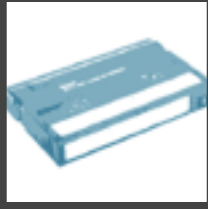


**Q.** When stimuli are related each other in some aspects (temporally, spatially, or semantically),

**How do pre-existing relationships influence on the quality of visual long-term memory representations of them?**

- Can we observe repulsion or attraction for related items using probabilistic mixture modeling?

# Stimuli



Total 240 colored object images  
: 120 unique pairs (unbeknownst to participants)

**Study phase** : Presenting all objects x 2

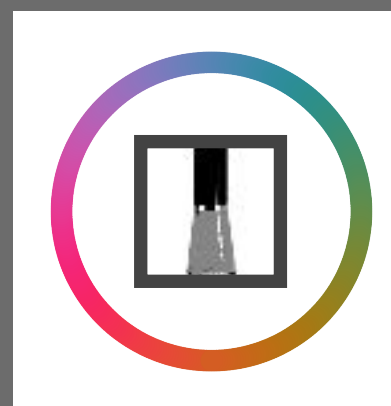
: “Memorize colors of objects.”

**Test phase** : Presenting all objects & color wheel

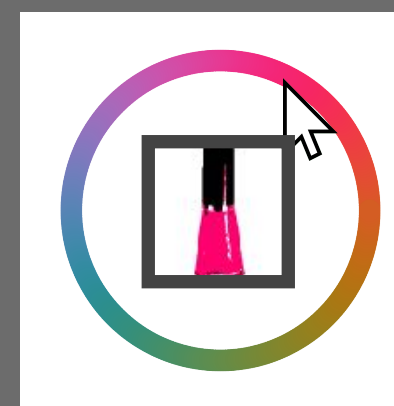
: “Click the remembered color on the color wheel and adjust confidence interval.”

■ ■ ■

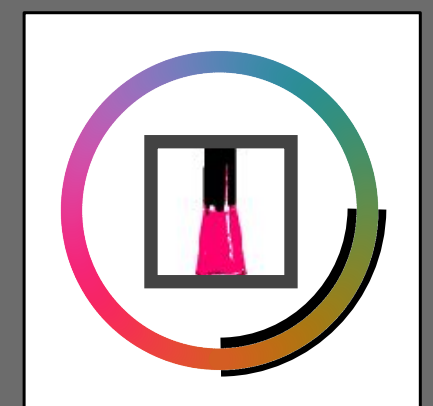
## EXAMPLE TRIAL



Initial display



Color report



Confidence interval

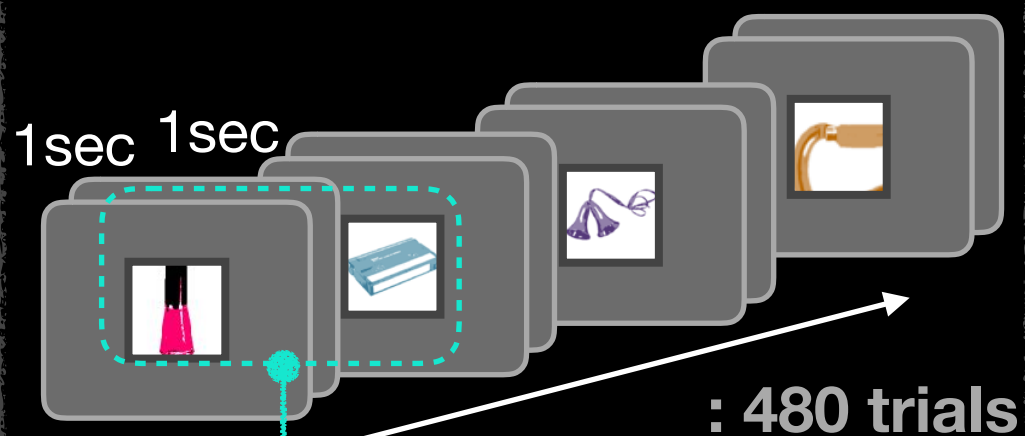
# Design

## STUDY

## TEST

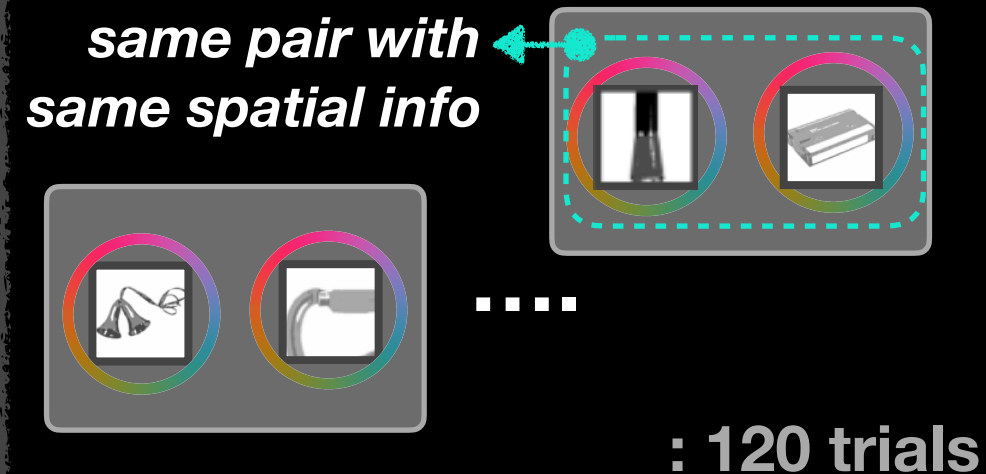
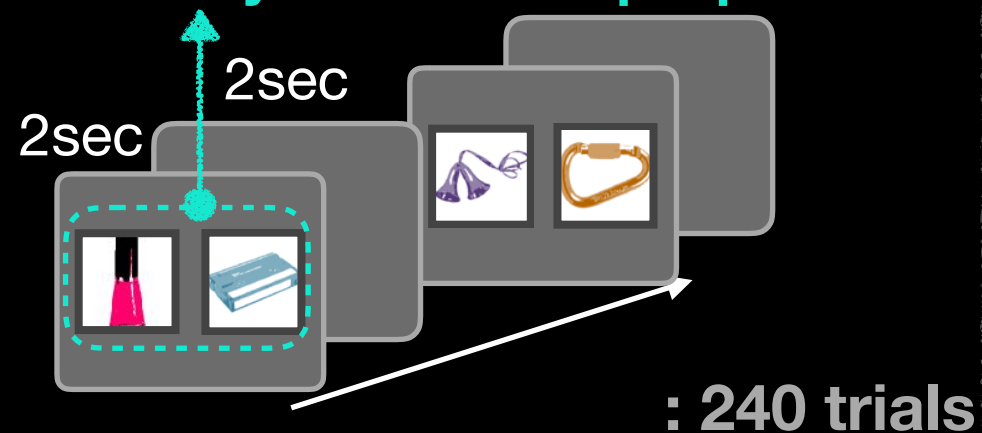
### Temporal

The entire sequence of all objects will be repeated in the same order.



### Spatial

Randomly chosen unique pair



### Semantic

From the same categories or same exemplars with different states

