

Memory Configuration and Memory Logic in the Human brain

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ABSTRACT

As memory accumulates some events get overwritten by learning/unlearning while some events persist in brain memory. This logic of persistence of memory is being attempted by setting up a theoretical/abstract framework of brain memory. This paper only tries to explain configuring memory, persistence of memory, transient memory and lost memory.

Keywords: Memory Configuration, Memory

INTRODUCTION

As $T_{12}, T_{23}, \dots, T_{n-1n}$ (Time periods) tends to zero, Events $E_1, E_2, E_3, \dots, E_n$ tends to be infinite (Refer to the Paper "[Simulation/Recurrence of events in real-time real space in real-life.](#)" by Hatim Kanpurwala [Reference 1] - for explanation of Time Periods $T_{12}, T_{23}, \dots, T_{n-1n}$ and Events E_1, E_2, \dots, E_n). To capture all these infinite events in real time by the human brain I think is not possible at this moment in human history because the human brain which captures these events and stores in memory is finite in size and capacity. Hence as memory accumulates some events get overwritten by learning/unlearning while some events persist in brain memory. This logic of persistence of memory is being attempted by setting up a theoretical/abstract framework of brain memory.

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The logic behind persistence of memory I strongly feel is linked to our genes and our accumulated experiences/wisdom gained in life which shape our mind/body. Genes hardwire the logic of certain memory traits while experiences make/break that logic by making/breaking the connections between the logic and the memory cells. These connections or synapses in our brain/nervous system which make/break the connections between the memory cells and the logic behind memory cells (those parts of the brain which/who are the preceptors or cognitive parts and decision making parts) are based on our experiences/perceptions in life from our surroundings. Based on instructions by the cognitive/decision making parts of the brain (aka the right and left hemispheres or the rational/computing parts and the irrational/creative parts of the brain) the connections are broken or regenerated/made or left as they are when new inputs or events/perceptions are

registered. The logic behind rewiring/not rewiring or breaking the wires, determined by our left and right hemispheres of our brain is genetically determined unless these parts of our brain are altered by our diet (chemical inputs we intake) & perceptions in our environment (sensory inputs we recognize) and our pleasant/unpleasant experiences with such inputs. The degree of pleasantness/unpleasantness is normally determined by our so called rational parts of the brain which is conditioned by constant repetition of certain values/outputs/behaviors in response to certain inputs e.g. as a child our parents teach us to avoid unfamiliar objects/persons which persists in our adult age which takes us some time to overcome these psychological barriers, hence the norm to introduce speakers/participants to “break the ice” say at a conference/seminar or depending on maturity of person he/she will break the ice with another person to network which again depends on the vibes (pleasant/unpleasant experience) he/she is getting from the other person. Under certain conditions these inputs and their corresponding output values/behaviors are overridden by the irrational/creative parts of the brain especially when the input is new. This happens I think when the input is incident on the brain and before the rational part can take cognizance and respond, the irrational/creative part of the brain deciphers a pattern, takes cognizance and responds by registering the input and outputs certain values/behavior such as a gasp or surprise etc. e.g. when we see or observe something unusual or funny we respond by being surprised or gasping or laughing showing our excitement of such input(s). Again our deciphering of new patterns is initially hardwired or encoded in our genes/brain, unless this also becomes a learnt behavior and we continue being surprised or gasping or laughing like mob mentality (we look surprised or gasp or laugh because other people are surprised or gasping or laughing – it is not a genuine surprise/gasp or laughter).

CONCLUSION

Hence we conclude that there is a constant interplay between the rational and irrational parts of the brain in configuring memory. The logic for configuring memory is primarily determined by our genes but gets conditioned by our environment. Those memory cells whose connections are unbroken over long periods of time can be termed as persistence of memory, those memory cells whose connections are broken and left in store to be reconnected and/or rewritten is termed as transient memory, those memory cells which are overwritten is termed as lost memory.

Implications and potential applications

1. Improving memory
2. Treating memory related disorders
3. Improving brain functionality

SUMMARY AND SCOPE FOR FURTHER RESEARCH

Maybe as Humans evolve we might be able to evolve perfect and infinite memory and computing power. Such a Machine/Abstraction or Human brain can potentially provide the guiding light/solution/answer instantaneously to several simple/complex queries/problems before us.

REFERENCES

1. Paper on “**Simulation/Recurrence of events in real-time real space in real-life**” to be published in Abhinav Journal April 2012 issue by Hatim Kanpurwala.