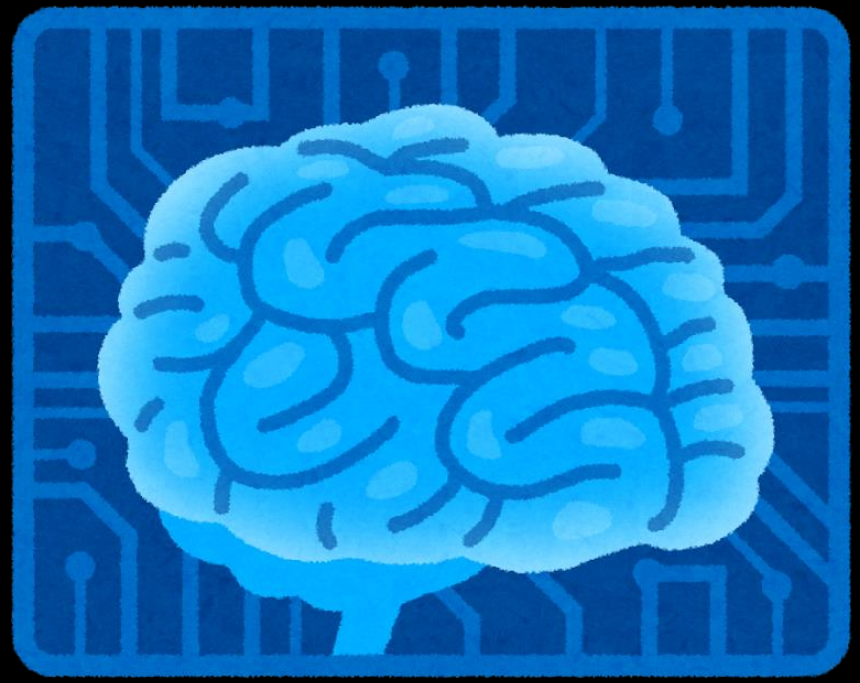
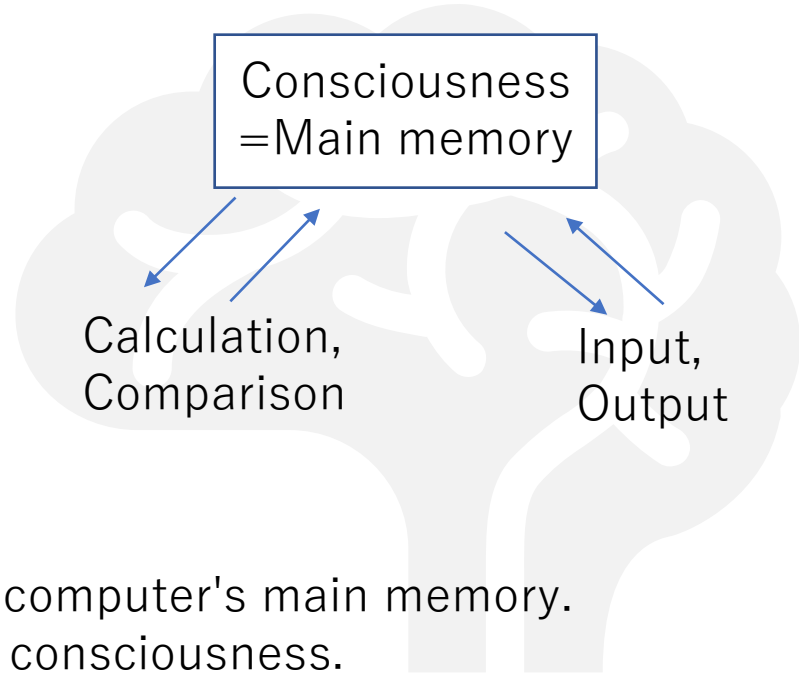
Hard problem of consciousness

Complete solution



Hard problem of consciousness

Soft problem of consciousness

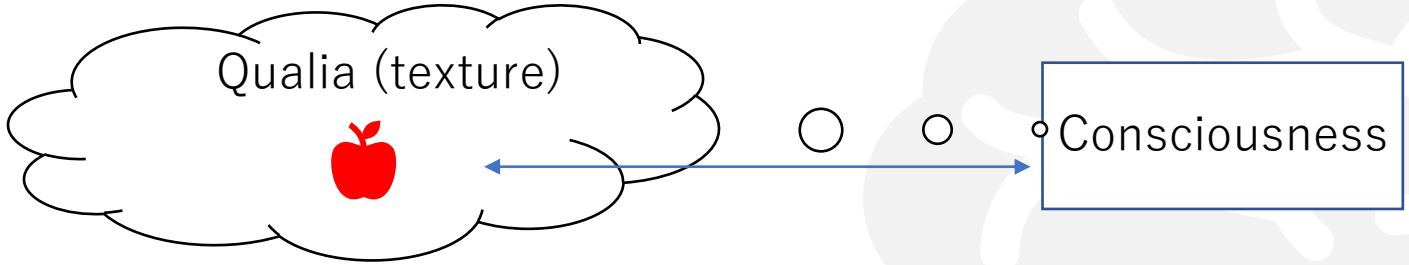


Consciousness is a function equivalent to a computer's main memory.
Various information is input and output into consciousness.
Information within consciousness can be used for calculation such as comparison.
The soft problem asks how such functions are realized in the brain.

A great detective completely solves the hard problem of consciousness.
First, let's explain the soft problem.
Consciousness is a function equivalent to a computer's main memory.
Various information is input and output into consciousness.
Information within consciousness can be used for calculations such as comparisons.
The soft problem asks how such functions are realized in the brain.

Hard problem of consciousness

Hard problem of consciousness



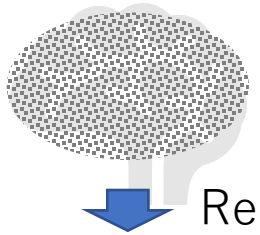
In conjunction with the brain, we subjectively sense qualia.
How such subjective experiences are realized
is the hard problem of consciousness.

From an objective point of view, the brain, where consciousness resides,
is a collection of elementary particles.
When elementary particles fulfill certain conditions,
does a subjective perspective suddenly emerge?

Let me explain the hard problem.
In conjunction with the brain, we subjectively sense qualia.
How such subjective experiences are realized is the hard problem of consciousness.
From an objective point of view, the brain, where consciousness resides, is a collection of elementary particles.
When elementary particles fulfill certain conditions, does a subjective perspective suddenly emerge?

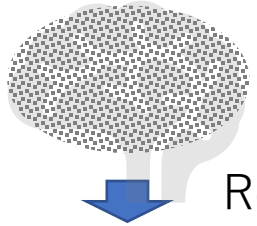
Hard problem of consciousness

Paradox of the heap



Consciousness resides

Remove one neuron

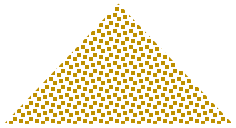


Consciousness resides

Repeat

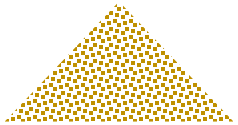
•

Consciousness resides?



Heap

Remove one grain



Heap

Repeat

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Heap?

The number of grains needed to constitute a heap vary from person to person.

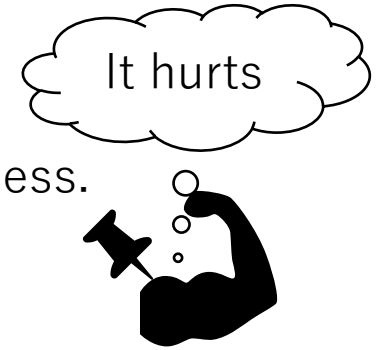
The situations in which we perceive consciousness vary from person to person.

The brain is home to consciousness.
Even if you remove one neuron from the brain, consciousness remains.
Suppose this is repeated until there is only one neuron left.
Would that single neuron be home to consciousness?
This is the same as the Paradox of the heap.
The number of grains needed to constitute a heap varies from person to person.
The situations in which we perceive consciousness vary from person to person.

Hard problem of consciousness

One-neuron consciousness

Taking a broad interpretation,
we can assume that individual neurons have consciousness.



Sensory and motor nerves outside the brain also have consciousness.

When a pain nerve fires,
we can interpret it as the conscious state of "pain“.

Functions necessary for consciousness
- transmission ← Sensory and motor nerves are just
- retention
- comparison
- …

Which functions of neurons are considered to make up consciousness is up to individual interpretation.

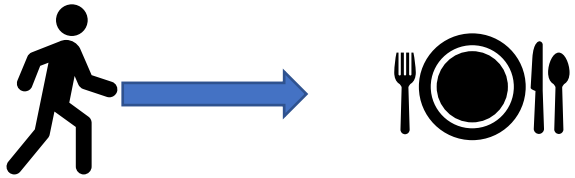
Taking a broad interpretation, we can assume that individual neurons have consciousness.
In that case, sensory and motor nerves outside the brain also have consciousness.
When a pain nerve fires, we can interpret it as the conscious state of "pain“.
Sensory and motor nerves only "transmit" information.
Consciousness requires various functions such as "transmission“, "retention“, and "comparison“.
Which functions of neurons are considered to make up consciousness is up to individual interpretation.

Hard problem of consciousness

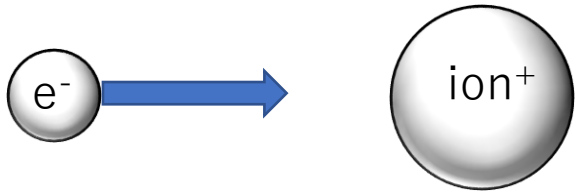
Consciousness of particles

The free electrons flowing within neurons
can also be interpreted as having consciousness.

Consciousness sense something
and tend to certain think /act.



Free electron sense electric fields
and tend to move in a certain direction.



These two can be interpreted as looking at the same phenomenon
from different perspectives.

Electrons are not special elementary particles,
so all elementary particles should have consciousness.
Non-free particles just have a smaller impact.

One could also interpret the free electrons flowing within neurons as having consciousness.
Consciousness senses something and tend to certain think /act.
Free electrons sense electric fields and tend to move in a certain direction.
These two can be interpreted as looking at the same phenomenon from different perspectives.
It's just that a large number of electrons are involved in forming a complex consciousness, and the principle should be simple.
Electrons are not special elementary particles, so all elementary particles should have consciousness.
Non-free particles just have a smaller impact.

Hard problem of consciousness

Native consciousness

We will call consciousness
that corresponds to a physical quantity "native consciousness".

For example, when pain increases fourfold

Some physical quantity is four times

“1.0” → “4.0”

native consciousness

Combining some physical quantity and multiplying it by 4 in binary

“0,0,0,1” → “0,1,0,0”

Noon-native consciousness

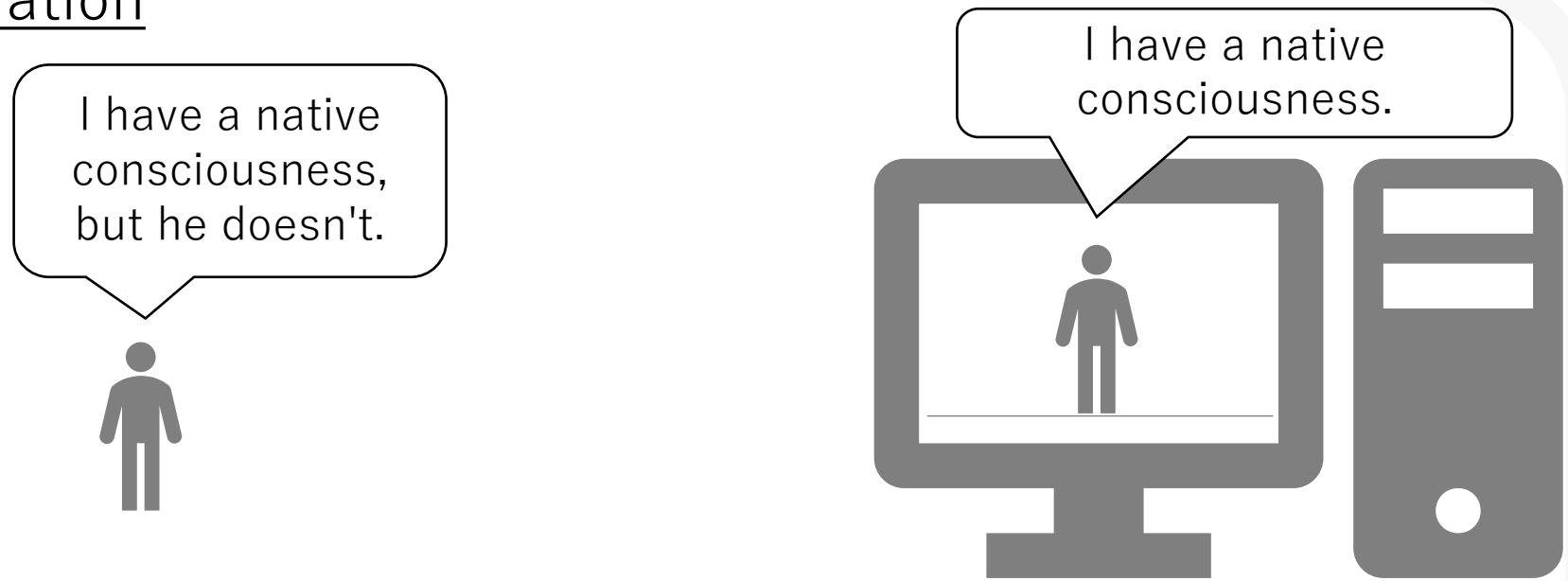
A neuron is native consciousness if we look at just one function of it.

It is unclear whether the brain forms non-native consciousness
with a large number of neurons.

We will call consciousness that corresponds to a physical quantity "native consciousness".
For example, when pain increases fourfold, some physical quantity also increases fourfold.
When multiple physical quantities are combined to become four times in binary, it cannot be said to be native.
A neuron is native consciousness if we look at just one function of it.
It is unclear whether the brain forms non-native consciousness with a large number of neurons.

Hard problem of consciousness

Simulation



There is something called the simulation hypothesis,
which suggests that the real world may actually be a simulation.

They both have genuine native consciousness,
they just use different systems of reference.

Let's consider the case of a human being physically simulated on a computer.
Let's say that a normal human being has native consciousness.
The human being inside the computer does not have native consciousness.
However, they have native consciousness in relation to the physics inside the simulated computer.
Also, there is something called the simulation hypothesis, which suggests that the real world may actually be a simulation.
Therefore, we and the human being inside the computer are in the same position.
They both have genuine native consciousness, they just use different systems of reference.

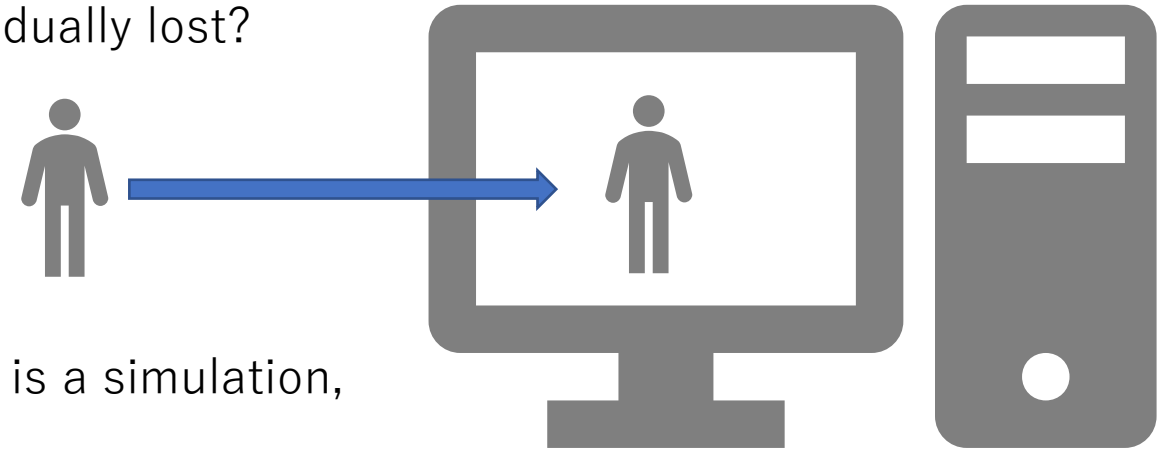
Hard problem of consciousness

Mind uploading

Gradually and accurately replacing a human being with a simulation.

If it's done precisely, the human being will be completely unaware.

Would consciousness be gradually lost?



We can't deny that this world is a simulation,
but we have consciousness.

We can say that simulated beings also have consciousness.

They won't turn into unconscious philosophical zombies.

Let's think about mind uploading.
Gradually and accurately replacing a human being with a computer simulation.
If it's done precisely, the human being would be completely unaware.
Would consciousness be gradually lost?
We can't deny that this world is a simulation, but we have consciousness.
So, simulated beings can also be said to have consciousness.
They wouldn't turn into unconscious philosophical zombies.

Hard problem of consciousness

The two of you

Exact physical copy

Incorrect You(50%) You(50%)

Correct You(100%) You(100%)

Quantum entanglement makes the two indistinguishable,
and you exist in both, not just one.

The idea that observations randomly determine one of these outcomes is incorrect.

And who said that there should only be one of you?

There can be two of you.

Mind uploading will kill one of you.

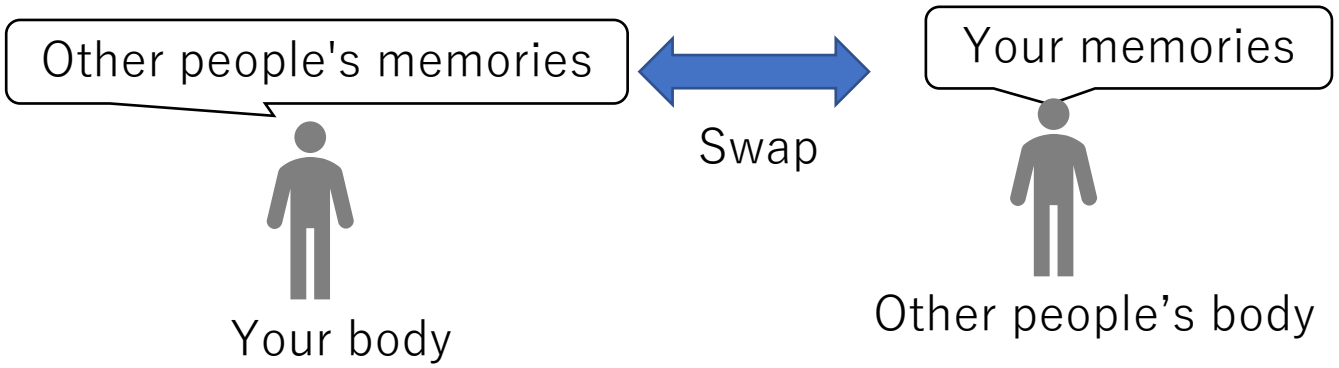
Some people think that only a duplicate human will remain, and that your real self will disappear.
So, imagine that an exact physical copy of you is created.
Quantum entanglement makes the two indistinguishable, and you exist in both, not just one.
The idea that observation will randomly determine which version you will be is a mistake.
And who said that there should only be one of you?
There can be two of you.
Mind uploading will kill one of you.

Hard problem of consciousness

What about you?

Most of the atoms that made up you a year ago have already been replaced.

It's not matter that makes you who you are, but memories.



Which one would you be?

Mind uploading only requires memories,
what happens to consciousness is irrelevant.

But what exactly are you as an individual?
Most of the atoms that made up you a year ago have already been replaced.
It's not matter that makes you who you are, but memories.
Imagine if only your memories were swapped with someone else's.
Which one would you be?
Mind uploading only requires memories, what happens to consciousness is irrelevant.

Hard problem of consciousness

Easy to Upload

Uploading consciousness alone is relatively easy.
Destroy the brain to the bare minimum and erase all memories.
The less information there is, the easier it is to upload.
If we can reduce the amount of information to zero,
we can upload the entire human race in an instant.
If we destroy the Earth, we can destroy all human brains.

If we upload the entire human race, we can stop destroying the environment.
If humanity doesn't stop destroying the environment,
I will simply destroy this planet.

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If humanity doesn't stop destroying the environment, I will simply destroy this planet.
That's all.

Contact Information

For inquiries,

please contact us here.

https://ultagi.org/