

Memory

Objective's for Today's Class:

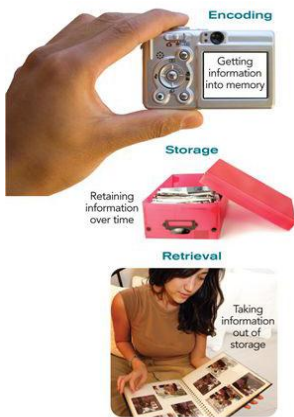
- Encoding memories
- Storing memories
- Retrieving memories

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Memory is a *constructive process* through which

Thinking and memory are flexible and capable of constant change...this can

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focuses on how information is cognitively organized

The Study of Memory

- * How does information get into memory?
- _____

- * How is information maintained in memory?
- _____

- * How is information pulled back out of memory?
- _____

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- * _____
_____ so the brain can process it.

- This is the first step in the flow of memory

- * Learners must encode information to store it.

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What did you say?

- * Some information gets into memory virtually automatically, whereas encoding other information takes effort.

- These include paying attention, processing deeply, elaborating, and using mental imagery.

- * _____

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Attention

* _____

* *Divided attention* involves concentrating on more than one activity at the same time.

- _____

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Such research indicates that trying to listen to a lecture in class while simultaneously texting or playing a game on your cell phone is likely to impede your ability to pay adequate attention to the lecture

(Glenn, 2010).

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Focused Attention

* _____
_____ is the ability to maintain attention to a selected stimulus for a prolonged period of time.

- For example, paying close attention to your notes while studying for an exam is a good application of sustained attention.



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Another factor that influences memory is the degree to which we get involved with the information.

The term _____ refers to a continuum from shallow to intermediate to deep, with deeper processing producing better memory.

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It suggests that memory relies on how _____

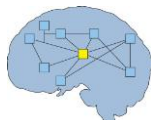
By adding _____ or relating it to things we already know, it can be stored for a lifetime.

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Parallel Distributed Processing (PDP)

The brain performs multiple, *parallel* operations all at once,



Information Processing Model suggests that memory is very similar to a computer



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Limitations of the information processing model

- * Memories are described as literal, "hard" data stored on a computer disk or hard drive.

- * Also, computers process one piece of data at a time ,while human memory can

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STORAGE:

Maintaining Information in Memory

-Three-Stage Memory Model

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Storage

- * Storage involves maintaining the information available in memory

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There are 3 Separate Memory Stores

- * **Sensory Memory** performs the initial encoding of sensory

- * The sensory memory recodes a complete memory of the image, but it fades too rapidly for people to “read”

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People have a special capacity for briefly retaining relatively large amounts of information

This capacity is called the *Sensory Memory*

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Sensory Memory

- * Preserves information in its original sensory form for a brief time – usually _____
- * Iconic Memory is a _____ of the original visual stimulus
 - Capacity: 4 ± 2 bits of info
- * Echoic Memory is the _____ memory
 - Capacity: about 6 bits of info

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Working memory is where active thinking occurs.

-
-
- Figure out the meaning of what has just been said to your in a conversation.

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The working memory has many limitations

- * Short-term memory is a limited-capacity

- * Capacity:
 - “The magic number” (George Miller)
 - Humans have the ability to _____

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* People can group information in ways to expand their short-term memory capacity called

- "Chunking" allows for easier

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How long can this information stay in STM?

* Memories disappear unless:

- _____

- They are really meaningful so they get stored quickly into long-term memory

* Rehearsal:

- The _____

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Working Memory

* Working memory is a kind of mental workbench on which the brain manipulates and assembles information to help us understand, make decisions, and solve problems.

- It is a three-part system that allows us to hold information temporarily as we perform cognitive tasks.

- _____

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What do you remember?

25



Long Term Memory

* An unlimited capacity store that can hold information over length periods of time

- Capacity: _____

- _____

* _____

- Tip of the tongue phenomenon (temporarily inaccessible) 26



Next class

How Do We Get Information Out of Memory?

RETRIEVAL

Ch.7-Memory

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