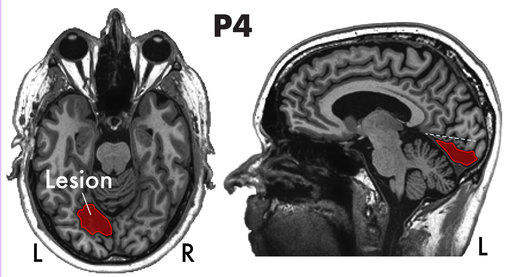
Residual visual conscious perception in cortical blindness: A multimodal neuroimaging case study

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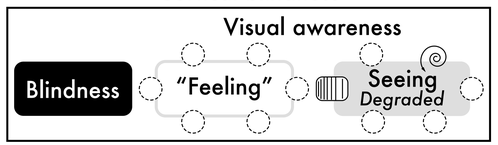
National Institute of Mental Health

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Background



Cortical blindness



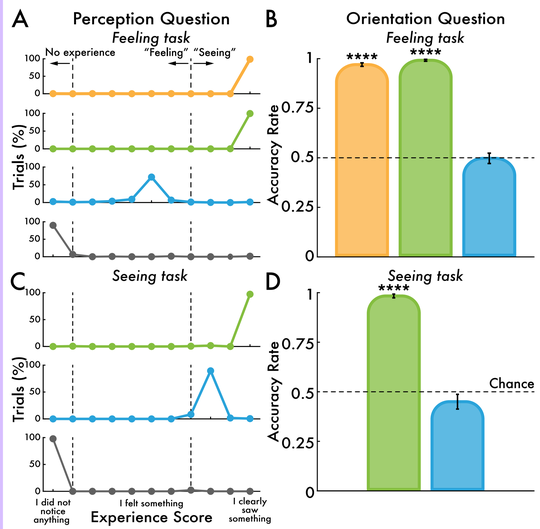
P4 experienced an ischemic stroke in the left visual cortex, injuring V1, V2, V3, and fusiform gyrus. The stroke caused blindness in the upper right visual field (right homonymous superior quadrantanopia). Cognitive and motor functions were preserved.

Certain images evoke a contentless "feeling" in P4's blind field: visual awareness without seeing.

The neural basis of this "feeling" or "sensation" in cortical blindness is largely unknown.

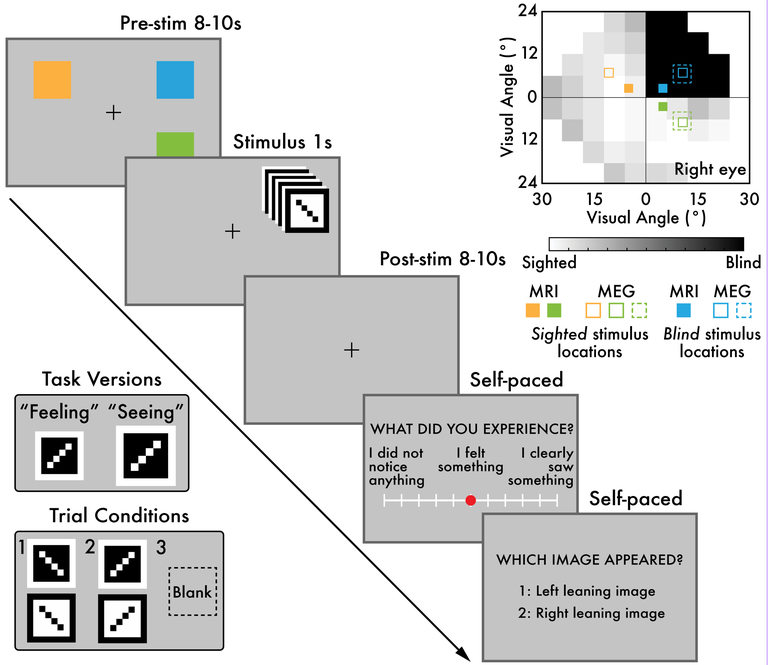
What are the neural mechanisms of visual awareness in cortical blindness?

Behavior

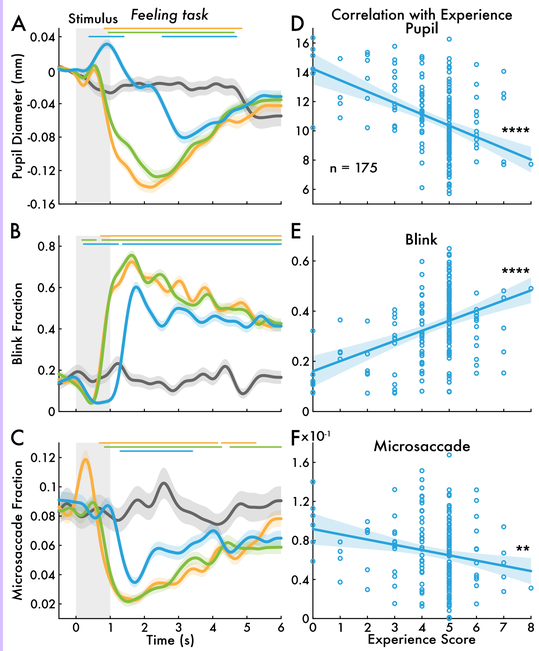


Methods

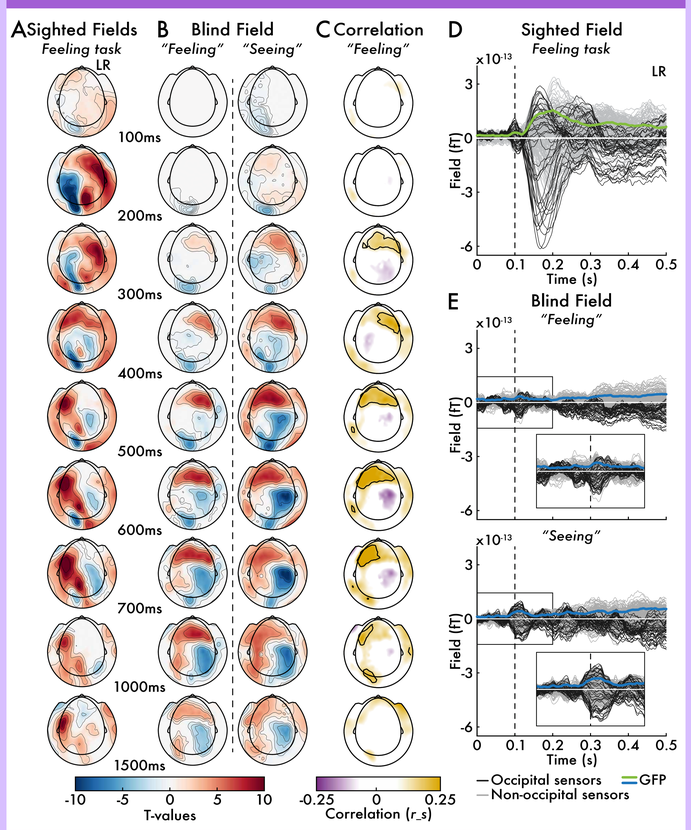
Report "feeling" and "seeing" perception tasks



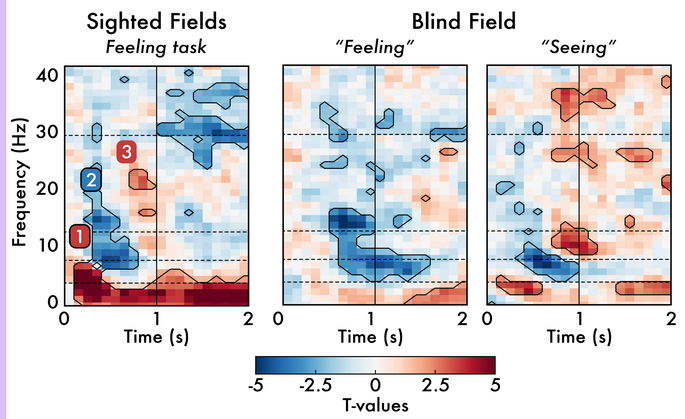
Eye Behaviors



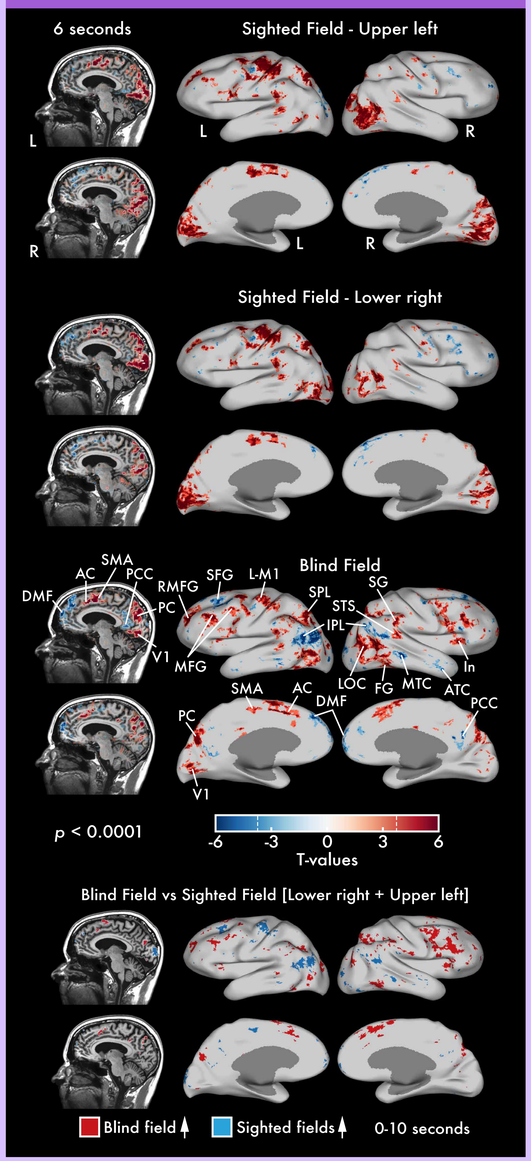
MEG - Magnetic fields



MEG - Time-frequency



fMRI - Estimated BOLD



Acknowledgements

A special thank you to P4 for his dedicated participation. This work was supported by the Intramural Research Program at the NIMH (ZIAMH002783).

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