

CURRICULUM VITAE

Giosuè Baggio

Current affiliation:

SISSA International School for Advanced Studies

Via Bonomea 265, 34136 Trieste

Phone: +39.040.3787602

E-mail: gbaggio@sissa.it

Web: <http://people.sissa.it/~gbaggio/bl/>

1. EDUCATION

1.1. Academic degrees

- 2009 PhD in Cognitive Neuroscience
Donders Institute for Brain, Cognition and Behaviour
Centre for Cognitive Neuroimaging
Radboud University Nijmegen
- 2004 MSc in Logic (with honors)
Institute for Logic, Language and Computation
University of Amsterdam
- 2002 MA in Philosophy (cum laude)
(Majoring in Logic, Philosophy of Language, Philosophy of Mathematics)
University of Pavia and University of Strasbourg

1.2. Occasional training in logic and linguistics

- 2007 19th European Summer School in Logic, Language and Information (ESLLI)
Trinity College, Dublin
- 2005 17th European Summer School in Logic, Language and Information (ESLLI)
Heriot-Watt University, Edinburgh
- 2001 Logic School (instructor Daniele Mundici)
Collegio Ghislieri, University of Pavia

1.3. Occasional training in neuroscience

- 2013 School on fMRI Physics, Data Acquisition and Safety
Department of Neuroscience, University Hospital Udine
- 2005 Toolkit of Cognitive Neuroscience:
Advanced data analysis and source modeling of EEG and MEG data
Donders Institute for Brain, Cognition and Behaviour
Radboud University Nijmegen
- 2003 Tool-kit of Cognitive Neuroscience:
Essentials of major neuroimaging techniques (EEG, MEG, fMRI, PET, TMS)
Donders Institute for Brain, Cognition and Behaviour
Radboud University Nijmegen

2003 Human reasoning and cognitive science CSCA Summer School
Cognitive Science Center Amsterdam

2. EMPLOYMENT

05/2011-present Assistant professor (1.0 FTE)
Principal Investigator of the Brain and Language Laboratory
SISSA International School for Advanced Studies
Neuroscience Area

09/2009-05/2011 Postdoctoral researcher (1.0 FTE)
SISSA International School for Advanced Studies
Neuroscience Area

02/2009-07/2009 Postdoctoral researcher (1.0 FTE)
Max Planck Institute for Psycholinguistics
Neurobiology of Language Group

11/2004-01/2009 Junior researcher (0.8 FTE)
Donders Institute for Brain, Cognition and Behaviour
Centre for Cognitive Neuroimaging
Radboud University Nijmegen

11/2004-01/2009 EEG lab manager (0.2 FTE)
Donders Institute for Brain, Cognition and Behaviour
Centre for Cognitive Neuroimaging
Radboud University Nijmegen

08/2003-02/2004 Research assistant (0.4 FTE)
Department of Philosophy
University of Amsterdam

01/2003-01/2004 Professional translator of books and articles in philosophy and linguistics
from English and French (Raffaello Cortina Editore and Carocci Editore)

3. VISITS

10/2012-11/2012 Visiting researcher
Neurobiology of Language Group
Max Planck Institute for Psycholinguistics

09/2010-04/2011 Visiting researcher
Department of Neuroscience
University Hospital Udine

10/2010-11/2010 Visiting researcher
Neurobiology of Language Group
Max Planck Institute for Psycholinguistics

10/2010-11/2010 Visiting student
Faculty of Philosophy, Linguistics and Education Sciences
University of Strasbourg

4. PUBLICATIONS

4.1. Book sections

- [B6] G Baggio, K Stenning, M van Lambalgen. Processing discourse: Where logic meets neuroscience. In M Aloni, P Dekker (eds.), *The Cambridge Handbook of Semantics*. Cambridge University Press 2014 (to appear).
- [B5] G Baggio, M van Lambalgen, P Hagoort. Language, linguistics and cognition. In R Kempson, T Fernando, N Asher (eds.), *Philosophy of Linguistics*. Vol 14 of DM Gabbay, P Thagard, J Woods (eds), *Handbook of the Philosophy of Science*. Elsevier 2012: 325-355.
- [B4] G Baggio, M van Lambalgen, P Hagoort. The processing consequences of compositionality. In M Werning, W Hinzen, E Machery (eds.), *The Oxford Handbook of Compositionality*. Oxford University Press 2012: 657-674.
- [B3] P Hagoort, G Baggio, RM Willems. Semantic unification. In MS Gazzaniga (ed.), *The Cognitive Neurosciences* (4th Edition). MIT Press, 2009: 819-836.
- [B2] G Baggio. Processing temporal constraints: An ERP study. In P Indefrey, M Gullberg (eds.), *Time to Speak: Cognitive and Neural Prerequisites for Time in Language*. Wiley-Blackwell 2009: 35-55. (Reprint of [A3].)
- [B1] G Baggio. Seguire una regola. In S Borutti, L Perissinotto (eds.), *Il terreno del linguaggio. Testimonianze e saggi sulla filosofia di Wittgenstein*. Carocci 2006: 61-66.

4.2. Articles

- [A11] M Moreno, G Baggio. Role asymmetry and code transmission in signaling games: An experimental and computational investigation. *Cognitive Science*, to appear.
- [A10] G Baggio, M van Lambalgen, P Hagoort. Logic as Marr's computational level: Four case studies. *Topics in Cognitive Science*, to appear.
- [A9] A Pavan, M Skujevskis, G Baggio. Motion words selectively modulate direction discrimination sensitivity for threshold motion. *Frontiers in Human Neuroscience* 7, 2013.
- [A8] A Pavan, G Baggio. Linguistic representations of motion do not depend on the visual motion system. *Psychological Science* 24, 2013: 181-188.
- [A7] G Baggio. Selective alignment of brain responses by task demands during semantic processing. *Neuropsychologia* 50, 2012: 655-665.
- [A6] G Baggio, A Fonseca. Complex dynamics of semantic memory access in reading. *Journal of the Royal Society Interface* 9, 2012: 328-338.
- [A5] G Baggio, P Hagoort. The balance between memory and unification in semantics: A dynamic account of the N400. *Language and Cognitive Processes* 26, 2011: 1338-1367.
- [A4] G Baggio, T Choma, M van Lambalgen, P Hagoort. Coercion and compositionality. *Journal of Cognitive Neuroscience* 22, 2010: 2131-2140.

- [A3] G Baggio. Processing temporal constraints: An ERP study. *Language Learning* 58, 2008: 35-55.
- [A2] G Baggio, M van Lambalgen, P Hagoort. Computing and recomputing discourse models: An ERP study. *Journal of Memory and Language* 59, 2008: 36-53.
- [A1] G Baggio, M van Lambalgen. The processing consequences of the imperfective paradox. *Journal of Semantics* 24, 2007: 307-330.

4.3. Theses, working papers, selected abstracts and proceedings

- [P8] G. Baggio. Perceptual adaptations and aftereffects as a way of testing embodied cognition. *Gottesteilchen der Sprache? Theorie, Empirie und die Zukunft sprachlicher Kategorien. 36 Jahrestagung der Deutschen Gesellschaft für Sprachwissenschaft (DGfS)*. 2014: 276-277.
- [P7] I. Nowak, G. Baggio. Children prefer structural word order over linear word order in learning artificial grammars. Budapest CEU Conference of Cognitive Development 2014: 142.
- [P6] G Baggio, S Moratti. Brain imaging as a diagnostic and as a communicative tool in disorders of consciousness. Max Weber Programme Working Papers, European University Institute, Series EUI MWP 2013/04.
- [P5] G Baggio, A Fonseca. Phase space methods for the analysis of rapid cortical dynamics underlying human cognition. *International Journal of Psychophysiology* 85, 2012: 302-303.
- [P4] G. Baggio and P. Hagoort. The balance between memory and unification in semantics. *FENS Abstracts* 5, 205.1, 2010.
- [P3] G Baggio. *Semantics and the electrophysiology of meaning: Tense, aspect, event structure*. Series Donders Institute for Brain, Cognition and Behaviour: Vol. 14, 2009.
- [P2] G Baggio, M van Lambalgen, P Hagoort. Computing and recomputing discourse models: An ERP study. *Journal of Cognitive Neuroscience, Supplement: Cognitive Neuroscience Society Annual Meeting Program* 247, 2005.
- [P1] G Baggio. *Two ERP studies on Dutch temporal semantics*. Master of Logic Series, Institute for Logic Language and Computation: MoL-2004-03, 2004.

5. TEACHING

- 12/2013 Brain and language (3 ECTS credits)
Curricula: MSc in Cognitive Neuroscience; PhD in Cognitive Neuroscience
SISSA International School for Advanced Studies
- 02-03/2013 Human electrophysiology (2 ECTS credits)
Curricula: MSc in Cognitive Neuroscience; PhD in Cognitive Neuroscience
SISSA International School for Advanced Studies
- 12/2012 Brain and language (2 ECTS credits)
Curricula: MSc in Cognitive Neuroscience; PhD in Cognitive Neuroscience
SISSA International School for Advanced Studies

- 09/2012 Introduction to probability and statistics
SISSA International School for Advanced Studies
- 02/2012 Analyzing EEG signals (2-day workshop)
Center for Language and Cognition
University of Groningen
- 11/2011 Brain and language (2 ECTS credits)
SISSA International School for Advanced Studies
- 12/2010 Introduction to brain and language (2 ECTS credits)
SISSA International School for Advanced Studies
- 06/2010 Cognitive neuroscience of language
Faculty of Science and Technology
University of Zagreb
- 08/2008 Logic, language and the brain (guest lecture in Michiel van Lambalgen's course)
20th European Summer School in Logic, Language and Information, Hamburg
- 2004-2008 Recording and analyzing EEG signals (hands-on tutorials)
Donders Institute for Brain, Cognition and Behaviour

6. SUPERVISION

10. Massimo Lumaca; PhD in Cognitive Neuroscience; SISSA; 2012-2016
Project: *Cultural transmission of compositional musical grammars via signaling games*
9. Iga Nowak; PhD in Cognitive Neuroscience; SISSA; 2011-2015
Project: *Cultural transmission of compositional linguistic grammars via signaling games*
8. Ana Laura Diez Martini; PhD in Cognitive Neuroscience; SISSA; 2010-2014
Project: *Cultural transmission of color categories and vocabularies via signaling games*
7. Vezha Boboeva; MSc in Physics of Complex Systems; SISSA; completed 2013
Project: *Dissociating the neural signatures of meaning and grammar in phase space*
6. Anna Blumenthal; MSc in Cognitive Science; SISSA; completed 2013
Project: *Decoding the cortical representations of logical connectives*
5. Maris Skujevskis; MSc in Cognitive Science; SISSA; completed 2012
Project: *(Un)conscious cross-modal motion priming between language and vision*
4. Maggie Moreno; MSc in Cognitive Science; SISSA; completed 2012
Project: *Role asymmetries and code transmission in signaling games*
3. Sanne Brederoo; MSc in Psychology, Rijksuniversiteit Groningen; completed 2011
Project: *Neural signatures of reference shifts in Dutch temporal indexicals*
2. David Neville; MSc in Cognitive Science, University of Amsterdam; completed 2008
Project: *Biological neural networks for non-monotonic reasoning with conditionals*
1. Travis Choma, MSc in Cognitive Science, University of Amsterdam; completed 2006
Project: *An EEG study of compositionality and complement coercion in English*

7. TALKS

7.1. Conferences

- 2014 *Perceptual adaptations and aftereffects in testing embodied hypotheses*
Gottesteilchen der Sprache? Theorie, Empirie und die Zukunft sprachlicher Kategorien
36 Jahrestagung der Deutschen Gesellschaft für Sprachwissenschaft
Philipps-Universität Marburg
(Invited speaker; peer-reviewed abstract)
- 2013 *Following the neural footprints of semantic composition off the N400 path*
Investigating Semantics: Empirical and Philosophical Approaches, Bochum
(Invited speaker)
- 2012 *Phase space methods for the analysis of rapid cortical dynamics underlying human cognition*
The 16th World Congress of Psychophysiology, Pisa
(Invited speaker)
- 2011 *Complex dynamics of semantic memory access in reading*
The 3rd Workshop on Semantic Processing, Logic and Cognition, Tübingen
(Invited speaker)
- Complex dynamics of semantic memory access in reading*
The 10th International Symposium of Psycholinguistics, Donostia-San Sebastián
(Peer-reviewed abstract)
- 2010 *Truth as a constraint on semantic processing: Evidence from event-related potentials*
Psycholinguistics Across the Borders, Rovereto
(Peer-reviewed abstract)
- 2009 *Semantics beyond the N400: From ERP time courses to a neural architecture for meaning processing.* SiNAPSA Neuroscience Conference, Ljubljana
(Peer-reviewed abstract)
- 2007 *Traces of semantic computation in the human brain*
Workshop on Deduction in Semantics, Stuttgart
(Invited speaker)
- A semantic approach to the electrophysiology of tense*
The 2nd A. Guiora Conference in the Cognitive Neuroscience of Language: Cognitive and Neural Prerequisites of Time in Language. Max Planck Institute for Psycholinguistics, Nijmegen
(Invited speaker)
- An ERP study on the semantics of the progressive*
Brain Mechanisms and Cognitive Processes in the Comprehension of Discourse
Lorentz Center Leiden
(Poster)
- 2006 *Logic as a bridge between meaning and action: A case study on the semantics of verb phrases.* The 5th Dutch Endo-Neuro-Psycho Meeting, Doorwerth
(Invited speaker)
- Computing and recomputing discourse models*
Architectures and Mechanisms for Language Processing (AMLaP), Nijmegen
(Poster)

2005 *Testable processing hypotheses from a formal model of tense and aspect*
Workshop on Semantic Processing, Logic and Cognition, Tübingen
(Invited speaker)

7.2. Invited seminars

2014 *The binding problem for semantics*
Department of Cognitive Neuroscience, Maastricht University

2013 *Cognitive reorganization of syntax and semantics by cultural transmission*
Department of Psychology, University of Tromsø

2012 *How we divide cognitive labor to establish semantic conventions*
Max Planck Institute for Psycholinguistics, Nijmegen

What we seem to know about meaning in the brain
Institute of Cognitive Science, University of Osnabrück

Semantics, brain and behaviour: A partial research agenda
Centre for Linguistics and Philology, University of Oxford

Complex dynamics of semantic memory access in reading
Center for Language and Cognition, University of Groningen

Can theory selection in linguistics be aided by experimental research?
Forschungsverbund Sprachwissenschaft und Kognition, Stuttgart

2011 *Complex dynamics of semantic memory access in reading*
Department of Philosophy, Ruhr University Bochum

Advanced experimental methods for studying language comprehension
Norwegian University of Science and Technology, Trondheim

2010 *Logical analysis in the neuroscience lab: ERP studies of tense, aspect and event structure*
Center for Language and Cognition, University of Groningen

Isomorphism and representation in neuroscience
Department of Philosophy, University of Pavia

Meaning and the brain: Electrophysiology meets dynamical systems theory
Graduate School in Neuroscience, Department of Biomedical Sciences
University of Modena and Reggio Emilia

Complex dynamics of semantic memory access in reading
Max Planck Institute for Psycholinguistics, Nijmegen

Meaning and the brain
Centro Interdipartimentale Mente e Linguaggio (CIMeL)
University of Trieste

2008 *Modeling and measuring meaning: Tense, aspect, event structure*
School of Informatics, University of Edinburgh

2006 *Some results on computing event structure*
Department of Linguistics, University of Tübingen

2005 *Does semantic theory have an explanatory role in psycholinguistics?*
Amsterdam Psycholinguistics Forum

8. ADMINISTRATION

- Since 2010 Curriculum manager of the MSc and PhD in Cognitive Neuroscience
SISSA International School for Advanced Studies
(I have full responsibility for designing and managing a curriculum of approximately 180 hours per academic year involving SISSA faculty and external lecturers)
- Since 2010 Admission exam board of the PhD in Cognitive Neuroscience
SISSA International School for Advanced Studies
(I am part of a committee whose task is to review applications and evaluate candidates for PhD fellowships in Cognitive Neuroscience through written exams and interviews)
- Since 2012 Graduate fellowship committee
SISSA International School for Advanced Studies
(I was part of a committee whose task is to review applications for graduate and undergraduate fellowships and research assistantships in cognitive neuroscience)
- Since 2012 Teaching committee of the MSc in High Performance Computing
SISSA International School for Advanced Studies
(I shared responsibility for organizing neuroscience courses within the HPC curriculum)
- Since 2013 Teaching committee of the MSc in Physics of Complex Systems
SISSA International School for Advanced Studies
(I share responsibility for organizing neuroscience courses within the PCS curriculum)
- Since 2013 Library management committee
SISSA International School for Advanced Studies
(I am part of a committee whose task is to manage library collections and resources, in particular drafting the yearly budget for journal subscriptions and book purchases)

9. CONSORTIA

- 2012-2014 Evolution of Semantic Systems (EoSS)
Max Planck Institute for Psycholinguistics
(Our Brain and Language Lab collected field data for 4 out of 50+ languages)

10. GRANTS

- 2012 Max-Planck-Gesellschaft Visiting Researcher Grant (€2300)
- 2010 Max-Planck-Gesellschaft Visiting Researcher Grant (€2300)
- 2004 Mobility Grant Regione Autonoma Friuli-Venezia Giulia (€6000)

11. REFEREEING

Article reviewer for *Journal of Semantics*, *Journal of Cognitive Neuroscience*, *Cognition*, *Journal of Memory and Language*, *Journal of Neurolinguistics*, *Neuropsychologia*, *Psychonomic Bulletin and*

Review, Brain Research, PLoS One, Frontiers in Cognition, Neurocomputing, Topics in Cognitive Science

Book reviewer for Oxford University Press, MIT Press

Grant reviewer for the National Science Foundation (NSF)

Associate Faculty Member of F1000 Biology (Theoretical and Computational Neuroscience)

12. ORGANIZATIONS

2010-present Co-founder and member of the steering board of Consulta di Bioetica (Trieste Section), a nation-wide organization set up to promote rational discussion of bioethical and related issues in Italy

13. PROGRAMMING

MATLAB/Octave Analysis of multi-dimensional time-series data sets
Phase space and complexity analyses of time series
Information-theoretic analyses of symbol sequences
Randomization and clustering statistics of neural data
Computational modeling of coordination games (signaling)

R Parametric and nonparametric statistics of behavioral data: linear models, (multivariate) analysis of variance, model comparison, fitting, correlations

14. LANGUAGES

In decreasing order of proficiency: Italian (native), English (fluent in speaking, reading and writing), French (proficient in speaking, reading and writing), Dutch (basic in reading, writing and speaking)