

Review of: "Artificial Consciousness: Misconception(s) of a Self-Fulfilling Prophecy Nobody Wants"

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Potential competing interests: No potential competing interests to declare.

Review for Qeios on the paper:

Artificial Consciousness: Misconception(s) of a Self-Fulfilling Prophecy Nobody Wants

By: Birgitta Dresch-Langley

I largely agree with the main conclusion of this paper that 'in the light of all we currently know about brain evolution and the adaptive neural dynamics underlying human consciousness, the idea of an artificial consciousness appears misconceived'. In fact, this resonates my recent argument (Ng 2023; published online in Dec. 2021) that 'machine consciousness is much less likely, perhaps impossible, as some mental element may also be required' (Abstract), after reviewing recent arguments/evidences in neurology and parapsychology supportive of the non-materialistic answers to the mind-body problem. However, I do not understand quite a few statements/arguments in the paper, but this may largely reflect my lack of knowledge in the area (my main area being welfare economics) and the intrinsic difficulties of the problem, rather than the inadequacies of the present paper under review. I also have some relatively minor disagreements/quibbles:

1. [For artificial consciousness to be possible,] 'Algorithms would have to be capable of a progressive and less and less arbitrary selection of temporal activity patterns in a continuously developing neural network structure that is functionally identical to that of the human brain, from synapses to higher cognitive functional integration' (Abstract). Though the thrust of this statement is reasonable, the word 'identical' is too demanding; It needs not be identical, even just functionally, as conceptually, we could have AI with consciousness at say the level of a chicken, instead of a human; it is still consciousness.
2. 'The code would have to possess the self-organizing capacities of the brain that generate the temporal signatures of a conscious experience' (Abstract). Our (at least my) limited knowledge does not allow us to say whether these capacities are self-organizing or not. One possibility not yet ruled out is that it is the soul, not the brain, that is doing the organizing.
3. 'Artificial consciousness would require probabilistic adaptive computations capable of emulating all the dynamics of individual human learning, memory and experience.' (Abstract). Similar to Point 1 above, the word 'all' is too demanding.
4. Second to third last lines on p.5: 'consciousness is a complex product of a long process of brain evolution'. This is at

best a hypothesis, yet unproven nor disproved. This is so as we do not have a definite answer to the basic philosophy of mind; either materialism, emergentism, Cartesian dualism, panpsychicism, panspiritism, etc. may be true. (On the less well-known panspiritism, see Taylor 2018, Ch.2.) Even my rational materialism (2023 Ng, forthcoming) may be true instead.

5. 'In the light of the complex interactions between implicit (non-conscious) and explicit (conscious) contents of representation, emulating human consciousness through artificial intelligence **would imply** that it is possible to make implicit (non-conscious) brain processes explicit by algorithm.' (Middle of p.16; emphasis/highlighting added; the paper under review does not subscribe to this statement.) This possibility is most likely non-existent.
6. Last two sentences before the Conclusion on p.16: 'Moreover, the computations would have to be able to represent past, present and future of complex event chains stored in the system's long term memory. No AI system known at present has such potential.' Not only at present, likely also for the future.
7. The use of numbers is rather imprecise, e.g. in the middle of p.3, 'twenty years earlier' should be eight years earlier (i.e. 1987 vs. 1995); second line of Section 3 on p.6, 'twenty years ago' should be 'twenty five years ago' (1998); middle of p.7, 72 years ago (i.e. 1971) is described as 'half a century ago'.
8. Some typos: Line 12 on p.4, 'break-thought' should be 'break-through'; Line 13 of Section 2 on p.5: 'tha' should be 'that';

References

2023 . , Generis Publishing. <https://www.generis-publishing.com/book.php?title=-1750> [Currently has some technical problem; hopefully will be fixed soon.]

NG, Yew-Kwang (forthcoming). *Do We Survive Our Biological Death? A Rational Examination*

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