

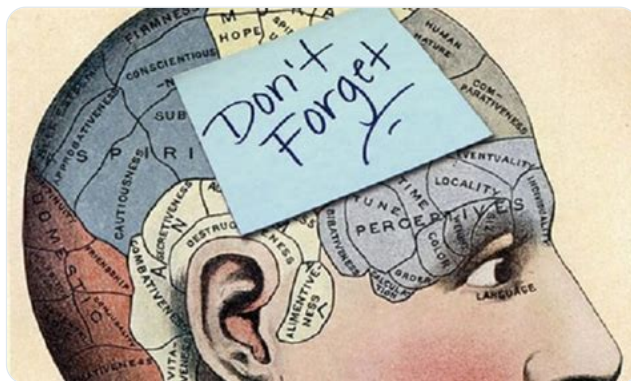


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[Memory & Mind as a gesture] □ 🧵

I remember that my neuro-scientific gateway to the new "cognitive sciences" was, in the 90's and in addition to epistemological modeling, *memory*. The concept of memory allows us to link cognition to material and cultural technologies.



Cognitive psychology (cognitivist) teaches us to differentiate in long-term memory between "declarative" memory (know-what): explicit, formal, conceptual, and "procedural" memory (know-how): implicit, sensorimotor, gesture. (Tulving).

PDP/Parallel Distributed Processing modeling (aka "ANN", "Deep Learning") offered me an ideal formalism for thinking & feeling the relationship between representational "cognitivism" & "enaction" as a priori processes AND a posteriori representations, both *distributed*.

As already said, the memory of *living organisms* is radically different from that of computers (second-order machines = machine to simulate): it is non-localized and reactivable by the "content", that is to say by the *context*. This is what is simulated by current LLMs.

The PDP models opened up to me the perspective that what was memorized was not a representation-of-the-external-world, contrary to cognitivist folk psychology, but sensorimotor contingencies/co-variances: *mind as a gesture*.

Which, in the context of a digital culture where precisely *the body is absent*, poses many questions regarding the creativity and semantic understanding of these machines understood as "statistics" (a mathematical technique for understanding the *distributedness*).

These models offer us a possibility of a *post-functionalist conception* (!): functions/"inferences" being emergent & enacted by the "learning" activity of the network.

This is very important: our own logical reasoning would then be *a posteriori* of sensorimotor activities.

Then, it was Stiegler who also made me understand the importance of the concept of *hypomnemata*, of memory trace, as a technique and self-writing (Plato, Aristotle, Foucault, Stiegler): written culture , but also today digital technologies like *outsourced memory media*.

Fin.

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