

Memory

Objective's for Today's Class:

- What are some types of memories?
- How can we retrieving memories?

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Let's Share Some Memories!

What kinds of things do you remember?

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What do you remember?

☞ Two types of long-term memories

- *Declarative Memories (Explicit)*
 - Memories with conscious recall
 - Memories for facts
- *Procedural Memories (Implicit)*
 - Memories without conscious recall
 - Memories for actions, skills, and operations

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Declarative Memory

- ☐ The ability to state a fact
 - These memories are learned quickly but compared to procedural memories they are more likely to be forgotten over the long term
- Examples:
 - Being able to tell someone your phone number
 - The meaning of the word "consciousness"

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Two Types of Declarative Memories

- ☐ Semantic Memory
 - Contains general knowledge that is not tied to the time when the information was learned
 - Memories of general principles, facts, rules and ideas.
- ☐ Episodic Memory
 - Made up of chronologically, or temporally dated, recollections of personal experiences

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Episodic Memory



- ☐ Who was the first person you kissed?
- ☐ What was your favorite toy in childhood?
- ☐ Memories for specific events
 - Includes details of when and where the events happened
 - Help us construct a sense of self

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Procedural Memory

It is the repository of motor skills and habits such as handwriting or driving.

- These skills are essential part of our memory store, but it is difficult to describe the 'know-how' in words.
- In this sense the memory is said to be implicit or non-declarative ...you just cannot explain how to ride a bicycle.

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The skills may be difficult to acquire, but once learned they are never forgotten, even without occasional practice

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Retrieval

How do we get information back out?

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What Influences Retrieval?

- What's the difference between *Jeopardy* and *Who wants to be a millionaire*?
- Which game would you prefer to play? Why?
- Both games are examples of retention

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How Do We Test Memory?

- Recognition is a method of testing memory by asking someone to choose the correct item from a set of alternatives.
- Example- True-false, multiple choice and matching tests

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Recognition Task

- The next time you see someone at a party who is having trouble walking properly, you might say, "He has had too much to drink, and it went right to his _____."
- a) Reticular formation
- b) Cerebellum
- c) Frontal lobe
- d) Parietal lobe

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How is Information Retrieved?

Free Recall is a method of testing memory by asking someone to produce certain items without substantial hints (Lefton & Brannon, 323).

- Example- fill-in-the-blank, short-answer or essays exams

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Words positioned at the beginning and the end of a list are most likely to be remembered, a phenomenon called the *serial position effect*.

Also, any unusual stimuli have a greater chance of being recalled, a phenomenon called the *von Restorff effect* (Hunt & Lamb, 2001).

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Here's a HINT...

Cued Recall is a method of testing memory by asking someone to produce a certain item after being given a hint

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Where were you...?



Flashbulb Memories

Unusually vivid and detailed memory for circumstances at the time of dramatic event.

- These are emotionally significant memories

Highly detailed and long-lasting

- Memory of Princess Diana's death
- Memory of the 9-11 attack
- Memory of the Challenger explosion
- Memory of JFK's assassination



How Can You Improve Your Memory?



Encoding Specificity Principle

- ❑ The associations you form at the time of learning will be the most effective retrieval cues
- ❑ Mood congruence
 - If you experience something while you're in a particular mood – you are more likely to think of it again when you are in the same mood
- ❑ State-dependent retrieval
 - The tendency to remember something better if your body is in the same condition during recall as it was during the original learning

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Mnemonic Devices

- ❑ Any memory aid that is based on encoding each item in a special way
 - Use silly images
 - The sillier the image the more effectively you will remember it
 - Use pleasant images
 - Your brain often blocks out unpleasant images
 - Use vivid colorful images
 - They are easier to remember than boring ones
 - Use all your senses to code information
 - Mnemonics can contain sounds, smells, tastes, touch, movements, feelings, and pictures

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Verbal Mnemonics

- ❑ Word associations (i.e., acronyms or acrostics)
- ❑ Example:
 - ROY G BIV (acronym for colors of the spectrum)
 - King Philip Came Over For Good Sex (acrostic for order of taxonomy in biology)

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Verbal Mnemonics

Narrative stories and rhymes

Examples of rhymes:

- Thirty days has September, April, June and November. When short February's done. All the rest have 31.
- Red sun at night – sailors delight, red sun in the morning – sailors take warning
- Righty tighty lefty loosey
- Learning the ABCs to the tune of twinkle, twinkle little star

<http://www.youtube.com/watch?v=mkC87mlgcNo>

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How Should You Study?

Distributed practice is better than massed practice

- Ten 1-hour blocks is better than one 10-hour block

You should continue to rehearse the material after you first appear to have mastered it

- Skimming or speed-reading will not promote long-term retention

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How Should You Study?

Active is better than passive (allows you to engage in deeper processing)

- Writing out a detailed outline is better than passively reading over notes
- Try to relate material to your own life and experience rather than just memorizing material
- The better organized you are – the better you learn and remember

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Next Class
Why do we forget?

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