

Curriculum Vitae

PERSONAL DETAILS

Name	Merle Theresa FAIRHURST-MENUHIN (née FAIRHURST)
Address	Alte Hauptstr. 12 Lossatal, OT Voigtshain 04808
Occupation	Assistant Professor
Telephone	+49 177 267 6405 / +44 7460 301 252
Date of Birth	20 th August 1982
E-mail address	merle.fairhurst@gmail.com
Nationality	German
Marital Status	married
Languages	English, German, French

EDUCATION

Postgraduate	D.Phil FMRIB Centre University of Oxford, UK
Undergraduate	BA(Hons)/MA Physiological Sciences University of Oxford, UK
Diplomas	Diploma The Juilliard School of Music, USA

POST DOCTORAL APPOINTMENTS

March 2017 – Present

Philosophy of Mind, Ludwig-Maximilians-Universitaet, Munich
Philosophy of Mind & Cognitive Neuroscience (Group leader: Ophelia Deroy)

February 2014 – February 2017

Centre for the Senses, Institute of Philosophy, University of London
AHRC Rethinking the Senses Project (Group leader: Colin Blakemore)

July 2012 – January 2014

Max Planck Institute for Human Cognition and Brain Sciences, Leipzig
Early Social Development (Group Leader: Peter Keller)

July 2009 – June 2012

Max Planck Institute for Human Cognition and Brain Sciences, Leipzig
Music, Cognition and Action Group (Group Leader: Peter Keller)

Area of research:

Application of psychophysical and neuroimaging techniques combined with novel computational modelling to investigate the integration and modulation of sensory information in contextually and socially rich, dynamically evolving multisensory events.

PUBLICATIONS

1. Dunckley P., Wise R.G., **Fairhurst M.**, Hobden P., Aziz Q., Chang L., Tracey I. A comparison of visceral and somatic pain processing in the human brainstem using functional magnetic resonance imaging. *J Neurosci* 2005
2. **Fairhurst M.**. Neurogenetic Imaging. Book chapter in: Gene Therapy - Prospective assessment in its societal context. Niewohner & Tannert (Eds), Elsevier (pub). 2006.
3. **Fairhurst M.**, Wiech K., Dunckley P., Tracey I. Anticipatory brainstem activity predicts neural processing of pain in humans. *PAIN* 2007
4. **Fairhurst M.**, Fairhurst K, Berna Renella C, Tracey I.A. Simulated and physical pain produce overlapping brain network of activity except for posterior insular cortex. *Plos One* 2012
5. **Fairhurst M.T.**, Janata P., Keller P.E. Being and feeling in sync with an adaptive virtual partner: brain mechanisms underlying dynamic cooperativity. *Cerebral Cortex* 2012
6. Hove M.J., **Fairhurst M.T.**, Kotz S.A., Keller P.E. Synchronizing with auditory and visual rhythms: an fMRI assessment of modality differences and modality appropriateness. *Neuroimage* 2012
7. Uhlig M., **Fairhurst M.T.**, Keller P.E. The importance of integration and top-down salience when listening to complex multi-part musical stimuli. *Neuroimage* 2013
8. **Fairhurst M.T.**, Janata P., Keller P.E. Leading the follower: an fMRI investigation of dynamic cooperativity and leader-follower strategies in synchronization with an adaptive virtual partner. *Neuroimage* 2013
9. Ragert M., **Fairhurst M.T.**, Keller P.E. Segregation and integration of complex auditory streams. *PLoS One* 2014
10. **Fairhurst, M.T.**, Löken, L.S., Grossman, T. Physiological and behavioral responses reveal human infants' sensitivity to pleasant touch. *Psychological Science* 2014
11. Tajadura-Jimenez, A, Basia, M, Deroy, O, **Fairhurst, M**, Marquardt, Berthouze, N. As light as your footsteps: altering walking sounds to change perceived body weight, emotional state and gait. *Computer Human Interface* 2015
12. van der Steen, M.C., Jacoby, N., **Fairhurst, M.T.**, & Keller, P.E. Sensorimotor synchronization with tempo-changing auditory sequences: Modeling temporal adaptation and anticipation. *Brain Research* 2015
13. **Fairhurst, M.T.**, Pritchard, D., Ospina, D., Deroy, O. Buba-Kiki in the plate: combining crossmodal correspondences to change flavour experience. *Flavour* 2015
14. Koehne, S., Behrends, A., **Fairhurst, M.T.**, Dziobek, I. Fostering Social Cognition through an Imitation- and Synchronization-Based Dance/Movement Intervention in Adults with Autism Spectrum Disorder: A Controlled Proof-of-Concept Study. *Psychother Psychosom* 2016
15. **Fairhurst M.T.**, Deroy O. Testing the shared spatial representation of magnitude of auditory and visual intensity. *J Exp Psychol Hum Percept Perform* 2017
16. Gallotti, M., **Fairhurst M. T.**, Frith, C. Alignment in social interactions. *Consciousness and Cognition* 2017
17. **Fairhurst M.T.**, Janata P., Keller P.E. Distinguishing self from other in a dynamic

synchronization task with an adaptive virtual partner. *Submitted*

18. Tajadura-Jiménez A., Vakali M., **Fairhurst M.T.**, Mandrigin A., Bianchi-Berthouze N., Deroy O. Auditory Pinocchio: Rising pitch changes the mental representation of one's finger length. *Submitted*
19. **Fairhurst M.** T. Scott M., Deroy O. Matching face-voices pairings affect recall: Evidence from a real-life context. *Submitted*

INVITED TALKS, POSTERS AND PRESENTATIONS

1. Dunckley P, Wise RG, **Fairhurst M**, Hobden P, Aziz Q, Chang L, Tracey I. A comparison of visceral and somatic pain processing in the human brainstem using functional magnetic resonance imaging.
2. **Fairhurst M.** Neurogenetic Imaging. MDC – **European Gene Therapy Workshop** (Berlin, May 2005)
3. **Fairhurst M**, Dunckley P, Tracey I. High Resolution fMRI of Human Brainstem: Anticipation and the Descending Pain Modulatory Pathway **IASP, 11th World Congress on Pain** (Sydney, August 2005)
4. **Fairhurst M**, Wiech K, Dunckley P, Tracey I. Anticipatory brainstem activity predicts neural processing of pain in humans. **EFIC, Istanbul Pain in Europe V** (September 2006)
5. **Fairhurst M**, Berna Renella C, Tracey I.A. Anticipation and Laterality – nociceptive processing within the human cerebellum. **CNS, Annual Meeting** (New York , May 2007)
6. Leknes S, **Fairhurst M**, Duncan K, Brooks J, Tracey I. Imaging pleasant pain relief. **CNS Annual meeting.** (New York, May 2007)
7. **Fairhurst M**, Fairhurst K, Berna Renella C, Tracey I.A. Short-term episodic memory of pain: “Real” and “Recalled Imagined” Pain. **CCNi, Brunel University** (London, March 2007)
8. **Fairhurst M**, Berna Renella C, Tracey I.A. Neural correlates of imagined pain and fear of pain: functional imaging of the fear of pain questionnaire-iii. **WIP, 4th World Congress World Institute of Pain** (Budapest, September 2007)
9. Berna C, **Fairhurst M**, Goodwin GM, Tracey I. The influence of personality on subjective pain perception: a psychophysical study. **WIP, 4th World Congress World Institute of Pain** (Budapest, September 2007)
10. **Fairhurst M**, Anwender A, Repp BH, Keller PE. The effect of musical experience on error correction and correlated white matter adaptations. **BACN, University College of London (UCL).** (London, September 2009)
11. Fairhurst K, **Fairhurst M**, Tracey I. Measuring the effect of time delay on pain recall using FMRI. **BACN, University College of London (UCL).** (London, September 2009)
12. **Fairhurst M. T.**, Janata P., Repp B., Stelzer J., & Keller P.E. (2010). FMRI investigation of dynamic cooperativity: synchronised finger tapping with an adaptive virtual partner. Talk presented at **11th International Conference on Music Perception and Cognition (ICMPC11)**. Seattle, WA, USA. 2010-08-23 - 2010-08-27
13. **Fairhurst M. T.**, Janata, P., Repp, B., Stelzer, J., & Keller, P. E. (2010). FMRI investigation of dynamic cooperativity: synchronised finger tapping with an adaptive virtual **Society for Neuroscience (SFN) 2010, San Diego, California** (November 2010)
14. **Fairhurst M. T.**, Janata, P., Repp, B., Stelzer, J., & Keller, P. E. (2010). FMRI investigation of dynamic cooperativity: synchronised finger tapping with an adaptive virtual **SFN 2011, Washington DC** (November 2011)
15. Uhlig, M., **Fairhurst, M.T.**, & Keller P.E. (2011) . What aspects of music grab our attention more? An investigation of the effects of musical structure and performance asynchrony on the perception of leader-follower relations and quality during selective attention to a piano duet.

- Talk presented at **SFN Annual Meeting 2011**. Washington DC, USA. 11-16 November, 2011.
16. Keller, P.E., Pecenka, N., **Fairhurst, M.T.**, Repp, B. (2011) Relations between basic temporal error correction processes and the quality of interpersonal coordination. Talk presented at **4th Joint Action Meeting. Austrian Academy of Sciences**. Vienna, Austria. 7-9 July, 2011.
 17. **Fairhurst, M.T.** (2011). Dynamic cooperation with a “virtual partner”. Invited talk at Goldsmiths, University of London. London, U.K. 19 October, 2011.
 18. Van der Steen, M.C. (Marieke), **Fairhurst, M.T.**, Keller, P.E. (2012) ADAM in action: working with an adaptive and anticipatory virtual partner. Talk presented at **EBRAMUS consortium meeting Spring school**. Ghent, Belgium. 27 February -4 March, 2011.
 19. **Fairhurst, M.T.**, Janata, P. Keller, P.E. (2012). Leaders and followers: an fMRI study of dynamic cooperation using an adaptively paced finger-tapping task. Poster presented at **Organization for Human Brain Mapping (OHBM) Annual Meeting**. Beijing, China. 10 – 14 June, 2012.
 20. Uhlig, M., **Fairhurst, M.T.**, Keller, P.E. (2012). The importance of integration when selectively listening to complex multi-part musical stimuli. . Poster presented at **OHBM Annual Meeting**. Beijing, China. 10 – 14 June, 2012.
 21. Van der Steen, M.C. (Marieke), **Fairhurst, M.T.**, Keller, P.E. (2012) Tapping along with ADAM: synchronizing with an adaptive and anticipatory virtual partner. Poster presented at **NCM conference**, Venice, Italy. 23-28 April, 2012.
 22. Van der Steen, M.C. (Marieke), **Fairhurst, M.T.**, Keller, P.E. (2012) Investigating the role of adaptation and anticipatory mechanisms on sensorimotor synchronization using ADAM. Poster presented at **PoRT workshop**. Glasgow, U.K. 19-21 July, 2012.
 23. Köhne, S., **Fairhurst, M.T.**, Behrends, A., Dziobek, I. (2013) Sensorimotor synchronization and empathy in high-functioning autism. **6th Scientific Meeting for Autism Spectrum Conditions (WTAS)** Bonn, Germany. 21-22 February, 2013
 24. **Fairhurst, M.T.**, Deroy, O. Magnitude estimation across the senses. **ESPP 2014**, Noto September 16-19, 2014.
 25. **Fairhurst, M.T.** The dynamic nature of two-way social interactions. **We-mode workshop**, Aarhus. 22-23 September 2014.
 26. **Fairhurst, M.T.** Beyond synchronisation: Characterising dynamic, reciprocal two-way interactions. **TSC 2015**, Helsinki 9-13 June, 2015
 27. **Fairhurst, M.T.**, Deroy, O. Do representations of magnitude share a single mental space? An auditory and audio-visual test using loudness and luminance. **IMRF 2015**, Pisa 13-16 June 2015
 28. **Fairhurst, M.T.** Mental alignment and reciprocity: Characterising dynamic, reciprocal two-way interactions. **Social Cognition Seminar Series**. UCL, 16th June 2016

DISSERTATION AND THESIS

High Resolution fMRI of the Human Brainstem: Anticipation and the Descending Pain Modulatory Pathway (Unpublished Honours dissertation) University of Oxford, June 2004

Dissecting the pain experience using psychological intervention and functional MRI (Unpublished Doctoral thesis) University of Oxford, December 2007

TEACHING EXPERIENCE

Tutor	Physiology Neuroscience	University of Oxford	2006-2008
Supervisor	M.Sc. Projects	University of Oxford	2006-2008
Semester course	Music psychology	University of Leipzig	Spring 2010
Supervisor	PHD Projects (M.C. Van der Steen, Marie Uhlig)	University of Leipzig	2011-present

PRIZES

Warr-Goodman Graduate Scholarship	Lady Margaret Hall	2004-2005
Henrietta Jex Blake	Lady Margaret Hall	2005-2006
Cyclosporin Academic Award	Lady Margaret Hall	2007
Young Researcher, honourable mention	ICMPC	2010