

# Vision and touch are not automatically integrated

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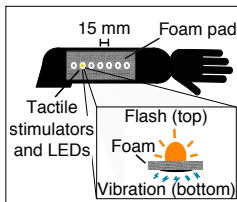
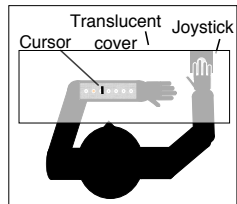
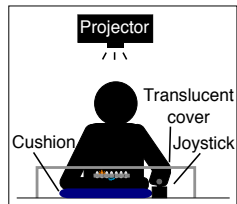
<sup>3</sup>Department of Psychology, City College of New York



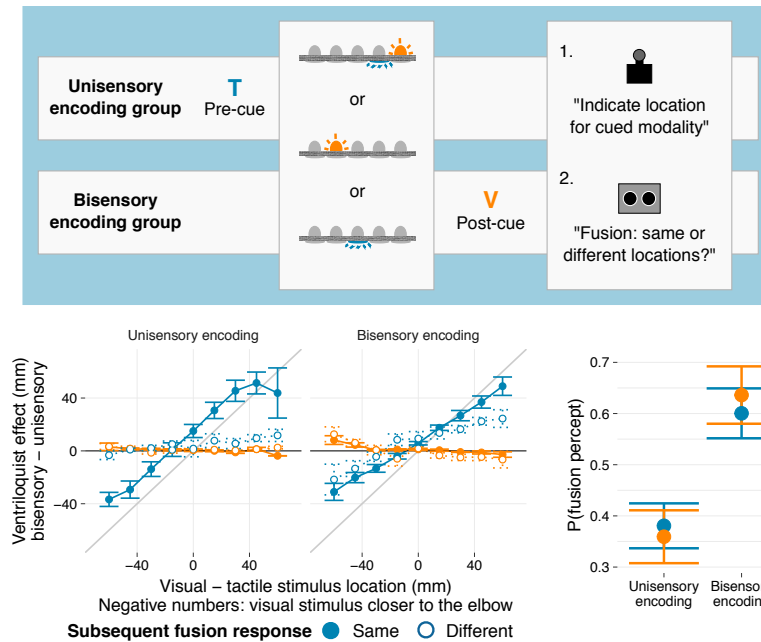
## Introduction

- **Visual** stimuli can occur anywhere, but **tactile** stimuli are bound to the body.
- Are visual-tactile interactions in space **automatic**?
- Tested for:
  - **Integration**: shift in perceived location for one modality towards concurrently presented stimulus in the other (ventriloquist effect)
  - **Recalibration**: localization shift for unisensory stimuli after exposure to discrepant stimulus pairs (ventriloquist aftereffect)

## Setup



## Integration



## Recalibration

**Preparation:** Measure duration threshold for tactile detection

**Pre-training:** or "Indicate location for presented modality"

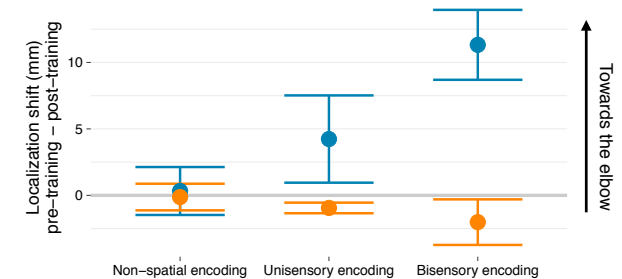
**Training:**

Non-spatial encoding group: duration: 2.5 x threshold or 30 ms longer. "Standard or longer duration?"

Unisensory encoding group: Pre-cue (V) "Indicate location for cued modality"

Bisensory encoding group: 30 mm. Post-cue (T) "Indicate location for cued modality"

**Post-training:** or "Indicate location for presented modality"



**Conclusion** Visual-tactile recalibration and integration effects are stronger when participants are forced to encode both stimuli. Thus, visual and tactile information are not automatically integrated.