# Gianluca Lebani

## Computational Linguist

Department of Linguistics and Comparative Cultural Studies Ca' Foscari University of Venice ⊠ gianluca.lebani@unive.it the https://gianlucalebani.github.io/

#### Current Position

July 2019 – Research fellow at the Department of Linguistics and Comparative Cultural Studies current of the Ca' Foscari University of Venice

June 2020 – Member of the Artificial Intelligence Research Unit of the European Centre for Living current Technology of the Ca' Foscari University of Venice

### Research Interests

NLP Distributional Semantics, Corpus Linguistics, Computational Lexicography

Linguistics Verbal Semantics, Lexical Semantics

Psycholinguistics Language Acquisition, Language Processing

## Research and Academic Experience

Sept. 2018— **Lecturer**, *Department of Languages, Literature and Communication, Utrecht Univer-*June 2019 *sity*, Utrecht.

May-Nov. 2018 **Visiting Researcher**, Computational Linguistics Laboratory, Department of Philology, Literature, and Linguistics, University of Pisa, Pisa.

Sept.-Dec. 2017 Lecturer, Amsterdam University College, Amsterdam.

May 2013— Postdoctoral Fellow, Computational Linguistics Laboratory, Department of Philology,

Jan. 2017 Literature, and Linguistics, University of Pisa, Pisa.

 ${\sf Mar.\ 2014-\ Subject\ Expert\ and\ Teaching\ Assistant\ in\ Glottology\ and\ Linguistics},\ {\it University}}$ 

Jan. 2017 of Pisa, Pisa.

2015–2016 Member of the TRIPLE research group, Roma Tre University, Rome.

2015 Scientific Consultant, Lexicon Branding Inc., Sausalito, CA, USA.

July-Aug. 2008 **Tagging for the Siena University Treebank**, Interdisciplinary Center for Cognitive Studies of Language, University of Siena, Siena, Italy.

#### Education

2008–2012 **Ph.D. in Cognitive and Brain Sciences**, Center for Mind/Brain Sciences (University of Trento) and Fondazione Bruno Kessler, Trento, Italy.

Programme: Language, Interaction and Computation

 $The sis\ Title:\ STaRS. sys-designing\ and\ building\ a\ common sense-knowledge\ enriched\ wordnet$ 

for therapeutic purposes Advisor: E. Pianta

2004–2008 M.Sc. degree in Linguistics, University of Siena, Siena, Italy, 110/110 cum laude.

Thesis Title: Lexical Information and Word Sense Disambiguation

Advisor: Dr. C. Chesi, Co-advisor: Prof. Dr. L. Rizzi

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2000–2004 B.A. degree in Communication Science, University of Siena, Siena, Italy, 110/110.
                      Thesis Title: Autism and Relevance Theory
                      Advisor: Prof. Dr. G. Usberti
        Oct. 2002- Erasmus exchange student, University of Genève, Genève, Switzerland.
        Mar. 2003 Department of Linguistics
                 Technical skills
     programming Python [\bullet \bullet \bullet \bullet \bullet], Javascript [\bullet \bullet \bullet \bullet \circ], PHP [\bullet \bullet \circ \circ \circ]
statistical analysis R [ • • • • ], JASP [ • • • • • ]
markup languages \Delta T_{FX} [\bullet \bullet \bullet \bullet \circ], XML [\bullet \bullet \bullet \bullet \circ], HTML & CSS [\bullet \bullet \bullet \bullet \bullet]
DB administration MySQL [ • • • • • | , SQLite [ • • • • • |
              other Experiment Design: E-Prime [ • • • ∘ ∘ ]
               OSs Windows [\bullet \bullet \bullet \bullet \bullet], Linux [\bullet \bullet \bullet \bullet \bullet]
                 Languages
             native Italian
             fluent English
              basic French
                   Teaching
      AAYY 2019- Computational Linguistics.
            onward MA Language Sciences, Ca' Foscari University of Venice
      AAYY 2020- Digital Text Analysis.
            onward MA Language Sciences, Ca' Foscari University of Venice
       AY 2020-21 Literary and Linguistic Computing.
                      MA Digital and Public Humanities, Ca' Foscari University of Venice
   AAYY 2019-21 Computational Linguistics 2.
                      MA Language Sciences, Ca' Foscari University of Venice
       AY 2018-19 Computational Linguistics (coordinator: F. Adriaans).
                      BA Artificial Intelligence, Utrecht University
       AY 2018-19 Introduction to Linguistics for AI (coordinator: R.W.F. Nouwen).
                      BA Artificial Intelligence, Utrecht University
       AY 2018-19 Language and Computation (coordinator: F. Adriaans).
                      BA Linguistics, Utrecht University
       AY 2018-19 Words in the Mind.
                      BA Linguistics, Utrecht University
       AY 2018-19 Machine Learning (coordinator: T. Deoskar).
                      BA Artificial Intelligence, Utrecht University
       AY 2018-19 Digital Methods in Linguistics.
                      RMA Linguistics, Utrecht University
       AY 2017-18 Text Mining & Collective Intelligence.
                      Sciences Curriculum, Amsterdam University College
        Feb., 2016 Introduzione all'Analisi Statistica dei Dati Linguistici (Introduction to the Statistical
                      Analysis of Linguistic Data).
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Ph.D. School in Linguistics, Sapienza University of Rome and Roma Tre University

- AY 2014-15 Laboratorio di R (Introductory Statistics with R Laboratory, part of the course of Applied Linguistics held by Alessandro Lenci).

  Master Program in Linguistics, University of Pisa
- AY 2013-14 Lectures on WordNet and LexIt (lectures within the course of Applied Linguistics held by Alessandro Lenci).

  Master Program in Linguistics, University of Pisa
- Feb. 19, 2014 Esperimenti di analisi distribuzionale delle espansioni semantiche (Distributional Semantics Laboratory held with Alessandro Lenci).

  TRIPLE [SIT] Winter School, Rome

## Supervision

- 2020 onward Co-tutoring of Dott. Vincenzo Nicolò Di Caro (Postdoctoral researcher) on the project "Benessere, identità e varietà linguistiche. Uno studio sull'uso dei dialetti siciliani e dell'italiano regionale di Sicilia nei social media" (Well-being, identity and linguistic varieties. A study on the use of the Sicilian dialects and of the Sicilian variety of the Italian language in the social media)
- 2020 onward Co-supervisor of the Ph.D. student Monia Azzalini, Ph.D. programme in Modern Languages, Cultures and Societies and Linguistics
- 2020 onward Co-supervisor of Master students (MD in Language Sciences, *Ca' Foscari University of Venice*): Silvia De Marchi (2020); Carolina Gomiero (2020); Luca Molinari (2020)
  - 2013 2016 Co-supervisor of Master students (MD in Linguistics, *University of Pisa*): Alice Coli (2016); Gaia Bonucelli (2016); Marco S. G. Senaldi (2015); Veronica Viola (2013)

## **Editorial Activity**

area chair CLiC-it 2016 Track: "Cognitive modeling of language processing and psycholinguistics" local organizer First Italian Conference on Computational Linguistics (CLiC-it 2014)

ad hoc reviewer Behavior Research Methods, Cognitive Processing

conference EACL 2021; NAACL-HLT 2021; AACL-IJCNLP 2020, ACL 2020, 2018; CLiC-it 2020, reviewer 2019, 2018, 2017, 2014; CogSci 2020, 2019, 2018, 2017, 2016; COLING 2020, 2018, 2016, 2014; EMNLP 2020; \*SEM 2019, 2017; CONLL 2019; EMNLP-IJCNLP 2019; IWCS 2019; LREC 2018, 2016, 2014; LIGHTS 2018

workshop NAACL 2021/EMNLP 2020/NAACL 2019 Workshop on "Cognitive Modeling and Computational Linguistics"; ACL 2018/ACL 2016/EMNLP 2015/EACL 2014 Workshops on "Cognitive Aspects of Computational Language Learning", ESSLLI 2017 Student Session, COLING 2016 Workshop on "Cognitive Aspects of the Lexicon", EMNLP 2013 Workshop on "Computational Models of Human Language Acquisition and Processing", ACL 2013 Student Research Workshop, ICWSM 2013 Workshop on "Computational Personality Recognition", LREC 2010 Workshop "Semantic Relations. Theory and Practice"

#### **Publications**

2020 M. Miliani, G. Giorgi, I. Rama, G. Anselmi, and G. E. Lebani. "DANKMEMES @ EVALITA 2020: The memeing of life: memes, multimodality and politics". Proceedings of EVALITA 2020: the Seventh Evaluation Campaign of Natural Language Processing and Speech Tools for Italian. 2020

- A. Bondielli, G. E. Lebani, L. C. Passaro, and A. Lenci. "CAPISCO @ CONcreTEXT 2020: (Un)supervised Systems to Contextualize Concreteness with Norming Data". Proceedings of EVALITA 2020: the Seventh Evaluation Campaign of Natural Language Processing and Speech Tools for Italian. 2020
- 2018 A. Lenci, G. E. Lebani, and L. C. Passaro. "The Emotions of Abstract Words: A Distributional Semantic Analysis". *Topics in Cognitive Science* 10.3 (2018), pp. 550–572. Among the journal's top cited papers
  - G. E. Lebani and A. Lenci. "A Distributional Model of Verb-Specific Semantic Roles Inferences". *Language, Cognition, and Computational Models*. Ed. by T. Poibeau and A. Villavicencio. Cambridge University Press, 2018. Chap. 6, pp. 118–158
- 2017 M. S. G. Senaldi, G. E. Lebani, and A. Lenci. "Determining the Compositionality of Noun-Adjective Pairs with Lexical Variants and Distributional Semantics". *Italian Journal of Computational Linguistics* 3.1 (2017), pp. 43–58
  - G. E. Lebani and A. Lenci. "Modelling the meaning of constructions with distributional semantics". The AAAI 2017 Spring Symposium on Computational Construction Grammar and Natural Language Understanding, Technical Report SS-17-02. Stanford, CA, 2017, pp. 197–204
  - A. Lenci, F. Masini, M. Nissim, S. Castagnoli, G. E. Lebani, L. C. Passaro, and M. S. G. Senaldi. "How to harvest Word Combinations from corpora: Methods, evaluation and perspectives". *Studi e Saggi Linguistici* 55.2 (2017), pp. 45–68
- 2016 G. E. Lebani and A. Lenci. "Beware the Jabberwock, dear reader! Testing the distributional reality of construction semantics". *Proceedings of the Workshop on Cognitive Aspects of the Lexicon (CogALex-V)*. Osaka, Japan, 2016, pp. 8–18
  - M. S. G. Senaldi, G. E. Lebani, and A. Lenci. "Determining the Compositionality of Noun-Adjective Pairs with Lexical Variants and Distributional Semantics". *Proceedings of the Third Italian Conference on Computational Linguistics (CLiC-it 2016)*. Napoli, Italy, 2016. **Distinguished Young Paper Award**
  - M. S. G. Senaldi, G. E. Lebani, and A. Lenci. "Lexical Variability and Compositionality: Investigating Idiomaticity with Distributional Semantic Models". *Proceedings of the 12<sup>th</sup> Workshop on Multiword Expressions*. Berlin, Germany, 2016, pp. 21–31
  - G. Rambelli, G. E. Lebani, L. Prévot, and A. Lenci. "LexFr: adapting the LexIt framework to build a corpus-based French subcategorization lexicon". *Proceedings of the 10<sup>th</sup> International Conference on Language Resources and Evaluation (LREC 2016)*. Portorož, Slovenia, 2016, pp. 930–937
  - S. Castagnoli, G. E. Lebani, A. Lenci, F. Masini, M. Nissim, and L. C. Passaro. "POS-patterns or Syntax? Comparing methods for extracting Word Combinations". Computerised and Corpus-based Approaches to Phraseology: Monolingual and Multilingual Perspectives (Full papers) Fraseología computacional y basada en corpus: perspectivas monolingües y multilingües (Trabajos completos). Ed. by G. Corpas Pastor. 2016, pp. 101–114
- 2015 G. E. Lebani, A. Bondielli, and A. Lenci. "You are what you do. An empirical characterization of the semantic content of the thematic roles for a group of Italian verbs". *Journal of Cognitive Science* 16.4 (2015), pp. 401–430

- M. Nissim, S. Castagnoli, F. Masini, G. E. Lebani, L. C. Passaro, and A. Lenci. "Automatic extraction of Word Combinations from corpora: evaluating methods and benchmarks". *Proceedings of the Second Italian Conference on Computational Linguistics (CLiC-it 2015)*. Trento, Italy, 2015, pp. 204–209
- G. E. Lebani, M. S. G. Senaldi, and A. Lenci. "Modeling Idiom Variability with Entropy and Distributional Semantics". *Proceedings of the 6<sup>th</sup> Conference on Quantitative Investigations in Theoretical Linguistics (QITL 6)*. Tübingen, Germany, 2015
- A. Lenci, G. E. Lebani, M. S. Senaldi, S. Castagnoli, F. Masini, and M. Nissim. "Mapping the Constructicon with SYMPAThy. Italian Word Combinations between fixedness and productivity". *Proceedings of the NetWordS Final Conference on Word Knowledge and Word Usage: Representations and Processes in the Mental Lexicon*. Pisa, Italy, 2015, pp. 144–149
- 2014 A. Lenci, G. E. Lebani, S. Castagnoli, F. Masini, and M. Nissim. "SYMPAThy: Towards a comprehensive approach to the extraction of Italian Word Combinations". *Proceedings of the First Italian Conference on Computational Linguistics (CLiC-it 2014*). Pisa, Italy, 2014, pp. 234–238
  - L. C. Passaro, G. E. Lebani, L. Pollacci, E. Chersoni, and A. Lenci. "The CoLing Lab system for Sentiment Polarity Classification of tweets". *Proceedings of the Fourth International Workshop EVALITA 2014*. Pisa, Italy, 2014, pp. 87–92
  - G. E. Lebani, V. Viola, and A. Lenci. "Bootstrapping an Italian VerbNet: data-driven analysis of verb alternations". *Proceedings of the 9<sup>th</sup> International Conference on Language Resources and Evaluation (LREC 2014)*. Reykjavik, Iceland, 2014, pp. 1127–1134
  - L. Romeo, G. E. Lebani, N. Bel, and A. Lenci. "Choosing which to use? A study of distributional models for nominal lexical semantic classification". *Proceedings of the 9<sup>th</sup> International Conference on Language Resources and Evaluation (LREC 2014)*. Reykjavik, Iceland, 2014, pp. 4366–4373
  - F. Boschetti, A. Cimino, F. Dell'Orletta, G. E. Lebani, L. Passaro, P. Picchi, G. Venturi, S. Montemagni, and A. Lenci. "Computational Analysis of Historical Documents: An Application to Italian War Bulletins in World War I and II". *Proceedings of the Worskshop on Language Resources and Technologies for Processing and Linking Historical Documents and Archives (LRT4HDA 2014)*. Reykjavik, Iceland, 2014
- 2012 G. E. Lebani and E. Pianta. "Encoding Commonsense Lexical Knowledge into WordNet". *Proceedings of the 6th Global WordNet Conference (GWC 2012)*. Matsue, Japan, 2012, pp. 159–166
- 2010 G. E. Lebani and E. Pianta. "Human Language Technologies supporting Therapeutic Practices for Language Disorders: the Project STaRS.sys". Proceedings of the 7<sup>th</sup> annual meeting of the Italian Society of Cognitive Science (AISC-2010). Trento, Italy, 2010, pp. 52–56
  - G. E. Lebani and E. Pianta. "Exploiting Lexical Resources for Therapeutic Purposes: the Case of WordNet and STaRS.sys". *Proceedings of the 2<sup>nd</sup> Workshop on Cognitive Aspects of the Lexicon (CogALex-2)*. Beijing, China, 2010, pp. 12–17
  - G. E. Lebani and E. Pianta. "A Feature Type Classification for Therapeutic Purposes: a preliminary evaluation with non-expert speakers". *Proceedings of the Fourth Linguistic Annotation Workshop (LAW IV)*. Upssala, Sweden, 2010, pp. 157–161

2008 C. Chesi, G. Lebani, and M. Pallottino. "A Bilingual Treebank (ITA-LIS) suitable for Machine Translation: what Cartography and Minimalism teach us". *STiL - Studies in Linguistics* 2 (2008), pp. 166–185