

What is consciousness?

What does it mean for something to "have consciousness"? What is the difference between something that has consciousness and something that doesn't?

<https://www.quora.com/Consciousness/What-is-consciousness/answer/John-Ringland>

<http://www.anandavala.info/article/What-is-Consciousness.pdf>

I see two approaches to this issue and will introduce them by briefly describing the context and development of each, showing how one leads into the other. I have endeavoured to keep this as simple and concise as possible for a subject of this depth.

1) Naïve Realist Approach

Naïve realism is a cognitive habit operating in each moment of awareness that causes the mind to assume that the subjective objects of experience are in fact objective external objects. See [What is naive realism?](#)

Thus when I see a chair in front of me I simply assume that this is because there is a chair in front of me. I do not question the perceptual forms that arise in the mind, nor the conceptual categories that I habitually associate with those forms. Hence this form of realism is called naïve, because it is an unconsidered and merely assumed epistemological position. When it is expressed as a consciously held philosophical belief it is called direct realism.

We then look out from this perspective of "being me" upon an "external physical universe". It may turn out to be true, but at this point there has been no evidence whatsoever. There has only been the accumulation of beliefs arising from naïve realist assumptions about the contents of subjective awareness. Thus the mind conforms to a self-reproducing closed loop of hidden assumptions.

This keeps the cognitive and cultural discourses unwittingly bound within a naïve realist framework. This forms into an all pervasive unconscious paradigm. See

- [Do we have a collective paradigm? Else, is it fragmented?](#)
- [Can it ever be said that Scientific realism takes off from the springboard of commonsense or naive realism?](#) and
- [Has science become too dogmatic?](#)
- [Will we ever be able to truly understand Quantum Mechanics?](#)

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From this stand point we claim that we are physical organisms and that the brain implements consciousness via neural activity. Then we ask ourselves "What is consciousness?"

From this perspective it is known to science as the [Hard Problem of Consciousness](#), because nobody really has a clue how to answer it or even how to work towards an answer. There are many working on the 'easy' aspects, such as how do neural networks function and so on. But nothing from these fields can address the 'hard' problem of experiential awareness.

“The really hard problem of consciousness is the problem of experience. When we think and perceive, there is a whirl of information-processing, but there is also a subjective aspect. As Nagel (1974) has put it, there is something it is like to be a conscious organism. This subjective aspect is experience. When we see, for example, we

experience visual sensations: the felt quality of redness, the experience of dark and light, the quality of depth in a visual field.” (David Chalmers, [Facing Up to the Problem of Consciousness](#))

Furthermore, the whole underlying paradigm is beginning to fall apart. For instance, each attempt to locate and study 'matter' has proven it not to exist. See [What is matter?](#) and [Does matter exist?](#)

"Let us now return to our ultimate particles and to small organizations of particles as atoms or small molecules. The old idea about them was that their individuality was based on the identity of matter in them... The new idea is that what is permanent in these ultimate particles or small aggregates is their shape and organization... They are as it were, pure shape, nothing but shape; what turns up again and again in successive observations is this shape, not an individual speck of material..." ([Erwin Schrödinger](#))

“[Thus] modern philosophical materialists attempt to extend the definition of matter to include other scientifically observable entities such as energy, forces, and the curvature of space. However this opens them to further criticism from philosophers such as Mary Midgley who suggest that the concept of 'matter' is elusive and poorly defined.” (Wikipedia, [Materialism](#))

“To some degree skepticism manifests itself in the scientific method, which demands that all things assumed as facts be questioned. But the positivism of many scientists, whether latent or open, is incompatible with skepticism, for it accepts without question the assumption that material effect is impossible without material cause.” (The Columbia Encyclopedia)

Empirical science only claims

"that a good theory need only provide an empirically adequate description of observable phenomena" (Stanford Encyclopedia of Philosophy, [Rationalism vs. Empiricism](#))

It doesn't claim to be able to ascertain any kind of truth but rather it only claims to have phenomenological adequacy regarding descriptions of our perceptions of things. This means that empirical science is fundamentally unable to address any questions of ontology (what actually is) and it can only address questions of phenomenology (that which appears to the human mind).

“Empiricists claim that sense experience is the ultimate source of all our concepts and knowledge” (Stanford Encyclopedia of Philosophy, [Rationalism vs. Empiricism](#))

Because of this reliance on the objects of sense perception, which are unquestioningly assumed to be external objects, empirical science has succumbed to naïve realism and subtly devolved into [Scientism](#).

This is because empiricists did not question the nature and validity of sense experiences, or of the mind that is having them, but merely took them as being representative of being a person in a physical universe. See [Can it ever be said that Scientific realism takes off from the springboard of commonsense or naive realism?](#)

Naïve realism itself has been challenged by philosophy, psychology and neuroscience, and now quantum mechanics has proven beyond all doubt that naïve realism is a false epistemology that provides false knowledge of reality.

The Stern-Gerlach experiment in particular drives this point home. See [In simple terms, what does the Stern-Gerlach experiment imply about the nature of quantum systems and observable phenomena?](#)

Thus there is a paradigm shift happening!

“There is a major ‘dangerous’ scientific idea in contemporary physics, with a potential impact comparable to Copernicus or Darwin. It is the idea that what the physics of the 20th century says about the world might in fact be true.” (C. Rovelli, [THE WORLD QUESTION CENTER 2006](#))

And quantum physicists are making startling claims that are backed up by undeniable evidence.

“We have no satisfactory reason for ascribing objective existence to physical quantities as distinguished from the numbers obtained when we make the measurements which we correlate with them. There is no real reason for supposing that a particle has at every moment a definite, but unknown, position which may be revealed by a measurement of the right kind... On the contrary, we get into a maze of contradiction as soon as we inject into quantum mechanics such concepts as carried over from the language and philosophy of our ancestors. . . It would be more exact if we spoke of ‘making measurements’ of this, that, or the other type instead of saying that we measure this, that, or the other ‘physical quantity’.” ([Edwin C. Kemble](#))

“ “[W]e have to give up the idea of realism to a far greater extent than most physicists believe today.” ([Anton Zeilinger](#)). . . By realism, he means the idea that objects have specific features and properties - that a ball is red, that a book contains the works of Shakespeare, or that an electron has a particular spin. . . it may make no sense to think of them as having well defined characteristics.” (P. Ball, [Physicists bid farewell to reality?](#))

It is not just particles and atoms that are governed by quantum mechanics.

“Quantum mechanics is increasingly applied to larger and larger objects. Even a one-ton bar proposed to detect gravity waves must be analysed quantum mechanically. In cosmology, a wavefunction for the whole universe is written to study the Big Bang. It gets harder today to nonchalantly accept the realm in which the quantum rules apply as somehow not being physically real. . . Quantum mechanics forces us to abandon naïve realism.” ([Quantum Enigma: Physics Encounters Consciousness: Bruce Rosenblum, Fred Kuttner](#))

“If there is anything to be learned from the long history of the epistemological debate, it is that the issue is by no means simple or trivial, and that whatever is ultimately determined to be the truth of epistemology, we can be sure that it will do considerable violence to our common-sense view of things. . . In science, irrefutable evidence

triumphs over incredibility, and this is exactly what gives science the power to discover unexpected or incredible truth.” ([Steven Lehar](#))

And then there is also undeniable evidence coming from rigorous experiments that "suggest that consciousness itself, unaided by known physical mechanisms, can influence physical reality.” (PEAR Orientation) And the “results are unlikely by chance to the order of 10^{-12} (one in a trillion).” Which is more rigorously proven than many commonly accepted scientific 'facts'. (R. G. Jahn and B. J. Dunne, "The pear proposition", Journal of Scientific Exploration, vol. 19, no. 2, pp. 195-245, 2005, <http://www.scientificexploration...>)

The experiments were conducted by the [Princeton Engineering Anomalies Research](#) PEAR lab for 28 years, using quantum random event generators ([REGs](#)). It was shown that consciousness creates a field of ambient 'coherence' that drives quantum processes away from randomness and towards order. This can also be focused as intentional influence.

Clearly the old paradigm cannot explain these phenomena. Thus science is forced to shift away from a naïve realist, empiricist, materialist foundation. Thus a new paradigm is needed! See the question [What do the results of the PEAR GCP ICRL experiments say about consciousness and how can we scientifically explain them?](#) and also [The Big Philosophical Questions: Now that naïve realism has been disproven by quantum mechanics, how will this impact our collective paradigm?](#)

2) Non-Naïve Realist Approach

From a non-naïve realist perspective, one remains staunchly sceptical (open enquiry, without assumption or prejudice). What can be known for sure from this perspective?

“In reality there is no person, only the watcher identifying himself with the 'I' and the 'mine'... you are not this, there is nothing of yours in this, except the little point of "I am", which is the bridge between the watcher and his dream. "I am this, I am that" is dream, while pure "I am" has the stamp of reality on it.” (Sri Nisargadatta Maharaj, [I am That](#))

When "I am seeing a chair in front of me" this is because I am and the content of awareness consists of perceptual forms that the mind has come to associate with the idea of a chair. Thus there is the interplay of sensory experiences and associative (memory) experiences.

If I remain quiet and simply observe the contents of awareness I find that there is ceaseless activity. If this activity is identified with then awareness is carried off on some sequence of thoughts. By bringing awareness back again to the space of awareness I can notice that during that sequence, I was not aware of the space of awareness, but only of the thoughts. Thus I was not aware of my self.

I can observe the structure of the contents of awareness and note that some are associated with ideas such as me, body, mind, world, chair, etc. As an experiment I can then cease bringing awareness back into the space of awareness and I let it be carried off on one sequence of thoughts after another, identifying with and participating in the story of me, body, mind, world, chair, etc. This is the most common "everyday" state of mind.

During this process I am wholly absorbed in the story of myself as a person with a body and a mind, living in a world and sitting on a chair. During this process I am not aware of the space of awareness; the "I am", which is the only true certainty. Thus I have lost sight of certainty and entered into a world composed entirely of identifications with sensory phenomena and memory

associations which are interpreted through the lens of a “person in a world”.

"The person is merely the result of a misunderstanding. In reality, there is no such thing. Feelings, thoughts and actions race before the watcher in endless succession, leaving traces in the brain and creating an illusion of continuity. A reflection of the watcher in the mind creates the sense of 'I' and the person acquires an apparently independent existence." (Sri Nisargadatta Maharaj, [I am That](#))

There are other experiments that one could conduct as one's degree of detachment increases, such as keeping awareness within the space of awareness whilst the contents of awareness go through various different processes (states of mind such as moods, ideas, sleep, dreams, personalities, etc). In all these cases the contents of awareness can change significantly, however the space of awareness remains entirely unchanged. Just as a digital image leaves no trace on a computer screen after it has gone. All kinds of phenomena can play across the 'screen' of awareness, but awareness is not influenced by the content.

"Go within, go beyond. Cease being fascinated with the content of your consciousness. When you reach the deep layers of your true being, you will find that the mind's surface-play affects you very little... A ray of awareness illumines a part of our mind and that part becomes our dream or waking consciousness, while awareness appears as the witness. The witness usually knows only consciousness. Sadhana (path leading to realization) consists in the witness turning back, first on his conscious, then upon himself in his own awareness. Self awareness is Yoga (union with existence)." (Sri Nisargadatta Maharaj, [I am That](#))

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By bringing awareness back to the space of awareness I can now ask "What is consciousness?"

Whilst identified with the story of me, body, mind, world, chair, etc it seemed as if consciousness was the mind with its personality, perception, memory, intellect, etc.

However from the perspective of awareness within the space of awareness, I realise that these are the contents of awareness and that consciousness has its root in pure awareness, which I am, and it unfolds through myriad complex systems of perception, memory, thought, etc into an elaborate cognitive memplex that we call the mind.

This however is not a form of solipsism, because although the only thing that I am certain of is “I am”, at this level of awareness there is a passage through to an expansiveness of universal awareness. At this level of consciousness there is only one consciousness, but its not 'mine' in a solipsist sense (the ideas 'me' and 'mine' are just contents of awareness) it is a universal consciousness.

"When this supercontemplative state is reached, the Yogi acquires pure spiritual realisation through the balanced quiet of the chitta (thinking principle). His perception is now unfailingly exact (or his mind reveals only the truth). This particular perception is unique and reveals that which the rational mind (using testimony, inference and deduction) cannot reveal. It is hostile to, or supersedes all other impressions. When this state of perception is itself also restrained (or superseded) then is pure Samadhi achieved." (Samadhi Pada, 47-51, [Yoga Sutras of Patanjali](#))

To recap I'll summarise with a quote from the Lankavatara Sutra.

"So long as people do not understand the true nature of the objective world, they fall into the dualistic view of things. They imagine the multiplicity of external objects to be real and become attached to them and are nourished by their habit energy. Because of this system of mentation, mind and what belongs to it is discriminated and is thought of as real; this leads to the assertion of an ego-soul and its belongings, and thus the mind-system goes on functioning. Depending upon and attaching itself to the dualistic habit of mind, they accept the views of the philosophers founded upon these erroneous distinctions, of being and non-being, existence and non-existence, and there evolves what we call false-imaginings...

False-imaginings rise from the consideration of appearances; things are discriminated as to form, signs and shape; as to having colour, warmth, humidity, mobility or rigidity. False-imagining consists of becoming attached to these appearances and their names...

The five sense functions and their discriminating and thinking function have their risings and complete ending from moment to moment... By setting up names and forms greed is multiplied and thus the mind goes on mutually conditioning and being conditioned. By becoming attached to names and forms, not realising that they have no more basis than the activities of the mind itself, error arises, false-imagining as to pleasure and pain arises, and the way to emancipation is blocked...

By the cessation of the mind-system as a whole is meant, the cessation of discrimination, the clearing away of the various attachments, and, therefore, the clearing away of the defilements of habit-energy in the face of Universal Mind which have been accumulating since beginningless time by reason of these discriminations, attachments, erroneous reasonings, and following acts. Getting rid of the discriminating mortal-mind is Nirvana.

But the cessation of the discriminating-mind cannot take place until there has been a "turning about" in the deepest seat of consciousness. The mental habit of looking outward by the discriminating-mind upon an external objective world must be given up, and a new habit of realising Truth within the intuitive-mind by becoming one with the Truth itself must be established... With the ending of pleasure and pain, of conflicting ideas, of the disturbing interests of egoism, a state of tranquillisation will be attained in which the truths of emancipation will be fully understood..." ([Lankavatara Sutra](#))

How long will it take to get free of the discriminating mind?

"It may take a thousand years, but really no time is required. All you need is to be in dead earnest. Here the will is the deed. If you are sincere, you have it. After all, it is a matter of attitude. Nothing stops you from being a gnani (knower of Supreme Knowledge) here and now, except fear. You are afraid of being impersonal, of impersonal being. It is all quite simple. Turn away from your desires and fears and from the thoughts they create and you are at once in your natural state." (Sri Nisargadatta Maharaj, [I am That](#))

Only then will you truly know what consciousness is. The answer is not a description in words and ideas (which are just the content of awareness) but a process by which to taste it and know it as your own subjective space of awareness. Only then will the question "what is consciousness?" be

answered for you.

One cannot just play with the 'contents' of awareness and thereby come to a deep appreciation of consciousness. So don't just look at these words and think about them, also let them direct your attention to yourself and let that perspective inform you.

So what can be said about consciousness? In words I can say that consciousness is the ground of being from which all manifestation arises. It is both universal and personal, and it enlivens and animates all systems, including those thought to be 'inanimate'.

“That which permeates all, which nothing transcends and which, like the universal space around us, fills everything completely from within and without, that Supreme non-dual Brahman – that thou art.” ([Adi Shankara](#))

"The real does not die, the unreal never lived. Once you know that death happens to the body and not to you, you just watch your body falling off like a discarded garment. The real you is timeless and beyond birth and death." (Sri Nisargadatta Maharaj, [I am That](#))

"What is it that had birth? Whom do you call a human being? If, instead of seeking explanations for birth, death and after-death, the question is raised as to who and how you are now, these questions will not arise... The body is born again and again. We wrongly identify ourselves with the body, and hence imagine we are reincarnated constantly. No. We must identify ourselves with the true Self. The realised one enjoys unbroken consciousness, never broken by birth or death - how can he die? Only those who think 'I am the body' talk of reincarnation. To those who know 'I am the Self' there is no rebirth. Reincarnations only exist so long as there is ignorance. There is no incarnation, either now, before or hereafter. This is the truth." ([Ramana Maharshi](#))

How can this be scientifically understood? A useful analogy is virtual reality simulation, where a single animating source creates worlds of virtual phenomena, where evolving sentient minds experience themselves as individual beings in a world of objects in space and time. The animating thread that runs through all systems is the “I am” awareness. All virtual phenomena lack a fundamental self-nature, they are ephemeral forms without permanent substance, they are 'sunyata' (empty of self-nature). For more on the subject of simulated reality see:

- [Is the Universe a Simulation?](#)
- [What can be learned from video games that is hard to learn any other way?](#)
- [What is sentience?](#)

Quantum mechanics is compatible with this simulation analogy, for example:

“if we accept the quantization of space and time as a basic fact of the structure of our universe, then we may go on to consider how both of these properties happen to be intrinsic to the operations of a computer” (Ross Rhodes, [Cybernetic Interpretation of Quantum Mechanics](#)).

Also see [Will we ever be able to truly understand Quantum Mechanics?](#)

By thinking of quantum mechanics in this way the seemingly paradoxical aspects of quantum mechanics are seen to be common features of information processes and virtual worlds. For example, the Planck frequency (1.859×10^{43} Hz) is analogous to the “frame rate” of a simulated virtual reality.

“Wheeler labels the individual quantum phenomenon an elementary act of creation. We as observers play a significant role in this process since we can decide by choosing the measuring device which quantum phenomenon is realized. Still, we cannot influence the specific value obtained through the measurement. Finally, since we are part of the universe, the universe, according to Wheeler, creates itself by observing itself through us. .. (Quantum mechanics has) gradually brought the role of the observer into the center of our discussion, a role which is expressed by Clauser in his joint analysis with Shimony of the present EPR-Bell situation as follows: "perhaps an unheard tree falling in the forest makes no sound after all". ” (Anton Zeilinger, [On the Interpretation and Philosophical Foundation of Quantum Mechanics](#))

In this paradigm all systems are observers and have experiential awareness, without which they could not interact; this is a form of pan-psychism, in particular pan-proto-experientialism, Russellian monism, Type F monism or Neutral monism (Google [Russellian "Type F" "Neutral monism"](#)). These are the view that consciousness is constituted by the intrinsic properties of reality.

“On this view, phenomenal or proto-phenomenal properties are located at the fundamental level of physical reality, and in a certain sense, underlie physical reality itself.” ([The Blackwell Guide to Philosophy of Mind](#))

Also see [What is it like to be a quantum computational process?](#)

However just as there are degrees of complexity of 'outer' forms, there are also degrees of complexity of 'inner' processes. The simplest systems have only a simple stream of pure awareness by which they experience and interact, they are not aware that they are aware, they are just aware. However then there are systems such as ourselves, with extremely complex internal feedback loops (e.g. brains), that have come to know that they know that they know.

So whilst the mind and personality are a product of bio-socio-memetic evolution, the innermost awareness within all systems is the universal animating process.

For some brief comments and many quotes see [Virtual Reality Analogy Alongside Science and Mysticism](#). For a detailed philosophical, theoretical and mathematical discussion see [The Objective Information Process & Virtual Subjective Experiences Hypothesis](#) or just the mathematical aspects [System Science of Virtual Reality](#). This work develops from first principles the foundations of a mathematical science of information systems and virtual reality simulation. Within this context it re-derives the foundations of quantum mechanics and discusses naïve realism and the 'hard' problem of consciousness, which becomes an easy problem from this perspective because the naïve realist tendency to ignore subjective experience from the outset is avoided from the outset.