How to Read a Paper

- Break it down and draw out the key points:

1. Review/Opinion Paper:

2. Empirical Paper:

How to Read a Paper

- Break it down and draw out the key points:

1. **Review/Opinion Paper**:
   - What is background/context?
   - What is the thesis?
     - What is the thesis being contrasted with?
   - What is the evidence for the position(s)?
   - What is/are the conclusion(s) of the paper?
     - Why is this important
     - How does it relate to other work in the field or things we know?
   - What is **YOUR** appraisal of the thesis & conclusion(s)??
     - Back up your arguments with evidence &/or examples

How to Read a Paper

- Break it down and draw out the key points:

2. **Empirical Paper:**
   - What is background/context?
     - What is the problem? What is unknown?
     - Why is it important
   - What is/are the authors' **HYPOTHIS/HYPOTHESES**?
   - General Overview of the **METHODS?** – How do they test their hypotheses?
   - What are the key **RESULTS?** What are the key findings?
   - What do the authors **CONCLUDE**?
     - Why is this important?
     - How does it impact the field, add to our knowledge, solve a problem/debate?
   - What is **YOUR** appraisal of the thesis & conclusion(s)??
     - Back up your arguments with evidence &/or examples

How to Read a Paper (Cabeza & Moscovitch, 2013)

- Break it down and draw out the key points:

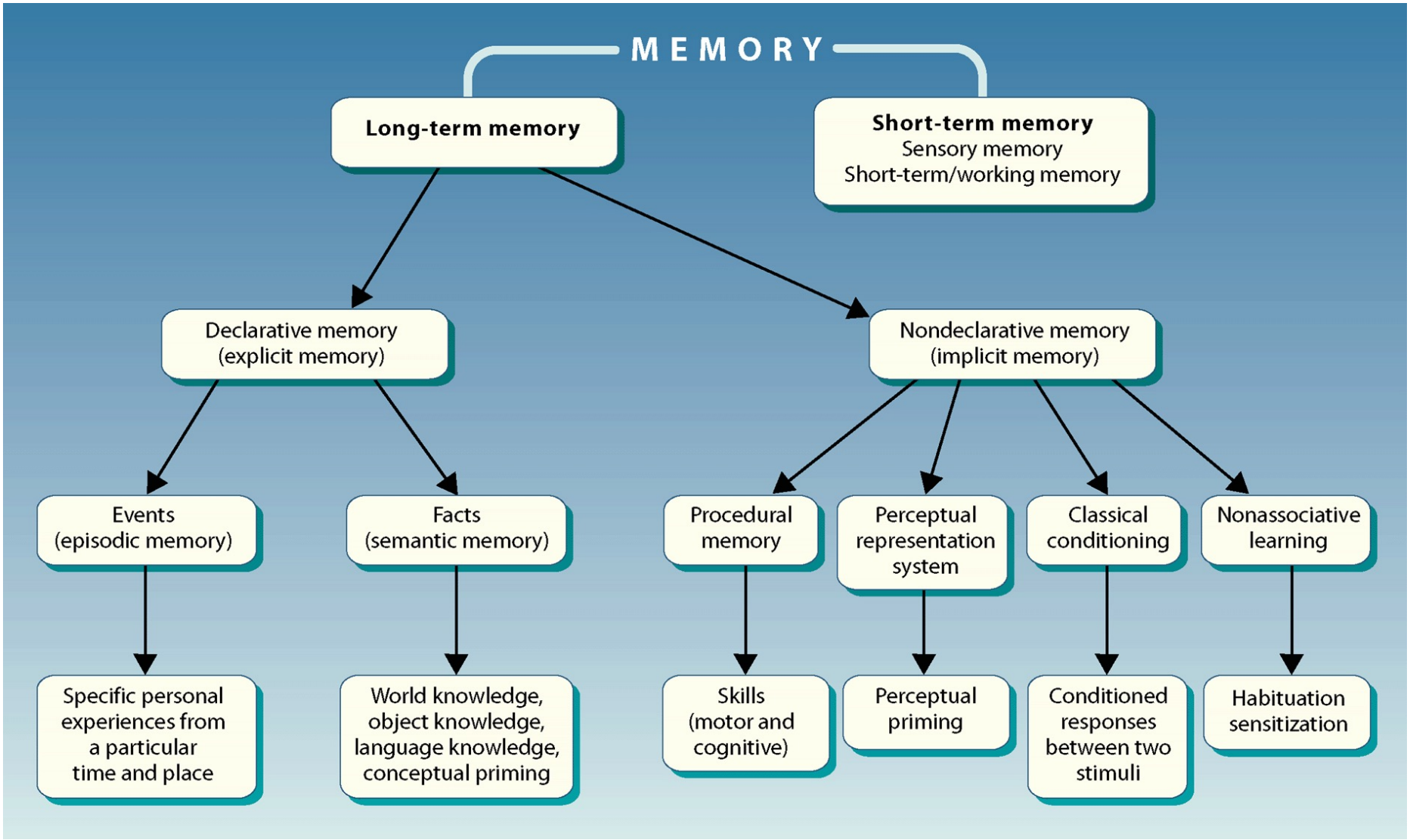
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Cabeza & Moscovitch, 2013

1. **Review/Opinion Paper:**
   - **What is background/context?**

- **<u>Starts with a double dissociation in memory:</u>**

Memory Systems



Cabeza & Moscovitch, 2013

1. **Review/Opinion Paper**:
   - **What is background/context?**

- **<u>Explicit vs. Implicit Memory:</u>**

1. **Multiple memory systems framework**
   - Different systems (and structures) mediate these types of memory

2. **Processing modes framework:**
   - **<u>Explict vs. Implicit</u>** associated with **<u>Conceptual vs. Perceptual</u>** processing, respectively.

3. **Components of processing framework** – middle ground?
   - Type of memory dependent on which of multiple components are interacting

- **<u>PROBLEM:</u>**
- Behavioural evidence was insufficient to decide among the these three frameworks
- Therefore, this important debate was largely abandoned!

Cabeza & Moscovitch, 2013

- **What is the thesis?**
  - **What is the thesis being contrasted with?**

  - An accumulation of functional neuroimaging data over last 20 years has resolved the stalemate:
  - The components of processing framework wins out!

- **Contrast:**
  - The bulk of neuroimaging data does not support the other 2 frameworks as well.

Cabeza & Moscovitch, 2013

- **What is the evidence for the position(s)?**
  - Brain regions associated with one memory system contribute to tasks associated with other memory systems:
    - E.g., MTL vs. Visual cortex involvement in other processes
  - Brain regions attributed to the same processing mode (perceptual or conceptual) can be dissociated from each other
    - E.g., PFC and lateral temporal cortex – conceptual? Different roles in memory
  - Evidence suggests transient configurations/interactions between a few regions: **Process-Specific Alliances**!
    - E.g., Hippocampus: relational memory, regardless of explicit vs. implicit memory
    - Parietal regions critical for bottom-up and top-down attention across all these processes

Cabeza & Moscovitch, 2013

- **What is/are the conclusion(s) of the paper?**
  - **Why is this important**
  - **How does it related to other other work in the field or things we know?**
  - The advent of functional neuroimaging has pushed the debate, and our knowledge further.
  - Evidence much more strongly supports the **components of processing** framework, and further, reveals **Process-Specific Alliances.**
  - This has broken down some of the arbitrary, false divisions between various cognitive functions, and altered the way we study and understand the brain.

Cabeza & Moscovitch, 2013

- What is **YOUR** appraisal of the thesis & conclusion(s)??
  - Back up your arguments with evidence &/or examples