

Background and context

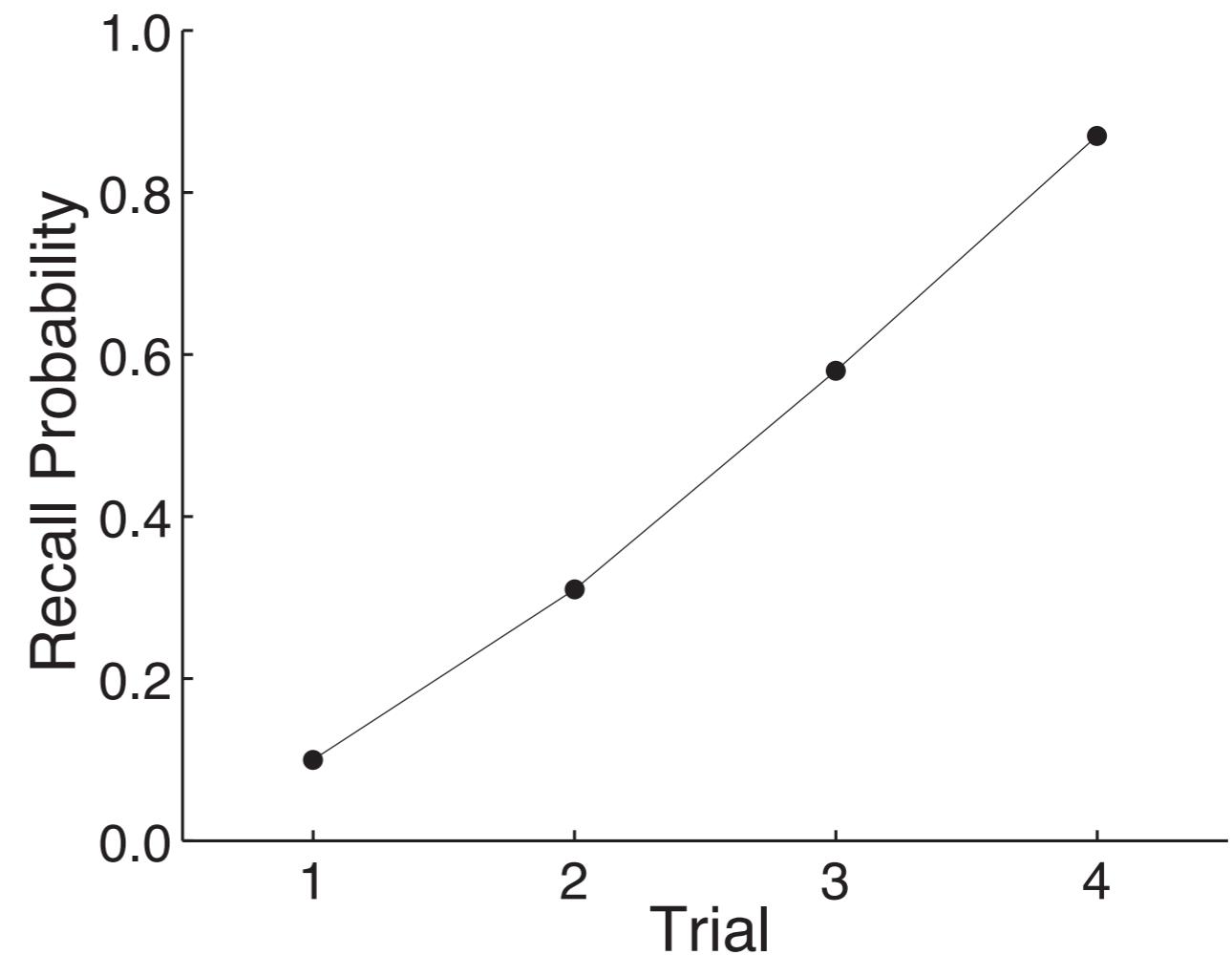
PSYC 51.09: Human Memory
Winter 2024

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What have you heard
about how memory
works?

Law of repetition

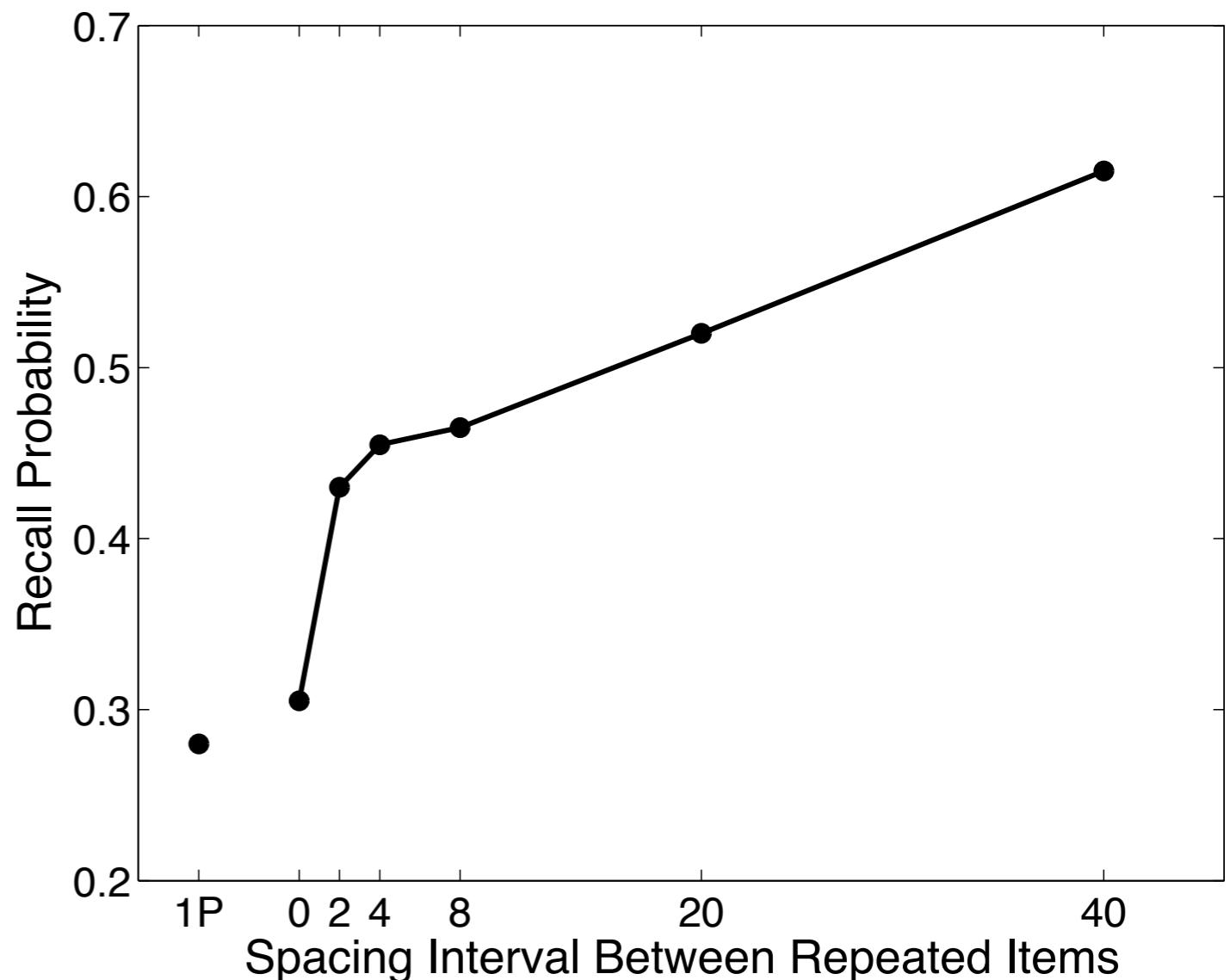
- Participant: 1 college student
- Flashcards with 100 word pairs
- 40 trials where they study each pair once per trial



Murdock, 1989

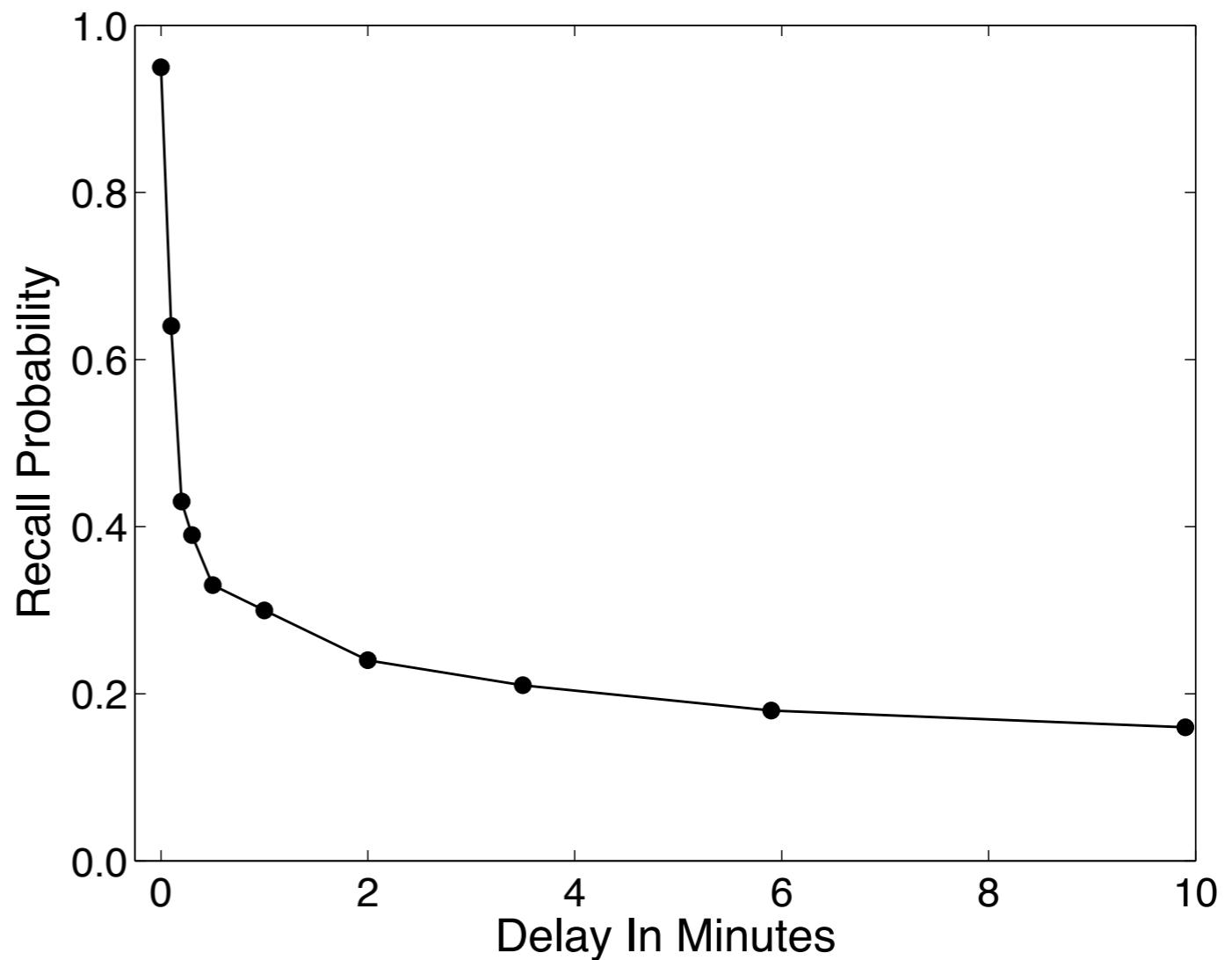
Spaced vs. massed learning

- Participants study long random word lists
- Some words appear once; others appear twice



Recency

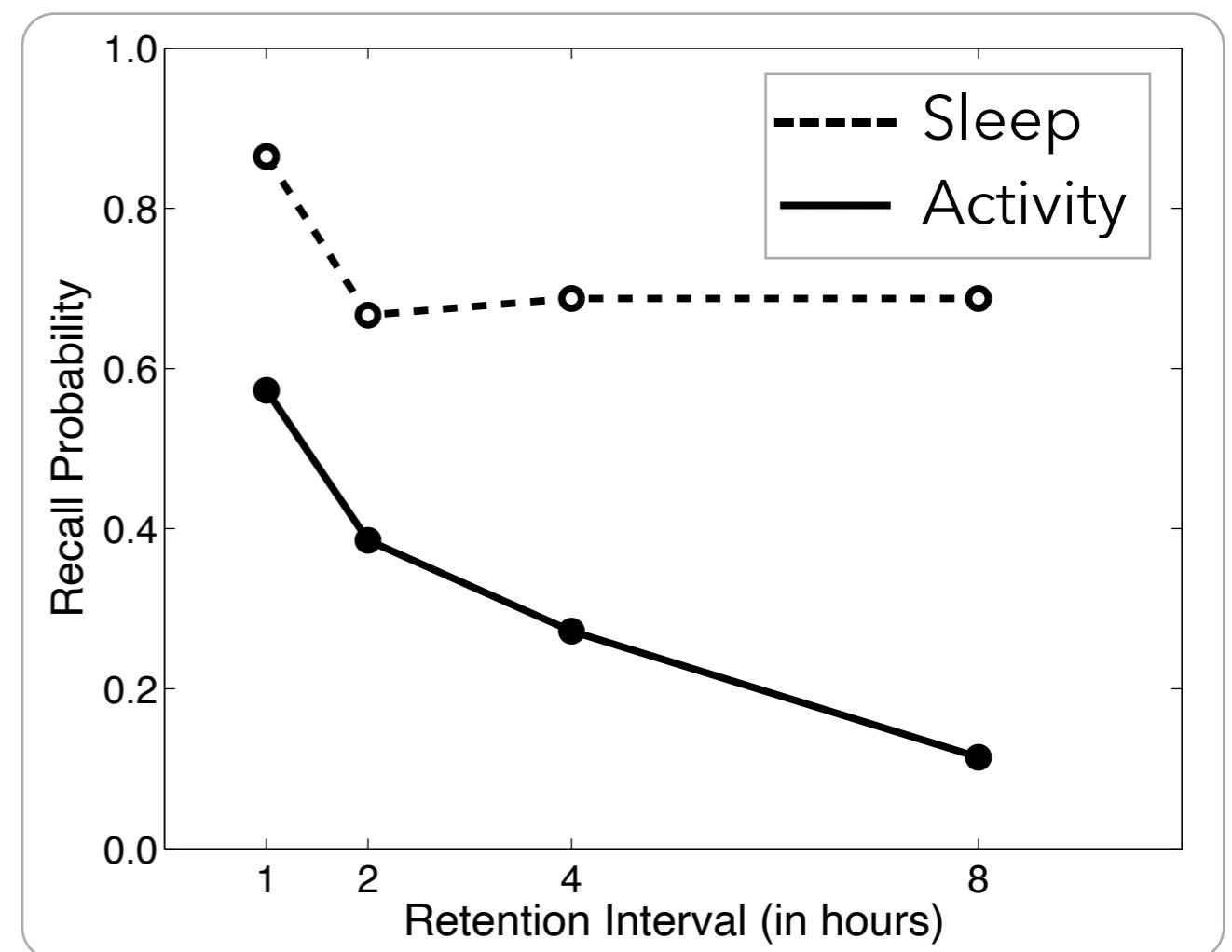
- Participants study word pairs
- Quizzed after delays of different durations



Rubin et al., 1999

Sleep and forgetting

- Two students study lists of random syllables
- Experiment duration: **7 weeks** (sequestered in a dorm at Cornell to enable sleep tracking!)
- Test memory after various delays relative to when they finished studying



Jenkins & Dallenbach, 1924

Repetition, spacing, and recency



Duolingo



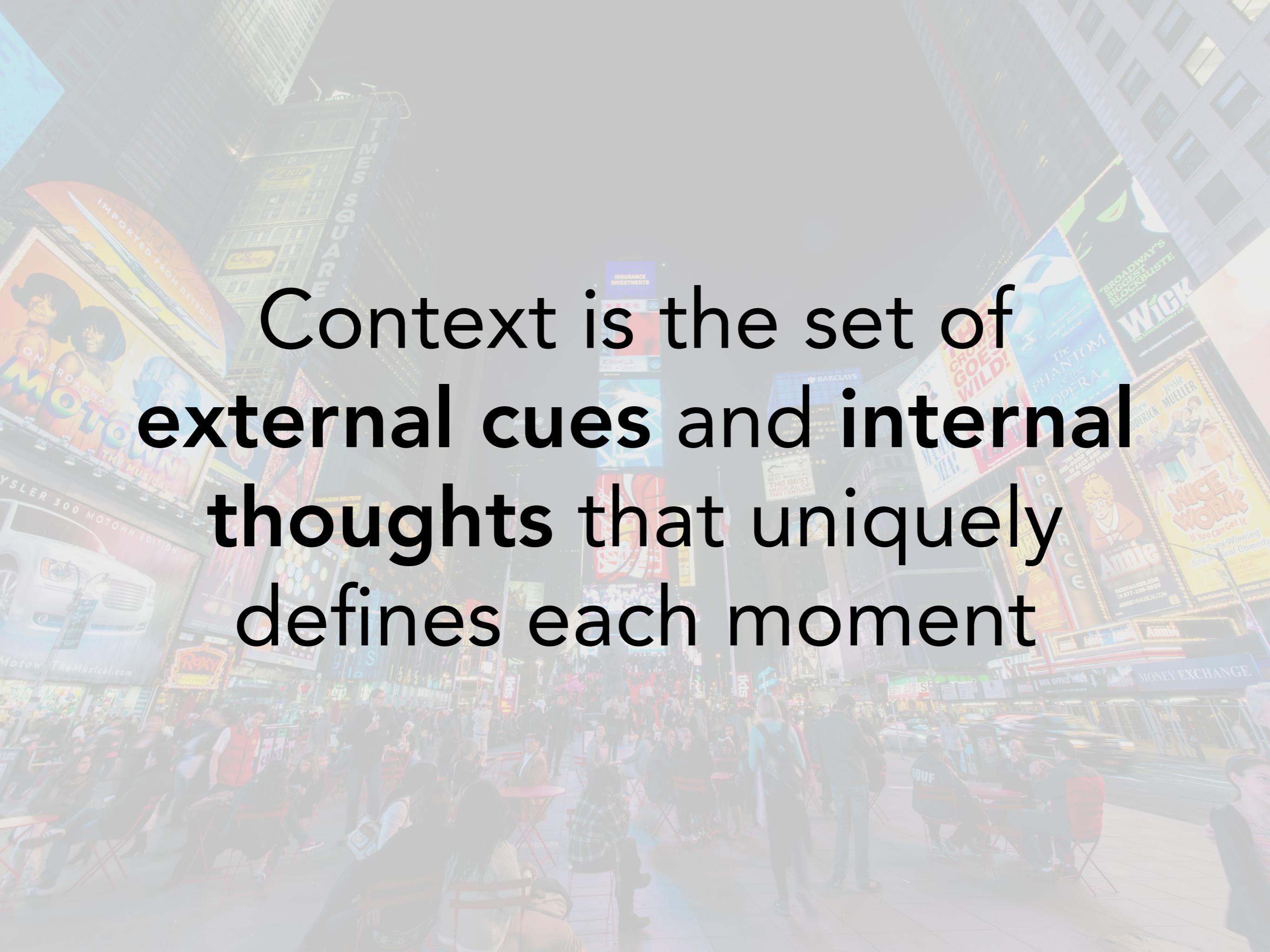
Memrise



Knewton



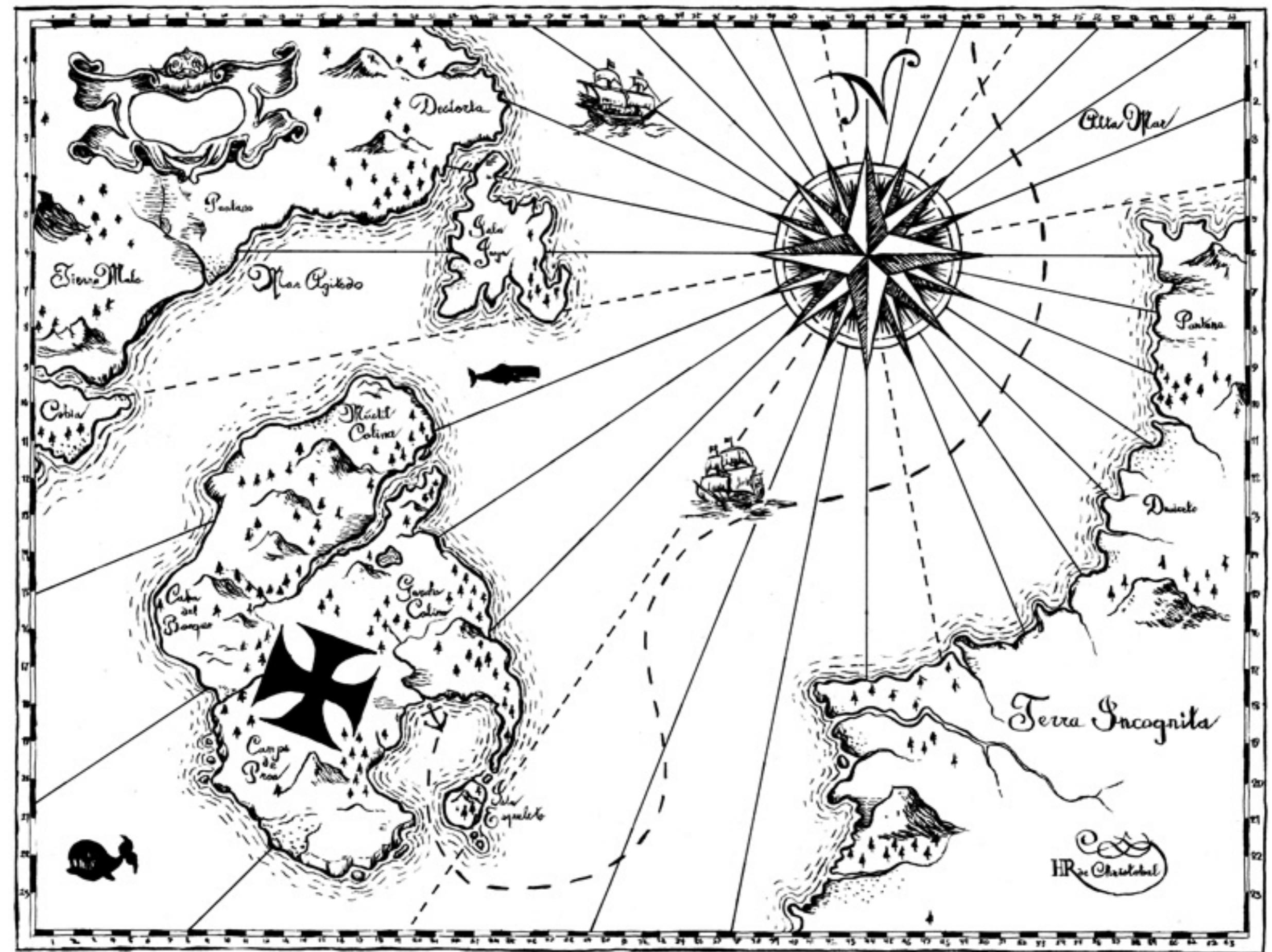
Rosetta Stone



**Context is the set of
external cues and internal
thoughts that uniquely
defines each moment**











Veniți și luați-le!



Veniți și luați-le!



Veniți și luați-le!

Music as context

- Music can evoke a variety of emotional responses
- These responses are often similar across people and cultures (sometimes they're learned)
- Movie directors exploit this to influence how we interpret what's going on in the movie and how we feel about it

JAGUAR XJ



Context in advertising

- If you buy the car, you'll fit in with the image the advertiser is selling
- Contextual cues in the commercial also help us understand what's going on in limited airtime

Why does context matter?

- Context is reflected in the **statistical structure of our experience**
- Our brains exploit this statistical structure to help us remember what we need, when we need it
- This plays a fundamental role in how we remember

The dynamics of thought

Dartmouth

Ready for a nap

Need coffee

Today's class

Eat

Morning run

Wake up



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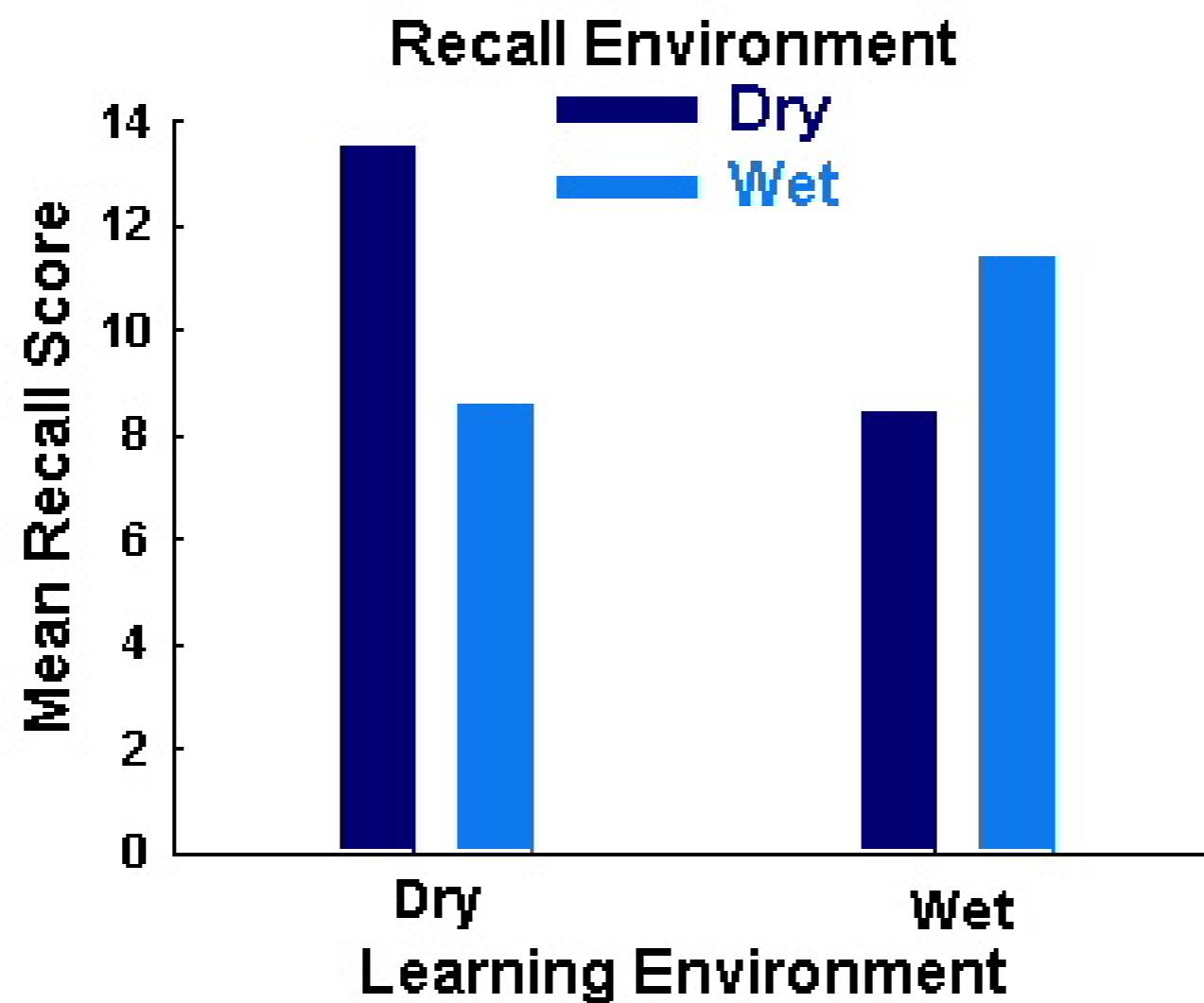
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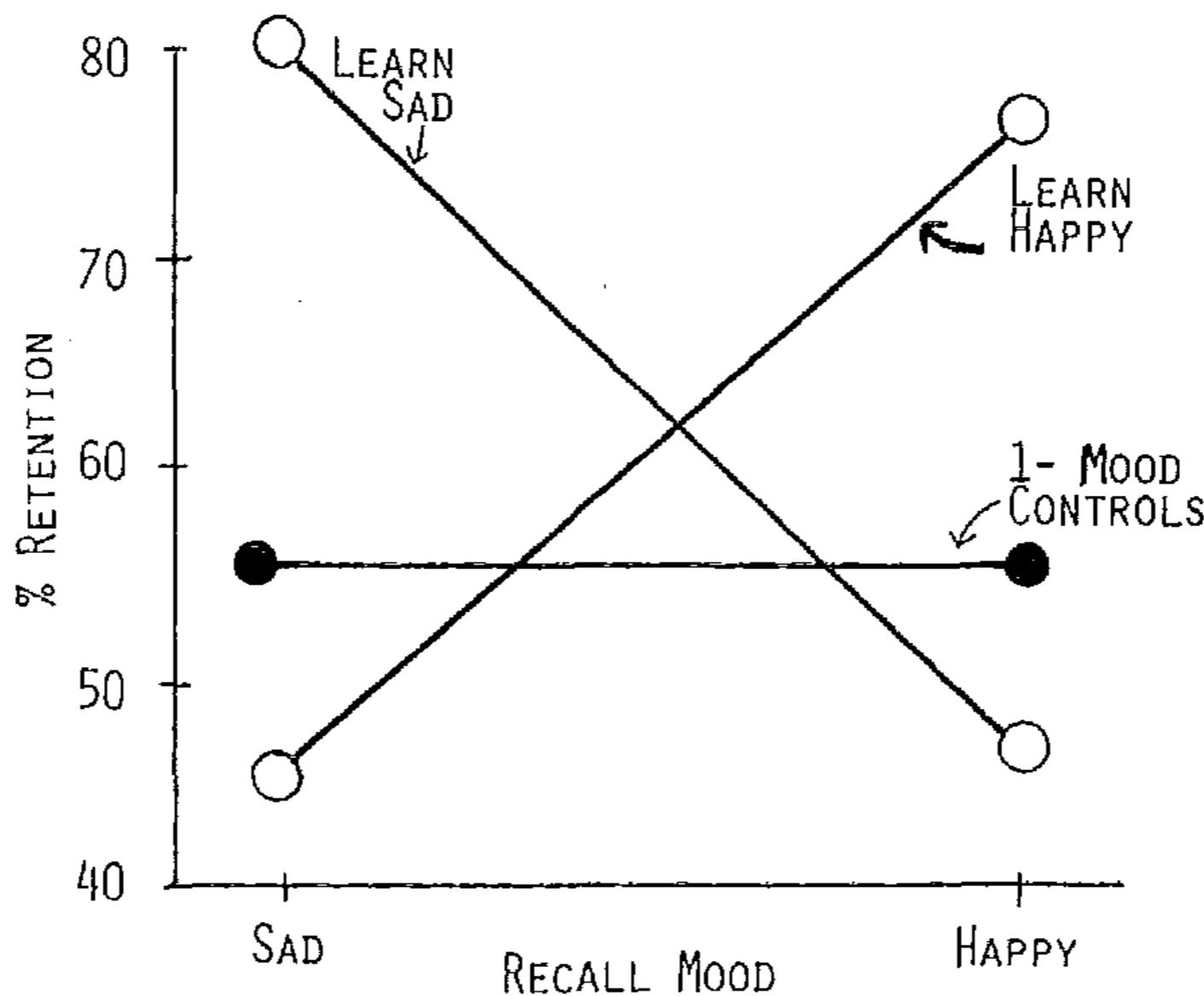


Context and memory



Godden & Baddeley (1975)

Context and memory



Bower, 1981

Context-based explanations for...

- Practice makes perfect
- Efficacy of massed vs. spaced practice
- Recency and forgetting
- Study/test context effects

For Monday

- Keep working on PS 1 (due Wednesday)
- Start reading Chapter 2 in FoHM