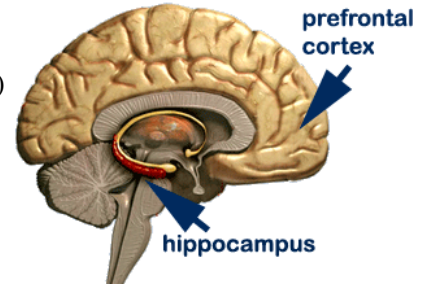


## Memory Techniques

Back in the day (before writing, books, television, and the internet), people had to know some memory techniques to remember lists, stories, facts, etc... Today, we almost have no need to use memory tactics, since we have many databases available to us.

The “Art of Memory” is designated as an associated group of mnemonic principles and techniques used to organize memory impressions, improve recall, and assist in the combination and 'invention' of ideas.

- Our brains do not remember all types of information equally well
- What helps with memory?
  - Words that rhyme (ie. roses are red, violets are blue, I love hanging out with you)
  - Alliterations (ie having two words with the same sound (ie. right as rain))
  - Concrete nouns (ie. cat) rather than abstract nouns (ie. curiosity)
  - Patterns and Structures
  - Images
  - Songs
- Males primarily memorize by being “methodical” (need to have logic / orderly).
- Females primarily memorize by being “emotional” (need to have reason / purpose).
- 99% of all sensory information is almost immediately discarded as soon as it enters the brain.
- Time is needed and different routings are required for more memory.
- Experience helps with memory (ie. waiter)
- Memories in school has become less important
- Memory is an “imaginative process”
- “Mnemosyne” = a goddess of memory



Hippocampus = helps to provide correlations between physical space and memory; thus, can be used together to remember things

Right Brain = visual and spatial skills

Left Brain = language and top-level thinking

- evolutionarily wise, our right brain is more hard-wired to help us remember  
ie. Savants typically have their left brain damaged somehow, thus their right brain become more readily available to help with memory (i.e. memorizing phonebooks, etc...)

Memory may be best used in our “lower-level processing” which ironically takes a lot of brain power (ie just knowing the difference between a cat and a dog or how to catch a ball) – so, let’s use it to remember useful and un-useful/interesting things about the world by using some memory techniques that involve using our right brain, hippocampus, and imagination.

Memory increases if we practice using “low level processing” first. For example, trace a drawing first before just drawing the picture on a separate sheet of paper.

Sleep is very important to retaining memory.

Clear your mind of any distractions before taking a test.

Side note: Multitasking while (ie studying) is showing negative effects for memory.

- ie causes gaps in writing and fragments in ideas – too many interruptions, thus limits total recall ability.

### Memory Types:

Natural Memory = what you are born with / hardware

Artificial Memory = what you must train for / software; how to upgrade?

- ie. use “images” of what one wishes to remember (make funny / strange)
- ie. use “places” to store images (make areas familiar)

### Techniques / Ideas: (prevalent)

- **Method Acting** = achieving realism in acting out a memory as if one were in a play.
- **Chunking** = a technique used when remembering numbers, although the idea can be used for remembering other things as well.  
ie. instead of remembering 4536, remember 45 and 36  
- ie. remembering Pi digits: use a sentence in which each word is a digit:

- if, Pi = 3.14159265
- then, May. I have a large container of coffee beans?
- typically limited to 5-10 chunks at a time: ie. H, O, M, E is four chunks, but the word “home” is one chunk.

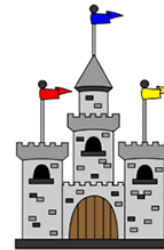
- **Elaborative Encoding** = transforming something one sees hears, thinks, or feels into a memory; make something boring into something exciting.
  - ie. forcefully link, associate, or connect the incoming information with something already in your memory in order to make the memory meaningful/exciting. You can retrieve the memory, because you have an actual means to recall it, due to associating, linking, or connecting the incoming information with something already in your memory.

ie. Baker / baker experiment:

If one were asked to remember a person’s name, “Baker” and... another person was to remember the word, “baker”. The person who was told the term as a “word” and not a name tend to remember the word better.

- why, because we can associate the common noun “baker” as a person who is in the kitchen better than the name – which we would typically have “no” association with – everyone knows what a “baker” in the kitchen is...
- you’ve created an “association hook” for retrieval.

- **Memory “Palace”** = an area (ie house, work, own body, etc...) that you are very familiar with and easy for you to see to place images (memories).
  - developed ~ 5<sup>th</sup> century BC (story from of a disaster-walking people in to show where their family sat)
  - the weirder / odder / stranger the image, the better
  - not necessarily used for word-from-word speeches, but to give you a general direction or guide of what you want to remember (ie. certain topics in a speech)



“topic sentence” = refers to “place”

“in the first place” = refers to the first place in your memory palace.

- **Major System** = code to convert numbers (0-9) into phonetic sounds.
  - chart is needed (memorized) to match letters (not vowels) with numbers and then place or use unrelated letters between or around the digits.

Digit	Sound	Examples	Remember
0	z, s, soft c	ace, size, use, yes	z for zero
1	t, th, d	tie, the, do, it	t has one down stroke
2	n	noah, any, new, one	n has two down strokes
3	m	ma, home, me, aim	m has three down strokes
4	r	ray, our, here, your	last sound in four
5	l	oil, lay, whole, law	Roman numeral for 50 is L
6	j, sh, ch, soft g	jay, wash, shoe, wage	reversed j looks like a 6
7	k, q, hard c, hard g	key, guy, queue, cow	k is made of two 7's
8	f, v	fee, wave, via, half	script f resembles an 8
9	p, b	pie, bay, pay, abbey	reversed p is a 9

- ie. if r = 4 and n = 2, then 42 can be remembered as “rain”
- ie. 118 = 1 = t or d and 8 = f or v, the 118 = “additive”

Remember, it is the sounds that are important, not the letters.

Program to help generate words: <http://got2know.net/2Know/EnglishDownload.htm>

- **Person Action Object (PAO)** = every 2-digit number gets converted into a series of three visual images: a person, an action, and an object.
  - need to use “Major System” to make it work.

- Once you have 100 persons for the numbers 00 to 99, give each person an action and an object.

10 might be Otis Redding → singing-into → a mic

11 might be a Titan → holding-on-his-shoulders → the World

When memorizing numbers, chunk them in groups: ie 101110 - 10-11-10 = Otis Redding → holding-on-his-shoulders → a mic

**References:** Moonwalking with Einstein, by Joshua Foer's and/or <http://joshuafoer.com/>