

General Psychology
Exam #3 Lecture Notes
Spring 2015
Dr. Sciratelli: Experience Psychology

Memory: Chapter 6

Memory: persistence of learning, allows us to use information and put it away for later (accounts for time and defines life)

Steps of Memory:

1. Encode: put in
2. Store: hold
3. Retrieve: get out

Models of Memory: all models have value

1. Information-processing model:

- a. Assumes memory processing is similar to a computer
- b. Atkinson and Shiffrin
- c. Three stages

- i. Sensory memory: information enters nervous system and is very brief
 1. Echoic: auditory (few seconds)
 2. Iconic: visual
 3. Eidetic: photographic memory
- ii. Short Term Memory: information being used, current access vs. working memory
 1. Selective attention: ability to focus on one thing—ignore others. Also moves sensory information to short term memory
 - a. Can only hold 9-5 things at once
 2. Chunking: combines bits into meaningful units and allows more in Short Term Memory
 - a. Lasts 15-30 seconds in not rehearsed
 3. Rehearsal: conscious repetition of information keeps it in the short term memory or moves it to the long term memory
- iii. Long Term Memory: rehearsal/practicing works but most efficient way is storing in long term memory
 1. Things that help Long Term Memory
 - a. Rehearsal: practiced works better—not most efficient
 - b. Elaboration: making it meaningful, making connections with memories, organization, and personalization
 - c. Imagery: dual code hypothesis using visual and verbal techniques

d. Distributed practice: spreading out the practice produces better retrieval than massed practice, includes the testing effect.

2. Two types of Long Term Memory

a. Implicit: non-declarative

- i. Automatic, not easily brought into awareness, hard to verbalize,
- ii. Involves cerebellum and basal ganglia
- iii. Gained through experience by three ways
 1. Procedural: memory for skills, things you know
 2. Classical conditioning: emotional associations and other simple conditional reflexes
 3. Priming: activation of information already in memory makes a certain response more likely

b. Explicit: declarative

- i. Effortful, easy to verbalize, usually facts
- ii. Involves hippocampus and frontal cortex
- iii. Two types:
 1. Semantic memory: general knowledge. Language and information learned from formal education
 2. Episodic memory: personal information that is not available to others. Also includes daily activities and events

2. Levels-of-processing model:

- a. Assumes information that is "deeply processed" will be remembered more efficiently and longer

Two Types of Remembering

1. Recall: pulling information from memory with few external cues

- a. Examples: short answer questions, essays, fill-in-the blank
- b. Retrieval failures: drawing a blank, tip of the tongue phenomenon

- i. Serial position effect: remembered beginning and sometimes the end better than the middle
 - ii. Primary effect: remember beginning better—happens all the time
 - iii. Recently effect: remembering end better—happens immediately
- 2. Recognition: does this matter? Is this something I know?
 - a. Stimulus provided
 - i. Example: multiple choice, fill in the blank, true or false, matching
 - ii. Retrieval failure: false negativity—don't recognize something you should OR false positivity—recognize something you shouldn't

Cues to Help Remembering

- 1. Retrieval cue: something that helps you remember—trigger
- 2. Encoding specificity: remember information better if it is available when memory formed (learned) is also available at retrieval
- 3. State dependent learning: remembering better if psychological or physiological state is similar to what it was when memory was formed
 - a. Examples: drugs/alcohol or PTSD stimulation influences mood

Eye Witness Testimony: Studied by Elisabeth Loftus

- 1. What you see/hear after the event can easily effect the accuracy of the memories of the event
 - a. Not always reliable because the brain constantly updates and revises without awareness
 - b. Brain is reliable when:
 - i. Age is young or elderly
 - ii. Not leading on with questions, use free call
 - iii. Sooner rather than later
 - iv. With use of hypnosis
 - v. With increased confidence
- 2. Why are there errors?
 - a. Memory is a constructive process that puts in basic facts and fills the details with retrieval which makes memories vulnerable to revision during retrieval and restoring

Memory Retrieval Problems

- 1. Misinformation effect: inaccurate information presented after alters/corrupts memories of an event
 - a. It is possible to form a false memory
 - i. Creates inaccurate memories through suggestion of others—often with hypnosis
 - b. It is possible to repress false memories