

Moreno I. Coco

CONTACT INFORMATION

Department of Psychology
Sapienza, University of Rome
Via dei Marsi, 78
Rome, 00185, Italy

Contact: (+39) 06 4991 7878
mail: moreno.coco@uniroma1.it
web: www.morenococo.org

KEYWORDS

human cognitive neuroscience, visual cognition, psycholinguistics, memory, healthy and pathological cognitive ageing, statistics and data analysis for complex data, software developing, computational modelling, eye-tracking, electro-physiology.

EDUCATION

Italian Academic Qualification as Full Professor in Psychological Sciences (ASN 2025, 11/E1)

Italian Academic Qualification as Associate Professor in Psychological Sciences (ASN 2020, 11/E1)

Fellow of the Higher Education Academy (awarded with distinction), **Pedagogy** (2018-2019)
Centre for Excellence in Learning and Teaching, **CELT**, University of East London, London, UK

Ph.D., **Informatics** (2007-2011)

School of Informatics, **ILCC**, University of Edinburgh, Edinburgh, UK

Thesis: *Coordination of Vision and Language in Cross-Modal Referential Processing*

Supervised by Prof. Frank Keller (*computational cognitive science*)

and Prof. John M. Henderson (*visual cognition*)

M.Sc., **Linguistics** (2004-2007)

Universita' degli studi di Siena, Italy, and Utrecht Universiteit, Holland

Thesis (*Magna cum Laude*): *Spatial Preposition Selection. A formal perceptual Optimality Theory model.*

Supervised by Prof. Luigi Rizzi (*formal linguistics*)

and Dr. Joost Zwarts (*cognitive linguistics*)

B.S., **Communication Sciences** (2001-2004)

Universita' degli studi di Siena, Italy

Thesis (*Magna cum Laude*): *Can recurrent neural networks learn the distinction between active and passive syntactic structures?* (in Italian)

Supervised by Prof. Luigi Rizzi (*formal linguistics*)

and Dr. Cristiano Chesi (*computational linguistics*)

POSITIONS

Academic Appointment

- Associate Professor in **Psychological Sciences**, [Department of Psychology, Sapienza, University of Rome](#), **January 2025 - onwards**
- Honorary Visiting Professor in **Psychological Sciences**, [School of Psychology, University of East London](#), **April 2026 - onwards**
- Assistant Professor (tenure-RTDb) in **Psychological Sciences**, [Department of Psychology, Sapienza, University of Rome](#), **January 2022 - December 2024**
- Senior Lecturer in **Psychological Sciences**, [School of Psychology, University of East London](#), **September 2018 - December 2021**
- Associate Investigator, [Center for Research in Psychological Science, Universidade de Lisboa](#), **July 2018 - July 2022**

Independent Research Fellow

- Leverhulme Trust, [School of Philosophy, Psychology and Language Sciences, University of Edinburgh](#), **May 2015 - May 2018**
- Fundação para a Ciência e Tecnologia, [Faculdade de Psicologia, Universidade de Lisboa](#), **April 2013 - April 2015**

Research Associate

- European Research Council (PI Prof. Frank Keller), [School of Informatics, The University of Edinburgh](#), **January 2011 - February 2013**

Visiting and Honorary Researcher

- [Department of Psychology; University of North Carolina at Charlotte](#), **Spring 2024**
- [Baycrest Centre](#), **June 2022**
- [Institute for Language, Cognition and Computation, University Of Edinburgh](#), **March 2013 - May 2018**
- [Centro de Linguística, Universidade de Lisboa](#), **December 2013 - onward**
- [Institut für Psychologie, Humboldt Universität zu Berlin](#), **January 2017 - April 2017**
- [Department of Psychology, UC San Diego](#), **May 2017 - June 2017**
- [Institute for Systems and Robotics, Instituto Superior Técnico](#), **July 2016 - December 2016**
- [Department of Cognitive and Information Sciences, University of California at Merced](#), **February 2012 - April 2012**

RESEARCH INTERESTS

My current research focuses on the role that attention plays on the formation and maintenance of memory traces. Previously, I examined the cross-modal integration of linguistic and visual processing. My empirical approach combines behavioural (e.g., eye-tracking, computer-mouse tracking) and imaging methods (e.g., electro-physiology) as isolated signals, or in co-registration (e.g., fixation-related potentials), to explore the cognitive mechanisms at work in healthy and neuro-pathological populations, and utilize computational modelling to obtain finer-grained quantitative explanations of human cognition.

I use the following classification schema to describe the areas of contribution of my publications:

Aging (**A**); Coordination dynamics and Cross-modal processing (**CC**); Computational Modelling (**CM**); Eye-Tracking (**ET**); Electro-physiology (**EEG**); functional Magnetic Resonance (**fMRI**); Interaction (**I**; Human-human, human-robot) Memory Processes (**MP**); Motor-action Tracking (**MT**); Neurodiversity, neuropsychology and pathological cognition (**NP**); PsychoLinguistics (**PL**); Visual Cognition (**VC**)

40. E. Allegratti* and **M. I. Coco** (2026). Object Features Hierarchically Guide Eye-Movement and Short-Term Memory for Naturalistic Scenes with Preserved Spatial Layout Across the Lifespan *Quarterly Journal of Experimental Psychology*, 50 (2), e70185. DOI: [10.1177/1747021826144506](https://doi.org/10.1177/1747021826144506) (SJR, 0.78: Q2 in Experimental and Cognitive Psychology)
39. A. Galati, R. Dale, C. Alviar and **M. I. Coco**. (2026). Task goals constrain the alignment in eye-movements and speech during interpersonal coordination. *Journal of Memory and Language*, 146 (104691). DOI: [10.1016/j.jml.2025.104691](https://doi.org/10.1016/j.jml.2025.104691)(**CC/VC/ET**) (SJR, 1.8: Q1 in Experimental and Cognitive Psychology)
38. E. Allegratti*, M. Mauti* and **M. I. Coco**. (2025). Visual short-term memory binding and attentional processes during object-scene integration are preserved in mild cognitive impairment. *Cortex*. DOI: [10.1016/j.cortex.2024.12.002](https://doi.org/10.1016/j.cortex.2024.12.002)(**VC/ET/NP**) (SJR, 1.3: Q1 in Cognitive Neuroscience)
37. I. Salsano, N. M. Petro, G. Picci, A. J. Petts, R. J. Glesinger, L. K. Horne, A. T. Coutant, G. C. Ende, J. A. John, D. L. Rice, G. M. Garrison, K. A. Kress, V. Santangelo, **M. I. Coco** and T. W. Wilson. (2025). Blending into naturalistic scenes: Cortical regions serving visual search are more strongly activated in congruent contexts. *NeuroImage*, 311, 121214, DOI:[10.1016/j.neuroimage.2025.121214](https://doi.org/10.1016/j.neuroimage.2025.121214) (**VC/fMRI**) (SJR, 2.07: Q1 in Cognitive Neuroscience)
36. E. Allegratti*, G. D’Innocenzo* and **M. I. Coco**. (2025). The Visual Integration of Semantic and Spatial Information of Objects in Naturalistic Scenes (VISIONS) database: Attentional, Conceptual and Perceptual Norms. *Behavior Research Methods*, 57(42) (**VC/PL/ET**) (SJR, 2.4: Q1 in Experimental and Cognitive Psychology)
35. **M. I. Coco**, G. Smith, R. Sperlorzi and M. Garraffa. (2025). Moving to continuous classifications of bilingualism through machine learning trained on language production. *Bilingualism: Language and Cognition*, 28(1), 248-256. DOI: [10.1017/S1366728924000361](https://doi.org/10.1017/S1366728924000361)(**PL/CM**) (SJR, 1.21: Q1 in Linguistics and Language)
34. E. Delhay*, G. D’Innocenzo*, A. Raposo and **M. I. Coco**. (2024). The upside of cumulative conceptual interference on exemplar-level mnemonic discrimination. *Memory and Cognition*, 52, 1567-1578. DOI: [10.3758/s13421-024-01563-2](https://doi.org/10.3758/s13421-024-01563-2) (**MP**) (SJR, 1.03: Q1 in Experimental and Cognitive Psychology)
33. S. Della Sala, J. Bathelt, H. Buchtel, A. Tavano, C. Press, B. Love, I. Croy, R. Morris, S. Kotz, , M.D. Kopelman, M. I. Coco, P. Reber, S.J. Forkel and S.R. Schweinberger (2024). The future of science publishing. *Cortex*, 181, 93-100 DOI:[10.1016/j.cortex.2024.10.005](https://doi.org/10.1016/j.cortex.2024.10.005)(**NP**) (SJR, 1.3: Q1 in Cognitive Neuroscience)
32. **M. I. Coco**, C. Guariglia and L. Pizzamiglio (2024). Unconventionally trendy: The pluralistic endeavour of Cortex into the human cognitive neurosciences. *Cortex*, 170, 101-106 DOI:[10.1016/j.cortex.2023.12.001](https://doi.org/10.1016/j.cortex.2023.12.001)(**NP**) (SJR, 1.3: Q1 in Cognitive Neuroscience)
31. A. Mikhailova*, S. Lightfoot, J. Santos-Victor and **M. I. Coco** (2024). Differential effects of intrinsic properties of natural scenes and interference mechanisms on recognition processes in long-term visual memory. *Cognitive Processing*, 25, 173-187, DOI:[10.1007/s10339-023-01164-y](https://doi.org/10.1007/s10339-023-01164-y) (**VC/ET/MP**) (SJR, 0.43: Q3 in Artificial Intelligence)
30. R. Carroll, M. Vukovic, **M.I. Coco** and D. Townsend (2023). Editorial: New ideas in language sciences: linguistics. *Frontiers in Psychology*, 14, 1289877, DOI: [10.3389/fpsyg.2023.1289877](https://doi.org/10.3389/fpsyg.2023.1289877)(**PL**) (SJR, 0.89: Q2 in Miscellaneous)

29. E. Delhay*, **M.I. Coco**, M.A., Bahri and A. Raposo (2023). Typicality in the brain during semantic and episodic memory decisions. *Neuropsychologia.*, 184, 108529, DOI: [10.1016/j.neuropsychologia.2023.108529](https://doi.org/10.1016/j.neuropsychologia.2023.108529) (**MP/fMRI/PL**)
(SJR, 1.94: Q1 in Cognitive Neuroscience)
28. **M.I. Coco**, C. Maruta, I. Pavão Martins, S. Della Sala. Locations of objects are better remembered than their identities in naturalistic scenes: An eye-tracking experiment in mild cognitive impairment (2022). *Neuropsychology*, 37(7), 741–752, DOI: <https://doi.org/10.1037/neu000086> (**VC/ET/NP/MP/A**)
(SJR, 1.1: Q1 in Neuropsychology and Physiological Psychology)
27. G. D’Innocenzo*, S. Della Sala and **M.I. Coco**. Similar mechanisms of temporary bindings for identity and location of objects in healthy ageing: An eye-tracking study with naturalistic scenes (2022). *Scientific Reports*, 1;12(1):11163. DOI:<https://doi.org/10.21203/rs.3.rs-1486252/v1> (**VC/ET/NP/A**)
(SJR, 1.01: Q1 in Multidisciplinary)
26. **M.I. Coco**, D. Mønster, G. Leonardi, R. Dale and S. Wallot. Unidimensional and multidimensional methods for recurrence quantification analysis with crqa (2021). *The R-Journal*, 13(1), 145-163. DOI = [10.32614/RJ-2021-062](https://doi.org/10.32614/RJ-2021-062), (**CM**)
(SJR, 2.57: Q1 in Statistics and Probability)
25. **M. I. Coco**, G. Merendino, G. Zappala and S. Della Sala (2021). Semantic interference mechanisms on long-term visual memory and their eye-movement signatures in Mild Cognitive Impairment. *Neuropsychology*, 35(5), 498-513. DOI: [10.1037/neu0000734](https://doi.org/10.1037/neu0000734) (**VC/ET/NP/MP/A**)
(SJR, 1.1: Q1 in Neuropsychology and Physiological Psychology)
24. F. Cimminella*, G. D’Innocenzo*, S. Della Sala, A. Iavarone, C. Musella, and **M.I. Coco**. Preserved extra-foveal processing of object semantics in Alzheimer’s disease (2022). *Journal of Geriatric Psychiatry and Neurology*, 35(3), 418-433. DOI: [10.1177/08919887211016056](https://doi.org/10.1177/08919887211016056), (**VC/ET/NP/A**)
(SJR, 0.9: Q2 in Geriatrics and Gerontology)
23. A. Mikhailova*, A. Raposo, S. Della Sala and **M. I. Coco** (2021). Eye-movements reveal semantic interference effects during the encoding of naturalistic scenes in long-term memory. *Psychonomic Bulletin & Review*, 28(5), 1601-1614. DOI: [10.3758/s13423-021-01920-1](https://doi.org/10.3758/s13423-021-01920-1) (**VC/ET/MP**)
(SJR, 2.04: Q1 in Experimental and Cognitive Psychology)
22. M. Pagnotta*, K. Laland and **M.I. Coco** (2020) Attentional coordination in demonstrator-observer dyads facilitates learning and predicts performance in a novel manual task. *Cognition* 201(104314). DOI:[10.1016/j.cognition.2020.104314](https://doi.org/10.1016/j.cognition.2020.104314), (**VC/PL/ET/I/CM**)
(SJR, 2.7: Q1 in Cognitive Neuroscience)
21. **M.I. Coco**, A. Nuthmann and O. Dimigen (2020) Fixation-related brain potential during semantic integration of object-scene information. *Journal of Cognitive Neuroscience* 32(4), 571-589. DOI:[10.1162/jocn.a.01504](https://doi.org/10.1162/jocn.a.01504), (**VC/ET/EEG/CM**)
(SJR, 2.13: Q1 in Cognitive Neuroscience)
20. F. Cimminella*, S. Della Sala and **M.I. Coco** (2020) Extra-foveal processing of object semantics guides early overt attention during visual search. *Attention, Perception and Psychophysics*, 82, 655-670. DOI: [10.3758/s13414-019-01906-1](https://doi.org/10.3758/s13414-019-01906-1), (**VC/ET**)
(SJR, 1.49: Q1 in Experimental and Cognitive Psychology)
19. *M.T. Borges, *E.G. Fernandes and **M.I. Coco** (2020) Age-related differences during visual search: the role of contextual expectations and top-down control mechanisms. *Ageing, Neuropsychology and Cognition*, 27(4), 489-516 DOI: [110.1080/13825585.2019.1632256](https://doi.org/10.1080/13825585.2019.1632256), (**A/VC/NP**)
(SJR, 0.87: Q2 in Experimental and Cognitive Psychology)

18. *E.G., Fernandes, **M.I. Coco** and H.P. Branigan (2019) When Eye Fixation might not reflect Online Ambiguity Resolution: A study on Structural Priming using the Visual-World Paradigm in Portuguese. *Journal of Cultural Cognitive Science*, 3, 65-87 DOI: [10.1007/s41809-019-00021-9](https://doi.org/10.1007/s41809-019-00021-9), (PL/ET)
17. **M.I. Coco**, T. Brady, G. Merendino, G. Zappala', A. Baddeley, and S. Della Sala, (2018), Forgetting in normal and pathological ageing as a function of semantic interference, *Alzheimer's and Dementia*, 14(7), 915-916, DOI: [10.1016/j.jalz.2018.06.1179](https://doi.org/10.1016/j.jalz.2018.06.1179) (A/MP/NP) (SJR, 4.66: Q1 in Psychiatry and Mental Health)
16. *N.F., Duarte, J., Tasevski, M., Rakovic, **M.I. Coco**, A. Billard and J. Santos-Victor, (2018) Action Reading: Anticipating the Intentions of Humans and Robots. *IEEE Robotics and Automation Letters*, 3(4), 2377-2376 DOI: [10.1109/LRA.2018.2861569](https://doi.org/10.1109/LRA.2018.2861569), (ET/MT/I/CM) (SJR, 1.03: Q1 in Electrical and Electronic Engineering)
15. M., Garraffa, **M.I. Coco** and H.P. Branigan (2018) Impaired implicit learning of syntactic structure in children with developmental language disorder: Evidence from syntactic priming. *Autism & Developmental Language Impairments*, 3, 1-15 DOI: [10.1177/2396941518779939](https://doi.org/10.1177/2396941518779939) (NP/PL)
14. **M.I. Coco**, R. Dale and F. Keller (2018) Performance in a Collaborative Search Task: the Role of Feedback and Cognitive Alignment. *Topics in Cognitive Science*, 10, 55-79 DOI: [10.1111/tops.12300](https://doi.org/10.1111/tops.12300) (CC/ET/I/PL/CM) (SJR, 1.03: Q1 in Language and Linguistics)
13. **M.I. Coco**, S. Araújo, and K.M. Petersson (2017) Disentangling Stimulus Plausibility and Contextual Congruency: Electro-Physiological Evidence for Differential Cognitive Dynamics. *Neuropsychologia*, 96, 50-163, DOI: [10.1016/j.neuropsychologia.2016.12.008](https://doi.org/10.1016/j.neuropsychologia.2016.12.008) (CC/EEG/PL/VC) (SJR, 1.94: Q1 in Cognitive Neuroscience)
12. C. Souza, **M.I. Coco**, S. Pinho, C.N. Filipe and J.C. Carmo (2016) Contextual effects on visual short-term memory in High Functioning Autism Spectrum Disorder. *Research in Autism Spectrum Disorder*, 32, 64-69, DOI: [10.1016/j.rasd.2016.09.003](https://doi.org/10.1016/j.rasd.2016.09.003) (NP/VC) (SJR, 0.84: Q2 in Clinical Psychology)
11. **M. I. Coco**, L. Badino, P. Cipresso, A. Chirico, E. Ferrari, G. Riva, A. Gaggioli, A. D'Ausilio (2016) Multiscale behavioral synchronization in a joint tower-building task, *IEEE: Transactions on Cognitive and Developmental Systems*, 99, DOI: [10.1109/TCDS.2016.2545739](https://doi.org/10.1109/TCDS.2016.2545739) (CC/I/MT/CM) (SJR, 0.68: Q2 in Artificial Intelligence)
10. **M.I. Coco**, N. Duran (2016). When Expectancies Collide: Action Dynamics reveal the Interaction of Plausibility and Congruency, *Psychonomic Bulletin and Review*, 23(6), 1920-1931. DOI: [10.3758/s13423-016-1022-9](https://doi.org/10.3758/s13423-016-1022-9) (CC/MT/PL) (SJR, 2.04: Q1 in Experimental and Cognitive Psychology)
9. **M.I. Coco**, F. Keller, G.L. Malcolm (2016) Anticipation in Real-world Scenes: The Role of Visual Context and Visual Memory, *Cognitive Science*, 40, 1995-2024, DOI: [10.1111/cogs.12313](https://doi.org/10.1111/cogs.12313) (ET/PL) (SJR, 1.79: Q1 in Experimental and Cognitive Psychology)
8. **M.I. Coco** and F. Keller (2015) Integrating Mechanisms of Visual Guidance in Naturalistic Language Production, *Cognitive Processing*, 16(2), 131-150. DOI: [10.1007/s10339-014-0642-0](https://doi.org/10.1007/s10339-014-0642-0) (ET/PL) (SJR, 0.6: Q2 in Artificial Intelligence)
7. M. Garraffa, **M.I. Coco** and H.P. Branigan (2015) Effects of Immediate and Cumulative Syntactic Experience in Language Impairment: Evidence from Priming of Subject

Relatives in Children with SLI, *Language Learning and Development*, 11(1), 18-40. DOI: [10.1080/15475441.2013.876277](https://doi.org/10.1080/15475441.2013.876277) (NP/PL)

(SJR, 1.38: Q1 in Language and Linguistics)

6. **M.I. Coco** and F. Keller (2015) The Interaction of Visual and Linguistic Saliency during Syntactic Ambiguity Resolution, *Quarterly Journal of Experimental Psychology*, 68(1), 46-74. DOI: [10.1080/17470218.2014.936475](https://doi.org/10.1080/17470218.2014.936475) (CC/ET/PL/VC)
(SJR, 1.32: Q1 in Psychology (miscellaneous))
5. **M.I. Coco** and R. Dale (2014) Cross-Recurrence Quantification Analysis of Categorical and Continuous Time-Series: an R-Package. *Frontiers in Psychology*, Quantitative Psychology and Measurement, 5:510. DOI: [10.3389/fpsyg.2014.00510](https://doi.org/10.3389/fpsyg.2014.00510) (CM)
(SJR, 1.27: Q1 in Psychology (miscellaneous))
4. **M.I. Coco** and F. Keller (2014) Classification of Visual and Linguistic Tasks using Eye-Movement Features. *Journal of Vision*, 14(3):11. DOI: [10.1167/14.3.11](https://doi.org/10.1167/14.3.11) (CM/VC)
(SJR, 1.36: Q1 in Ophthalmology)
3. **M.I. Coco**, G.L. Malcolm and F. Keller (2014) The Interplay of Bottom-Up and Top-Down Mechanisms in Visual Guidance during Object Naming, The *Quarterly Journal of Experimental Psychology*, 67(6):1096-1120. DOI: [10.1080/17470218.2013.844843](https://doi.org/10.1080/17470218.2013.844843) (ET/PL/VC)
(SJR, 1.32: Q1 in Psychology (miscellaneous))
2. A.D.F. Clarke, **M.I. Coco** and F. Keller (2013). The Impact of Attentional, Linguistic and Visual Features during Object Naming, *Frontiers in Psychology*, 4:927. DOI: [10.3389/fpsyg.2013.00927](https://doi.org/10.3389/fpsyg.2013.00927) (ET/CM/PL/VC)
(SJR, 1.27: Q1 in Psychology (miscellaneous))
1. **M.I. Coco** and F. Keller, (2012) Scan Patterns Predict Sentence Production in the Cross-Modal Processing of Visual Scenes. *Cognitive Science*, 36(7), 1204-1223. DOI: [10.1111/j.1551-6709.2012.01246.x](https://doi.org/10.1111/j.1551-6709.2012.01246.x) (ET//CM/PL/VC)
(SJR, 1.79: Q1 in Experimental and Cognitive Psychology)

SJR quartile = SCImago Journal Rank (Q1 is the highest). Measure of scientific influence accounting for number of citations received by a journal on the year of publication and the prestige of journals where citations originated.

* indicates post-docs and post-graduate students under my supervision

GRANTS

- **Ateneo Progetti Ricerca Grande: Grant, PI**, Sapienza University of Rome *Enhancing digital neuropsychological assessments with attentional and motor-responses using self-adaptive interactive systems* ($\approx$ 50,000 €)
- **PRIN 2022: G.A.: 2022APAFFN, Grant, PI**, Ministero dell'Università e della ricerca, Italy *The attentional curve of forgetting in younger and older adults experimental and computational insights.* ($\approx$ 187,003 €)
- **PRIN PNRR 2022, G.A.: P2022WPKNKZ, Grant, Co-PI**, Ministero dell'Università e della ricerca, Italy *Identifying biomarkers of Lewy body dementia in the prodromal stage: a combined eye-tracking and EEG approach.* ($\approx$ 225,000 €)
- **Ateneo Progetti Ricerca Medio: Grant, PI**, Sapienza University of Rome *Uncovering the attentional curve of forgetting in healthy and pathological ageing.* ($\approx$ 10,000 €)
- **POR Lisboa, FEDER: Grant, PI** Fundação para a Ciência e Tecnologia and European Union, Portugal (2018): [info, PTDC/PSI-ESP/30958/2017](https://doi.org/10.1007/978-98-96-13095-8) *In search of lost memory: Experimental Evidences and Computational Models of Visual Memory in Healthy and Neuro-Degenerate Ageing* ($\approx$ 230,000 €)
- **Post-Doctoral Fellowship** Fundação para a Ciência e Tecnologia, SFRH/BPD/109375/2015, Portugal (2015, 2nd time): *Tracking Visual Memory in Aging: Theories, Models and Diagnostic Tools* (acceptance rate: $\approx$ 23%, $\approx$ 59,000 €, **declined**)

- **Early Career Fellowship**; Leverhulme Trust UK (2014), ECF-014-205: *Formation maintenance and use of top-down knowledge in Alzheimer Dementia* (acceptance rate $\approx 10\%$, $\approx 150,000$ £)
- Fundação Amedeu Diaz (2013): (PI, M.I. Coco; RA, M. Borges, **student support funding**, $\approx 4,000$ €)
- **Post-Doctoral Fellowship**, Fundação para a Ciência e Tecnologia, SFRH/BPD/88374/2012, Portugal (2012): *Neural Correlates of Context Violation during Synchronous Visual and Linguistic Processing*. (acceptance rate $\approx 23\%$, $\approx 108,000$ €)
- **Student volunteer**, Cognitive Science Society: CogSci 2010, Portland, USA ($\approx 1,000$ \$)
- **Student Travel Award**, Human Sentence Processing, CUNY 2010, New York, USA ($\approx 1,000$ \$)
- **PhD scholarship** jointly funded by the College of Science and Engineering, and the School of Informatics. University of Edinburgh. ($\approx 55,000$ £)
- **Erasmus** 12-months scholarship (≈ 5000 €).
- **Fondazione ENASARCO** from 2002 till 2007, student excellence support funding (≈ 20000 €).

CONFERENCE PROCEEDINGS

These proceedings (6 pages) are peer-reviewed and within the Cognitive Science community a widely used form of dissemination.

19. C. Genovese, F. Tucci, D. Conti, F. D'Antonio and **M.I. Coco** (2026). Impaired Semantic Guidance in Visual Search Differentiates Prodromal Dementia with Lewy Bodies from Alzheimer's Disease in *Proceedings of the 48th Annual Conference of the Cognitive Science Society* (CogSci 2026), Rio De Janeiro, Brasil.
18. Galati, A., Dale, R., Dhanavanthri, S. and **Coco, M.I.** (2025) Asymmetric task roles influence linguistic and gaze alignment during collaboration. ST&D 2025, (Annual Meeting of the Society for Text and Discourse), Padua, Italy.
17. T. S.S. Rocha, Mikhailova, J. Santos-Victor and **M.I. Coco** (2025) Deep Learning in Mild Cognitive Impairment Diagnosis using Eye Movements and Image Content in Visual Memory Tasks *ibPRIA 2025: 12th Iberian Conference on Pattern Recognition and Image Analysis*, Coimbra, Portugal
16. M. Mauti, G. D'Innocenzo, A. Buonocore and **M.I. Coco** (2024). Semantic Processing Modulates the Attentional Accessibility of Verbal and Nonverbal Search Targets, in *Proceedings of the 46th Annual Conference of the Cognitive Science Society* (CogSci 2024), Rotterdam, The Netherlands.
15. E. Allegretti, J. D. Ryan and **M.I. Coco** (2024). Conceptual Knowledge Modulates the Temporal Dynamics of Novelty Preference for Real-world Objects in a Visual Paired Comparison Task, in *Proceedings of the 46th Annual Conference of the Cognitive Science Society* (CogSci 2024), The Netherlands.
14. A., Mikhailova, J. Santos-Victor and **M.I. Coco** (2022) Contribution of low, mid and high-level image features of indoor scenes in predicting human similarity judgements *ibPRIA 2022: 10th Iberian Conference on Pattern Recognition and Image Analysis*, Aveiro, Portugal
13. M., Borges and **M.I. Coco** (2015). Access and Use of Contextual Expectations in Visual Search during Aging in *Proceedings of the EuroAsianPacific Joint Conference in Cognitive Science* (EAP CogSci 2015), Torino, Italy.
12. E.G., Fernandes, M.A. Costa and **M.I. Coco** (2015). Bridging Mechanisms of Reading, Viewing and Working Memory during Attachment Resolution of Ambiguous Relative Clauses in *Proceedings of the EuroAsianPacific Joint Conference in Cognitive Science* (EAP CogSci 2015), Torino, Italy. 2023.

11. **M.I. Coco** and R. Dale (2015). Quantifying the Dynamics of Interpersonal Interaction: A Primer on Cross-Recurrence Quantification Analysis using R in *Proceedings of the 37th Annual Conference of the Cognitive Science Society* (CogSci 2015), Pasadena, USA.
10. **M.I. Coco** and N.D. Duran (2015). Incidental Memory for Naturalistic Scenes: Exposure, Semantics, and Encoding in *Proceedings of the 37th Annual Conference of the Cognitive Science Society* (CogSci 2015), Pasadena, USA.
9. R. Dale, C. Yu, Y. Nagai, **M.I. Coco** and S. Kopp, (2013). Embodied Approaches to Interpersonal Coordination: Infants, Adults, Robots, and Agents. Workshop in *Proceedings of the 35th Annual Conference of the Cognitive Science Society* (CogSci 2013), Berlin, Germany, 24-25.
8. **M.I. Coco**, M. Garraffa and H.P. Branigan, (2012). Subject Relative Production in SLI Children during Syntactic Priming and Sentence Repetition. In *Proceedings of the 34th Annual Conference of the Cognitive Science Society* (CogSci 2012), 228-233, Sapporo, Japan.
7. B. Allison, F. Keller and **M.I. Coco**, (2012). A Bayesian Model of the Effect of Object Context on Visual Attention. In *Proceedings of the 34th Annual Conference of the Cognitive Science Society* (CogSci 2012), 1278-1283, Sapporo, Japan.
6. **M.I. Coco** and F. Keller, (2011). Temporal Dynamics of Scan Patterns in Comprehension and Production. In *Proceedings of the 33rd Annual Conference of the Cognitive Science Society* (CogSci 2011), 2302-2307, Boston, USA.
5. M. Dziemianko F. Keller and **M.I. Coco**, (2011). Incremental Learning of Target Locations in Visual Search. In *Proceedings of the 33rd Annual Conference of the Cognitive Science Society* (CogSci 2011), 1729-1734, Boston, USA.
4. **M.I. Coco** and F. Keller, (2010). Scan Pattern in Visual Scenes predict Sentence Production. In *Proceedings of the 32th Annual Conference of the Cognitive Science Society* (CogSci 2010), 1934-1939, Oregon, USA.
3. **M.I.Coco** and F.Keller (2010). Sentence Production in Naturalistic Scenes with Referential Ambiguity. In *Proceedings of the 32th Annual Conference of the Cognitive Science Society* (CogSci 2010), 1070-1075, Oregon, USA.
2. **M.I.Coco** and F.Keller (2009). The Impact of Visual Information on Reference Assignment in Sentence Production. In *Proceedings of the 31th Annual Conference of the Cognitive Science Society* (CogSci 2009), 274-279, Amsterdam, The Netherlands, 2009.
1. **M.I.Coco** (2009). The Statistical Challenge of Scan-path Analysis. In *2nd conference of Human System Interactions*, (HSI 2009) Catania, Italy, May, 2009

CONFERENCE PRESENTATIONS

63. Sciarra, D. and **Coco, M.I.**. E-sports as a Window into Cognitive Assessment: Insights from Performance, Eye-Tracking, and Neuropsychology in First-Person Shooter (FPS) Video games. 15th International Conference on Cognitive Neuroscience (ICON 2025). **Poster**
62. Mauti, M. and **Coco, M.I.**. Eyes on Memory: How Attention Shapes Forgetting Across Age and Time. 15th International Conference on Cognitive Neuroscience (ICON 2025). **Poster**
61. Allegratti, E. and **Coco, M.I.**. Fixation-related Potentials Reveal Preserved Extrafoveal Semantic Processing In Healthy Older Adults. 15th International Conference on Cognitive Neuroscience (ICON 2025). **Poster**

60. Muneghina, M.B., De Luca, M., Del Prete, C., Kaur, S., Di Giacomo, N., Conti, D., **Coco, M.I.**, Bureca, I., Galati, G. Word-centered left pure hemi-alexia: a case report. Congresso annuale della Società Italiana di Neuropsicologia (SINP2025) **Talk**
59. Tucci, F., Delhay, E., Raposo, A. and **Coco, M.I.**. Conceptual interference reshapes retrieval strategies in older adults' long-term memory. 4th Edition of the Recollection, Familiarity and Novelty (RFN2025) **Talk**
58. Allegretti, E., Ryan, J. and **Coco, M.I.**. Novelty detection for categorical associations of real-world objects is reduced by cognitive ageing. 4th Edition of the Recollection, Familiarity and Novelty (RFN2025) **Talk**
57. Mauti, M., and **Coco, M.I.**. Rethinking Forgetting: The Influence of Overt Attention on Memory Trace Decay. Vision Science Society (VSS2025), 2025. **Poster**
56. Allegretti, E., Ryan, J. and **Coco, M.I.**. Age-related differences in the time course of visual novelty preference for categorical and functional associations of real-world objects. Vision Science Society (VSS2025), 2025. **Poster**
55. **Coco, M.I.**, C., Bastine, and Parra, M. Visual short-term memory binding in Alzheimer's Disease (AD). Symposium organized for 9th International Conference on Spatial Cognition (ICSC2024), 2024. **Talk**
54. Sciarra, D. Palombi, T.; Galli, F.; De Maria, A.; Fegatelli, D., **Coco, M.I.**, Lucidi, F. Dynamical accommodation of overt attention, accuracy and time in modern pentathlon athletes during laser-run shooting. European Conference Eye Movement (ECEM2024), 2024. **Talk**
53. Allegretti, E. and **Coco, M.I.**. Object semantics is differently accessed from visual short-term memory by people suffering from Mild Cognitive Impairment. Vision Science Society (VSS2024), 2024. **Poster**
52. **Coco, M.I.** Fernandes, E.G., Arai, M., Keller, F. Scan pattern similarity predicts the semantic similarity of sentences across languages above and beyond their syntactic structures. Vision Science Society (VSS2024), 2024. **Poster**
51. **Coco, M.I.** Fernandes, E.G., Arai, M., Keller, F. Scan patterns predict associated sentences across languages: evidence for a universal perceptual grammar? Rovereto Attention Workshop (RAW2023), 2023. **Talk**
50. **Coco, M.I.**, Conceptual information predicts the memorability of naturalistic scenes in healthy and pathological cognitive ageing. Società Italiana di Neuropsicologia (SINP), 2023. **Talk**
49. **Coco, M.I.**, Fernandes, E.G., Arai, M., Keller, F. Semantic similarity of visually situated descriptions consistently predicts associated scan-pattern similarity across different languages. XXIX Congresso AIP-Sezione Sperimentale, 2023. **Talk**
48. Allegretti, E., Della Sala, S. and **Coco, M.I.**. Binding location and identity in naturalistic scenes boosts change detection when global configuration is preserved. XXIX Congresso AIP-Sezione Sperimentale, 2023. **Poster**
47. Allegretti, E. and **Coco, M.I.**. Object semantics is differently accessed from visual short-term memory by people suffering from Mild Cognitive Impairment. Rovereto Attention Workshop (RAW2023), 2023. **Poster**
46. Galati, A., Avilar, C., Dale, R., Dhanavanthri, S. and **Coco, M.I.** The Effect of Information Asymmetry on Gaze and Language Alignment During Collaboration. Annual meeting of the Psychonomic Society, 2023. **Talk**

45. **Coco, M.I.**, Smith, G., Spelozzi, R., Garraffa, M. How categorical is bilingualism? Using a Support Vector Machine to predict the profile of a speaker. Heritage languages at the crossroads: cultural contexts, individual differences and methodologies (HL@CROSS2023), 2023. **Talk**
44. Delhay, E., **Coco, M.I.**, Bahri, M.A., Raposo, A. Typicality in the brain during the retrieval of word concepts. European Society of Cognitive Psychology (ESOP), 2022. **Poster**
43. D'Innocenzo, G., Shoshina, E., Raposo, A. and **Coco, M.I.** Semantic relatedness differentially mediates overt attention when searching for pictures versus words: An online webcam-based eye tracking study. International Conference of Cognitive Neuroscience (ICON), 2022. **Poster**
42. Delhay, E., **Coco, M.I.**, Bahri, M.A., Raposo, A. Neural similarity between encoding and retrieval as a function of item typicality. International Conference of Cognitive Neuroscience (ICON), 2022. **Poster**
41. Galati, A., Avilar, C., Dale, R., and **Coco, M.I.**, Task Goals Modulate the Alignment of Eye-Movements and Linguistic Strategies. Annual meeting of the society for text and discourse (ST&D), 2021. **Talk**
40. D'Innocenzo, G., Mikhailova, A., and **Coco, M.I.**, Visual working memory for objects in scenes in younger and older adults: Insights from pupillometry presented at the Vision Science Society (VSS), virtual event, 2021. **Poster**
39. Galati, A., Avilar, C., Dale, R., and **Coco, M.I.**, Task Goals Constrain Interpersonal Coordination: Evidence from the Alignment of Eye-Movements presented at the Virtual Psychonomics (61st Annual Meeting), online, 2020. **Talk**
38. Cimminella, F., D'Innocenzo, G., Della Sala, S., Iavarone, A., Musella, C. and **Coco M. I.**, Object Semantics Can Be Accessed by Alzheimer's Disease Patients in Peripheral Vision presented at the Virtual Psychonomics (61st Annual Meeting), online, 2020. **Poster**
37. D'Innocenzo, G., Della Sala, S., and **Coco M. I.**, Detection of changes to objects in complex scenes - the role of object identity and location presented at OPAM (28th Annual Meeting), online, 2020. **Poster**
36. **Coco, M.I.**, Nuthmann, A. and Dimigen, O. Foveal vs. extrafoveal processing of object semantics during scene viewing: fixation-related N400 effects, presented at the European Conference on Eye-Movement (ECEM), Alicante, August, Spain, 2019. **Talk**.
35. Mikhailova, A., Raposo, A., Della Sala, S. and **Coco, M.I.**, The signature of semantic interference on eye-movement in a long-term visual memory task, presented at the European Conference on Eye-Movement (ECEM), Alicante, August, Spain, 2019. **Poster**.
34. **Coco, M.I.**, Nuthmann, A. and Dimigen, O. The fixation-related N400 during natural scene viewing: Investigating the foveal vs. extrafoveal processing of object semantics, presented at Vision Sciences Society, (VSS), St. Pete Beach, Florida, May, USA, 2019. **Poster**.
33. **Coco, M.I.**, Brady, T., Merendino, G., Zappala', G., Baddeley, A. and Della Sala, S., Forgetting in normal and pathological ageing as a function of semantic interference, presented at the Alzheimer's Association International Conference, Chicago, July, USA, 2018. **Poster**
32. **Coco, M.I.**, Maruta, C., Carvalho, M., Campos, C., Santos-Victor, J., Pavao Martins, I., and Della Sala S. Attentional responses while looking for changes: effect of pathological ageing presented at Vision Sciences Society, (VSS), St. Pete Beach, Florida, May, USA, 2018. **Poster**

31. **Coco, M.I.**, Nuthmann, A. and Dimigen, O. Fixation-related brain activity during processing of object-scene inconsistency, presented at the 6th Scientific Conference of the Federation of European Societies of Neuropsychology, (FESN), Maastricht, September, The Netherlands, 2017. **Talk**
30. **Coco, M.I.**, Calcagni, A., Lombardi, L. and Duran, N.D. Formation of memory traces for visual scenes: an action-dynamics approach, presented at the 20th Conference of the European Society for Cognitive Psychology (ESCoP), Postdam, September, Germany, 2017. **Talk**
29. **Coco, M.I.**, Nuthmann, A. and Della Sala, S. The role of visual attention and high-level object information on short-term visual working memory in a change detection task, presented at Vision Sciences Society, (VSS), St. Pete Beach, May, USA, 2017. **Poster**
28. Borges, M.T. and **Coco, M.I.** Access and Use of Contextual Expectations in Visual Search during Aging presented at the EuroAsianPacific Joint Conference in Cognitive Science (EAP CogSci 2015), Torino, Italy, 2015. **Talk**
27. Fernandes,E.G., Costa M.A. and **Coco, M.I.**. Bridging Mechanisms of Reading, Viewing and Working Memory during Attachment Resolution of Ambiguous Relative Clauses in Proceedings of the EuroAsianPacific Joint Conference in Cognitive Science (EAP CogSci 2015), Torino, Italy, 2015. **Talk**
26. **Coco, M.I.** and Dale R.Quantifying the Dynamics of Interpersonal Interaction: A Primer on Cross-Recurrence Quantification Analysis using R in Proceedings of the 37th Annual Conference of the Cognitive Science Society (CogSci 2015), Pasadena, USA, 2015. **Talk**
25. **Coco, M.I.**, Dale, R. and Keller, F. Performance in a Collaborative Search Task, presented at Society for Complex Systems in Cognitive Science, Pasadena, July, USA, 2015. **Talk**
24. **Coco, M.I.** and Dale, R. CRQA: Cross-Recurrence Quantification Analysis using R, presented at Society for Complex Systems in Cognitive Science, Pasadena, July, USA, 2015. **Talk**
23. Fernandes, E.G. **Coco, M.I.** and Branigan, H.P. Saturating the Anticipatory Mechanisms of Syntactic Priming during Situated Language Understanding, presented at Architectures and Mechanisms for Language Processing (AMLaP), Edinburgh, September, UK, 2014. **Poster**
22. **Coco, M.I.**, Dale, R. and Keller, F. The Role of Interactivity on Cognitive Alignment and Decision-Making during Dialogue. presented at CUNY, Columbus, March, SC, USA, 2013. **Talk**
21. **Coco, M.I.**, Dale, R. and Keller, F. Cognitive Dynamics of Alignment in Dialogue Games presented at Architectures and Mechanisms for Language Processing (AMLaP), Riva Del Garda, September, Italy, 2012 **Talk**
20. **Coco,M.I.**, Garraffa M. and Branigan,H.P. Subject Relative Production in SLI Children during Syntactic Priming and Sentence Repetition presented at the 34rd Annual Conference of the Cognitive Science Society (CogSci 2012),Sapporo, Japan, 2012, **Talk**
19. Allison, B., Keller F. and **Coco,M.I.** A Bayesian Model of the Effect of Object Context on Visual Attention presented at the 34rd Annual Conference of the Cognitive Science Society (CogSci 2012), Sapporo, Japan, 2012.
18. Garraffa,M. **Coco M.I.**, Branigan,P.H.: Processing of Subject Relatives in SLI Children during Structural Priming and Sentence Repetition presented at CUNY, 2012, New-York, USA, March, 2012. **Poster**.
17. **Coco M.I.**, Malcolm,L.G. and Keller F.: Anticipation in Real-world Scenes: The Role of Visual Context and Visual Memory, presented at CUNY, 2012, New-York, USA, March, 2012 **Poster**

16. **Coco M.I.**, Clarke, A.D. and Keller F.: Modeling the Visual and Linguistic Importance of Objects, presented at the Christmas meeting of the Applied Vision Association (AVA), York, UK, December, 2011. **Poster**
15. **Coco M.I.** and Keller, F. Temporal Dynamics of Scan Patterns in Comprehension and Production, presented at the 33rd Annual Conference of the Cognitive Science Society (CogSci 2011), Boston, USA. **Poster**
14. Dziemianko M., Keller F. and **Coco,M.I.** Incremental Learning of Target Locations in Visual Search presented at the 33rd Annual Conference of the Cognitive Science Society (CogSci 2011), Boston, USA, 2011. **Talk**
13. **Coco M.I.**, Malcolm G.L. and Keller F.: The Interplay of Bottom-Up and Top-Down Mechanisms in Visual Guidance during Object Naming, presented at V&L Net Workshop on Vision and Language. Endorsed by EACL (the European Chapter of the Association for Computational Linguistics) and BMVA (the British Machine Vision Association), Brighton, UK, September, 2011 **Talk**
12. **Coco M.I.**, Malcolm G.L. and Keller F.: The Influence of Task Complexity on Visual Attention, presented at the 16th European Conference on Eye Movement (ECOM 2011), Marseille, France, August, 2011. **Poster**
11. **Coco M.I.** and Keller F.: Recurrence and Similarity in Scan Patterns during Comprehension and Production, presented at CUNY 2011, Stanford, USA, March, 2011. **Poster**
10. **Coco M.I.** and Keller F.: The Influence of Task on Visual Attention: A Comparison of Visual Search, Object Naming, and Scene Description, presented at CUNY 2011, Stanford, USA, March, 2011. **Poster**
9. **Coco M.I.** and Keller F.: Scan Pattern in Visual Scenes predict Sentence Production, presented at the 32th Annual Conference of the Cognitive Science Society (CogSci 2010), Oregon, USA, August, 2010. **Poster**
8. **Coco M.I.** and Keller F.: Sentence Production in Naturalistic Scenes with Referential Ambiguity, presented at the 32th Annual Conference of the Cognitive Science Society (CogSci 2010), Oregon, USA, August, 2010. **Talk**
7. **Coco M.I.** and Keller F.: Scan-Path in Visual Scenes predict Sentence Production, presented at the CUNY 2010, New York, USA, March, 2010. **Poster**
6. **Coco M.I.** and Keller F.: Visual Search during cued Language Production presented at AMLAP 2009, Barcelona, Spain, September, 2009. **Poster**
5. **Coco M.I.** and F.Keller.: The Impact of Visual Information on Reference Assignment in Sentence Production, presented at the 31th Annual Conference of the Cognitive Science Society (CogSci 2009), Amsterdam, The Netherlands, July, 2009. **Talk**
4. **Coco M.I.**: The statistical challenge of scan-path analysis, presented at IEEE Human System Interaction, 2009, Catania, Italy, May, 2009. **Talk**
3. **Coco M.I.** and Keller F.: The competition of linguistic and visual cues on ambiguity resolution presented at CUNY 2009, Davis, USA, March, 2009. **Poster**
2. **Coco M.I.** and Keller F.: Competition between visual and linguistic resources presented at AMLAP 2008, Cambridge, UK, September, 2009. **Poster**
1. **Coco M.I.** and Keller F.: Effects of intonational breaks on disambiguation of syntactically ambiguous structure presented at the Scottish Vision Group, Pitlochry, UK, March, 2008. **Talk**

Academic Staff: Lecturer, Labs, Seminars, Marker:

For the lectures, seminars, and labs: I have re-arranged or re-used pre-existing material, formatively assessed students during the course of the semester, followed their practical learning with exercises in R, Matlab, SPSS or Excel (Research Methods only), and marked all their assignments throughout. I was nominated in 2018 for the Teaching Award at the University of Edinburgh.

Module leader at Sapienza University of Rome:

- Perceptual and cognitive processes: 1st year MSc, core module (50 students)
- Psychology General: 1st year undergraduates, core module (100 students)
- Psychology applied to fashion: 1st year MA, optional module (100 students)
- Social and Psychological Processes of the Human Being: 1nd year master, section module (30 students)

Module leader at UEL:

- Researching with larger samples. Level 4 core module (200 students)
- Research skills in Cognitive Neuroscience. Level 5 optional module (20 students).

Practical leader, ad-hoc lecturer and marker at UEL:

- Cognitive Psychology and Psychobiology (Msc, Level 7)
- Employability and Developing your Graduate Pathway (BSc, Level 6)
- Research Method (MSc and BSc, Level 4,5, 7)
- Topics in Cognitive and Developmental Psychology (BSc, Level 5)

Invited Lecturer and Teaching Assistant:

For the invited lectures at undergraduate and post-graduate level: I have created the slides and delivered the lectures, and as teaching assistant helped the module leader to write (and mark) formative assessments delivered during the semester.

- Cognitive Neuroscience: Attention
- Cognitive Neuroscience: Memory
- Cognitive Psychology: Psycholinguistics Methods
- Informatics: Cognitive Science
- Informatics: Data Analysis
- Informatics: Formal and Natural Language Processing
- Informatics: Computational Foundation of Cognitive Science
- Informatics: Human Communication

Consultant: Workshops and Tutorials:

For the workshops and tutorials: I created slides, delivered lectures, provided exercises in R, and assessed students by asking them to replicate what learned on novel datasets.

- *Eye-movements, EEG and their combined use in neurocognitive research*: Doctoral School Behavioural Neuroscience, Sapienza University of Rome (c 30 participants)
- *Computer programming for psychologist in R*: Doctoral School Behavioural Neuroscience, Sapienza University of Rome (c 30 participants)
- *Dynamical methods: from coordination to abstraction*:
 - University of Warsaw, under the Traincrease COST fund (c 30 participants).
- *Co-registration of Eye-movement and Electrophysiology*:
 - with Dr. Olaf Dimigen, University of Lisbon (c 30 participants).

- *Introduction to the R programming language:*
 - University of East London, London (c. 30 participants)
- *Cross-recurrence quantification analysis:*
 - with Dr. Alexander Demos, University of Gent, Belgium (c. 30 participants);
 - with Prof. Rick Dale, University of Edinburgh, UK (c. 30 participants);
 - with Prof. Rick Dale, at 37th Annual Conference of the Cognitive Science Society.
 - 35th Annual Conference of the Cognitive Science Society, Berlin, Germany, (symposium)
- *Theories and methods in eye-tracking research:*
 - with Dr. Tom Foulsham, University of Stuttgart, Germany, (c. 20 participants);
 - Department of Informatics, University of Catania, Catania, (c. 20 participants)
 - Centre for Molecular and Structural Biomedicine, Universidade de Algarve, Faro, (c. 30 participants);
 - Faculty of Letters, University of Lisbon, Lisboa, (c. 40 participants);

Academic Citizenship:

- Esame di Stato per l'Abilitazione al Ruolo di Psicologo (Sapienza, 2026)
- Esame di Stato per l'Abilitazione al Ruolo di Psicologo (Sapienza, 2025)
- Evaluation Committee: PhD Program in Behavioural Neuroscience (Sapienza, 2025)
- Evaluation Committee: PhD Program in Behavioural Neuroscience (Sapienza, 2023)
- Evaluation Committee: Specialization school in Neuropsychology (Sapienza, 2023)
- Evaluation Committee: Job contract (PI, Laura Piccardi, 2023, Sapienza)
- Evaluation Committee: Research contract (PI, Laura Piccardi, 2023, Sapienza)
- PhD Deputy Programme Leader (UEL, years 2020-2021)
- Internal Ethics Reviewer
- Post-graduate Admission Decision Maker
- In-vigilator
- Offer Holder Days (Community Engagement events); 16/03/2019; 06/04/2019; 23/11/2019; 29/02/2020

Reviewer for competitive international grants:

- Natural Sciences and Engineering Research Council of Canada (2026)
- Natural Sciences and Engineering Research Council of Canada (2025)
- Leverhulme Trust (2025)

SUPERVISION

Postdocs:

- Dr Federico Tucci (April 2024 - February 2026) in Human Cognitive Neuroscience
- Dr Marika Mauti (January 2024 - February 2026) in Human Cognitive Neuroscience
- Dr. Emma Delhay (September 2020 - July 2022) in Human Cognitive Neuroscience
- Dr. Giorgia D'Innocenzo (2019 - July 2022) in Human Cognitive Neuroscience

PhD:

- Dalila Sciarra (Supervisor, 2023-ongoing) in Behavioural Neuroscience: *The interplay between overt attention and performance in athletes*
- Elena Allegretti (Supervisor, 2022-2026) in Behavioural Neuroscience: *The dynamic interplay between overt attention and visual memory in the semantic representation of real-world objects across cognitive ageing*
- Anastasiia Mikhailova (Supervisor, 2019-2025) in Computational Cognitive Science: *Computational Model of Visual Memory for Early Diagnosis of Dementia*
- Francesco Cimminella (Supervisor, 2016-2020) in Human Cognitive Neuroscience: *Role of object semantics in guiding overt attention of younger and older adults, and AD patients.*

- Murillo Pagnotta (External advisor, 2015-2018, at University of St. Andrews) in Biology: *Living and learning together: Integrating developmental systems theory, radical embodied cognitive science, and relational thinking in the study of social learning.*
- Eunice Gomes Fernandes (Supervisor, 2012-2015), in Cognitive Science, completed with distinction *Syntactic priming as a window into the representational and experiential basis of syntactic processing in comprehension*

Samples of Master and Research Assistants:

- Ilaria Amelia (Supervisor, 2025) in Cognitive Neuroscience
- Gloria Verrengia (Supervisor, 2024) in Cognitive Neuroscience
- Mehrnaz Zamani (Supervisor, 2023) in Psychology and Fashion
- Fiorenzo Colarusso (Erasmus trainee, 2020) in Cognitive Science
- Rita Domenica Chirico (Erasmus trainee, 2019) in Cognitive Science
- Lisa Eaton (Supervisor, 2019) in Cognitive Psychology
- Nancy Quilliam (Supervisor, 2019) in Cognitive Psychology
- Mingyue Wang (Supervisor, 2019) in Cognitive Psychology
- Mario Carvalho (Supervisor, 2017-2019) in Cognitive Science
- Angeliki Davourli (Co-supervisor, 2017) in Informatics
- Lucy Olsen (Supervisor, 2016) in Human Cognitive Neuroscience
- Cristiane da Anunciação Sousa (Co-supervisor, 2013-2015) in Cognitive Science
- Miguel Borgues (Supervisor, 2013-2015) in Psychology

OUTREACH ACTIVITIES AND ENGAGEMENT WITH MEDIA

- Formatore per corsi di orientamento erogati agli studenti delle Scuole Secondarie Superiori, nell'ambito del Piano Nazionale di Ripresa e Resilienza – Next Generation EU, finanziato dall'Unione europea (da Marzo 2024 - ongoing).
- Comitato Italiano per il Controllo delle Affermazioni sulle Pseudoscienze (CICAP), invited talk about "Quanto e' efficace l'EMDR" (Cicap Fest, 12 Ottobre 2024).
- Comitato Italiano per il Controllo delle Affermazioni sulle Pseudoscienze (CICAP), invited talk about "L'utilizzo dei movimenti oculari (EMDR) come tecnica per il trattamento dei traumi: un'analisi critica" (20 Aprile 2024).
- Faculti, [Interview](#) (09/02/2021).
- Big Bang Festival (Newham College, London), July 2019: Show-case psychology experiments and lecture about ideas in psychology to college students and their parents.
- London Science Museum, April 2016: Demonstration of an eye-tracking experiment (5 minutes) on scene perception. In collaboration with Silvia Primativo (UCL)
- BBC Mundo, [Interview, public dissemination](#) (29/07/2012)
- New Scientist, [Interview, public dissemination](#) (23/07/2012)

INVITED TALKS

- **Coco, M.I.** Eye-movement in naturalistic contexts to study cross-modal cognitive processes (Paul Engelhardt), University of East Anglia, June 2026, Norwich, UK
- **Coco, M.I.** L'intelligenza artificiale: un possibile strumento diagnostico-terapeutico? 52esimo Congresso nazionale SIMFER, October, 2024, Padova, Italy Canada,
- **Coco, M.I.** Overt attention as a proxy to linguistic and mnemonic processes (Alexia Galati), University of Charlotte, May 2024, North Carolina, USA
- **Coco, M.I.** Preserved short and long-term memory mechanisms in healthy and pathological ageing: the role of naturalistic contexts (Jennifer Ryan), Baycrest research, University of Toronto, June, 2022, Toronto, Canada,
- **Coco, M.I.** The processing of object semantics in extra-foveal vision. Evidence from healthy and neuro-pathological populations; University of Aberdeen (Ben Tatler), University of Birmingham (Ole Jenses), University of Keele (Sara Spotorno), October, 2019, July, 2020, September, 2021, Aberdeen, Birmingham, Keele, UK.
- **Coco, M.I.** Aging: the role of contextual information for attention and memory. (Alan Baddeley), University of York, 8th of February, York, UK, 2017.

- **Coco, M.I.** Behavioral and neural signatures of stimulus and context expectancy during cross-modal verification. (George Malcolm), University of East Anglia, 6th of February, Norwich, UK, 2017.
- **Coco, M.I.** The role of visual attention and high-level object information on short-term visual working memory in a change detection task. (Olaf Dimigen), Humboldt University of Berlin, 11th of January, Berlin, Germany, 2017.
- **Coco, M.I.** Top-down Mediation of Attentional and Memory Processes. Computational Linguistics and Phonetics, Saarland University (Vera Demberg), 1st of June, Saarbrücken, Germany, 2016.
- **Coco, M.I.** Performance in Communicative Tasks: The Interaction of Feedback and Alignment. School of Biology, University of St. Andrews (Dhanraj Vishwanath), April, St. Andrews; UK, 2016.
- **Coco, M.I.** Coordinative Dynamics of Cognitive Mechanisms during Cross-Modal Information Processing. Institute for Systems and Robotics, Instituto Superior Técnico, (Jose Santos Victor), 10th of February and 3th of March, Lisbon; Portugal, 2015.
- **Coco, M.I.** Performance in Communicative Tasks: The Interaction of Feedback and Alignment. Italian Institute of Technology (Alessandro D'Ausilio), December, Genova; Italy, 2014.
- **Coco, M.I.** The Role of Interactivity on Cognitive Alignment and Decision Making during Dialogue. Institute for Biomedical Imaging and Life Sciences (Miguel Castel Branco), Instituto de Medicina Molecular (Federico Herrera), Champalimaud Center of Unknown (Rui Costa) and MIT, Brain and Cognitive Science, (Edward Gibson); April/June; Coimbra, Lisbon, Boston; Portugal, USA; 2013.
- **Coco M.I:** Coordination in the Human Brain. Presented at: Cognitive and Brain Unit (CBU-MRC) (Nikolaus Kriegeskorte), Cambridge (UK); June, 2012
- **Coco M.I:** Cross-Modal Mechanisms in Situated Language Processing. Champalimaud Center of Unknown (Zach Mainen), UCSD (Roger Levy), UCM (Rick Dale), UC Berkeley (Jack Gallant), Stanford (Michael C. Frank), Harvard (Jesse Snedeker); in Lisbon (Portugal), San Diego, Merced, Berkeley, Palo Alto, Boston (USA); March/April, 2012
- **Coco M.I:** Scan Pattern Dynamics in Comprehension and Production Symposium on Scan-path Representation and Comparison. 16th European Conference on Eye Movement (ECM 2011), Marseille, France, August, 2011

PROFESSIONAL SERVICE

I regularly serve as reviewer and editor for international peer-reviewed journals and international conferences.

Editor:

- Section Editor: Cognitive Processing (Springer; September 2020 - ongoing)
- Associate Editor: Cortex (Elsevier; July 2022 - ongoing)
- Associate Editor: Frontiers in Psychology (Language Sciences, June 2022 - November 2024)

Journals:

- Acta Psychologica; Aphasiology; Applied Psycholinguistics; Attention, Perception and Psychophysics; Applied Psycholinguistics; BMC Medical Research Methodology; Behavior Research Method; Behavioural Brain Research; Behaviour and Information Technology; Bilingualism Language and Cognition; Brain and Behaviour; Chaos, Solitons and Fractals; Cognition; Cognitive Processing; Cognitive Research: Principles and Implications; Cognitive Computation; Cognitive Science; Cognitive System Research; Communications Psychology; Computer Methods in Biomechanics and Biomedical Engineering; Imaging and Visualization; Cortex; Discourse Processes; Environment International; Experimental Brain Research; Infant Behavior and Development; Frontiers in Language Sciences; Human Brain Mapping; Journal of Alzheimer's Disease; Journal of Experimental Psychology: Learning, Memory and Cognition; Journal of Experimental Psychology: Human Perception and Performance; Journal of Experimental Psychology: General;

Journal of Geriatric Psychiatry and Neurology Journal of Gerontology: Psychological Sciences; Journal of Memory and Language; Journal of Vision; Journal of Visualised Experiments; IEEE Transactions on Cognitive and Developmental Systems; IEEE Transactions on Biomedical Engineering; Language and Cognition; Language, Cognition and Neuroscience; Nature Human Behaviour; Nature Communication; Neuroimage; Neuropsychology Review; Memory; Multivariate Behavioral Research; Plos ONE; Psychology and Aging; Quarterly Journal of Experimental Psychology; Psychonomic Bulletin and Review; Psychological Research; Royal Society Open Science; Scientific Reports; TopiCS in Cognitive Science The R Journal; Transactions on Biomedical Engineering; Trends in Cognitive Sciences; Visual Cognition; Waves in Random and Complex Media; Welcomme Open Research

Conferences:

- Architecture and Mechanisms of Language Processing: 2012, Annual Conference of the Cognitive Science Society: 2010/2011/2014/2015/2016/2017/2018/2019/2023/2024/2025/2026; Euro-Asian-Pacific CogSci Conference: 2015; International Conference on Cognitive Modeling: 2013; Cognitive Modeling and Computational Linguistics (Association of Computational Linguistics): 2015; Language and Vision (Association of Computational Linguistics): 2015; Computational Psycholinguistics track for Empirical Methods in Natural Language Processing: 2015; International Conference on Computational Linguistics: 2016; Cognitive Modeling and Psycholinguistics for Association of Computational Linguistics: 2016; Computational Psycholinguistics (Association of Computational Linguistics): 2017 Computational Psycholinguistics (COLING): 2018

Grants:

- Natural Sciences and Engineering Research Council of Canada (NSERC) Discovery Grant (EG1502); Leverhulme Trust Research Grants (RPG-2025-182).

Memberships:

- Fellow of the Psychonomics Society
- Cognitive Science Society, British Neuropsychological Society, Vision Science Society, Associazione Italiana Psicologia (AIP)

PATENTED SOFTWARE

- **crqa**(2.1.0): Cross Recurrence Quantification Analysis for Categorical and Continuous Time-Series (**R-Package**); **Coco M.I.**, Mønster D., Leonardi G., Dale R. and Wallot S., with contributions of Paxton A., Dixon J., Bruna P., Nash, J.
- **crqanlp**(0.1): Dynamic Natural Language processing with Recurrence Quantification Analysis (**R-Package**); Dale R., and **Coco M.I.**
- **mousetrack**(1.0.0): Mouse-Tracking Measures from Trajectory Data (**R-Package**); **Coco M.I.** and Duran N. D. with contributions of Dale R., O'Hora D. and Spivey, M.

SAMPLE OF REFERENCES AND RESEARCH COLLABORATORS

Referees

- Prof. Frank Keller (Uni. Edinburgh): keller@inf.ed.ac.uk
- Prof. Sergio Della Sala (Uni. Edinburgh): sergio@staffmail.ed.ac.uk
- Prof. Holly P. Branigan (Uni. Edinburgh): holly@staffmail.ed.ac.uk
- Prof. Volker Thoma (Uni. East London): v.thoma@uel.ac.uk
- Prof. Rick Dale (Uni. California, Los Angeles, USA): rdale@ucla.edu
- Dr. Karl-Magnus Petersson (Uni. Algarve): kmpetersson@ualg.pt

Collaborators

- Prof. Antje Nuthmann (Uni. of Kiel): nuthmann@psychologie.uni-kiel.de
- Prof. Jose-Santos Victor (Instituto Superior Tecnico): jasv@isr.tecnico.ulisboa.pt
- Prof. Isabel Pavao Martins (Uni. Lisboa): ipavaomartins@gmail.com

- Dr. Olaf Dimigen (Humboldt Univeristy at Berlin): olaf.dimigen@hu-berlin.de
- Dr. Ana Luisa Raposo (Uni. Lisbon): alraposo@psicologia.ulisboa.pt
- Dr. Nicholas D. Duran (Uni. Arizona): nicholas.duran@asu.edu
- Dr. George L. Malcolm (Uni. of East Anglia, UK): g.malcolm@uea.ac.uk