

# Memory

Raymond Nelson, MA, NCC

Raymond Nelson (2008). Please do not reproduce without permission.

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# Memory

- Short Term
- Long Term
- Declarative/explicit
- Procedure/implicit
- Working memory
- Autobiographical memory
- Amnesia and dissociative disorders

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# Short Term Memory

- Several seconds to one minute
- Believed to be primarily auditory and secondarily visual
- Can be improved by techniques such as chunking
- Limited in volume and duration of information
- Dependent on frontal and parietal lobes

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## Long Term Memory

- Large volume of information
- Potentially unlimited duration
- Information encoded semantically
- Stored in temporal area
- Hippocampus plays a role in storage but does not itself store information
  - Replays information during sleep

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## Working Memory

- Replaces short term memory model
- Several
  - Central executive
    - Attention
    - Sends information to the other components
  - Phonological loop
    - Silent and articulate rehearsal
  - Visuo-spatial sketchpad
    - Spatial and visual organization tasks
  - Multi-modal episodic buffer
    - Links information across domains

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## Declarative Memory

- Explicit memory
- Information must be purposefully stored and retrieved
- Semantic memory
  - Facts taken out of context
- Episodic memory
  - Facts in context – personal experience

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## Procedural Memory

- Implicit memory
- Motor learning
- Behavioral
- Cerebellum and basal ganglia

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## Autobiographical Memory

- Personal story
  - Facts
  - Events
- Reminiscence bump
  - Adolescence
  - Adulthood
- Childhood amnesia
- Recency effect
- Flashbulb memory

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## Amnesia and Dissociation

- Loss of memory
  - Retrograde amnesia
  - Anterograde amnesia
  - Age-related amnesia
  - Repressed memory
  - Childhood amnesia
  - Chemically induced amnesia
  - Blackout
  - Korsavoff's syndrome (alcohol, lack of B1)
  - Transient global amnesia (involves the hippocampus)
- Dissociation and dissociative disorders
  - DID (not MPD)
  - Dissociative fugue
  - Lacunar amnesia

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