

Review of: "The functional unit of neural circuits and its relations to eventual sentience of artificial intelligence systems"

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Potential competing interests: No potential competing interests to declare.

I am unable (unwilling?) to evaluate the authors' ideas since the start of the paper does not represent science but vague coffee time discussion. I strongly advise the authors to rewrite the paper so it is more in keeping with the usual approaches to science--they will greatly increase the chance that readers such as me continue reading and perhaps better appreciate their work.

There are no line numbers so I will simply describe paragraphs. Ok... first paragraph underneath "Introduction." Give me a reference. Why should I believe your opinion about AI systems? Ten years from now what is "contemporary"? Plus.... most important – this does not really relate to your paper except in a vague way.

Second paragraph--too vague. I have no specific idea what you are talking about. I have no willingness to let my mind start imagining all sorts of things. This is not science. You have to more precisely state the problem, what work was done in the past, and how you are improving it.

Third paragraph. Again very vague. I still have no specific idea about what you are talking about. I can imagine a thousand different things. This is fine for coffee time discussion but not for a scientific paper.

Third paragraph – the thing my mind is sort of thinking about, is the idea of a canonical neural circuit. There is indeed a huge literature on this, but since you have not mentioned any references yet, I have no specific idea what your research is trying to address specifically.

Moving on to page 3 "Neural Substrate for perceptions and imagery." Ok... finally, something that looks like a science paper. Good... you are telling me something along with references. Ok.... good. Actually it almost seems like this should be the start of your paper.

Next page "The diagram of the functional unit..." You should make clear that we are reading about other people's work here, although not hard to figure out given that image is from Wikipedia. (By the way, images are all blurry when I print them out – ok to take non-copyrighted images but if they are blurry you need to redraw them.)

Ok... at bottom of page we get to the maintenance of imaginal activity including a reference who did this work. (Ahhh, it

was you. Is there other work in the field by others in this area?)

The next page on the typical threshold unit with the simple diagram occupying most of the page.

I stopped reading here since I don't really know where all this is going.

I would strongly advise re-writing the paper, starting off the paper with an introduction to what has been done, and how this paper (i.e., your current work) makes a contribution to the field.

I believe the subject of your work is worthy of consideration. Indeed, elucidation of the canonical neural circuits in the mammalian brain would be an impressive achievement. However, you should accept my notes above as friendly constructive criticism, and re-write the paper.