GONZALO

GARCIA-CASTRO

CONTACT INFO

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Scholar S Gonzalo Garcia-Castro

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ABOUT ME

I am a cognitive scientist interested in the application of Bayesian modelling in the investigation of early language acquisition. My research focuses on developing formal models of vocabulary growth during toddlerhood in bilingual contexts, with a special interest in open and reproducible research practices. I particularly enjoy building code-based workflows, ensuring that my projects can be run by others and my future self, from data collection to visualisation and reporting.

EXPERIENCE

GRADUATE STUDENT

2018-present

Universitat Pompeu Fabra | Center for Brain and Cognition

• In collaboration with the Cognitive Development in Infancy group from the University of Oxford, I conducted several experiments aimed at studying how phonology shapes the development of the bilingual mental lexicon. We collected and modelled experimental data gathered from more than 350 testing sessions and interviews, and more than 500 responses to online vocabulary questionnaires we developed for the project.

RESEARCH ASSISTANT

2017-2018

Universitat Pompeu Fabra | Speech Acquisition and Perception group

• As part of my MSc thesis, I collected, analysed and presented data from an experimental procedure aimed at studying 8 month-old infants' ability to recognise familiar words in speech.

EDUCATION

PhD in Biomedicine

2018-Present

Universitat Pompeu Fabra | Barcelona, Spain

• Thesis topic: "Word acquisition and processing: the role of cognateness in bilingual language acquisition", supervisor: Prof. Núria Sebastian-Galles

MSc in Neuroscience

2017-2018

Universitat de Barcelona | Barcelona, Spain

- Thesis: "Phonemic Contrast Perception: A Segmentation Study on Monolingual and Bilingual Infants", supervisors: Prof. Núria Sebastian-Galles & Dr. Chiara Santolin
- Research Staff Certificate for animal research, issued on 15/05/2018 by the Direcció General de Polítiques Ambientals i Medi Natural

Universidad de Oviedo | Oviedo, Spain

 Thesis: "Effects of Environmental Enrichment on Attention, Spatial Reference Memory, and Cytochrome C Oxidase Activity", supervisors: Prof. Azucena Begega & Prof. Marcelino Cuesta

SELECTED PUBLICATIONS

Articles

Sampedro-Piquero, P., P. Álvarez-Suárez, R.D. Moreno-Fernández, G. García-Castro, M. Cuesta, and A. Begega (2018). "Environmental Enrichment Results in Both Brain Connectivity Efficiency and Selective Improvement in Different Behavioral Tasks". In: *Neuroscience* 388, pp. 374–383.

Santolin, C., G. Garcia-Castro, M. Zettersten, N. Sebastian-Galles, and J.R. Saffran (2021). "Experience with research paradigms relates to infants' direction of preference". In: *Infancy* 26.1, pp. 39-46.

Posters

Garcia-Castro, G., S. Siow, I. Lepadatu, N. Guillen, D. S. Avila-Varela, N. Sebastian-Galles, and K. Plunkett (2021). The emergence of inhibitory links in the developing lexicon: insights from bilingual participants.

SELECTED PRE-SENTATIONS

INTERNATIONAL CONFERENCE FOR INFANT STUDIES

2022

Ottawa, Canada

Co-organised the symposium "The Role of Phonology in Early Bilingual Vocabulary" and presented the talk "A longitudinal exploration of bilingual toddlers' processing of cognates'"

XVII CONGRESO DE METODOLOGÍA DE LAS CIENCIAS SOCIALES Y DE LA SALUD

2022

Teruel, Spain

• Presented the talk "Estimating lexical acquisition curves in infancy using Bayesian Item Response Theory' as a leading author"

SKILLS

 R, Tidyverse, Quarto/RMarkdown, brms/Stan Ime4, targets, ShinyApp

● ○ Python, Matlab, PsychToolbox-3, 上下X, Git/GitHub, Praat, bash

Julia, Docker, JASP, SPSS, GitHub Actions

Languages

• Spanish (native), English (full professional proficiency), French (advanced), Catalan (intermediate)

REFERENCES

Prof. Núria Sebastian-Galles Full Professor, Universitat Pompeu Fabra nuria.sebastian [at] upf [dot] edu

Dr. Chiara San-Postdoctoral researcher, Universitat Pompeu Fabra **tolin** chiara.santolin [at] upf [dot] edu