

MENTAL TIME TRAVEL

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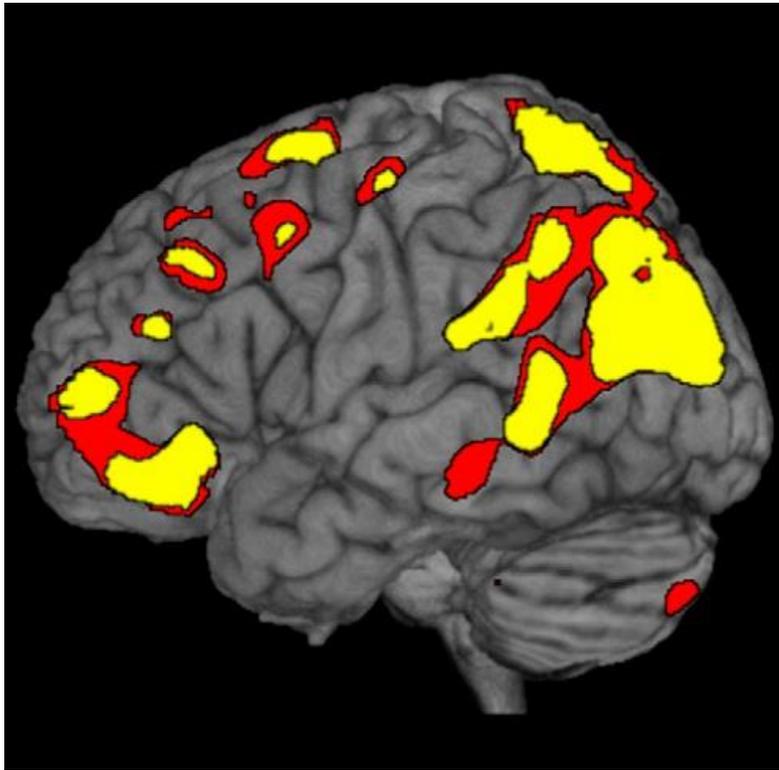
Introduction to Cognitive Science

2013/14

WHAT IS IT?

- Conscious experience of remembering the personal past and imagining the personal future
- Chronesthesia
- Subjective sense time
- confusion about definitions (episodic memory)
- (1) what, who, where (2) subjective moment in time

NEURAL SUBSTRATE



- Red – episodic memory
- Yellow – past, present, future imagery (MTT)
- Task – walking in known environment

MTT & nonhuman animals

- stuck-in-time hypothesis
- scrub-jays, rats, apes = episodic-like memory?
- Evolved genetic predisposition vs. future planning
- Epistemic barrier

Human findings

- most frequent time travel < 1 year radius
- higher temporal distance == higher life scripts percentage
- relationship of temporal distance and optimism is basically linear
- involuntary mental time travel (forerunner to the more sophisticated voluntary mode?)

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