



Babylab

ANNUAL

NEWSLETTER

2024-2025



WITH ILLUSTRATIONS
BY
MOHIMA AKTAR

Dear Reader,

We are Gerry and Una, the mascots of the BabyLab. Our job is to play with the baby scientists before they start their study. Our favourite game to play is tea party, where we all pretend to have tea. We also go on all sorts of adventures with our Babylab friends!

Us at Drake Circus



Us being Obsessed with books



Us outside Knead (Alvise's favourite)



Mo's glasses

We have been told that it will be our turn to edit this year's newsletter. Before we start, we would like to say a big thank you to the parents for helping our friends to collect data. And, a massive thank you to all of the baby scientists for playing with us before they start their studies.

Please enjoy exploring our collection of completed, published, and ongoing studies—plus a few highlights of what our friends have been working on.

This is also an opportunity to let our colleague, Mo, know if you are wishing to no longer hear from us. Please contact her and the team via the email plymouthbabylab@plymouth.ac.uk and, your data will be removed from our database.



BABYLAB
STUDIES

The logo features the text "BABYLAB" on the top line and "STUDIES" on the bottom line, both in a bold, rounded, hand-drawn font with a yellow-to-orange gradient. Three purple brushstroke-like lines are positioned above the "B" in "BABYLAB", and three similar purple lines are positioned to the right of the "S" in "STUDIES".

Lexical biases in bilingual infants

By Alvis Rogers



What the study is about: Consonants are generally more informative than vowels for word processing, which is reflected by a larger reliance on consonants by adult speakers of different languages when identifying words. However, this tendency towards consonants is less clear in both younger British monolingual children and bilinguals. The present study aims to investigate how the development of this consonant bias develops in bilingual (French-English & Italian-English) and British monolingual infants. Furthermore, we are pioneering a wonderful new way of participating in our studies – from the comfort of your own home via our online measures!

Demographic: 15-month and 18-month-old infants (British monolinguals, French-English bilinguals, and Italian-English bilinguals). There is scope to expand this to 24-month and 30-month-old infants too.

What we expect to find: We anticipate finding that both French-English and Italian-English bilinguals will show this bias for consonants earlier on in life than British monolinguals. However, with any results that we find, they will help to show us how the mechanisms of language develop in young infants.

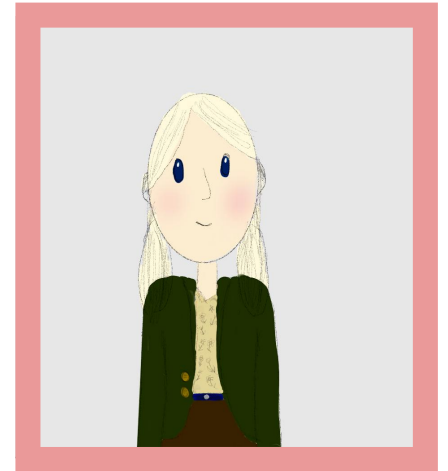
Target number of participants: 50-75 participants



← Written and
Edited by
Gerry

Familiar word recognition in unfamiliar accents by monodialectal and bidialectal infants

By Darya Klymenko



What the study is about: Monodialectal infants are infants who primarily only hear one accent in their day-to-day life. Bidialectal infants, on the other hand, hear more than one accent (for example, if their mum is from Plymouth and their dad is from Liverpool). When learning their first language, these two groups have different experiences; for a monodialectal infant, each word has only one form (eg. *bath* has the same sound as *laugh*), but bidialectal infants often hear variations of the same word (eg. when mum says *bath*, it has the same sound as *laugh*, but when dad says *bath*, it has the same sound as *cat*).

We are interested in whether there are differences in how these two groups adapt when they hear unfamiliar accents: Study 1 includes unfamiliar native accents (South African and New Zealand) and Study 2 includes unfamiliar non-native accents (Urdu and Bulgarian). This is an eye-tracking study (the infants look at images on the screen and hear one of the two images named; we analyse their eye movements).

Demographic: 17-month-old bidialectal and monodialectal infants

What we expect to find: We predict that infants who hear an additional accent at home will be better at understanding words in an unfamiliar accent.

Target number of participants: 40 in Study 1 and 40 in Study 2.



← Written and
Edited by
Gerry

The effects of multidialectalism on lexical bias development

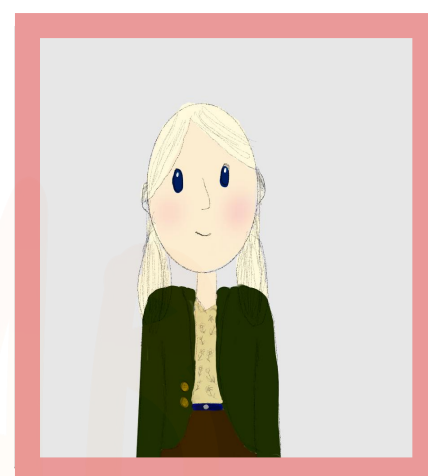
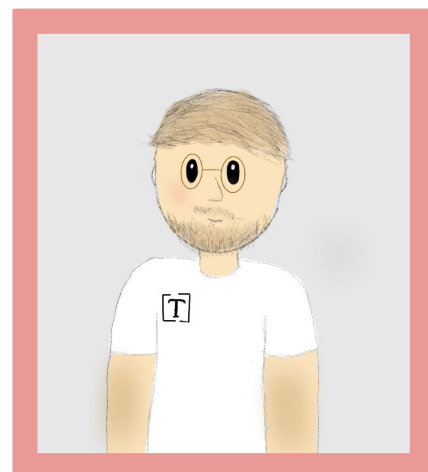
By Alvise Rogers, Darya Klymenko and Prof. Caroline Floccia

What the study is about: In a similar vein to the study above – we are interested in seeing how consonant biases develop in both monodialectal (infants that hear 1 main accent in their daily lives) versus bidialectal children (infants that hear 2 or more accents in their daily lives). Here, we aim to investigate if the exposure of multiple accents (at home and in the wider community) in a young infants' life can alter the way in which this bias for language progresses. We are also exploring differences between in-person data collection (at the Babylab itself) and online methodologies.

Demographic: 24-month and 30-month-old monolingual infants (both mono- and bidialectal)

What we expect to find: This effect has not been fully explored in young infants and thus the expectations of results are theoretical at present. Based on the children's looking times towards words that have had either vowels or consonants changed, we can make inferences on what that might mean for wider language development!

Target number of participants: 72 (half in person, and half online)



← Written and
Edited by
Gerry

Consonant bias in monolingual English-learning infants

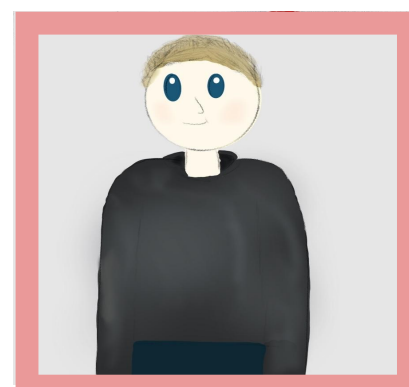
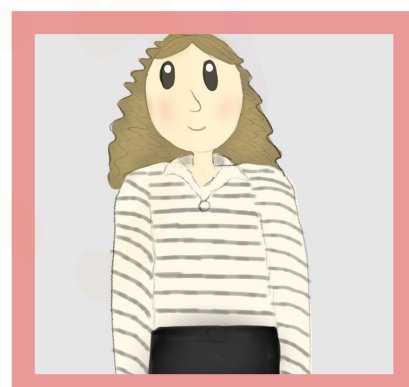
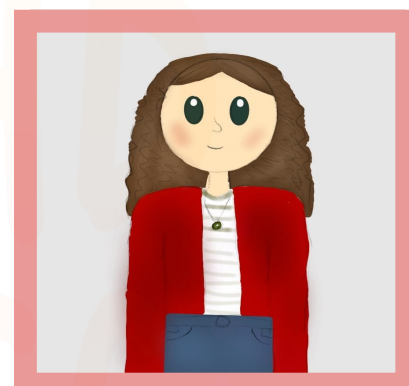
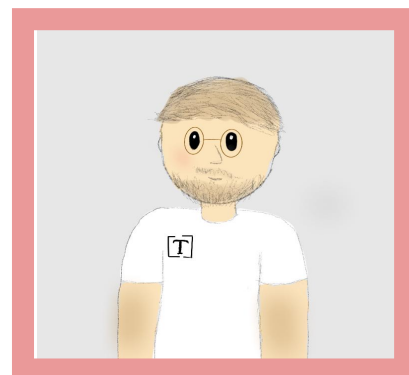
By: Prof. Caroline Floccia, Alvis Rogers, Manon Roberts, Molly Roberts, Lauren Hawkins and Isaac Penney

What the study is about: We know that in some languages, babies start paying more attention to consonant sounds (the "b" in "ball") than vowel sounds towards the end of their first year of life. This is called the consonant bias and is meant to help the children learn more words, as consonants are more informative to guess what a word is than vowels. This is true for French, Spanish, Italian, but English babies seem to show a different behaviour: for them the consonant bias seems to emerge later. We want to know how robust this result is. So we are testing 19-month-olds with the eye-tracker, presenting them with pairs of images. One of the image is named ("look! Car!"), and sometimes we change a consonant ("Look! Dar!"), or a vowel ("Look! Cor!").

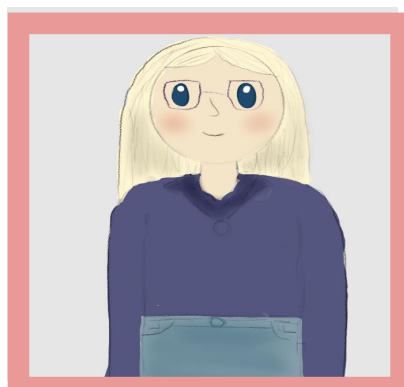
Demographic: 24-month and 30-month-old monolingual infants (both mono- and bidialectal)

What we expect to find: If there is a consonant bias at that age, children would still look at the car upon hearing "cor", but not upon hearing "dar".

Target number of participants: 36 in person



← Written and
Edited by
Gerry



Changing speech to support babies' early sound learning

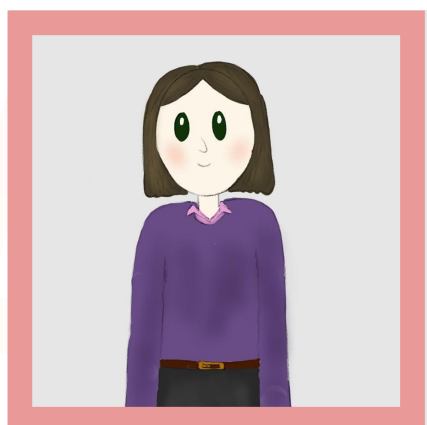
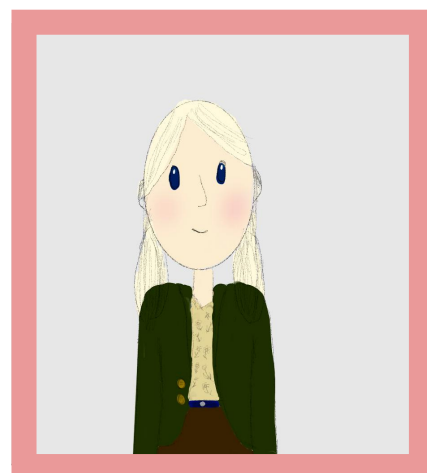
By Dr Michelle White and Darya Klymenko

What the study is about: We are exploring how parents naturally change their speech when talking to their babies and how this might support babies' early sound learning. As part of the study, babies also take part in a short, eye-tracking task in the lab. This task helps us understand how well babies can tell the difference between certain speech sounds, just by tracking where and how long they look at things on a screen while listening to sounds.

Demographic: We're working with families who have a baby aged around 7 months (give or take two weeks). The study is focused on monolingual English-speaking families living in or near Plymouth.

What we expect to find: We want to see whether there is a link between how parents speak to their babies and how well those babies can tell apart different speech sounds. The eye-tracking task will give us clues about how babies respond to these sounds.

Target number of participants: We are aiming to include at least 30 families in the study to make sure we have enough data for reliable results.



Written and
Edited by
Gerry

How play and reading at home supports children's language development

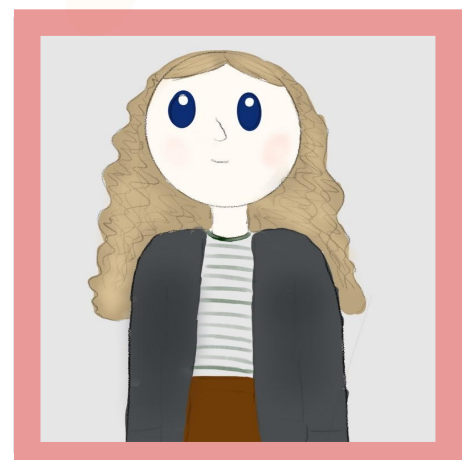
By Prof. Caroline Floccia, Aneri Halani, Srishty Khanna and Jennine Jackson

What the study is about: Language develops in a child just as learning to walk: it seems to happen effortlessly during childhood. However we know that the richness of a child's language depends on external factors, with language-rich environments generally boosting language skills. In this study, the students wanted to know how reading habits, play frequency and parent-child interactions would combine to support early language skills. They invited children aged 2;5 to 3;5 to take part in the WinG, which is a standardised language assessment tool. Then they asked parents to fill in a questionnaire about play, reading and interactions at home.

Demographic: toddlers aged 2,5 to 3,5.

What we expect to find: a correlation between each home environment factor and language skills; perhaps an interaction between these factors.

Target number of participants: We hope to target 40 participants in our in-person study.



Written and
Edited by
Gerry

Joint commitment

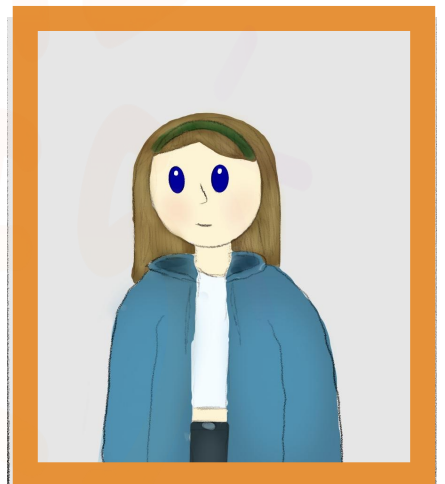
By Dr Patricia Kanngiesser Jess White, Emilia Barrett and Laura Melnicky

What the study is about: We often commit ourselves to doing things with others: to go for a walk or to have a meal together. These commitments are an important part of our everyday social interactions. Here we are using eye-tracking to study children's understanding of commitment.

Demographic: In a new study, we want to find out how young children (4 years of age) understand commitments. For this, children play a game with one of our research assistants.

Outcome: Children wear special glasses that allow us to track their looking behaviour. At some point in the game, the research assistant pauses and stops playing. We would like to find out how children react to this. Will they look at the assistant? Will they ask the assistant to continue playing?

Target number of participants: We hope to have up 40 children participate in this study.

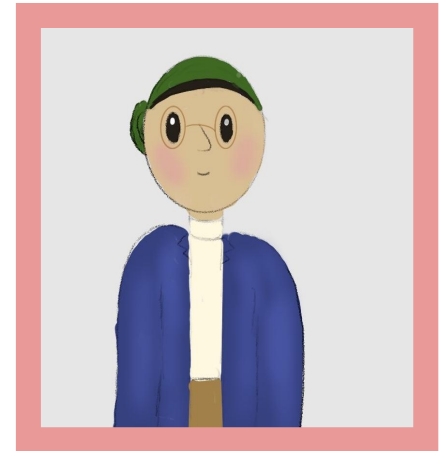


Written and
Edited by
Gerry

Theory of Mind and language

By Mohima Aktar

What the study is about: Investigating whether a child's ability to acquire a Theory of Mind is linked to the amount of words comprehended. Theory of Mind refers to cognitive ability to understand that others have different mental states, thoughts, beliefs, intentions, and desires, allowing us to infer and predict their behavior and empathize with their perspectives. There has been research taking place suggesting that this ability relies on lexical development.



How is this study done: The study is carried out in two parts, a card game consisting of 40 trials which are split into two rounds. In this task, children are asked to point towards images or say what they are. This is then followed by a Sally and Anne task which will be the main task used to determine Theory of Mind. In this task, I am enacting a little story with two puppets who are playing with a toy, and she then asks a few questions to the child.

Demographic: Our demographic age range will be 3 to 3 and a half year olds. However, I hope to expand my research to children who are 45 months.

Outcome: In this research, we expect to find that children who have larger vocabulary are more likely to have acquired a Theory of Mind (as revealed by the Sally and Ann task), all other things being equal (like age).

Target number of participants: We hope to have 24 children participate in this in person study.



Written and
Edited by
Gerry

Creative development in children

By Sayyeda Ume Rubab, Alys Thomas and Jenny Dougal

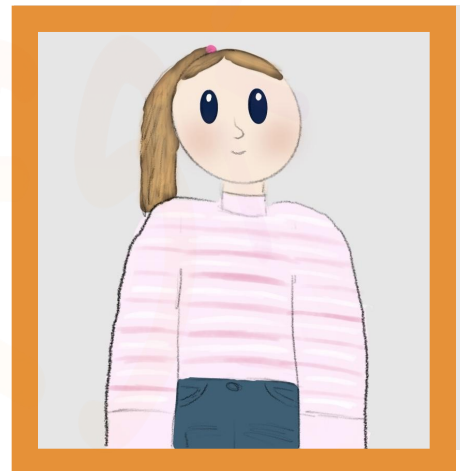
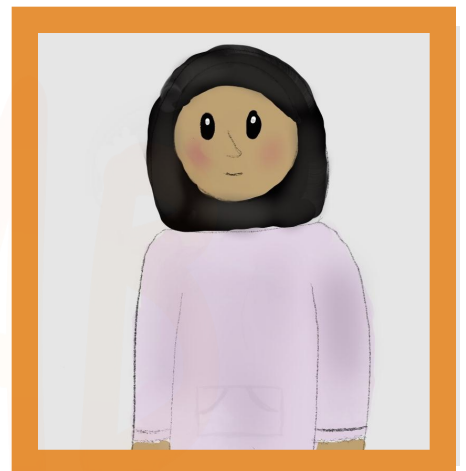
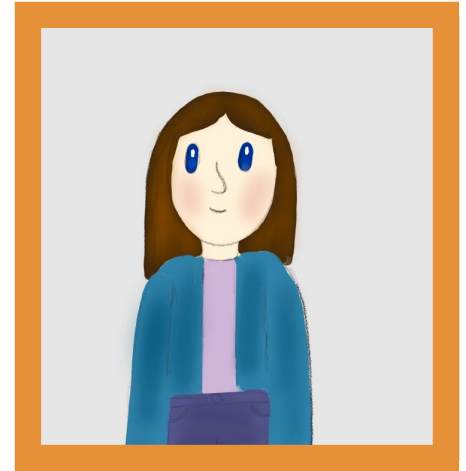
What the study is about: Early years creative development has a profound and lasting impact on a child's later life influencing their cognitive, social and emotional and physical development. However, previous research has mainly measured creativity in children using closed ended and structured tasks, such as the Alternative Uses test or the Torrance Creativity test.

How the study was run: In our study, we aim to use a more open-ended approach to measure children's creativity. For this, we had designed a task called "Fantasy Planet Task". This task has two phases: i) the creature building phase and ii) the storytelling phase. In the creature building phase, we asked children to create new creatures using various craft materials, including markers, stickers, and googly eyes.

During the storytelling phase, we asked questions about their creatures and planet.

Demographic: We collected data from 107 children aged 5 to 8 years old from April 2024 to April 2025

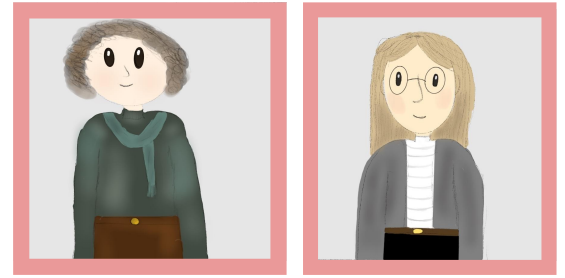
What are the next steps: We are currently building the coding scheme for further analysis.



← Written and
Edited by
Una

Understanding parents' language attitudes in multilingual London

By Anna Caunt, Caroline Floccia and Rana Abu-Zhaya



What the study is about: In a city as diverse as London, many children grow up hearing and speaking multiple languages at home. The views parents hold towards the languages they speak play a key role in how parents use their languages with their children, which in turn, shapes children's language learning experiences. Parents' attitudes can influence which languages they choose to speak with their children, how often they use each language, and whether they encourage multilingual development. Therefore, understanding these parental attitudes is essential for supporting children's early language development and ensuring that they have opportunities to maintain and develop their linguistic heritage. This research explored the language attitudes of mothers and fathers who are raising multilingual infants in London; three key aspects of parental language attitudes were examined: emotional connection to a language, the importance of a language in their personal lives, and its role in raising a multilingual child. The study aimed to understand whether parents value their different languages in similar or different ways.

How was this study done: Parents completed a questionnaire rating their attitudes towards each language. The questionnaire included 21 questions/statements addressing 3 main themes: Emotional connection to a language, the Importance of a language to life and the importance of a language in raising a multilingual child. Responses were scored on a scale from 1 (strongly agree) to 5 (strongly disagree). Separate responses were collected for each language from each parent (e.g, Spanish, Italian).

Demographic: The researchers surveyed 131 parents raising multilingual infants in London across of a range of languages.

Outcome: Both mothers and fathers displayed similar attitudes towards English across all themes. Both mothers and fathers felt a stronger emotional connection to their first language (L1) than their second language (L2). There was no clear difference in attitudes between mothers and fathers, or between parents' language groups (L1vs L2), when it came to how important the language was in their personal lives. For both emotional bonds and importance in their personal lives, mothers felt more positively about their L2 than fathers did.

There were no clear differences between mothers and fathers regarding how important they felt language was for raising a multilingual child. Parents mostly spoke their first language (L1), or a mix of L1 and another language, with their infants. Their attitudes towards their first or second language didn't affect which language they used with their child.

The paper has been published and can be accessed by scanning the QR code



← Written and
Edited by
Gerry

Investigating neural processing of native and non-native accents

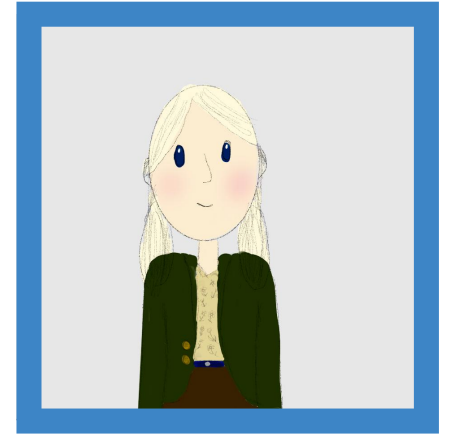
By Darya Klymenko

What the study is about: this was an fMRI study with **adult participants**. Native accents are those produced by speakers using their first language (eg. when a person from Plymouth hears someone with a Scottish accent). Non-native accents are those produced by speakers using their second language (eg. when a person from Plymouth hears someone with a French accent). Many differences exist between these accent categories, and we were interested in whether they are processed differently in the brain. Our participants were from the South West of the UK, and listened to sentences from speakers with different accents while lying in an fMRI scanner.

Demographic: the demographic for this study is monolingual adults from the south west of the UK.

What we found: we found no difference between familiar and unfamiliar native accents; there was more activity in a region in the frontal part of the brain for non-native than for familiar native accents.

We are grateful to many parents who had helped us record the sentences or took part as participants.



← Written and
Edited by
Una



BABYLAB BEHIND THE SCENES

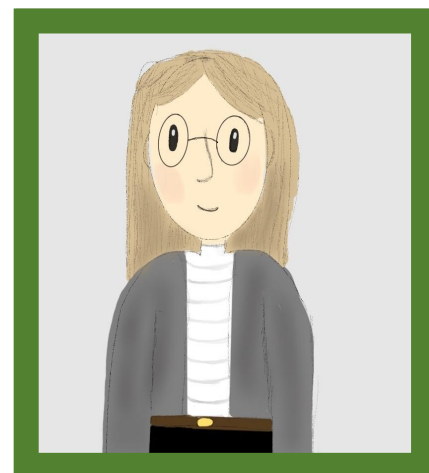


ANNA'S Adventures

Our PhD Colleague Anna was awarded a short-term scientific mission award of the COST Action - *A European consortium to determine how complex, real-world environments influence brain development* (ENVIRO-DEV; CA22111) to work at the *Systemic Ethology and Developmental Science* unit at the University of Heidelberg. She contributed to a research project on the early development of social reciprocity- which refers to back and forth turn taking interactions between caregivers and their infants from birth to three months of age.

She has also attended WILD (the Workshop on Infant Language Development) conference in San Sebastian, Spain, where she presented a poster of one of her studies looking at whether bilingual infants infer the languages that others speak and know.

Furthermore, Anna also attended ISB (the International Symposium on Bilingualism) which also took place in San Sebastian in Spain. She presented a poster on her work focusing on parental language attitudes across multilingual families based in London.



Written and
Edited by →
Una



IN THE SPOTLIGHT

On the 15th April, the BBC had visited and filmed for their Spotlight segment. This was done to mark 19 years since the Babylab's founding in 2006.

Did you know: that over the past 19 years, the Babylab has recruited over 8000 families to take part in our studies which contribute to key research in child development?

The segment highlighted some of the many studies that we have active at the moment. Our founder Caroline, alongside PhD student Darya and last year's placement students Macie and Freya, were interviewed about their experience in the lab for the programme. Parents and baby scientists who also took part in our current studies were also interviewed.

We would like to thank all parents and lovely Babylab scientists who took part in our studies and had the confidence to be interviewed for national television!

To see the segment in full, head to our BabyLab page on facebook and Instagram.



← @plymouthbabylab

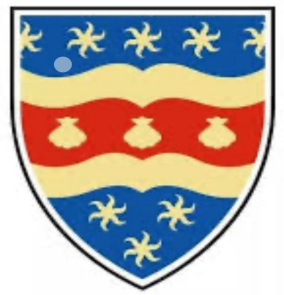


Plymouth Babylab
↓



← Written and
Edited by
Una

SCHOOL CONFERENCE



On the 30th May, the University's School of Psychology conference took place. This was to showcase many studies from many different fields of psychology.

Speakers who took part in presenting their studies were given an option to either do a 15 minute presentation followed by a question session at the end, or a presentation poster to be presented near the end of the conference.

Our lovely PhD colleague Darya presented her study on native and non-native accents and neural processing.

During this event we were also given canapes and lovely drinks to celebrate the students' contribution to research. We would like to send our gratitude to anyone who had taken part in their research. We couldn't have done it without you!



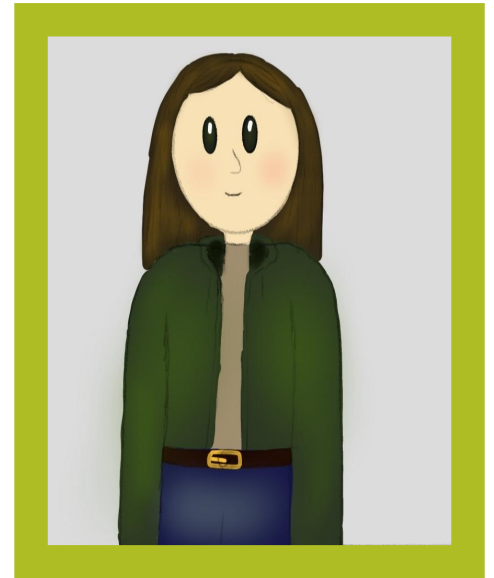
← Written and
Edited by
Una

OUR NEW FRIEND

On the 30th April, we had the opportunity to host Laura, a postgraduate student from the Federal University of São Carlos, Brazil. Many of you will have recognised her from the Joint Commitment study that was run by Dr Patricia Kanngiesser and her team. Here is a bit about her, in her own words:

“Recent studies have investigated the development of selective trust, or the ability to discriminate between good and bad informants in new learning situations. One question, however, remains little explored: could these judgments also be influenced by a history of broken promises and the reasons behind those broken promises? The main goal of my Master’s degree study in Brazil is to investigate the effects of this type of inconsistency in selective trust judgments of young Brazilian children.

That is what motivated me to work with Dr. Patricia Kanngiesser at the University of Plymouth. She is a researcher dedicated to the study of social norms, such as promises and commitment. I received a grant from a Brazilian Research Funding Foundation (FAPESP) to spend 4 months at the University of Plymouth in the Babylab working on the study of joint commitments (from February until June). We used eye-tracking glasses to evaluate whether children would try to re-engage someone that stopped playing during a card matching game in which they jointly committed to play together. It was an amazing experience and I am glad I had the opportunity to work in the Babylab with such amazing colleagues and families! A fun fact about me is that even though I am Brazilian, I have Ukrainian ancestry. That is why my surname is ‘Melnicky’. In Ukraine, and in some other eastern European countries, it is commonly written as ‘Melnik’.”



Written and
Edited by →
Una



WHO'S WHO?

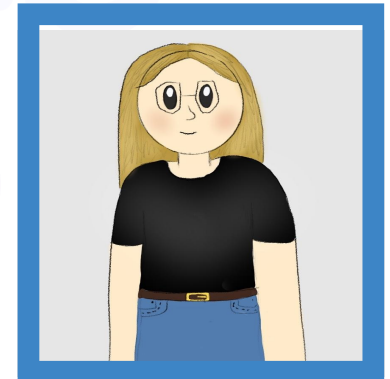


Our current colleague, Mohima, has been a familiar face this year. She has been managing the lab, answering emails and greeting many parents who are visiting. However, all good things must come to an end. Mohima will be leaving us by the end of this academic year to focus on her final year dissertation. We, Gerry and Una, would like to thank Mohima for her hard work for the past 10 months. We wish her luck!

Our new colleagues

I'm really pleased to be joining the team at Plymouth BabyLab. As a child, I loved baking, dressing up and making dance routines. I grew up watching tweenies, Hi-5 and High School musical. Growing up, I took part in Girls' brigade, karate and Majorettes which helped me make new friends and learn new skills. A fun fact about me is that I came 3rd at a karaoke competition despite being tone deaf. I think being so young and knowing one of the judges helped me out.

Emily
↓

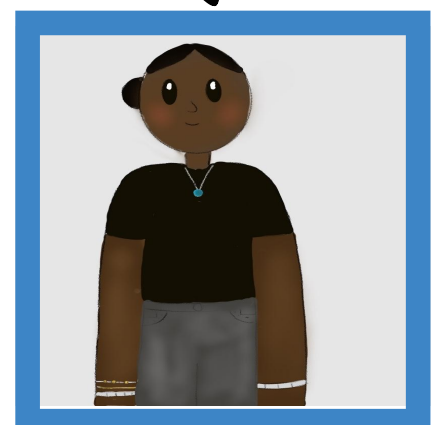


When I was younger, I had a love of reading. My favourite T.V shows were Balamory and the Koala Brothers. And, a fun fact about me is that I am currently working in Massachusetts, USA for the summer of my third year.

← Abby

When I was younger I loved to dance, play musical instruments and play with lego. And I still love doing these things now. My favourite TV shows were Peppa Pig and In The Night Garden, I also loved to build dens with all the furniture. An interesting fact about me is that I had dance classes from the age of 2 up to 17.

Aku
↓



Goodbye For Now...



We hope you enjoyed reading about what many of our friends and colleagues have been up to this year!

Once again, we would like to say a big thank you to everyone who contributed to research. We hope that we see everyone (whether familiar or new) soon with us at the BabyLab.

We would also like to remind everyone that if you no longer wish to hear from us, please email the team at plymouthbabylab@plymouth.ac.uk and we will remove your details from the database.