



Gaze Direction and the Processing of Social Feedback

Kaleb Kinder

Laboratory of Neurology and Imaging of Cognition



**UNIVERSITÉ
DE GENÈVE**



Background and Aspirations

SIU Southern Illinois
University
CARBONDALE



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

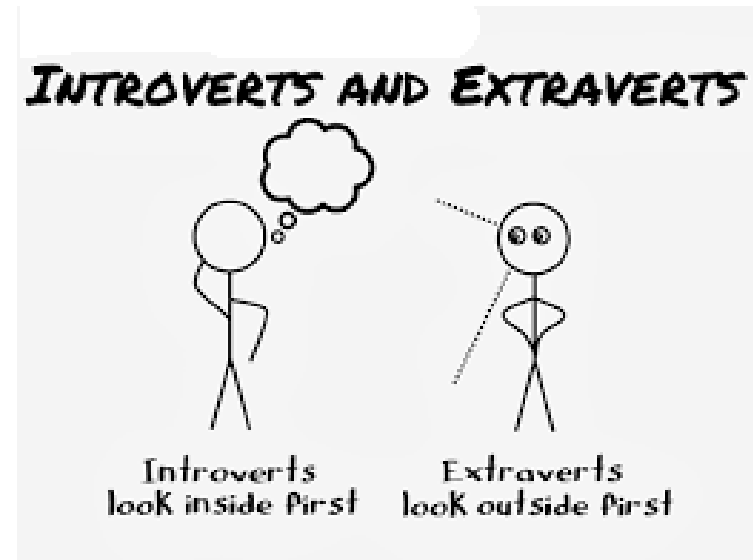
Social Factors:

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

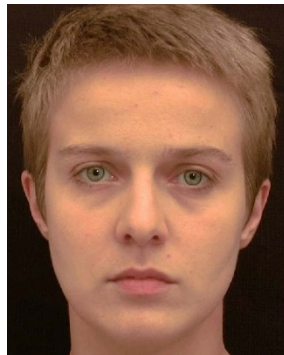


The Question

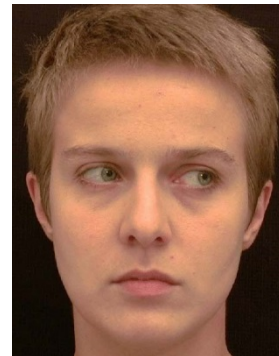
- Does gaze direction impact the influence of social feedback as a reward?



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

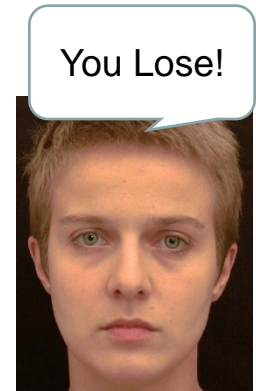
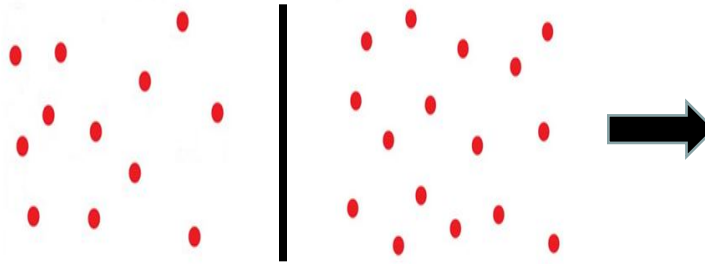


or



Project Framework

1. Reward/Conditioning Task



2. Likert Scales

- (Attractiveness, Valence, Dominance, etc. of stimuli)

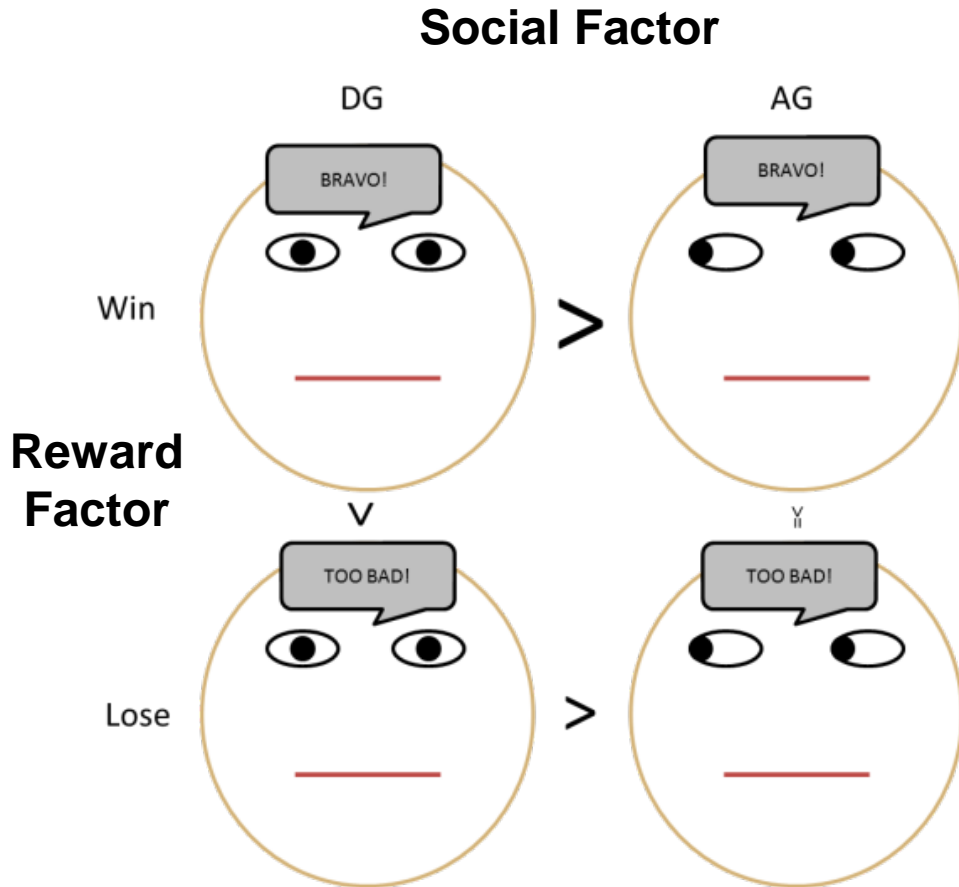
3. Attentional Bias Task

4. Questionnaires

- Intro/Extraversion, Reward/Punishment sensitivity, Anxiety trait, etc.



Conditions



2 (gaze directions) x 2 (win/lose)

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

- DG + win > AG + win
- DG + win > DG + lose
- DG + lose > AG + lose
- AG + lose >= AG + win

DG = Direct Gaze
AG = Averted Gaze

Collaborators

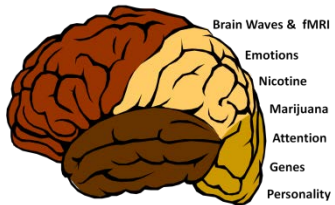


Kim Doell



Sophie Schwartz

A big thank you as well to:



**INTEGRATIVE
NEUROSCIENCE
LABORATORY:**

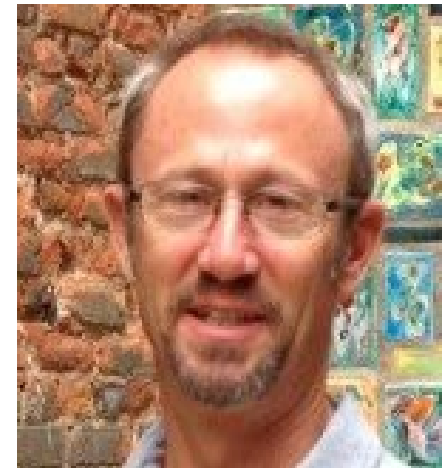
SIU Southern Illinois
University
CARBONDALE



Norka Rabinovich



David Gilbert



John Lindt

Thank You!

Questions?



References

- Kampe, K., Frith, C., Dolan, R., & Frith, U. (2001). Reward value of attractiveness and gaze - Making eye contact enhances the appeal of a pleasing face, irrespective of gender.
- Main, J. C., Jones, B. C., DeBruine, L. M., & Little, A. C. (2009). Integrating gaze direction and sexual dimorphism of face shape when perceiving the dominance of others. *Perception*, 38, 1275–1283.
- Mobbs, N. a. (1968). Eye-contact in relation to social introversion-extraversion. *The British Journal of Social and Clinical Psychology*, 7, 305–306.
- Schulze, L., Lobmaier, J. S., Arnold, M., & Renneberg, B. (2013). All eyes on me?! Social anxiety and self-directed perception of eye gaze. *Cognition & Emotion*, 27(May 2013), 1305–13.