

The philosophy and psychology of memory

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The study of memory has been central to psychology from its inception. However, the psychological study of memory has recently been reinvigorated by a series of surprising results from cognitive neuroscience and neuropsychology suggesting an intimate neurocognitive relationship between the human abilities to remember past events and to imagine future events. These results have also drawn attention from philosophers interested in questions which have already occupied early modern philosophers such as Hume and Locke: How can we distinguish memory from imagination? Are there necessary and sufficient conditions which would allow us to determine whether a given mental state is a memory? Is memory a natural kind?

In this course, we will explore both the empirical and the conceptual side of this literature. We will discuss findings from cognitive psychology, cognitive neuroscience and neuropsychology about the relationship between episodic memory and other capacities such as episodic future thinking, counterfactual imagination, perspective taking, dreaming and navigation and the question to what extent these capacities might be shared between humans and other animals. Moreover, we will look at how philosophers have made use of these results to suggest fundamental revisions to our everyday understanding of what memory is. Finally, we will discuss the relationship between our abilities for memory and our concept of time.

This class will be suitable for advanced students in the Philosophy of Mind and Psychology, and related disciplines within the cognitive sciences. It is not recommended to students with no background in this area of research.

Part 1: The psychology of memory

Session 1: The psychological taxonomy of memory

- Squire, L. (2004). Memory systems of the brain: A brief history and current perspective. *Neurobiology of Learning and Memory*, 82, 171-177.
- Werning, M. & Cheng, S. (2017). Taxonomy and unity of memory. In: K. Michaelian & S. Bernecker, *The Routledge Handbook of the Philosophy of Memory*. Routledge.

Session 2: What is episodic memory?

- Tulving, E. (2002). Episodic memory – from mind to brain. *Annual Review of Psychology*, 53(1), 1-25.

Session 3: The constructive nature of episodic memory

- Schacter, D. & Addis, D. R. (2007). The cognitive neuroscience of constructive memory: remembering the past and imagining the future. *Philosophical Transactions of the Royal Society B*, 362, 773-786.
- Hassabis, D. & Maguire, E. (2007). Deconstructing episodic memory with construction. *Trends in Cognitive Sciences*, 11(7), 299-307.
- Buckner, R. L. & Carroll, D. C. (2007). Self-projection and the brain. *Trends in Cognitive Sciences*, 11(2), 49-57.

Session 4: Episodic memory and episodic simulation

- Mahr, J. B. (in press). The dimensions of episodic simulation. *Cognition*

Part 2: The philosophy of memory

Session 5: The causal theory of memory

- Martin, C. B. & Deutscher, M. (1966). Remembering. *The Philosophical Review*, 75(2), 161-196.

Session 6: Is memory a natural kind?

- Michaelian, K. (2016). *Mental Time Travel* (Chapter 2). MIT Press.
- Klein, S. (2015). What memory is. *WIREs Cognitive Science*, 6, 1-38.

Session 7: Does memory produce knowledge?

- Michaelian, K. (2016). *Mental Time Travel* (Chapter 3). MIT Press.

Session 8: Beyond the causal theory

- Michaelian, K. (2016). *Mental Time Travel* (Chapter 6). MIT Press.
- Michaelian & Robins (2018) Beyond the causal theory. In: K. Michaelian, D. Debus, & D. Perrin (eds.) *New Directions in the Philosophy of Memory*. Routledge.

Part 3: Memory and time

Session 9: Episodic memory in other animals?

- Clayton, N. S., & Dickinson, A. (1998). Episodic-like memory during cache recovery by scrub jays. *Nature*, 395(6699), 272.
- Hoerl, C. (2008). On being stuck in time. *Phenomenology and the Cognitive Science* 7(4), 485-500.

Session 10: Representing time

- Campbell, J. (1997). The structure of time in autobiographical memory. *European Journal of Philosophy*, 5, 105-118.
- Campbell, J. (1996). Human vs. animal time. In: M. A. Pastor and J. Artieda (Eds.). *Time, Internal Clocks and Movement*. Elsevier.

Session 11: Episodic simulation and temporal cognition

- McCormack, T. & Hoerl, C. (2019). Thinking in and about time: A dual systems perspective on temporal cognition. *Behavioral and Brain Sciences*

Session 12: Discussion