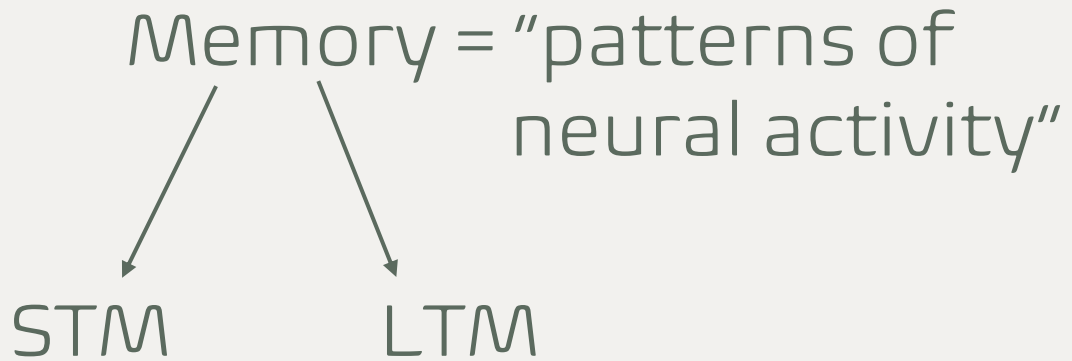

Recognition is Easy; Recall is Hard

DWTMIM Ch. 9

Abby Rice

Earlier chapters

Ch. 7

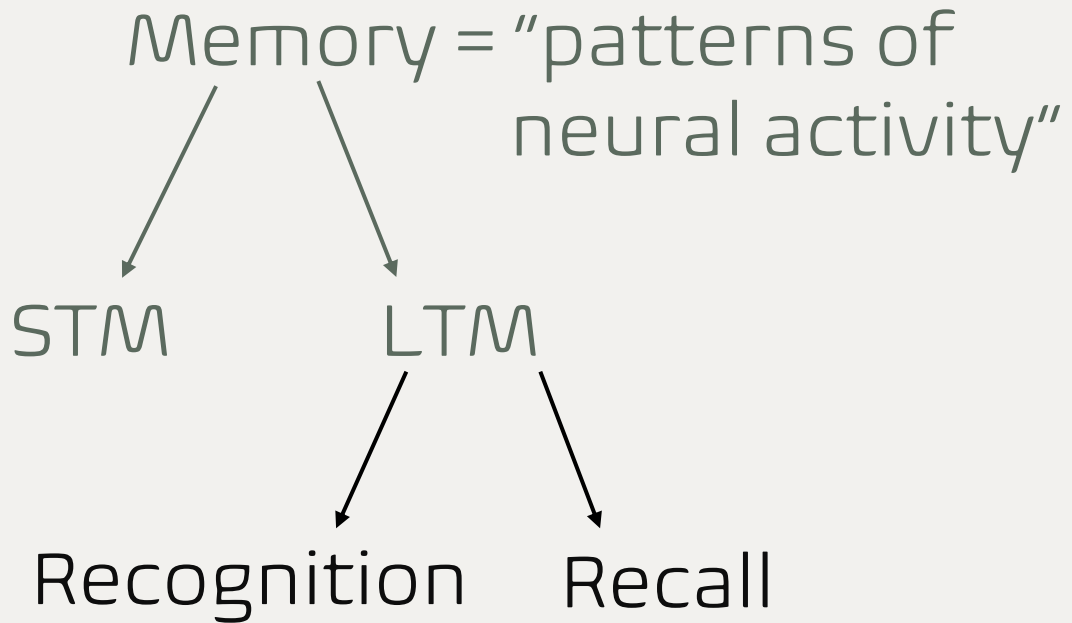


Discussed memory, focused on long-term memory (LTM)

The neural pattern retrieved depends on two things

- Features of Perception
- Context

Ch. 9



The difference between recognition or recall depends on how the memory is activated

How memories are activated

- Outside perceptions enter our sensory systems → neural patterns activates
- Which pattern activates depends on both the outside perception and its context
- Repeated activation strengthens the pattern

Long term memories can be activated two ways:

- Outside perceptions
- Other brain activity

Outside perception triggers recognition

Outside perceptions that have been experienced before in a similar context cause a sense of *recognition*

Quick; adapted from when we needed to recognize if something they see is a threat or not



Face Recognition

The inherent* human ability to recognize faces

Face Recognition

Facial recognition is more than a search through LTM...

Parallel search processing isn't fast enough

Experience affects recognition

Recognizing other visuals at a similar rate requires experience or exposure to those visuals, usually repeatedly



Recall

Unlike recognition, recall is activated without similar outside perceptions.

Slower and less accurate than recognition

Historical methods used to remember long sequences

UI Implications

The differences between recognition vs recall formed the basis of GUI in the mid-1970s

- See and choose is better than recall and type
- Use pictures where possible to convey function

Recently added rules

- See and choose is better than recall and type
- Use pictures where possible to convey function
- **Use thumbnails to conserve space**
- *Make commonly used functions easily visible*
- **Use visual cues to let users recognize where they are**
- *Make authentication information easy to recall*

Use thumbnails

- Size doesn't matter
- Features most important
- More familiar -> smaller the thumbnail can be

Common functions and Visibility

- Commonly used functions should be designed in a way where users can recognize the option without needing to recall their task

Include visual cues

- Let users recognize what site they are on
- Use graphics to distinguish modes
- Use logos to assure users they are on a secure site

Help users recall passwords

- Loosen restrictions on password contents
- Large variety of challenge questions
- Supply user with password hints
- Use biometric data

Thanks 😊