

Working Memory

Working Memory

**One of the most
important components
of the brain as we
currently understand it**

Process information about the world

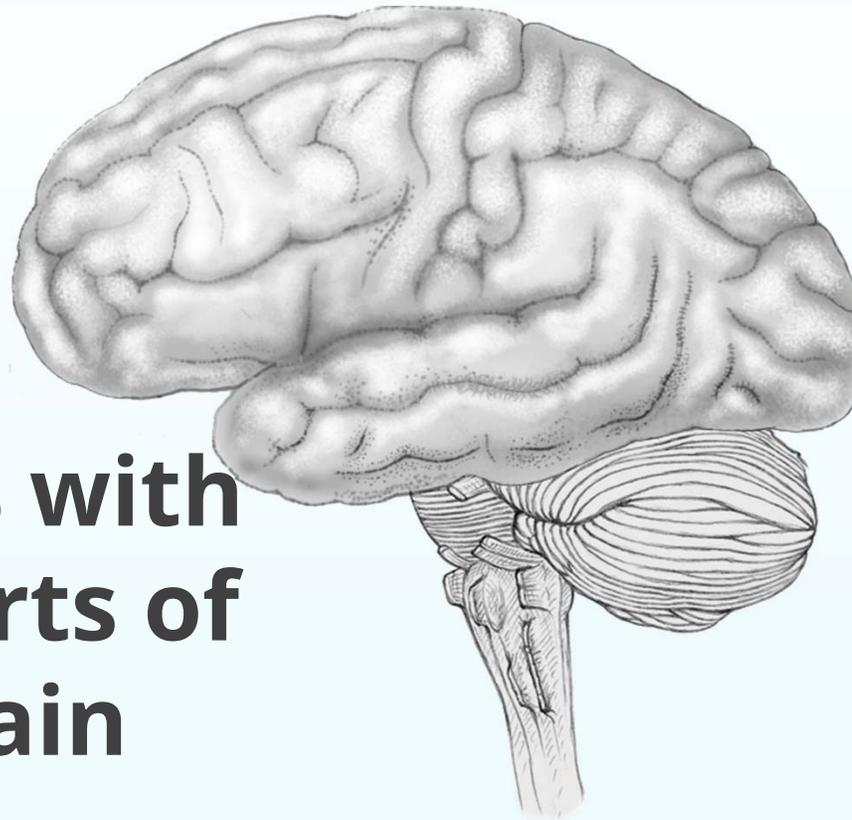
- **Goals**
- **Make plans**
- **Task relevant**
- **Mental space**

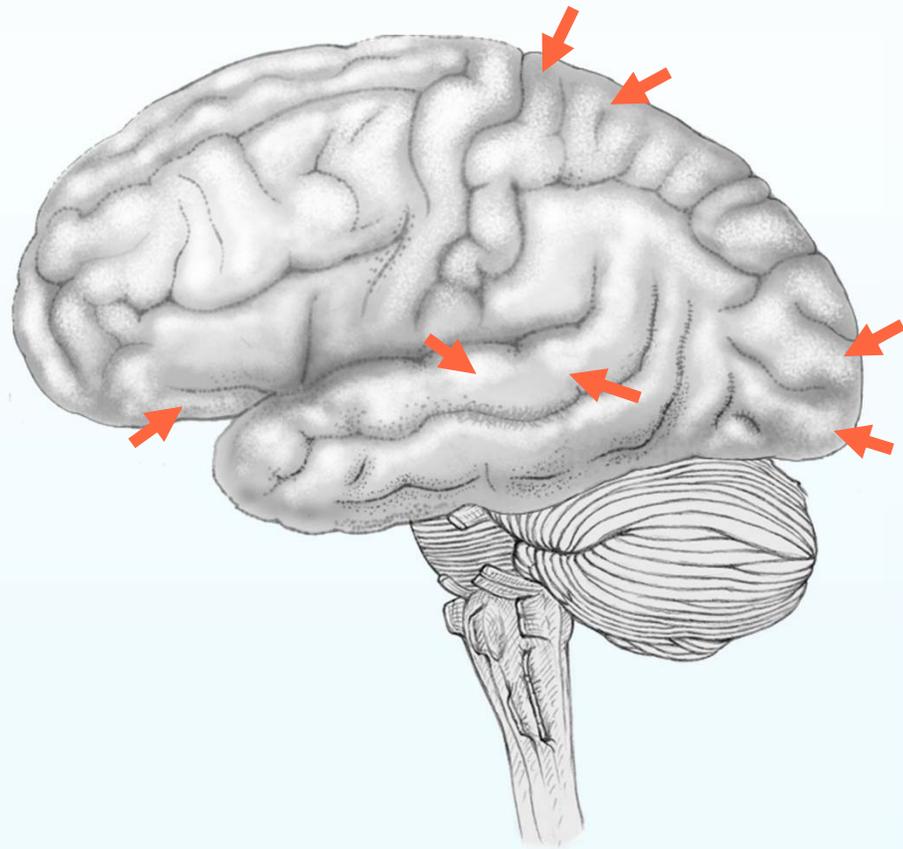
Brain: players in the orchestra

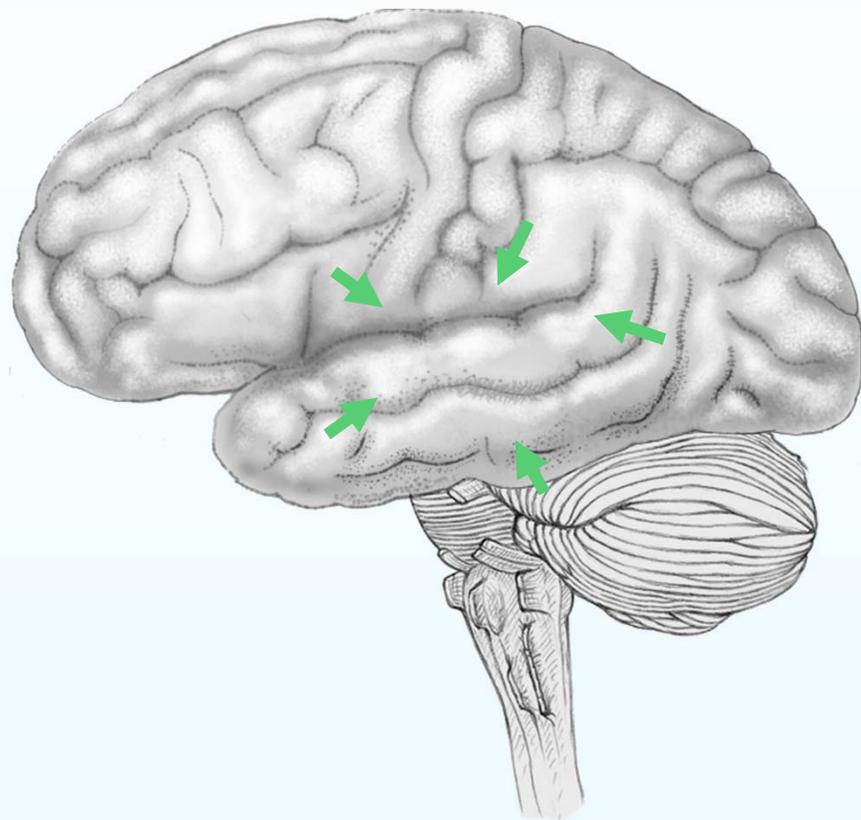
**Working memory:
conductor**

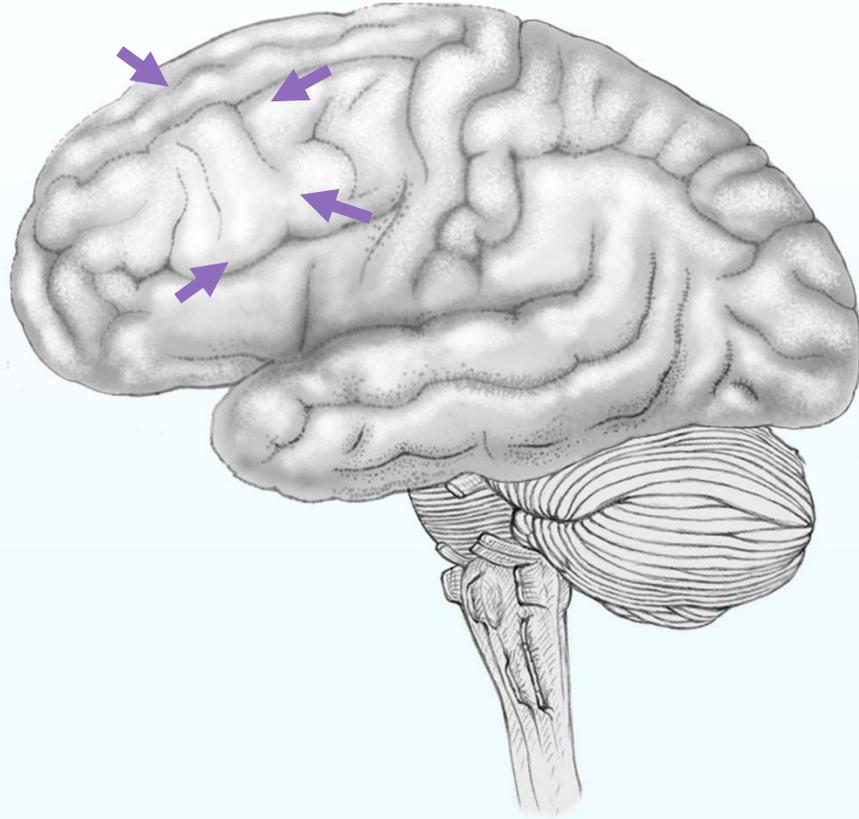
**Brain: players in
the orchestra**

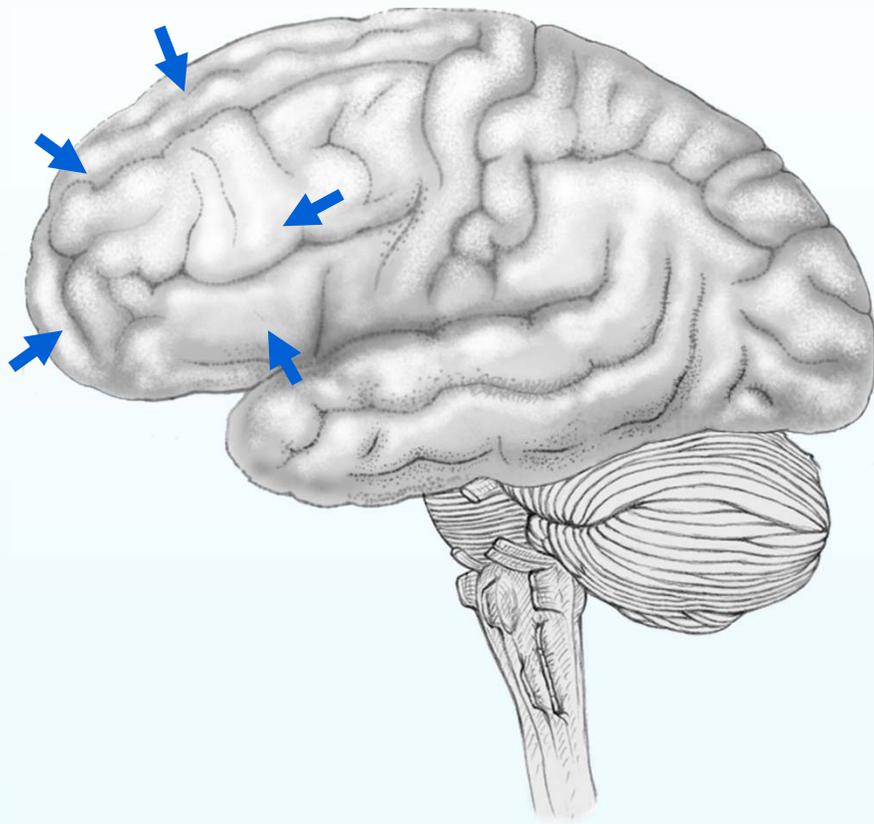
**Interacts with
other parts of
the brain**









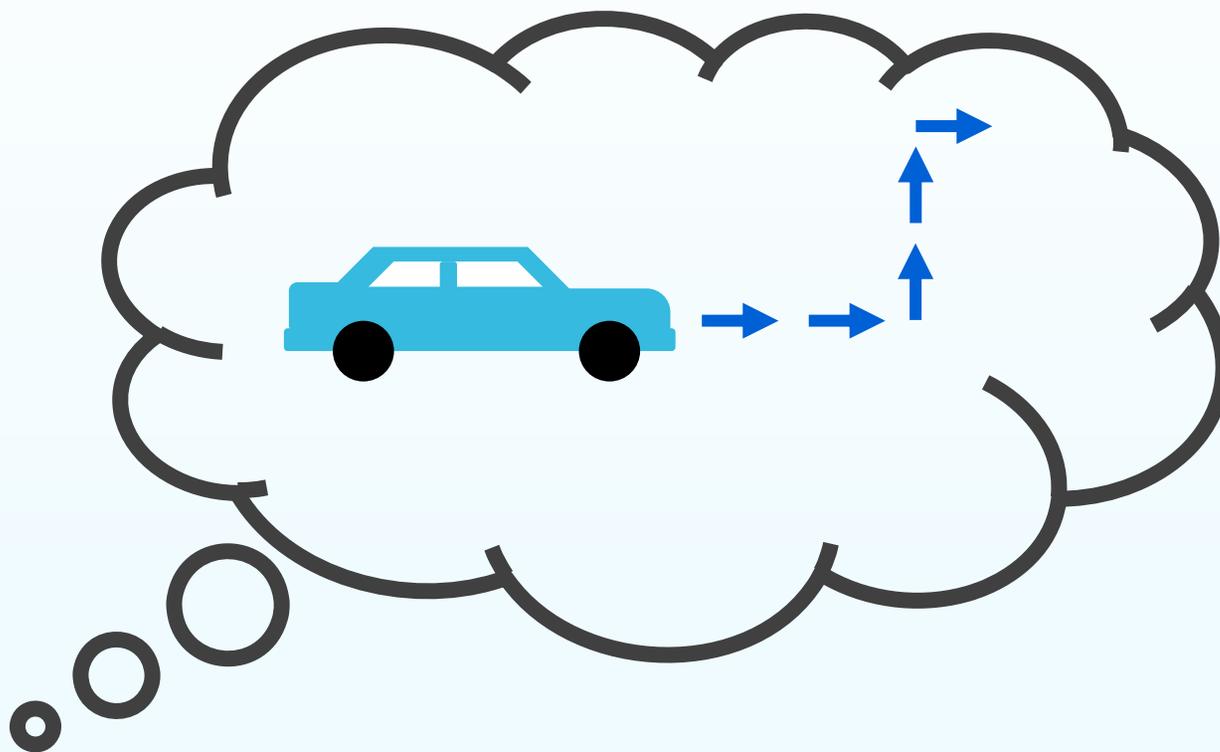


A large, dark grey thought bubble with a scalloped border is centered on a light blue background. Inside the bubble, the phone number 416-525-7390 is written in a bold, black, sans-serif font. To the bottom-left of the main bubble, there are three smaller circles of increasing size, also in dark grey, which trail off to the left, suggesting a thought process.

416-525-7390



**15% of \$72.80
= \$10.92**



Working Memory

Storage

**Working
Memory**

Storage

**Working
Memory**

Retaining

Storage

Short-term

**Working
Memory**

Retaining

Storage

Short-term

**Working
Memory**

Activates

Retaining

Storage

Short-term

Mental

operations

**Working
Memory**

Activates

Retaining

Storage

Mental

Short-term

operations

**Working
Memory**

Activates

Retaining

Link

Storage
Short-term

Mental
operations

Working
Memory

Activates

Link

Retaining

Stored and
perceived

Storage
Short-term

Mental
operations

Tasks

Working
Memory

Activates

Link

Retaining

Stored and
perceived

Storage
Short-term

Mental operations

Tasks

Controller of attention

Working Memory

Activates

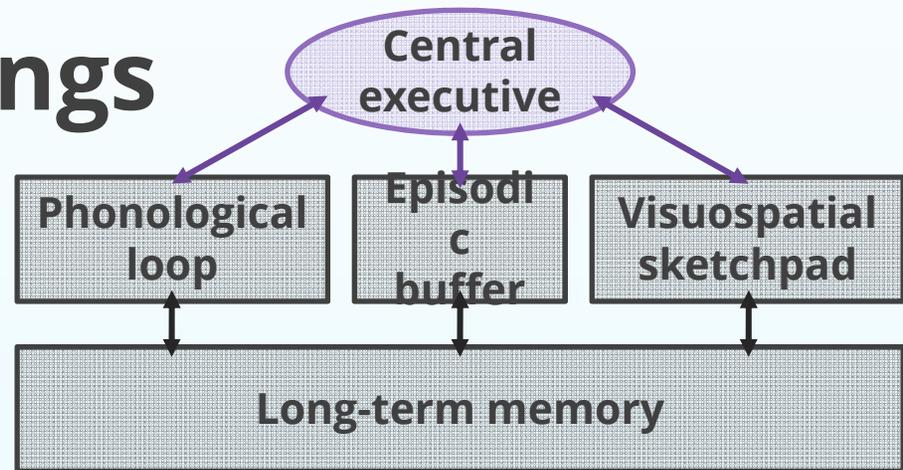
Link

Retaining

Stored and perceived

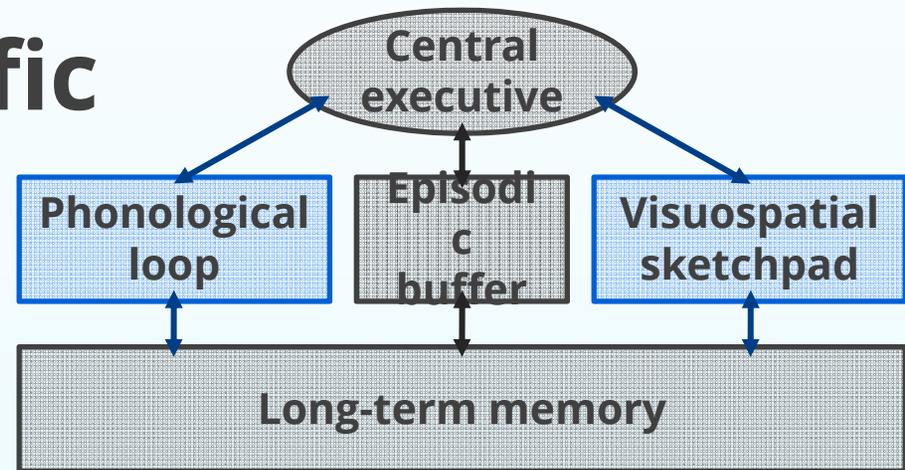
Central executive

- Makes sure things get done
- Controls other components



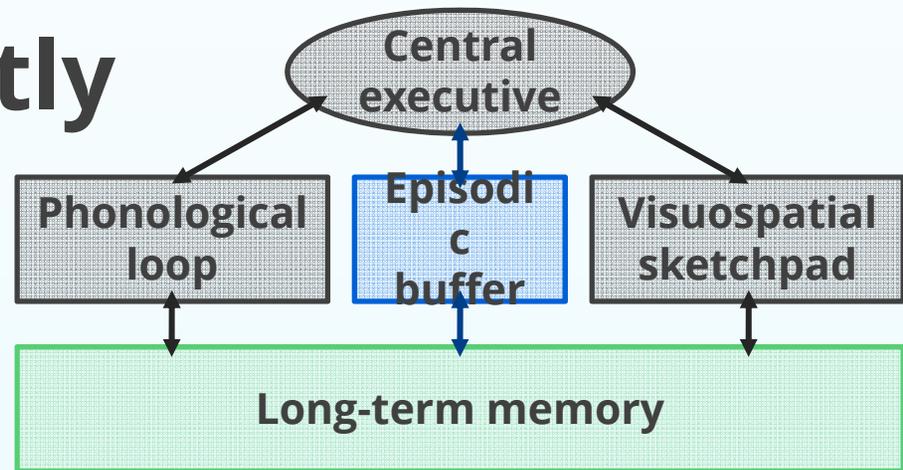
Sensory specific caches

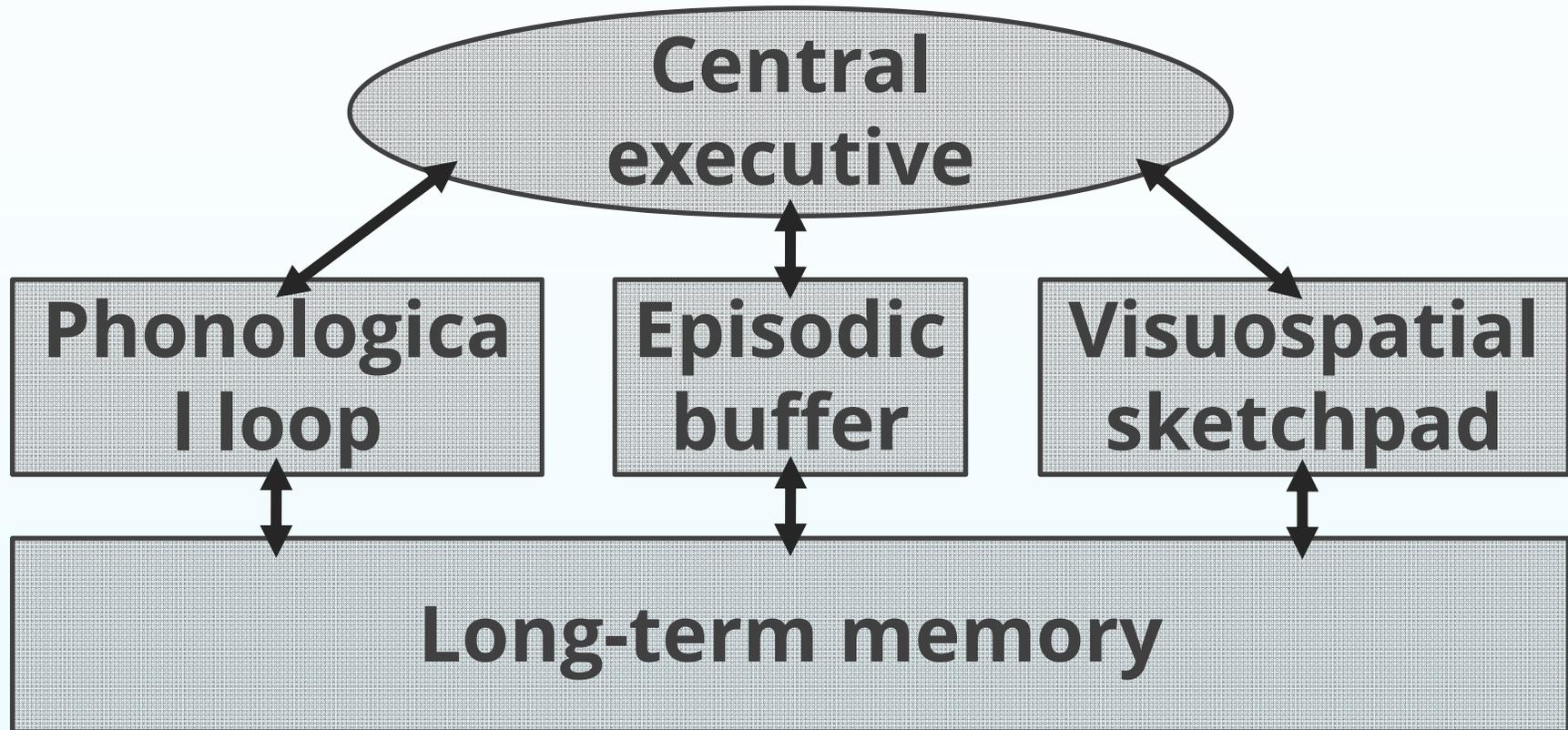
- Modality specific information
- Operate fairly independently

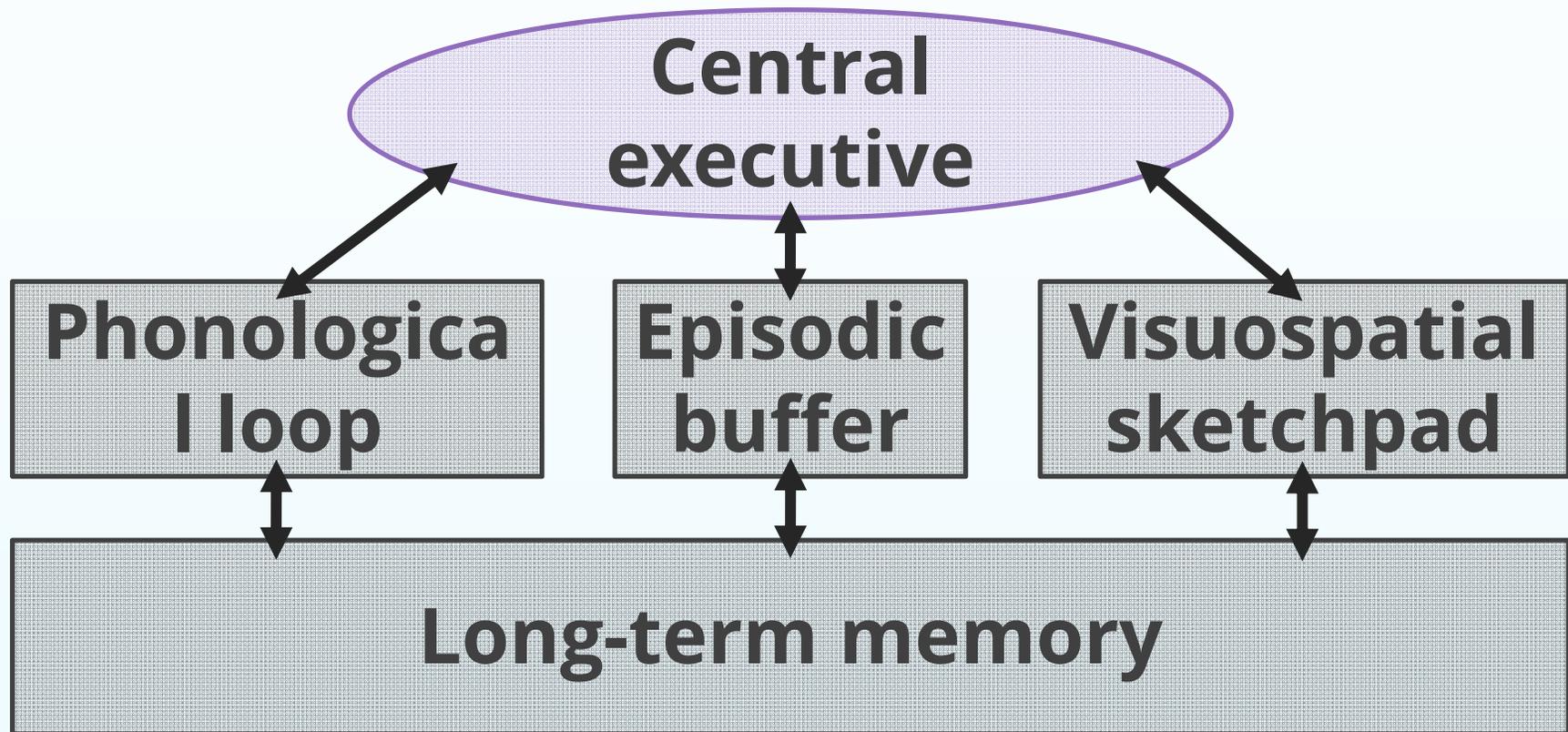


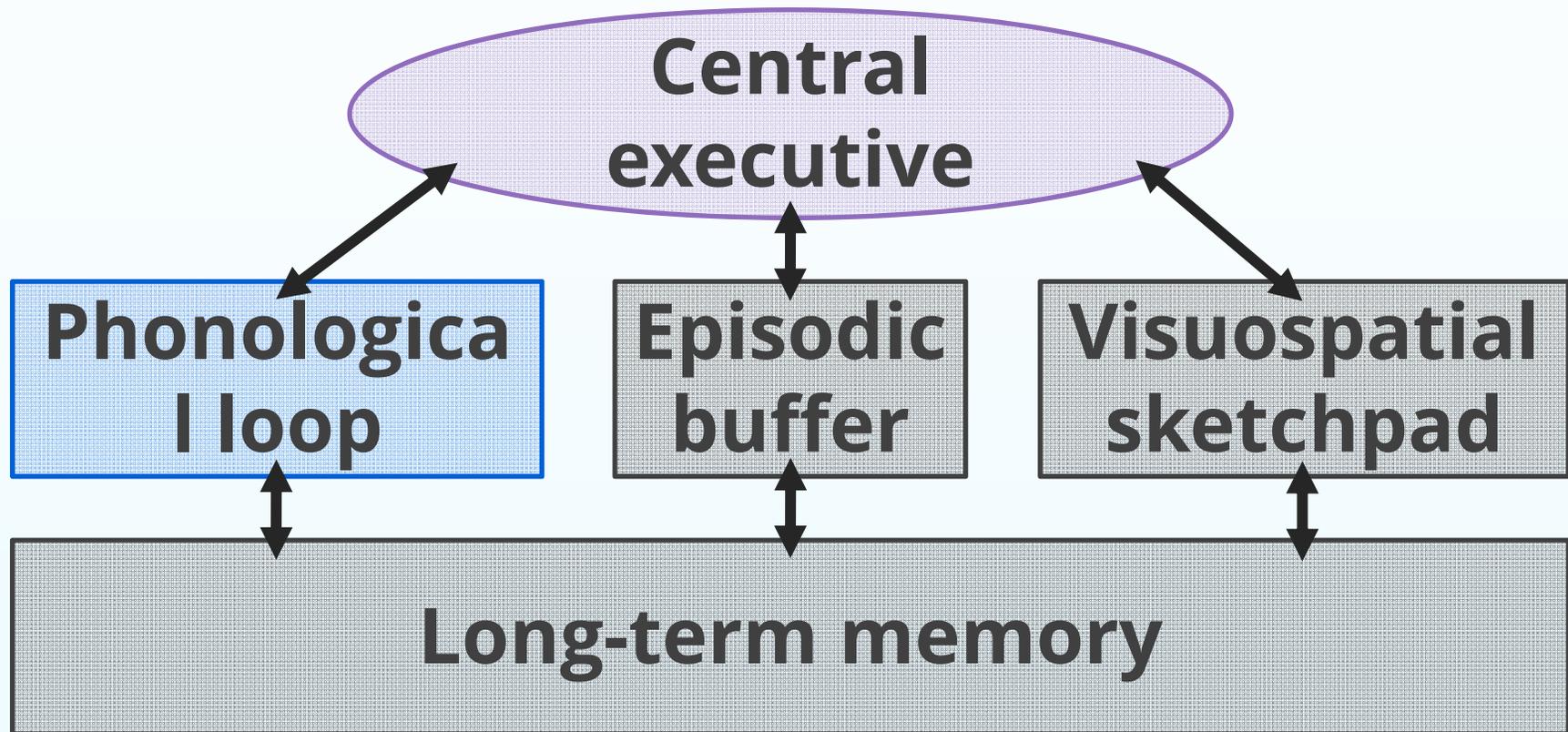
Episodic buffer

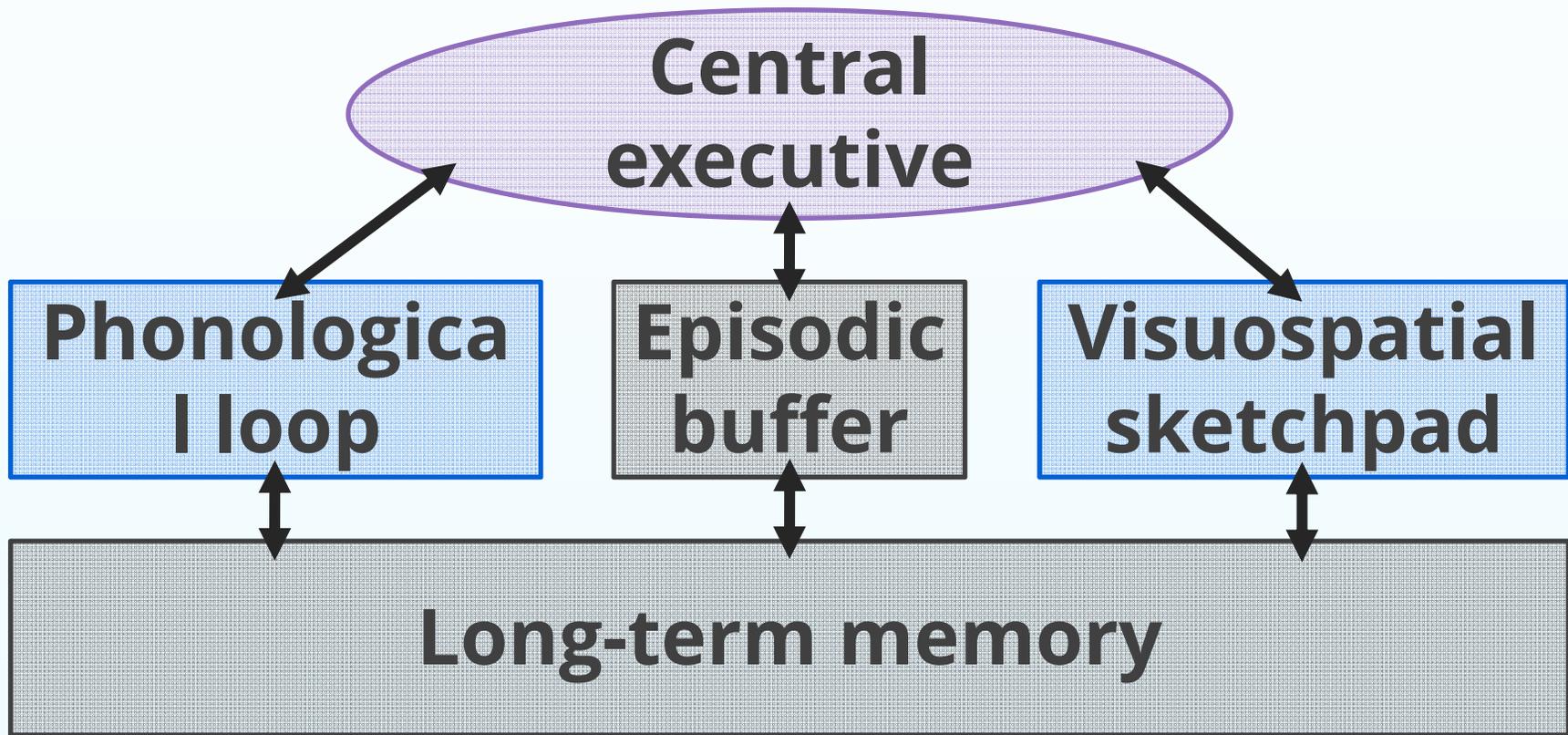
- What is currently happening
- Reactivated event memory

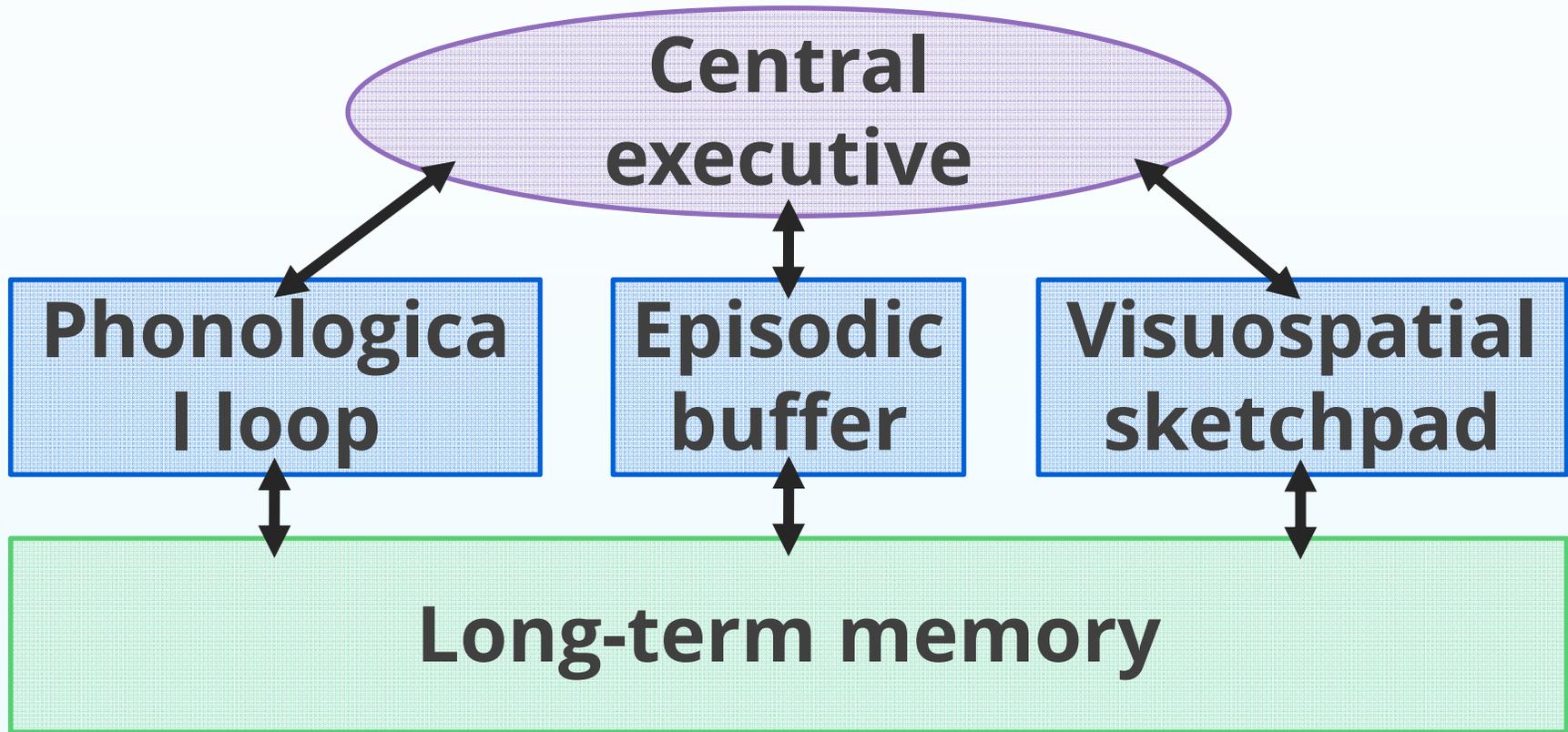




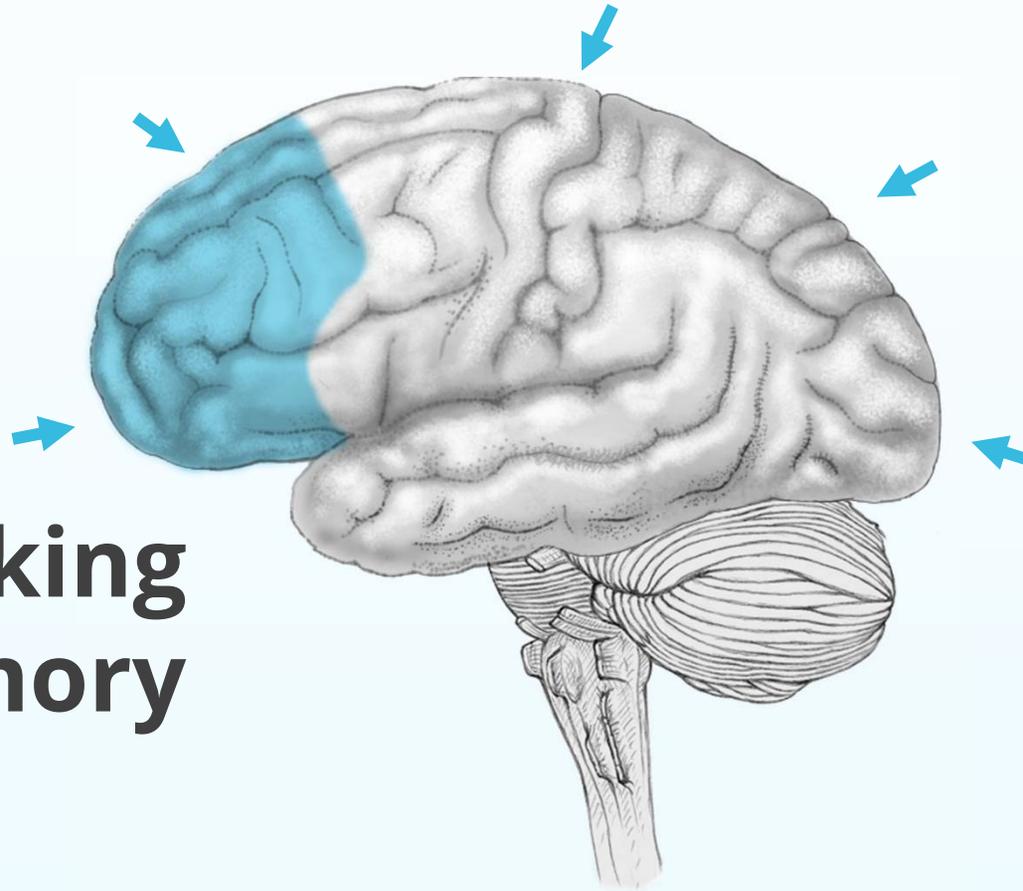


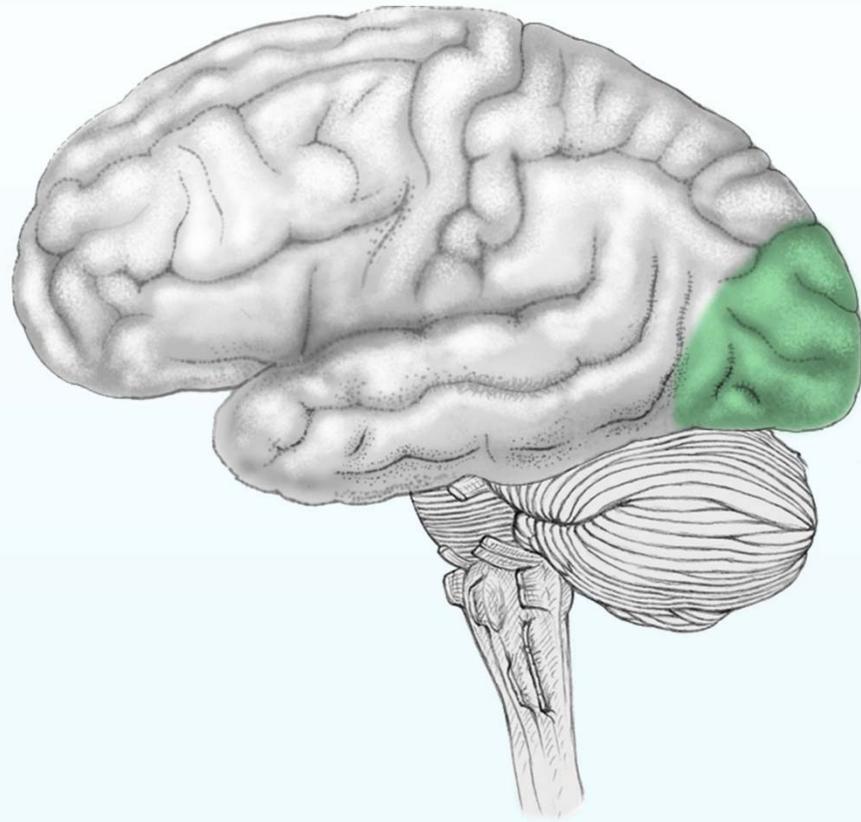






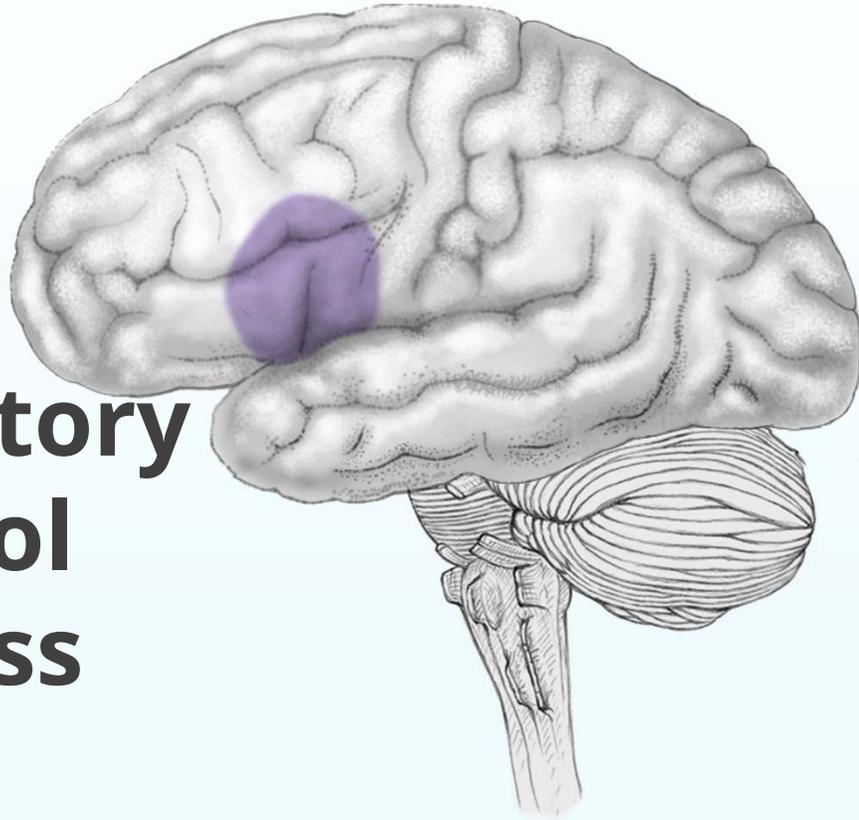
**Working
Memory**

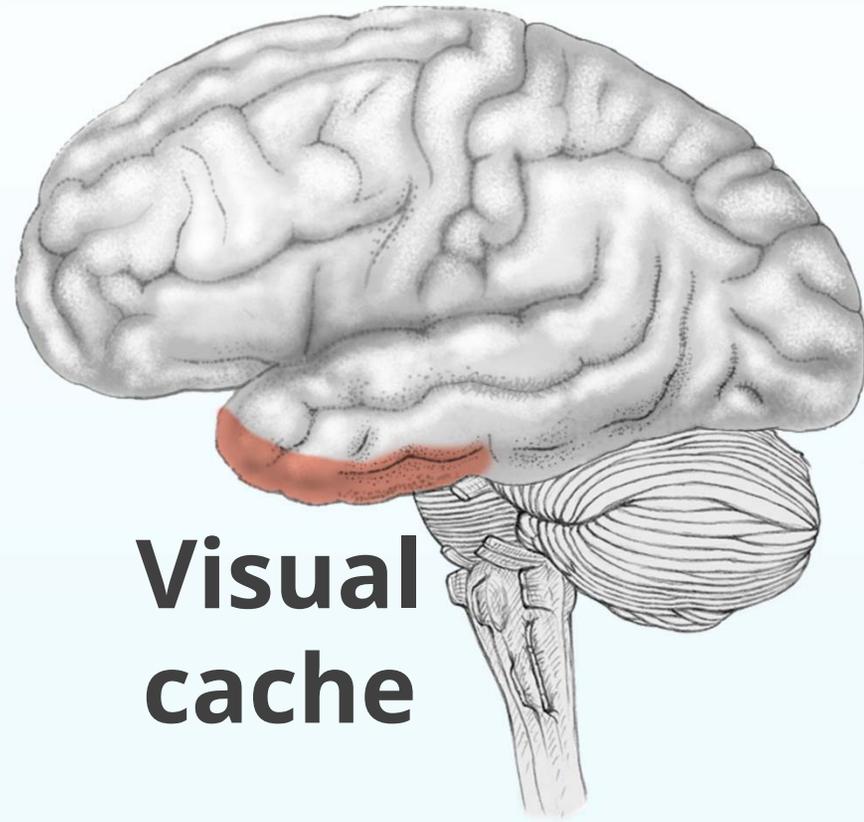




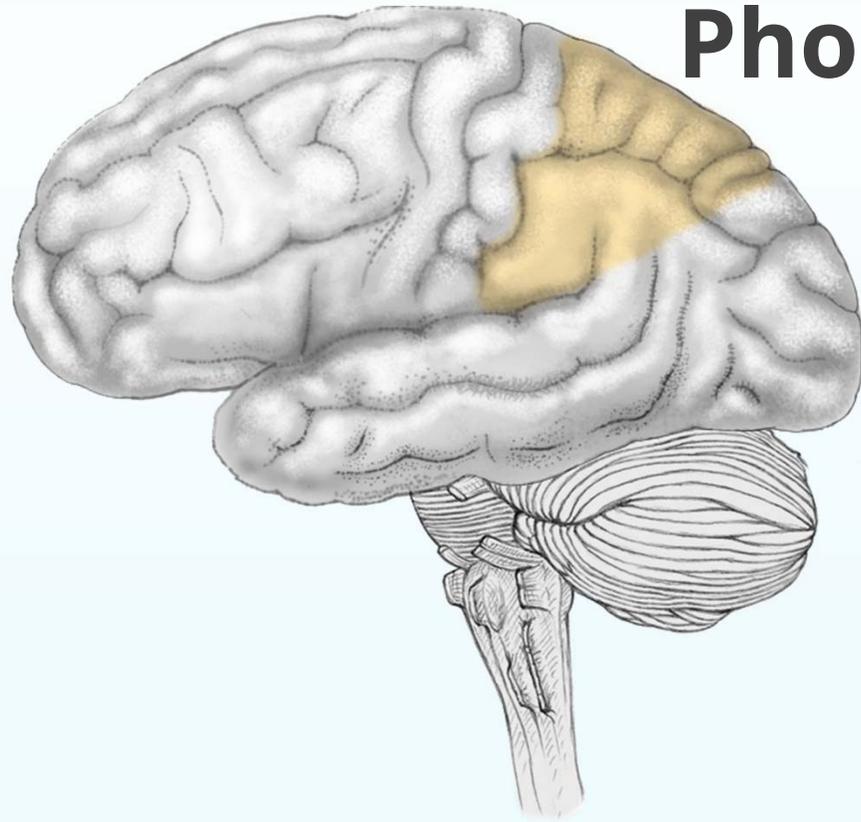
**Spatial
tasks**

**Articulatory
control
process**





**Visual
cache**



**Phonological
loop**

Working Memory

- **System for activating other parts of the brain**
- **Modality-specific components and abstract components**

Working Memory

- **Individual differences in working memory capacity**
- **Dorsolateral prefrontal cortex is important and well connected**

