# Overt social attention is differentially affected by differences in stimulus content information

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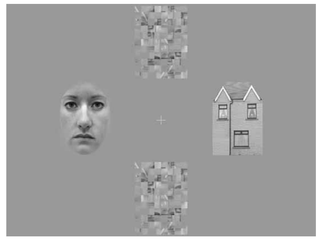
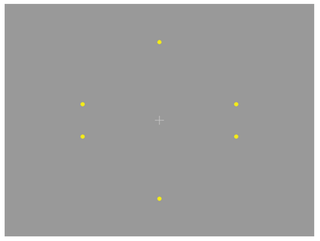
Past studies show that humans preferentially and spontaneously attend to social cues like faces and eyes (Birmingham et al., 2008; Laidlaw et al., 2012). However, when controlling for stimulus content and visual context factors, preferential social attentional biasing can be abolished in covert measures (i.e., reaction time), while still occurring infrequently in overt measures (i.e., oculomotor breakaways; Pereira, Birmingham, & Ristic, 2019a; 2019b). Across three experiments, we used the dot-probe task w/ eye tracking and independently varied stimulus content factors to investigate the role of global luminance, featural configuration, and perceived attractiveness in the social attentional biasing effect.

## Experiment 1: Luminance (n = 30)

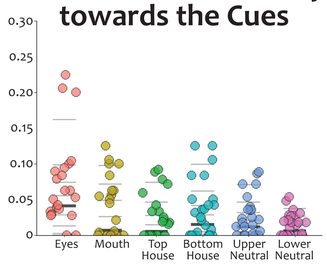
### Cue Image



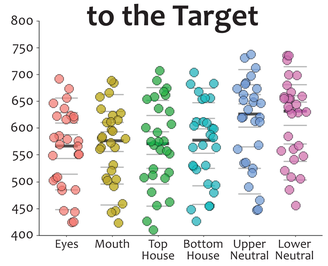
### Target Locations



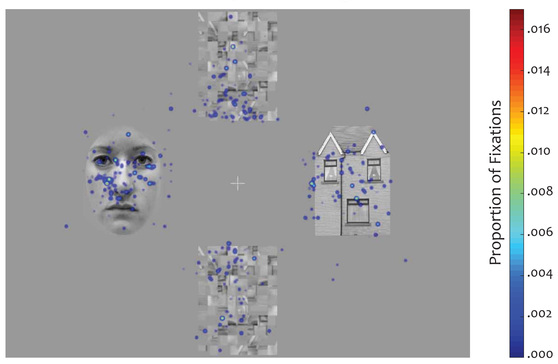
### Oculomotor Breakaways towards the Cues




### Reaction Time to the Target




### Fixation Heatmaps during the Cue Period

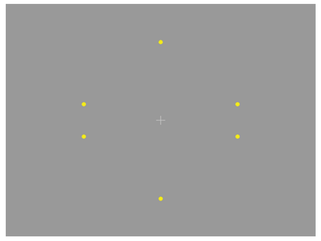



When global luminance was higher for the face vs. house cue, no preferential attentional bias was found in reaction time and oculomotor breakaways towards the face or eyes.

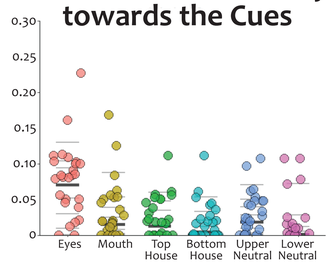
## Experiment 2: Featural Configuration (n = 30)

### Cue Image

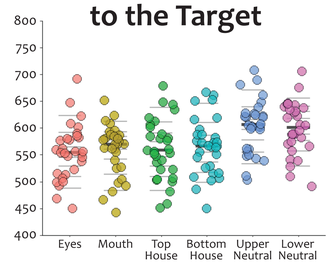
### Target Locations



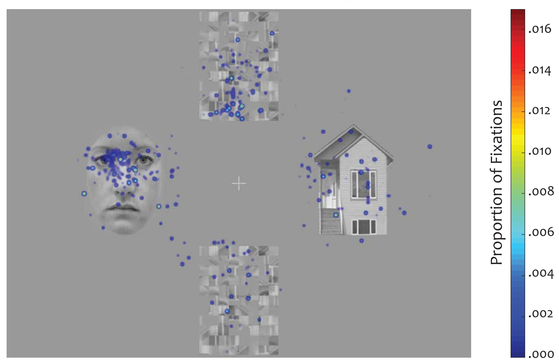
### Oculomotor Breakaways towards the Cues




### Reaction Time to the Target



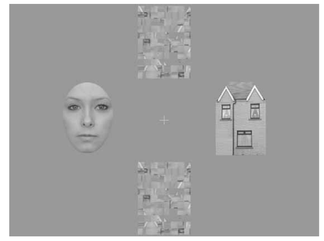

### Fixation Heatmaps during the Cue Period



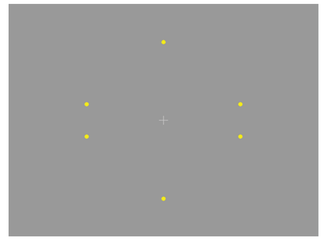

When the face vs. house cue had a different configuration of internal features, no preferential attentional bias to the face was found in reaction time or oculomotor breakaways.

## Experiment 3: Attractiveness (n = 30)

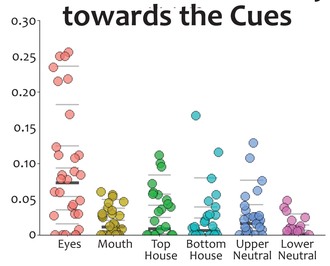
### Cue Image



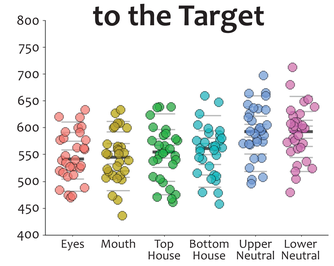
### Target Locations



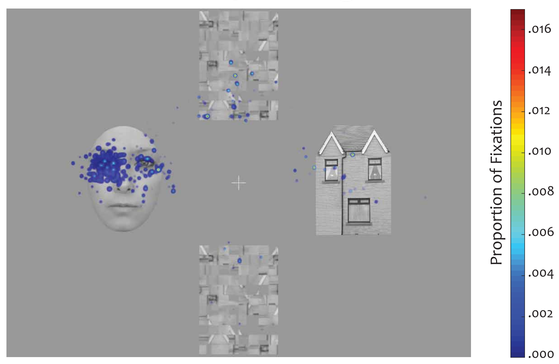
### Oculomotor Breakaways towards the Cues




### Reaction Time to the Target




### Fixation Heatmaps during the Cue Period




When perceived attractiveness was higher for the face vs. house cue, a minor oculomotor preference was found for the eyes. No preferential bias was found in reaction time.

When independently varying stimulus content factors, overt attentional biasing towards social cues is differentially modulated by the type of content presented.

*All questions and comments can be directed to effie.pereira@mail.mcgill.ca*