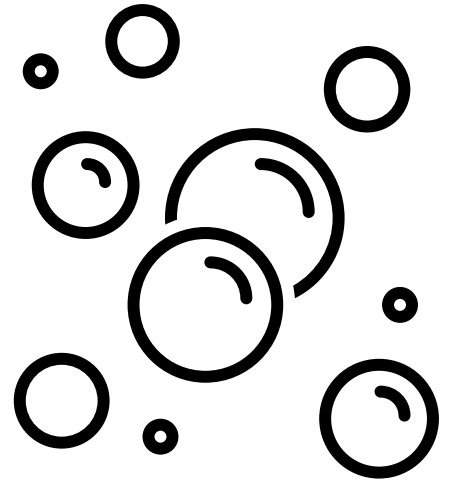
Image by [Brian Jones](#) from [Pixabay](#)



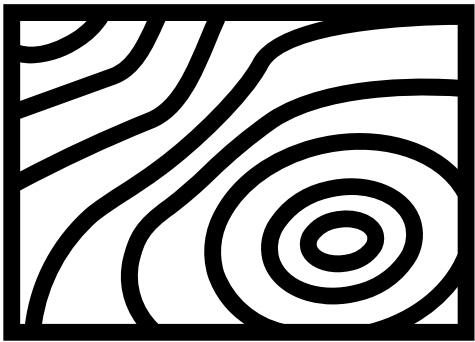
Brain-based



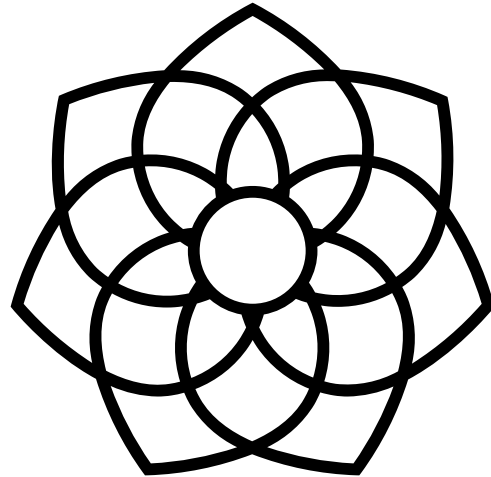
Quantum



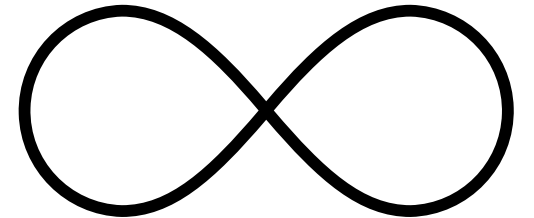
Hyperdimensional



Fields



In Everything



All There Is



# Consciousness is Hyperdimensional (Close & Neppe)

Three dimensions of space

Three dimensions of time

At least three dimensions of consciousness

Vortices as structural forms of reality

Gimmel-consciousness could explain...

- Atomic structures
- Life
- Dark matter/dark energy



<https://www.beautyofplanet.com/giant-spiral-appears-amid-the-aurora-lights-in-alaskas-night-sky>

# Beyond Time, Space & Death (Close & Neppe)

Telepathy, clairvoyance – information transfer through vortices across dimensions of consciousness

Disembodied 'soul' – vortices in consciousness dimensions  
(no spatial and time dimensions)

<https://www.erclosetphysics.com/2013/07/scientists-solve-50-year-physics-puzzle.html>



# Consciousness is Electromagnetic

(Diane Hennacy)

Brain interfaces with non-local consciousness via  
electromagnetic fields

Biophotons create a holographic field  
== 'subtle body' or 'aura'

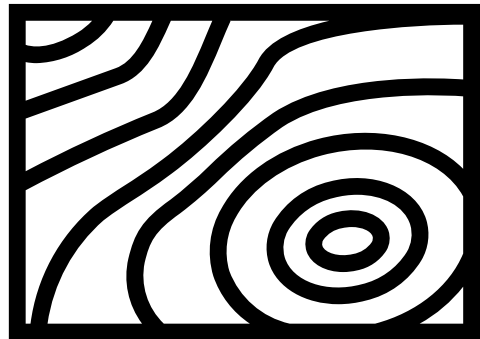


Image by [alexmogopro](#) from [Pixabay](#)



# Telepathy

(Diane Hennacy)

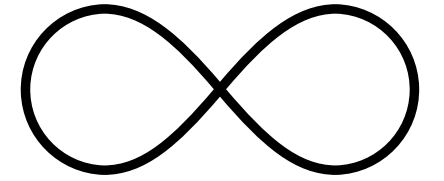
*“If we have an antenna capable of detecting Extremely Low Frequency waves in the same frequency range as human [theta] brainwaves, the possibility of telepathy does not seem to be as big of a stretch.*

*Nonetheless, if telepathy is real, why wouldn't more of us experience it? Perhaps the magnetite lining our skulls can also serve as a shield to protect the privacy of our thoughts and limit potentially undesirable outside influences.”*



Hennacy, D. M. (2024). The Neuroscience of Savant Syndrome, Enlightenment, and Other Extraordinary States. In L. J. Miller (Ed.), *The Oxford Handbook of Psychology and Spirituality*. Oxford University Press.

# Conscious Agents (Don Hoffman)

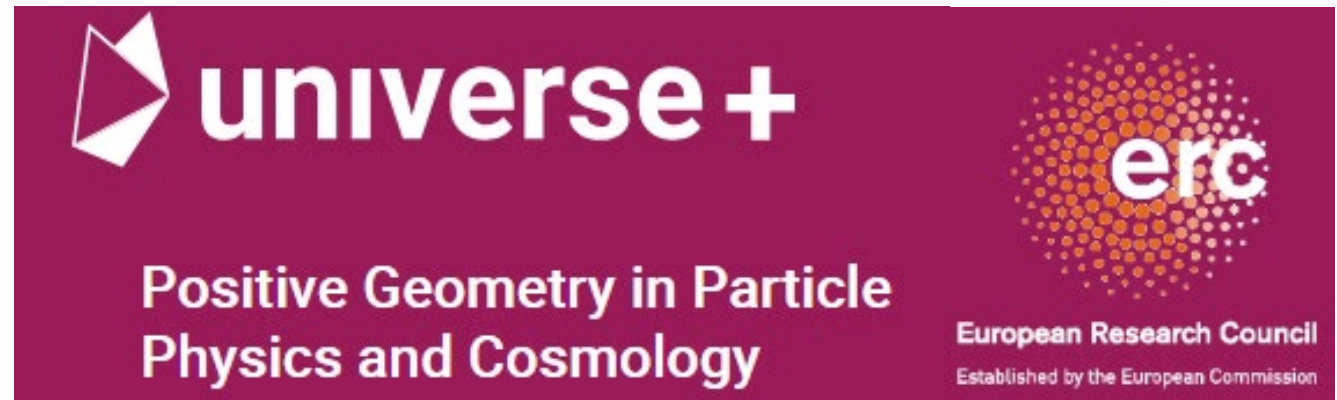
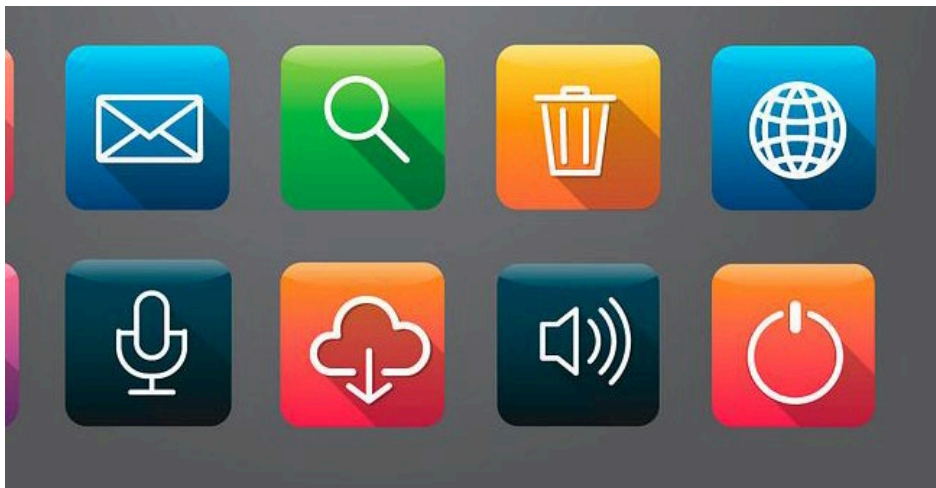


Spacetime does not exist as we perceive it

World like a computer interface where icons represent underlying reality

Physical world arises from conscious agents outside of spacetime

Mathematical models of conscious agents can explain **everything**

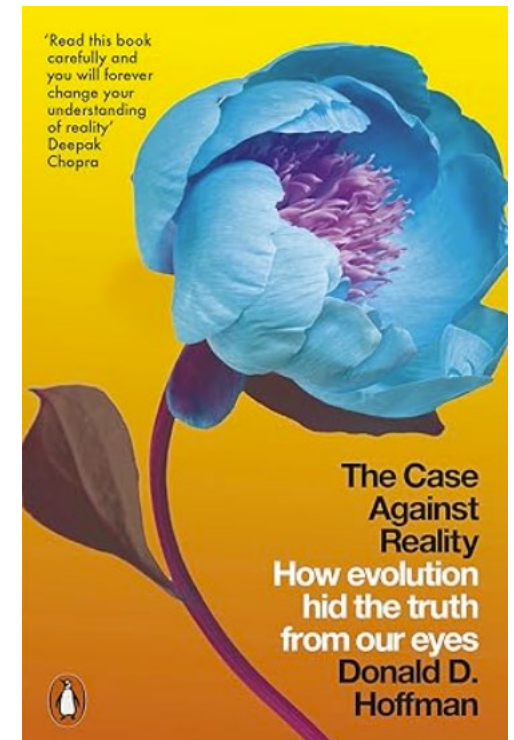
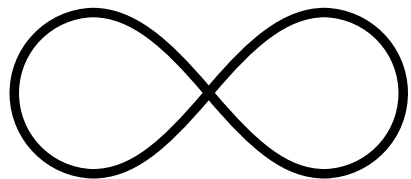


# Survival After Death? (Don Hoffman)

Life is like a virtual reality game of beach volleyball. A player might remove his:

*“headset and body suit. His avatar collapses onto the sand, inert and unresponsive. But he’s fine. He just stepped out of the virtual-reality interface. When we die, do we simply slip out of the spacetime interface of homo sapiens? I don’t know”*

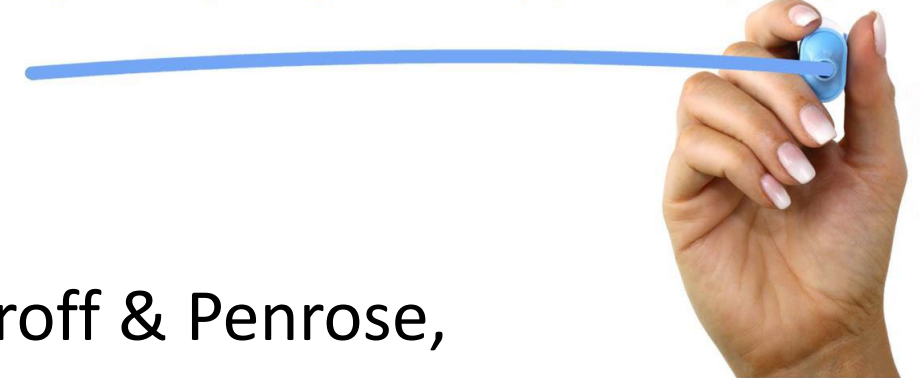
(Hoffman, 2020b, p. 201)





1. No theory (brain-based or non-local) sufficiently accounts for properties of consciousness
2. Brain-based theories cannot account for disturbing phenomena ...
3. ... But non-local theories also fall short
4. Brain-based theories are generally better as scientific theories ...
5. ... Although some non-local theories (Hameroff & Penrose, Hennacy, Sheldrake, and Hoffman) also fare well in this respect

CONCLUSIONS

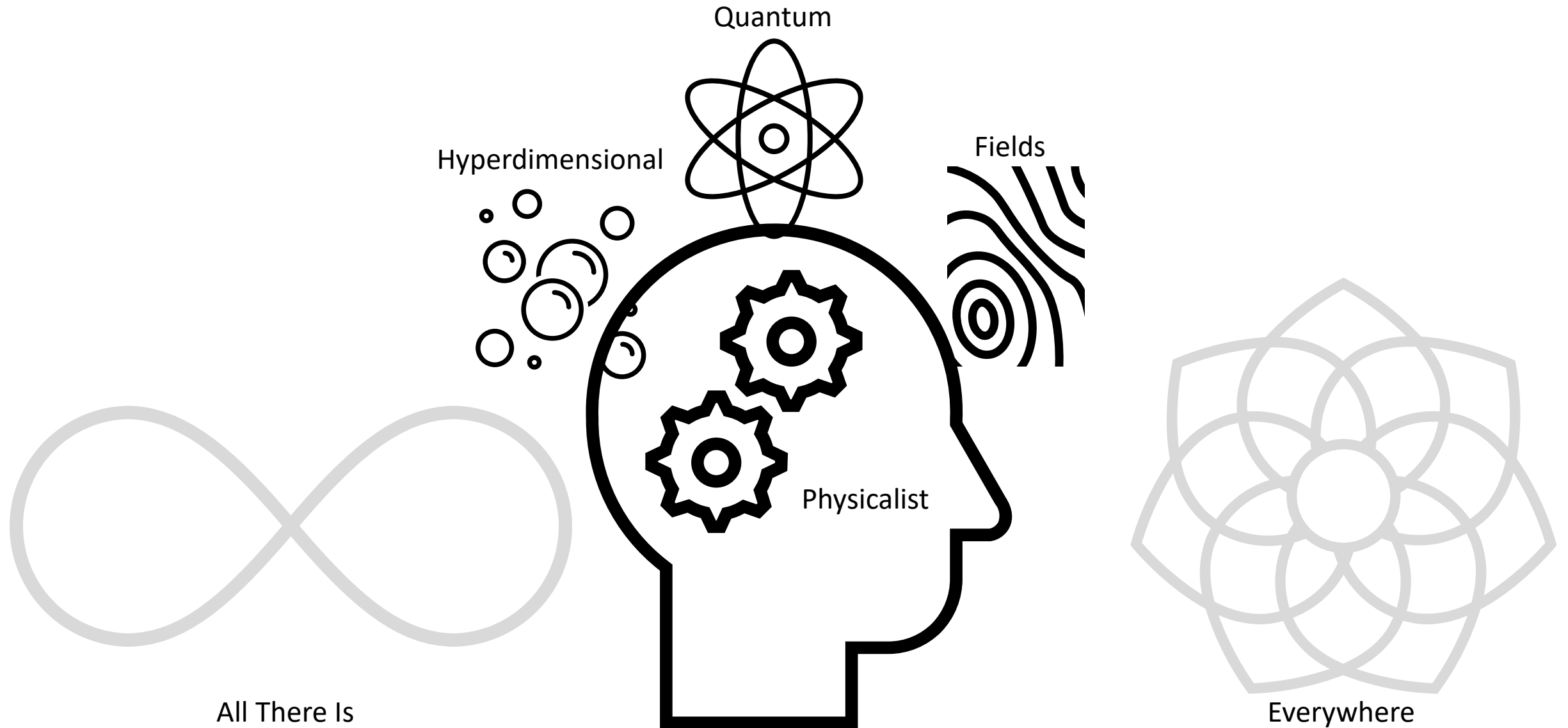


# How can we make progress?

1. Integrate theories
2. Predict, Test, Refine, Repeat

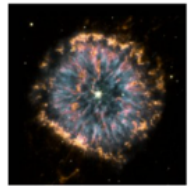


# Integrating Theories of Consciousness

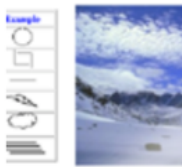




# Testing Consciousness – Precognition



Quick Remote Viewing



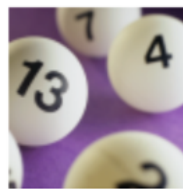
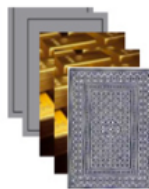
Long Remote Viewing



Dowsing



Bubble



Got Psi?

## Do you have psi abilities?

Many people have had precognitive dreams or successful intuitive hunches and would like to know if they might have psychic (or "psi") abilities. To provide a simple way to explore these abilities, this site provides a suite of psi tests. **The tests are fun** (and use validated statistics) and you'll get immediate feedback about your performance. There are also various "Halls of Fame" where you can compare your performance with others.

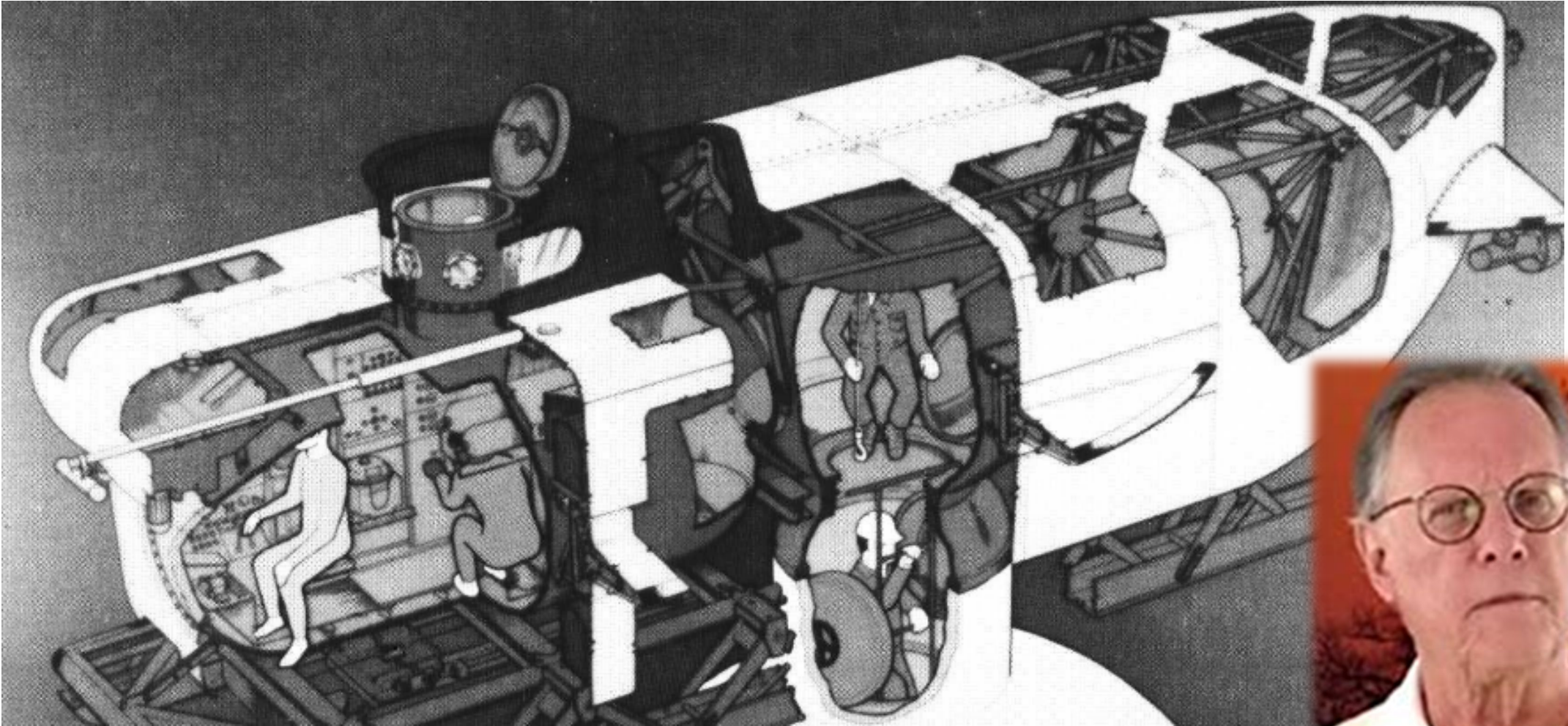
Keep in mind that your results should only be considered suggestive, because high scores in these tests can be due to chance as well as to actual abilities. Only repeated testing can distinguish between luck and genuine psi abilities.

This site is part of a research program to assess if psi is genuine. Because of that, you will be asked to **first perform some psi tests and fill up a survey**. After that, you will be able to access the rest of the games. We apologize for the hassle, but we need to pay to access these free games. If you perform well on the tests, you will be contacted and paid to perform additional tests. The tests are entirely free. This site is run by a 3+ star rated non-profit 501(c)(3) organization, and **we rely on donations** to keep it running. **we do not sell your personal data**. We will never email you marketing material. If you have any questions, please email [research@noetic.org](mailto:research@noetic.org).



Dean Radin

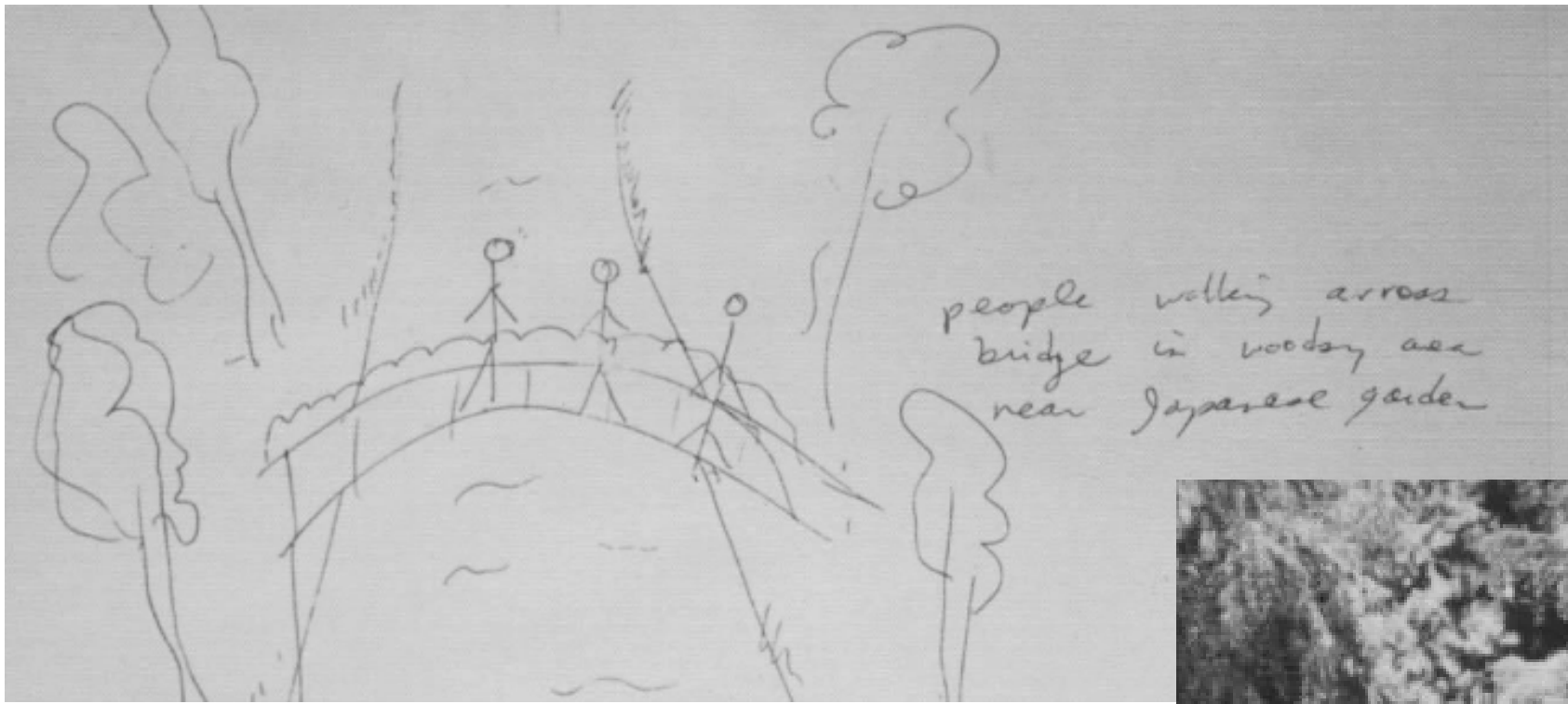
# Testing Consciousness – Electromagnetism



800km distant, 360m deep



Stephan Schwartz



“Highly suggestive, if preliminary”  
(Schwartz, 1979)





# Case Closed?

*“It would be lovely to replicate [this experiment] but it seems unlikely to ever happen, given the scarcity of deep ocean submersibles, and their cost of operation. One thing is certain: no ELF communications expert could ever explain what happened” (Schwartz, 2014)*

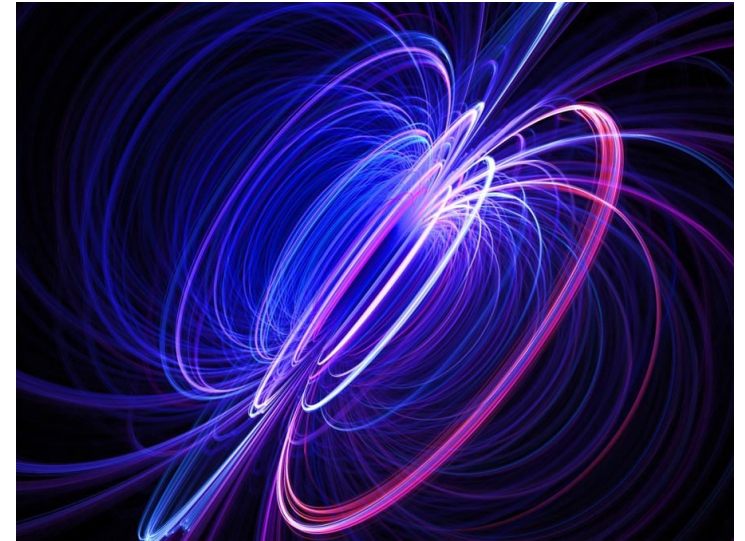


# However...

ELF waves only properly shielded at greater than 2000m sea depth

Qubits can encode complex information with minimal bandwidth (Boyle, 2024)

<https://www.sciencealert.com/alien-phone-calls-could-be-quantum-and-were-not-ready-to-hear-them>



Diane Hennacy

# Thank you for your attention!

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