

	<b>Sensory Register</b> A temporary store	<b>STM</b>	<b>LTM</b> A permanent store.
<b>Capacity</b> = amount	<b>Large</b> – Eg; Each eye has 100 million cells each storing visual data. (Sperling, 1960)	7 items +/-2. (Jacobs, 1887/ Miller, 1956)	<b>Unlimited</b>
<b>Coding</b> = format	Based on senses. 2 most common: <b>Iconic</b> (Visual is stored visually) or <b>Echoic</b> (sound is stored acoustically) (Sperling, 1960)	<b>Acoustic</b> (Baddeley, 1966)	<b>Semantic</b> (meaning). It's split into 3 stores: Episodic, Semantic and Procedural. (Baddeley, 1966)
<b>Duration</b> = timeframe	<b>Limited</b> – If no attention given, spontaneous decay takes place and it fades away quickly. (Sperling, 1960)	<b>Limited</b> (18-30) (Peterson, 1959)	<b>Unlimited</b> (Bahrick, 1975)

**TYPES OF LTM**  
Declarative/Explicit (conscious):

- **Episodic** – Events and experiences (time/senses)
- **Semantic** – facts and knowledge

Implicit (unconscious)

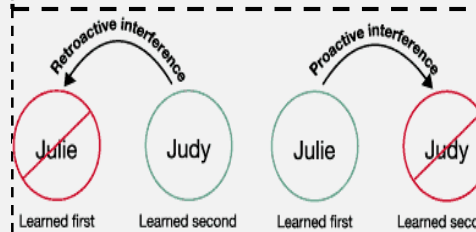
- **Procedural** – skills and tasks.

☺ Brain scans show memories in different places / HM case study / Alzheimer patients.

☹ Case studies are limited / brain scans are limited, post mortem needed.

**FORGETTING - INTERFERENCE**  
**Retroactive** → new learning interferes with past learning.  
**Proactive** → past learning interferes with new learning.

☹ Artificial research / interference doesn't explain everything / individual differences.  
☺ Real-world application to advertising.



**Primacy effect** → items are more likely to be remembered from the start.  
**Recency effect** → items are more likely to be remembered from the end.

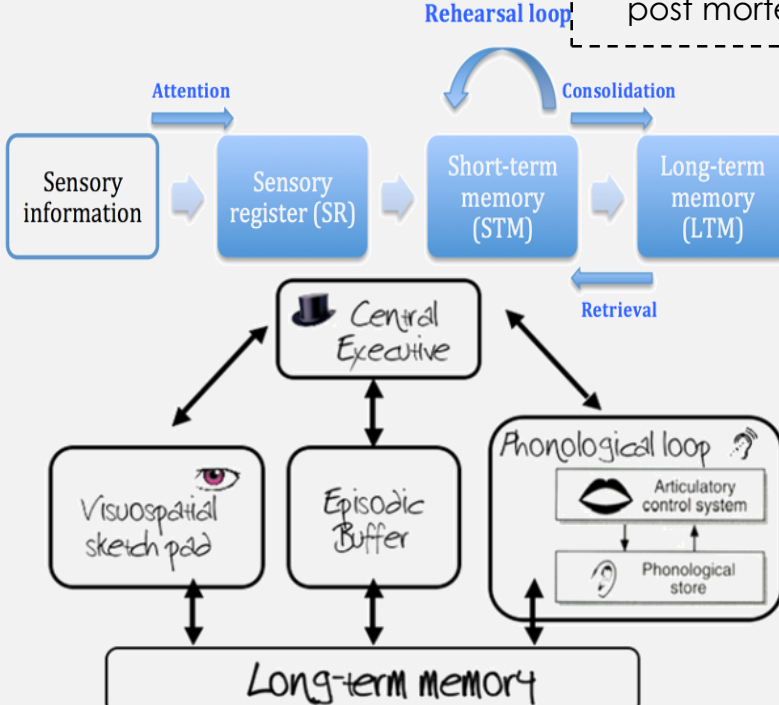
**FORGETTING – RETRIVAL FAILURE**

**Context dependent** → Memory recall is better when the environment is the same as where it was learnt. Eg, *Scuba diver study*.  
**State dependent** → Memory recall is better when your mental state is the same as when you learnt it. Eg, *Drunk vs Sober study*.

☺ Real world application (mental reinstatement) / supporting research

**MULTI-STORE MODEL (1969)**

- Sensory register holds sensory information.
- If attention is focused, information is passed onto the STM. Maintenance rehearsal is needed to move information into LTM, otherwise it decays.
- ☹ Reductionist / unitary store challenged by WMM and Tulving / LTM needs more than rehearsal.
- ☺ Lots of evidence for separate stores / brain damage case studies show separate stores.



**EYEWITNESS TESTIMONY - LEADING QUESTIONS → Loftus and Palmer (1974)**

- 45 PPs shown 7 films of different traffic accidents and were asked to describe the accident.
- "How fast were the cars going when they X each other?"
- *Smashed* = 40.8mph / *collided* = 39.3mph / *hit* = 34mph / *contacted* = 31.8mph.
- "Was there any broken glass?" Those who were given the stronger verbs were likely to say yes.

☺ Real life application (police interviews) / supporting research (Disneyland – false memory).  
☹ Artificial test (ecological validity) / response bias / individual differences (children).



**IMPROVING EYEWITNESS TESTIMONY**

**COGNITIVE INTERVIEW** → a police technique for interviewing witnesses to reduce inaccurate information from leading questions.

1. **Mental reinstatement** – context of crime.
2. **Report everything** – free recall.
3. **Change order** – reverse to challenge schema.
4. **Change perspective** – other witness POV to challenge schema.

☺ Effective and increases accuracy / increases quantity of recall.  
☹ Individual differences (negative stereotypes) / time consuming for police / artificial research / different police regions will use slightly different techniques.

**WORKING MEMORY MODEL (1974)**

- Challenged MSM, stating that STM has stores within it because we can see and listen at the same effectively, but struggle to listen or see 2 items at once.
- **Central executive** → directs information to the correct 'slave' systems.
- **Phonological loop** → limited capacity, auditory store which breaks down into phonological store (inner ear) and articulatory processes (inner voice).
- **Visuo-spatial sketchpad** → visual/spatial awareness.
- **Episodic buffer** → added in 2000. collates all information together and passes it onto LTM.

☺ dual-task performance and case studies of brain damage (KF)  
☹ Central executive is vague and limited / reductionist / problems with case studies.

**EYEWITNESS TESTIMONY - POST-EVENT DISCUSSION.**

- Memory can be altered or contaminated by co-witnesses if they're interviewed together, interviewed multiple times or able to discuss what they saw.
- 71% of PPs who discussed an event before recall mistakenly recalled information.

**EYEWITNESS TESTIMONY – ANXIETY**

- **Weapon focus effect** → PPs asked to sit in a waiting room where they heard an argument. A man runs out with either a pen covered in grease or a knife in blood. They were asked to identify the man.
- 49% identified the pen man, 33% identified the knife man.
- Anxiety can have a negative effect by drawing people to specific details of the crime and away from features of the criminal.
- **Positive effect** → evolutionary argument – it's adaptive to remember details to promote survival. In real-life crimes, witnesses are likely to remember 75% of detail up to 15 months after the crime.
- **YERKES-DODSON EFFECT** → too much anxiety will impair recall accuracy.