



## Thank you BabyLab Parents!

Thank you to everyone that has visited (virtually and in person) and taken part in our studies since September 2021. We cannot thank you and your little scientists enough for all your help and support, we really can't do any of it without you! We hope you enjoy reading about all the research we have done over the year and the interesting results we have found so far!

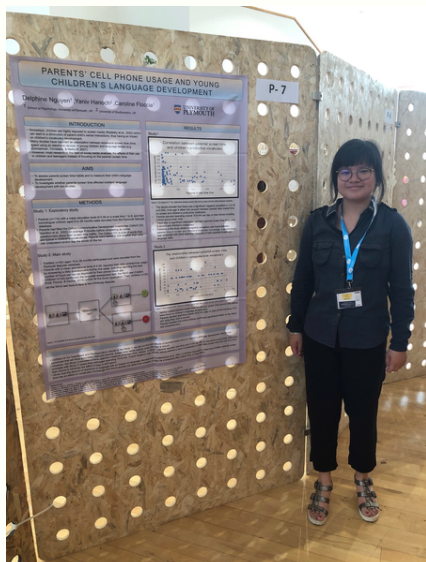


# OUR PHD STUDENTS HAVE BEEN TRAVELLING THE WORLD WITH OUR PLYMOUTH RESEARCH!

## WILD CONFERENCE – SAN SEBASTIAN, SPAIN



ANNA CAUNT, DELPHINE NGUYEN & NADINE FITZPATRICK



## ICIS CONFERENCE – OTTAWA, CANADA



ANNA CAUNT & DELPHINE NGUYEN





# Thanks to our 2021/22 placement students!



Thank you to our wonderful placement students Alessia, Lauren & Nicole who have done a fantastic job this year - they will be greatly missed!

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## Study Updates 2021/22!

In the next few pages you can find updates on the studies completed with the lab this academic year - take a look to see if your infant was involved in any and see how they contributed to our research!



# WinGtest\_DN (19-26 months)

DELPHINE NGUYEN & PROF CAROLINE FLOCCIA

Our study investigated whether the time parents spent on their cell phone affected toddlers' language development. During one week of their choosing, parents answered a daily questionnaire on an app about their daily cell phone usage (e.g., according to your phone, how long did you spend on your phone today?). Then, 62 children performed the WinG test. It was used to test young children's language development. It's a card game with different sets of 3 cards. For example, a set can include a cat, dog and TV. The researcher would ask the child "where is the cat" and the child has to point to the correct picture.

We didn't observe an effect of parental screen time on children comprehension language skills. We are planning to conduct a same study with older toddlers of 24-30 months old to see if there are any screen time effects on children's productive vocabulary.

# LearningDN (17-18 months)

DELPHINE NGUYEN & PROF CAROLINE FLOCCIA

Our study is looking at how toddlers learn new words from their parents. We are currently running this study where parents are asked to teach 2 new words to their children. Then, to test if children learned the new words, we use the eye-tracking procedure that shows pictures depicting common objects (e.g., 'book') and record children's eye movement.

So far, we have tested around 40 children and are still needing around 20 children to complete the study.



# Talking Heads (5 and 12 months)

**PAUL RATNAGE & PROF CAROLINE FLOCCIA**

Research shows that 5-month-old infants pay more attention to a speaker's mouth than their eyes when listening to them talk but will only do so at 12 months if the speaker is talking in a foreign language. It has also been found that infants prefer to look at someone who has spoken to them in their native language rather than a foreign language. This study examines whether infants will use the same strategies when listening to a local accented or a regional accented speaker. Infants are presented with videos of females speaking in either a local (Plymouth) or regional (e.g. Scottish) accent. Using our eyetracker, we examine how long each infant looks at each speaker to gain an idea of their preference. We also measure how long they look at each speaker's eyes and mouth to see if this will differ based on the accent they are hearing. We are still collecting data for this study, but we hope to be able to analyse the results soon.

# Children's word and category learning (4-6 years)

**DR. CHI-HSIN (ESTHER) CHEN**

This past year, three undergraduate students working with Dr. Chi-hsin (Esther) Chen completed their dissertation project with participants recruited from the BabyLab. They studied whether 4-year-old children were able to learn novel words and form object categories at the same time. Thirty-one children participated in their study.

After the summer break, we will expand on this previous project and examine whether children's memories and attention affect their word and category learning. We will recruit 4- to 6-year-old children in the new study. Children will watch short videos and play card sorting games in this new project.



# Mummy AV (5 and 12 months) and CVC (11 months)

**PAUL RATNAGE & PROF CAROLINE  
FLOCCIA**

Collaboration with Dr Thierry Nazzi, CNRS-University Paris  
Descartes

As adults, we rely more on consonants than vowels in both recognising and learning words. For example, reading a sentence with all of its consonants removed would be challenging. In contrast, a sentence where the vowels have been removed would be easier to understand. How and when children learn that consonants are more informative than vowels in word recognition is unclear. Of course, we are talking here about sounds, not letters, so for example the vowel sound "a" or the consonant sound "k" in the word "cat". Studies in French infants show that, at 5 months, infants rely on vowels, before switching to consonants for word recognition at 11 months. Using both eye tracking and the head turn preference task, our Mummy and CVC studies have looked to see if English-learning infants aged between 5 and 12 months can recognise vowel and consonant changes either to a single word or in lists of familiar words. Our results show that British English learning infants show no preference for either consonant or vowel changes in the familiar words presented to them. These findings suggest that British English infants appear to differ from their French-learning counterparts in when they learn that consonants help with word recognition.



# Bilingual Language Environments (6–24 months)

**ANNA CAUNT & DR RANA ABU-ZHAYA**

Our project explores the everyday language environments of 24 infants growing up in multilingual homes around London. Each family received a small audio recorder with an infant t-shirt to fit the device and were asked to record the language input their child was exposed to at home for two full days, alongside narrating the day with a daily activity log. We are still analysing the data, but the patterns we observed thus far from 15 families show wide variability in the amount of exposure infants receive to each of their languages (e.g., French and English), and how much language they hear from each caregiver, and during different daily activities like mealtimes and play interactions. Further, our analysed data contained more instances of speech directed to the infant than observed in previous bilingual studies conducted in the US and Canada. During the next year, we will continue analysing the data, and we plan to explore the factors that might impact each family's language patterns, like the number of speakers present and the types of activities each family chooses to engage with.



# Meaning in Words (24–36 months)

**NADINE FITZPATRICK & PROF CAROLINE FLOCCIA**

We have been busy testing different age groups online and some in-lab for our Meaning in Words study. This study is looking at the relationships young children have between words, such as cat-dog. We have been using eye-tracking to see if children spend longer looking at a picture of a dog after hearing the word cat or if children look at another, unrelated picture, just as much as the related picture. We have finished testing 76 children in the first version of this experiment. Our findings were not what we expected: children looked longer at the named picture when it was not related, such as cat-plate. We think this might be due to the words and pictures we chose and due to testing online. To test our prediction, we ran the experiment again with a different set of words and pictures and have finished testing 72 children for this version of the experiment. We are just about to analyse the results of this experiment. We are hoping the results show us that children spend longer looking at the related picture, which will indicate they understand the relationships between words and it will replicate what we have found in the lab. If this is true, it will be strong evidence for testing children online which will help us reach more diverse families in the future.





# Recruitment

We have been able to return to our recruitment visits after the pandemic and our placement students have visited lots of baby groups and events over the year. We have enjoyed meeting new families and seeing all the different activities out there. Thank you to all who helped make this possible!



Please get in contact with us if you wish to leave our database or if you have had any more children you would like to sign up!

Email: [Plymouthbabylab@plymouth.ac.uk](mailto:Plymouthbabylab@plymouth.ac.uk)

