

Marco Ciapparelli

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* 12 May 1997

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Current position

Jan 2026 – **Postdoctoral Fellow**, *Center for Mind/Brain Sciences (CIMEC), University of Trento*, Trento, Italy
current
Advisor: Roberto Bottini

Education

Dec 2024 – **Postdoctoral Fellow**, *Università degli Studi di Milano-Bicocca*, Milan, Italy
Dec 2025 Advisor: Carlo Reverberi

Nov 2021 – **Ph.D., Experimental Psychology, Linguistics and Cognitive Neuroscience**, *Università degli Studi di Milano-Bicocca*, Milan, Italy
Nov 2024
Supervisor: Marco Marelli; Co-supervisor: Carlo Reverberi
Thesis: Multiple routes to conceptual combination: A distributional modeling approach

Oct 2023 – **Visiting Ph.D. student**, *University of Pennsylvania*, Philadelphia, PA, USA
Mar 2024 Supervisor: Sharon Thompson-Schill

Oct 2019 – **M.S., Applied Experimental Psychological Sciences**, *Università degli Studi di Milano-Bicocca*, Milan, Italy, *110/110 cum laude*
Oct 2021
Thesis: Predicting the memory advantage of counterintuitive concepts: The participation coefficient as a measure of recall

Oct 2016 – **B.S., Psychological Sciences and Techniques**, *Università degli Studi di Milano-Bicocca*, Milan, Italy, *110/110 cum laude*
Oct 2019
Thesis: Distributional models for grounded cognition: explaining semantic priming effects

Further Education

25 Mar 2019 – **International Interdisciplinary Computational Cognitive Science**
31 Mar 2019 **Spring School**, *Bernstein Center*, Freiburg, Germany

9 May 2021 – **Eye tracking technology: A training workshop on methods for psychological and educational research**, *University of Oslo*, Oslo, Norway
13 May 2021

Teaching

Apr 2024 – **Tutoring**, *Tutor of the Computational modelling course from the Applied Experimental Psychological Sciences (AEPS) Master course (25 hours)*, University of Milan-Bicocca, Milan, Italy
May 2024

- 22 Apr 2024 **Seminar**, *Participated in the Multi-Variate Pattern Analysis (MVPA) for neuroimaging seminars with a lecture titled: "Semantic composition in the brain: A representational similarity approach" (2 hours)*, University of Milan-Bicocca, Milan, Italy
- 4 Jul 2024 **Workshop**, *Held the minicons and large language models practical workshop (2 hours)*, Belgrade University, Belgrade, Serbia
- 24 Jun - 27 Jun 2025 **Workshop**, *Held the Python for linguists practical workshop (4 hours)*, Birmingham University, Birmingham, UK
- 26 Jun - 27 Jun 2025 **Workshop**, *Held the Large language models for (psycho)linguistics practical workshop (6 hours)*, Birmingham University, Birmingham, UK

Publications

1. Petilli, M. A., Günther, F., Vergallito, A., **Ciapparelli, M.**, & Marelli, M. (2021). Data-driven computational models reveal perceptual simulation in word processing. *Journal of Memory and Language*, 117, 104194
2. **Ciapparelli, M.**, Zarbo, C., & Marelli, M. (2025). Conceptual Combination in Large Language Models: Uncovering Implicit Relational Interpretations in Compound Words with Contextualized Word Embeddings. *Cognitive Science*, 49(3), e70048.
3. **Ciapparelli, M.**, Marelli, M., Graves, W., & Reverberi, C. (2025). Compositionality in the semantic network: A model-driven representational similarity analysis. *Cerebral Cortex*, 35(8), bhaf246.

Book Chapters, Textbook Contributions

1. De Varda., A, & **Ciapparelli, M.** (2024). Word semantic similarity norms. *In press*
2. **Ciapparelli, M.**, & De Varda., A, (2025). BERT pre-trained models. *In press*

Conferences and Seminars

- 25 Mar 2019 – **International Interdisciplinary Computational Cognitive Science Spring School**, Bernstein Center, Germany, *Poster presentation*. Petilli, M. A., Günther, F., Vergallito, A., **Ciapparelli, M.**, & Marelli, M. (2019). Does word processing involve visual simulations? An experiment with semantic priming and vision-based distributional models
- 15 Dec 2022 – **Italian Association of Cognitive Sciences**, Università di Trento, Rovereto, Italy, *Oral presentation*. **Ciapparelli, M.**, Günther, F., & Marelli, M. (2023). Semantic transparency in compound word reading: A computational investigation
- 4 May 2023 – **Workshop on Concepts, Actions, and Objects**, CIMEC, Rovereto, Italy, *Poster presentation*. **Ciapparelli, M.**, Reverberi, C., & Marelli, M. (2023). Semantic composition in the brain: A representational similarity approach
- 29 May 2023 – **Psycholinguistics in Flanders Conference**, University of Ghent, Ghent, Belgium, *Oral presentation*. **Ciapparelli, M.**, & Marelli, M. (2023). Modeling compound word relational interpretations with contextualized word embeddings

- 6 Sep 2023 – 9 Sep 2023 **Conference of the European Society for Cognitive Psychology (ES-COP)**, *University of Porto*, Porto, Portugal, *Oral presentation*. **Ciapparelli, M.**, Zarbo, C., & Marelli, M. (2023). Contextualized word embeddings capture compound words' implicit relational interpretations
- 4 Jul 2024 – 6 Jul 2024 **International Word Processing Conference (WoProc)**, *Belgrade University*, Belgrade, Serbia, *Oral presentation*. **Ciapparelli, M.**, Zarbo, C., & Marelli, M. (2024). Uncovering implicit relational interpretations of compound words with contextualized word embeddings
- 8 Jul 2024 – 11 Jul 2024 **Highlights in the Language Sciences**, *Radboud University*, Nijmegen, Netherlands, *Poster presentation*. **Ciapparelli, M.**, Reverberi, C., & Marelli, M. (2024). Neural representations of combinatorial semantics: A model-based fMRI reanalysis
- 5 Nov 2024 **Invited talk**, *RWTH Aachen University*, Aachen, Germany, *Oral presentation*. Predicting the appearance of novel combined concepts via language-vision alignment
- 7 May 2025 – 9 May 2025 **Workshop on Concepts, Actions, and Objects**, *CIMEC*, Rovereto, Italy, *Poster presentation*. **Ciapparelli, M.**, & Thompson-Schill, S. (2025). Predicting the appearance of novel combined concepts via language-vision alignment
- 23 Jun - 27 Jun 2025 **MEDAL Summer School in Computational Modelling**, *Birmingham University*, Birmingham, UK, *Invited plenary talk (with Marco Marelli)* Understanding the unknown: How to make sense of unfamiliar words, from a computational psycholinguistic perspective

Languages

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| Italian | Native language |
| English | Fluent (C1 level) |
| Mandarin | Early beginner (A1 level) |
| Chinese | |

Computer skills

MATLAB, R, Python, Qualtrics, PsychoPy3, SPM12