Gaze Direction and the Processing of Social Feedback

Kaleb Kinder

Laboratory of Neurology and Imaging of Cognition
Background and Aspirations
How is Gaze Direction Perceived? Stimuli Specific

A number of factors may modulate individual differences in gaze perception

**Looking at the literature…**

- Gaze direction is a crucial social cue
  - Can communicate emotion and guide *shared attention* in an environment
- When an **attractive** face is looking at you, an increase in activity in reward related brain areas occurs, and decreases when an attractive face is looking away from you (Kampe et al. 2001).
- Main et al. (2009) found that unfamiliar faces with direct gaze were generally rated as more **dominant** than those with averted gaze.
Perceiving Gaze: Modulations

**Social Factors:**

**Anxiety**
- Evidence in social anxiety suggests that direct gaze is avoided, perceived as threatening, and may elicit fears of being scrutinized (Schulze, Lobmaier, Arnold, & Renneberg, 2013)

**Introversion/Extraversion**
- Mobbs (1968) found that the average duration of eye contact was significantly greater for extraverts than for introverts
The Question

- Does gaze direction impact the influence of social feedback as a reward?

- Which is a more rewarding/punishing social cue: Direct gaze or averted gaze?
Project Framework

1. Reward/Conditioning Task

2. Likert Scales
   - (Attractiveness, Valence, Dominance, etc. of stimuli)

3. Attentional Bias Task

4. Questionnaires
   - Intro/Extraversion, Reward/Punishment sensitivity, Anxiety trait, etc.
2 (gaze directions) x 2 (win/lose)

Hypothesize that participants (normal healthy controls) will show an attentional preference in the following way:

\[
\text{DG + win > AG + win} \\
\text{DG + win > DG + lose} \\
\text{DG + lose > AG + lose} \\
\text{AG + lose >= AG + win}
\]

DG = Direct Gaze
AG = Averted Gaze
Collaborators

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Questions?
References


