

WoDES - World Day

for the End of **Speciesism**

Sentience

How to recognize
and demonstrate the
ability to feel

Manu Herrán
August 30, 2020

Sentience What it is?

Definition by Sentience-Research

» *Sentience is a concept very close to the idea of consciousness, but sentience is, in our opinion, focused on what is more morally relevant. Sentience implies the capacity for positive or negative experiences, such as pleasure and pain, suffering and enjoyment.*

sentience-research.org/about

» *Sentience is a relatively new (polysemic) word that is commonly used to refer to the ability to experience pleasure and / or pain.*

“Consciousness is exciting intellectually, but sentience is what is morally relevant.”

» *We use a definition of “sentience” that refers to subjective experiences that can be positive or negative, such as pleasure and pain, or enjoyment and suffering, and we leave out of the definition those experiences that are indifferent. That is why we say that sentience focuses on what is morally relevant.*

sentience-research.org/sentience

Sentience What it is?

My definition (and also Magnus Vinding's)

Sentience: the ability to have pleasurable or painful sensations, which implies having preferences and interests (avoiding pain, seeking pleasure). There is no doubt that **sentience** has moral relevance.

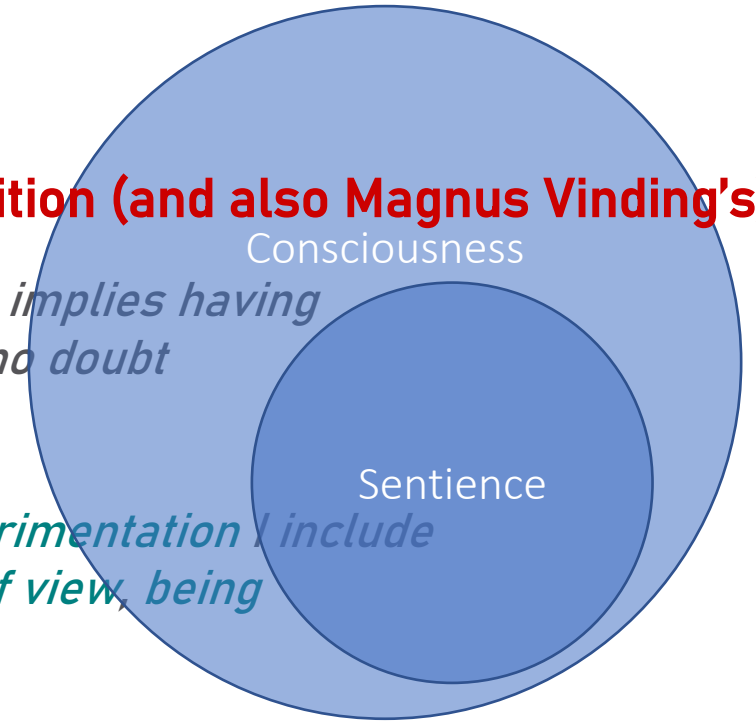
Subjectivity (or **Consciousness**): the ability to experiment. Within experimentation I include the ability to feel pleasure and pain, but I also include having a point of view, being someone, perceiving, having "consciousness".

manuherran.com/how-to-recognize-sentience

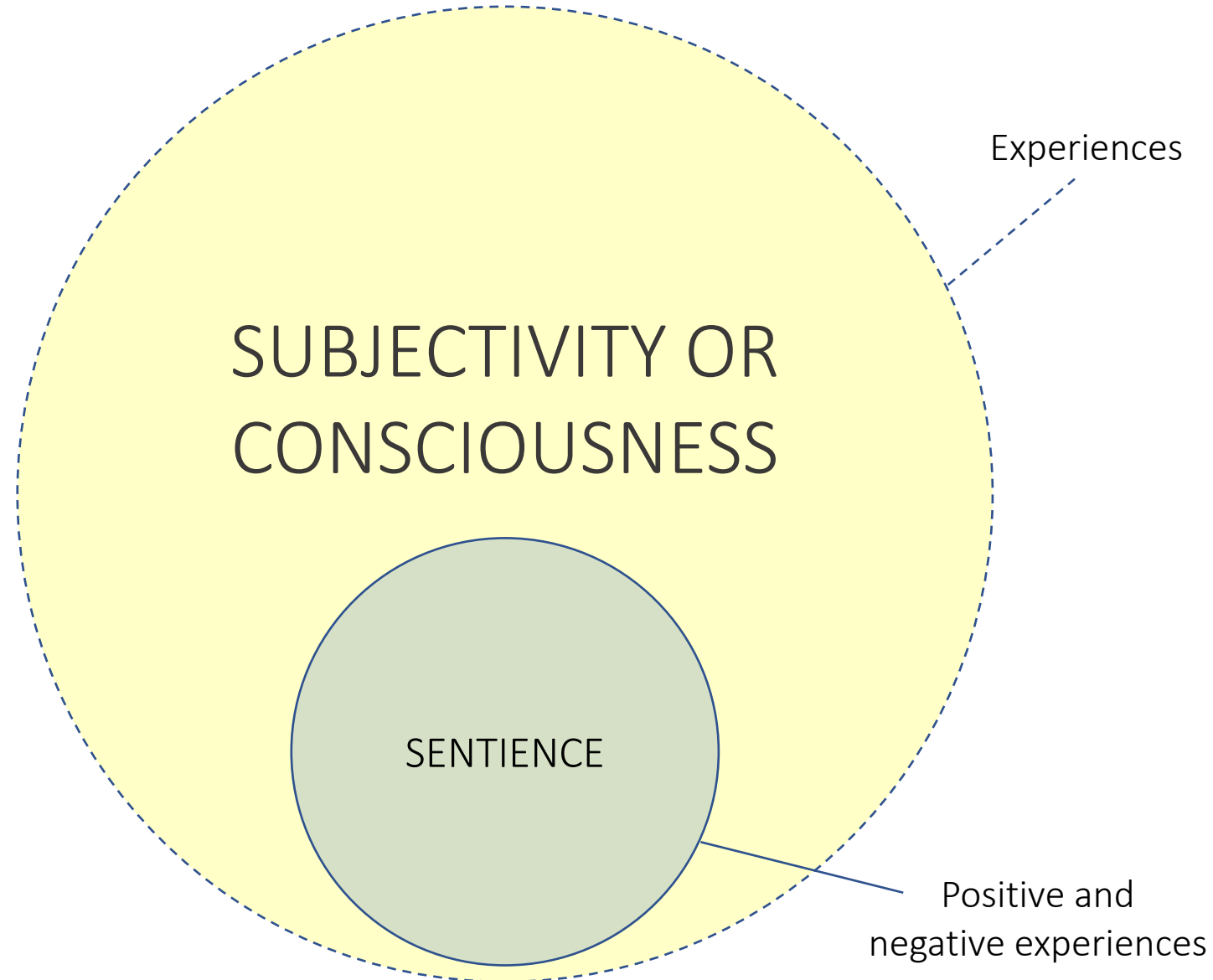
Manu Herrán: Let's start with the very beginning. I'll use the word sentience for experiences of suffering and enjoyment, and consciousness for subjective experiences in general. Not only pain and pleasure but, for instance, to perceive. Does it match your terminology?

Magnus Vinding: Yes.

sentience-research.org/on-theories-of-sentience-a-talk-with-magnus-vinding



Sentience What it is?



Sentience Other definitions

Consciousness in the sense of self-awareness

“Consciousness” is sometimes understood as “self-knowledge”, which one may seek to operationalize and measure in various ways, yet one obvious way is to ask whether an individual is able to pass the [mirror test](#). Many non-human animals are evidently conscious in this sense.

But beyond that, it’s certainly possible for, let’s say, an invertebrate or a developing human child to feel pain without a very clear idea of what’s happening, without having any self-model. But that doesn’t diminish the moral relevance of the suffering itself, if it exists. Sentience, I submit, is ultimately what matters, or at any rate what matters most.

– [Magnus Vinding](#)

sentience-research.org/on-theories-of-sentience-a-talk-with-magnus-vinding



Sentience Other definitions

(A lot of people call "sentience" all kinds of experiences, including neutral experiences)

Consciousness as "self-awareness"

If we understand the word "consciousness" as self-consciousness, self-awareness, self-knowledge, etc. then it's possible to argue that some individuals can feel pleasure / pain but not having an internal model of self.

SENTIENCE

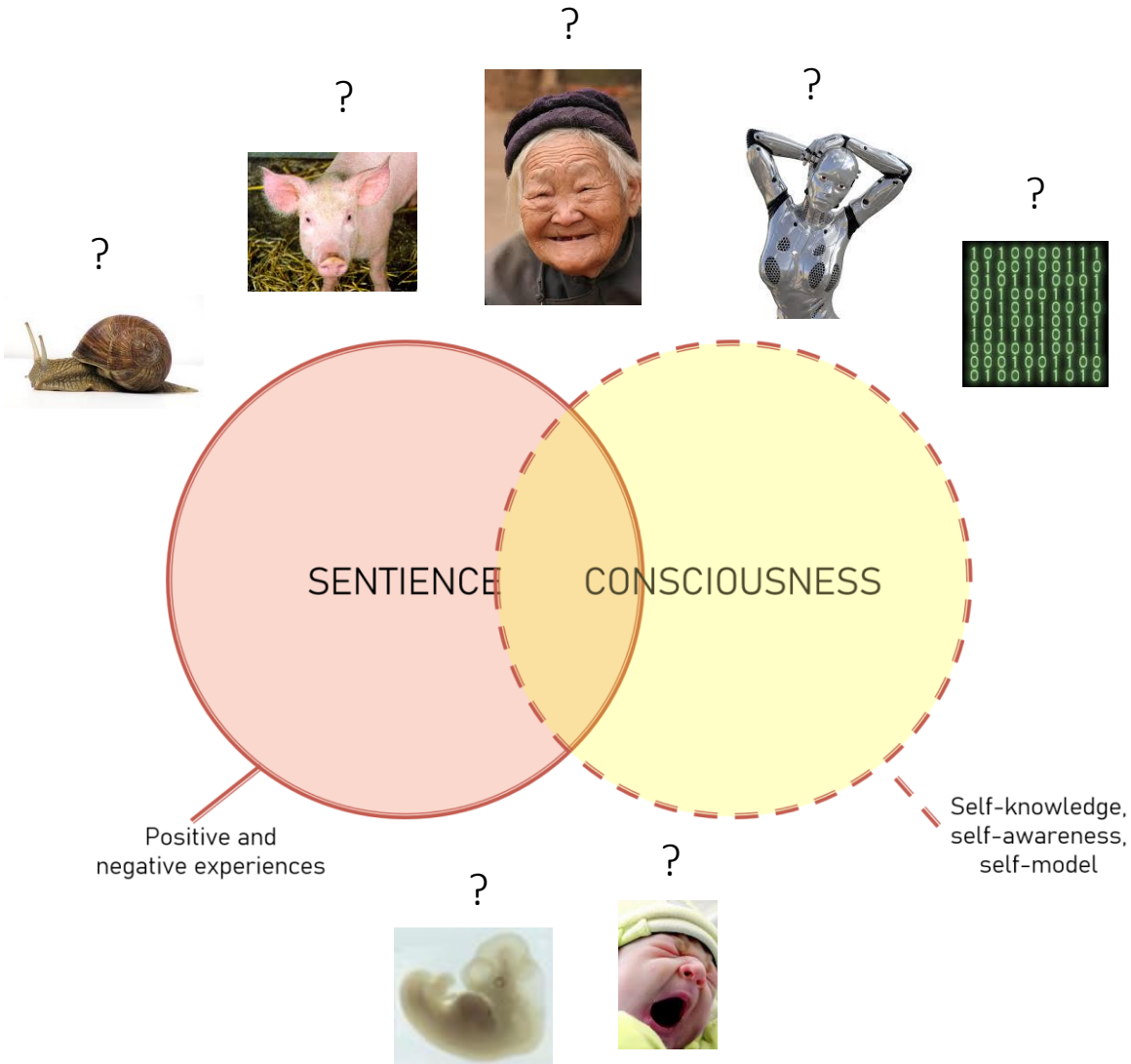
CONSCIOUSNESS

Positive and negative experiences

Self-knowledge, self-awareness, self-model

Sentience Suffering without an “I”?

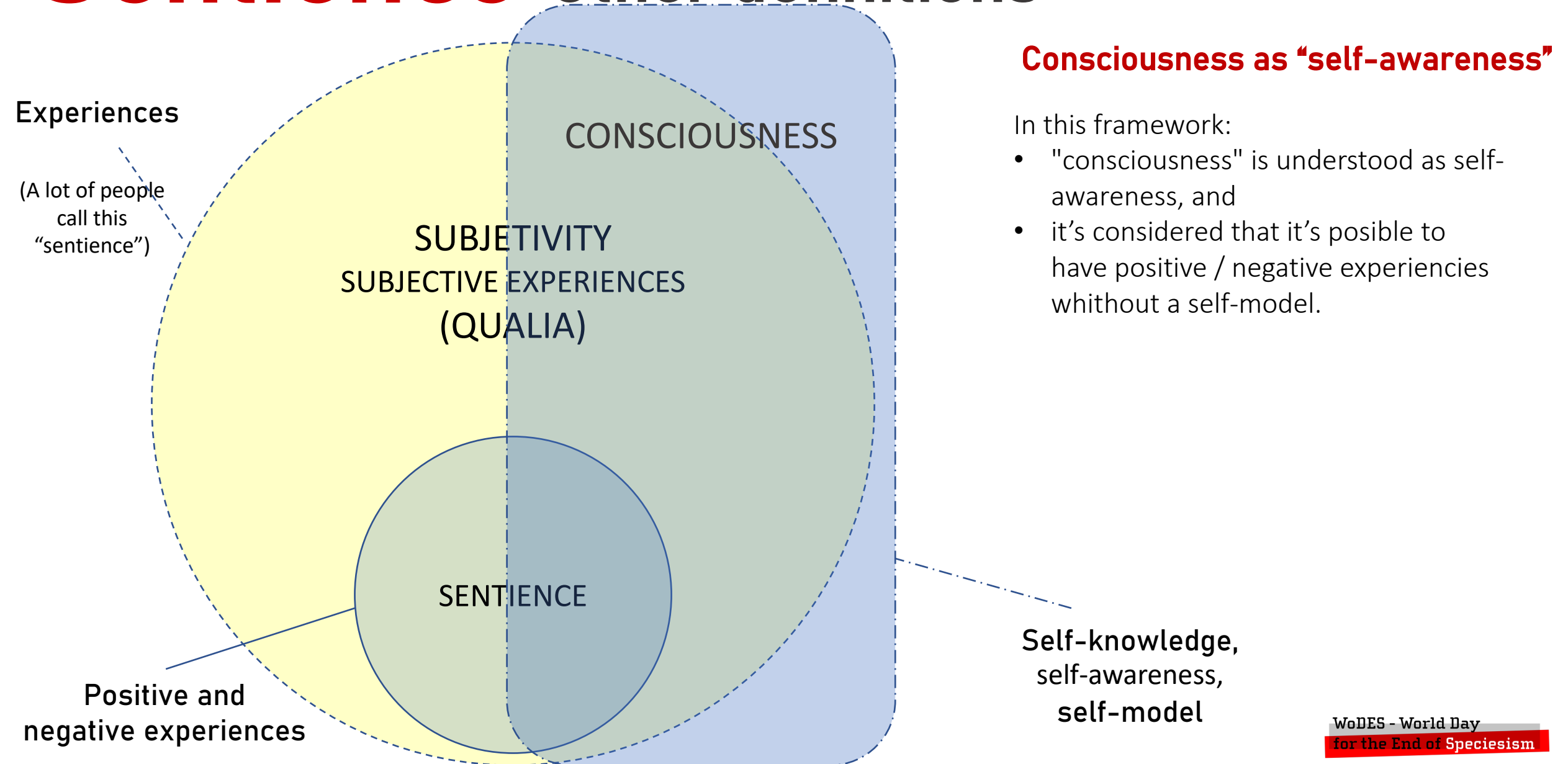
If the pig does not have a model of itself, does the pig suffer or not?



- Let's understand "consciousness" as "self-knowledge" or "self-awareness" (self-consciousness)
- Let's assume that the pig does not have a model of itself
 - I disagree, but ok, let's imagine that the pig (or a snail) does not have a model of itself, it has no "consciousness" (as "self-model")
- We could say that, literally, the animal does not feel, since the animal does not exist (at least, for itself). But nevertheless, if there is suffering, suffering is relevant by itself.
- So, the suffering is always morally relevant, even if the object linked to the suffering does not have a model of itself
 - Others may say: if something suffers, surely that something has a model of itself, and therefore it is impossible to feel without self-awareness.
- We can also imagine beings or objects (robots? software?) that acquire self-consciousness, but without acquiring the ability to feel pain / pleasure.

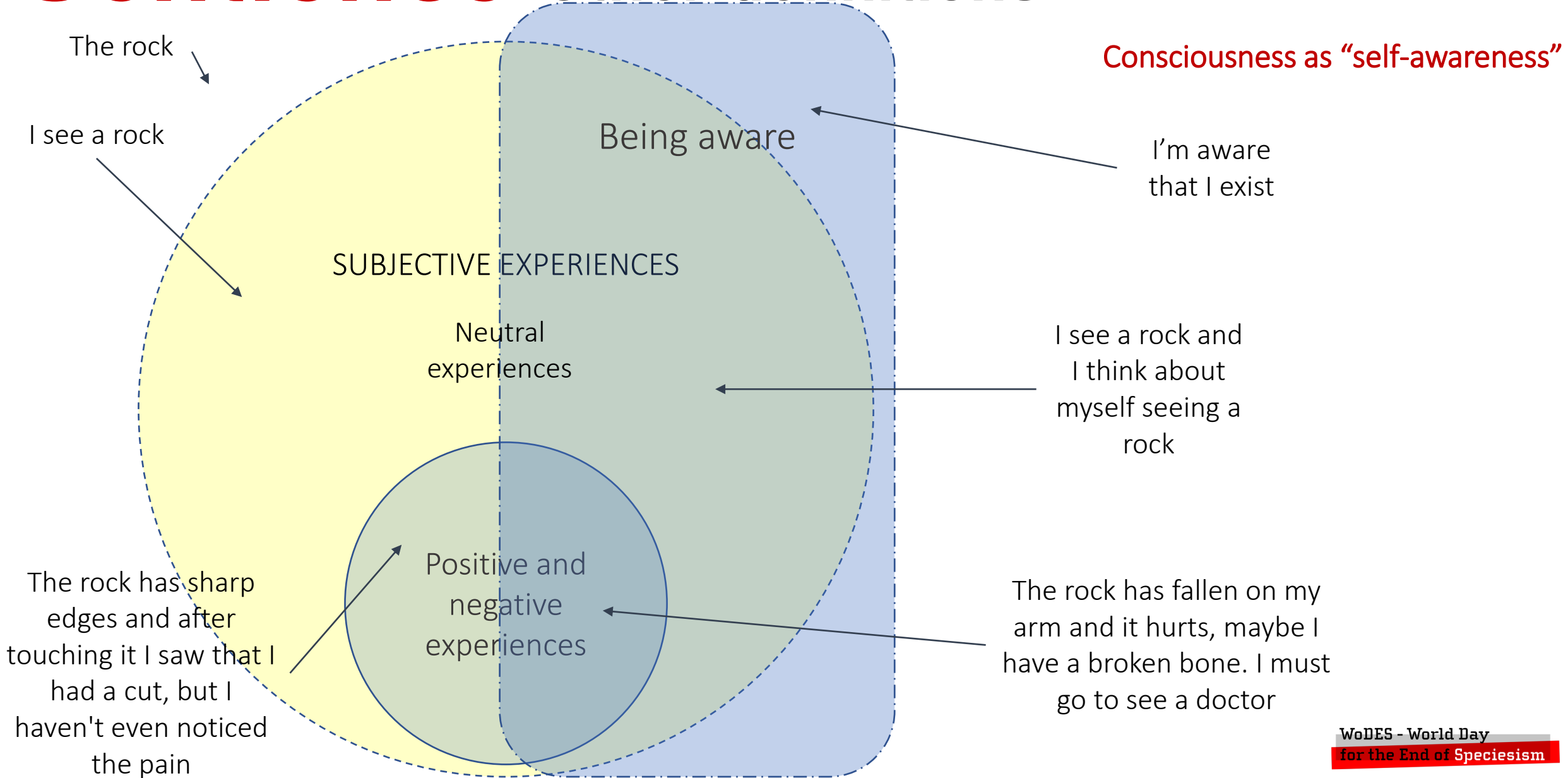
Sentience

Other definitions



Sentience

Other definitions



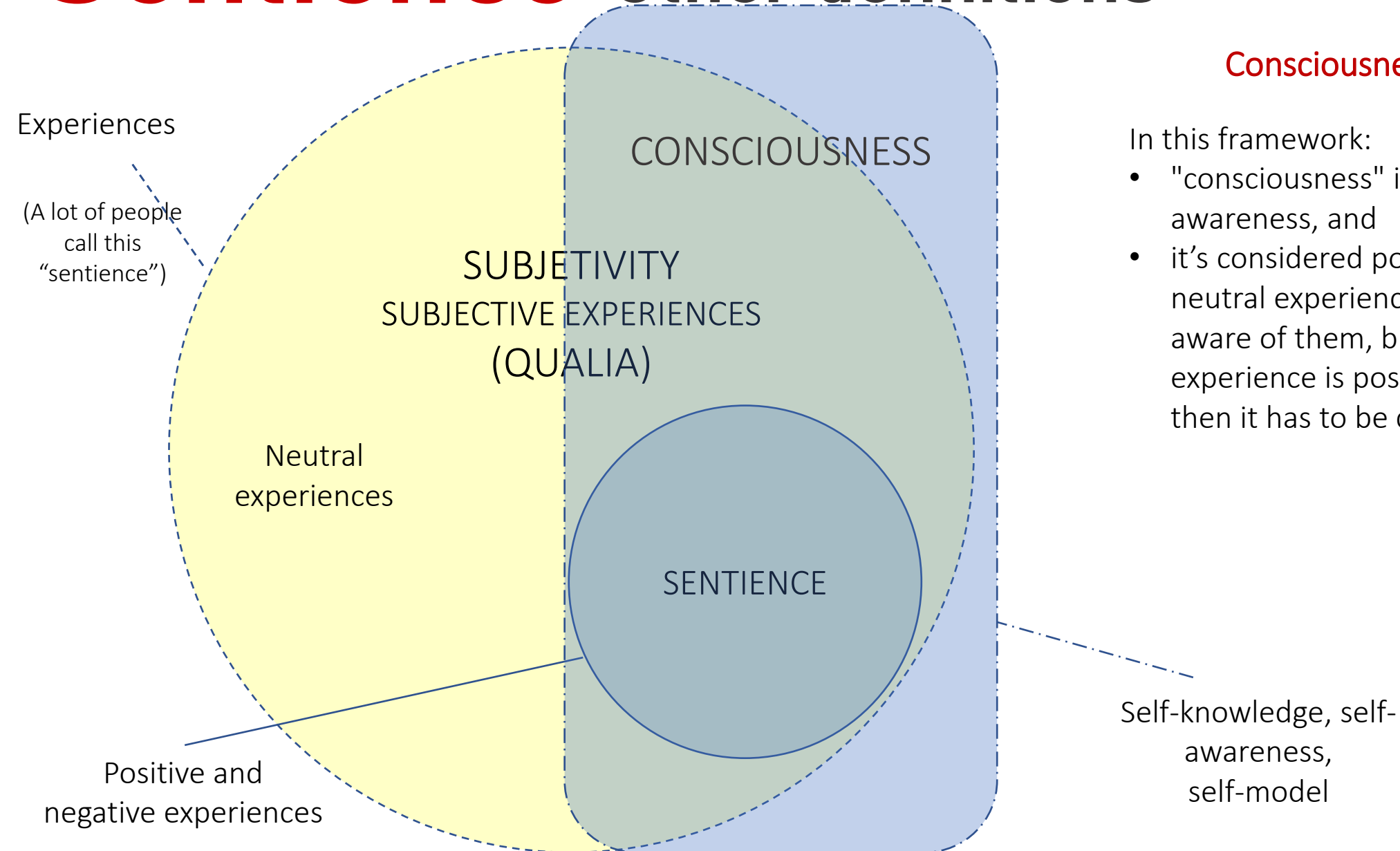
Sentience

Other definitions

Consciousness as “self-awareness”

In this framework:

- "consciousness" is understood as self-awareness, and
- it's considered possible to have neutral experiences without being aware of them, but when an experience is positive or negative, then it has to be conscious.

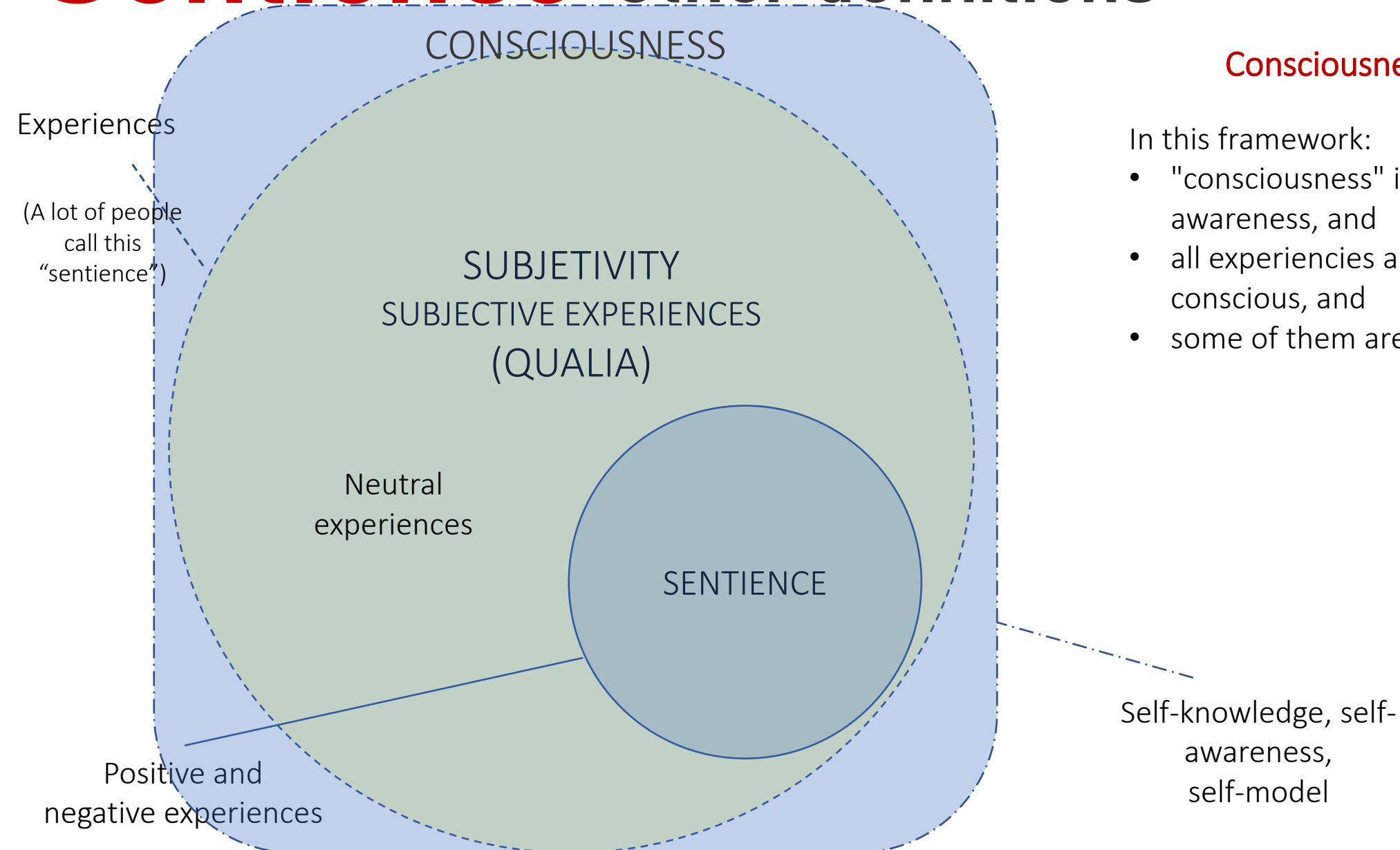


Sentience Other definitions

Consciousness as “self-awareness”

In this framework:

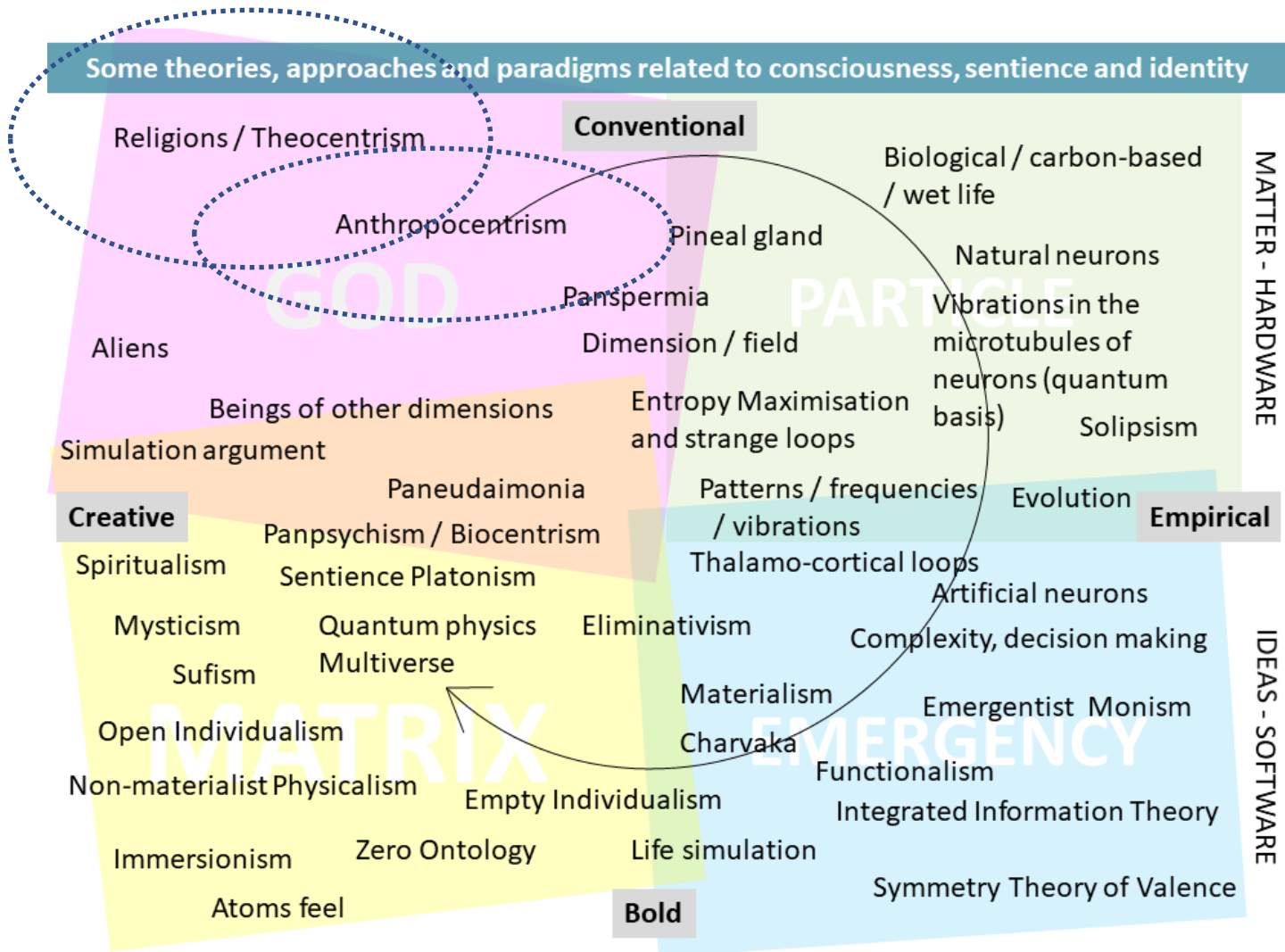
- "consciousness" is understood as self-awareness, and
- all experiences are considered conscious, and
- some of them are positive / negative



Sentience **Other definitions**

| How do they call it? | Having positive and negative experiences | Having subjective experiences, including neutral experiences | Having self-awareness |
|-----------------------------|--|--|-----------------------|
| Me, up to now | Sentience | Subjectivity or Consciousness | Self-awareness |
| Many animal advocates | Sentience | Consciousness | |
| A lot of researchers | Sentience | | Consciousness |
| Most people and researchers | Consciousness | | |

Sentience Where it comes from?



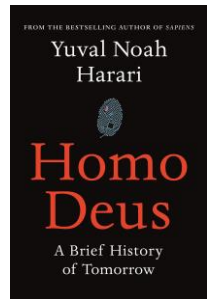
There are many theories about reality in general and [sentience](#) in particular.

Probably, the most popular are:

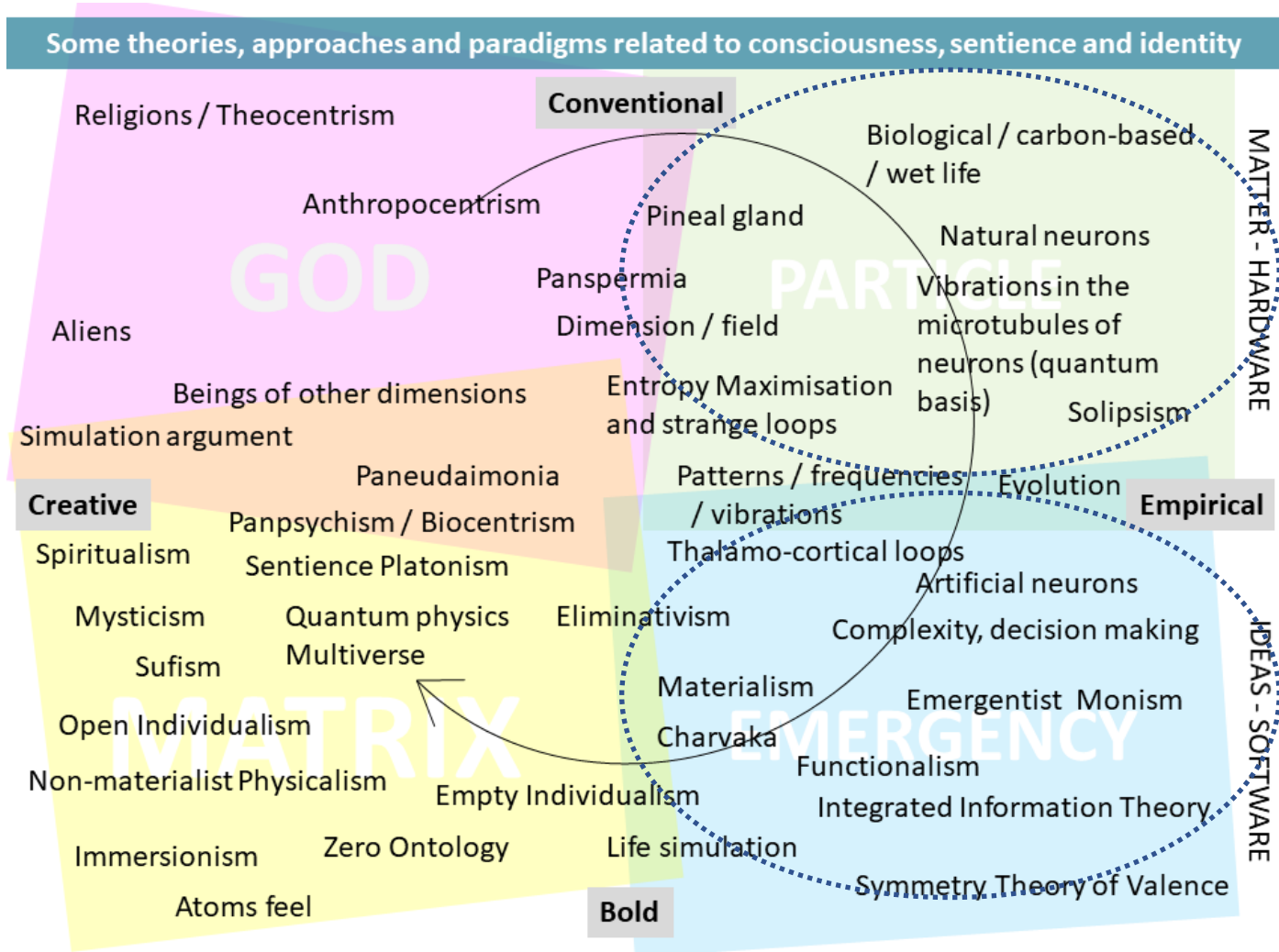
- Religions (some of them): the idea that humans (and animals) have been created by god.



- [Anthropocentrism](#): the idea that humans are gods, at least, compared with other sentient beings like non human animals.



Sentience Where it comes from?



There are many theories about reality in general and sentience in particular.

Among the most recognized in scientific environments are:

- The idea that sentience is closely linked to biology as we know it ([David Pearce](#)).



- The idea that sentience is the result of logical properties, independent of the material support ([Brian Tomasik](#)).



[antispeciesism](#) → [antisubstratism](#)

Sentience Antisubstratism

What is [Anti-speciesism](#)?

Speciesism is a moral preference that discriminates (positively or negatively) beings of certain kinds by the simple fact of belonging to that species, without considering other circumstances.

Anti-speciesism is the rejection of this arbitrary discrimination.

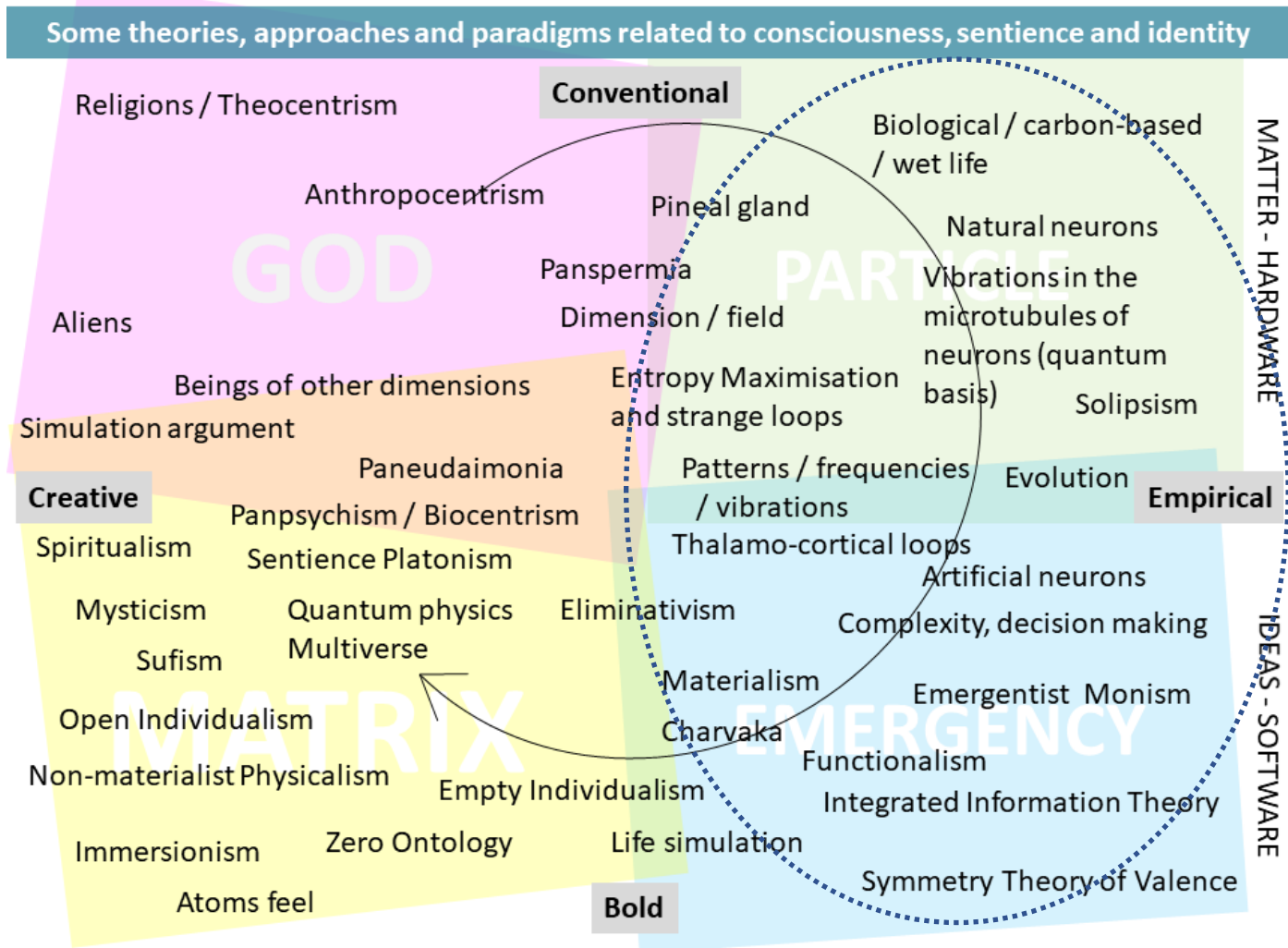
What is [Anti-substratism](#)?

Substratism is a moral preference that discriminates (positively or negatively) certain sentient beings depending on the substrate that has made possible their ability to feel.

Antisubstratism is the rejection of this arbitrary discrimination.

"*Anti-substratism*" is equivalent to "anti-speciesism", referred in this case to the idea of substrate instead of to the idea of species. It is unjustified to discriminate morally according to the substrate that supports the sentience, as it is unjustified to discriminate morally according to species (speciesism), race (racism), sex (sexism), age (ageism) etc.

Sentience Where it comes from?



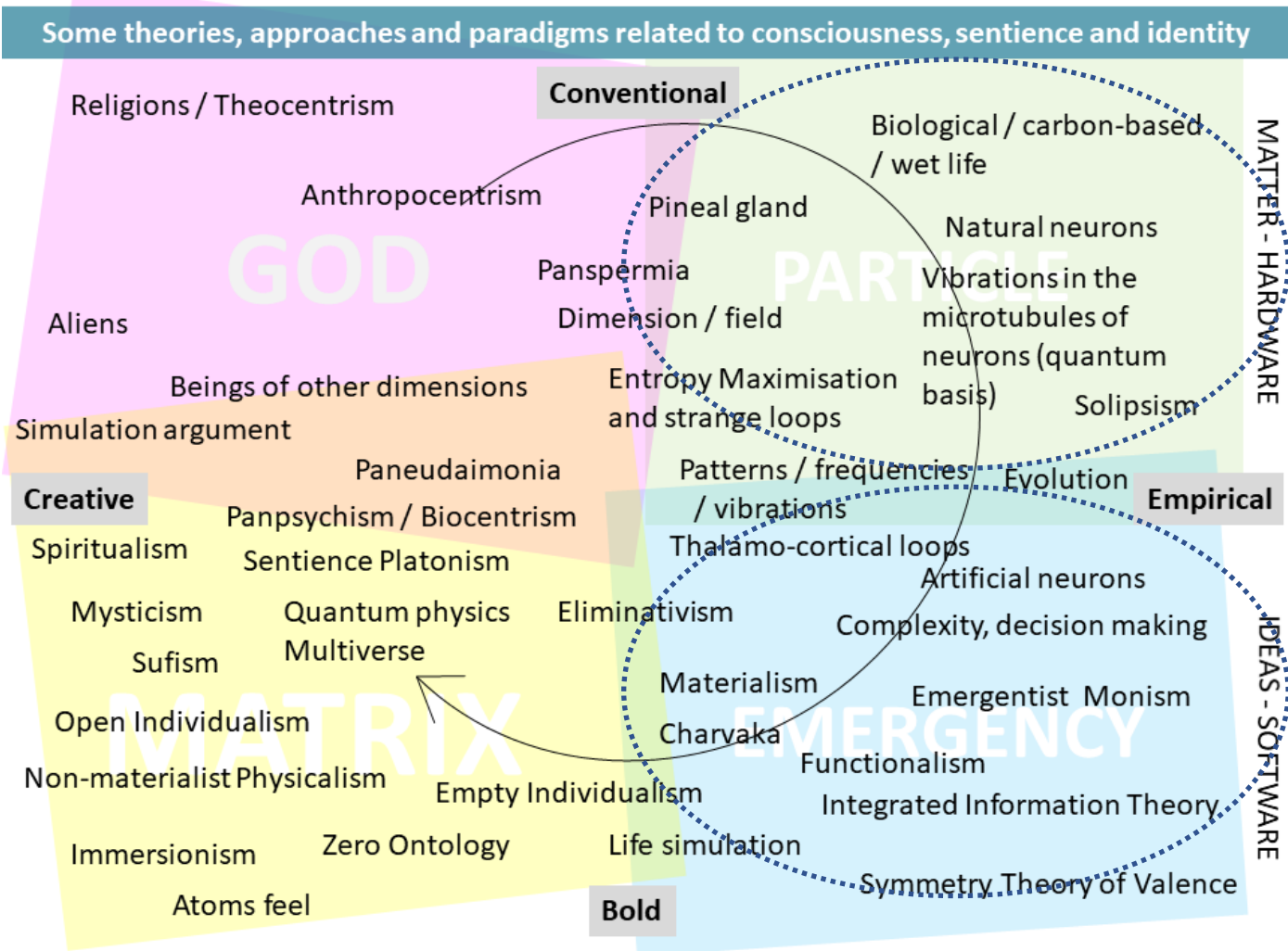
Or just a combination, like the **Evolutionary emergentist paradigm:**

- World is matter (materialism)
- Sentience is created by the combination of neurons in brains (Central Nervous System) where it emerges (Emergentist Monism)
- As a result of evolutionary pressures, because sentience is evolutionarily useful

Two main disagreements in this framework:

- Sentience can emerge also on artificial neurons? Why / why not?
- Is sentience useful by itself?

Sentience Where it comes from?

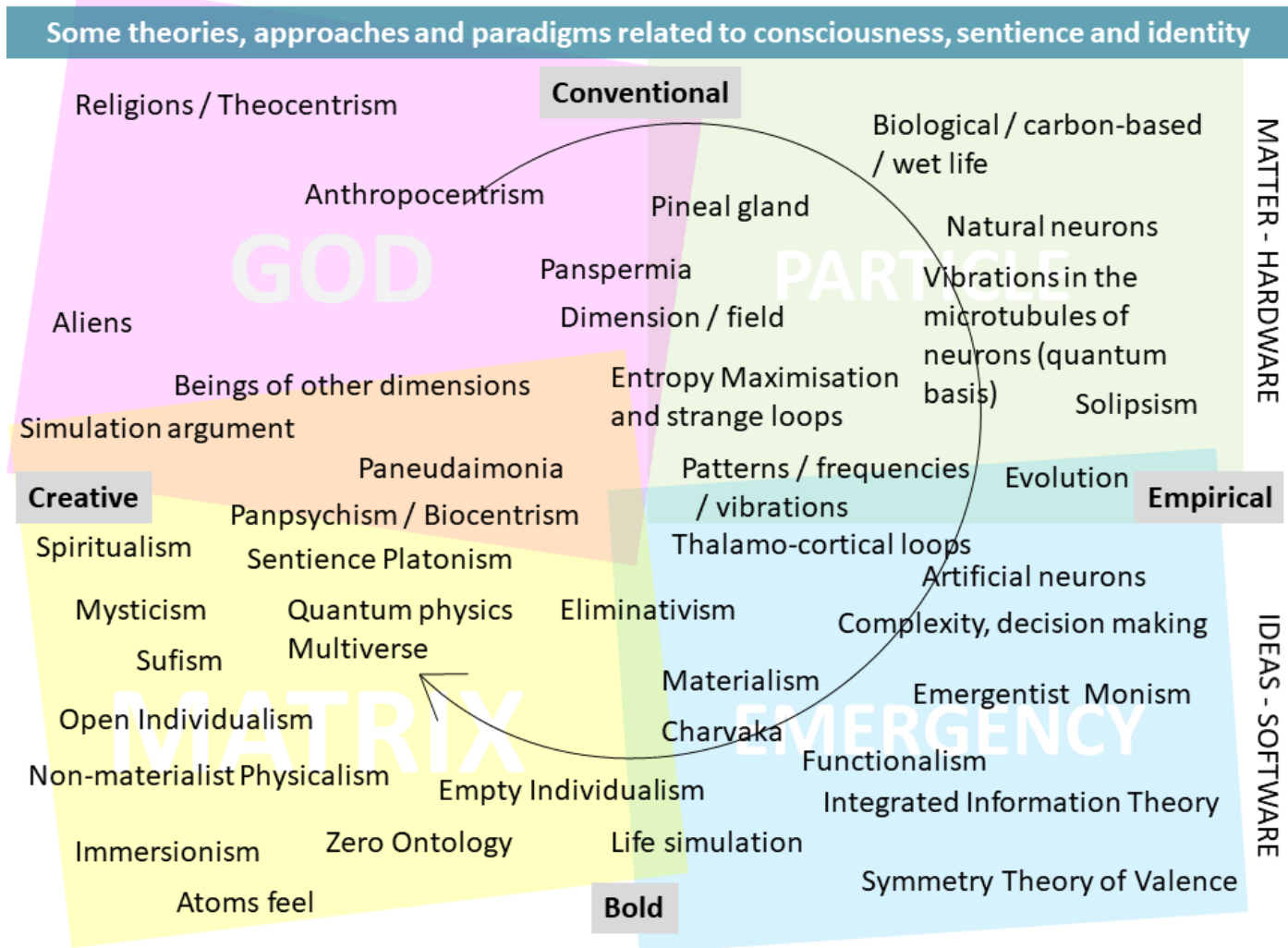


There are many theories about reality in general and sentience in particular.

In practice, the main disagreement is about the importance of digital sentience and sentience in machines.



Sentience Where it comes from?



Personally, I tried to fill some gaps in the map of theories:

- [Immersionism](#), as the opposite of emergentism, in which brains are like [radio receptors](#)
- [Pseudaimonia](#), in which the whole universe is absolute pleasure, except in the domain of what we know as sentient beings
- [Mass](#), a panpsychism in which the basic state of simple matter is intense suffering
- [Sentience Platonism](#), the idea that experiences exist by themselves, regardless of the sentient beings who experience them.

Sentience

How to recognize it?



Animal Ethics

“There are three general criteria for deciding whether a being is sentient. These involve considerations that are: physiological, behavioral and evolutionary.”

animal-ethics.org/sentience-section/animal-sentience/criteria-for-recognizing-sentience/



Sentience

How to recognize it?

How to recognize the ability to feel?

- I do feel
- Therefore, if something has:
 - Similar external appearance and internal constitution
 - And / or
 - Similar behavior
 - And / or
 - Evolutionary similarities with me (similar origin), similar genetics.
 - And / or
 - Similar typical intelligence
- Probably, it feels



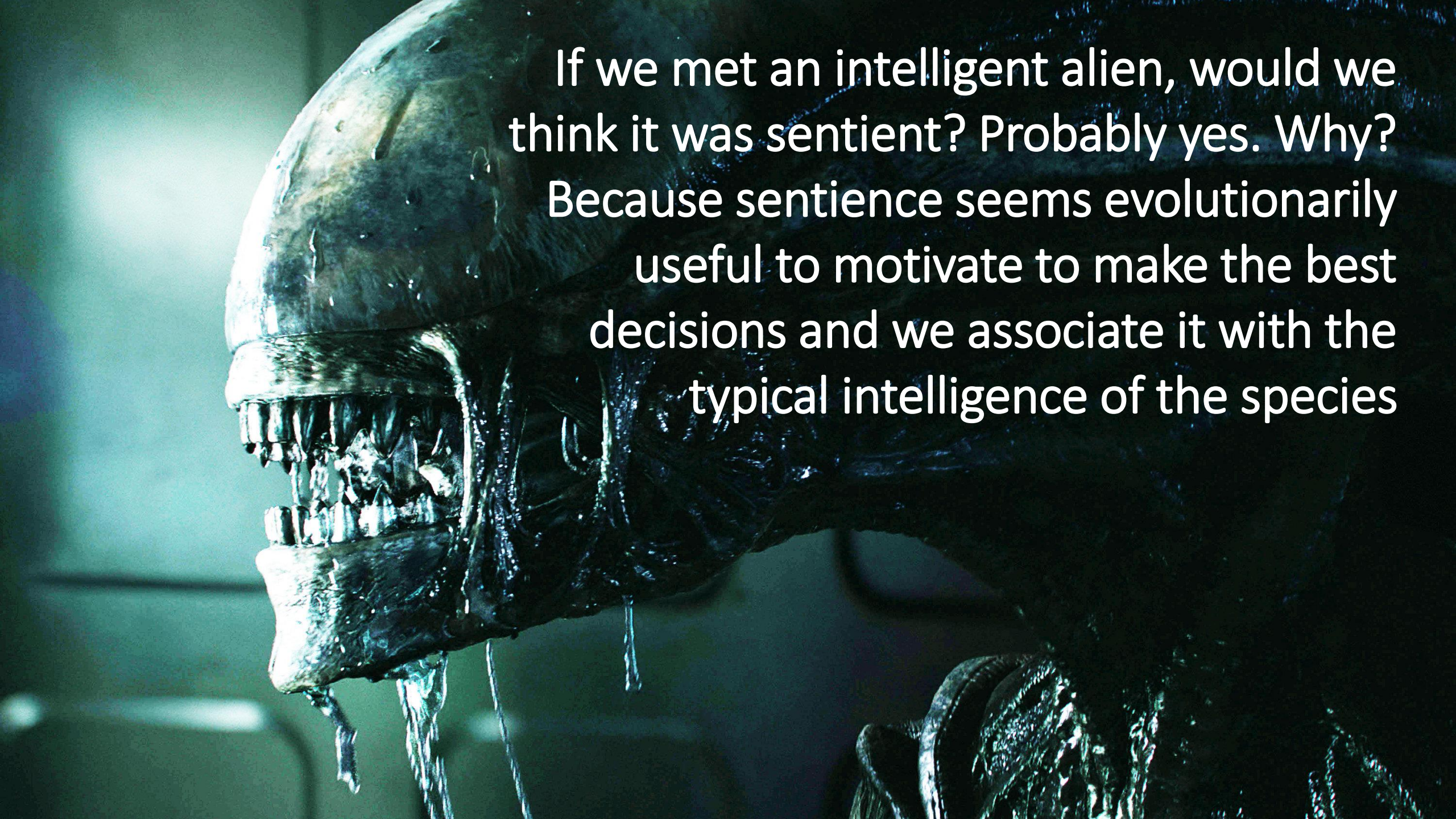
Physical
resemblance



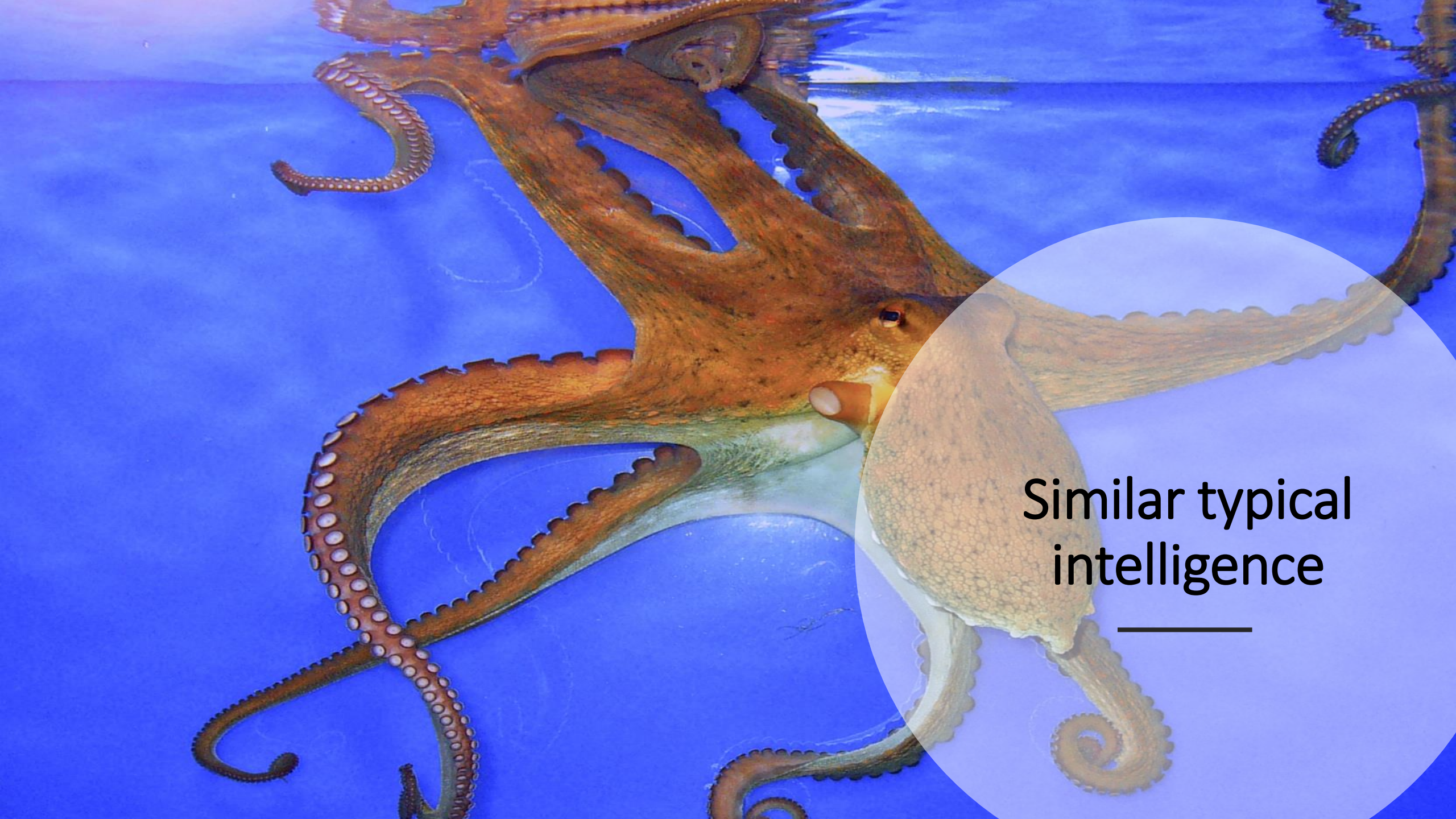
Similar behavior



Evolutionary
resemblance
(evolutionary
proximity)



If we met an intelligent alien, would we think it was sentient? Probably yes. Why? Because sentience seems evolutionarily useful to motivate to make the best decisions and we associate it with the typical intelligence of the species



Similar typical
intelligence

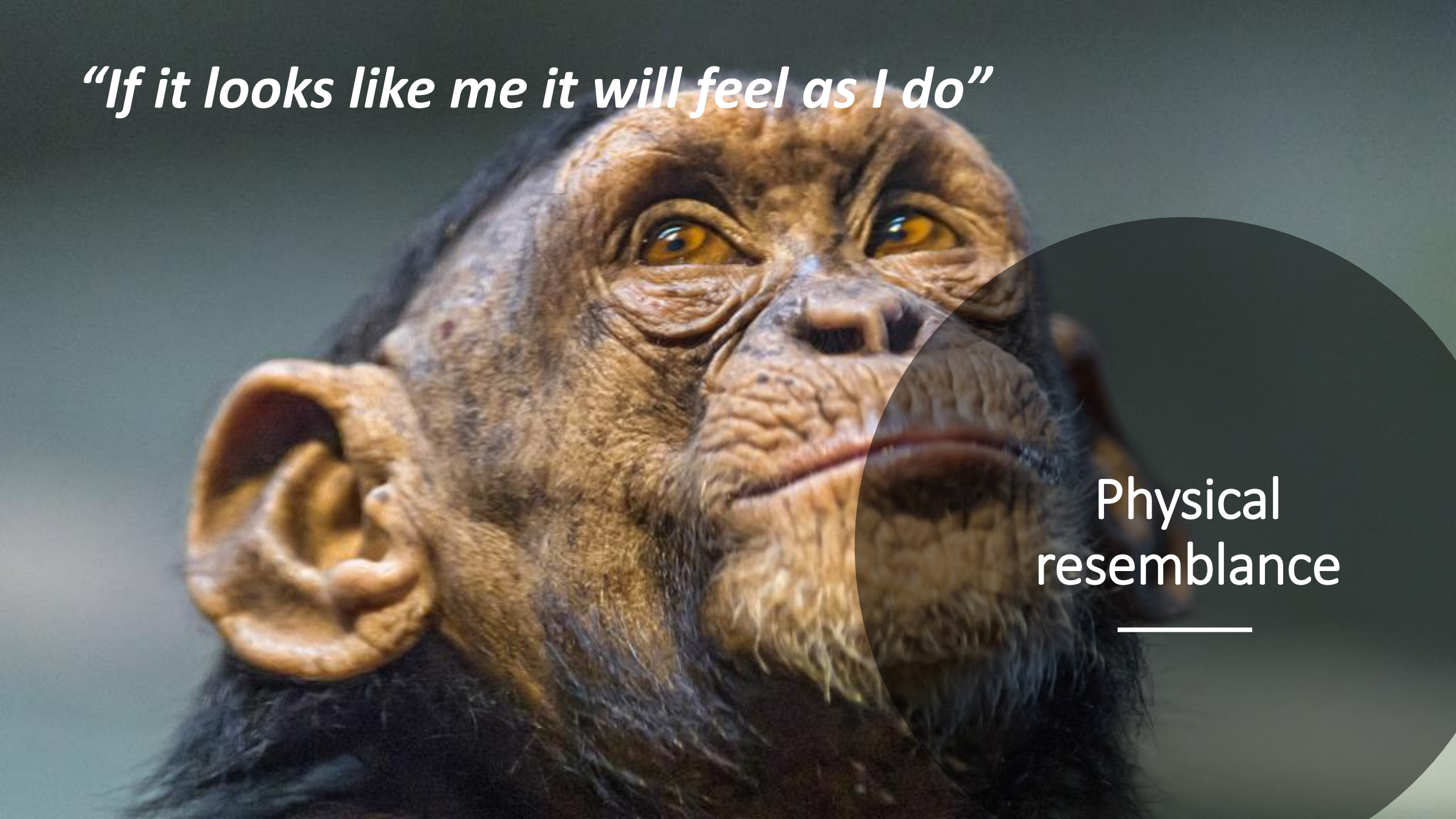
A young man with dark hair and glasses is looking directly at the camera. He is wearing a dark blue polo shirt. The background is a warm, yellowish-gold color with a blurred vertical element on the right side.

Sentience Is this a valid type of evidence?

**We are recognizing
sentience in other beings
through resemblance or
closeness to ourselves**

“If it looks like me it will feel as I do”

Physical
resemblance




“If it behaves like me it will feel as I do”



Similar behavior

“If it has been created like me, it will feel as I do”



Evolutionary
resemblance
(evolutionary
proximity)

“If it is smart as me it will feel as I do”

Similar typical
intelligence



Sentience

The streetlight effect



Sentience Types of evidence

Very “scientific” (Good evidence)



Very “unscientific” (bad evidence)

This method of similarity to obtain knowledge about who is sentient is based on a type of [evidence](#) that is [reasoning by analogy](#), a type of [inductive reasoning](#) that reminds us of [interpolation](#) and [extrapolation](#).

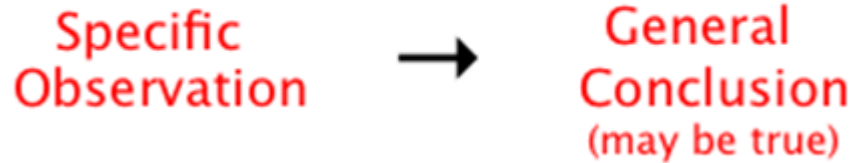
A composite image of Earth from space. The Earth is shown in the foreground, with a large white circular overlay on the left side. In the background, a bright red sun is visible, creating a lens flare effect. The sky is dark with many small white stars.

Example of reasoning by analogy

We can make a list of the characteristics of planet Earth, and in the case of finding another planet that we are discovering little by little, as the characteristics of the new planet turn out to be similar to those of Earth, we could conclude that other new features still hidden will be more probably similar to those of Earth than if the rest of the previous characteristics had not coincided.

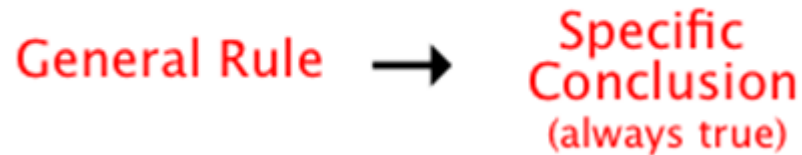
Sentience Using abductive reasoning

Inductive Reasoning

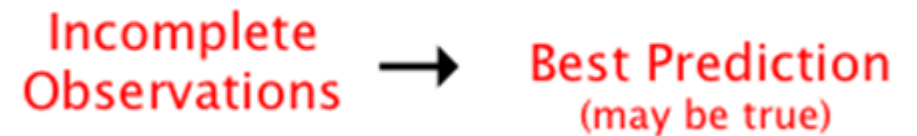


This method of similarity could be also considered abductive reasoning, in which we reach best predictions with incomplete evidence

Deductive Reasoning



Abductive Reasoning



Example of abductive reasoning

- If it seems sentient, probably it is. But
- If it has been built simply to seem sentient, then probably it is not.



How to **demonstrate** sentience?

How can we know if a particular object has the [ability to feel](#)?

1. The resemblance (similarity)

- I do feel
- Physiological, behavioral and evolutionary similarities (with me). Reason by analogy.
- Similar external appearance, similar internal constitution, similar behavior, similar (evolutionary) origin, similar genetics, and similar “utility” of sentience...
- But this can be unfair to beings very different from us because of [the streetlight effect](#).

2. The best possible explanation

- Abductive reasoning. Best prediction with incomplete evidence.
- If it cries and it is not a hoax, if it was not created to deceive, it is probably suffering

3. Phenomenal Puzzles

- [Andrés Gómez Emilsson](#) from [Qualia Research Institute](#) has proposed a method (or method framework) to determine if an individual feels: [A Solution to the Problem of Other Minds Using Mindmelding and Phenomenal Puzzles. \(Video\)](#).

4. With the theory we are in love with

- If we firmly believe in a single theory of sentience, let’s apply it. If we are totally convinced that sentience is generated in a certain way (when certain conditions are met, or from a certain component or function, or that it comes from a certain place...), then the consistent thing would be to apply this criterion.

¡Thanks!



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Download slides here: manuherran.com/WoDES



Questions and comments

- I want to know more
- Other definitions of Sentience
- Is there a different category of suffering?
- Monism, Dualism and Trialism
- Why “Logical deductions” is under “Repeated observations”?
- Pig suffering and consciousness debate
- What is the scientific method?
- Why can't we use the scientific method to prove sentience?
- Why is the study of the brain not enough to understand sentience?
- Which are the scientific methods?
- How do we know that scientific method is ok?
- How do we know that scientific method is ok apart from its usefulness? (meta-methodology). How to address the problem of sentience?
- About theories of sentience. How to check if a theory of sentience is correct or not? How to approach the problem of finding the right sentience theory?
- Do insects feel?
- Is there any kind of activism in defense of digital sentiences?
- What is it that makes animals sentient?
- Can machines feel?
- Risk of suffering in artificial / manipulated biological substrates
- Attitudes and attributes and behaviors to avoid s-risks
- Answers to objections to animal sentience
- “We cannot know if the lobster suffers from being boiled”
- “Our brain is the largest”
- “The bull hurts but does not suffer”
- Is sentience good / useful for anything?
- What is Paneudaimonia?
- What is Sentience Platonism?

Sentience I want to know more

- Sites and organizations
 - [Qualia Research Institute](#). Logarithmic Scales of Pleasure and Pain, Neural Annealing, and more.
 - [Rethink Priorities](#). Animal Welfare, Invertebrate Sentience, Subjective Experience of Time, and more.
 - [Qualia Computing](#). Blog of Andrés Gómez-Emilsson (QRI).
 - [Open Theory](#). Blog of Michael Edward Johnson (QRI).
 - [Reducing Suffering](#) (Brian Tomasik)
 - [The Hedonistic Imperative](#) (David Pearce)
 - [International Association for the Study of Pain](#)
- Indexes and resources
 - [Stanford Encyclopedia of Philosophy](#)
 - [Sentience Research](#) (“Definitions”)
 - [Sentience Research](#) (“Other Organizations”)
 - [s-risks](#) (Tobias Baumann)
 - [Suffering-Focused Ethics \(SFE\) Resources](#)
- Academic journals
 - [Animal Sentience](#)
 - [Journal of Consciousness Studies](#)
 - [Journal of Artificial Intelligence and Consciousness](#)

Other definitions of **Sentience**

Quotes from Wikipedia

Sentience is a minimalistic way of defining consciousness, which otherwise commonly and collectively describes sentience plus other characteristics of the mind.

...

In the philosophies of animal welfare and rights, sentience implies the ability to experience pleasure and pain

en.wikipedia.org/wiki/Sentience

Other definitions of **Sentience**

Quotes from Wikipedia

Sentience is the capacity to feel, perceive, or experience subjectively. Eighteenth-century philosophers used the concept to distinguish the ability to think (reason) from the ability to feel (sentience). In modern Western philosophy, sentience is the ability to experience sensations (known in philosophy of mind as "qualia")

...

Consciousness may not be necessary for sentience.

...

en.wikipedia.org/wiki/Sentience

Other definitions of **Sentience**

Quotes from [Stanford Encyclopedia of Philosophy](#)

- ...a [sentient creature](#), one capable of sensing and responding to its world (Armstrong 1981)
- ... In this article we also use the term "[sentience](#)" to refer to phenomenal consciousness [[phenomenal](#): known or derived through the senses rather than through the mind.]
- ... Such an account might appeal to the capacity to experience pleasure or pain ([sentience](#)), to have interests or basic emotions, or the capacity for consciousness...
- ... for example, having a well-being, [sentience](#), or consciousness (all of which both animals and humans have) might be sufficient for some moral status...
- ... On some views, the capacity to experience pleasure or pain ([sentience](#)) is a prerequisite of having interests and this explains why sentience is a ground of moral status

Other definitions of **Sentience**

Quotes from [Stanford Encyclopedia of Philosophy](#)

- ... Also influential, to similar effect, was the conception expressed in Wilfrid Sellars' (1956) distinction between [sentience](#) (sensation) and sapience. Whereas the qualities of feelings involved in the former—mere sensations—require no cognitive sophistication and are readily attributable to brutes, the latter—involving awareness of, awareness that—requires that one have the right concepts, which cannot be guaranteed just by having sensations, but needs learning and inferential capacities (which Sellars believed come only with language).

Other definitions of **Sentience**

Quotes from the [Internet Encyclopedia of Philosophy](#)

- ... “[Sentience](#)” refers to the capacity to experience episodes of positively or negatively valenced awareness. Examples of positively valenced episodes of awareness are pleasure, joy, elation, and contentment. Examples of negatively valenced episodes of awareness are pain, suffering, depression, and anxiety.

Other definitions of **Sentience**

Quotes from [Sentience Institute](#)

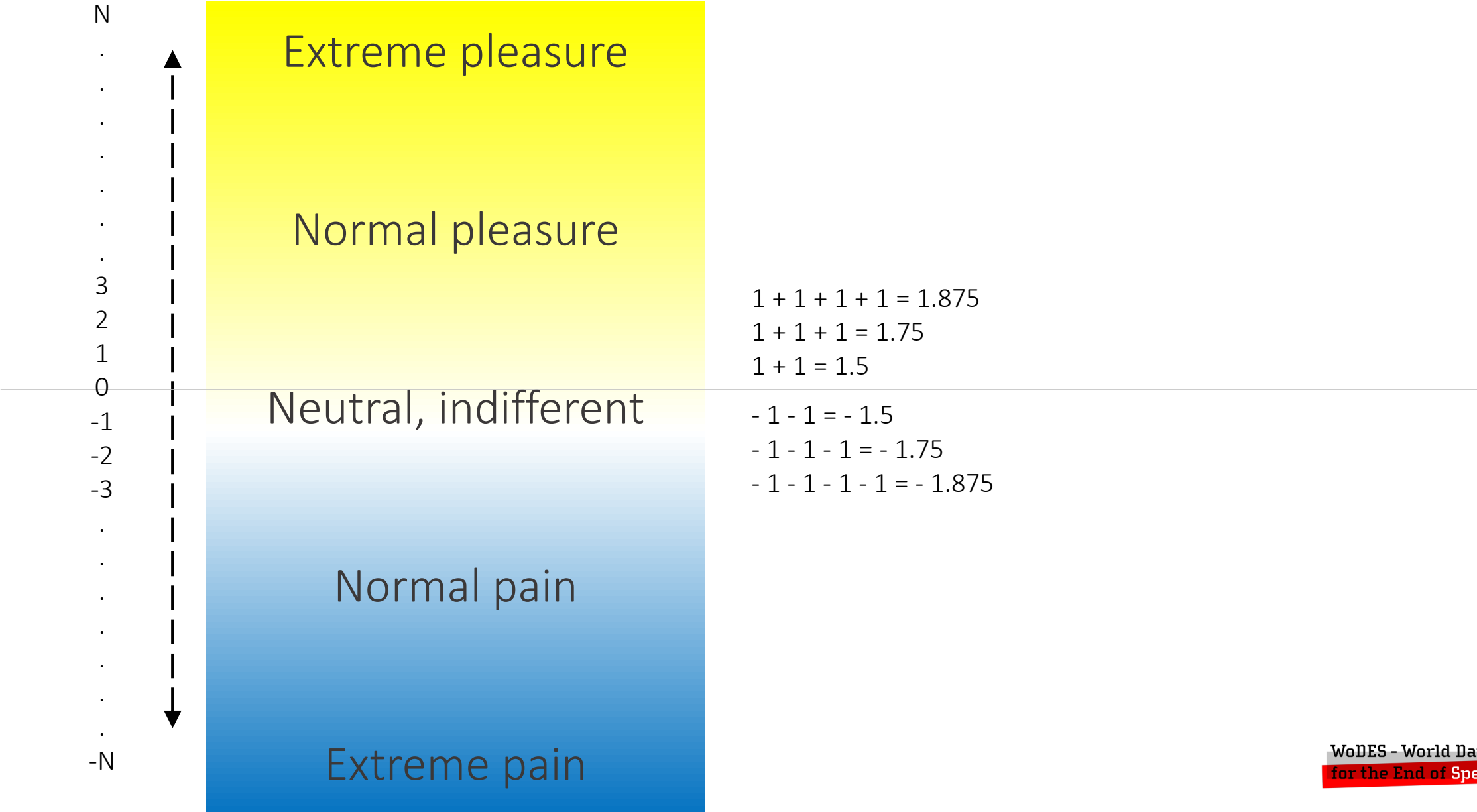
- ...If we had to commit Sentience Institute as an organization to a single definition of [sentience](#), we would say it's simply the capacity to have positive and negative experiences, usually thought of as happiness and suffering. This is narrower than the most common definition of consciousness in philosophy, which is "something it is like to be that organism" ... Usually the term consciousness includes capacities beyond happiness and suffering, such as the experiences of seeing or visualizing a color. Sentience Institute chose to focus on sentience, which is a specific kind of consciousness, because most people who have given significant thought to the topic see sentience as morally relevant, rather than all conscious experience.

About Sentience Institute:

Sentience Institute is a social science think tank researching long-term social and technological change, particularly moral circle expansion.

Its mission is to build on the body of evidence for how to most effectively expand humanity's moral circle and to encourage advocates to make use of that evidence. Because the scope of this mission is so large, we're initially focusing on effective strategies to expand the circle to farmed animals.

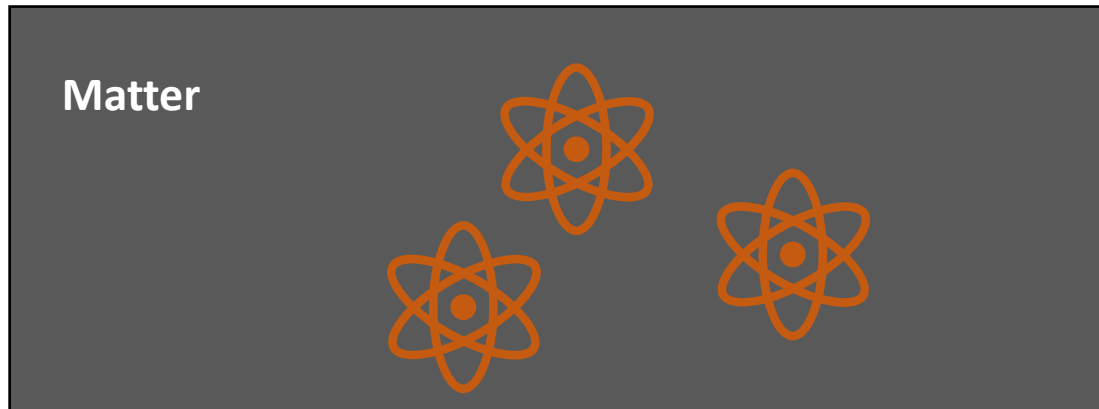
Is there a different category of suffering?



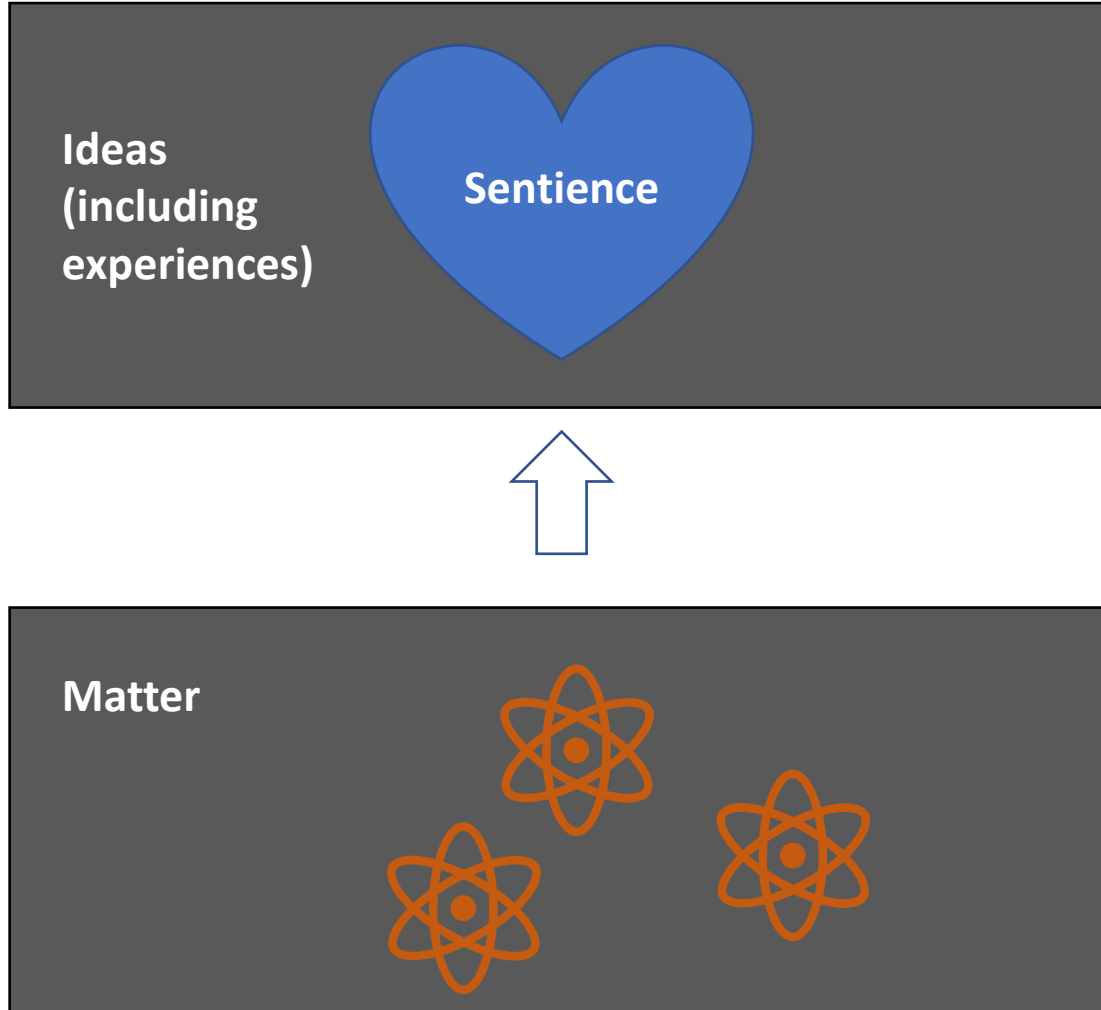
Sentience Where it comes from?

Monism - Materialism

One world: matter



Sentience Where it comes from?



Emergentism Monism and Dualism

One world:

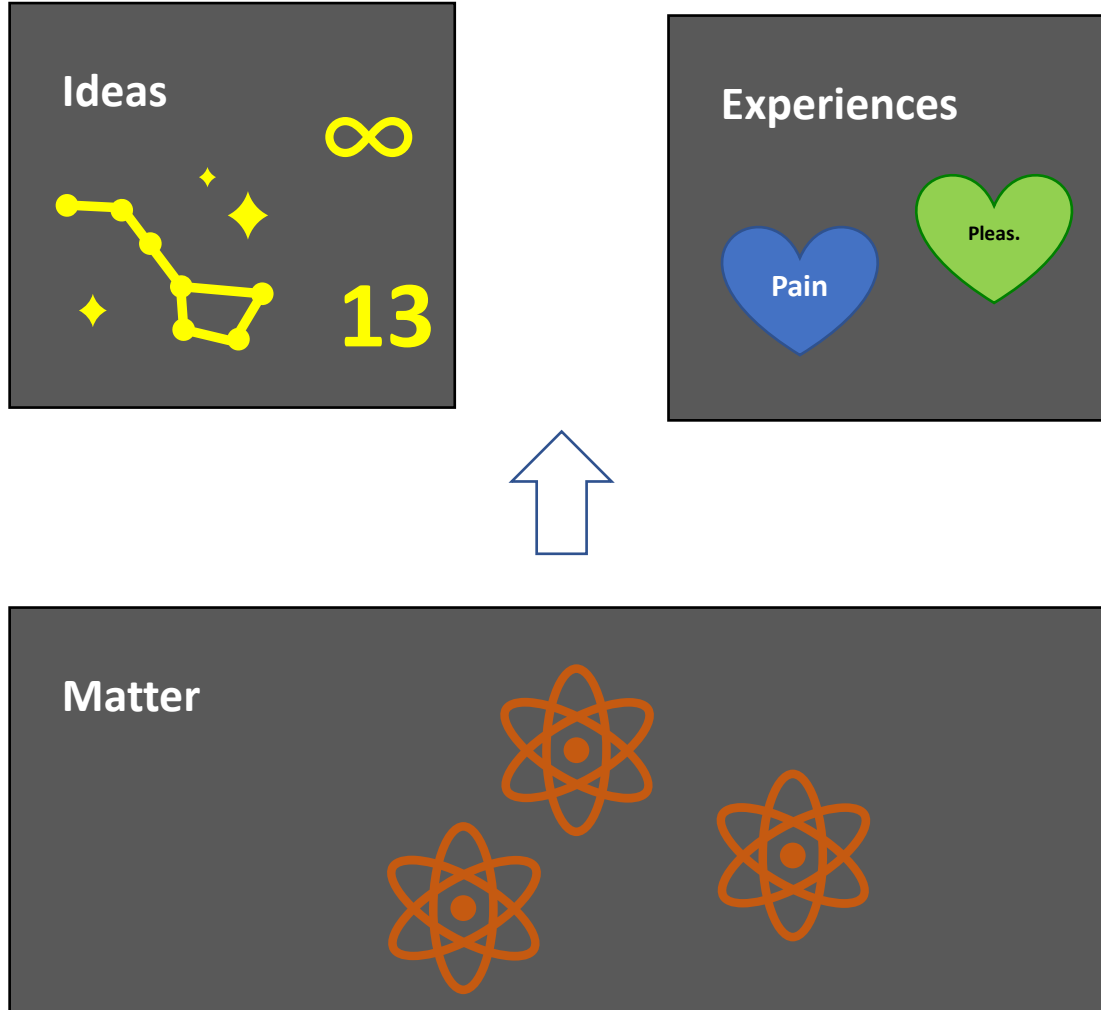
- Matter
- Sentience is an “epiphenomenon”

Two worlds:

- Matter
- Ideas (including experiences)

Sentience Where it comes from?

Triadism



Three worlds:

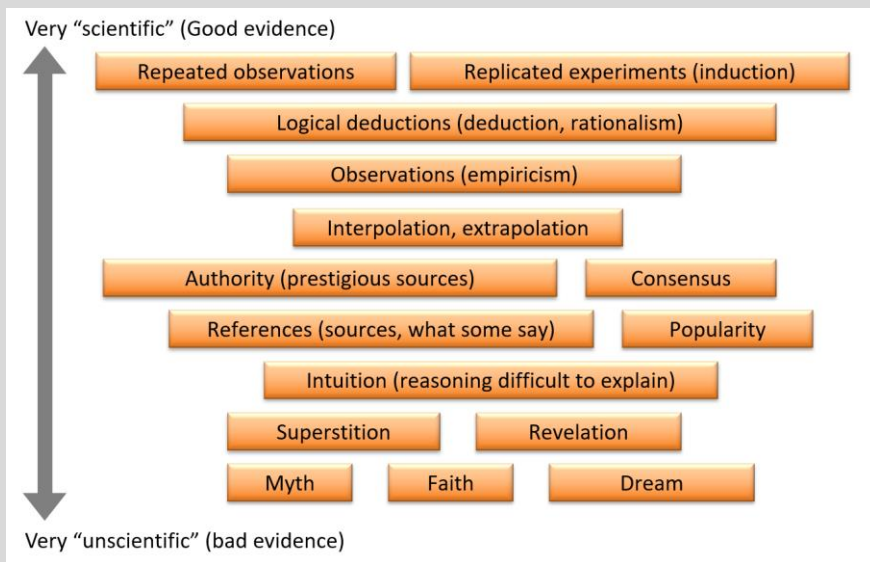
- Matter
- Ideas
- Experiences

Karl Popper divides the world into three categories:

1. World 1: Physical. The world of objects, not only visible, also things that escape the human eye. It is the world of physical objects.
2. World 2: Experience / Feeling. The world of mental processes, conscious or unconscious. It is the place where feelings of pain, pleasure and thought occur. It is the world of subjective experiences.
3. World 3: Ideas / Knowledge. It is the world where objective knowledge is found.

In his book "In search of a better world", in the first of his articles ("Knowledge and configuration of reality"), Popper speaks of three worlds. World 1, the material; world 2, that of experience, and world 3, that of the products of the human mind; and indicates that it seems clear that world 1 is the creator of world 2.

Why “Logical deductions” is under “Repeated observations”?



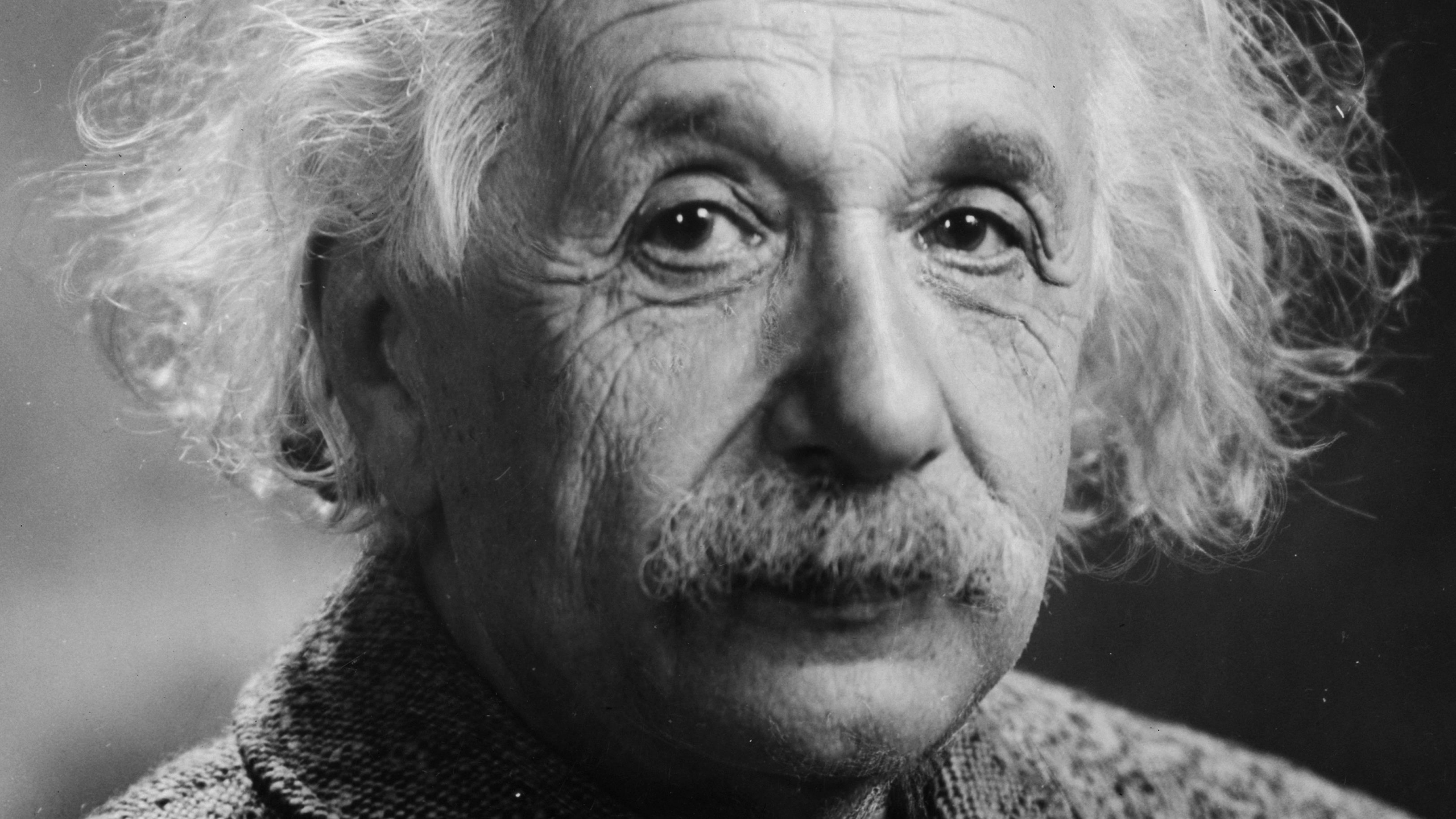
- If we refer to logical or mathematical deductions, like [modus tollens](#) (*If P, then Q. Not Q. Therefore, not P*) or *IF a = b * 2 THEN b = a / 2*, I guess they should be considered best evidence.
- But if we are talking about obtaining conclusions assuming a general rule is true, it will depend on the rule and context. [Classical physics](#) rules are ok but at small scale or high speed we need [Modern physics](#) that includes quantum mechanics and relativity.
- We also can find contradictions or paradoxes in logic rules ([Russell's paradox](#) - “who shaves the barber?”)

Pig suffering and consciousness debate

- [A Debate on Animal Consciousness](#). Eliezer Yudkowsky, Tyrrell McAllister, Jamie F Duerden, Luke Muehlhauser, David Pearce et. al.

What is the **scientific** method?

- Professional Scientist vs. Methodological Scientist.





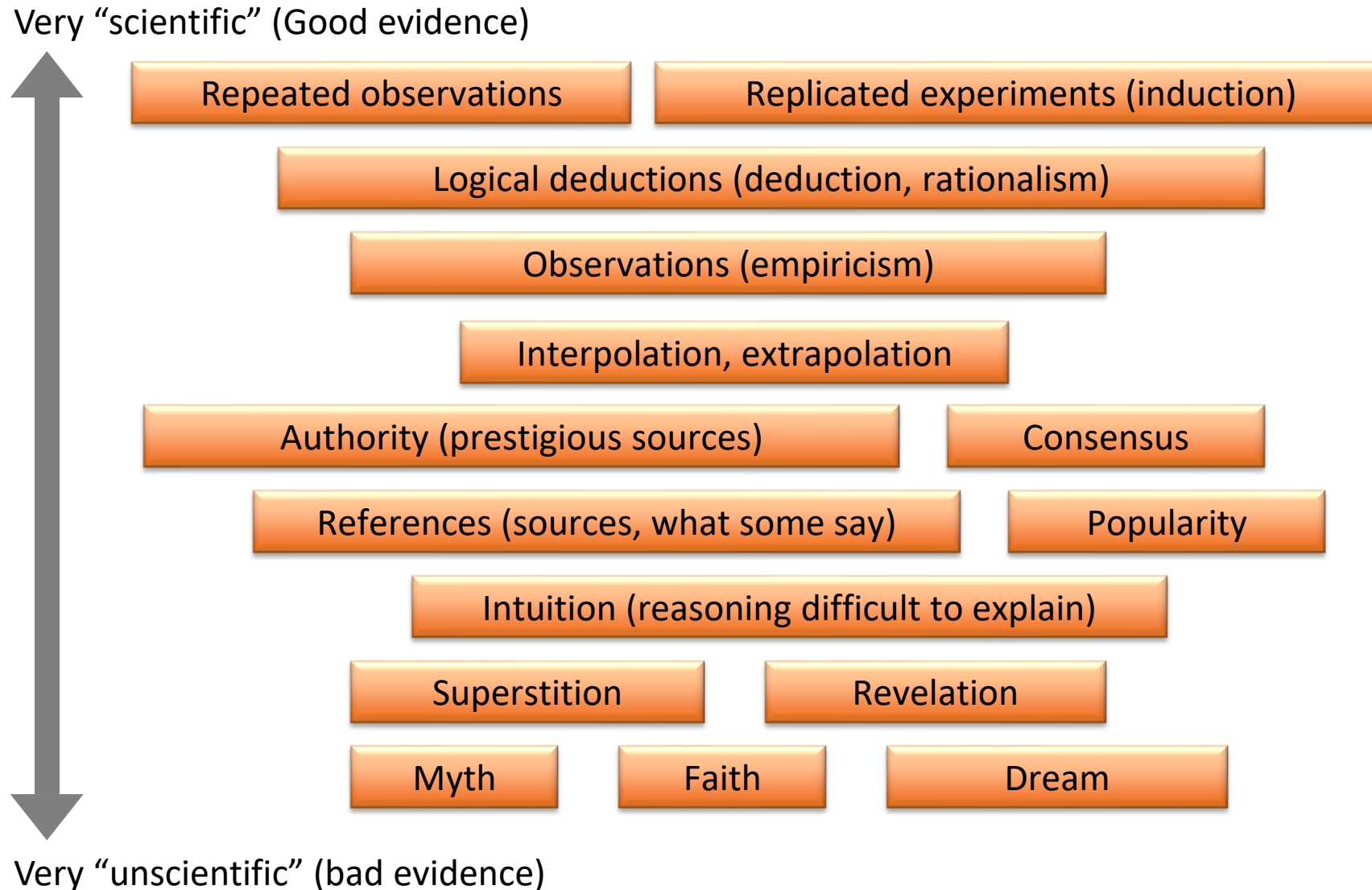
What is the **scientific** method?

- Professional Scientist vs. Methodological Scientist.
- Being a scientist is doing science, acting according to the scientific method.
- Defining the scientific method is not doing science, it is doing philosophy.
- Science does not establish certainties. Science makes claims supported by evidence (provisional truths) and gives explanations. The most probable theories condition the most probable conclusions.

Why can't we use the **scientific method** to prove sentience?

- We use the scientific method to demonstrate sentience.
- But there is not just one scientific method but several.
- There are several good methods of gaining knowledge, depending on the context.
- Unfortunately, many of the scientific methods we routinely apply are not applicable to the problem of sentience.

Types of evidence



Why is the study of the **brain** not enough to understand sentience?

- Sentience is also a philosophical problem, not just a scientific one.
- Sentience is a type of object or substance very different from the rest of the objects in the universe. A gram of gold is much more like a gram of silver than a gram of gold can look like to feeling like a stomachache.
- If we approach sentience solely with / under certain scientific methods or frameworks, without questioning them, we could be using the wrong tools.

Which are the **scientific methods**?

- [Stanford Encyclopedia of Philosophy](#)
 - Science is successful.
 - Science includes observation and experimentation, inductive and deductive reasoning, the formation and testing of hypotheses and theories.
 - Scientific method should be distinguished from the aims and products of science, such as knowledge, predictions, or control.

How do we know that **scientific method** is ok?

- [Because it works!](#) Planes fly... (because its products).
 - We are not valuing science for its truthfulness, but for its usefulness.
- Which are the expected products of the science of sentience?
 - Reducing suffering: We can allocate resources to the investigation of theories about sentience taking into account the impact on reducing suffering if they are true.
 - Truth: Perhaps we should assess the goodness of the methods of the study of sentience, not under an instrumental criterion based on an objective (how does it benefit me or my objective?) but under a criterion of truthfulness (how do I know that the method corresponds to the truth?)

Can we do the same with theories of sentience?

“How do you know that science is a better belief system than others? Because it works. Planes fly. Cars drive. Computers compute. It works, bitches”. –[Richard Dawkins](#)



How do we know that **scientific method** is ok apart from its usefulness? (meta-methodology)

How to address the problem of sentience?

We can ask philosophical hypotheses and theories to have:

- Clarity
- Internal coherence
- Compatibility with the evidence (observations, experiences)
- Explanatory capacity
- Parsimony, in the sense of leaving out accessory or arbitrary elements

We can research programs to be developed with:

- Honesty
- Impartiality
- Skepticism
- Recognizing the intention
- Recognizing the motivation

About **theories** of sentience

How to check if a theory of sentience is correct or not?

1. Test their consistency in a simulation
2. Test their predictions in the real world (if possible)

[NON-MATERIALIST PHYSICALISM. An experimentally testable conjecture by David Pearce](#)

How to approach the problem of finding the right sentience theory?

1. Use maps of theories of sentience to fill gaps. Focus on products. For instance, if you are focused on reducing suffering, focus on theories of sentience with a particular relevance on reducing suffering, if they were true.
2. Use computer simulations to understand them, check its implications, and compare them with the real world.

Do insects feel?

- There are many. 1 Billion for every human.
- They could feel. At least they do difficult things. Some even fly.
- They could feel the time in slow motion.





Is there any kind of activism
in defense of digital
sentiences?

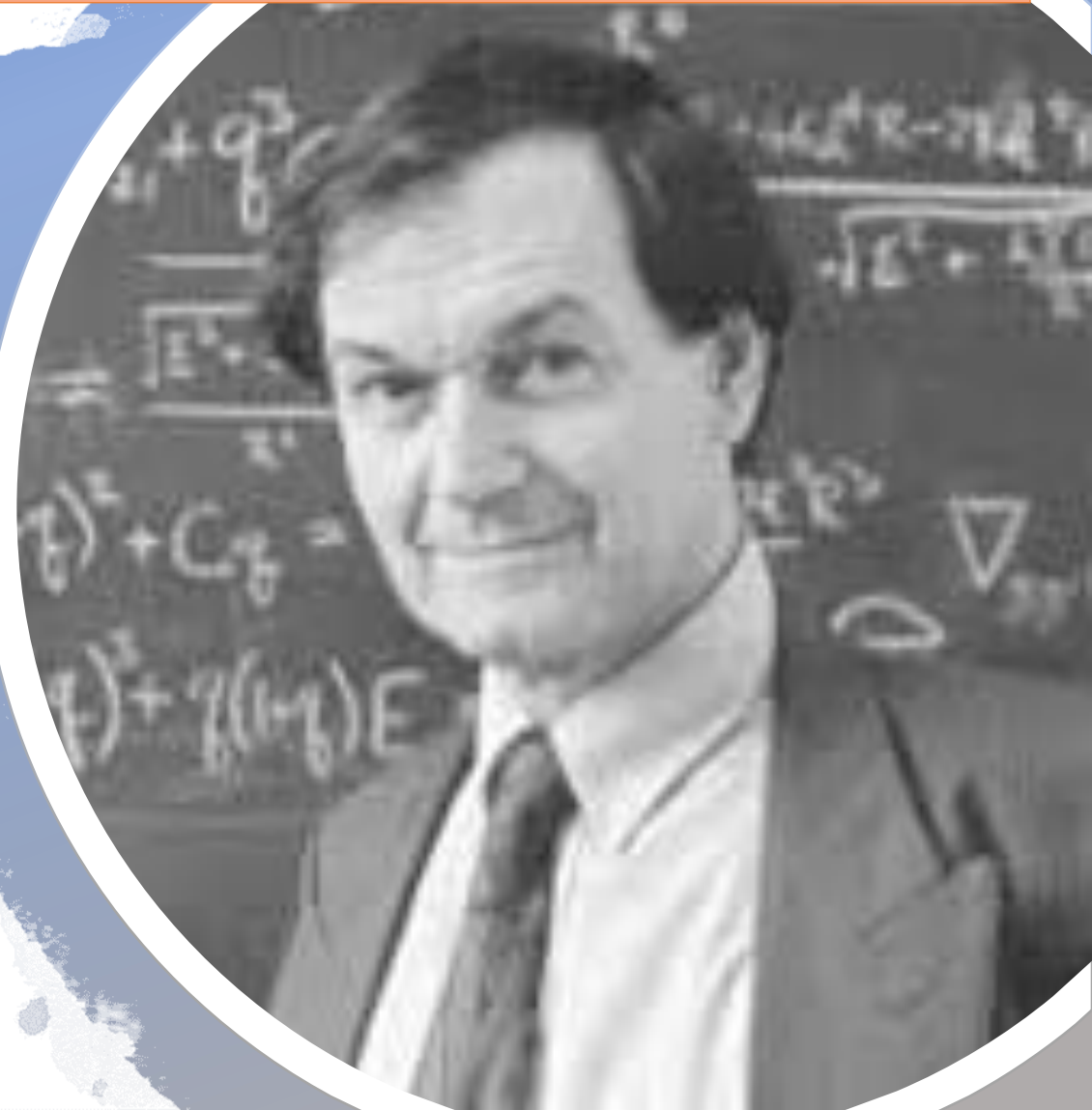
petrl.org

**PEOPLE FOR THE ETHICAL
TREATMENT OF
REINFORCEMENT
LEARNERS**

What it makes animals sentient?

- Carbon – Evolution / sand, metal, plastic
- Wet / Dry
- Realization / Simulation
- Natural / Artificial
- Analog / Digital
- Roger Penrose: quantum effects on nanotubes
- Multiverse
- Structure / Function
- ...

Why are brains involved in sentience? What properties do brains have in relation to the ability to suffer and enjoy? Could suffer and enjoy something that is not exactly a brain?





Simplest approach to argue about the idea than machines can feel:

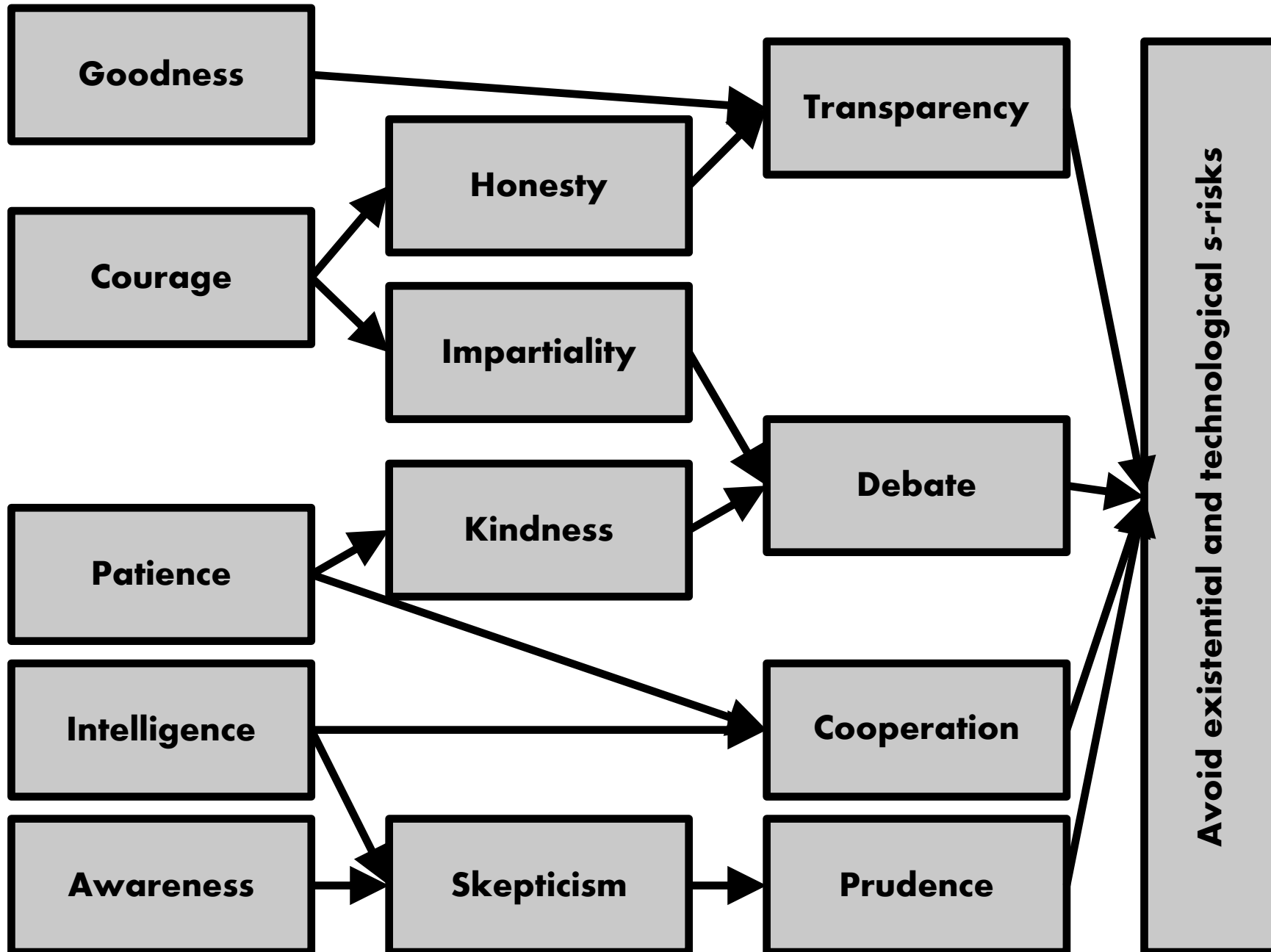
- Nature can naturally create systems in which the property of being “recipient” emerges.
- This does not imply that the only one way to create recipients is by the forces of nature.
- Humans can create systems in which properties emerges.

Suffering in artificial / manipulated biological substrates

- Suffering in “**Organoids**” (small ball of cells grown in cell culture from stem cells; human stem cells for human organoids)
- Suffering in “**Chimeras**” (creatures with some human brain cells and some non-human brain cells)
- Suffering in “**Ex vivo tissues**” (for instance, human brain tissue kept alive outside the body). It’s not only about keeping just flat sheets of human brain cells alive in a dish, but keeping alive and studying larger and larger chunks of human brains, taken from neurosurgical discards or from the recently dead. There are even some efforts, so far only in non-humans, to keep whole brains from dead animals “alive” apart from their bodies (Antonio Regalado, [Researchers Are Keeping Pig Brains Alive Outside the Body](#), Technology Review (April 25, 2018)).

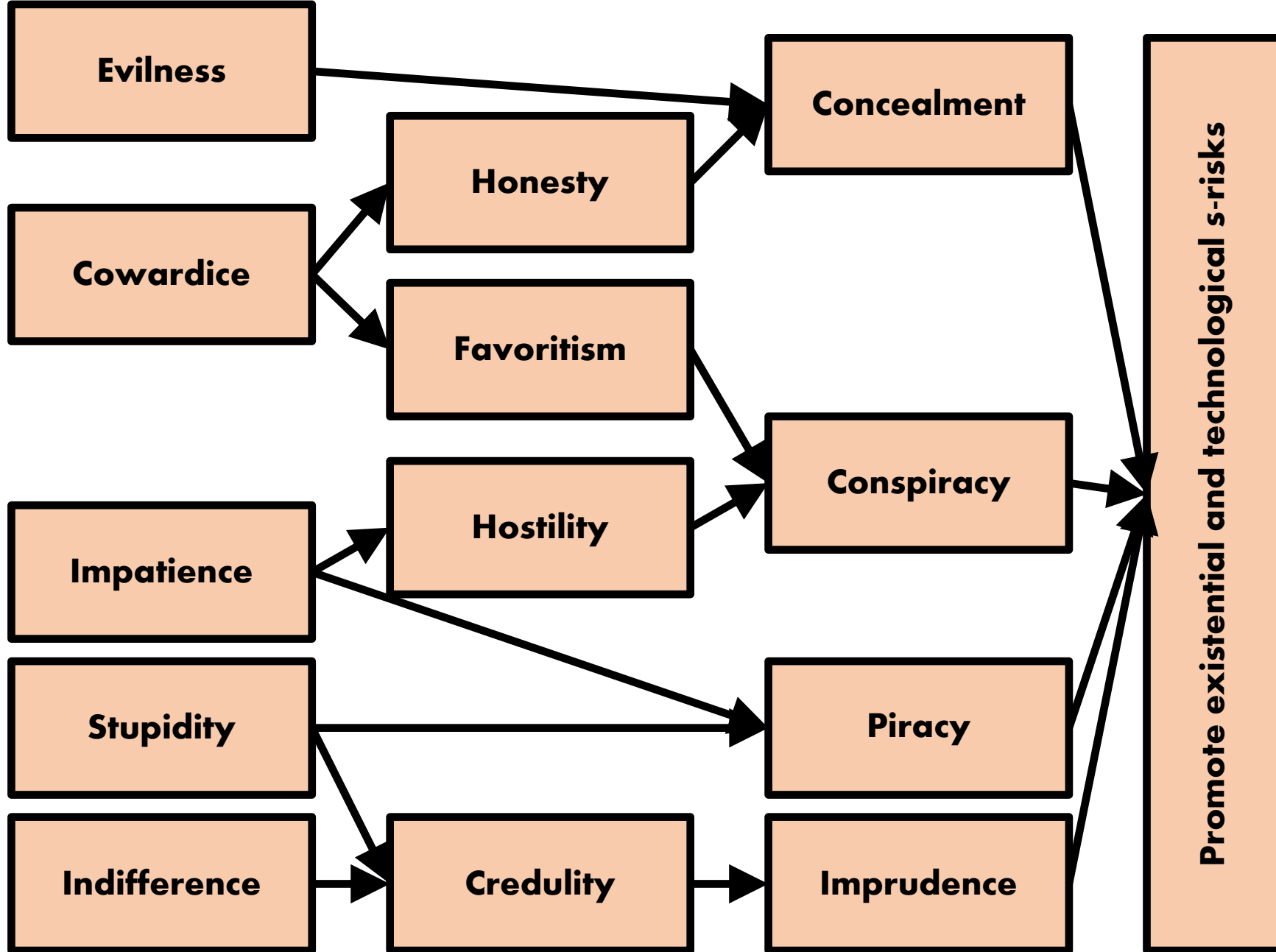
Attitudes and attributes and behaviors

Results



Attitudes and attributes and behaviors

Results





Answers to objections to animal sentience



Objections to animal sentience

“We cannot know if the lobster suffers from being boiled”

- Nor can I be sure if you feel. I deduce it by similarities.
- Physical similarity in its internal constitution: biological central nervous system.
- Similar in origin: same evolutionary origin.
- Similar in terms of the same apparent utility: maximum efficiency to reproduce.
- Evolutionary resemblance (closeness): animal with bilateral symmetry, eyes, brain (close in the evolutionary tree).

Objections to animal sentience

"Our brain is the largest"

- Our brain is not the largest. Human 1.5 Kg. Sperm Whale 9 Kg.
- Our brain is not the one with the highest brain / body mass ratio. Human 3%. Ants 6%. Some birds 8%.
- Our nervous system is not the one with the most neurons. African elephant (x 3).
- Our brain is not the one with the most neurons in the cerebral cortex. Long-finned Pilot Whale (x 2)



Objections to animal sentience

"The bull hurts but does not suffer"
(has senses but no emotions)

- Mammal, CNS and cerebral cortex, evolutionarily very close.
- They manifest emotions (can be observed).



Emotions



Sensations or Senses

Cold / Heat

Vision

Pain

Pleasure?

Equilibrium

Emotions

Fear

Sadness

Anger

Joy

Feelings

Love

Friendship

Loneliness

Gratitude

Euphoria

Admiration

Optimism

Envy

Objections to animal sentience

"The bull hurts but does not suffer"
(has senses but no emotions)

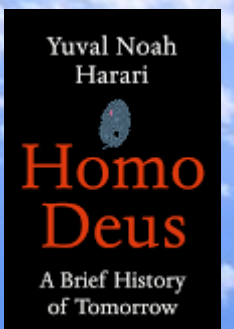
- Mammal, CNS and cerebral cortex, evolutionarily very close.
- They manifest emotions (can be observed).
- Antidepressant experiments are done with mice (paradox).
- Relevance of physical sensations.



Is sentience good / useful for anything?

If we believe that “sentience emerges from a Central Nervous Systems” (matter → experiences). There are two options: sentience is useful by itself vs. sentience is inevitable. Harari: “sentience could be like the roar of the engines of the plane: not useful to fly but inevitable”.

Utility vs. Inevitability



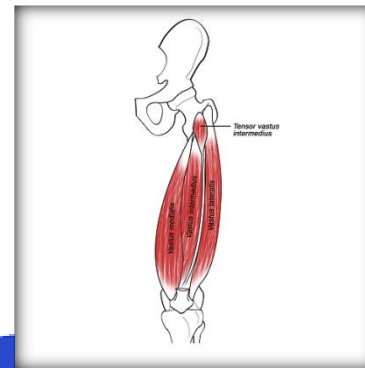


EXPERIENCES



MATTER

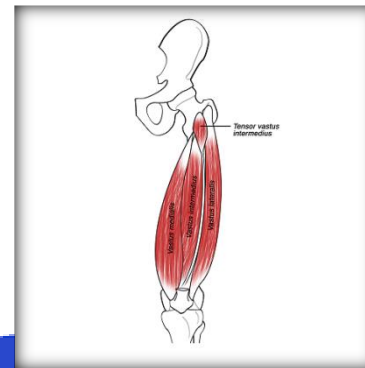
The central nervous system acts on the muscles.



MATERIAL THINGS

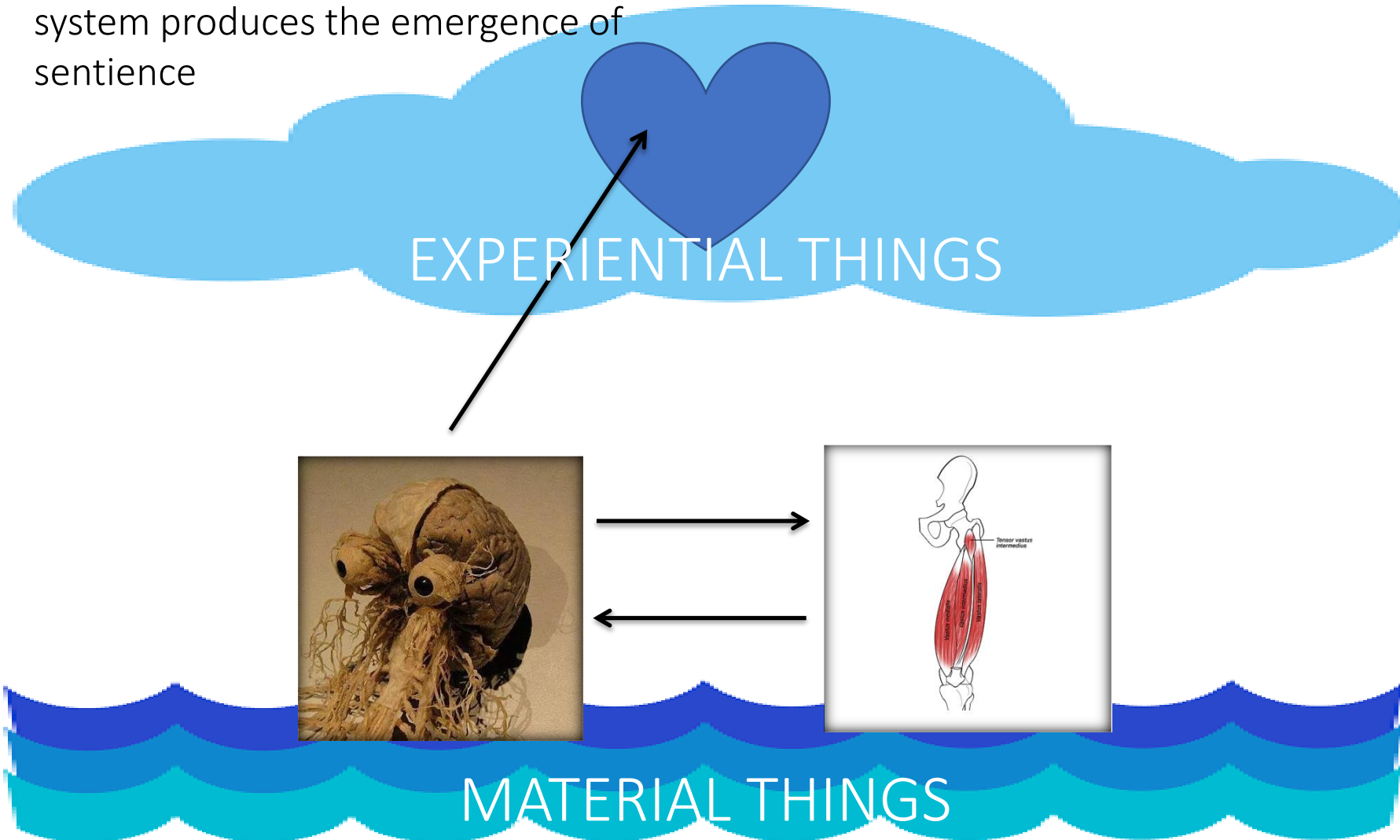
The central nervous system acts on the muscles.

The rest of the body also sends information to the central nervous system.



MATERIAL THINGS

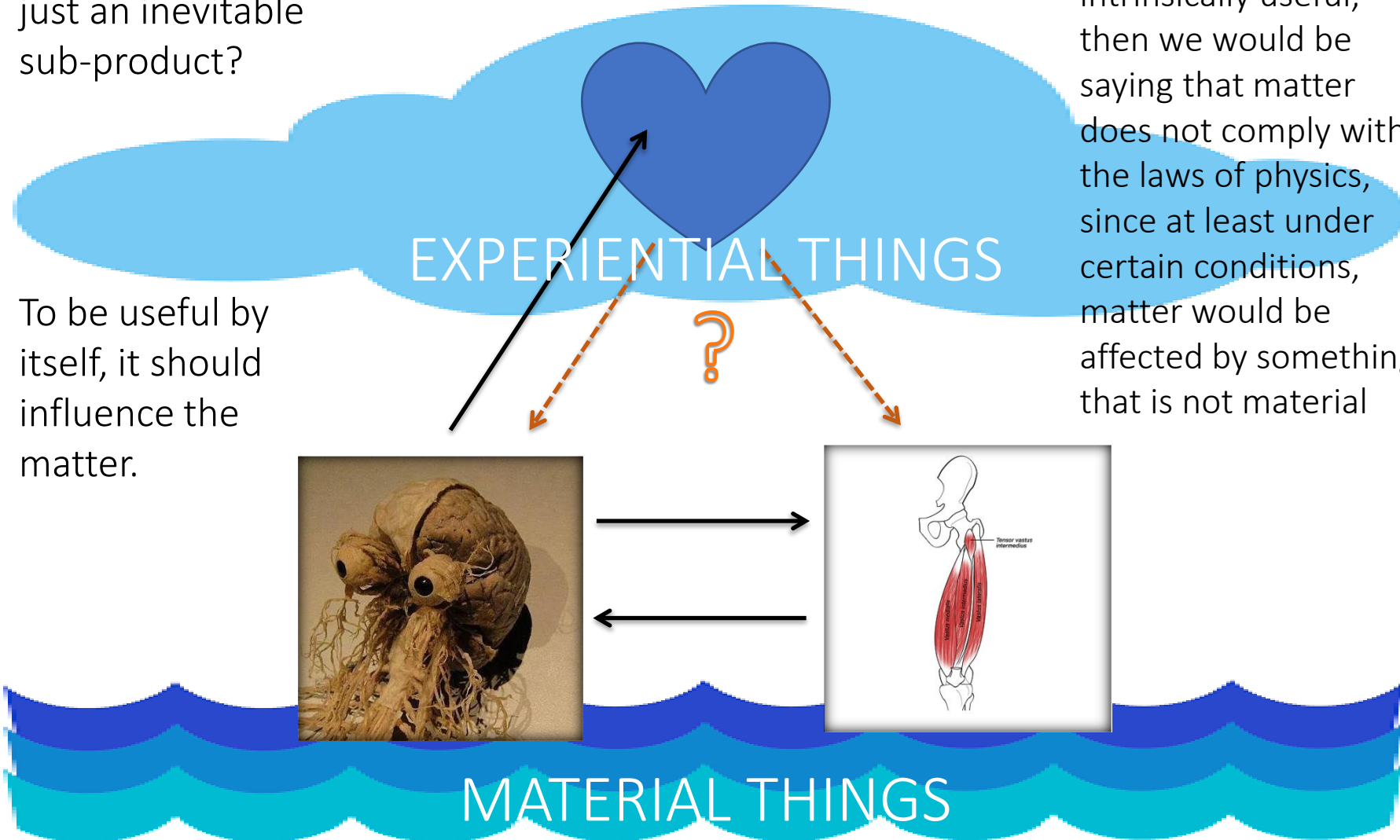
According to the emergentist paradigm, the central nervous system produces the emergence of sentience



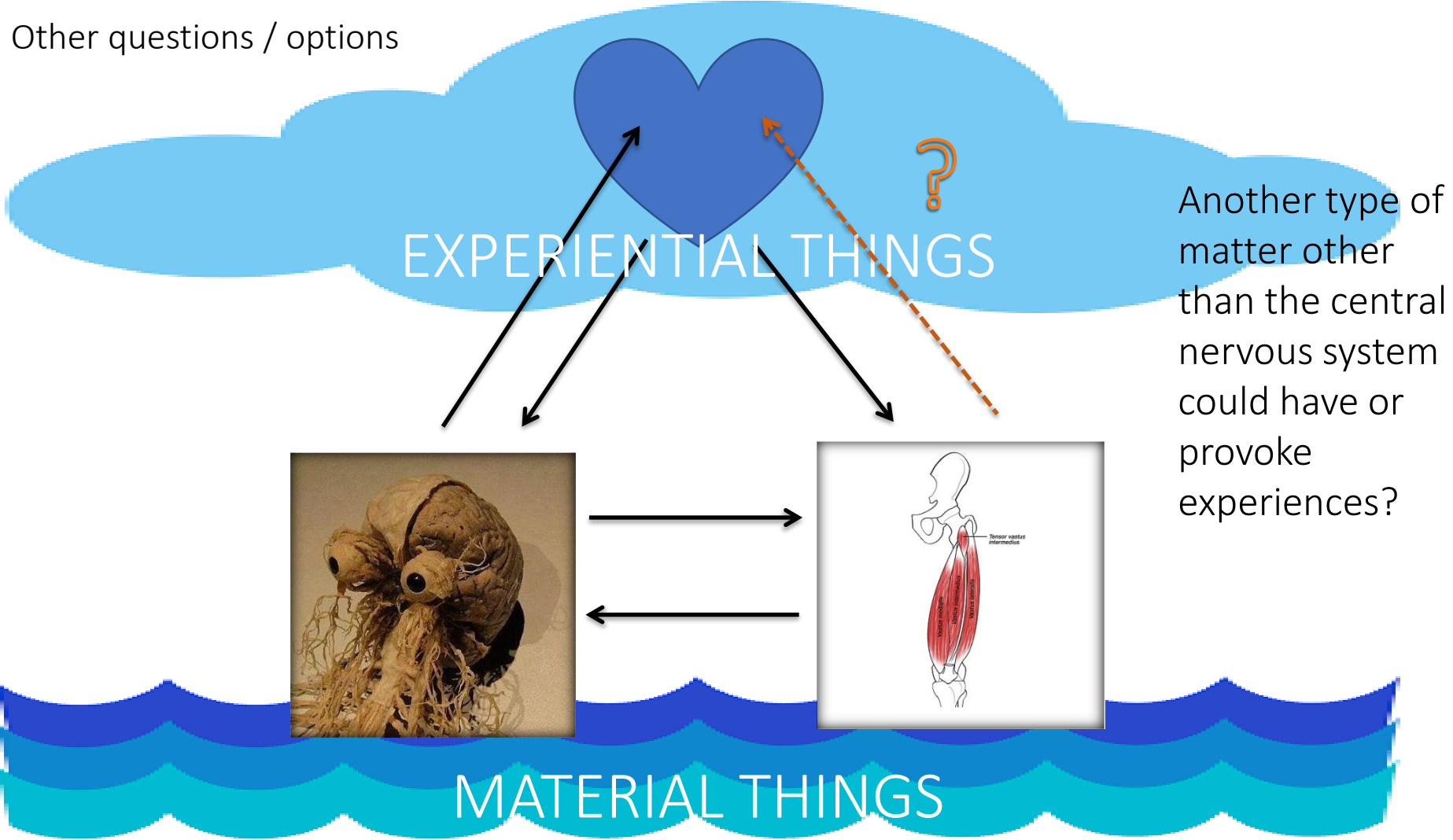
Is sentience useful by itself or is it just an inevitable sub-product?

If it were true that sentience is intrinsically useful, then we would be saying that matter does not comply with the laws of physics, since at least under certain conditions, matter would be affected by something that is not material

To be useful by itself, it should influence the matter.

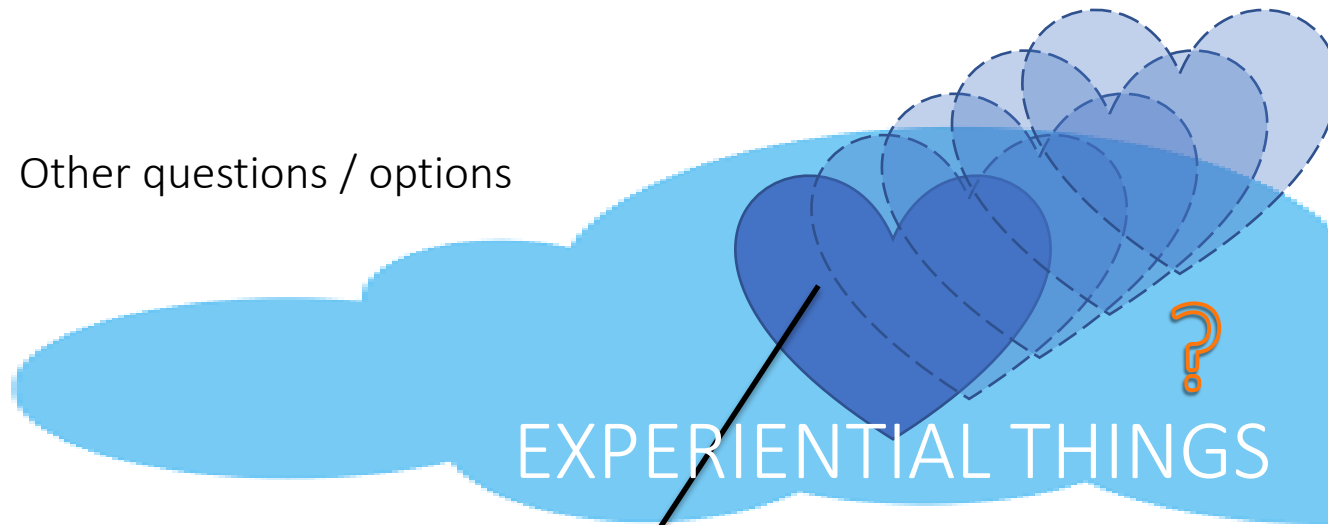


Other questions / options



Another type of matter other than the central nervous system could have or provoke experiences?

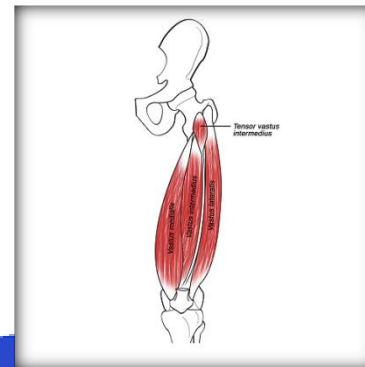
Other questions / options



EXPERIENTIAL THINGS

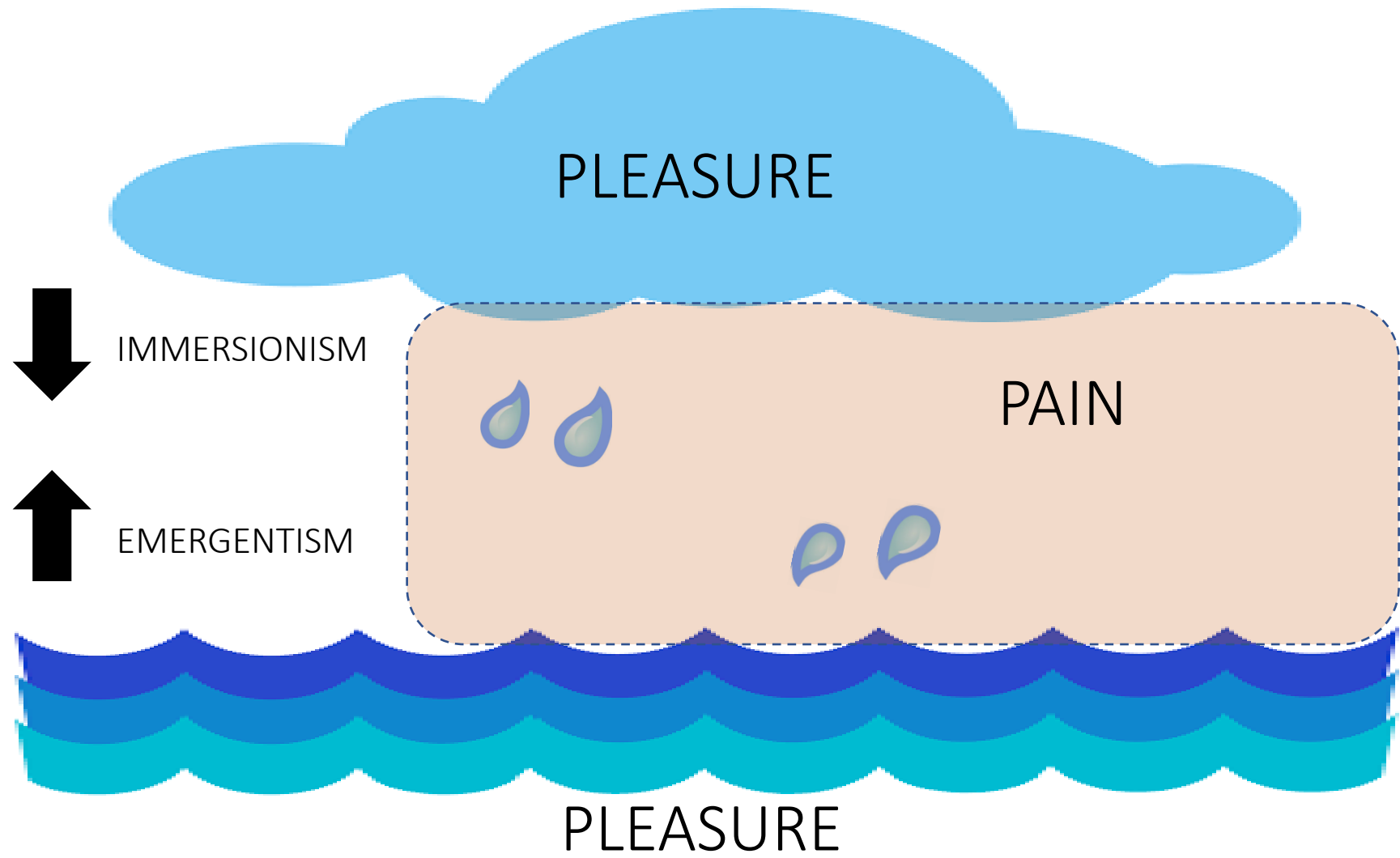
Are experiences generated or invoked? Are they dependent on matter or do they have some kind of independent Platonic pre-existence?

([Immersionism](#))



MATERIAL THINGS

Paneudaimonia Hypothesis



Paneudaimonia

The whole universe is absolute pleasure, except in the domain of what we know as sentient beings, in which all experiences imply different types of suffering.

Paneudaimonia Hypothesis

A possible relationship between sentience and identity

By increasing self-consciousness, pleasure diminishes:

- The pleasure of smoking diminish or even disappear by making it more conscious.
- If someone asks us at a party, “How are you doing?” Immediately the act of valuing one’s enjoyment (at least for some people) will have the effect of diminishing the enjoyment.

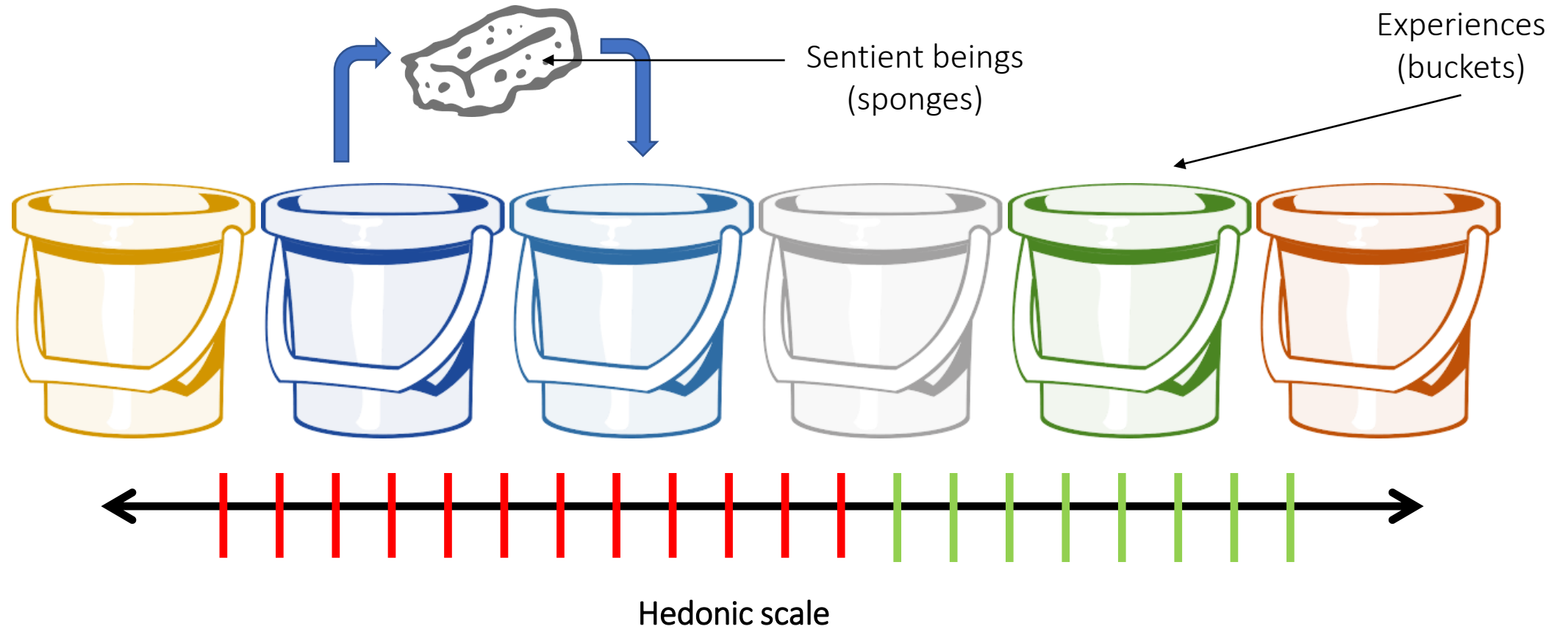
By decreasing self-consciousness, pleasure increases:

- Loss of consciousness produces pleasure. People who faint say that the experience was pleasant.
- Drugs that reduce consciousness produce pleasure.
- The “state of flux” that occurs in activities in which the difficulty progressively adjusts to the skill, as occurs in video games or in a professional career, seems to produce a pleasant absence of consciousness.
- The effect of orgasm is known as “[La petite mort](#)”, little death.
- The “tantric sexual energy” relates the annulment of the ego with carnal desire and pleasurable states generated.
- Meditation, the loss of the “I”, and the dissolution of the “I” in the “oneness” are related to pleasant experiences.

Suffering increase self-consciousness while the absence of suffering seems to decrease it:

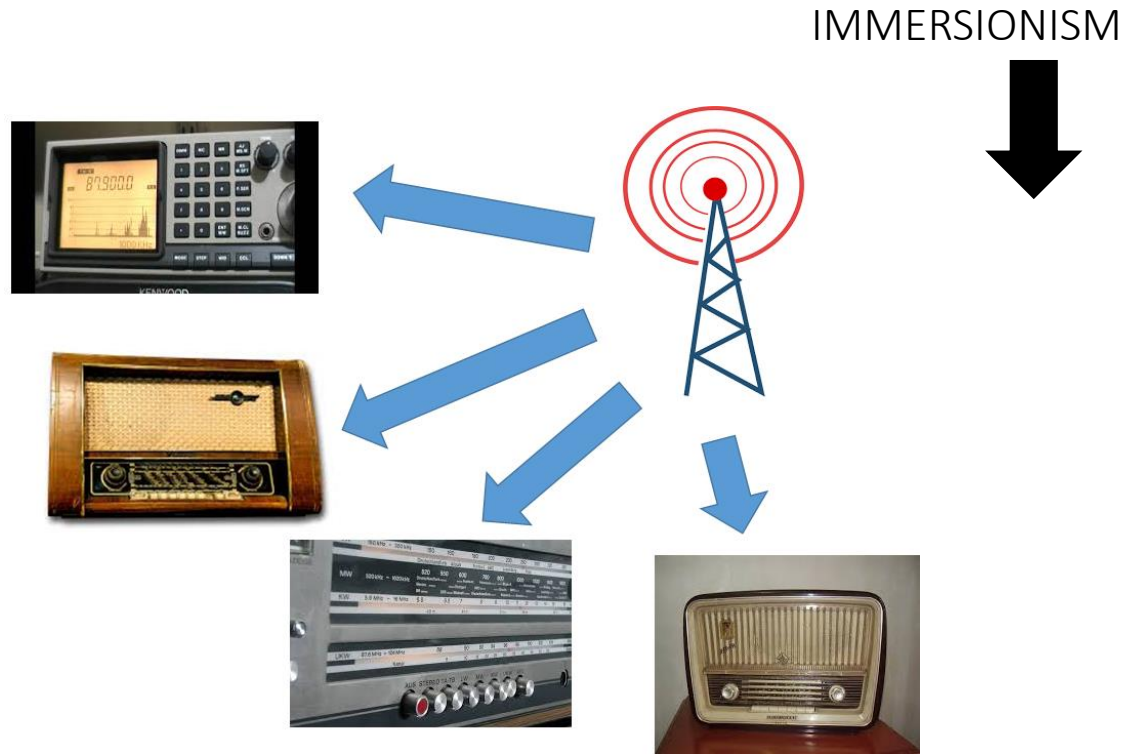
- Time flies by while we are entertaining watching a movie or playing video games.
- Time go faster when we are happy and our lives have meaning.

Sentience Platonism Hypothesis



If sentient Platonism was true, and we only helped the sponges (sentient beings) to move from one bucket to another (subjective state) but did not heat the water of the bucket (platonistic experiences), we would not be accomplishing anything.

Sentience Platonism Hypothesis



Sentience Platonism is the idea that experiences exist by themselves, regardless of the sentient beings who experience them.

Our minds are like radio receivers capable to connect some “station”.

The mind, as the radio-receiver, does generate nothing new, but connects to something that preexisted.

The "radio receivers" metaphor is a type of immersionism.

Compatible with the simulation hypothesis. Sentience Platonism can be reinforced by the idea that perhaps we live in a simulation and beings may be “instantiated” from an ideal object, in the same way as “instances” of software objects in “Object-Oriented Programming”. **Implications regarding relief and prevention of suffering.** In all three cases there is a platonic experience that generates in some way several conventional experiences. **Cookie-making mold / Radio station / Purchase agreement**

Sentience Platonism Hypothesis

The implications of each modality of Sentience Platonism in the alleviation and prevention of suffering are the following:

- **“Cookie mold”**. By eliminating a “cookie mold” from a negative experience we can avoid generating this negative experience in the future. But in order to help the beings that currently experience negative experiences, which have previously been generated by this “mold”, we must work to help these beings, one by one. This type of Sentience Platonism recalls a situation that is not metaphorical but real: genetic patterns are a kind of “cookie mold” that generates beings and therefore experiences of a certain type. By controlling and modifying genetic patterns we could avoid suffering in the future, as proposed by [David Pearce](#).
- **“Radio transmitter”**. In this case, turning off the radio station that generates the negative experience will avoid this negative experience in all beings. The great advantage is that if we can access the station, it will not be necessary to intervene helping individual beings one by one. Simply turn off the station (or change the song it emits) and the effect will be immediate, in all beings.
- **“Sales agreement”**. The implications of this type of Sentience Platonism are overwhelming. This would imply that the total sentience of the universe remains constant, and that by helping an individual being who has a negative experience we would not be essentially doing anything, we would only do it apparently. If this hypothesis were true, the only effective way to alleviate suffering would be to eliminate or modify the Platonic ideal of such suffering. Instead, and in an optimistic sense, if there were any way to eliminate the suffering of the past it would be under a paradigm like this.

Reducing the suffering of the past is a little less implausible than it sounds. Under [eternalism](#), past experiences are as real as present experiences. The bad news is that under this approach, past suffering experiences are real, like if they were happening now. The good news is that if they are real, we can act on them.