

**Study title:** How different language backgrounds have an effect on infants' perception of speech sounds

Principal Investigator: Shirley Cheung, PhD student

Thank you for your interest in participating in this study. This information sheet will inform you of what this project is about and what your child's participation will involve. If any part of this study is unclear to you, please ask questions so I can provide you with the relevant information.

# What this study is about:

I am investigating how infants from English monolingual and Mandarin-English bilingual backgrounds detect changes in sounds from familiar and unfamiliar languages. Specifically, I am looking at which areas of the brain your child processes these sounds.

# What to expect:

You will make one visit to the BabyLab (Whewell building) at Lancaster University for the experiment. You will be given a short questionnaire to complete before testing and then you will enter the testing room where we will use a non-invasive technique called functional near-infrared spectroscopy (fNIRS) to measure your child's brain activity. He/she will wear a cap fitted with an array of probes on each side of the head. The probes rest comfortably on your child's scalp and emit harmless infrared light to measure the blood-oxygenation levels on the surface of the brain. Pretty neat! A series of sounds will be played and repeated while your child is wearing the cap; he/she just needs to listen to them.

Your participation is entirely voluntary, and you have the authority to withdraw from the study at any time during testing or up to 14 days after testing. If you choose to withdraw, you won't be asked to provide us a reason and you won't face any consequences. However, after the 2-week period, the data will be used for the purposes of the study.

### Management of identifiable information:

We take participant confidentiality seriously. Any information that could identify you or your child will never reach the public without your consent. All data will be coded and kept in password-protected devices. Only research associates will have access to the information. However, you have the option to give consent for the anonymised data to be deposited into data repositories such as Lancaster University or the UK Data Archive. This would allow future or follow up studies to be able to safely use the information collected from this study.

### **Outcome of your data:**

Your data will be used for the purposes of a written PhD dissertation, presented in posters at scientific conferences, and potentially published as an article in a scientific journal!

#### **Compensation:**

You will be compensated £10 for your travel and time (£20 if you are travelling from outside of Lancashire county).



# Participating in future studies:

You are welcome to participate in future studies conducted by me or by other students in the Psychology Department. If you have additional questions about the current study and future research, here are contact details of the researcher and supervisor:

Shirley Cheung | 07951 899208 | s.cheung@lancaster.ac.uk

Professor Gert Westermann | 01524 592942 | g.westermann@lancaster.ac.uk

In the case of ethical concerns, please contact the Head of Department:

Professor Kate Cain | 01524 593990 | k.cain@lancaster.ac.uk