

CONSCIOUSNESS IMAGINED: CONSCIOUSNESS AS A METAPHOR FOR THE FUNCTIONS OF THE BRAIN

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The current consciousness debate is a rather ineffectual ‘collaboration’ between philosophy and science. The philosophical debate consists of loosely applying vague scientific findings or theories such as microtubules, quantum theory or ‘panpsychism’, and integrating them into a system with little scientific evidence. The scientific search for consciousness seems to consist in scanning the brain with increasingly powerful magnets in the hope to identify its exact location. This last approach may be the modern equivalent of the medieval search for the ‘senso commune’, that tried to locate consciousness at the confluence of the sensory systems, or even of a kind of neo-phrenology. The finding that there is increased activity in certain parts of the brain does not seem to correlate well with any location of the consciousness itself. Certainly, an increased cerebral activity implies augmented local neural activity, but that is no more of a localizing feature than increased electrical flow in the electrical network is an indication for the location of a generator or power station.

The experiments of Wilder Penfield, who in the 1950s applied electrical stimulation to the cerebral cortex of awake patients being operated under local anesthesia, are important not only for confirmation of the cortical location of the sensory and motor functions, but, more importantly, his patients clearly indicated that any movement or sensations did not originate from themselves; they attributed these to the surgeon—there are vital functions located in the cortical areas, but consciousness does not appear to be one of them. Penfield never managed to stimulate intellect or reason, and the epileptic seizures he studied extensively never seemed to involve any form abstract reasoning.

In spite of all these concentrated efforts to locate the seat of consciousness, consciousness seems like a mirage that retreats as we approach. We are still missing too many variables to draw conclusions about the functions of the brain, one of which consciousness appears to be. There are so many unanswered questions:

How does consciousness function?

How are memories accumulated, stored and accessed?

How are subconscious memories selected, saved and utilized?

What exactly is stored in the subconscious systems?

Digital polarization may also play a part, for it does not seem unreasonable to assume that reducing the entire (scientific) world to only two options (0 and 1), must inevitably have consequences when interpreting a multicausal analogue quantum universe...

Furthermore, the physical basis of consciousness would require a more complete understanding of the cerebral processes than we have at present. It is important to realize there is an essential paradox involved: the full understanding of the human brain would require a higher order of thought than the human brain itself is capable of. [If the human brain was so simple that we could understand it we would be so simple that we couldn't.]

While AI enthusiasts contemplate a digital higher order, there is no indication so far that machine learning is more than the efficient, high speed application of ordinary human learning, and the algorithms ultimately are drawn up by a human brain. Even supposing a digital system was to develop a higher order of intelligence than the human brain, it is very questionable that it would then be able to explain consciousness to us in terms we could understand.

Though the brain could never fully understand itself—if we accept the inevitable paradox involved, it should still be possible for the brain to understand a simplified projection; a virtual projection that would describe the functions in a highly simplified way, to give us an inkling of what is really going on. Perhaps we might, for the sake of philosophical argument, use the term 'consciousness' to describe this simplified virtual projection of reality?

Most cerebral processes must remain firmly below conscious level, or we would only mess them up—try moving your esophagus without choking, or remember to keep breathing before you pass out from hypoxia—and even taking a few steps by consciously moving every muscle involved and integrating the required equilibrium information would be physically completely impossible for us.

It has been shown that the intention of moving an arm was subconsciously present and it produces recordable activity in the cerebral cortex before the subject was even consciously aware of the desire to move the arm! The activity and sometimes even the movement was already initiated before the subject wanted the arm to move.

This has been enthusiastically applied as a proof against the very existence of free will, but it may equally imply that the brain is just letting us

know, almost as an afterthought, what we had already decided at a pre or subconscious level.

If this should be the case, it is not really surprising that consciousness cannot be found, for consciousness does not exist; it is a highly simplified virtual projection of what is really going on, since we would not really be able to understand all that is going on inside the brain...

Of course things are probably vastly more complicated, and we have to figure in language at some level, as our conscious experience seems to be bound up with our capacity for abstract symbolism; that is in itself a virtual system within a virtual system.

If we take consciousness as a virtual projection of reality, it begins to explain why hordes of otherwise seemingly sane adults can be found chasing entirely imaginary pokemons, or how 10 electrodes implanted in the inner ear (cochlear implant) can appear to convey similar information to the brain as 10,000 inner ear hair cell to give a sensation of hearing?

The short answer to the last question is that they cannot, as it would be a physical impossibility to expect 10 course electrodes to mimic 10,000 of the most subtle haircells. What we interpret as sound is a virtual projection of the integration of auditory information into the cerebral processes.

These systems will use all the information available to them to project a sensation of sound and of simple speech. A thousand times reduction may be adequate to convey meaning, but we must assume the remaining 9,990 cells also transmit relevant information to the brain that is used in more subtle processing and monitoring of the environment.

If at times 10 appear to be adequate, it is a reflection on our current starkly limited urban environment, for it is very likely that it would not have been sufficient to interpret subtle nuances of a more primitive environment, and the owner of only 10 hair-cells would have been swiftly eliminated from the gene pool—that 10,000 remain means they were required, for nature tends to favor the mantra of “use it or lose it.”

Similar arguments hold for text messages and virtual and augmented reality gadgets.

Virtual reality would be then a virtual reworking and re-projection of a poor quality virtual image to give the illusion of reality that would be impossible without the extensive processing and available subconscious memory traces that clothe and augment this projection.

Not even the most introvert scientist could possibly have an existential environment resembling a few dim pixels on a tiny screen, so considerable post-processing must be assumed.

We may then propose that virtual reality, augmented reality, cochlear implant hearing, texting, reading?

Is not so virtual at all, but normal consciousness somehow reasonably successfully constructed from a vastly reduced sensory input.

It feels almost real because we are able to partly ignore the lack of solid sensory input, or perhaps that is an inkling of the degree of reductionism the brain normally utilizes for its 'consciousness' projections, though the vastly more complex subconscious processes must be aware of the inadequacy involved.

Not that this should not really come as a surprise; we have always been aware of the extraordinary constructive capacity of the subconscious processes, for when we dream, no or very little sensory input is used to guide those remarkably complex and creative constructs.

Consciousness, then, provides a neat, coherent and continuous model of the external world that allows a certain degree of autonomy while dealing with the complexity of the natural world.

Consciousness may be seen as a simplified virtual projection of what is really going on inside the brain, and as a virtual projection, it will not be locatable in any specific region or the brain.

Consciousness is reality imagined.