

University Academic Curriculum Vitae *-short version*

Name: **Sabrina Beber**

Education since leaving school

- 2024: PhD in Cognitive and Brain Sciences (Center for Mind/Brain Sciences - University of Trento); Title: *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 course with 110/110 *cum laude* (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 psychological and psychobiological sciences (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; in collaboration with Prof. Chiara Spironelli.

Present Appointment

- Postdoctoral Research Fellow, Research project: Automatic selection of the optimal frequency-reward through excitation estimation and optimization for the improvement of ILF neurofeedback treatments (ORFARO) - Selezione automatico della frequenza ottimale-ricompensa tramite stimolazione dell'eccitazione e ottimizzazione per il miglioramento dei trattamenti di neurofeedback ILF (ORFARO). PI: Prof. Reinhard Tschiesner
- Start: October 1, 2024
- University of Bolzano and NOI-Tech-Park Bolzano

Professional experience

From / to	What	Name of academic Institution
2023-2024 (in-person from February to July 2023 and then remotely)	Research period abroad at the Donders Institute for Brain, Cognition, and Behaviour of the Radboud University (NL); PI: Dr. Stephanie J. Forkel	Donders Institute for Brain, Cognition, and Behaviour of the Radboud University (NL)
2021-2022	PhD Internship (1 year)	Villa Rosa Hospital - Rehabilitation Department - Azienda Provinciale Servizi Sanitari di Trento
January 2, 2019-October 31, 2019	Research fellow holder	CIMEC - University of Trento
2018-2019	Professional internship required for eligibility to take the state examination for qualification as a psychologist, registered in Section A of the professional register. (1 year)	San Maurizio Bolzano Hospital, Azienda Sanitaria della Provincia Autonoma di Bolzano - Servizio di Psicologia
2017-2018	Pre-graduate research internship (350 h)	Department of Psychology and Cognitive Sciences - University of Trento

2015	Pre-graduate research internship (250 h)	University and Hospital of Padova
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Presentations and participations

Presentations at scientific conferences:

"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 (IT); poster presentation

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

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

"BLG - Neurofunctional correlates of sentence processing" **Beber, S.**; CIMeC Seminar; April 6, 2023; Virtual and in Rovereto (IT); oral presentation

"MRI and Lesion data" **Beber, S.**; Brain Hack – Language and Communication; May 21-24, 2023; Nijmegen (NL); 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; 41st 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.; 40th 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, CIMeC (University of Trento); poster presentation

"PhD project" **Beber, S.**; Doctoral Student Day - January 23, 2020, CIMeC (University of Trento); 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) - 2019, Roma (Italy); 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) - 2019, Roma (Italy); poster presentation

Participations:

"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

"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" - XLIX Congresso nazionale della Società Italiana di Neurologia - October 27-30, 2018; Roma (Italy)

Courses during my PhD (in Italy and the Netherlands):

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

- MSCA session
- Team Working
- Time Management
- Safety in the Workplace
- MRI safety
- Ethics of research in neuroscience

Experience in academic teaching

Years 2019-2024 - Engagement in research and teaching:

- Tutor of 3 master's students during the lab rotation at Radboud University (NL). Year: 2023;
- Tutor of 2 master's students in the Master's Degree Internship in Psychology– Neuroscience at the University of Trento (IT). 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; 19 March 2021;
- Assistant for the following exams at the University of Trento: Neurology; Neuropsychological Rehabilitation. Years: 2019-2022.

Other academic responsibilities

Years 2019-2024 - Social engagement in research:

- Neuroccino (weekly journal club) on YouTube, 2023-2024: active participation, moderator, and speaker;
- Clinical Neuroanatomy Seminars on YouTube, 2023-2024: active participation and moderator (once in 2023);
- Brown Bag meetings, 2021-2022: moderator and organizer;
- CIMeC Library, 2020-2021: organiser;
- CIMeC-Christmas Show, 2019: organiser.

Memberships

- Member of the Ordine degli Psicologi (Sezione Albo: A) – IT.

During the period 2019-2024:

- Organization of Human Brain Mapping (OHBM)
<https://www.humanbrainmapping.org/>;
- 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 Link
<https://storage.googleapis.com/bcblabweb/index.html>.

Research and scholarships

Date granted	Funding Body	Title
2023-2024	Donders Institute for Brain, Cognition, and Behaviour of the Radboud University (NL)	Donders Mohrmann Fellowship – Nijmegen (NL) 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 (IT)	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 (IT)
2018	Fondazione Caritro and Center for Mind/Brain Sciences (CIMeC) - University of Trento	Research Grant for young researchers, funded by Fondazione Caritro (IT), 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., 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. doi: 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/0707H>

Beber, S., Capasso, R., Maffei, C., Tettamanti, M., Miceli, G. (Under Review). Distinct neural correlates of morphosyntactic and thematic comprehension processes in aphasia.

Entrepreneurship/ Development

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