



Open post-doctoral position

Auditory Cognitive Neuroscience

This 36-month fixed-term postdoctoral fellowship will support work on a project funded by the Economic and Social Research Council entitled “Dimension-selective attention and second language acquisition”.

One possible reason why learning a second language can be so difficult is that different acoustic dimensions play different roles in different languages; for example, pitch is a vital cue to word meaning in tone languages such as Mandarin but plays a much more secondary role in non-tonal languages such as English. Learning a second language, therefore, may require participants to change their default weighting of the importance of acoustic cues, a process which may involve the direction of auditory attention towards individual acoustic dimensions.

We will use EEG and fMRI to test the hypothesis that language experience can change the salience of acoustic cues (their tendency to capture attention), and to test whether training learners to direct attention to appropriate cues in their second language can improve speech perception and production.

The ideal candidate will have experience in both EEG and functional/structural MRI and will a) collaborate in the design and piloting of the experimental protocols and analysis techniques, b) recruit young adult participants, c) conduct behavioural and EEG/fMRI testing, d) preprocess and analyse data, and e) lead the write up of study results.

This project is a collaboration between Dr. Adam Tierney and Prof. Fred Dick at the Department of Psychological Sciences at Birkbeck, University of London, and Dr. Kazuya Saito at the Institute of Education at University College London. Birkbeck's department of Psychological Sciences is one of the oldest academic departments of psychology in the UK. It was rated 5th in the UK in both the 2008 and the 2014 Research Excellence Framework (REF), receiving 100% ratings for the impact of our research on society. Our research facilities include two MRI scanners (1.5T and 3T at the Birkbeck-UCL Centre for Neuroimaging, BUCNI), a newly built £8.5M Toddler Lab (with state-of-the-art virtual reality and ambulatory wireless EEG) to complement our existing Babylab, a genetics wet-lab and many other labs set up for biosensing and behavioural experiments.

Deadline for applications: November 15th, 2021

For further details and to apply see:

<https://cis7.bbk.ac.uk/vacancy/postdoctoral-researcher-460997.html>