

How Does Memory Change With Age?


The retention of information over time

Class Objectives

- What is memory?
- What factors influence our memory?


Think about the importance of your memory...

It's hard to even attempt to visualize the amount of information locked inside your brain? It is truly remarkable




Do infants *even* have a memory??

Young babies remember events for days or even weeks at a time!



What kind of memory do infants have?



Research on Infant Memory

- The most dramatic evidence comes from a series of experiments in which 3 month-old infants were taught to make a mobile move by kicking their legs (Rovee-Collier, 1990).
- _____
- _____
- _____

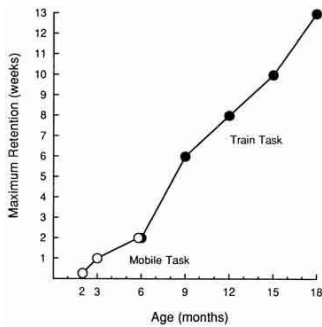
The Mobile Game (2 - 6 Months of Age)



3-Month-Old

Other infants were retested at 2 weeks and demonstrated forgetting.

Infants Remember Longer As They Get Older



Infant Memory

- Research supports an increased ability to

- Because there are many types of memory, it's not surprising that infants remember some things better than others

- Ex: language, images, actions, forgotten faces, smells, memorized facts and so on...



What is Your Earliest Memory?

Take a minute and write down any content that you can remember:

- How old were you?
- What were the details of the event
- Do you remember the memory or do you remember hearing about the memory?

- Infants have great difficulty storing new memories in their _____

which is the inability to remember events from one's early life

- Usually events that happened before the age of 2.

- But, we do remember a increasing number



Think on Your Own....

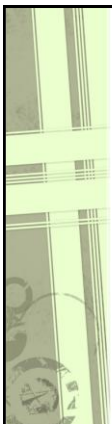
How would YOU explain the cause of infantile amnesia?



Inadequate Sense of Self

Infants and toddlers lack a sense of self.

so they can't be recalled later in life.



Theories Explaining Infantile Amnesia

- _____
- _____
- How can we recall a memory before we have the language to organize our thoughts?
- Once children learn to talk (about 2 years) they tend to rely on language to represent their past

Memory rapidly improves in older infants and toddlers. Youngsters can recall more of what they experience and remember it longer

When shown novel actions with toys and later asked to repeat it, _____

Memory in Children

● Use of *memory strategies*

- Activities that improve remembering

- Rehearsal: _____

- _____: information to be remembered should be structured so that related information is placed together

- Elaboration: _____ to be remembered to make it more memorable

Organization Example:

A seventh grader trying to remember battles of the Civil War could organize them geographically or chronologically.

Elaboration Example

A child cannot remember if the second syllable of rehearsal is spelled *her* (as it sounds) or *hear*. The child could remember the correct spelling by reminding himself that rehearsal is like re-hear-ing.

- Thus, thinking about the word in that context makes it easier to remember its spelling.

Knowledge that allows a child to organize information and give it meaning increases gradually with age.

Children's Memory of Their Own Lives

- Scripts

- _____

- For example, a child describing what happens during a birthday party "you play games, open presents, and eat cake".

Children's Memory

- Preschoolers' memories for activities are better than their memories for objects because children find it easier to remember events that follow a logical order than events that do not

- For example, 3 and 5 year olds have a better memory for activities involved in making pretend cookies out of Play-doh than they do for activities involved in a sandbox – because they can occur in any order

- (you put ingredients in a bowl, then you mix ingredients, then you roll the dough, then you put pieces on a tray to cook, etc...)



Memory in Adolescence

- _____

- Working memory is linked to reading comprehension and problem solving, which is why as we get older we get better at _____
- In children working memory gets overloaded – whereas in adolescents and adults it doesn't

Memory Changes Older Adults

- Have worse episodic memory than younger adults
- *Episodic memory* (memory of information

Example of explicit memory – older adults more likely to forget what they wanted to buy at the grocery store

Late Adulthood Memory

- _____
- *Semantic memory* (knowledge about the world, personal expertise, general academic knowledge, common things) – older adults have less of a problem with semantic memory than episodic memory

- Older adults have more difficulty with *source memories* than younger adults

On Your Own

● Please read the following sections on your own:

- Memory in Adolescence and Adulthood (p. 265-270)
- Childhood: Concept Formation (p.270-271)
- Childhood: Solving Problems (p. 275-277)
- Adulthood: Problem Solving, Use It or Lose It, and Cognitive Training (p. 278-280)
