Review of: "Towards Modeling Artificial Consciousness"

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Potential competing interests: No potential competing interests to declare.

Hi Maksym!

Congratulations for your work! The idea of modeling artificial consciousness and reproducing on silicon at least some of the features nature imprinted on carbon is very tempting indeed. My work is in philosophy, not in mathematics, but I am mathematically-literate enough to understand that your attempt to model consciousness via neural networks and especially through nonliner connections between neurons is very promising. I do hope your final paper will shed new light on this ongoing discussion. A very fine partner for a discussion on the mathematical aspects of consciousness would be Johannes Kleiner, from Munich. You can google him and you will find his personal website, with contact details. I am sure he will be interested to talk to you more on this.

From my part now just a few small questions/ comments:

- since you are more interested in attention and information processing, are we talking about consciousness broadly defined or rather about awareness?
- do you intend to take into account memory or intentionality as well in your modeling? that would be a bit more imponderable indeed; my point here is: are you also interested in what we call 'phenomenal consciousness', that is subjective conscious experience'? I think this is really the problem with AI consciousness and not only - it is difficult to define even when we talk about human consciousness … and are you also interested in what the higher-order theories of consciousness can add to your model?
- and related to the above, would you consider looking into the difference between the default mode network (DMN) and the task-related networks? I think that would be interesting - especially regarding nonlinearity and the resulting sigmoid … but then again you would go beyond attention and information processing and it would be hard to define consciousness just in terms of attention to the current task or to what grants survival …

These are just some ideas. Please, feel free to ignore what does not fit!

Lots of good luck with your article, I learned a lot from it, look forward to the final version,

Diana