Marco Silvio Giuseppe Senaldi, PhD

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Appointments

Postdoctoral Researcher   2020 – present
    Department of Psychology; McGill University
Research Fellowship   2019 – 2020
    Department of Philology, Literature and Linguistics; University of Pisa (Italy)

Education

Ph.D.	**Linguistics (Modern Literatures and Philologies)**	2015 – 2019
	Scuola Normale Superiore (Pisa, Italy)	
	Focus areas: Experimental and Computational Linguistics	
	Thesis: "Working both sides of the street: Computational and psycholinguistic investigations on idiomatic variability"	
Master's Degree	**Linguistics**	2013 – 2015
	110/110 *cum laude*, University of Pisa (Italy)	
	Focus area: Computational Linguistics	
Bachelor's Degree	**Humanities – Linguistic curriculum**	2010 – 2013
	110/110 *cum laude*, University of Pisa (Italy)	
	Focus areas: Literature and Linguistics	

Research Interests

Experimental linguistics; computational linguistics; cognitive science; statistics; data science; predictive modeling

Research Funding

$56,950	**Social Sciences and Humanities Research Council - Insight Development Grant**	2022-2024
	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)	

Awards

19th Workshop on Multiword Expressions (MWE 2023), Best Paper Award
    Are frequent phrases directly retrieved like idioms? An investigation with self-paced reading and language models
Third Italian Conference on Computational Linguistics (CLiC-it 2016), 2 Distinguished Young Paper Awards
    Determining the compositionality of noun-adjective pairs with lexical variants and distributional semantics
    Panta rei: Tracking semantic change with distributional semantics in ancient Greek

Publications

1. **M. S. G. Senaldi** and D. A. Titone (2024). Idiom meaning selection following a prior context: eye movement evidence of L1 direct retrieval and L2 compositional assembly. *Discourse Processes 61*, pp. 21-43.
2. G. Rambelli, E. Chersoni, **M. S. G. Senaldi**, P. Blache, and A. Lenci (2023). Are Frequent Phrases Directly Retrieved like Idioms? An Investigation with Self-paced Reading and Language Models. *Proceedings of the 19th Workshop on Multiword Expressions (MWE 2023)*, pp. 87-98. **Best Paper Award**
3. **M. S. G. Senaldi** and D. A. Titone (2022). Less direct, more analytical: Eye-movement measures of L2 idiom reading. *Languages 7*, paper 91.
4. **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.
5. **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.
6. M. Miliani, **M. S. G. Senaldi**, G. E. Lebani, and A. Lenci (2022). Understanding Italian Administrative Texts: A Reader-Oriented Study for Readability Assessment and Text Simplification. *Proceedings of AIxPA 2022: 1st Workshop on AI for Public Administration*.
7. 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
8. 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*
9. **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
10. 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
11. 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
12. 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
13. **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
14. 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
15. 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**
16. **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**
17. **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
18. 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
19. A. Lenci, G. E. Lebani, **M. S. G. Senaldi**, S. Castagnoli, F. Masini, and M. Nissim (2015). 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, pp. 144–149

Invited Talks

1. **M. S. G. Senaldi** (2024). "Computational and behavioral investigations of usage-based language: The case of multiword units". Department of Psychology, Rochester Institute of Technology. Rochester, NY, USA

2. **M. S. G. Senaldi** (2023). "Leveraging computational and behavioral evidence to jointly inform usage-based language models: The case study of multiword units". Centre for Research in Applied Linguistics, University of Nottingham. Nottingham, UK
3. **M. S. G. Senaldi** (2023). "Leveraging computational and behavioral evidence to jointly inform usage-based language models: The case study of multiword units". Department of Linguistics, University of Illinois at Chicago. Chicago, IL, USA
4. **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
5. **M. S. G. Senaldi** (2016). "Exploring idiomaticity with Shannon entropy and Distributional Semantics". Department of Psychology, McGill University. Montreal

Invited Lectures
1. **M. S. G. Senaldi** (2023). "Clustering in Machine Learning". McGill School of Computer Science. Montreal, Canada
2. **M. S. G. Senaldi** (2023). "Determining the importance of frequency and contextual diversity in the lexical organization of multiword expressions". University of Copenhagen. Copenhagen, Denmark
3. **M. S. G. Senaldi** (2023). "Syllables and syllable structure". University of Illinois at Chicago. Chicago, IL, USA

Organized Sessions and Symposia
1. **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
1. I. Fioravanti, **M. S. G. Senaldi**, A. Lenci, and A. Siyanova-Chanturia (2023). "Processing of L1 and L2 Word Combinations: Probing the Role of Lexical Fixedness". ESCOP 2023 - 23rd Conference of the European Society for Cognitive Psychology. Porto, Portugal
2. **M. S. G. Senaldi**, D. A. Titone, and B. T. Johns (2023). "Exploring the role of socially-based contextual diversity in idiom processing". 24th Annual Neuropsychology Day. Montreal Neurological Institute
3. **M. S. G. Senaldi** and D. A. Titone (2023). "Which factors drive meaning selection during L1 and L2 idiom processing following a prior context: Direct retrieval or compositional assembly?" PsychoShorts 2023. University of Ottawa, ON, Canada
4. **M. S. G. Senaldi**, D. A. Titone, and B. T. Johns (2023). "Exploring the role of socially-based contextual diversity in idiom processing". CompCog23. Online Symposium
5. 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
6. **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
7. **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
8. 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
9. **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

10. **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

11. 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

12. **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

13. **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

14. **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

15. **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

16. 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

17. **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

18. **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

19. **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

20. 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

21. 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

22. **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

23. 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

24. **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. Saarbr¨ucken, Germany

25. 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

26. **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

27. **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

28. **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

29. 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 4th general meeting. Valletta, Malta

30. A. Lenci, G. E. Lebani, **M. S. G. Senaldi**, S. Castagnoli, F. Masini, and M. Nissim (2015). "Mapping the Constructicon 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 Advising

Teva Alon, Undergraduate Research Assistant, McGill University	2023-2024
Léa Baillargeon, Undergraduate Research Assistant, McGill University	2023-2024
Suyang Li, Undergraduate Research Assistant, McGill University	2023-2024
Ellie Chambers, Undergraduate Research Assistant, McGill University	2023-2024
Sijie Xu, Undergraduate Research Assistant, McGill University	2023-2024
Emiliya Emin, Undergraduate Research Assistant, McGill University	2022-2024
Iola Patalas, Graduate Student, Concordia University	2022-2024
Alexandra Saliba, Undergraduate Research Assistant, McGill University	2021-2022
Paul De Luca, Undergraduate Research Assistant, McGill University	2020-2021
Hector Leos Mendoza, Undergraduate Research Assistant, McGill University	2020-2021
Alexandra Saliba, Undergraduate Research Assistant, McGill University	2020-2021
Jingkang Wang, Undergraduate Research Assistant, McGill University	2020-2021
Michelle Yang, Undergraduate Research Assistant, McGill University	2020-2021
Yong Zhang, Undergraduate Research Assistant, McGill University	2020-2021
Noemi Palmieri, Undergraduate Student, University of Pisa	2018-2019

Academic Service

Journal Reviewing

Behavior Research Methods
Canadian Journal of Experimental Psychology
Journal of Experimental Psychology: General
Memory & Cognition
Bilingualism: Language and Cognition
Applied Psycholinguistics
Psychophysiology
Cognitive Science
Journal of Psycholinguistic Research
Language Learning
Frontiers in Artificial Intelligence
Languages
Studies in Second Language Acquisition
Italian Review of Applied Linguistics

Conference and Workshop Reviewing

Language Resources and Evaluation Conference (LREC) 2020
Workshop on Linguistic and Neurocognitive Resources (LiNCR) 2020

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 Processing (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

Scientific Communications
When in doubt, keep it Gaussian
https://featuredcontent.psychonomic.org/when-in-doubt-keep-it-gaussian/

Professional Memberships
Canadian Society for Brain, Behaviour and Cognitive Science   2021-2022
Psychonomic Society   2020, 2022, 2024

Skills
Languages
Italian (Native) – English (Fluent) – French (Advanced)

Programming Languages
R (Advanced), Python (Advanced), SQL (Advanced)

Authoring Packages
(R)Markdown, Jupyter, LaTeX

Software Packages
tidyverse, dplyr, lme4, ggplot (R)
pandas, NumPy, SciPy (Python)

Operating Systems
Linux, Windows