Frontal theta differences in a high autistic traits sample

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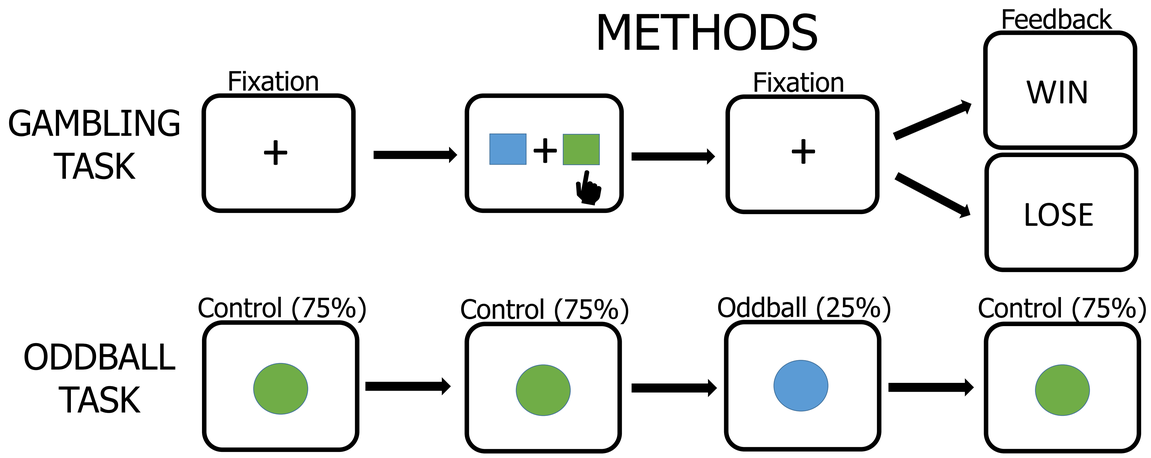
INTRODUCTION

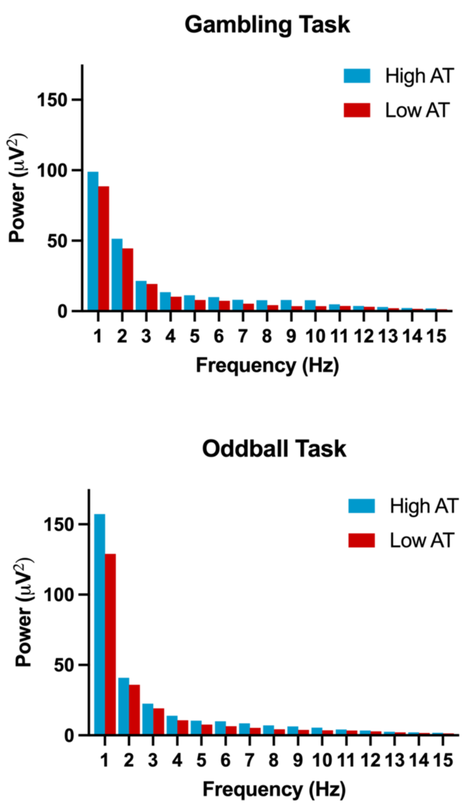
- Prefrontal cortex differences exist in autistic people in contrast to their neurotypical counterparts.[1]
- Differences in EEG frequencies, specifically frontal theta, are apparent in autistic people, though there is a lack of consensus on whether this extends to self diagnosed autistic people.
- We had a high autistic traits group and low autistic traits control group complete two cognitive tasks while recording EEG.

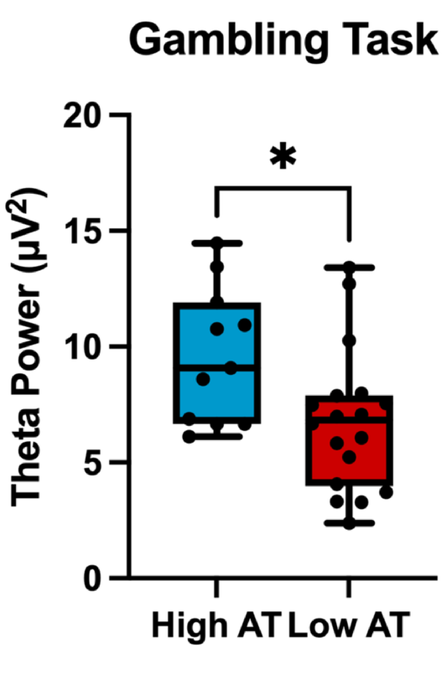
METHODS

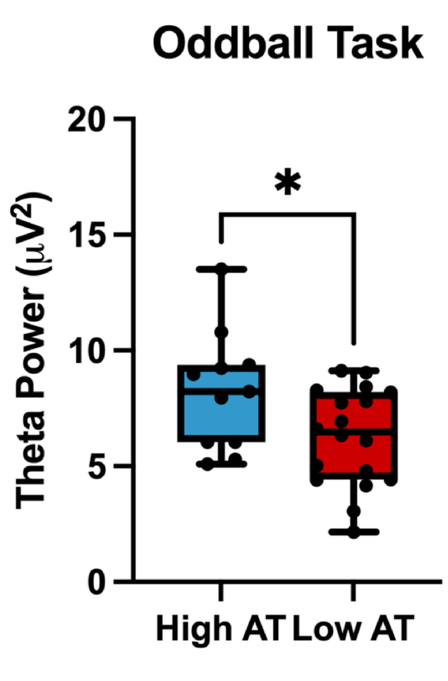


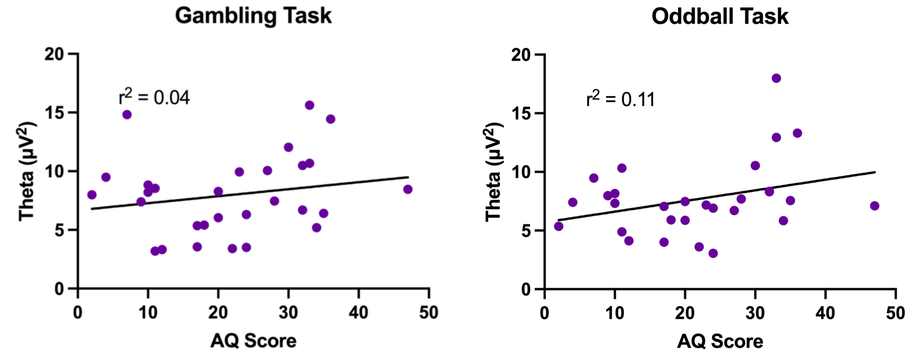
Participants completed the AQ, a self-administered questionnaire, to determine group placement.

RESULTS









CONCLUSIONS

- We found elevated frontal theta activity in the high autistic traits group.
- We found similar results in a self diagnosed sample as others have found in clinically diagnosed populations.
- Our results lend credibility to self diagnoses with tools such as the AQ.
- While enhanced frontal theta activity may reflect processing differences,[2] it is likely indicative of an increased number of neurons in the autistic prefrontal cortex.

REFERENCES

1. Courchesne et al. (2011). Neuron number and size in prefrontal cortex of children with autism. *JAMA*.
2. Coben et al. (2008). EEG power and coherence in autistic spectrum disorder. *Clinical Neurophysiology*.

ACKNOWLEDGEMENTS

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