



**University of  
Zurich** <sup>UZH</sup>

## Department of Economics – Neuroeconomics Seminar

**May 7, 2020 - 17:00 - 18:00**

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### **Contributions of episodic memory to temporal discounting**

A long history of research in psychology and economics has demonstrated that people display *temporal discounting* – that is, they devalue future rewards as the delay to receiving them increases. The consequences of temporal discounting range from relatively mild (e.g., paying more for shipping to get items sooner) to severe (e.g., abusing drugs or pathological gambling). People vary in the extent to which they discount future rewards, and these discount rates are associated with real-world outcomes. But what are the cognitive mechanisms that account for these individual differences?

One neurocognitive system that may underlie these individual differences is the episodic memory system. A substantial body of research has shown that the neural mechanisms underlying episodic memory retrieval overlap with those involved in episodic future thinking. Further, people who can remember the past in more vivid detail are more likely to imagine the future more concretely, and imagining future outcomes more concretely may enhance the value of these outcomes.

I will present the results of a series of experimental and neuroimaging studies conducted in young (ages 18-35) and older (ages 60+) adults. These studies provide evidence that episodic memory processes are an important contributor to more future-oriented decision-making. This knowledge will aid in the development of interventions to increase patience, especially as episodic memory declines with aging.