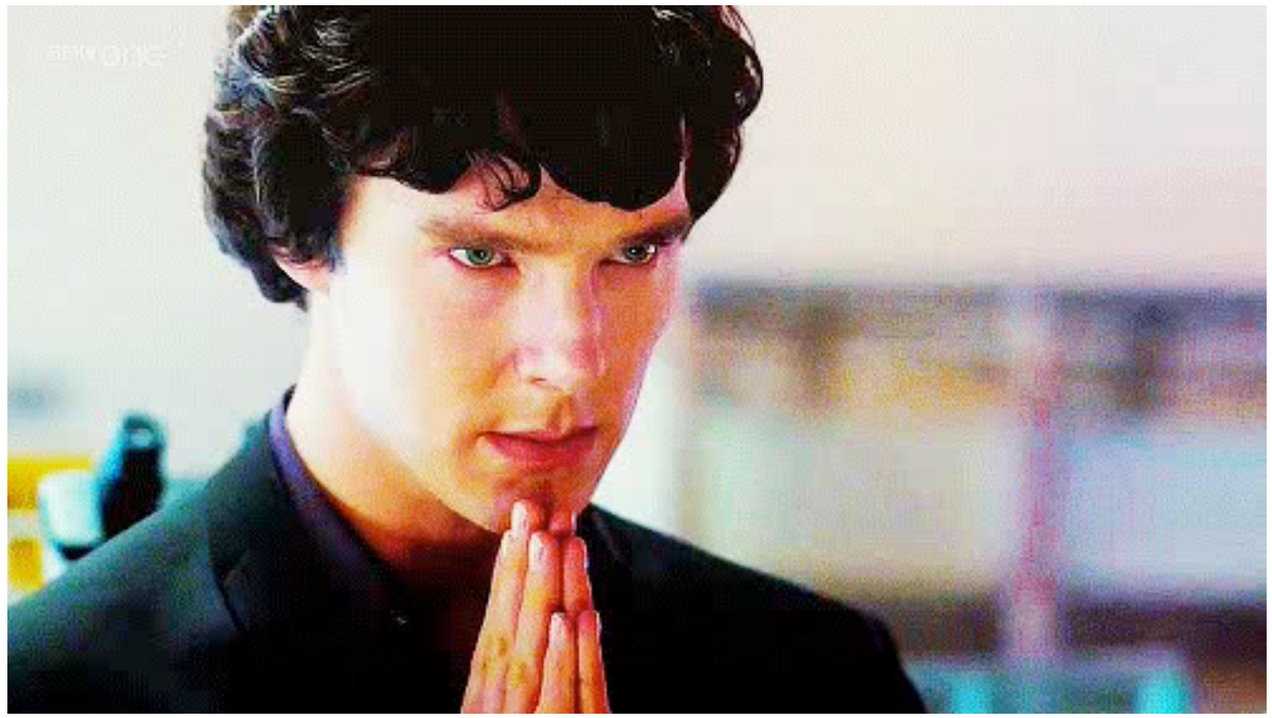

Attention and Memory

Lecture 19, Week 11
March 16, 2015
CSC318H1S
Velian Pandeliev

Announcements

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- The strike: options

Marking Scheme

		Worth
A1	Introductions	2%
P1	Groups formed	5%
A2	Lit review	10%
P2	Instruments	8%
A3	Research	10%
P3	Design requirements	8%
A4	Low-fidelity prototype	10%
P4	System prototype	8%
A5	Reflection	4%
P5	Final deliverables	20%
	Group evaluations	5%
	Tutorial participation	5%
	Class participation	5%

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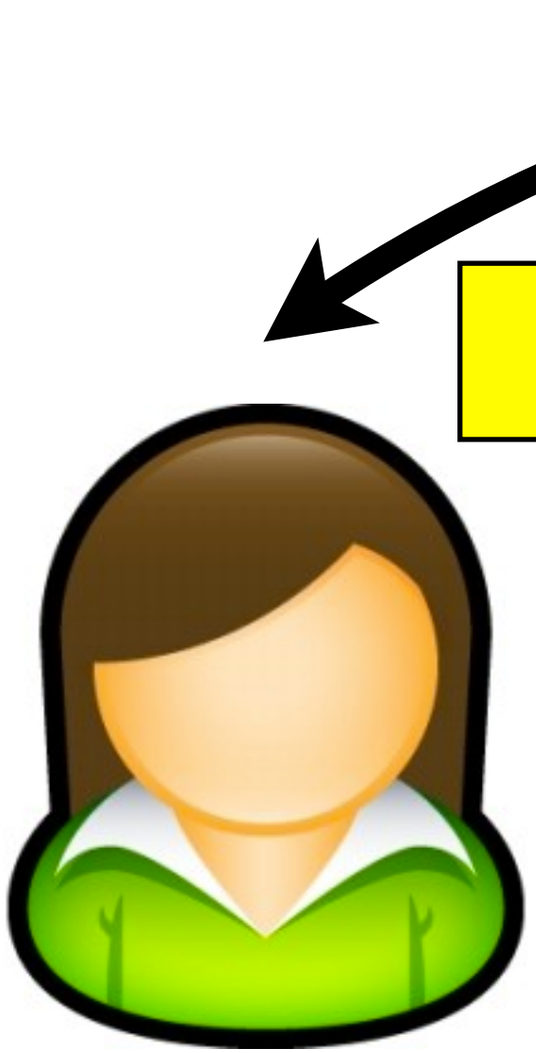
- Submit group evaluations for Phase 4.

Cognition and Action

Norman's Stages of Action



Interpretation

Evaluation

Perception

← - - Gulf of Evaluation - - →

not clear what the state of the system is

← - - Gulf of Execution - - →

not clear what actions can be taken

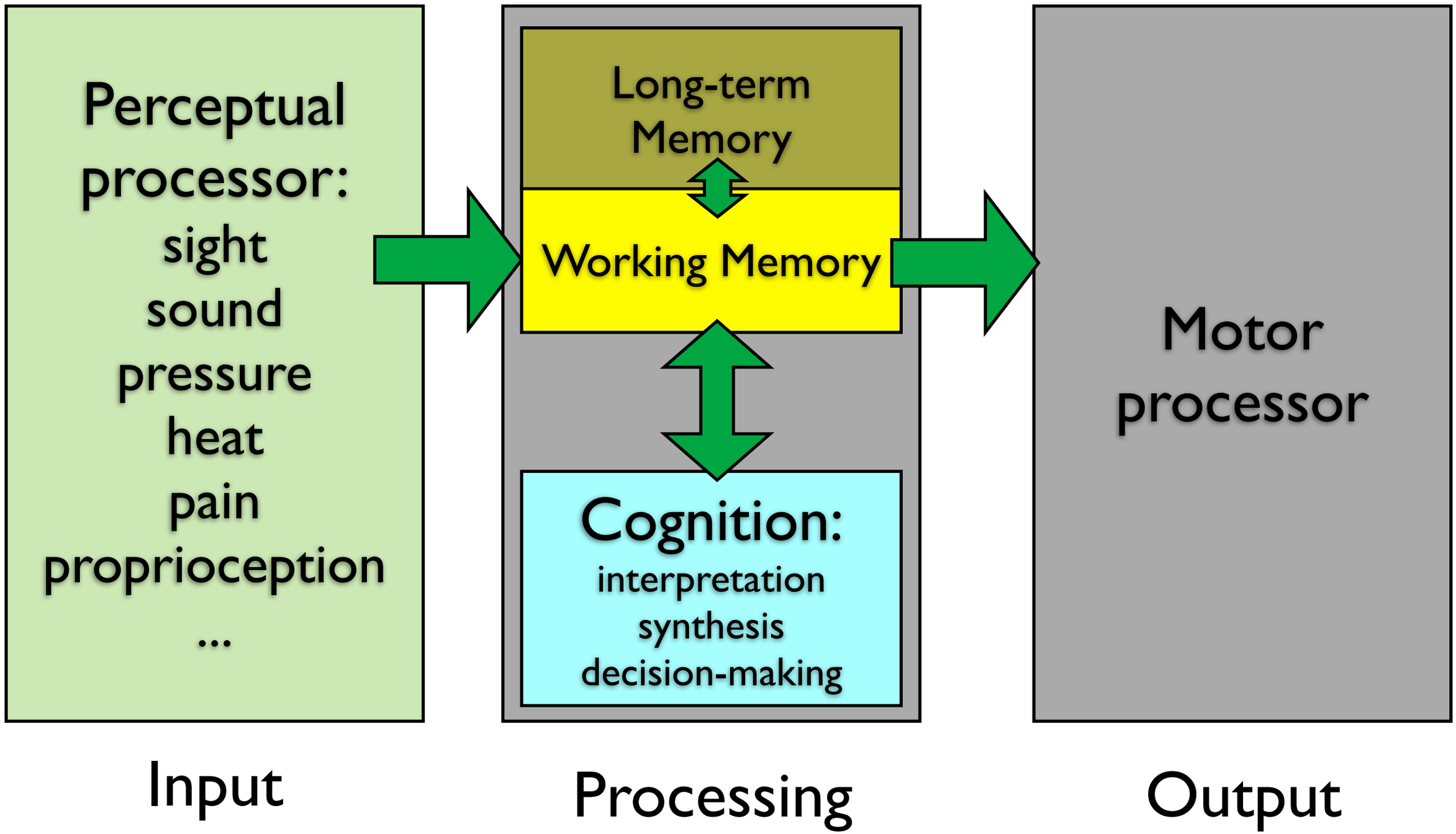
Goal forming

Intention

Planning

Execution

Computational Model



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Generally, there is a single conscious locus of attention.

Attention

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Quirkology Channel
THE COLOUR CHANGING CARD TRICK
www.RichardWiseman.com

Inattentional Blindness

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Cognitive Tunneling and HUD

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Cognitive tunnelling is a form of inattentional blindness.

Splitting Attention

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Heavy multitaskers may be more easily distracted and have more trouble filtering irrelevant information. [Ophir et al. 2009]

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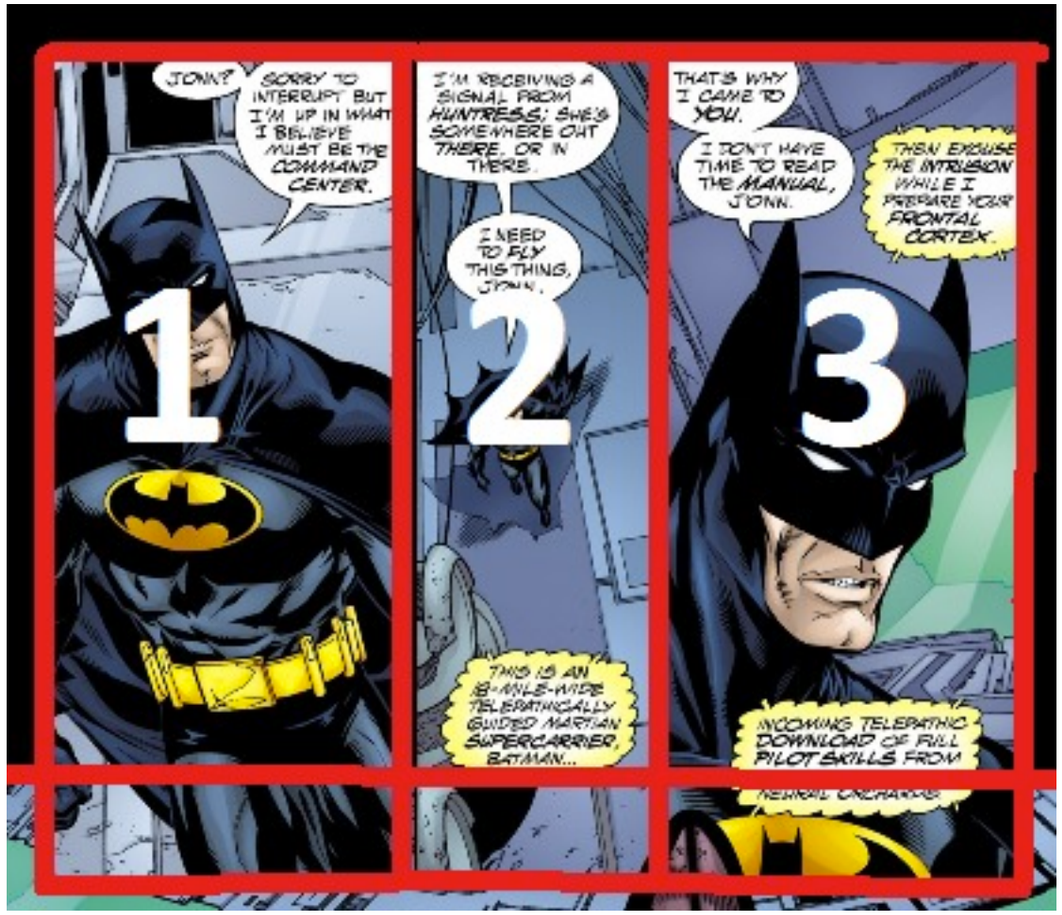

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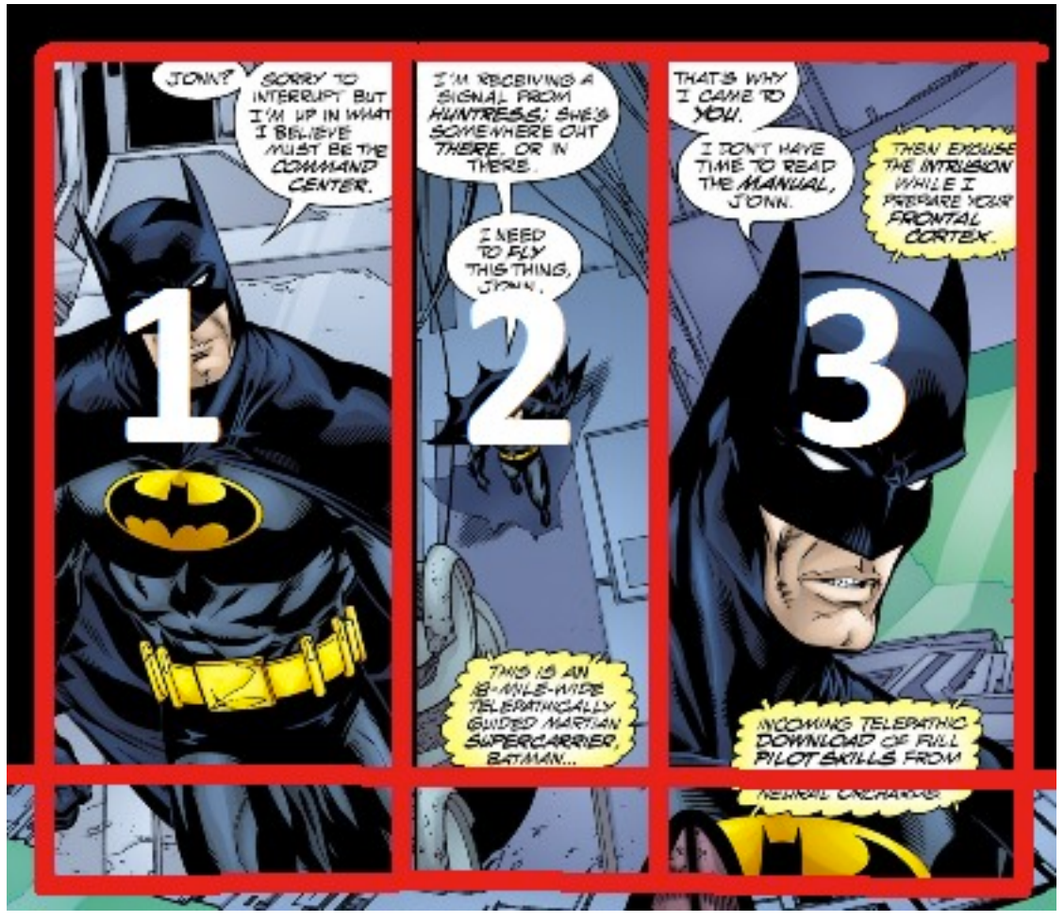

Source: http://infinitecomix.com

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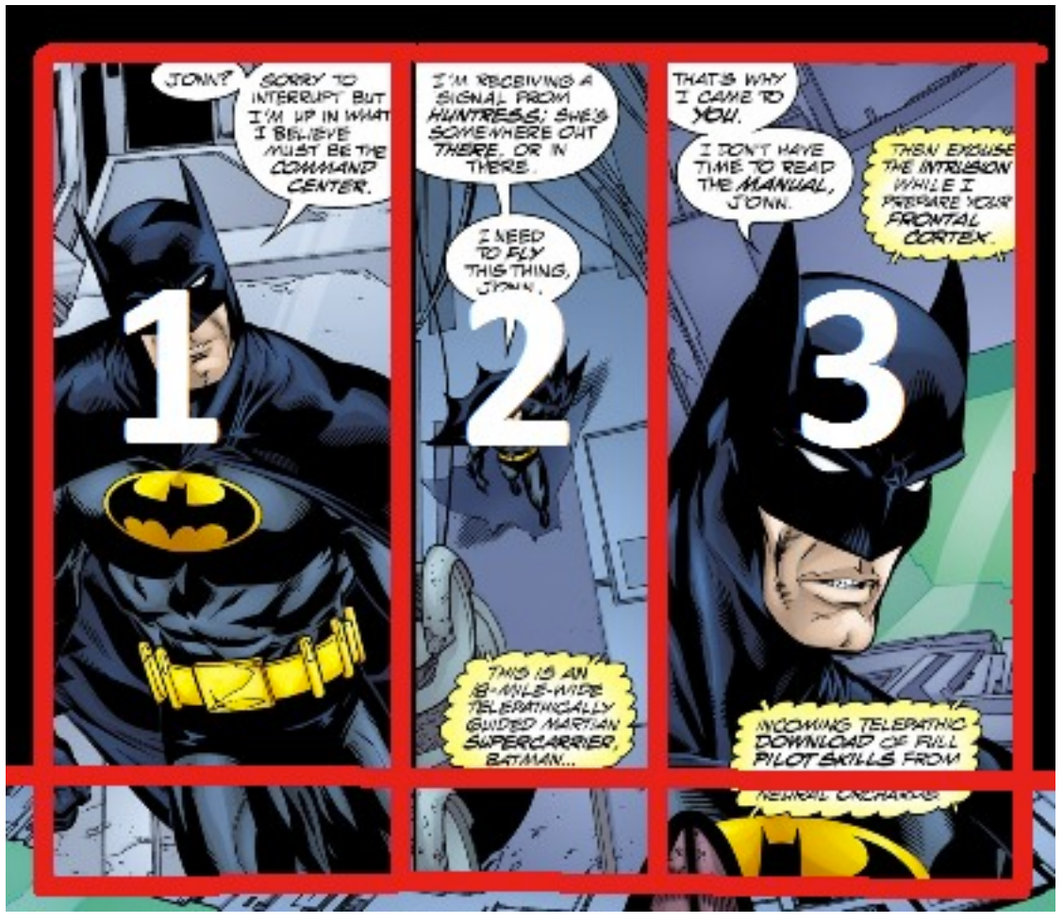

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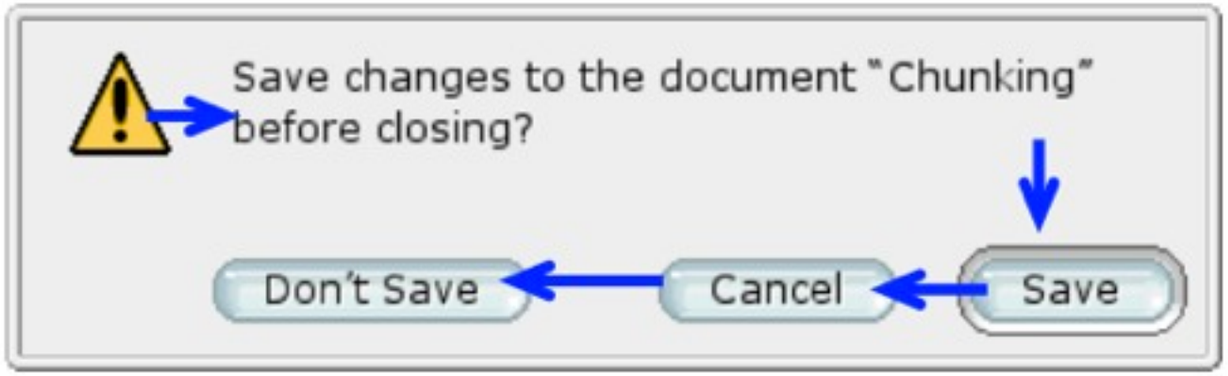

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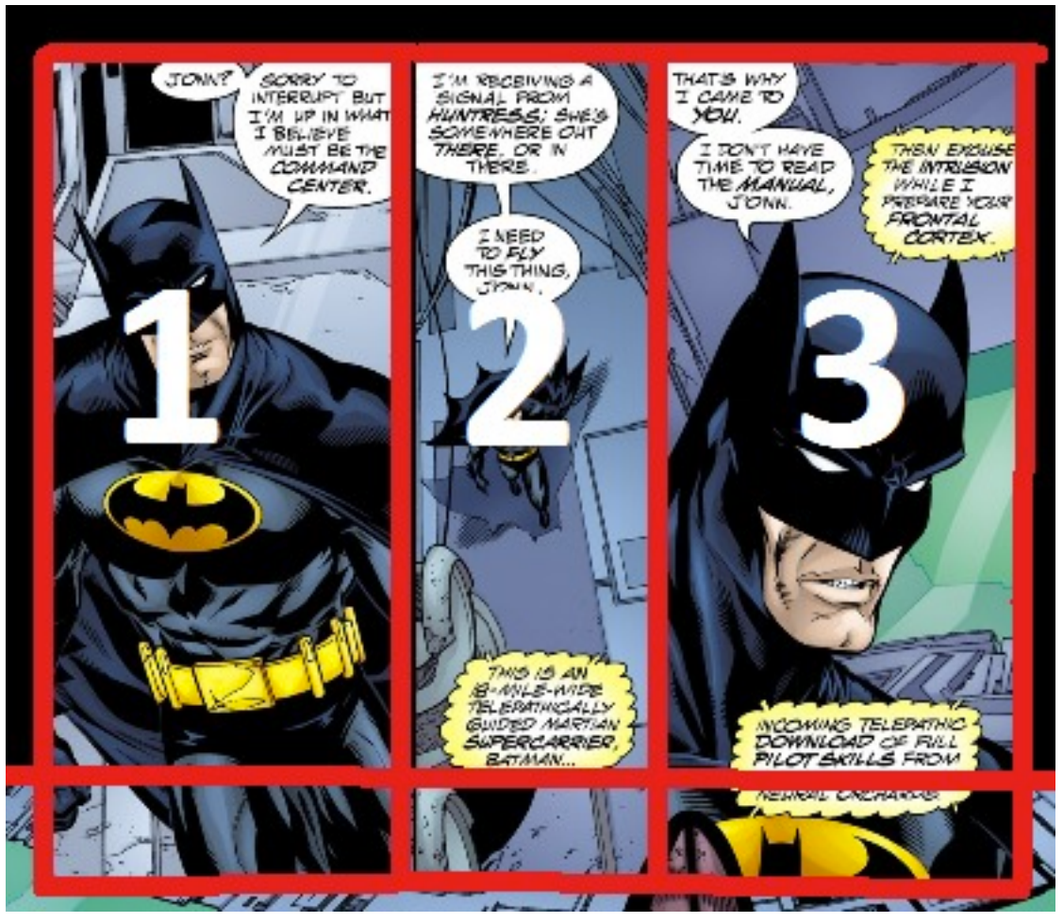

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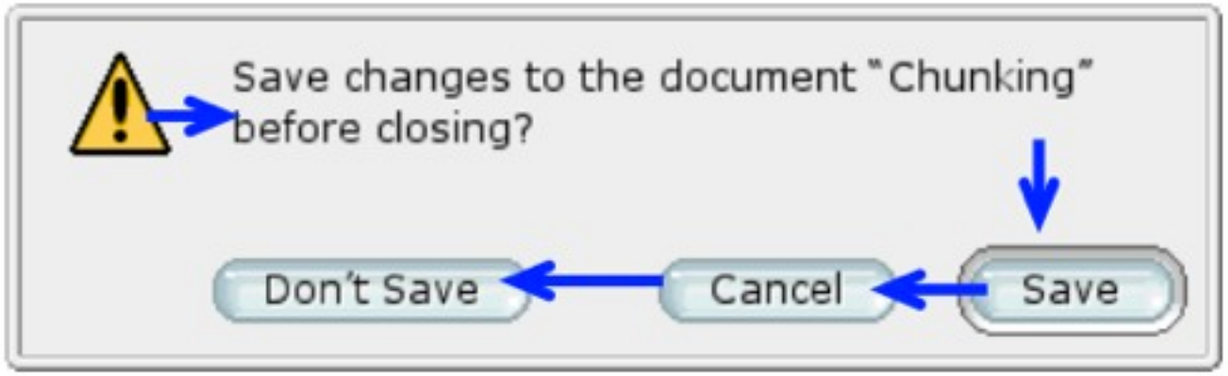

Source: http://www.interfacemafia.org/articles/200109/200109-ar0002.shtml

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Memory

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In fact, memory span varies widely, notably for words: it was lower for longer words and for unfamiliar words.

Memory Models

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Working memory

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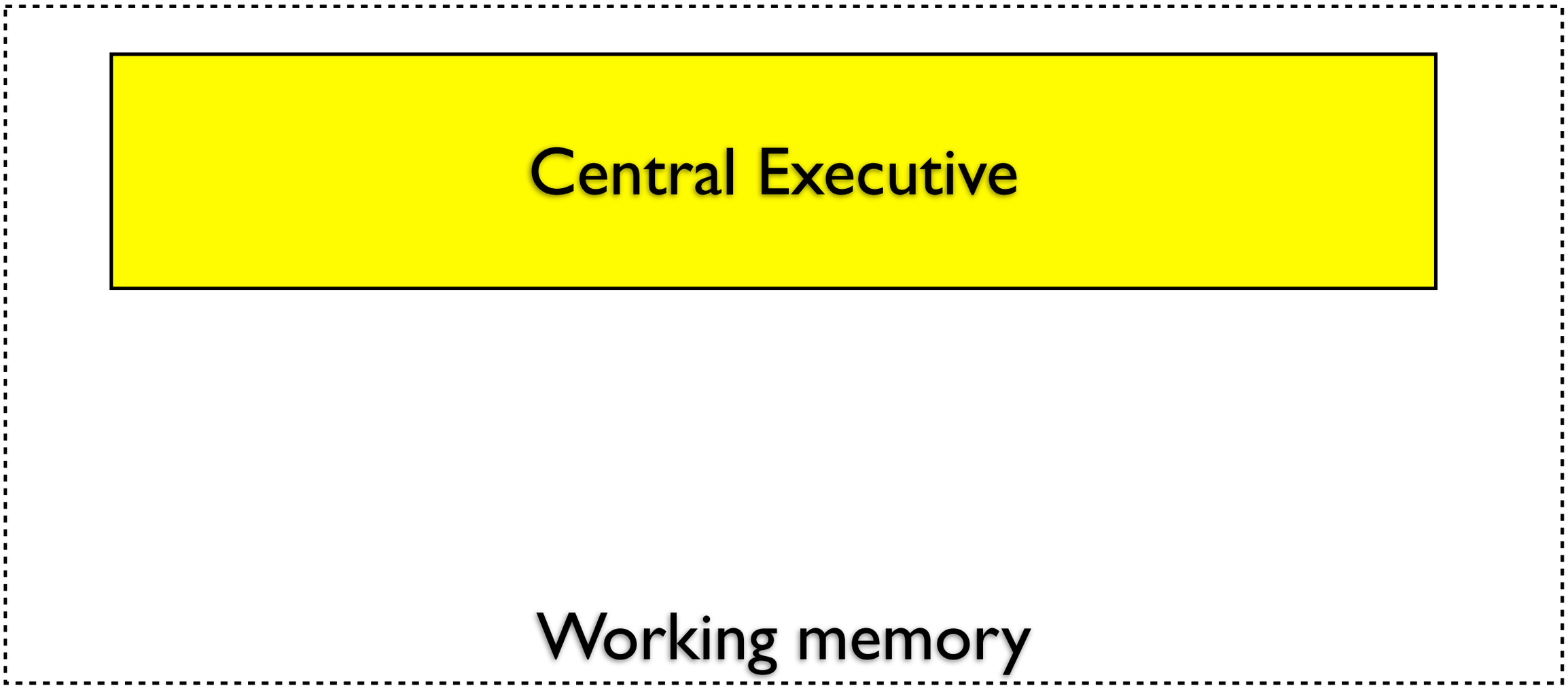

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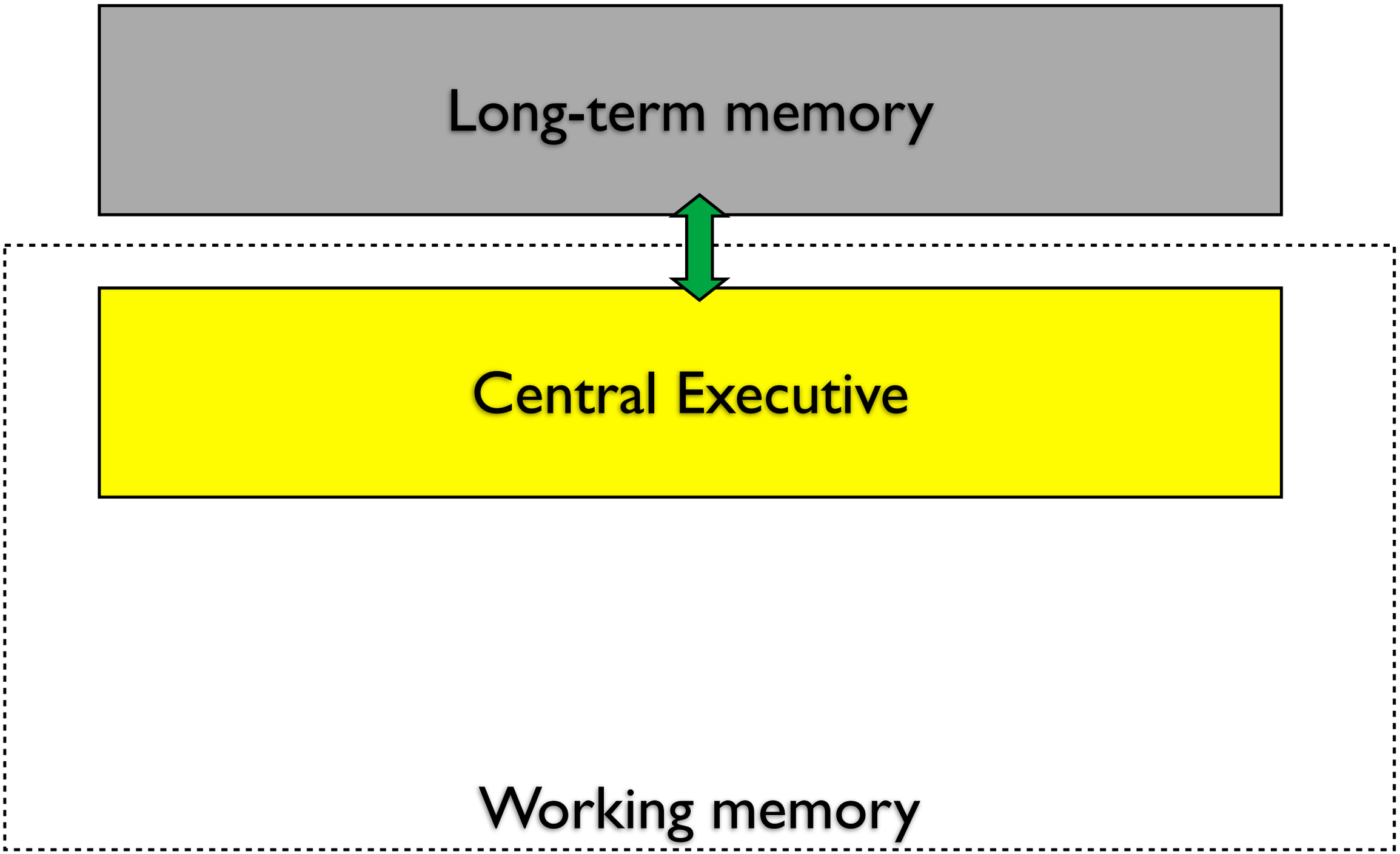

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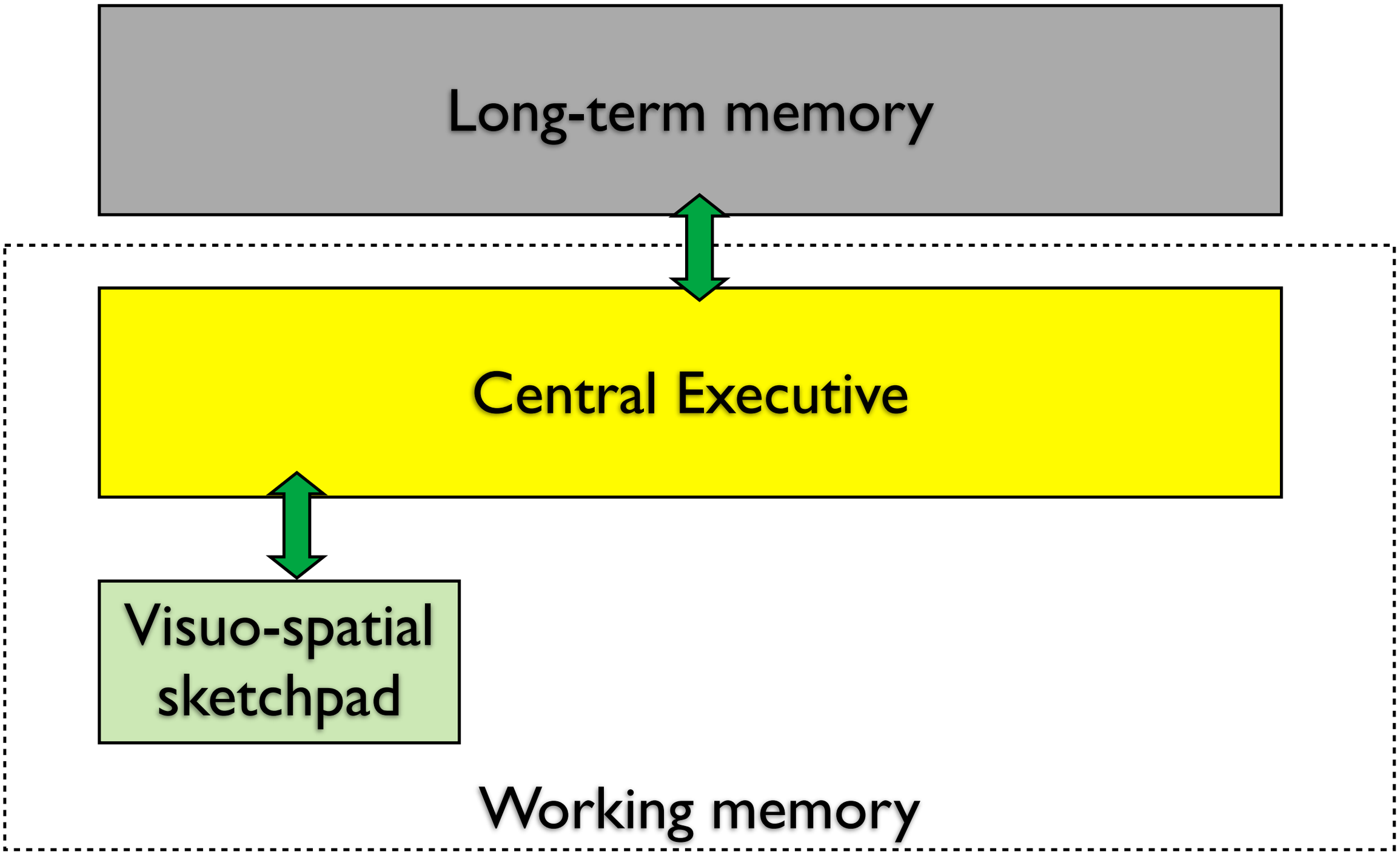

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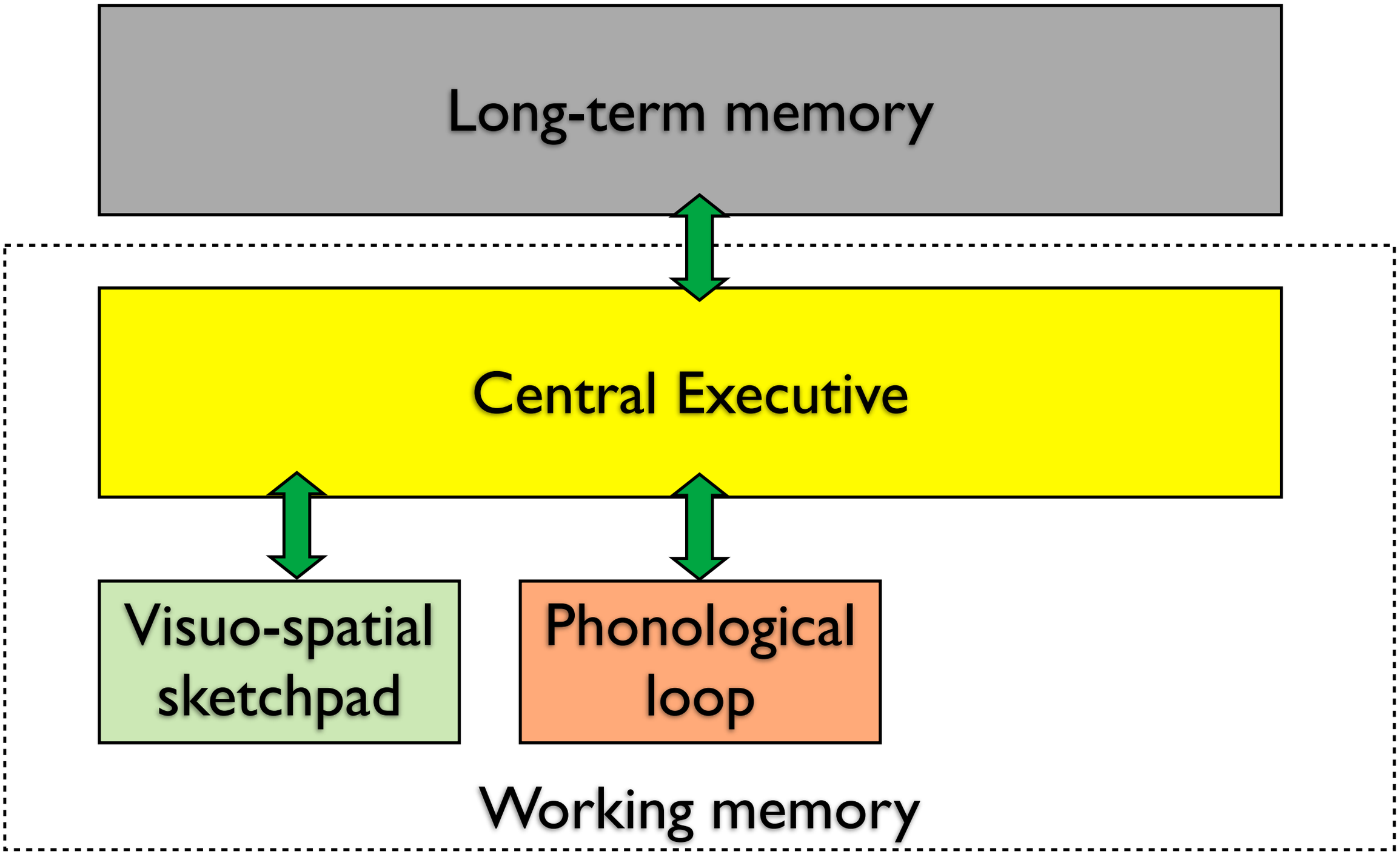

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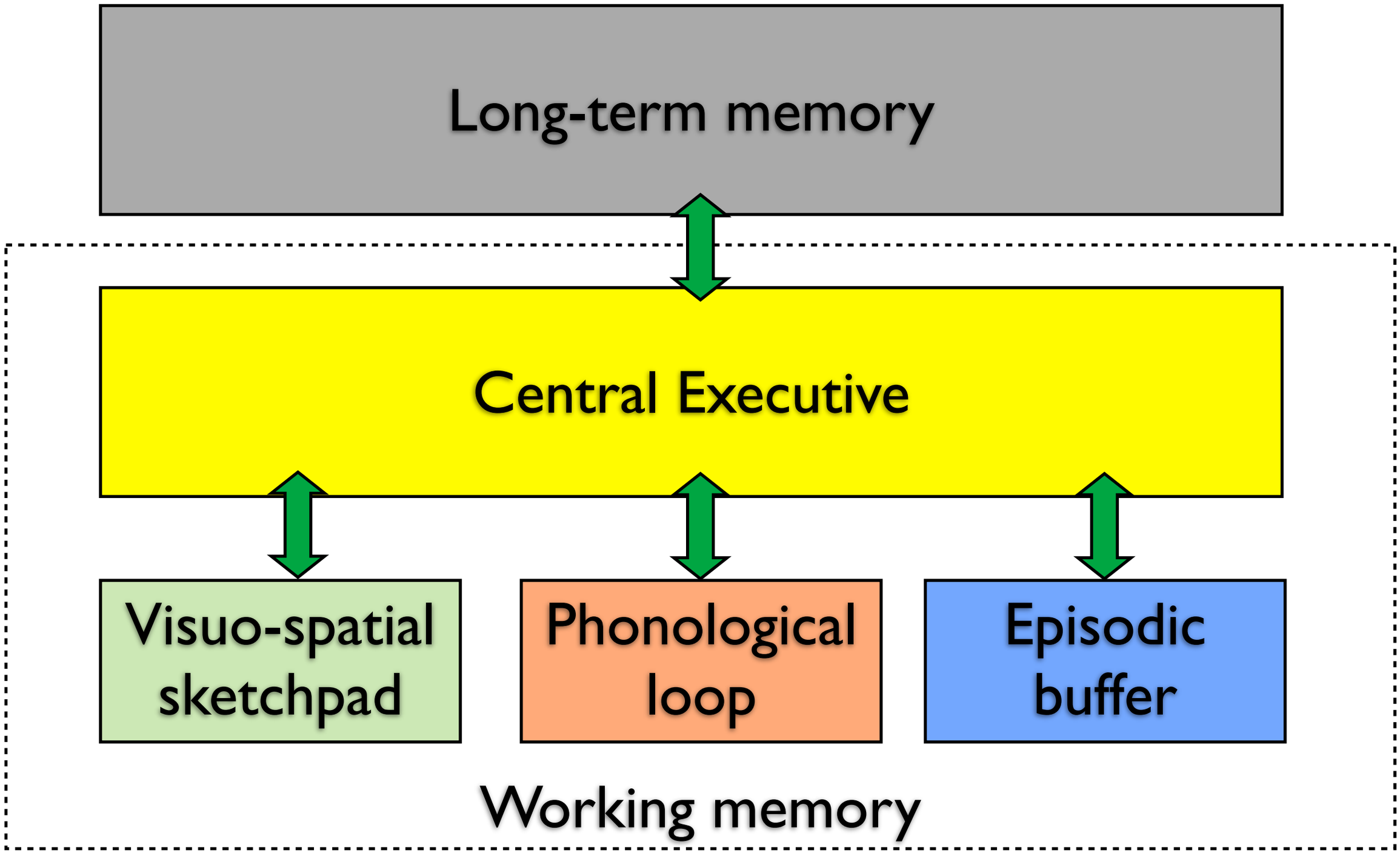

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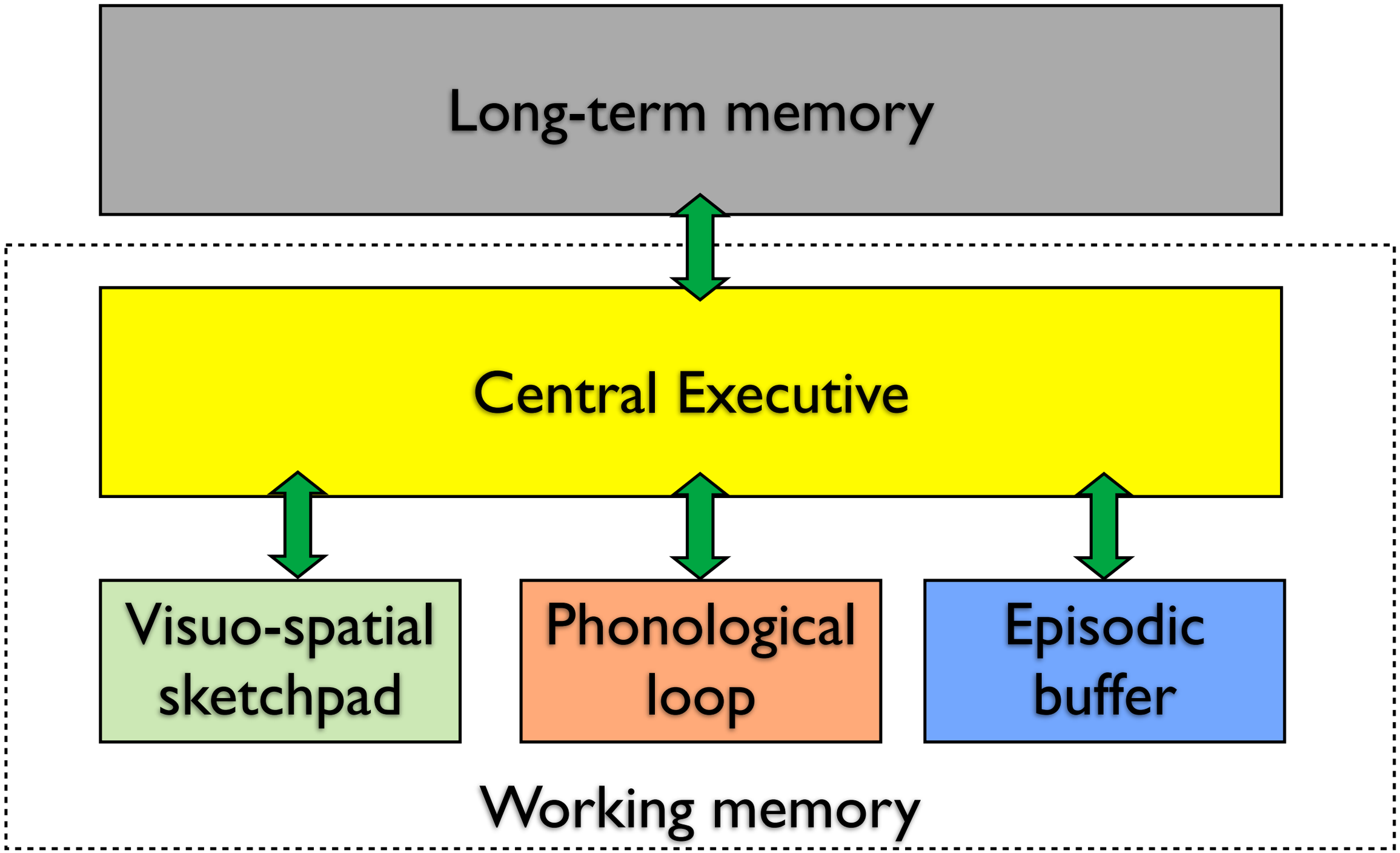

[Baddeley & Hitch 1974]

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Is conversing on a cell phone worse than in person?

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How do/can we use visuo-spatial skills to aid memory?

Goodbye!

This lecture is based on slides and content by:
ILONA POSNER
OLIVIER ST. CYR
Materials from:
Interaction Design: Beyond Human-Computer Interaction. Rogers, Sharp and Preece. 2011
idbook.com