



# Memory

## Objective's for Today's Class:

- Why do we forget?
- What is amnesia?

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If you couldn't forget,  
your mind would be  
filled with meaningless  
data.

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## Normal Forgetting

- ☐ Memory traces gradually decay
  - During any delay a memory is subject to the effects of time and interference from other experiences

- ☐ 

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- ☐ Memories seem to be forgotten because we no long have the appropriate reminders 3

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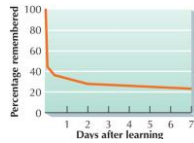
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## Normal Forgetting

Found that most forgetting occurs during the

Recall drops from \_\_\_\_\_  
correct within 20 minutes of list learning

After the first several hours – forgetting levels off and slows at that point



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If we forget so quickly, why put effort into learning something?

Researchers have demonstrated that

Studied only meaningless nonsense syllables.

When we memorize more meaningful

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## Reasons for Forgetting

Encoding failure

\_\_\_\_\_

\_\_\_\_\_

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## Reasons for Forgetting

- ▣ \_\_\_\_\_  
- Through the lack of use and rehearsal information is gone
  
- ▣ Retrieval failure  
- \_\_\_\_\_  
- \_\_\_\_\_
  
- ▣ Interference  
- Proactive interference  
- Retroactive interference

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## Proactive Interference

- ▣ \_\_\_\_\_  
- \_\_\_\_\_
  
- A decrease in accurate recall of information as a result of previously learned information.
  
- \_\_\_\_\_  
- \_\_\_\_\_

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## Example

- ▣ A student studies for a psychology test on Saturday and a sociology test on Sunday. It is Monday and the student is taking the sociology test. He has trouble remembering the sociology information because he confuses it with the psychology information.
  - The psychology information was learned first
  - The sociology information was learned second
  
- ▣ The first information interfered with remembering the second information

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## Proactive Interference

- ▣ Aubrie recently ended a long-term relationship but has found a new love. They are out on the all-important third date with her new man. The lights are low, the champagne and strawberries are served. The music in the restaurant is soft and romantic – Aubrie reaches across the table to take her date's hand. She looks deeply into his eyes, about to tell him what a wonderful evening it is and how happy she is to be out with him and then out of her mouth, before she realizes it, comes – the name of her ex!!!

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## Retroactive Interference

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- New material increase forgetting of the older material

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## Example

- ▣ A student studies for a psychology test on Saturday and a sociology test on Sunday. It is Monday and the student is taking the psychology test. He has trouble remembering the psychology information because he confuses it with the sociology information.
  - The psychology information was learned first
  - The sociology information was learned second
- ▣ The second information interfered with remembering the first information

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### Retroactive Interference

- ▣ Pretend that you've been sneaking around on your long-term girlfriend/boyfriend for a couple of months. One day, while talking to your significant other in some casual context, you address them by the name of your secret lover.
- ▣ New information has interfered with your recall of older information.

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Decay theory suggests that the passage of time always increases forgetting.

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### Prospective memory

- ▣ Involves remembering information about doing \_\_\_\_\_  
\_\_\_\_\_
- Prospective memory includes both *timing*—when we have to do something—and *content*—what we have to do.  
\_\_\_\_\_
- We are more absentminded when we become preoccupied with something else, \_\_\_\_\_  
\_\_\_\_\_

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## Amnesia



- People with amnesia tend to have poor factual memories, \_\_\_\_\_
- Amnesiacs show preserved performance on tests of implicit memory (which do not require conscious recollection for successful performance)
- On tests of explicit memory, amnesiacs show much more severely impaired performance (requires that the individual recognize the correct answer and be aware that long-term memory is being tapped)

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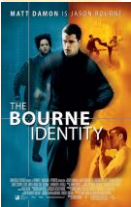
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## Two Types of Amnesia



- Retrograde amnesia is much more common than anterograde amnesia

- frequently occurs when the brain is assaulted by an electrical shock or a physical blow such as a head injury to a football player.

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## Two Types of Amnesia



- People who find it hard to remember ongoing events after suffering damage to the head

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## Are Memories Accurate?

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