

EXP3604C Exam 2 Notes

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Memory has 3 stages: encoding, storage and retrieval

Repetition isn't what leads to encoding (do you remember all the details on a penny?)

Length of time studying doesn't lead to encoding

Glenberg experiment

Had to study a 4-digit number for 2 sec

Also had to rehearse a "distractor" word for either 2, 6 or 8 sec

Asked to recall the word instead of the number

No correlation between length of time rehearsing and correct recall

Amount of effort taken to study doesn't work either

Emotional pleasantness/unpleasantness does!

Emotionally significant memories are the clearest

Pollyanna principle- remember pleasant things better

Levels of processing from low to high: letters/numbers, rhyming, meaning

Meaningful thinking and processing does lead to better remembering

Testing yourself on how well you remember something also works

Craik and Lockhart proposed that memory is a byproduct of processing

Don't have to memorize or use a lot of effort

Shallow processing -> forget, Deeper processing -> remember better

Deeper processing creates distinctiveness between items, making them easier to pick out and recall

Reduces interference by making them different

Elaboration- adding information onto items, making connections and continuing thoughts

Also works at improving memory

Attention is a huge requirement for memory

Heur and Reisberg experiment

Hear story of a child who either goes through physical trauma or has a typical day

Those who heard about the trauma remembered the story events 3x better

The hippocampus (memory) and amygdala (emotions) are right next to each other in the brain

Cahill experiment

Watch 12 video clips, some depict violent crimes

Violent crimes remembered better

Amygdala activity -> long-term recall

Adaptive memory- considers whether remembering something has evolutionary or survival value

Info that would increase survival > emotionally pleasant info > other info

Flashbulb memory- very emotional events are burned into the brain

However, memories change over time

At first will focus on the most intense parts of an event

Later the intensity fades and will remember different things

Types of long-term memory

Episodic- events

Semantic- facts

Procedural- how to perform a task

Memory can be strengthened by self-referencing

There are also different memory techniques

Spacing- studying for a little bit then taking a break before continuing

Mnemonics- make a word or sentence out of letters (ROY G. BIV, order of planets)

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Narrative method- make a story involving each item or object in order

Loci method- pair each item with a place then imagine travelling to the locations in order

Retrieve- bring out a memory

Recall- bring out a memory with no cues

Recognition- bring out a memory with cues

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Free recall- have to remember without any cues, hardest retrieval task (short-answer questions)

Cue recall- given cues, hints, keywords. Medium difficulty

Recognition- have to tell what something is, if it was there or not. Easiest (multiple-choice)

Tulving and Pearlstone experiment

Study list of 48 items, which are in 12 categories of 4 words each

Subjects remembered more in cue recall than free recall

Availability- in memory somewhere

Accessibility- can be brought out and remembered

Retrieval cues can include context (like when you go into a room and forget what you wanted to do)

Entering into old context and retracting previous actions can help

Godden and Baddeley experiment

Divers study 20 words either underwater or on land

Memory was tested either in same context as before or different

Remembered more if in same context that they studied in

Studying in the same context you would be tested in improves memory

Similar tests show the same for arousal or emotional states

Mood congruence- remember better if in same mood as encoded

Dijkstra: being in same body position during studying and testing slightly improves memory

Encoding specificity- unique way that information is encoded into memory with cues

Ex: focusing on a specific detail such as heaviness or sound to remember "piano"

Memory better if studying with same cues/hints that would be on the test

Mnemonics can include associating two pieces of information together

To remember a face with a name, it helps to find a facial detail that sticks out

Pair this detail with an object and create a mental image to remember the person by

Cues can include any information during encoding

Evolution explains forgetting as a survival skill

Says we don't need to remember everything, just what is useful

Doesn't explain why we forget things that we actually do need to remember

Decay theory- time leads to forgetting. Older memories forgotten more than newer ones

Not true. Some older memories last while newer ones fade away

Interference theory- interference causes some memories to fade

Proactive interference- new info disrupted with lots of similar past things

Retroactive interference- old info disrupted with lots of similar new things

Smith and Moynan experiment

Had to study lists of taboo words (cancer, AIDs, curse words)

Having to learn lists interferes with memory

First-time subjects remember material better than veteran subjects

Context theory- events, location and emotion all affect memory

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Smith experiment

Study words in one context

When remembering, either kept in same context, switched, or asked to *imagine* old context

Those who imagined old context did almost as well as those who were actually in it

Sahakyan and Kelley experiment

Study words in one context then asked to forget them

Told to imagine a different context or think of something else

This caused subjects to forget

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Sir Frederic Bartlett: remembering is like problem-solving

Construct a memory during encoding, then add to the event

Reconstruct memory during retrieval

When remembering something, the gist of things tends to stay the same

Omission errors- forgetting minor details

Normalization errors- adding additional info to make the material "make sense"

Schema- organized knowledge of the world

Script- type of schema, describes correct sequence for something (how to dine at a restaurant, etc)

Brewer and Treyens memory task

Look at a picture of an office and unknowingly encode it

Later "remembered" objects that weren't there

"Remembered" them based on what they expected to find in a typical office

Anderson and Pichert experiment

Had to roleplay as either a homebuyer or burglar

Read story describing details of a house

Perspective affects how info is remembered

Script structure captures general info on routine or typical things

Includes typical roles/actions in a certain order

When primed with a certain script, people will fill in the blanks

Reconstructing- assuming that details were stated when they weren't based on script's assumption

People report more confidence for incorrect "memories" than actual memories

Ross: personal memories are based on ideas of stability and change as well as current feelings

Conway and Ross experiment

Given study skills course (fake)

6 months later asked to report what they thought GPA was before course

Assumed that GPA had improved with course

Thought past GPA was lower than it actually was

Grad school women kept a PMS/mood diary

2 weeks later, "remembered" symptoms that they didn't actually have

Stronger concept of PMS -> "remembered" more fake symptoms

In the US, people assume that they are always getting better

Will list more positive traits for current personality

Will list more negative traits and less positive ones for past personality

Karney and Frye experiment

Tracked couples' married happiness over the first 4 years of marriage