

The background is a faded, surreal illustration. It features several melting pocket watches, a landscape with jagged, layered rock formations, and a large, gnarled tree branch on the left. The overall color palette is muted, with soft yellows, browns, and greys.

# Welcome!

PSYC 51.09: Human Memory  
Spring 2022

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$$\mathbf{x}_j = (1 - \tau\kappa - \tau\lambda N) \mathbf{x}_{j-1} + \tau \mathbf{f}^{\text{IN}} + \epsilon_j$$

$$P(\mathbf{f}_i | \mathbf{f}^{\text{input}}) = \frac{\text{Sim}(\mathbf{f}_i, \mathbf{f}^{\text{input}})}{\sum_{k=1}^N \text{Sim}(\mathbf{f}_k, \mathbf{f}^{\text{input}})}$$

# FOUNDATIONS OF HUMAN MEMORY

MICHAEL JACOB KAHANA

$$s_{t+1}(i) = \text{sgn} \left( \sum_j w(i, j) s_t(j) \right)$$

OXFORD



# Workload

- **Readings:** we'll work our way through the textbook, along with supplemental readings as needed. You'll read roughly a chapter each week.
- **Problem sets:** practice working with the concepts we cover (first one: **today!**). These contribute relatively little to your grade, and it doesn't matter if you get the "right" answers; the idea is to give you room to learn and make mistakes.
- **Exams:** test your conceptual understanding. The midterm and final will comprise the bulk of your final grade. Both are open book and time "unlimited" (you'll have up to 24 hours to finish each).

# Format

- Each week (approximately) we'll discuss a theory
- Then we'll systematically tear it down
- At the end of the course we'll hopefully understand memory a bit better
- Goal: leave my course with a deep, cutting edge understanding of (a subset of) what is known about human memory

What is memory?

Why do we have  
memory?

Does memory require  
consciousness?



# Ethics of memory

- Perfect model of memory
- Memory in the courtroom

What have you heard  
about how memory  
works?

# For Wednesday...

- Check out the course GitHub page
- Read Chapter 1 in FoHM
- Start working on Problem Set 1, due before class on April 5