# Marco S. G. Senaldi

## Postdoctoral Researcher

McGill University
Department of Psychology
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#### Personal

nationality Italian

place of birth Gallarate (VA), Italy

languages Italian (Native), English (Fluent), French (basic)

#### Education

2015–2019 **Ph.D. in Linguistics**, Scuola Normale Superiore, Pisa, Italy, 70/70 cum laude Thesis Title: Working both sides of the street: Computational and psycholinguistic investigations on idiomatic variability

Supervisors: Prof. Pier Marco Bertinetto and Prof. Alessandro Lenci

2013–2015 Master degree in Linguistics, University of Pisa, Pisa, Italy, 110/110 cum laude

Thesis Title: Casting Light on Idiom Flexibility: A Corpus-based Approach

Supervisor: Prof. Alessandro Lenci, Co-supervisor: Prof. Giovanna Marotta, Tutors: Prof.

Pier Marco Bertinetto, Dr. Gianluca E. Lebani

2013–2015 **Degree** (*Diploma di Licenza*) in Linguistics, Scuola Normale Superiore, Pisa,

Italy

2010–2013 Bachelor degree in Literature and Linguistics, University of Pisa, Pisa, Italy,

110/110 cum laude

Thesis Title: Aorist and Imperfect in Homeric Greek

Supervisor: Prof. Domenica Romagno

# **Appointments**

Mar. 2020– Postdoctoral Researcher, McGill University, Department of Psychology

present Supervisors: Dr. Debra Titone, Dr. Brendan T. Johns

Mar. 2019 - Research Scholarship, University of Pisa, Department of Philology, Literature

Feb. 2020 and Linguistics

Supervisor: Prof. Alessandro Lenci

# Research and Academic Experience

Sep. 2016 – Graduate Research Trainee, Language and Multilingualism Laboratory, McGill

Dec. 2016 University, Montréal

Supervisor: Dr. Debra Titone

Jan. 2015– Internship, Computational Linguistics Laboratory, University of Pisa

Mar. 2015 Supervisors: Prof. Alessandro Lenci and Dr. Gianluca E. Lebani

# Research Funding

2022-2024 **Social Sciences and Humanities Research Council (SSHRC)**, Insight Development Grant, *How do collectively experienced large-scale social events drive language dynamics at the societal and individual levels?* [430-2022-00557]

Role: PI (Co-PIs: Debra A. Titone, Brendan T. Johns)

#### Peer-reviewed Publications

- 2022 M. S. G. Senaldi and D. A. Titone (2022). "Less direct, more analytical: Eyemovement measures of L2 idiom reading". *Languages* 7, paper 91
  - M. S. G. Senaldi, J. Wei, J. W. Gullifer, and D. A. Titone (2022). "Scratching your *tête* over language-switched idioms: Evidence from eye-movement measures of reading". *Memory and Cognition* 50.6, pp. 1230–1256
  - M. S. G. Senaldi, D. A. Titone, and B. T. Johns (2022). "Determining the importance of frequency and contextual diversity in the lexical organization of multiword expressions". *Canadian Journal of Experimental Psychology* 76.2, pp. 87–98
- 2021 I. Fioravanti, M. S. G. Senaldi, A. Lenci, and A. Siyanova-Chanturia (2021). "Lexical fixedness and compositionality in L1 and L2 speakers intuitions about Italian word combinations: Psycholinguistic and computational perspectives". Second Language Research 37.2, pp. 291–322
- 2019 L. C. Passaro, M. S. G. Senaldi, and A. Lenci (2019). "Do Idioms Have a Heart? The SIDE (Sentiment of IDiomatic Expressions) Project". Proceedings of The 11th International Conference on the Mental Lexicon
  - M. S. G. Senaldi, Y. Bizzoni, and A. Lenci (2019). "What Do Neural Networks Actually Learn, When They Learn to Identify Idioms?" *Proceedings of the Society for Computation in Linguistics (SCiL)*. New York City, NY, USA, pp. 310–313
- 2018 Y. Bizzoni, M. S. G. Senaldi, and A. Lenci (2018). "Finding the Neural Net: Deep-learning Idiom Type Identification from Distributional Vectors". *Italian Journal of Computational Linguistics* 4.1, pp. 27–41
- 2017 Y. Bizzoni, M. S. G. Senaldi, and A. Lenci (2017). "Deep-learning the Ropes: Modeling Idiomaticity with Neural Networks". *Proceedings of the Fourth Italian Conference on Computational Linguistics (CLiC-it 2017)*, pp. 36–41
  - A. Lenci, F. Masini, M. Nissim, S. Castagnoli, G. E. Lebani, L. C. Passaro, and M. S. G. Senaldi (2017). "How to harvest Word Combinations from corpora. Methods, evaluation and perspectives". *Studi e Saggi Linguistici* 55.2, pp. 45–68
  - M. S. G. Senaldi, G. E. Lebani, and A. Lenci (2017). "Determining the Compositionality of Noun-Adjective Pairs with Lexical Variants and Distributional Semantics". *Italian Journal of Computational Linguistics* 3.1, pp. 43–58
  - M. A. Rodda, M. S. G. Senaldi, and A. Lenci (2017). "Panta Rei: Tracking Semantic Change with Distributional Semantics in Ancient Greek". *Italian Journal of Computational Linguistics* 3.1, pp. 11–24
- 2016 M. A. Rodda, M. S. G. Senaldi, and A. Lenci (2016). "Panta Rei: Tracking Semantic Change with Distributional Semantics in Ancient Greek". *Proceedings of the Third Italian Conference on Computational Linguistics (CLiC-it 2016)*. **Distinguished Young Paper Award**

- M. S. G. Senaldi, G. E. Lebani, and A. Lenci (2016). "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)*. **Distinguished Young Paper Award**
- M. S. G. Senaldi, G. E. Lebani, and A. Lenci (2016). "Lexical Variability and Compositionality: Investigating Idiomaticity with Distributional Semantic Models". *Proceedings of the 12th Workshop on Multiword Expressions (MWE 2016)*, pp. 21–31
- 2015 G. E. Lebani, M. S. G. Senaldi, and A. Lenci (2015). "Modeling Idiom Variability with Entropy and Distributional Semantics". *Proceedings of the 6th Conference on Quantitative Investigations in Theoretical Linguistics (QITL 6)*. Tübingen, Germany
  - A. Lenci, G. E. Lebani, M. S. G. Senaldi, S. Castagnoli, F. Masini, and M. Nissim (2015). "Mapping the Construction 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, pp. 144–149

# Organized Sessions and Symposia

2022 M. S. G. Senaldi, D. A. Titone, and B. T. Johns (2022). "Building a comprehensive view of multiword and figurative language". *Symposium organized at the Annual Meeting of the Canadian Society for Brain, Behaviour and Cognitive Science*. Halifax, NS, Canada

## Conference Presentations and Posters

- 2022 D. A. Titone and M. S. G. Senaldi (2022). "Which factors drive meaning selection during L1 and L2 idiom processing following a prior context: Direct retrieval or compositional assembly?" Psychonomic Society 63rd Annual Meeting. Boston, MA, USA
  - M. S. G. Senaldi, D. A. Titone, and B. T. Johns (2022). "Exploring the role of socially-based contextual diversity in idiom processing". 12th International Conference on the Mental Lexicon. Niagara-on-the-Lake, ON, Canada
  - M. S. G. Senaldi, D. A. Titone, and B. T. Johns (2022). "Contextual diversity as a lexical organizer of multiword expressions". *Canadian Society for Brain, Behaviour and Cognitive Science: Annual Meeting* 2022. Halifax, NS, Canada
  - M. Yang, M. S. G. Senaldi, J. Wei, B. T. Johns, and D. A. Titone (2022). "Validity of Corpus-Based Measures of Idiom Processing in English and Mandarin Chinese". *Canadian Society for Brain, Behaviour and Cognitive Science: Annual Meeting* 2022. Halifax, NS, Canada
- 2021 M. S. G. Senaldi and D. A. Titone (2021). "How do direct retrieval and compositional parsing interact in L2 idiom reading?" *Psychonomic Society 62nd Annual Meeting*. Online conference
  - M. S. G. Senaldi, I. Fioravanti, A. Lenci, and A. Siyanova-Chanturia (2021). "Lexical fixedness and compositionality in L1 and L2 speakers intuitions about Italian word combinations: A psycholinguistic and computational study". *AILA* 2021 World Congress. Online conference

- I. Fioravanti, M. S. G. Senaldi, A. Lenci, and A. Siyanova-Chanturia (2021). "Is *keep a promise* the same as *retain a promise*? The role of lexical fixedness in word combination processing". *AILA 2021 World Congress*. Online conference
- M. S. G. Senaldi, D. A. Titone, and B. T. Johns (2021). "Contextual Diversity and the Lexical Organization of Multiword Expressions". 43rd Annual Meeting of the Cognitive Science Society. Online conference
- M. S. G. Senaldi, K. Kasparian, K. Lovseth, and D. A. Titone (2021). "Less direct, more analytical: investigating L2 idiom processing with eye movement data". *International Symposium on Bilingualism (ISB13)*. Online conference
- M. S. G. Senaldi, K. Kasparian, K. Lovseth, and D. A. Titone (2021). "Decomposability and cross-language overlap effects in L2 idiom reading: Evidence from eye movement data". *Canadian Society for Brain, Behaviour and Cognitive Science: Annual Meeting* 2021. Online conference
- M. S. G. Senaldi, D. A. Titone, and B. T. Johns (2021). "Analyzing the Role of Frequency and Contextual Diversity in the Lexical Organization of Multiword Expressions". *CRBLM Scientific Day* 2021. Online conference
- I. Fioravanti, M. S. G. Senaldi, A. Lenci, and A. Siyanova-Chanturia (2021). "How does lexical fixedness affect the processing of L1 and L2 word combinations?" *American Association for Applied Linguistics* 2021 *Virtual Conference*. Online conference
- 2020 M. S. G. Senaldi, J. Wei, J. W. Gullifer, and D. A. Titone (2020). "Scratching your *tête* over code switched idioms: Evidence from eye movement measures of reading." 26th Architectures and Mechanisms for Language Processing Virtual Conference (AMLaP 2020). Online conference
- 2019 M. S. G. Senaldi, P. Canal, and A. Lenci (2019). "Not all passives are processed equal: Verb voice and word order in idiom comprehension". 32nd Annual CUNY Sentence Processing Conference. Boulder, CO, USA
  - M. S. G. Senaldi, Y. Bizzoni, and A. Lenci (2019). "What Do Neural Networks Actually Learn, When They Learn to Identify Idioms?" *Society for Computation in Linguistics (SCiL)*. New York City, NY, USA
- 2018 I. Fioravanti, M. S. G. Senaldi, A. Lenci, and A. Siyanova-Chanturia (2018). "Lexical Fixedness and Compositionality in Native and Non-native Speakers Intuitions about Italian Word Combinations: Psycholinguistic and Computational Perspectives". Workshop on Psycholinguistic and Computational Perspectives on Non-Compositional Meaning in Phrases. Tübingen, Germany
  - L. C. Passaro, M. S. G. Senaldi, and A. Lenci (2018). "Do idioms have a heart? The SIDE (Sentiment of IDiomatic Expressions) project". 11th International Conference on the Mental Lexicon. Edmonton, AB, Canada
  - M. S. G. Senaldi, P. Canal, A. Lenci, and P. M. Bertinetto (2018). "How idiomaticity and verb voice affect sentence reading: an eye-tracking study on Italian". 31st Annual CUNY Sentence Processing Conference. Davis, CA, USA
- 2017 Y. Bizzoni, M. S. G. Senaldi, and A. Lenci (2017). "Deep-learning the Ropes: Modeling Idiomaticity with Neural Networks". Fourth Italian Conference on Computational Linguistics (CLiC-it 2017). Rome, Italy

- M. S. G. Senaldi, G. E. Lebani, and A. Lenci (2017). "Exploring idiomaticity with distributional semantics and entropy". *DGfS* 2017 Workshop on the Role of Constituents in MWEs. Saarbrücken, Germany
- 2016 M. A. Rodda, M. S. G. Senaldi, and A. Lenci (2016). "Panta Rei: Tracking Semantic Change with Distributional Semantics in Ancient Greek". *Third Italian Conference on Computational Linguistics (CLiC-it 2016)*. Naples, Italy
  - M. S. G. Senaldi, G. E. Lebani, and A. Lenci (2016). "Determining the Compositionality of Noun-Adjective Pairs with Lexical Variants and Distributional Semantics". *Third Italian Conference on Computational Linguistics (CLiC-it 2016)*. Naples, Italy
  - M. S. G. Senaldi, G. E. Lebani, and A. Lenci (2016). "Predicting crowdsourced idiomatic flexibility judgments from corpus-based statistics". *the 22nd AMLaP conference, Architectures and Mechanisms for Language Processing*. Bilbao, Spain
  - M. S. G. Senaldi, G. E. Lebani, and A. Lenci (2016). "Lexical Variability and Compositionality: Investigating Idiomaticity with Distributional Semantic Models". 12th Workshop on Multiword Expressions (MWE 2016). Berlin, Germany
- 2015 S. Castagnoli, F. Masini, M. Nissim, G. E. Lebani, M. S. G. Senaldi, and A. Lenci (2015). "Extracting and Analysing Italian Word Combinations with SYntactically Marked PATterns". PARSEME 4<sup>th</sup> general meeting. Valletta, Malta
  - A. Lenci, G. E. Lebani, M. S. G. Senaldi, S. Castagnoli, F. Masini, and M. Nissim (2015). "Mapping the Construction with SYMPAThy. Italian Word Combinations between fixedness and productivity". *NetWordS Final Conference on Word Knowledge and Word Usage: Representations and Processes in the Mental Lexicon*. Pisa, Italy

# Student Mentorship

- 2022-2023 Emiliya Emin, Undergraduate Research Assistant, McGill University Iola Patalas, Graduate Student, Concordia University
- 2021-2022 Alexandra Saliba, Undergraduate Research Assistant, McGill University
- 2020-2022 Michelle Yang, Undergraduate Research Assistant, McGill University
- 2020-2021 Jingkang Wang, Undergraduate Research Assistant, McGill University
  Hector Leos Mendoza, Undergraduate Research Assistant, McGill University
  Yong Zhang, Undergraduate Research Assistant, McGill University
  Paul De Luca, Undergraduate Research Assistant, McGill University
- 2018-2019 Noemi Palmieri, Undergraduate Student, University of Pisa

#### **Invited Talks**

- 2020 M. S. G. Senaldi (2020). "Working both sides of the street: Computational and psycholinguistic investigations on idiomatic variability". *IUSS Linguistics Seminars Experimental Pragmatics Project*. IUSS. Pavia, Italy
- 2016 M. S. G. Senaldi, G. E. Lebani, and A. Lenci (2016). "Exploring idiomaticity with Shannon entropy and Distributional Semantics". *Language and Multilingualism Laboratory*. McGill University. Montreal

## Awards and Honors

2016 CLiC-it 2016, 2 Distinguished Young Paper Awards

2013 **Scuola Normale Superiore of Pisa**, Admission to Master's Degree program with fully funded scholarship

## Scientific Communications

2022 When in doubt, keep it Gaussian.

https://featuredcontent.psychonomic.org/when-in-doubt-keep-it-gaussian/

### Technical skills

programming Python

statistical analysis R, Jamovi, EyeLink Data Viewer

experiment SR Research Experiment Builder, OpenSesame, jsPsych

design

authoring R(Markdown), Jupyter, LATEX, HTML

packages

OSs Windows, Linux

# Professional Memberships

Canadian Society for Brain, Behaviour and Cognitive Science

Psychonomic Society

## **Academic Service**

Editorial Board Canadian Journal of Experimental Psychology (2023-)

Member

Editorial Italian Journal of Linguistics (2015-2019)

Assistant

Volunteer Canadian Society for Brain, Behaviour and Cognitive Science: Annual Meeting

2021

Volunteer 57th Annual Meeting of the Association for Computational Linguistics (ACL

Coordinator 2019)

Journal Behavior Research Methods

Reviewing Canadian Journal of Experimental Psychology

Journal of Experimental Psychology: General

Psychophysiology Cognitive Science

Frontiers in Artificial Intelligence

Language Learning

Studies in Second Language Acquisition Italian Review of Applied Linguistics

Conference and Language Resources and Evaluation Conference (LREC) 2020

Workshop Workshop on Linguistic and Neurocognitive Resources (LiNCR) 2020

Reviewing Workshop on Cognitive Modeling and Computational Linguistics (CMCL) 2020

International Conference on Computational Linguistics (COLING) 2020

International Conference on Computational Semantics (IWCS) 2019

Annual Meeting of the Association for Computational Linguistics (ACL) 2019

Conference on Computational Natural Language Learning (CoNLL) 2019

Italian Conference on Computational Linguistics (CLiC-it) 2019

Conference on Lexical and Computational Semantics (\*SEM) 2018

Workshop on Cognitive Aspects of Computational Language Learning and Pro-

cessing (CogACLL) 2018

11th International Conference on the Mental Lexicon 2018

Italian Conference on Computational Linguistics (CLiC-it) 2018

Language Resources and Evaluation Conference (LREC) 2018

Architectures and Mechanisms of Language Processing (AMLaP) 2017

Student Session of the European Summer School in Logic, Language and Information (ESSLLI) 2017

Italian Conference on Computational Linguistics (CLiC-it) 2016

International Conference on Computational Linguistics (COLING) 2016

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