

Marco Marelli

CONTACT INFORMATION

Department of Psychology
University of Milano-Bicocca
Piazza dell'Ateneo Nuovo, 1
20126 Milano, Italy

Phone: +39 02 64486631
www.marcomarelli.net
marco.marelli@unimib.it

ACADEMIC POSITION

University of Milano-Bicocca, Milano, Italy

Researcher, Department of Psychology, 2016-today

PREVIOUS POSITIONS

Ghent University, Gent, Belgium

Researcher, Department of Experimental Psychology, 2016

University of Trento, Trento, Italy

Post-doctoral research fellow, Center for Mind/Brain Sciences, 2012-2016

EDUCATION

Center for Advanced Academic Studies, Dubrovnik, Croatia

1st NetWordS Summer School: Interdisciplinary Approaches to Exploring the Mental Lexicon, 2012

University of Milano-Bicocca, Milano, Italy

Ph.D. in Experimental Psychology, Linguistics and Cognitive Neuroscience, 2007-2011

- Thesis: The mental representation of compound nouns: evidence from neuro- and psycholinguistic studies.
- Supervisor: Professor Claudio Luzzatti

University of Oxford, Oxford, UK

MagStim TMS Summer School 2011

University of Alberta, Edmonton, Canada

Visiting Ph.D. student at the Centre for Comparative Psycholinguistics 2010

- Supervisor: Professor R. Harald Baayen

University of Milano-Bicocca, Milano, Italy

Experimental internship at the Department of Psychology 2007

M.Sc. in Clinical Psychology and Neuropsychology (Laurea Specialistica) 2005-2007

- Thesis: The processing of noun-noun and verb-noun compound words in Italian: a constituent priming study.
- Supervisor: Professor Claudio Luzzatti
- Mark: 110/110 summa cum laude

A. Bellini Hospital, Somma Lombardo (VA), Italy

Clinical internship at the Rehabilitation Unit 2005

University of Milano-Bicocca, Milano, Italy

B.Sc. in Psychological Science and Techniques (Laurea) 2002-2005

- Thesis: Identification and misidentification: double dissociation between prosopagnosia and Capgras delusion.
- Supervisor: Professor Claudio Luzzatti
- Mark: 109/110

EDITORIAL
ACTIVITIES

Cortex

- Guest editor
- Special issue “Structure in words: the present and future of morphological processing in a multidisciplinary perspective”

ORGANIZING
COMMITTEES

Co-organization of Conference

- “International Conference on Morphological Processing (MOPROC)”
- Trieste, June 2017.

Co-organization of Autumn School

- “Methods in Language Comprehension”
- Rovereto, November 2014.

Co-organization of a SemEval-2014 Shared Task

- “Evaluation of compositional distributional semantic models on full sentences through semantic relatedness and textual entailment”
- Dublin, August 2014
- <http://alt.qcri.org/semEval2014/task1/>

GRANTS
AND AWARDS

- Principal investigator in a Cariplo - Regione Lombardia research grant: *On the road to multimodality - First steps of a multimodal model of the human conceptual system*
- Value: euro 124,888; 2018-2019

Principal investigator in a FWO research grant (co-P.I. Marc Brysbaert, Ghent University): *Understanding prediction in language processing: Quantifying the degree to which a word's meaning and orthographic form are expected from the preceding context*
- Value: euro 190,000; 2017-2018

STSM travel grant from COST ACTION IC1307: *Language IN vision: how linguistic structures are reflected in vector representations for images* - Value: euro 1,220; 2016

Award for the best poster presentation, 32nd European Workshop on Cognitive Neuropsychology, Bressanone; 2014

Award for the best doctoral dissertation in experimental psychology, Italian Association of Psychology - Value: euro 1,000; 2013

PhD scholarship from the Ministry of the Education, University and Research (MIUR), Italian Government - Value: euro 13,638 per year; 2007-2011

Participant in a Lombardia-ASTIL grant, P.I. Claudio Luzzatti (University of Milano-Bicocca): *Acquired and developmental dyslexias: a comparative research to identify their biological and cognitive bases and develop a specific treatment for reading impairments* - Value: euro 320,154; 2010-2011

Participant in a MIUR-PRIN grant, P.I.s Pierluigi Zoccolotti (University of Rome La Sapienza) and Claudio Luzzatti (University of Milano-Bicocca): *Mental representation of the inflectional and derivational morphology: evidence from (normal and impaired) reading acquisition and acquired dyslexic disorders* - Value: euro 63,000; 2007-2009

PUBLICATIONS IN
PEER-REVIEWED
INTERNATIONAL
JOURNALS

Marelli, M., and Amenta, S. (in press). A database of Orthography-Semantics Consistency (OSC) estimates for 15,017 English words. *Behavior Research Methods*.

Marelli, M. (in press). Word-Embeddings Italian Semantic Spaces: a resource for psycholinguistic research. *Psihologija*.

Marelli, M., Gagné, C. L., Spalding, T. L. (2017). *Compounding as Abstract Operation in Semantic Space: Investigating relational effects through a large-scale, data-driven computational model*. *Cognition*, 166, 207-224.

Foppolo, F., and **Marelli, M.** (2017). Not all inferences take some time. *Journal of Semantics*, 34(4), 659-681

Lazaridou, A., **Marelli, M.**, and Baroni, M. (2017). Multimodal word meaning induction from minimal exposure to natural text. *Cognitive Science*, 41(4), 677-705.

Amenta, S., **Marelli, M.**, and Sulpizio, S. (2017). From sound to meaning: a quantitative exploration of the phonology-to-semantics mapping in visual word recognition. *Psychonomic Bulletin and Review*, 24(3), 887-893.

Herdagdelen, A., and **Marelli, M.** (2017) Social media and language processing: how Facebook and Twitter provide the best frequency estimates for studying word recognition. *Cognitive Science*, 41(4), 976-995.

Greco, C., Haegeman, L., and **Marelli, M.** (2017) External syntax and the Cumulative Effect in subject sub-extraction. An experimental evaluation. *The Linguistic Review*, 34(3), 479-531

- Vecchi, E. M., **Marelli, M.**, Baroni, M., and Zamparelli, R. (2017) Spicy adjectives and nominal donkeys: Capturing semantic deviance using compositionality in distributional spaces. *Cognitive Science*, 41(1), 102-136.
- Guenther, F., and **Marelli, M.** (2016). Understanding karma police: the perceived plausibility of noun compounds as predicted by distributional models of semantic representations. *PLoS One*, 11(10).
- Bentivogli, L., Bernardi, R., **Marelli, M.**, Menini, S., Baroni, M., and Zamparelli, R. (2016) SICK Through the SemEval Glasses: Lesson learned from the evaluation of compositional distributional semantic models on full sentences through semantic relatedness and textual entailment. *Language Resources and Evaluation*, 50(1), 95-124.
- Marelli, M.**, and Baroni, M. (2015). Affixation in semantic space: Modeling morpheme meanings with compositional distributional semantics. *Psychological Review*, 122(3), 485-515.
- Marelli, M.**, Amenta, S., and Crepaldi, D. (2015). Semantic transparency in free stems: the effect of Orthography-Semantics Consistency in word recognition. *Quarterly Journal of Experimental Psychology*, 68(8), 1571-1583.
- Marelli, M.**, Dinu, G., Zamparelli, R., and Baroni, M. (2015). Picking buttercups and eating butter cups: spelling alternations, semantic relatedness and their consequences for compound processing. *Applied Psycholinguistics*, 36(6), 1421-1439.
- Amenta, S., **Marelli, M.**, and Crepaldi, D. (2015). The fruitless effort of growing a fruitless tree: Early morpho-orthographic and morpho-semantic effects in sentence reading. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 41(5), 1587-1596
- Danelli, L., **Marelli, M.**, Berlingeri, M., Tettamanti, M., Sberna, M., Paulesu, E., and Luzzatti, C. (2015) Framing effects reveal discrete lexical-semantic and sublexical procedures in reading: an fMRI study. *Frontiers in Psychology*, 6, 1328.
- Foppolo, F., **Marelli, M.**, Meroni, L., and Gualmini, A. (2015). Hey little sister, who's the only one? Modulating informativeness in the resolution of privative ambiguity. *Cognitive Science*, 39(7), 1646-1674.
- Marelli, M.**, Zonca, G., Contardi, A., and Luzzatti, C. (2014). The representation of compound headedness in the mental lexicon: a picture naming study in aphasia. *Cognitive Neuropsychology*, 31(1-2), 26-39.
- Paperno, D., **Marelli, M.**, Tentori, K., and Baroni, M. (2014). Corpus-based estimates of word association predict biases in judgment of word co-occurrence likelihood. *Cognitive Psychology*, 74, 66-83.
- Rusconi, P.P., **Marelli, M.**, D'Addario, M., Russo, S., and Cherubini, P. (2014). Evidence Evaluation: Measure Z Corresponds to Human Utility Judgments Better than Measure L and Optimal-Experimental-Design Models. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 40(3), 703-723.
- Arcara, G., **Marelli, M.**, Buodo, G., and Mondini, S. (2014). Compound headedness in the mental lexicon: an ERP study. *Cognitive Neuropsychology*, 31(1-2), 164-183.
- Traficante, D., **Marelli, M.**, Burani, C., and Luzzatti, C. (2014). Influence of verb and noun bases on reading aloud derived nouns: evidence from children with good and poor reading skills. *Reading and writing*, 27(7), 1303-1326.

- Sartori, R.D.G., **Marelli, M.**, Garavaglia, P., Castelli, L., Busin, S., and Delle Fave, A. (2014). The assessment of patients' daily quality of experience: autonomy level and perceived challenges. *Rehabilitation Psychology*, 59(3), 267-77.
- Foppolo, F., Meroni, L., **Marelli, M.**, and Gualmini, A. (2014). The only one strategy in context. *Lingua*, 145, 266-275.
- Marelli, M.**, Amenta, S., Morone, E.A., and Crepaldi, D. (2013). Meaning is in the beholder's eye: morpho-semantic effects in masked priming. *Psychonomic Bulletin and Review*, 20(3), 534-541.
- Marelli, M.**, Aggujaro, S., Molteni, F., and Luzzatti, C. (2013). Understanding the mental lexicon through neglect dyslexia: a study on compound noun reading. *Neurocase*, 19(2), 128-144.
- Rusconi, P.P., **Marelli, M.**, Russo, S., D'Addario, M., and Cherubini, P. (2013). Integration of base rates and new information in an abstract hypothesis-testing task. *British Journal of Psychology*, 104(2), 193-211.
- Marelli, M.**, and Luzzatti, C. (2012). Frequency effects in the processing of Italian nominal compounds: modulation of headedness and semantic transparency. *Journal of Memory and Language*, 66(4), 644-664.
- Marelli, M.**, Aggujaro, S., Molteni, F., and Luzzatti, C. (2012). The multiple-lemma representation of Italian compound nouns: a single case study on deep dyslexia. *Neuropsychologia*, 50(5), 852-861.
- Baayen, R.H., Milin, P., Filipovic Durdevic, D., Hendrix, P., and **Marelli, M.** (2011). An amorphous model for morphological processing in visual comprehension based on naive discriminative learning. *Psychological Review*, 118(3), 438-481.
- Marelli, M.**, Crepaldi, D., and Luzzatti, C. (2009). Head position and the mental representation of Italian nominal compounds. *The Mental Lexicon*, 4, 430-455.

PUBLICATIONS IN
PEER-REVIEWED
CONFERENCE
PROCEEDINGS

- Pezzelle, S., **Marelli, M.**, and Bernardi, R. (2017). Be Precise or Fuzzy: Learning the Meaning of Cardinals and Quantifiers from Vision. *Proceedings of the 15th Conference of the European Chapter of the Association for Computational Linguistics, 337-342*, East Stroudsburg PA: ACL.
- Marelli, M.**, Menini, S., Baroni, M., Bentivogli, L., Bernardi, R., and Zamparelli, R. (2014). A SICK cure for the evaluation of compositional distributional semantic models. *Proceedings of the Language Resources and Evaluation Conference, 2014*, 216-223, Reykjavik (Iceland): ELRA.
- Marelli, M.**, Bentivogli, L., Baroni, M., Bernardi, R., Menini, S., and Zamparelli, R. (2014). Semeval-2014 Task 1: Evaluation of compositional distributional semantic models on full sentences through semantic relatedness and textual entailment. *Proceedings of the 8th International Workshop on Semantic Evaluation (SemEval 2014)*, 1-8, Dublin (Ireland): ACL and DCU.
- Lazaridou, A., **Marelli, M.**, Zamparelli, R., and Baroni, M. (2013). Compositionally derived representations of morphologically complex words in distributional semantics. *Proceedings of the 51st Annual Meeting of the Association for Computational Linguistics, 1517-1526*, East Stroudsburg PA: ACL.
- Bernardi, R., Dinu, G., **Marelli, M.**, and Baroni, M. (2013). A relatedness benchmark to test the role of determiners in compositional distributional semantics. *Proceedings of the 51st Annual Meeting of the Association for Computational Linguistics, 53-57*, East Stroudsburg PA: ACL.

- Amenta, S., **Marelli, M.**, Crepaldi, D., and Morone, E.A. (2012). Is morpho-orthographic segmentation obligatory? Evidence from a new eye-tracking masked priming paradigm. *Procedia - Social and Behavioral Sciences: Annual Meeting of the Academy of Aphasia*, 61, 289-290.
- Marelli, M.**, Barbieri, B., Zonca, G., and Luzzatti, C. (2012). Grammatical class, inflectional entropy and imageability effects in picture naming: a multiple single-case study on Italian aphasic patients. *Procedia - Social and Behavioral Sciences: Annual Meeting of the Academy of Aphasia*, 61, 214-215.
- Marelli, M.**, Traficante, D., Aggujaro, S., Molteni, F., and Luzzatti, C. (2011). Grammatical and semantic effects in reading derived nouns: a study on deep dyslexia. *Procedia - Social and Behavioral Sciences: Annual Meeting of the Academy of Aphasia*, 23, 69-70.
- Barbieri, E., **Marelli, M.**, Zonca, G., Saletta, P., Friedmann, N., and Luzzatti, C. (2011) Three sides of a same coin? An investigation of phonological dyslexia in a group of Italian aphasic patients. *Procedia - Social and Behavioral Sciences: Annual Meeting of the Academy of Aphasia*, 23, 82-83.
- Marelli, M.**, Aggujaro, S., Molteni, F., Zonca, G., and Luzzatti, C.G. (2010). Headedness and whole-word effects in compound processing: Evidence from neuropsychological studies. *Procedia - Social and Behavioral Sciences: Annual Meeting of the Academy of Aphasia*, 6, 18-19.

PUBLICATIONS IN
EDITED BOOKS

- Marelli, M.**, Traficante, D., and Burani, C. (in press). Reading Morphologically Complex Words: Experimental Evidence and Learning Models. In Pirrelli, V., Plag, I., and Dressler, W. U. (eds.) *Word Knowledge and Word Usage: a Cross-disciplinary Guide to the Mental Lexicon*. Berlin: De Gruyter.
- Keuleers, E., and **Marelli, M.** (in press). Resources for mental lexicon research: A delicate ecosystem. In Pirrelli, V., Plag, I., and Dressler, W. U. (eds.) *Word Knowledge and Word Usage: a Cross-disciplinary Guide to the Mental Lexicon*. Berlin: De Gruyter.

INVITED
PRESENTATIONS

Psycholinguistic resources for Italian: big-data and crowdsourcing approaches

- (with Simona Amenta)
- Giornata di linguistica sperimentale e computazionale
- Padua, February 2018.

Understanding compound words: A new perspective based on compositional distributional semantics

- Consiglio Nazionale delle Ricerche
- Pisa, January 2018.

Understanding compound words: A new perspective from compositional systems in distributional semantics

- Workshop on ‘Wen wurmt der Ohrwurm?’
- Annual Conference of the German Linguistic Society (DGfS) 2017

- Saarbruecken, March 2017.

Dissecting semantic transparency effects in derived word processing

- Workshop on ‘Lexicon and Learning-Based Perspectives on Morphological Processing’
- International meeting of the Psychonomic Society
- Granada, May 2016.

When words are un-understandable: modeling the processing of morphologically complex words with compositional distributional semantics

- Institute for Natural Language Processing
- Stuttgart, January 2016.

Vector semantics and Naive Discriminative Learning

- (with Harald Baayen)
- Tutorial at the International Quantitative Morphology Meeting
- Belgrade, July 2015.

The processing of complex words in semantic space

- Department of Experimental Psychology, Ghent University
- Ghent, May 2015.

Vector semantics and morphology

- Philosophische Fakultät, Eberhard Karls Universität
- Tübingen, March 2015.

Quantitative approaches to language investigation

- Institut d’Etude de la Cognition, École Normale Supérieure
- Paris, November 2013.

Integrazione di informazioni semantiche e grammaticali nell’elaborazione di parole composte: evidenze psicolinguistiche e neuropsicologiche

- Best doctoral dissertation talk
- XIX Congresso di Psicologia Sperimentale
- Roma, September 2013.

The lemma in the reading system: grammatical and lexical effects in morphologically complex words

- Plenary lecture on ‘Dyslexia across Languages, Orthographies and Morphologies’
- 31st European Workshop on Cognitive Neuropsychology
- Bressanone, January 2013.

Headedness and whole-word effects in compound processing: evidence from neuropsychological studies

- Symposium on compound word processing
- 48th Meeting of the Academy of Aphasia
- Athens, October 2010.

QUALIFICATIONS **Italian Ministry of Education**

- Abilitazione Scientifica Nazionale, seconda fascia, 2017-2023

University of Pavia, Pavia, Italy

- Qualification for practising the profession of Psychologist, 2009