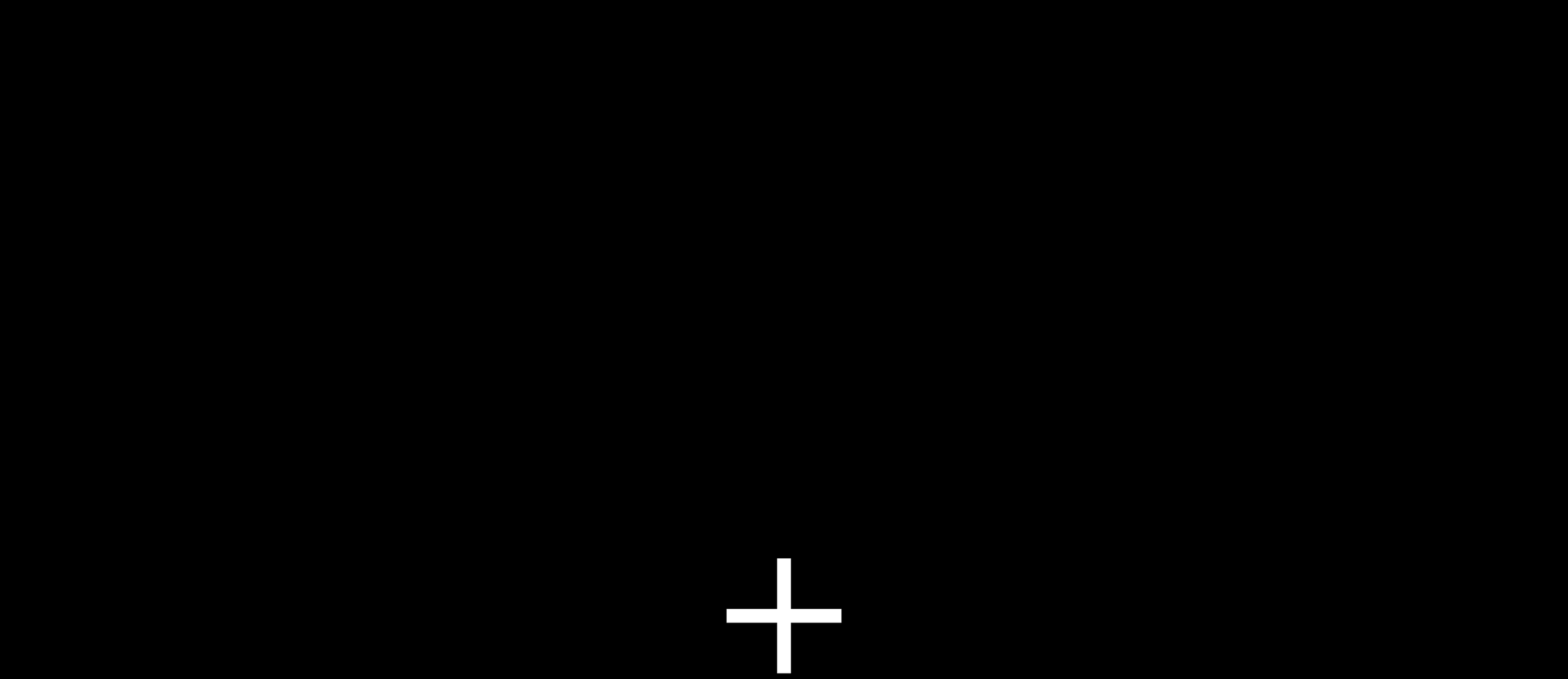
Recap

- False fame illusion
- Cryptomnesia
- Mirror effect
- Reaction time vs. confidence

The Sternberg Paradigm:

AKA “The ‘other’ recognition memory experiment”



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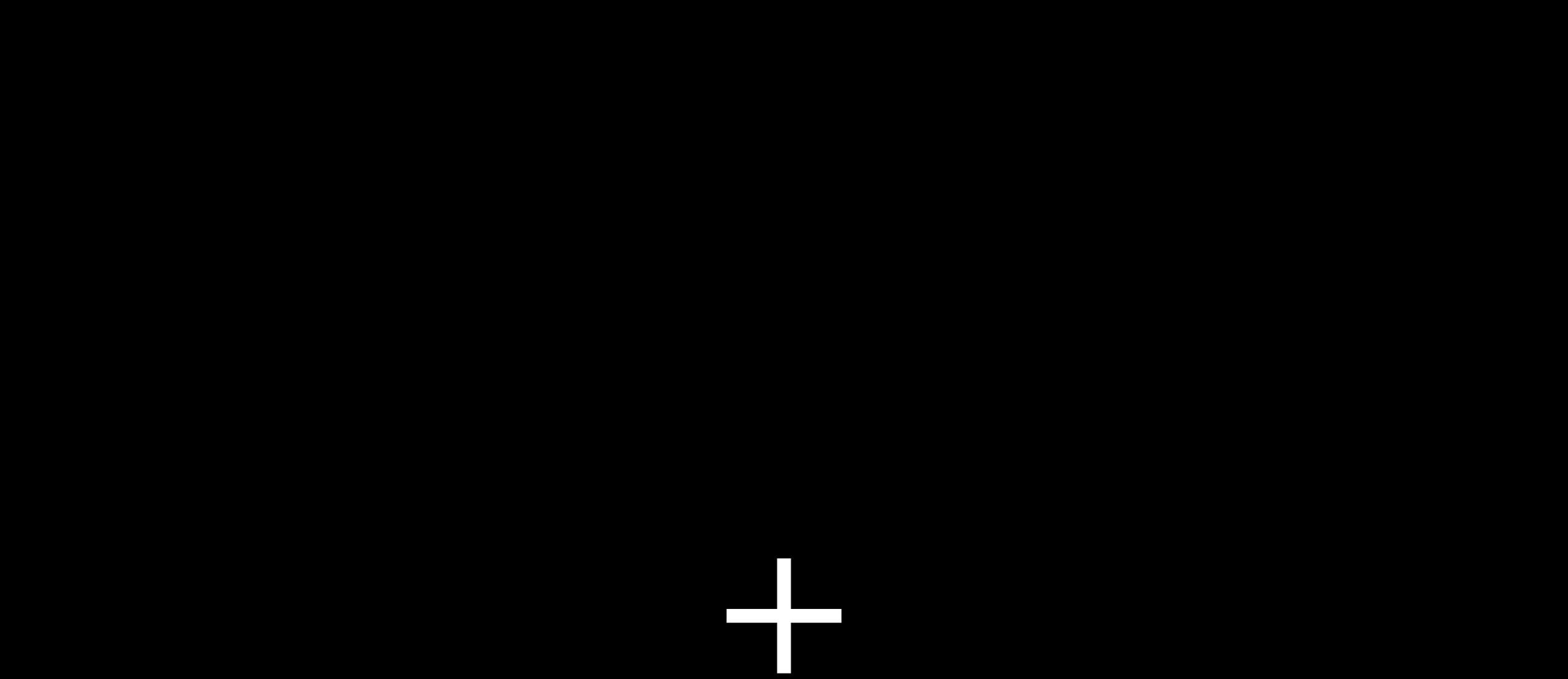

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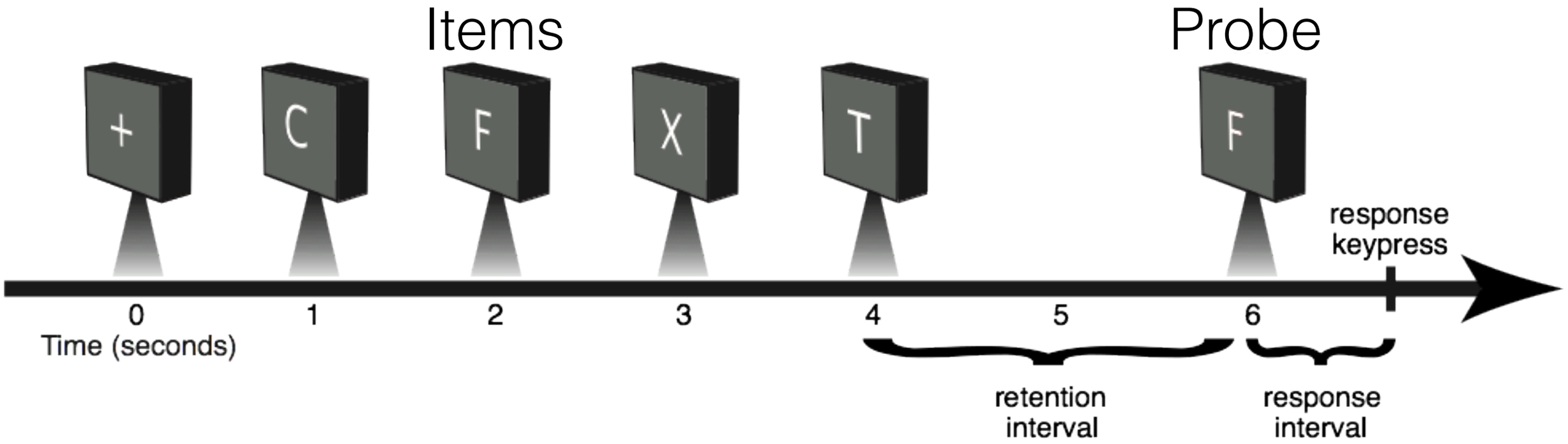
The Sternberg Paradigm

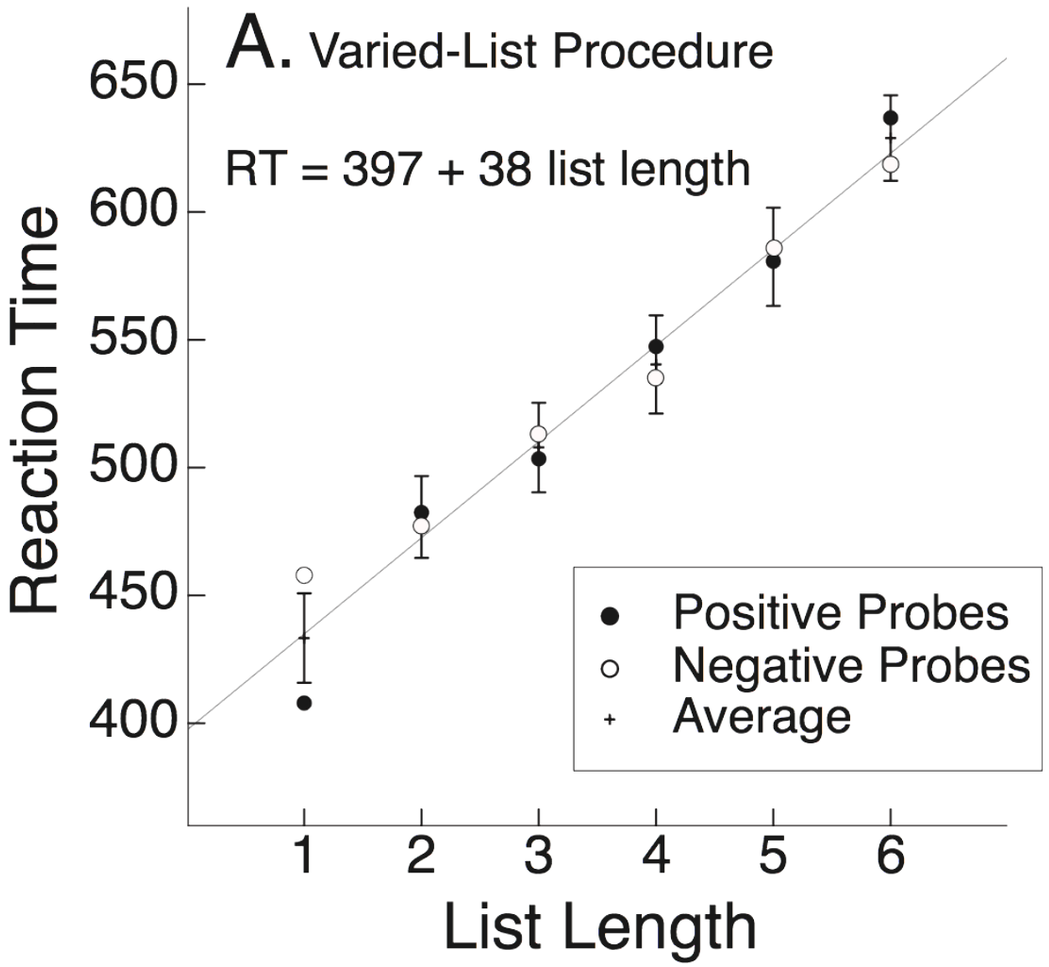


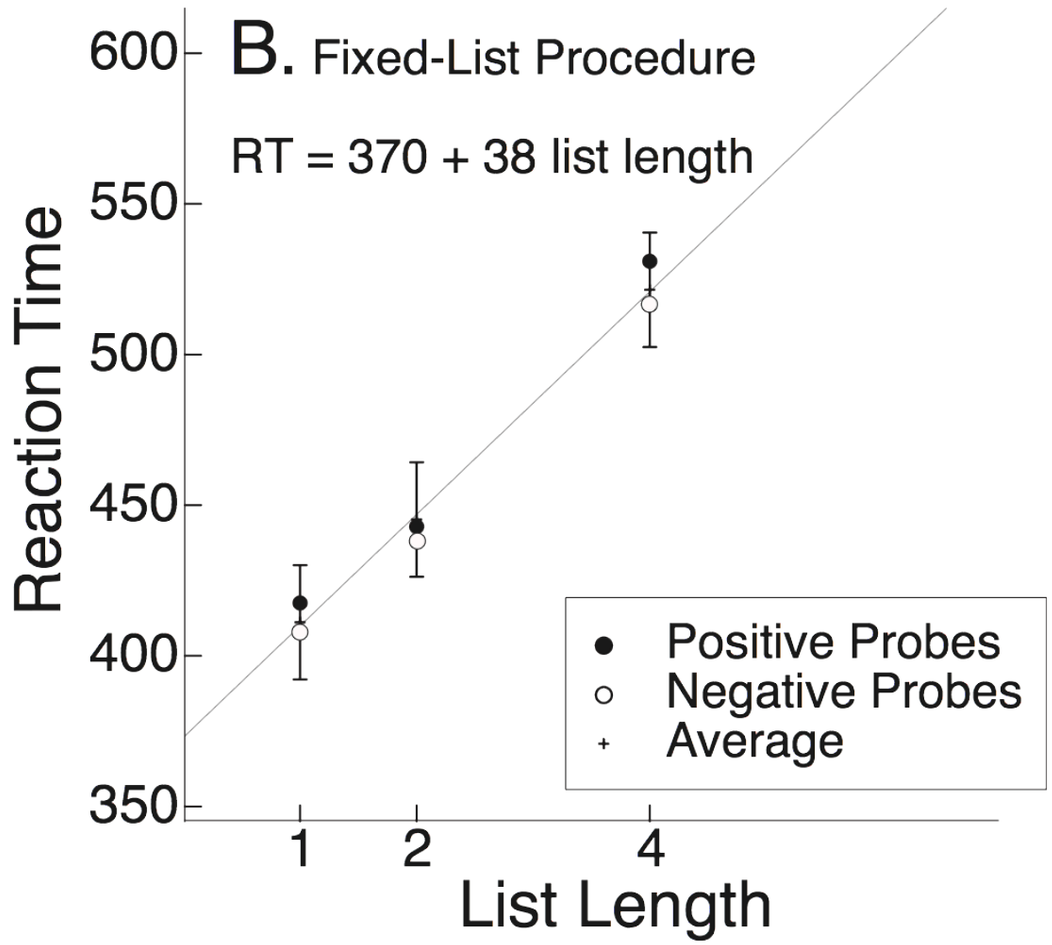
- Varied-list: list length changes on each trial
- Fixed-list: list length held constant

The Sternberg Paradigm

- With practiced participants, errors are very rare
- We can use the response times to estimate how quickly people's brains the retrieve previously stored information

The Sternberg Paradigm



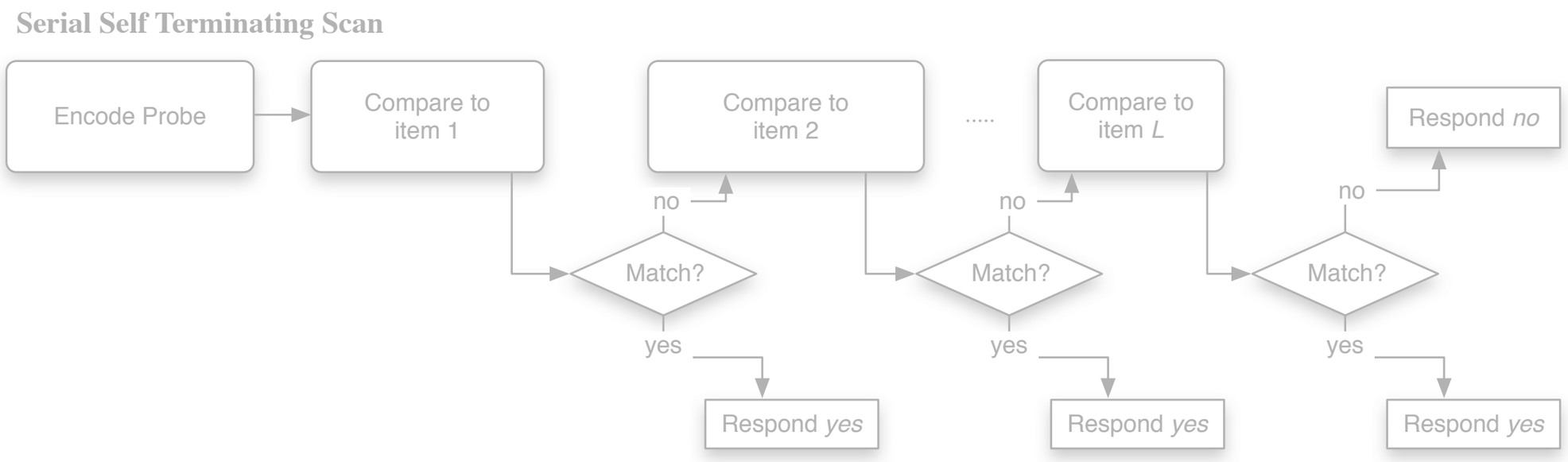


Strength theory does not explain this!

Scanning models

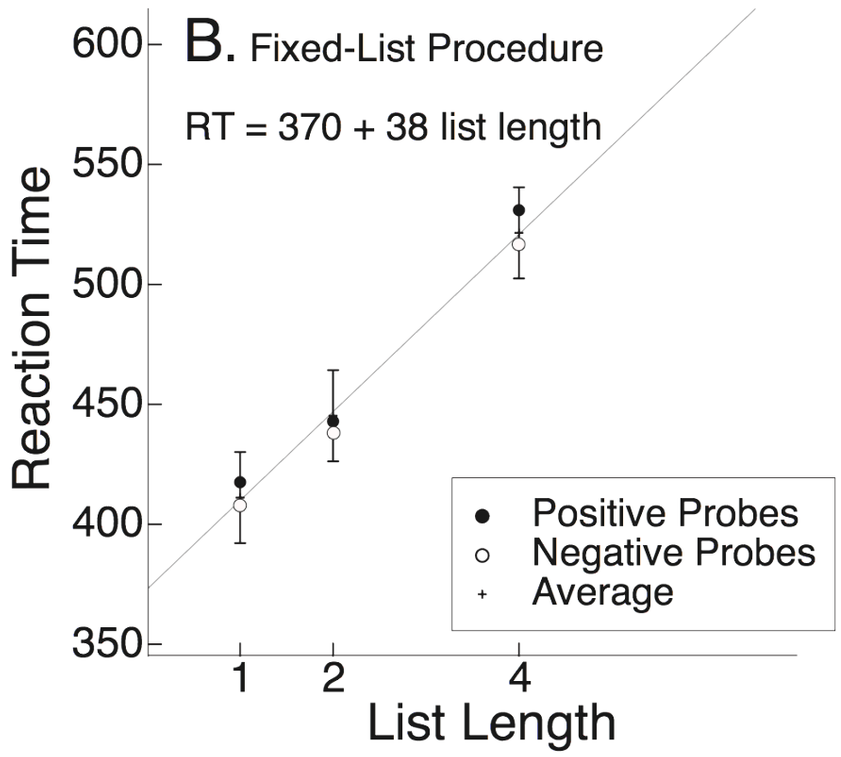
- Since reaction time increases linearly with list length, maybe the probe gets (mentally) compared to each presented item:
  - **Serial comparison process:** each new comparison happens after the previous one is completed (RT increases with list length)
  - **Parallel comparison process:** everything gets compared at once

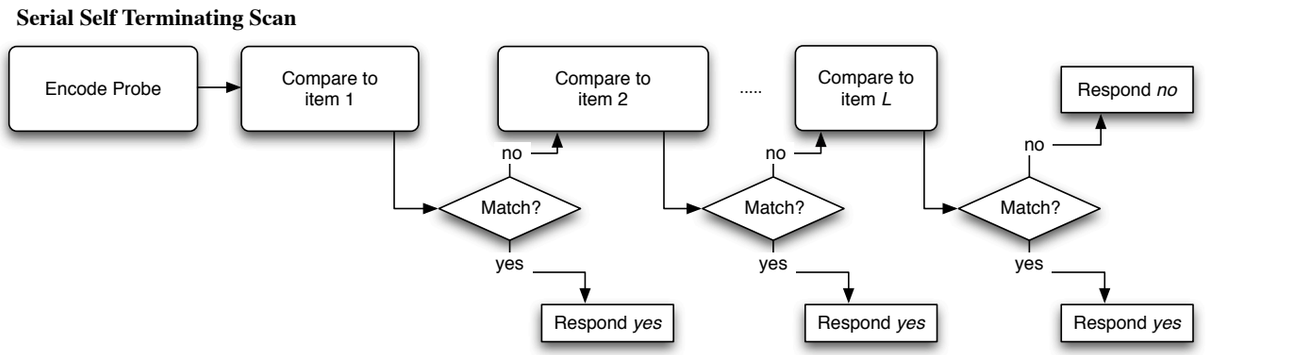
Serial search models

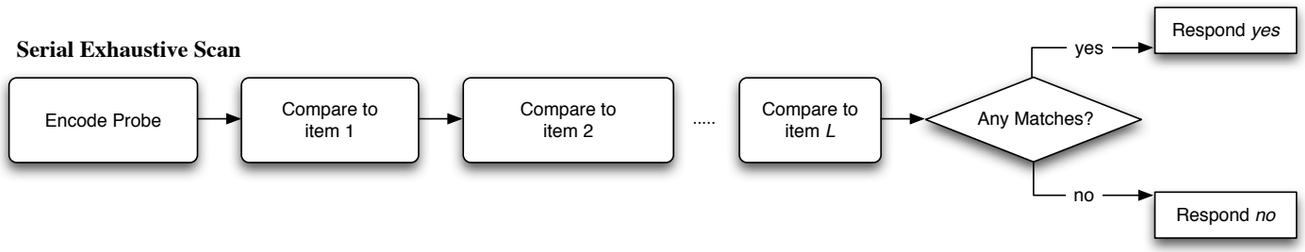


Serial search models

- ~~Self-terminating: no responses take longer~~
- Exhaustive: both responses have similar RTs





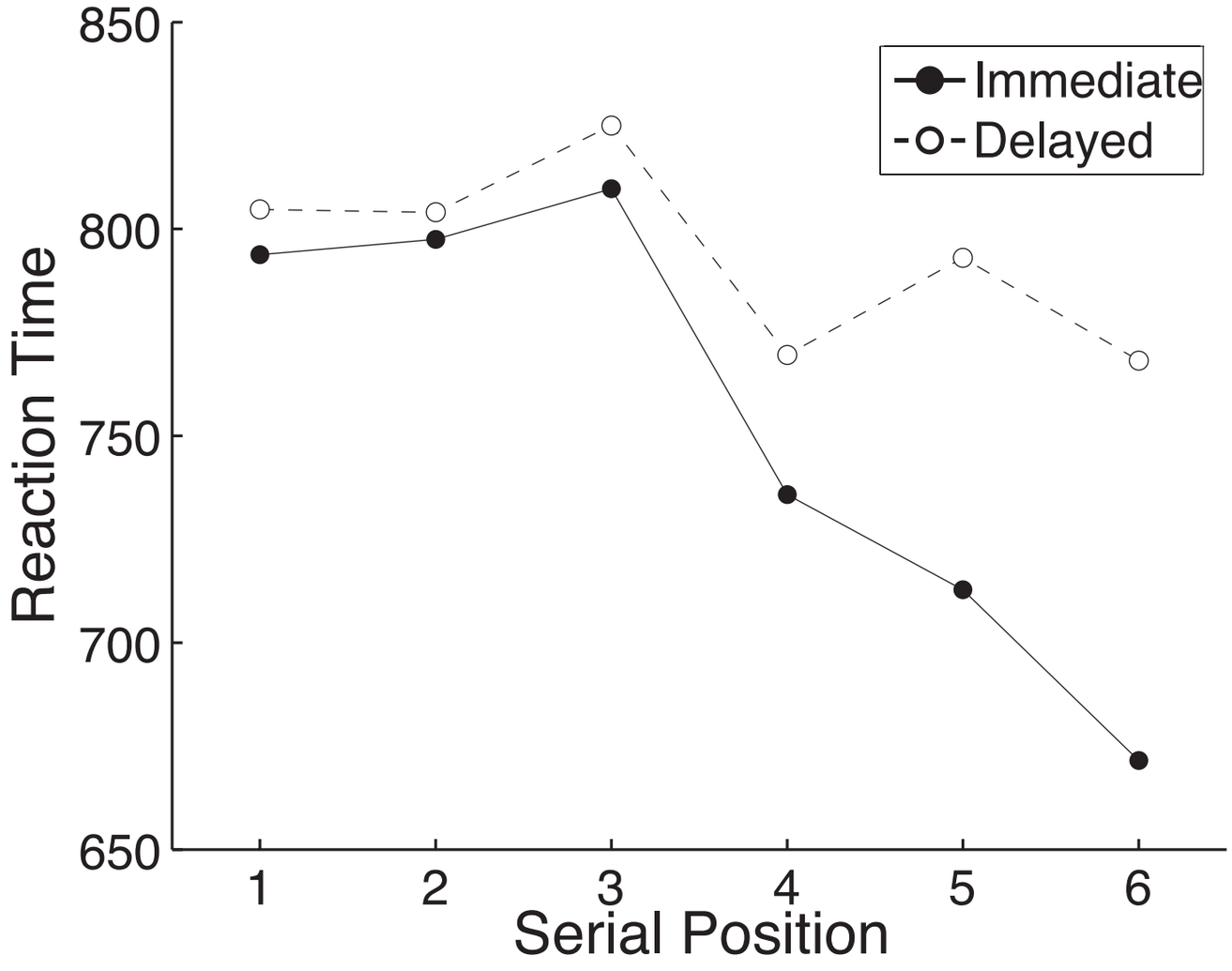


Testing the Serial Exhaustive Search model

- Wait for a response until every comparison is made

- Therefore RTs should not depend on the serial position of the probe…

Testing the Serial Exhaustive Search model



...oops

Testing the Serial Exhaustive Search model

- Another prediction: reaction time should increase *linearly* with list length

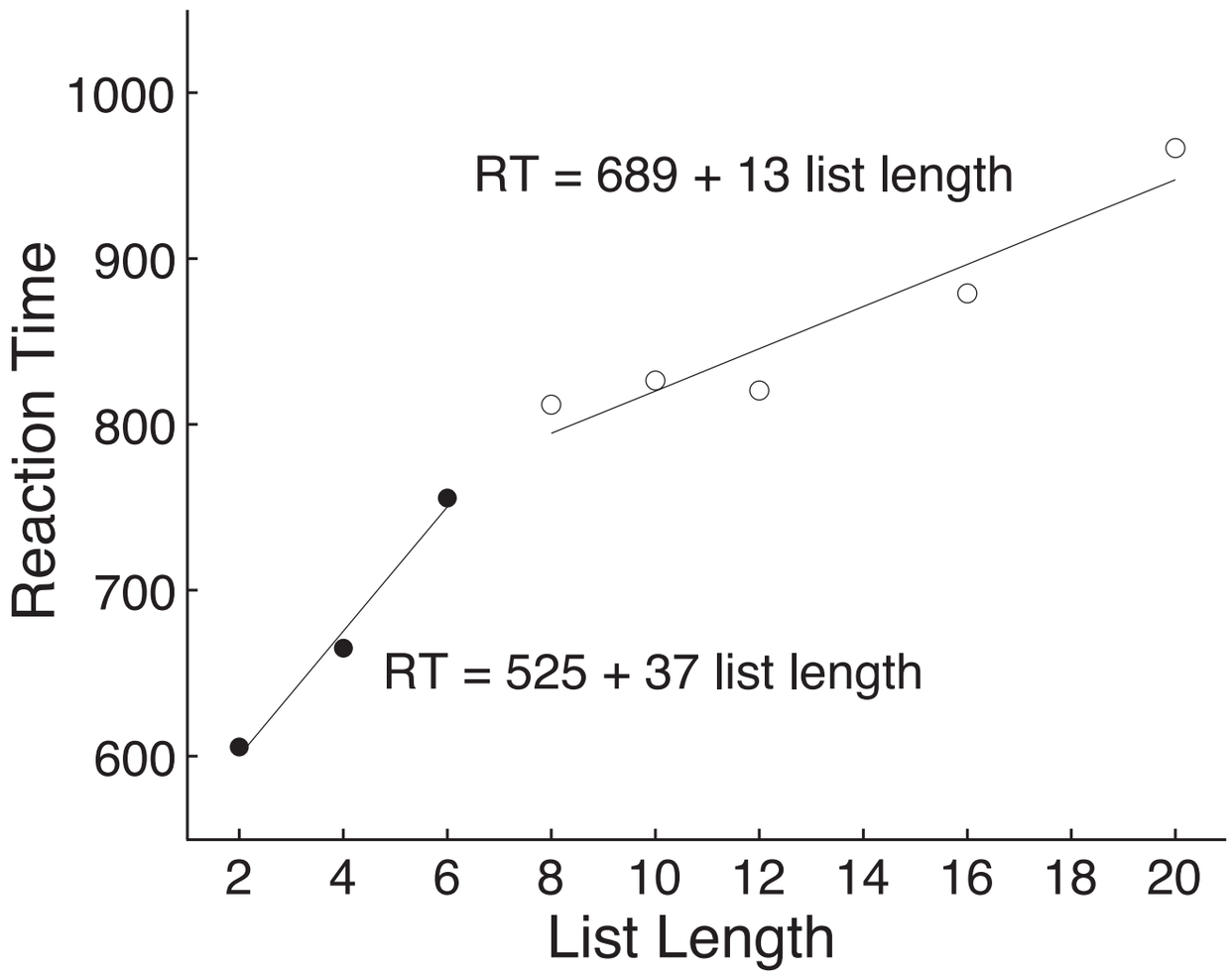
- Test: the *prememorized-list technique*

  - Participants get lots of practice studying longer lists than Sternberg used

  - Then they are probed with one item (as in the "classic" Sternberg paradigm)

Testing the Serial Exhaustive Search model

- Another prediction: reaction time should increase *linearly* with list length



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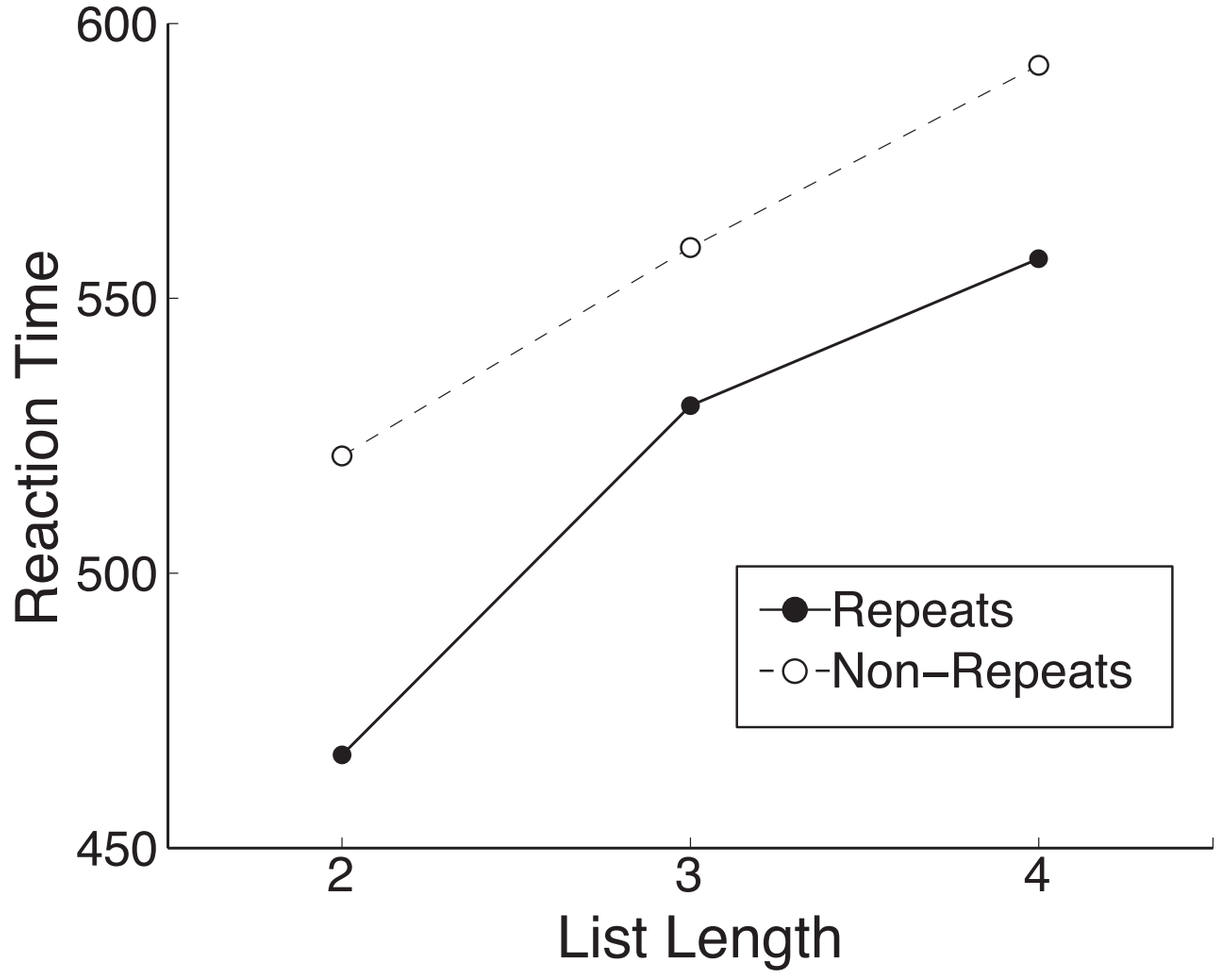
Testing the Serial Exhaustive Search model

- Another prediction: repetitions should not affect reaction times, since every presentation must be examined in serial



…oops

Where does this leave us?

- We've discussed two classes of models:
  - Strength-based models (including some more complicated variants)
  - Scanning models
- None of the models explain everything
- So…???