

# Motor Memory and Looking

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# Experiment Design



# Mission:

- Come up with a research question I could possibly answer using data I already have
  - Looking data
    - Subjective
  - Pressing data
    - Objective

# Key Question

- Is looking necessary for motor memory or is motor memory strictly the result of physical reaching?



# Motor Memory

## ➤ Preshape

- Need a working definition
  - Procedural memory
    - Your muscles have memorized a particular motion so that you know how to perform a certain action (Matlin 1998)
    - Tendency to repeat previous actions (Thelen et al. 2001)

# Looking

- Looking does control reaching
- Looking provides the motivation to want to reach
  - Therefore, Blind children lack motivation



# Why children commit the A not B Error

- “Infants appear to be showing with their eyes that they know where the toy is hidden, even though they reach back to A anyways” (Diamond 1991)
- “the ability to resist the conditioned tendency to reach back to A” (Diamond 1985)

# Blind Children

- Whose to say blind children do not have motor memory
  - Do have movement memories, mental maps





# My Hypothesis

- Looking does not affect motor memory
  - Some children push button regardless of what they're looking at
  - Compare overall looking time to overall reaching time