### University Academic Curriculum Vitae - short version

Name: Sabrina Beber

Contact: sabrina.beber@unibz.it

Education since leaving school

2024: **PhD in Cognitive and Brain Sciences** (Center for Mind/Brain Sciences - University of Trento);

PhD's Thesis: The neurofunctional correlates of sentence processing: focus on difficulties of morphosyntactic processing and thematic role assignment in aphasia.

Co-Supervisors: Prof. Marco Tettamanti and Prof. Gabriele Miceli.

2017: **Master's degree in Psychology - Neuroscience** with 110/110 cum laude (Department of psychology and cognitive science - University of Trento);

Master's Thesis – Experimental research: *The neuroanatomy of sentence comprehension: an investigation on reversible sentences in people with aphasia.* 

Supervisor: Prof. Gabriele Miceli.

2015: **Bachelor's degree in Cognitive psychology and psychobiology** (University of Padua); Bachelor's Thesis – Experimental research: *Altered linguistic lateralization in patients with major depression: study of alpha, beta and delta EEG bands.* 

Supervisor: Prof. Alessandro Angrilli.

Professional experience

From-to:	What:	Institution:
October	Postdoctoral Research Fellow	Free University of Bolzano and NOI-
2024-		Tech-Park (Italy)
ongoing		
October	Teaching "Developmental and	Free University of Bolzano (Italy)
2024-	Educational Psychology (lab.)"	
ongoing		
2023-2024	Research period abroad with Dr.	Donders Institute for Brain, Cognition,
(in-person	Stephanie J. Forkel	and Behaviour at the Radboud
from		University (Netherlands)
February to		
July 2023		
and then		
remotely)		
2021-2022	PhD Intern	Villa Rosa Hospital, Pergine Vals
(1 year)		Neurological Rehabilitation Unit -
		Azienda Provinciale per i Servizi
		Sanitari della Provincia Autonoma di
2010		Trento (Italy)
2019	Research fellow holder	Center for Mind/Brain Sciences -
		University of Trento (Italy)
2018-2019	Professional postgraduate internship	San Maurizio Hospital, Bolzano -
(1 year)	required for eligibility to take the State	Psychology and Neuropsychology Unit
	Examination for Psychologist	- Azienda Sanitaria della Provincia
	qualification (Section A of the Italian	Autonoma di Bolzano (Italy)
	professional register)	
2017-2018	Research intern with Prof. Gabriele	Department of Psychology and
	Miceli (Cognitive Neuroscience of	Cognitive Sciences - University of
	Language Group)	Trento (Italy)
2015	Research intern with Prof. Chiara	University and Hospital of Padova
	Spironelli (PSYchoPHYsiology Lab)	(Italy)

## Presentations and participations

Presentations at scientific conferences/events:

"White matter correlations of sentence processing in individuals with post-stroke aphasia" **Beber**, S., Beyh, A., Foulon, C., Tomasi, P., Terruzzi, S., Bonavita, J., Tettamanti, M., Miceli, G., Forkel, S.; **International Conference of the Organization for Human Brain Mapping (OHBM)**; June 23-27, 2024, Seoul (South Korea); poster presentation

"The neural correlates of thematic and morphosyntactic comprehension disorders in aphasia" **Beber**, S., Capasso, R., Maffei C., Tettamanti, M., Miceli, G.; **European Workshop on Cognitive Neuropsychology (EWCN)**; January 22-26, 2024; Bressanone – BZ (Italy); poster presentation

"Neurofunctional correlates of morphosyntactic processing and thematic role" **Beber**, S., Bontempi, G., Miceli G., Tettamanti; **Annual Meeting of the Society for the Neurobiology of Language (SNL)**; October 24-26, 2023; Marseille (France); poster presentation

"Neurofunctional correlates of sentence processing: focus on morphosyntactic processing and thematic role assignment" **Beber**, S.; June 8, 2023; **Donders Institute, Nijmegen** (Netherlands); talk - oral presentation

"BLG - Neurofunctional correlates of sentence processing" **Beber**, S.; **Center for Mind/Brain Sciences Seminar**; April 6, 2023; Virtual and in Rovereto (Italy); oral presentation

"MRI and Lesion data" **Beber**, S.; **Brain Hack – Language and Communication**; May 21-24, 2023; Nijmegen (Netherlands); oral presentation

"The crucial role of left temporal regions in assigning thematic roles during sentence processing: A meta-analysis and review" **Beber**, S., Bontempi, G., Miceli, G., M. Tettamanti; **European Workshop on Cognitive Neuropsychology (EWCN)**; January 22-27, 2023, Bressanone - BZ (Italy); poster presentation

"Behavioral and neuroimaging evidence on semantically reversible sentence processing: focus on morphosyntactic processing and thematic role assignment" **Beber**, S., Bontempi, G., M. Tettamanti., Miceli, G.; **European Workshop on Cognitive Neuropsychology (EWCN)**; January 23-28, 2022, Virtual; oral and poster presentation

"PhD project" **Beber**, S.; **Doctoral Student Day**; January 28, 2021, Center for Mind/Brain Sciences (University of Trento, Italy); poster presentation

"PhD project" **Beber**, S.; **Doctoral Student Day**; January 23, 2020, Center for Mind/Brain Sciences (University of Trento, Italy); poster presentation

"Neurofunctional correlates of auditory and visual sentence comprehension: Evidence from aphasia" **Beber**, S., Capasso, R., Miceli, G; **International Science of Aphasia Conference** (SoA); September 23-26, 2019, Roma (Italy); flash oral and poster presentation

"The neurofunctional correlates of sentence comprehension: Evidence from aphasia" **Beber**, S., Capasso, R., Maffei C., Miceli, G; **International Conference of the Organization for Human Brain Mapping (OHBM)**; June 9-13, 2019, Roma (Italy); poster presentation Participations at scientific conferences/events:

"Conference Brain Matters – Connectivity concepts in neuronal network modelling (Human Brain Project)"; February 13-14, 2023; Vienna (Austria) and Virtual

"Network. Behaviour. Recovery: Understanding changes in connectivity after stroke"; February 3-4, 2023; Freiburg (Germany) & Virtual

"Sixth Annual World Conference on Brain Mapping (IamBrain)"; April 1-3, 2022; Virtual

"Think Open Symposium - Power analysis for Neuroimaging"; November 18, 2021; Rovereto (Italy)

"Think Open Symposium - La Scienza Aperta nelle applicazioni cliniche"; June 17, 2021; Virtual

"Open Science Seminar - Open Science, a new perspective for research evaluation"; February 18, 201; Virtual

"Brain imaging Course"; Swiss Federation of Clinical Neuro-Societies (SFCNS); October 26, 2019; Lausanne (Switzerland)

"Lesion Analysis Workshop. Theory and practical application of modern statistical lesion analysis"; Universitätsklinikum Tübingen, Neurologische Klinik; April 12-13, 2019, Tübingen (German)

"Ruolo della risonanza magnetica convenzionale e avanzata nella diagnosi e prognosi delle principali patologie neurologiche"; Congresso nazionale della Società Italiana di Neurologia (SIN) - October 27- 30, 2018; Roma (Italy)

Courses during my PhD (in Italy and Netherlands):

- o Methods: EEG
- o Methods: MEG
- o Teaching training and dissemination of scientific knowledge
- o Machine Learning for Neuroimaging Data Analysis
- o Python for Data Analysis and Machine Learning
- o Elan, spoken language annotation and transcription
- o Data Science: R
- o High-Performance Computing
- o Server crash
- o Project design and writing
- o Figures and posters
- o Data visualization
- Writing, how to respond to reviewers
- o Funding opportunities and how to apply

### Teaching

Teaching "Developmental and Educational Psychology (lab.)" at the University of Bolzano (Italy); Teaching language: English; Years 2024-2025

Tutor of 3 master's students in the Lab rotation at Radboud University (Netherlands). Year: 2023

Tutor of 2 master's students in the Master's Degree Internship in Psychology - Neuroscience at the University of Trento (Italy). Years: 2021-2022

Co-supervisor of 4 master's students at the University of Trento. Years: 2021-2022-2023

Member of the master's degree commission in the Linguistic Sciences of the University of Bologna; March 19, 2021

Assistant for the following exams at the University of Trento: Neurology; Neuropsychological Rehabilitation. Years: 2019-2022

# Other academic responsibilities

Neuroccino (weekly journal club) on YouTube, Years 2023-2024: moderator, speaker and active participant

Clinical Neuroanatomy Seminars on YouTube, Jun 2023: moderator

Brown Bag meetings (weekly event), Years: 2021-2022: moderator and organizer

Library of the Center for Mind/Brain Sciences, Years: 2020-2021: organizer

Christmas Show of the Center for Mind/Brain Sciences, Year: 2019: organizer

#### Memberships

Member of the Ordine degli Psicologi - Italian professional register (Sezione: A) – Italy.

ORFARO Research Group – "Automatic optimal-reward-frequency selection by arousal estimation and optimization for the enhancement of ILF neurofeedback treatments" – Free University of Bolzano and NOI-Tech-Park (Italy)

#### 2019-2024

- Organization of Human Brain Mapping (OHBM) https://www.humanbrainmapping.org/
- Organization of Human Brain Mapping (OHBM) Alpine Chapter https://www.humanbrainmapping.org/i4a/pages/index.cfm?pageid=3823
- Society for the Neurobiology of Language (SNL) https://www.neurolang.org/
- Science of Aphasia (SoA) https://soaphasia.com

### Research groups and teams:

- Cognitive Neuroscience of Language Group https://www.cimec.unitn.it/en/521/cognitive-neuroscience-of-language-group
- Brain and Language Group https://www.cimec.unitn.it/en/744/brain-and-language-group
- Stephanie Forkel Team https://www.stephanieforkel.com/team
- Brain Connectivity and Behaviour Laboratory https://storage.googleapis.com/bcblabweb/index.html

### Research grant and scholarships

Date granted:	Funding body:	Title:
2023-2024	Donders Institute for Brain, Cognition, and Behaviour	Donders Mohrmann Fellowship – Nijmegen (Netherlands) for 1 year and 6 months
2023	University of Trento	Increase of the Doctoral scholarship for 6 months
2019	Ministero dell'Università e della Ricerca (MUR)	Doctoral scholarship for 4 years funded by the Department of Excellence (Law 232/2016) on "Advanced neuroimaging methods for the study of human cognition" – Ministero dell'Università e della Ricerca MUR (Italy)
2018	Fondazione Caritro	Research Grant for Young Researchers (Italy), for a duration of 1 year and 6 months
2018	University of Trento	Merit Award for Master's Path & Degree in Psychology - Neuroscience

#### **Publications**

**Beber**, S., Capasso, R., Maffei, C., Tettamanti, M., Miceli, G. (2025). Distinct neural correlates of morphosyntactic and thematic comprehension processes in aphasia. *Brain Communications*, 7(2), fcaf093. https://doi.org/10.1093/braincomms/fcaf093

**Beber**, S., Bontempi, G., Miceli, G., & Tettamanti, M. (2024). The Neurofunctional Correlates of Morphosyntactic and Thematic Impairments in Aphasia: A Systematic Review and Meta-analysis. *Neuropsychology Review*, 1-34. https://doi.org/10.1007/s11065-024-09648-0

**Beber**, S. (2024). The neurofunctional correlates of sentence processing: focus on difficulties of morphosyntactic processing and thematic role assignment in aphasia. *Iris* https://hdl.handle.net/11572/418870

Beber, S. (2020). La ricerca nelle case di tutti. Breaking Talks – Fondazione Caritro.

**Beber**, S., Capasso, R., Miceli, G. (2019). Neurofunctional correlates of auditory and visual sentence comprehension: Evidence from aphasia. *Stem-Spraak-en Taalpathologie*, 24:50-54. https://hdl.handle.net/11572/317731

**Beber**, S. (2017). Correlati neuroanatomici della comprensione di frasi reversibili: uno studio in persone con afasia. University of Trento Library. 0707H-586 https://webapps.unitn.it/Biblioteca/it/Web/TesiCorso/0707

### Development and Innovation

Development of a new linguistic battery for the analysis of linguistic processes in sentence comprehension and production (and single-word processing).

# Language competence

Italian (mother tongue); English; German

March 2025