

Metric Perturbations May Address Instruction Memory in the Brain

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Abstract

In this note, the authors propose that metric perturbations may carry instruction memory addresses for the brain. Once this process releases instructions, the brain may then carry them out. In this sense, man may have limited free-will.

Consider Figure 5.1 in [1] which depicts an abstract view of the implementation of the MIPS subset. The block labeled instruction memory has one input, the address and one output, the instruction stored at that address. In [2] the authors proposed that metric perturbations alter the timing differential of the action potentials carried down a tract of three axons and validated the proposal via simulations.

These timing differentials are critical in the case of time coded information. Thus metric perturbations are capable of altering the information carried down an axon tract. This was proposed to be extended to the case of quantum information in [3, 4]. If the end points of these axons impinge on higher cortical regions such as the visual or auditory regions, they can stimulate visual and auditory thought processes, or some combination thereof, by the resulting activation (see also [5]). More generally, by impinging on cortex, these axons can activate instruction sets stored in cortical synaptic weight patterns, directing the organism to act them out.

In summary, very general computations may be carried out by these universal messengers. Given the presumably large number of these waves passing through a human system at any time, one visualizes a symphony of computations being orchestrated in the nervous system. The brain may have some sort of threshold or filter for low-importance computations, for example, those that are not fight-or-flight related and so most of these universal computations might be suppressed. But now and again, such a computation might surface and consume the brain, raising the organism's consciousness in an epiphany or inspiration.

These speculations can be concretized by validating the work done in [6] as a first step. If validated, this line of thinking also dissolves the problem of locating consciousness. Given the universal nature of the sources of these information patterns, "pointers" to the sources may not be easily identifiable.

References

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