

PEIROLO MORGANE

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Laboratoire Parole et Langage

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RESEARCH INTERESTS

Second language learning; lexicalization processes; sequence-space synaesthesia; metaphors and syntactic structures of space and time across languages; embodied cognition; colour perception; sociolinguistics.

PUBLISHED ARTICLES

- Bodur, K., Branje, S., **Peirolo, M.**, Tiscareno, I., German, J.S. (2021) Domain-Initial Strengthening in Turkish: Acoustic Cues to Prosodic Hierarchy in Stop Consonants. Proc. Interspeech 2021, 1459-1463, doi: 10.21437/Interspeech.2021-2230
- **Morgane Peirolo**, Magalie Ochs (2021) Utiliser les agents virtuels pour lutter contre les discriminations sociales, sciencesconf.org:wacai2021:350492 Submission in Wacai, October 2021: Workshop Affect, Compagnon artificiel, Interaction
- Christine Meunier, **Morgane Peirolo**, Brigitte Bigi. La mobilisation du tractus vocal est-elle variable selon les langues en parole spontanée ?. 6th joint conference Workshop on Speech (JEP, 33th edition), Automatic Processing of Natural Languages (TALN, 27th edition) <https://hal.archives-ouvertes.fr/hal-02798569v3/document>

PRESENTATIONS AND TALKS

- Morgane Peirolo, Magalie Ochs (2021) Utiliser les agents virtuels pour lutter contre les discriminations sociales. Article presented in October 2021 at the Workshop Affect, Compagnon artificiel, Interaction (Saint-Pierre d'Oléron, France)

EMPLOYMENT AND EDUCATION

Speech and language laboratory (LPL) Research assistant Supervisor: Dr. Elin RUNNQVIST	<i>September 2021-September 2022</i>
Institute of Language, Communication and the Brain (ILCB) Master degree Department of Cognitive Science, Neurolinguistics	<i>September 2019-September 2021</i> High honors
Université de Montréal (UdeM) International exchange student Department of Psychology	<i>September 2018-May 2019</i>
Aix-Marseille université (AMU) Higher Secondary Education Department of Psychology	<i>September 2016-June 2019</i> High honors
Aix-Marseille université (AMU) Two years of Higher Secondary Education Department of Biology, Neuroscience	<i>September 2016-June 2018</i>

RESEARCH EXPERIENCE

- | | |
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| Collaboration on PhD project using fMRI protocol
<i>Neuroscience Institute of Marseille (INT)</i>
Supervisor: DR. Elin RUNNQVIST
Group REaDY: Représentations et Dynamiques
Collaboration on Lydia DOROKHOVA's PhD project <i>Self-monitoring of errors in production: a global neurocognitive approach</i> conducted in fMRI. This study is part of the ANR project <i>Self-monitoring of language in production</i> (supervised by Dr. Elin RUNNQVIST). | Marseille, France
<i>January 2022-March 2022</i> |
|--|---|
- Data collection and analysis.

Language induced changes of mind: from an ERP point of view

Speech and Language Laboratory (LPL)

Aix-en-Provence, France
September 2021-September 2022

Supervisor: DR. Elin RUNNQVIST

Group REaDY: Représentations et Dynamiques

This project is a follow-up of my master's thesis *Language induced changes of mind* using an EEG protocol to study ERPs involved in pre-attentive shifts in perception (vMMN) and lexicalization processes (P200, 400). This project obtained a funding of €2000 granted by the LPL (Bonus Qualité Recherche grant).

- Power analysis on RStudio.
- Experimental set-up and data collection of an EEG and behavioural experiment on E-prime.
- EEG preprocessing on MATLAB.
- Data analysis on RStudio (linear mixed models).

Master's thesis: Language induced changes of mind

Speech and Language Laboratory (LPL)

Aix-en-Provence, France
January 2021-September 2021

Supervisors: DR. Elin RUNNQVIST and DR. Amie FAIRS

Group REaDY: Représentations et Dynamiques

International collaborator: DR. Guillaume THIERRY, Wales University

Our way of labelling and categorizing through language can have an impact on the way we perceive reality, including in colour perception (e.g., Thierry et al., 2009). In this project, we wanted to investigate whether such perceptual variations induced through language might appear on a much shorter timescale, how such perceptual effects might interact with the extent to which a newly learnt label has become lexicalized as well as with the robustness of previously existing colour labels, and whether potential effects would be transient or long-lasting.

- Conception and state of the art on colour perception, second language learning and reorganization of the semantic space.
- Stimuli creation (pseudowords; easy to name colours; hard to name colours).
- Experimental set-up and data collection of two online behavioural experiments on FindingFive platform.
- Experimental set-up of an EEG and behavioural experiment on E-prime.
- Data analysis on RStudio (linear mixed models).

Research mission

Speech and Language Laboratory (LPL)

Aix-en-Provence, France
20 hours, March 2021-May 2021

Supervisor: M.S. Auriane BOUDIN

This mission was part of Auriane BOUDIN master thesis, *A Multimodal Model for Predicting Conversational Feedbacks*.

- Feedback annotations in peer-to-peer interactions from two corpora (Cheese!, PACO) on Elan software
- Manual correction of automatic detection of nod dynamics on Elan software

Research project

Speech and Language Laboratory (LPL)

Aix-en-Provence, France
November 2020-June 2021

Supervisor: PR. James SNEED GERMAN

Studies have shown that cross-linguistically, consonants at the left edge of higher-level prosodic boundaries tend to be more forcefully articulated than those at lower-level boundaries, a phenomenon known as domain-initial strengthening. We tested whether similar effects occur in Turkish, using the Auto Segmental-Metrical model (Ipek & Jun 2013, 2014) as the basis for assessing boundary strength.

- Target words creation
- Verification of prosodic patterns
- Annotation of the recordings on Praat software

Research internship

Sciences of Information and Systems Laboratory (LIS)

Marseille, France
February 2021-September 2021

Supervisors: DR. Magalie OCHS and Jean-Marie PERGANDI

This preliminary research was a first step towards a larger project named TRUENESS, aiming to implement adaptive behaviours in conversational agents. The goal of this experiment is to build awareness of participants towards social discrimination through their interactions with a conversational agent in a virtual environment.

- State of the art on Forum-Theatre techniques in virtual environments.

Research internship

Institute of Language, Communication and the Brain (ILCB)

Marseille, France

June 2020-March 2021

Supervisor: DR. Abdellah FOURTASSI

Group CoCoDev: Computational Communication and Development CoCoDev (Computational communication and Development) is an interdisciplinary research group investigating how children construct linguistic and conceptual knowledge through linguistic communication. This research takes part in the CoCoDev project by investigating the question-answer dynamics of child-caregiver interactions.

- Elaboration of the classification used for child-caregiver sequences of questions (initiation, response, follow-up), elaboration of an annotation manual.
- Annotation of question-based interactions between child and caregiver, from two corpora (Paris, Yamaguchi) on the platform MACANNOT.
- Analysis of successful versus failed exchange as a function of question type, response quality and (in)contingent follow-up.

Master's internship

Speech and Language Laboratory (LPL)

Aix-en-Provence, France

November 2019-June 2020

Supervisors: PR. Christine MEUNIER Christine and DR. Brigitte BIGI

Polish, French and English languages display significant differences in their phonological inventory. Our goal was to quantify their theoretical articulatory positions during spontaneous speech production, to compare them with phoneme frequencies extracted from three corpora.

- Analysis of theoretical articulatory positions in spontaneous speech, for three languages (French, Polish, English).

Research mission

Speech and Language Laboratory (LPL)

Aix-en-Provence, France

150 hours, March 2020-June 2020

Supervisor: Ph.D. Mary AMOYAL

This mission was part of Mary AMOYAL research thesis entitled *Impact of Common Ground on conversation dynamics through a smile analysis occurring during thematic transitions*.

- Thematic transitions and themes annotations in peer-to-peer interactions from two corpora (Cheese!, PACO) on Praat.
- Manual correction of SMAD tool (automatic detection of smile dynamics) on Elan.
- Smile annotations based on the Smile Intensity Scale (E. Gironzetti).

Research mission

Institute of Language, Communication and the Brain (ILCB)

Marseille, France

10 hours, March 2020

Supervisor: DR. Philippe BLACHE

ACORFORmed project

This annotation campaign was conducted under the ACORFORmed project: the goal is to train doctors to break bad news in difficult situations thanks to a conversational agent embodying a virtual patient.

- Corpus annotation of interactions in medical context: labelling of speaking turns.

Observatory internship

Pole 3C Saint Charles

Marseille, France

30 hours, November 2017

Supervisor: DR. Vincent HOK

Discovery of research projects and scientific tools (NIRS, fMRI, rodent exploratory maze).

SUPERVISION EXPERIENCE

Supervision of Kevin Nguyen

Speech and Language Laboratory (LPL)

Aix-en-Provence, France

120 hours, January 2022-May 2022

Co-supervisor: Dr. Elin RUNNQVIST

Co-supervision of a Master student in Cognitive Science, First year.

Supervision of Fadilah Handayani

Speech and Language Laboratory (LPL)

Aix-en-Provence, France

120 hours, January 2022-May 2022

Co-supervisor: Dr. Elin RUNNQVIST

Co-supervision of a Master student in Cognitive Science, First year.

LEADERSHIP AND TEAMWORK

Co-coordinator of APERO research team

Group REaDY: Représentations et Dynamiques

Aix-en-Provence

November 2021-today

Coordination and scheduling of research meetings of the *Action and PERceptiOn of language* group (LPL and INS labs) with Ph.D. Emilia KERR and RA Bissera IVANOVA.

Researcher Support Volunteer

FindingFive

Online

November 2021-today

Executive director: DR. Ting QIAN

Volunteering for a non-profit platform dedicated to online experiments.

- Monitoring incoming help tickets and new forum posts.
- Developing and testing coding solutions.
- Identifying researcher needs based on help queries.

Co-organizer of a cognitive science workshop

Understanding social interactions: implications for health and society

Marseille

27th-28th January 2021

Organization of a workshop held by students of the MasCo program.

SUMMER SCHOOLS AND ADDITIONAL COURSES

Monthly attendance to ILCB Lunchtalks

Institute of Language, Communication and the Brain (ILCB)

Marseille, France

October 2021-today

Workshop R Shiny

Aix Marseille université

Aix-en-Provence, France

8th October 2021

Introductory classes to RStudio Shiny package.

ILCB summer school

Institute of Language, Communication and the Brain

Marseille, France

2nd-6th September 2019

Introductory classes to core disciplines of cognitive science: neuroscience and behaviour; language and cognition; applied mathematics; statistics and networks; computer science; automatic learning.

Prague summer school

Behavioral Economics and Psychology School

Praha, Czech Republic

4th-11th July 2018

Introductory classes to behavioural aspects of decision-making and experimental psychology.

SKILLS

Data acquisition

Online behavioural experiments, electroencephalography, fMRI

Experiment programming

RStudio, MATLAB, FindingFive, E-prime

Data analysis

RStudio, MATLAB

Other softwares

Elan, Praat, SPPAS, Audacity

Languages

French (mother tongue), English (105/120 TOEFL, B2), Spanish (A2), Russian (A1)