Predicting Cognitive Empathy from Face Specific Neural Signatures

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Submitter Owen Parsons

Affiliation University of Cambridge

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Presentation Abstract Summary We investigated whether face specific neural signatures predicted cognitive empathy ability in healthy adults. Participants were exposed to a fast serial visual presentation (FSVP) task comprised of social (faces) and non-social (animals and objects) stimuli. We conducted a frequency analysis on electroencephalogram (EEG) recordings to measure steady state evoked potentials (SSVEP) at two distinct frequencies, corresponding to responses to social and non-social stimuli respectively. We tested whether face specific signals correlated with a behavioural measure of emotional recognition, the Reading the Mind in the Eyes Task (RMET). A Sequential Bayesian Analysis was used to assess the accumulation of evidence for both the Alternative and Null hypotheses throughout data collection. Our results suggest a possible correlation between performance on the RMET and face specific neural signatures in the left hemisphere. We discuss how this approach to analysis can produce more informative results, than traditional frequentist approaches, when working with small or limited datasets.

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Co-author Information

* Presenting Author

First Name	Last Name	Affiliation	E-mail
Owen *	Parsons *	University of Cambridge	oep20@cam.ac.uk
Richard	Bethlehem	University of Cambridge	rb643@ cam.ac.uk
Jan	Freyberg	King's College London, Institute of Psychiatry	jan.freyberg@gmail.com
Simon	Baron-Cohen	University of Cambridge	sb205@cam.ac.uk

Keywords

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