

# Research paper on human memory

[Life](#), [Childhood](#)



## **Human Memory**

There are three stores which make up the human memory: the sensory register, short term memory and long term memory. Information is divided up between these three in terms of how much information they can store, how long they can store it for and what 'format' they store it in.

The first store is the sensory register which can hold information for up to one second and usually handles visual information sent from the eye. This sort of information tends to be un-processed in the sense that the visual information stays as a visual etc. It has a big storage capacity due to the eye taking in a lot of information, all the time. The small amount of information that is processed in the sensory register is then passed to the short term memory. This is the store where information is largely stored in an acoustic file, as generally we hear the information which is stored here. Various estimates of how long information is stored here vary, but an average is about 6 to 12 seconds. The short term memory has a surprisingly small capacity and estimates show that it can hold up to seven 'chunks' of information (dates, numbers, names etc.) at any one time. If, for example, we memorise a phone number and then are asked to consider another number then we are unlikely to be able to hold both sets of information in our minds without their being some disruption. From here, information is passed on the long term memory, if its trace has not already decayed. Although it is not officially known, the belief is that the long term memory is limitless and certain memories can last for a lifetime. These sorts of memories tend to be events that involved a degree of cognitive process behind them: the plot of a movie, a first date with your partner or something

that involved making a decision: this is proven by the fact that memories here tend to be stored in terms of their meaning.

Two issues that affect our retention of new information are proactive and retroactive interference. Proactive interference is where information we had learnt prior to the new learning, affects how we process the new information; retroactive interference refers to the effect of new information affecting the retention of prior learning. A key way of limiting these interferences is to evaluate the information's value: does it add to prior learning or contradict it? When studying, an excellent way to manage this is to work with mind-mapping: the note-form of recalling all relevant ideas and their connections to one another. By using mind-mapping, you are able to evaluate information's worth along the way and investigate their connections and therefore, strengthening your memory of a topic.

The retention of a memory boils down to two things: availability (whether the memory trace exists) and accessibility (whether you can gain access to it still). There is evidence to suggest that the long term memory store is not fully developed in a child which is why they tend to forget people if not seen frequently. It is also suggested that an adult's memory is often shaped by experience and so we are more aware of what is 'worthy' of retention and what isn't, whereas a child tries to take in too much all at once and overloads their memory. Other, less comfortable, memories are often repressed in an attempt to calmly handle them by the psyche where we are less likely to feel damaging effects of upsetting events.

## **References**

1. Baddeley, A. D. (1997). Human Memory: theory and practice. East Sussex, UK: Psychology Press Ltd.
2. Boller, F. & Grafman, J. (2000). Handbook of Neuropsychology: memory and its disorders. Amsterdam: Elsevier Science B. V.
3. Craik, F. I. M. & Lockhart, R. S. (1972). Models of Memory. In Banyard, P. & Grayson, A. (Eds.) *Introducing Psychological Research* (pp. 298 – 302). New York: Palgrave.
4. Henderson, J. (1999). *Memory and Forgetting*. New York: Routledge.