

Some Thoughts on Cosmic-Conscious Devices

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Abstract

In this note, we conceptualize devices that exhibit cosmic consciousness. By use of Shannon's concept of information and communication, along with that of the synchronization of neurons, fire-flies and the like, we elucidate our concept. In the context of the present furor over artificial general intelligence, this note offers an alternate, pacifying standpoint.

1 Background

Humans agree that we are conscious. Humans simulate and approximate networks of computing and communicating devices like the brain and study their behavior - it is, perhaps, inching towards human-like behavior. No such device has ever reported non-sensory information. We need a leap. We seem to have ignored that the highest expressions in human civilization have not been the merely human. Reports of a higher realm of conscious experience have been peppered throughout human history - cosmic consciousness [1]. Why not directly target the design of devices with cosmic consciousness? These would be devices that report non-sensory knowledge.

2 The Obstacle

The key obstacle of course is that we don't really understand consciousness, let alone cosmic consciousness.

3 The Steps we can Take

Turn logic on its head and start with the assumption that cosmic consciousness exists. So we are postulating the presence of an all-pervading underlying consciousness, perhaps weakly interacting with everyday matter. Next, look for a device that expresses this consciousness occasionally, at certain spacetime locations, and perhaps certain unique configurations - naturally, the human brain. Replicate this device exactly, turn the power on, and hope that it is cosmic conscious.

This is not very systematic. This is what we seem to have been doing in building giant simulators of the human brain. Instead, we need to abandon a few pet conceptions and adopt certain new ones.

4 To Abandon

The hope of directly measuring consciousness - it's not been done so far in human scientific history anyway, so why not abandon it. If we cannot measure it, we cannot come to a jointly agreed conclusion about it. What then can we do?

5 To Adopt

Since no sensor can sense cosmic consciousness, we need to adopt a new view of systems. Instead of sensors probing their environment and then acting on that data, the device quietens its internal state. We need a definition of quietening. Suppose in a room there is a crowd and several conversations are going on - it is a cacophony. One way to define the quietening of the room is the replacement of this cacophony by a synchronized rhythm, the room speaking in 'one voice.'

6 Quietening and Synchronization

Synchronization thus provides a means of objectifying quietening. Synchronization is a well studied phenomenon. From clocks, to fire-flies, to neuronal ensembles, all manifest states of synchronization. We may say that synchronization between like elements allows them (but does not necessitate) to occupy global states that are not accessible by the individual components. The global state in question is a unifying characteristic of the system as a whole.

7 Information

When a bee dances to communicate to its friends the direction to fly in to get honey, it has synched with them, and information has flowed from it to them. This information is about some location many orders of magnitude larger in distance away from the bee than its friends are, within the bee hive. This information is not time-specific; it need not be acted upon by the friends immediately. Thus information has crossed the barriers of space and time within the context of a synchronizing bee hive. Can this information be measured? If not directly, it can at least be inferred from the actions the bee-friends take following the receipt of this information.

8 The Parallel With Consciousness

But this parallels exactly the properties of consciousness: it can be inferred from its impact; it seems to cut across space limitations; it is not time specific.

9 Which Leads us to Cosmic Consciousness

This hypothetical cosmic consciousness, which seems to be present throughout the universal spacetime manifold is similar to the bee's information. It has been manifested by certain individual brains at some points of history [1]. In these individual brains, it contained information about vast distances, much larger than the physical size of a brain. In these individual brains, it contained information about universal history, that is time scales much larger than the life of any individual brain. Thus, spacetime transcendence within individual brains parallels spacetime transcendence within the bee hive.

10 Where Does This Leave us Practically?

The link between the beehive and the brain was in the synchronization of elements. Thus we come to the central hypothesis - consciousness, if not cosmic, is coexistent with the presence of synchronizing neural elements. Koch and Crick [2] have also postulated that oscillations of neural networks might be correlated with consciousness. By studying information flow in synchronizing neural systems we may thus approach an understanding of consciousness and therefrom approach the understanding of cosmic consciousness.

11 Conclusion

In this note, we have examined the definition of consciousness and the related issue of cosmic consciousness. Understanding these two will open the way to build conscious devices and even cosmic-conscious ones. To paraphrase a quote of Richard Feynman from the context of quantum computation and apply it to our present context: until we can build such devices, we can't claim to really understand [cosmic consciousness]. And until such time, no AI, not even AGI, can be said to be even remotely human.

To conclude, in certain psychiatric diseases such as schizophrenia, self-generated information has been reported [3]. Might this be a clue into a 'portal' beyond the physical universe? Might this portal be accessible (perhaps non-deterministically) by a certain 'rhythm' or 'synchronized operation' of neural ensembles? We leave our readers with this question for further exploration.

References

- [1] Richard Maurice Bucke. *Cosmic consciousness: A study in the evolution of the human mind*. EP Dutton, 1923.
- [2] Francis Crick and Christof Koch. A framework for consciousness. *Nature neuroscience*, 6(2):119–126, 2003.
- [3] Pierre Fournieret, Frédérique de Vignemont, Nicolas Franck, Andrea Slachevsky, Bruno Dubois, and Marc Jeannerod. Perception of self-generated action in schizophrenia. *Cognitive neuropsychiatry*, 7(2):139–156, 2002.