



Context dependent effectiveness of gaze capturing



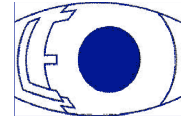
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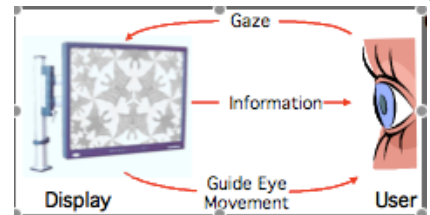
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Introduction

Gaze capturing events (GCE's, a visual stimulus attracting gaze) may aid the processing of information in human interfaces. However, their effectiveness may depend on the context such as task and expected usefulness. Here we study these influences.



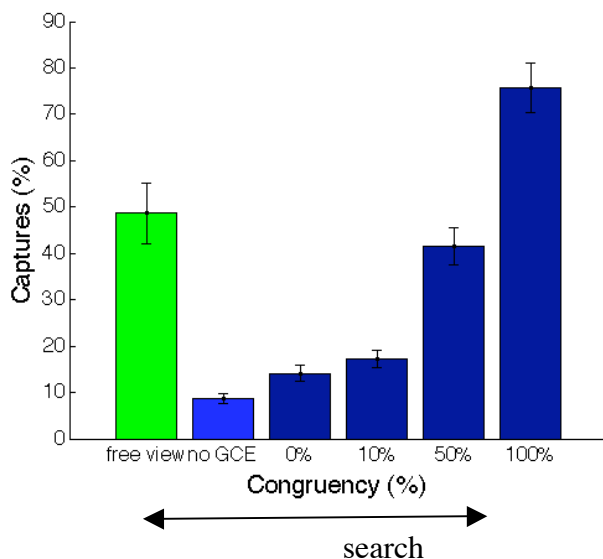
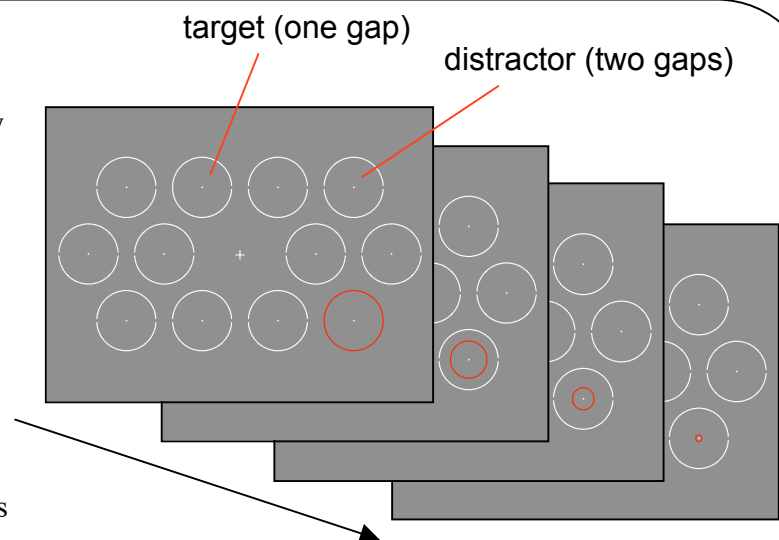
Methods

Tasks

Subjects searched for circle or freely viewed the scene. A GCE (a red, shrinking circle) appeared randomly during trials for a brief period.

The GCE either pointed at to the target (congruent) or a distractor (incongruent) at different percentages per block.

Congruency was reported to subjects before block presentation.



Results

Task and GCE congruency proves to be a significant factor in capture effectiveness ($P < 0.001$)

Conclusions

1. Both task and (expected) stimulus congruency significantly influence capture effectiveness
2. Capture effectiveness at 0% is above chance level ("No GCE"); there is also a reflexive component
3. Capture effectiveness at 100% congruency is not 100%; GCE might be improved