

Memory

Chapter 3

Apr 16-6:59 AM

Memory – process of recalling prior events, experiences, and information from the past

- Input – receive information from senses
a.k.a - encoding
- Central processing – storing and sorting
- Output/retrieval – ideas and actions from info.

Apr 16-6:59 AM

Input

- Selective attention – ability to pick and choose among various inputs
Ex. Studying while watching t.v. [Test Your Awareness Whodunnit .mp4](#)
[Basketball Awareness Test_ .wmv](#)
- Feature extraction – locating characteristics of incoming info.
Ex. Car accident/bank robbery

Apr 16-6:59 AM



Nov 4-12:46 PM



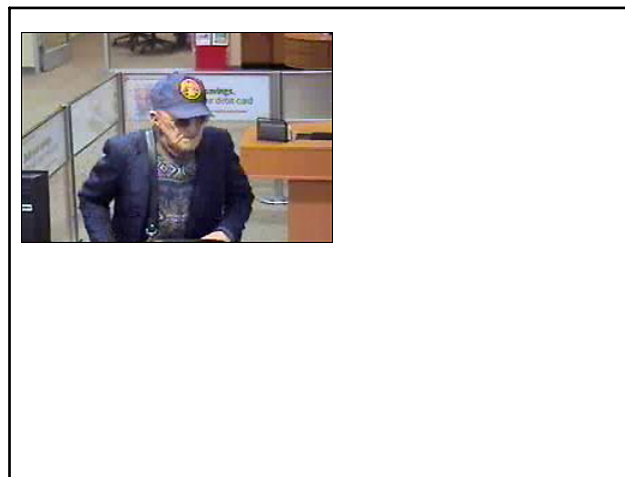
Apr 2-11:01 AM



Jun 5-11:23 AM



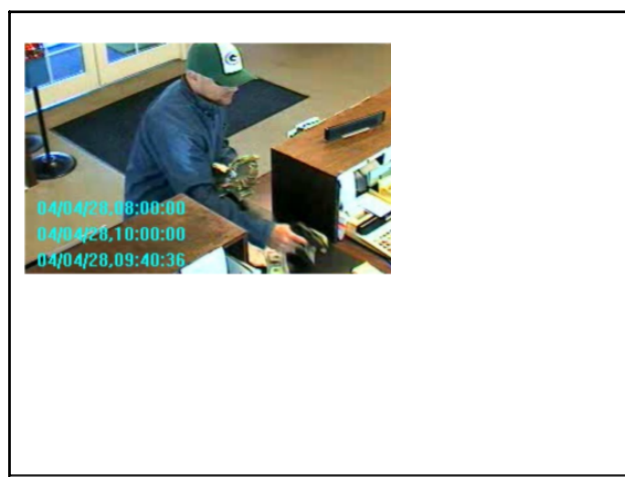
Mar 6-8:24 AM



Jun 5-11:21 AM



Mar 6-8:25 AM



Apr 2-11:01 AM



Jun 5-11:24 AM

Input (cont)

- Visual codes – make a mental picture
ex. spell my name
- Acoustic codes (auditory code)- remember as spoken
ex. say my name
- Semantic codes – "relating to meaning" make sense of the information
ex. she looks like a Becky

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Central Processing – maintain in memory

- Maintenance rehearsal – repeating the information over and over
- Elaborative rehearsal – relate to information you already know really well
- Organizational systems – similar to files

Apr 16-6:59 AM

Retrieval – recover from memory

- Recall – reconstruction of information
 - > name 7 dwarfs
 - 1. Context-dependant memories – the situation where a person first experienced the memory
 - Ex. Test better in math if in same math room as where taught
 - ex. go back to clarke
 - 2. State-dependent memory – remember better if in the same emotional state
 - 3. Tip-of-the-tongue phenomenon – incomplete or improperly stored memories
- Recognition -Retrieval aided by clues
 - ex. multiple choice tests
 - ex. police line up



Apr 16-6:59 AM

Turn your paper over.

Now pick pick out the seven dwarves.

Grouchy Gabby Fearful Sleepy Smiley
 Jumpy Hopeful Goofy Sleazy Shy
 Droopy Moody Hoppy Dopey Sniffy
 Wishful Puffy Ren Dumpty Sneezy
 Pop Grumpy Cheesy Bashful Cheerful
 Teach Snorty Nifty Itchy Happy Doc
 Wheezy Stubby Poopy Diddy Stumpy

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Three Stages of Memory

- Sensory Storage
- Short Term memory
- Long term memory

*Amount of Info
↓
time*

Apr 16-6:59 AM

Sensory storage – image of a memory held for a brief second

- Iconic memory - snapshots (fraction of a second)
- Echoic memory – sounds (last several seconds)
 **easier to remember list of word spoken than written)

Apr 16-6:59 AM

Short-term memory - working memory

7 (+ or - 2)unrelated items for 20 seconds

- Primacy effect - remember first items in a list
- Recency effect - remember last items in a list

Apr 16-7:01 AM

tomato
yarn

Mar 26-12:26 PM

spoon
bird
stand
rake
pole
sand
pan
brush
tent
flame

Jun 5-10:24 AM

puppy
lemonade
roof
farm
sky
sun
board
nose
super
broken
fair
ocean
stand
shoe
pick
paper
tape
bottle
shelf
egg
strainer
tomato
brush
mask

Nov 20-7:49 AM

Short term memory cont.

- **Chunking** - organization of items into units
Ex. Phone numbers, social security numbers
- **Interference** - When new information appears and takes place of information already in short-term memory
Ex. mom asks question while remembering phone #

Jun 5-10:05 AM


1001101101100

Jun 5-10:18 AM

Jun 5-10:09 AM

Processing information

- Mnemonics - strategies for placing information into organized context
Ex. HOMES
- Method of loci - using a location to remember
> aka Memory Palace
- Set - strategy becomes a habit
ex. spelling in english





Apr 16-7:17 AM

Long-term Memory - Indefinite

****Declarative Memory (explicit)**

1. Semantic - general knowledge in the form of words and facts
2. Episodic - account of past experiences
3. Autobiographical - recount of our past lives into a larger picture
4. Eidetic memory - photographic memory
ex. Kim Peeks

Nov 11-9:20 AM

****Nondeclarative Memory - implicit memory**

*unintentional recollection or prior events

1. Procedural - how to complete a physical task...hard to define in words
ex. riding a bike
2. Classical conditioning - a stimulus signals an upcoming event
ex. flashbacks, nervous before dentist



Nov 11-9:25 AM

Problems with Long-Term Memory




- Retroactive interference - new information interferes with old information
- Proactive interference - old information interferes with learning new information

Apr 16-7:13 AM



Long term problems continued

- Confabulation - memory that was never there
Ex. Yield sign vs. stop sign 
Ex. Eyewitness testimony **nadean cool case**
- Repression - material still exists but inaccessible because it is disturbing 

Apr 16-7:14 AM




- Rigidity - set interferes with problem solving
 1. Functional fixedness- inability to imagine new functions for familiar objects
 2. Wrong assumptions 
ex. handcuffs 
Ex. Black, white, read 
Ex. Dots
 3. Direct method
ex. soldiers

8 soldiers need to cross a river, but the only way to cross is in a small boat in which 2 children are playing. The boat can carry at most 2 children or 1 soldier.

Sep 30-3:56 PM

Overcoming problems

- Creativity - ability to use information in a new, original way  [Pants](#)
- Flexibility - ability to overcome rigidity
ex. list of words (next page) 
- Recombination - new mental arrangement of the elements
Ex. Dance moves 
- Insight - sudden emergence of a solution by recombination of elements
Ex. Chimps,bananas

Apr 16-7:18 AM

Stool	powder	ball
blue	cake	cottage
man	wheel	high
motion	poke	down
line	birthday	surprise
wood	liquor	luck
house	village	golf
card	knee	rope
news	doll	tiger
painting	bowl	nail
weight	wave	house
made	cuff	left
key	wall	precious
bull	tired	hot
knife	up	hi
handle	hole	police
plan	show	walker



Sep 30-4:01 PM

Biological bases of memory

Acetylcholine - neurotransmitter that affects memory
Problem found in Alzheimer's patients

Adrenaline - hormone that aids in memory

Brain structures

- Anterograde amnesia - loss of memory after the injury 
- Retrograde amnesia - loss of memory of events before the injury  <https://www.youtube.com/watch?v=Vwignkts2Y>

<https://www.youtube.com/watch?v=8HjzV4SXmg>

Apr 16-7:15 AM

 <http://www.oocities.org/heartland/park/6934/MTQuestions.html>

Mar 14-8:19 AM

1. Two girls that look exactly alike go into a job interview when they hand the interviewer there portfolios they have the same last name, the same address and the same birthday and they are both 16. The interviewer asks are you twins? They said no. How could this be?

Apr 18-11:47 AM

2. A person robbed a jewelry store. The stolen sack of jewelry was found in a bush in the middle of nowhere miles away from th crime scene. The investigator had two suspects he did not talk to them at all and the investigator immediately picked the guilty suspect. How could this be?

Mar 14-8:15 AM

3. A tree doubles in size each year. At ten years it reached its maximum height. at what year was the tree half its maximum height?

Mar 14-8:16 AM

4.Mrs. Dempsey was found on her bed dead. a pair of scissors was used as the murder weapon they found no blood, cuts, or bruises on Mrs. Dempsey's body how could this be?

Mar 14-8:18 AM

Nov 13-8:48 AM