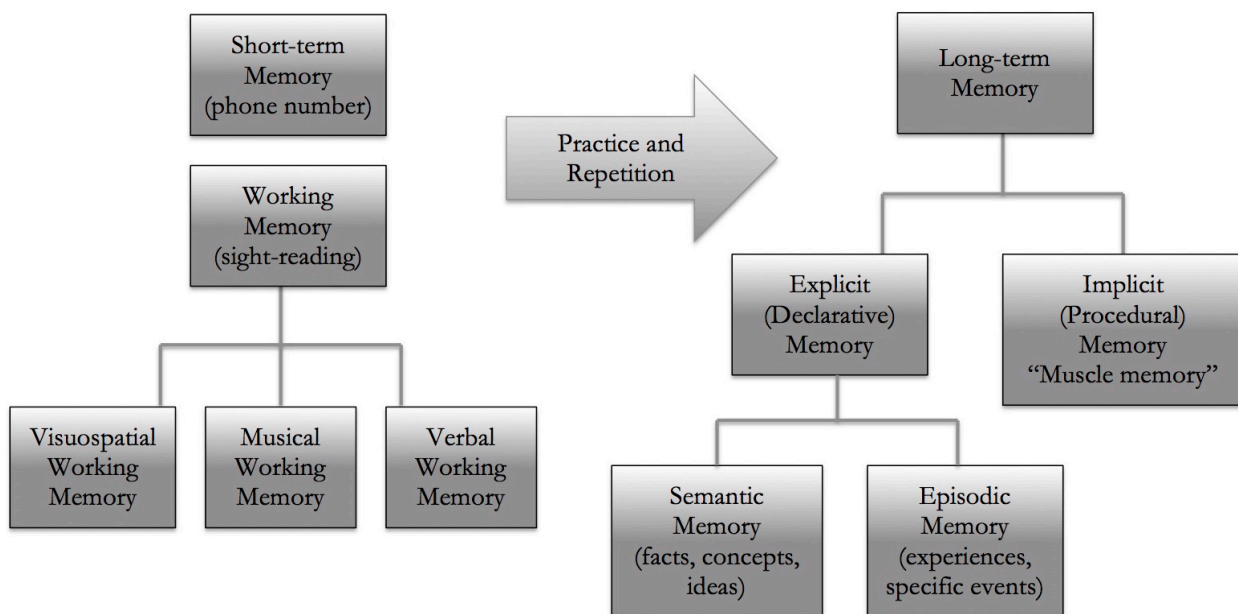


# Memorization and the Brain

Dr. Molly Gebrian, DMA  
University of Arizona

## Different types of memory:

- Long-term memory (explicit and implicit)
  - Declarative/explicit: semantic (facts)
  - Declarative/explicit: episodic (events that have happened to you)
  - Procedural/implicit (muscle memory)
- Short-term memory (i.e. phone number)
- Working memory (i.e. remembering and using accidentals when you sightread)
  - Visuospatial working memory
  - Verbal working memory
  - Musical working memory



## How are long-term memories made?

- Encoding: how do you get information into your brain?
- Consolidation: how memories move from short-term storage to long-term storage?
- Retrieval: how do you get memories back out again when you need them?

## Better Encoding

- Chunking
- Performance cues
- Three streams of memory in performance: muscle memory, auditory memory, declarative memory

### Better Consolidation

- Importance of sleep
- Practicing last in the day and first thing the next morning will result in a memory boost.

### Better Retrieval

- Practice playing from memory
- Play from memory right away in the learning process.
- Interleaved practice

### Protect Against Memory Slips

- Choking under pressure is due to thinking explicitly about things that should be automatic.
- Video record yourself playing from memory often
- Think about big picture things: phrasing, sound, expression, etc.
- Perform in front of people often before a concert/audition from memory.