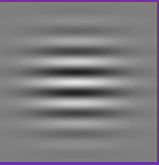


Enhanced Subjective Perception Study: Contrast Experiment

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Background

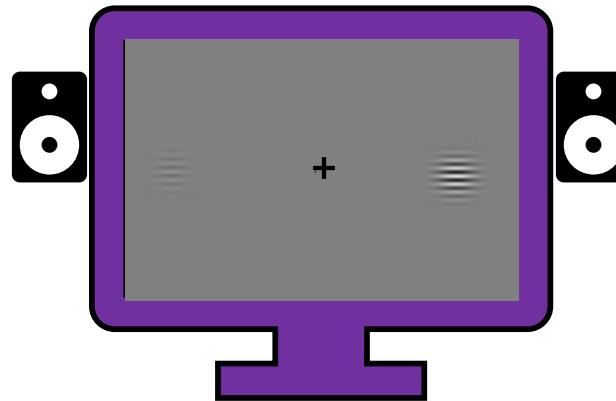
- Emotion can hinder or enhance task performance based on factors such as:
 - The valence and modality of a **task-irrelevant stimulus (TIS)**
 - Timing of the target stimulus
- A visual TIS often distracts from visual targets, but **emotional sounds** may not have this same effect.
- **Sounds can serve as cues** that direct attention to a specific location.
 - Sounds may increase the perceived contrast of visual stimuli in that location.

Research Question

Do negative emotional sounds have a greater impact on visual contrast perception compared to neutral sounds?

Audiovisual Task

- Gabor patches will flash quickly on either sides of the screen.
- Simultaneously, **6 seconds of sound** will be played from either left or right speaker.
 - 20 neutral, 20 negative sounds
 - 4 pairs of gabor patches will be presented per sound
- **Task:** Determine which gabor patch has the greater contrast while ignoring the accompanying sound.



Planned Analyses

Same contrast trials:

- Investigating whether response is biased by sound location and valence.

Different contrast trials:

- Investigating whether task performance is impacted by stimulus congruence.
 - Whether the greater contrast gabor and sound are presented on the same side of the screen or not.

Eyelink software will record **pupillometry** and **eye movements** to detect any saccades to the gabor patches and monitor arousal.

References

1. Anderson A. K. (2005). Affective influences on the attentional dynamics supporting awareness. *Journal of experimental psychology. General*, 134(2), 258–281. <https://doi.org/10.1037/0096-3445.134.2.258>
2. Vuilleumier P. (2005). How brains beware: neural mechanisms of emotional attention. *Trends in cognitive sciences*, 9(12), 585–594. <https://doi.org/10.1016/j.tics.2005.10.011>