

Dr. David Pitcher

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Employment History

Senior Lecturer in Psychology, University of York, U.K. 2021 onwards

Lecturer in Psychology, University of York, U.K. 2015 to 2021

Grant Funding

"Prefrontal influences on the emergence of visual category representations" 2023 to 2026
DfG Grant (Germany) (PI: Daniel Kaiser, Co-PI: David Pitcher) - €339967

"Causal Connections of the cortical face network studied with TMS and fMRI" 2017 to 2021
BBSRC New Investigator Grant (UK) (BB/P006981) - £407253

"Measuring the size of face-selective regions using fMRI and TMS" 2016 to 2017
SFARI Award (USA) (#392150) - \$58036

Publications

Foxwell, M., Wang, G., Cichy, R. M., **Pitcher, D.** & Kaiser, D. (Under Revision). Individual differences in internal models explain idiosyncrasies in scene perception. *Cognition*

Pitcher, D. (2023). Visual Neuroscience: A specialised neural pathway for social perception. *Current Biology* 33(23), R1222-R1224.

Pitcher, D., Sliwinska, M. W., & Kaiser, D. (In Press). TMS disruption of the lateral prefrontal cortex increases neural activity in the default mode network when naming facial expressions. *Social Cognitive and Affective Neuroscience*, 18 (1), nsad072.

Pitcher, D., Caulfield, B., & A. M., Burton (2023). Provoked overt recognition in acquired prosopagnosia using multiple different images of famous faces. *Cognitive Neuropsychology*

Pitcher, D. (2023). Face Processing and TMS. *The Oxford Handbook of Transcranial Stimulation (2nd Edition)*. Oxford University Press.

Pitcher, D. (2022). Visual Motion: Asymmetrical processing differences between the cerebral hemispheres. *Current Biology*, 32(18), R597-R600.

Nikel, L., Sliwinska, M. W., Küçük, E., Ungerleider, L. G. & **Pitcher, D.** (2022). Measuring the response to visually presented faces in the human lateral prefrontal cortex. *Cerebral Cortex Communications*, 3(3),1-9.

Sliwinska, M. W., Brown, L., Earl, M., O’Gorman, D., Pollicina, G., Burton, A. M., & **Pitcher, D.** (2022). Familiar face learning in real-world social interactions induces changes in face-selective brain areas and the hippocampus. *Perception*, 51(8), 521-538.

Pitcher, D., & Ungerleider, L. G. (2021). Evidence for a third visual pathway specialized for social perception. *Trends in Cognitive Sciences*, 25(2), 100-110.

Pitcher, D., Parkin, B., & Walsh, V. (2021). Transcranial magnetic stimulation and the understanding of behaviour. *Annual Review of Psychology*, 72, 97-121.

Pitcher, D. (2021). Characterising the third visual pathway for social perception. *Trends in Cognitive Sciences*, 25(7), 18-19.

- Sliwinska, M. W., Elson, R. & **Pitcher, D.** (2021). Stimulating parietal regions of the multiple-demand cortex impairs novel vocabulary learning. *Neuropsychologia*, 162, 108047.
- Groen, I. A., Silson, E. H., **Pitcher, D.**, & Baker, C. I. (2021). TMS of lateral occipital cortex reduces BOLD responses across category-selective areas in ventral temporal cortex. *NeuroImage* 230, 117790.
- Handwerker, D. A., Ianni, G., Gutierrez, B., Roopchansingh, V., Gonzalez-Castillo, J., Chen, G., Bandettini, P. A., Ungerleider, L. G., & **Pitcher, D.** (2020). Thetaburst TMS to the human posterior superior temporal sulcus disrupts resting-state fMRI connectivity across the face processing network. *Network Neuroscience*, 4(3), 746-760.
- Sliwinska, M. W., Bearpark, C., Corkhill, J., McPhillips, A., & **Pitcher, D.** (2020). Dissociable pathways for moving and static face perception begin in early visual cortex: evidence from an acquired prosopagnosic. *Cortex*, 130, 327-339.
- Sliwinska, M. W., Elson, R., & **Pitcher, D.** (2020). TMS demonstrates causal functional connectivity between the left and right posterior temporal sulci during facial expression recognition. *Brain Stimulation*, 13(4), 1008-1013.
- Pitcher, D.**, Pilkington, A., Rauth, L., Baker, C. I., Kravitz, D. J., & Ungerleider, L. G. (2020). The human posterior superior temporal sulcus (pSTS) samples visual space differently from other face-selective regions. *Cerebral Cortex*, 30(2), 778-785.
- Pitcher, D.**, Ianni, G., & Ungerleider, L. G. (2019). A functional dissociation of face-, body- and scene-selective brain areas based on their response to moving and static stimuli. *Scientific Reports*, 9(1), 8242.
- Sliwinska, M. W., & **Pitcher, D.** (2018). TMS demonstrates that both right and left superior temporal sulci are important for facial expression recognition. *NeuroImage*, 183, 394-400.
- Pitcher, D.**, Japee, S., Rauth, L., & Ungerleider, L. G. (2017). The superior temporal sulcus is causally connected to the amygdala: A combined TBS-fMRI study. *Journal of Neuroscience*, 37(5), 1156-1161.
- Lander, K., & **Pitcher, D.** (2017). Moving faces and moving bodies: Behavioural and neural correlates of person recognition. *Face Processing: Systems, Disorders and Cultural Differences*.
- Pitcher, D.**, Duchaine, B., & Walsh, V. (2014). Combined TMS and fMRI reveals dissociable cortical pathways for dynamic and static face perception. *Current Biology*, 24(17), 2066-2070.
- Pitcher, D.** (2014). Discriminating facial expressions takes longer in the posterior superior temporal sulcus than in the occipital face area. *Journal of Neuroscience*, 34(27), 9173-9177.
- Rezlescu, C., Barton, J. J., **Pitcher, D.**, & Duchaine, B. (2014). Normal acquisition of expertise with a novel object class in two cases of acquired prosopagnosia. *Proceedings of the National Academy of Sciences*, 111(14), 5123-5128.
Commentary in *Proceedings of the National Academy of Sciences*, 111(28), 10023.
- Arzi, A., Banerjee, S., Cox, J., D'Souza, D., De Brigard, F., Doll, B., Fairley, J., Fleming, S., Herholz, S., King, D., Libby, L., Myers, J., Neta, M., **Pitcher, D.**, Power, J., Rass, O., Ritchey, M., Rosales Jubal, E., Royston, A., Wagner, D., Wang, W., Waring, J., Williams, J., & Wood, S. (2014). The significance of cognitive neuroscience: Findings, applications, and challenges. In M.S. Gazzaniga (Ed.), *The Cognitive Neurosciences* (5th ed.). Cambridge, MA: The MIT Press.

Pitcher, D., Goldhaber, T., Duchaine, B., Walsh, V., & Kanwisher, N. (2012). Two critical and functionally distinct stages of face and body perception. *Journal of Neuroscience*, 32(45), 15877-15885.

Rezlescu, C., **Pitcher, D.**, & Duchaine, B. (2012). Acquired prosopagnosia with spared within-class object recognition but impaired recognition of basic-level objects. *Cognitive Neuropsychology*, 29(4), 325-347.

Pitcher, D., Dilks, D., Saxe, R., Triantafyllou, C., & Kanwisher, N. (2011). Differential selectivity for dynamic versus static information in face selective cortical regions. *NeuroImage*, 56, 2356-2363.

Sadeh, B., **Pitcher, D.**, Brandman, T., Eisen, A., Thaler, A., & Yovel, G. (2011). Stimulation of object-category selective areas modulates ERP to their preferred categories. *Current Biology*, 21(22), 1894-1899.

Pitcher, D., Duchaine, B., Walsh, V., Yovel, G., & Kanwisher, N. (2011). The role of the occipital face area and lateral occipital area in the face inversion effect. *Neuropsychologia*, 49, 3448-3453.

Pitcher, D., Walsh, V., & Duchaine, B. (2011). The role of the occipital face area in the cortical face perception network. *Experimental Brain Research*, 209, 481-493.

Pitcher, D., Walsh, V., & Duchaine, B. (2011). Transcranial magnetic stimulation studies of face processing. *The Oxford Handbook of Face Perception*. Oxford University Press.

Pitcher, D., Charles, L., Devlin, J. T., Walsh, V., & Duchaine, B. (2009). Triple Dissociation of Faces, Bodies, and Objects in Extrastriate Cortex. *Current Biology*, 19(4), 319-324.
Commentary in *Current Biology* – doi: 10.1016/j.cub.2008.12.037

Pitcher, D., Garrido, L., Walsh, V., & Duchaine, B. (2008). TMS disrupts the perception and embodiment of facial expressions. *Journal of Neuroscience*, 28(36), 8929-8933.
Commentary in *Science*, 321, 1606.
Commentary in *Journal of Neuroscience* - doi: 10.1523/JNEUROSCI.5205-08.2009

Pitcher, D., Walsh, V., Yovel, G., & Duchaine, B. (2007). TMS evidence for the involvement of the right occipital face area in early face processing. *Current Biology*, 17(18), 1568-1573.
Commentary in *Current Biology* – doi: 10.1016/j.cub.2007.08.008

Training

Research Fellow, National Institute of Mental Health, U.S.A. 2011 to 2015
Section Chief: Professor Leslie Ungerleider

Postdoctoral Researcher, Massachusetts Institute of Technology, U.S.A. 2009 to 2011
Mentor: Professor Nancy Kanwisher

Ph.D. Psychology, University College London, U.K. 2006 to 2009

M.Sc. Reading, Language and Cognition, University of York, U.K. 2005 to 2006

B.Sc. Psychology, University of York, U.K. 1991 to 1994

Awards and Fellowships

NIMH Visiting Research Fellowship 2011 to 2015
Summer Institute in Cognitive Neuroscience at Lake Tahoe Fellowship June 2013
Cognitive Neuropsychology Student Travel Award October 2012
European Summer School in Visual Neuroscience Fellowship July 2010
Summer Institute in Cognitive Neuroscience at UCSB Fellowship June 2009
Brain Travel Award May 2008

Professional Service

Faculty member for IBRO African School on Neuroimaging
Instructor on Brain Stimulation Methods for the Magstim Company

2016
2015 - 2017

Ad-hoc reviewer for the following Funding Bodies

European Research Council (EU), BBSRC (U.K.), ESRC (U.K), Wellcome Trust (U.K), Fund for Scientific Research (Belgium), FWF Austrian Science Fund (Austria), Leverhulme Trust (U.K), National Science Foundation (U.S.A), Flanders Research Foundation (Belgium), Swiss National Science Foundation (Switzerland), BeNeFIT (Netherlands / Belgium), Israel Science Foundation (Israel)

Ad-hoc reviewer for the following Journals

Science, Nature Neuroscience, Current Biology, PNAS, Brain, Cerebral Cortex, eLife, Science Advances, Journal of Neuroscience, Trends in Cognitive Sciences, Attention Perception & Psychophysics, Brain and Cognition, Brain Research, Brain Stimulation, Brain Structure & Function, Cognition, Cognitive Neuropsychology, Cortex, European Journal of Neuroscience, Experimental Brain Research, Frontiers in Neuroscience, Frontiers in Perception Science, Human Brain Mapping, Journal of Cognitive Neuroscience, Journal of Experimental Psychology: General, Journal of Neurophysiology, Journal of Vision, Journal of Visualized Experiments, Neurocase, NeuroImage, Neuropsychologia, Neuroscience, Open Mind: Discoveries in Cognitive Science, Perception, PLoS One, Psychological Science, Psychonomic Bulletin & Review, Royal Society Open Science, Social Cognitive and Affective Neuroscience, Vision Research

Invited Talks

Department of Psychology - Bangor University, U.K
Department of Psychology, Nottingham University, U.K.
Department of Psychology, University of East Anglia, U.K.
Department of Psychology, Royal Holloway, University of London, U.K.
Department of Human Biology, University of Cape Town, South Africa
Department of Psychology, Sussex University, U.K.
Institute of Cognitive Neuroscience, University College London, U.K.
Psychology Department, University of Hull, U.K.
Vision Seminar - Johns Hopkins University, Baltimore, MD, U.S.A
Cognition Seminar - Ichan School of Medicine at Mount Sinai Hospital, New York City, NY, U.S.A.
Brain & Consciousness Lab - Duke NUS Medical School, Singapore
Current Works in Behavior, Genetics, and Neuroscience Series - Yale University, CT, U.S.A
Center for Cognitive Neuroscience Seminar – Duke University, NC, U.S.A
Neuroscience of Social Decision Making Seminar – Princeton University, NJ, U.S.A
CMB Seminar - University of California at Davis, CA, U.S.A
CBB Seminar – University of California at Berkeley, CA, U.S.A
Vision Group – Stanford University, CA, U.S.A
Department of Psychology – York University, ON, Canada
Department of Psychology – University of Western Ontario, ON, Canada
Psychology Department - Freie Universität, Berlin, Germany
Department of Psychological and Brain Sciences - Dartmouth College, NH, U.S.A
Department of Psychology - University of York, U.K
Department of Psychology - Bangor University, U.K
MRC Cognition and Brain Sciences Unit - Cambridge University, U.K
Department of Neurology - Johns Hopkins University, MD, U.S.A
Institute of Cognitive Neuroscience - University College London, U.K
Department of Psychology - University of Exeter, U.K
Department of Psychology - University of Birmingham, U.K
Center for Advanced Brain Imaging - Georgia Institute of Technology, GA, U.S.A
Laboratory of Brain and Cognition - NIMH, MD, U.S.A
Department of Psychology - Bangor University, U.K
Department of Psychology - Bar Ilan University, Israel

Department of Psychology - Hebrew University of Jerusalem, Israel
Department of Psychology - Tel Aviv University, Israel
Department of Psychology - Yale University, CT, U.S.A
Department of Psychology – University of Southern California, CA, U.S.A
Department of Psychology - University of Western Australia, Australia
Department of Psychology - Glasgow University, U.K

Conference Presentations – Talks

Pitcher, D., Ianni, G., & Ungerleider, L. G. Lateral and ventral category-selective areas show a differential response to moving and static visual stimuli. *Society for Neuroscience*, Washington, DC. U.S.A, November 2017.

Pitcher, D., Ianni, G., & Ungerleider, L. G. Lateral and ventral category-selective areas show a differential response to moving and static visual stimuli. *European Conference on Visual Perception*, Berlin, Germany, August 2017.

Pitcher, D. Mapping the effects of transient cortical disruption across the brain: combining thetaburst TMS and fMRI. *Experimental Psychology Society*. Reading. July 2017.

Pitcher, D. Measuring the remote effects of TMS with fMRI. *International Brain Stimulation Conference*. Barcelona. March 2017.

Pitcher, D. How to (temporarily) break the face perception network: combining TMS and fMRI. *Vision Sciences Society*, Florida, U.S.A, May 2015.

Pitcher, D. Comparing the effects of stroke with the effects of thetaburst TMS (TBS) on resting state fMRI networks. *Magstim TMS Conference*. Oxford University, U.K. May 2015.

Pitcher, D. Dissociable pathways for dynamic and static face perception begin in early visual cortex. *Cognitive Neuroscience Society*, San Francisco, CA. U.S.A, March 2015.

Pitcher, D. How to (temporarily) break the face perception network: combining TMS and fMRI. *Person Perception Recognition Conference*. Jerusalem, Israel. March 2015.

Pitcher, D. TMS advances in Cognitive Neuroscience. *International Brain Stimulation Conference*. Singapore. March 2015.

Pitcher, D. Combined TMS / fMRI reveals dissociable cortical pathways for dynamic and static face perception. *European Conference on Visual Perception*, Belgrade, Serbia, August 2014.

Pitcher, D. TMS studies of the cortical face network. Workshop on non-invasive brain stimulation. *Simons Foundation Autism Research Initiative*, New York, NY. U.S.A, October 2013.

Pitcher, D. TMS evidence for category-selective cortical regions in human extrastriate cortex. *Cognitive Neuroscience Society*, San Francisco, CA. U.S.A, April 2013.

Pitcher, D., Walsh, V., & Ungerleider, L. Disrupting the cortical face network with TMS. *Experimental Psychology Society*, London, U.K, January 2013.

Pitcher, D., Walsh, V., & Duchaine, B. Dissociable cortical pathways for dynamic and static faces. *Workshop on Concepts, Actions, and Objects*, University of Trento, Italy, May 2012.

Pitcher, D. "Who's that?" - Combining TMS with neuroimaging to study disruption in the cortical face perception network. *Magstim TMS Conference*. Oxford University, U.K. May 2012.

Pitcher, D., Duchaine, B., Walsh, V., Kanwisher, N. Two critical and functionally distinct time periods for early face and body perception. *Society for Neuroscience*, Washington, DC. U.S.A, November 2011.

Pitcher, D., Duchaine, B., Walsh, V., Kanwisher, N. TMS reveals two functionally distinct time periods for early face and body perception. *British Neuropsychological Society*, London, U.K, March 2011.

Pitcher, D., Duchaine, B., Walsh, V., Kanwisher, N. TMS reveals two functionally distinct time periods for early face and body perception. *Experimental Psychology Society*, London, U.K, January 2011.

Pitcher, D. TMS studies of the face perception network. *Magstim TMS Conference*. University College London, U.K. May 2009.

Pitcher, D., & Walsh, V. TMS studies of face perception. *International Conference on TMS and tDCS*. University of Gottingen, Gottingen, Germany, October 2008.

Pitcher, D., Walsh, V., & Duchaine, B. TMS studies of the occipital face area. *Experimental Psychology Society*, London, U.K, January 2008.