

Biological Vision and Applications

Module 06-08: Global Workspace Theory

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What is consciousness ?

CONSCIOUSNESS

our awareness of ourselves and our environment.

- Consciousness is everything that you “experience”
 - ▶ We do not experience all that we perceive
 - ▶ There are many factors that result in “attention” to specific stimuli
 - ▶ bottom-up and top-down
 - ▶ environment, context, intention, ...

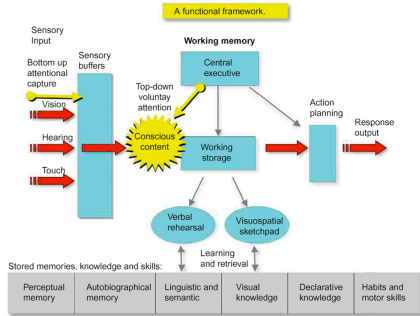
Dual Process Theory

Conscious and Subconscious Processing



- You are conscious about the squirrel
- In subconsciousness, you are also looking at the tree, ...
- Consciousness is dynamic
 - ▶ Suddenly, a bird flies out of the tree
 - ▶ ... your consciousness will shift there

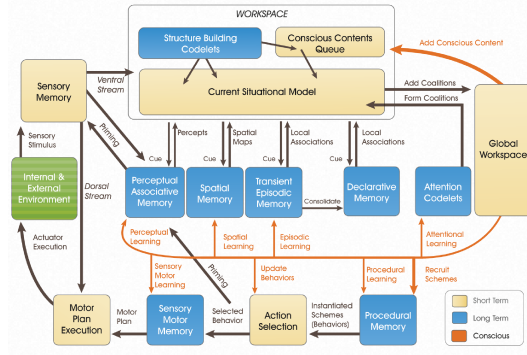
Global Workspace Theory



- “Theatre” metaphore
- Many independent processes work simultaneously on the memory
- Sensory stimuli and actions are the actors on the stage
- Context puts the spotlight on a part of the memory
- Conscious events enable learning
 - ▶ explicit & implicit
- Unconscious resources controls the conscious activities

Global Workspace Theory ...

LIDA Architecture



- [LIDA Cognitive Architecture \(Video\)](#)
- [LIDA Tutorial](#)

No quiz for module 06-08

End of Module 06-08