

## The involvement of monocular channels in the deficits of facial emotion processing in social anxiety and depression

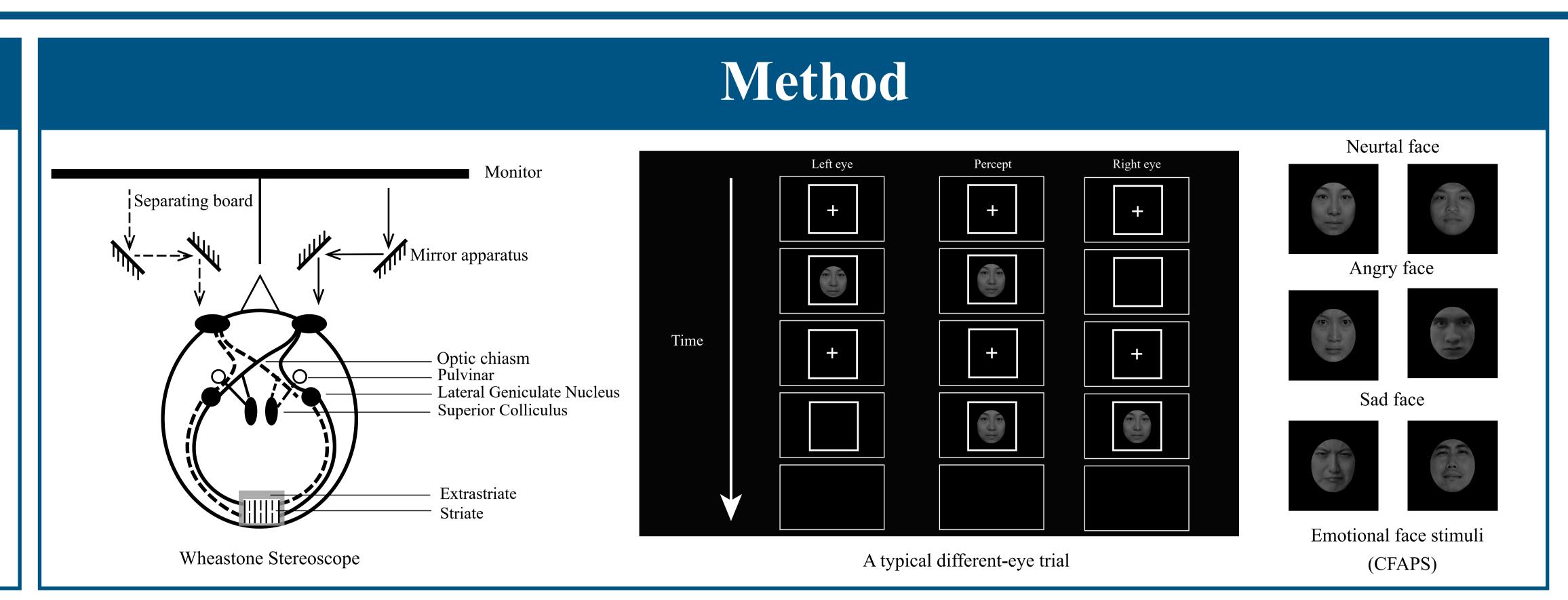
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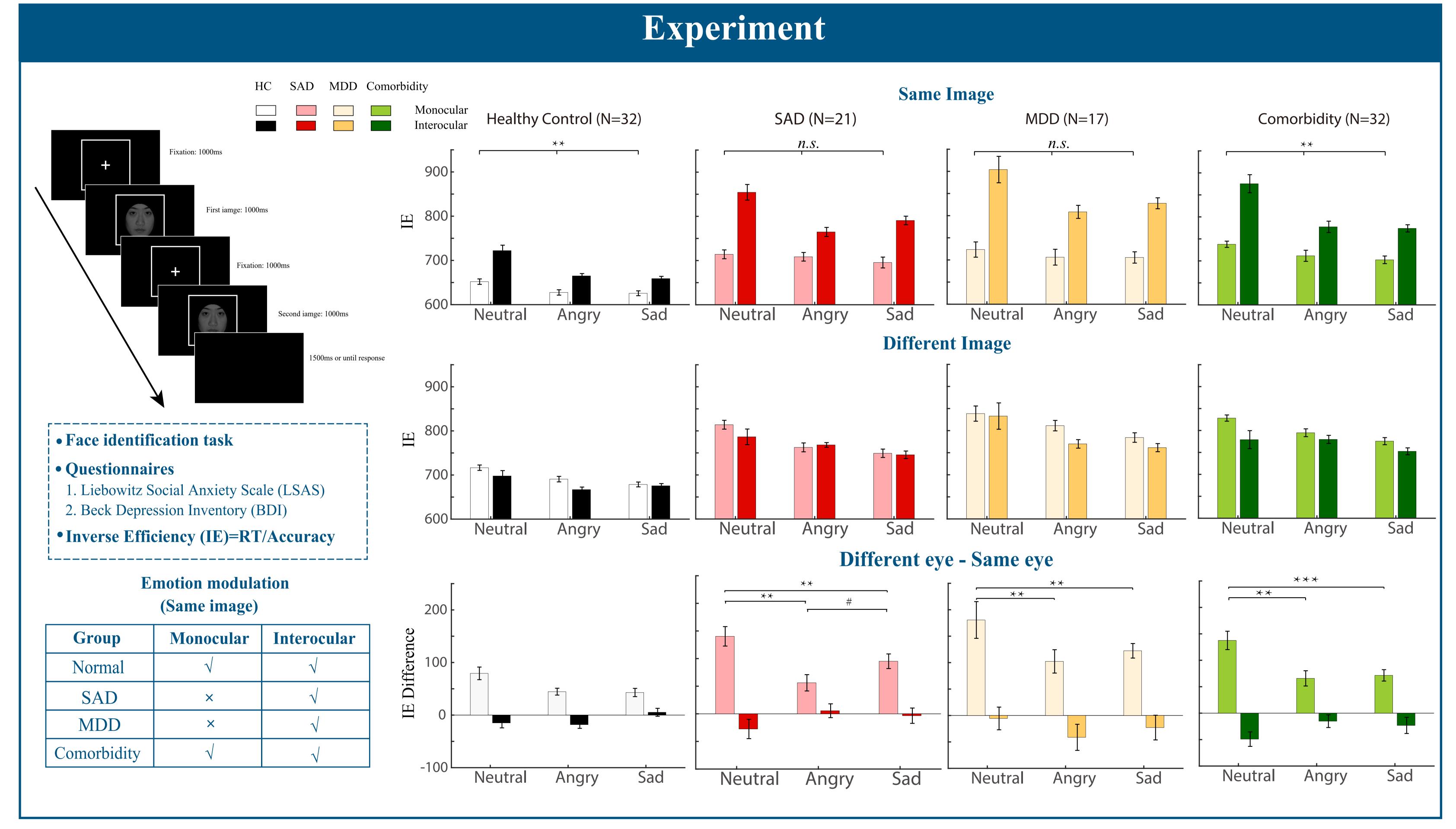
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## Introduction

- Social anxiety disorder (SAD) and major depressive disorder (MDD) are highly morbid.
- Both SAD and MDD individuals exhibit abnormal processing of facial expressions.
- Most studies examining neural correlates of face perception in humans have focused on cortical network.
  However, subcortical structures are also involved in face perception.

Research Question: Whether subcortical, monocular mechanism contribute to abnormal processing of facial expressions?





## Conclusion

- For the same image same-eye condition, face discrimination was facilitated by emotion in healthy control and comorbidity groups, but this effect was absent in SAD and MDD groups.
- In SAD group, decreased monocular advantage was found for angry face than neutral and sad faces.
- The abnormal processing of emotions in SAD and MDD groups may relate to deficits of facial emotion processing in subcortical structures.

## References

- 1. Gabay, S., Nestor, A., Dundas, E., & Behrmann, M. (2014). Monocular advantage for face perception implicates subcortical mechanisms in adult humans. *Journal of cognitive neuroscience*, 26(5), 927-937.
- 2.McTeague, L. M., Laplante, M. C., Bulls, H. W., Shumen, J. R., Lang, P. J., & Keil, A. (2018). Face perception in social anxiety: visuocortical dynamics reveal propensities for hypervigilance or avoidance. *Biological psychiatry*, 83(7), 618-628.

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