

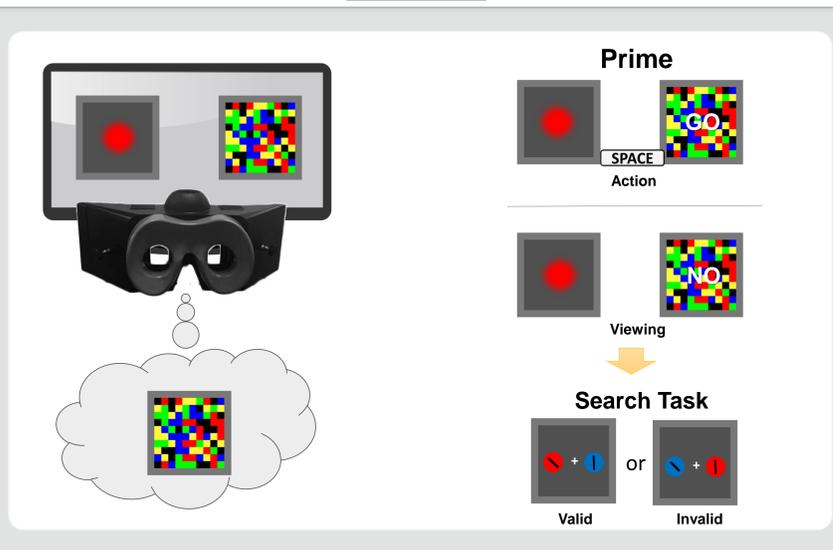
Background

- Simply making an action can influence how features of the acted-on object are subsequently perceived^{1,2}
- Features of previously acted-on objects benefit on subsequent perception^{1,2}
- A voluntary action influences visual competition between dichoptically presented images³

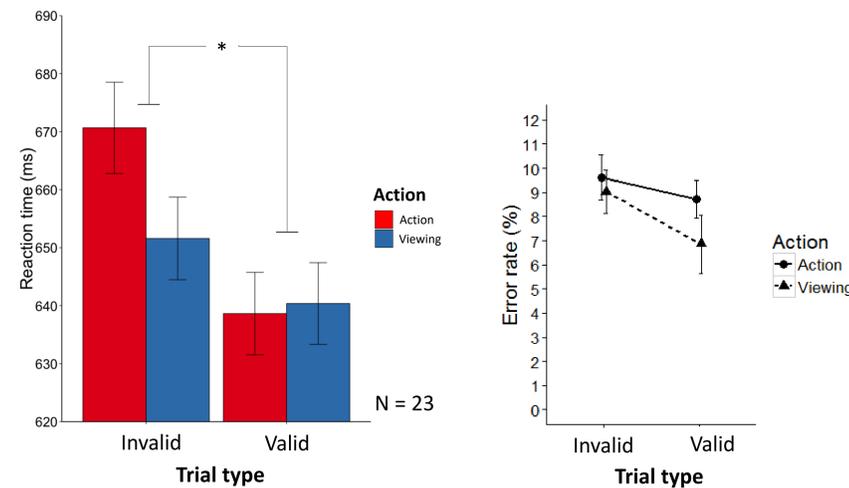
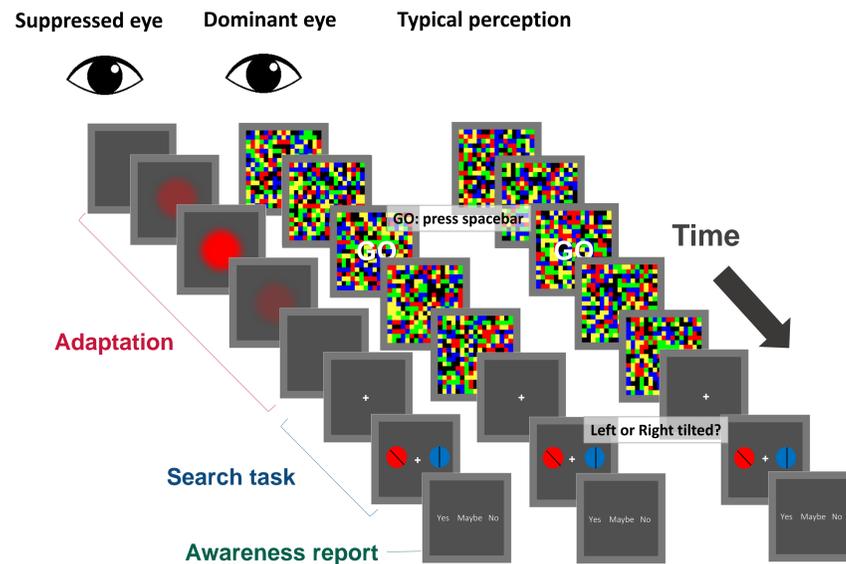
Question

- Would conscious awareness of visual objects be necessary to obtain the effect of an action?
- In the color priming paradigm, does the effect of action occur relatively early in visual processing, where sensory information is registered in the visual system, or later where meaning of the color is extracted?

Method



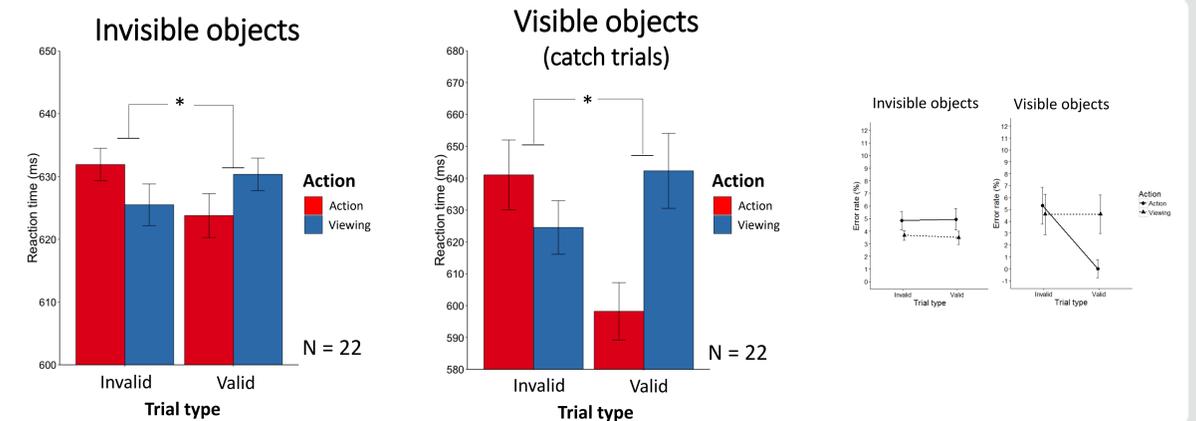
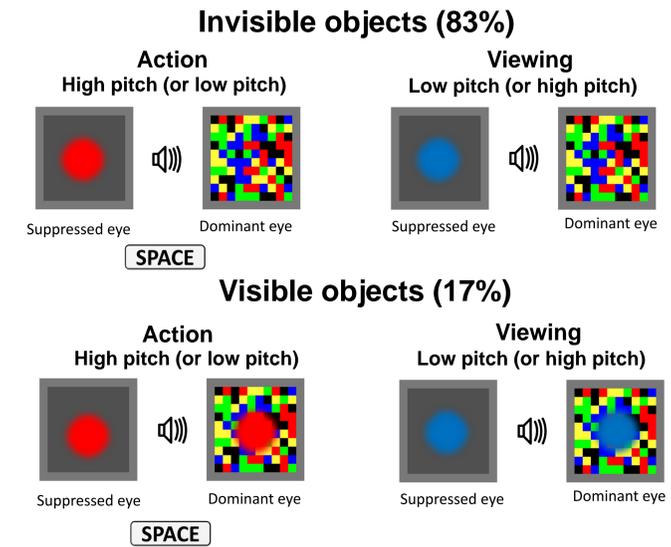
Experiment 1: GO/NO word



- Only following an action, responses were faster when the color of the prime object was subsequently shown as the target compared to when it was the distractor (validity effect)

**A simple action influences subsequent perception
without visual awareness**

Experiment 2: Auditory cue



- Consistent with Experiment 1, with invisible objects the validity effect was significant only when participants made an action
- When the color prime was visible, the effect was bigger

Conclusion

- A simple action to an invisible object can bias subsequent perception
- Conscious awareness of the acted on object seems to be not necessary
- Effects of an action may interact with visual stimuli early in visual processing