

## Luca Rinaldi

**Date and place of birth:** June 18, 1986 - Como (Italy)  
**Family:** 2 children  
**Nationality:** Italian  
**Work address:** Department of Brain and Behavioral Sciences  
University of Pavia  
Piazza Botta 6 – Sezione di Psicologia  
27100 Pavia (Italy)

**e-mail:** [luca.rinaldi@unipv.it](mailto:luca.rinaldi@unipv.it)

**website:** <https://sites.google.com/unipv.it/lucarinaldi>

### Current Position

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#### **April 2022**

*Associate Professor (permanent position)*

Department of Brain and Behavioral Sciences, University of Pavia (Italy).

### Prior research positions

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#### **December 2019 – March 2022**

*Assistant Professor (RTDb; tenure track)*

Department of Brain and Behavioral Sciences, University of Pavia (Italy).

#### **January 2017 – December 2019 (4-year grant)**

*Post-doctoral research fellow*

Department of Psychology, University of Milano-Bicocca (Italy).

Main theme of research: “Grounding time through sensorimotor integration”.

Supervisor: Prof. Luisa Girelli, Ph.D.

#### **June 2016 – August 2016**

*Visiting fellow*

Centre for Brain and Cognitive Development of the Birkbeck University, London (UK).

Main theme of research: “Sensorimotor involvement in serial order processing over developmental time”.

Supervisor: Prof. Annette Karmiloff-Smith, Ph.D.

#### **January 2016 – April 2016**

*Post-doctoral research fellow*

Department of Brain and Behavioral Sciences, University of Pavia (Italy).

Main theme of research: “The role of the human cerebellum in memory processing”.

Supervisor: Prof. Tomaso Vecchi, Ph.D.

### Education

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#### **January 2012 – January 2016**

Ph.D. in *Experimental Psychology, Linguistics and Cognitive Neurosciences* at the University of Milano-Bicocca (Italy).

Thesis entitled: “Sensorimotor experience biases human attention through space and time”.

Supervisor: Prof. Luisa Girelli, Ph.D.

**September 2008 – October 2010**

Master's degree in *Developmental Psychology and Neuropsychology* at the University of Milano-Bicocca (Italy).

Thesis entitled: "The role of number-space associations in preschoolers' numerical competence".

Supervisor: Prof. Luisa Girelli, Ph.D.

**September 2005 – July 2008**

Bachelor's degree in *Psychological Sciences* at the University of Milano-Bicocca (Italy).

**Research and clinical experience**

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**July 2018 – August 2018**

Visiting research fellow at the Department of Cognitive Science and Artificial Intelligence, Tilburg University, Tilburg (Netherlands).

Supervisor: Prof. Max Louwerse, Ph.D.

**January 2013 – September 2013**

Visiting research student at the Department of Neurology, University Hospital Zürich, Zürich (Switzerland).

Supervisor: Prof. Peter Brugger, Ph.D.

**January 2012 – June 2012**

Visiting research student at the Cognitive Neuropsychology Laboratory of the Ben-Gurion University of the Negev, Beer Sheva (Israel).

Supervisor: Prof. Avishai Henik, Ph.D.

**February 2011 – July 2011**

Visiting research student at the Cognitive Neuropsychology Laboratory of the Ben-Gurion University of the Negev, Beer Sheva (Israel).

Supervisor: Prof. Avishai Henik, Ph.D.

**October 2010 – March 2011**

Clinical practice at UONPIA (Operative Unite of Child and Adolescent Neuropsychiatry), Sant'Anna Hospital, Olgiate Comasco, Como (Italy).

Supervisor: Grazia Manerchia, M.D.

**March 2008 – July 2008**

Clinical practice at UONPIA (Operative Unite of Child and Adolescent Neuropsychiatry), Busto Arsizio Hospital, Tradate, Varese (Italy).

Supervisor: Roberta Urbinati, M.D.

**Grants**

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**March 2024**

ERC Starting Grant (€ 1.500.000).

Structuring spatial knowledge through domain-general, non-spatial learning mechanisms ("OutOfSpace")

European Research Council (European Union).

**November 2023**

PRIN 2022 (€ 208.770).

The World in Words: Moving beyond a spatio-centric view of the human mind ("WoWo")

Ministero dell'Università e della Ricerca.

Principal Investigator (Co-PI: Marco Marelli)

**September 2023**

BIAL Grant (€ 59.000).

RE-thinking the role of the spatial memory system in cognitive MAPs (“REMAP”)

BIAL Foundation

Principal Investigator (Co-PI: Marco Marelli)

**March 2018**

Support fund for ERC Starting Grant by Fondazione Cariplo (€ 1500).

Grant for CV consolidation.

**June 2016 – August 2016**

Study Visit Grant funded by the Experimental Psychology Society (£ 2.000).

Research project: “A view from the top of the cascade: sensorimotor processing constrains serial order abilities over developmental time”.

Host institution: Birkbeck, University of London. Supervisor: Prof. Annette Karmiloff-Smith.

**January 2016 – October 2016**

Research Grant funded by the University of Pavia (€ 12.000).

Research project: “The role of the human cerebellum in memory processing”.

Host institution: University of Pavia. Supervisor: Prof. Tomaso Vecchi.

**December 2013 – December 2015**

Two-years grant (“Fondo Cariplo”) funded by Fondazione Cariplo (€ 4.000).

Research project: “Pitch and grasp the sound! Action planning dances on pitch dimension”.

Host institution: University of Milano-Bicocca. Principal investigator.

**January 2012 – January 2016**

Four-years Ph.D. scholarship co-funded by Fondazione Cariplo (€ 15.336/year).

Main theme of research: “Sensorimotor experience biases human attention through space and time”.

Supervisor: Prof. Luisa Girelli.

**February 2011 – August 2011**

Eight-months scholarship (\$ 6.400) from the Ministry of Foreign Affairs (Israel), Cultural and Scientific Affairs Department.

Research project: “The role of reading direction in number-space associations”.

Host institution: Ben-Gurion University of the Negev. Supervisor: Prof. Avishai Henik.

**Honours and Awards**

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**September 2017**

Best Italian PhD Thesis (€ 500).

Sezione di Psicologia Sperimentale, AIP (Italian Psychological Association).

**September 2017**

Travel Grant (€ 250).

Sezione di Psicologia Sperimentale, AIP (Italian Psychological Association), Bari (Italy).

**May 2016**

Expert Evaluator, France National Research Agency, ANR (Agence Nationale de la Recherche).

### **May 2016**

Article "Walking on a mental time line" selected for the journal cover page of *Cortex*, volume 78.

### **November 2013**

The Patrizia Tabossi Price (€ 300) for the best oral presentation.

Title of the presentation: "Pitch and grasp the sound! Action planning dances on pitch dimension."

The Trieste Symposium on Perception and Cognition, Trieste (Italy).

### **September 2012**

Best oral presentation price (€ 500).

Title of the presentation: "Influenza contestuale dei sistemi di letto-scrittura nei processi di attenzione visuo-spaziale."

Sezione di Psicologia Sperimentale, AIP (Italian Psychological Association), Chieti (Italy).

## **Institutional Responsibilities**

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- Delegate for the *Erasmus+ Program*

Bachelor Program in Psychological Sciences. University of Pavia (Italy).

From October 2022.

- Member of *The Committee for Open Science and Open Access*

University of Pavia (Italy).

From September 2022.

- Board of the Doctoral Program in *Cognitive Brain Sciences*

University of Pavia (Italy) & IUSS (Italy).

From August 2022.

## **Academic Teaching**

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- *Cognition* (Course; Language: English)

Master's Program in Psychology, Neuroscience and Human Sciences. Department of Brain and Behavioral Sciences. University of Pavia (Italy) & School for Advanced Studies (IUSS).

Academic Year: From 2018.

- *General Psychology* (Course; Language: Italian)

Bachelor Program in Psychological Sciences. University of Pavia (Italy).

Academic Year: From 2021.

- *Programming Psychological Experiments* (Course; Language: English)

Doctorate School in Cognitive Brain Sciences. University of Pavia (Italy) & University School for Advanced Studies (IUSS, Italy).

Academic Year: From 2022.

- *Cognitive Psychology* (Course; Language: Italian)

Bachelor Program in Psychological Sciences. University of Pavia (Italy).

Academic Year: From 2019.

- *Cognition, Multisensoriality and Emotion* (Laboratory; Language: Italian)

Master's Program in Experimental Psychology. Department of Brain and Behavioral Sciences. University of Pavia (Italy).

Academic Year: 2017-2018; 2018-2019.

- *Cognitive and Behavioral Measures* (Laboratory; Language: English)

Master's Program in Applied Experimental Psychological Sciences, Department of Psychology.

University of Milano-Bicocca (Italy).

Academic Year: 2017-2018; 2018-2019.

- *Methods in Neurosciences: Motion Capture and 3D Kinematic Analyses* (Laboratory; Language: Italian)

Doctorate School in Psychology, Linguistics and Cognitive Neuroscience.

University of Milano-Bicocca (Italy).

Academic Year: 2017-2018 .

### **Co-supervisor responsibilities**

- 50 Master's thesis students

- 18 Bachelor's thesis students.

## **Publications**

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1. Petilli, M., Marelli, M., Mazzoni, G., Marchetti, M., **Rinaldi, L.**, & Gatti, D. (in press). From Vector Spaces to DRM lists: False Memory Generator, a software for automated generation of lists of stimuli inducing false memories. *Behavior Research Methods*.
2. Gatti, D., Günther, F., & **Rinaldi, L.** (2024). A body map beyond perceptual experience. *Journal of Cognition*, 7(1). <https://doi.org/10.5334/joc.347>
3. Abbondanza, M., Amenta, S., **Rinaldi, L.**, & Marelli, M. (2024). Time is-ending: Sublexical information activates the horizontal mental time line in word processing. *Journal of Experimental Psychology: Learning, Memory, and Cognition*. <https://doi.org/10.1037/xlm0001331>
4. Gatti, D., Marelli, M., & **Rinaldi, L.** (2024). Predicting hand movements with distributional semantics: evidence from mouse-tracking. *Cognitive Science*, 48(1), e13372. <https://doi.org/10.1111/cogs.13399>
5. Gatti, D., **Rinaldi, L.**, Mazzoni, G., & Vecchi, T. (2024). Semantic and episodic processes differently predict false memories in the DRM task. *Scientific Reports*. <https://doi.org/10.1038/s41598-023-50687-z>
6. Gatti, D., **Rinaldi, L.**, Vecchi, T., & Ferrari, C. (2023). Understanding cerebellar cognitive and social functions: methodological challenges and new directions for future transcranial magnetic stimulation studies. *Current Opinion in Behavioral Sciences*, 53, 101300. <https://doi.org/10.1016/j.cobeha.2023.101300>
7. Perrone, S., **Rinaldi, L.**, Gatti, D., & Girelli, L. (2023). Temporal perception in closed skills sports: an experimental study on elite swimmers and runners. *Psychology of Sport and Exercise*, 69, 102500. <https://doi.org/10.1016/j.psychsport.2023.102500>
8. Conte, F., **Rinaldi, L.**, Gerosa, T., Mondini, S., Costantini, G., & Girelli, L. (2023). Cognitive Reserve Potential: Capturing Cognitive Resilience Capability in Adolescence. *Assessment*, 10731911231183363. <https://doi.org/10.1177/10731911231183363>
9. Körner, A., Castillo, M., Drijvers, L., Fischer, M.H., Günther, F., Marelli, M., Platonova, O., **Rinaldi, L.**, Shaki, S., Trujillo, J.P., Tsaregorodtseva, O., & Glenberg, A.M. (2023). Embodied Processing at Six Linguistic Granularity Levels: A Consensus Paper. *Journal of Cognition*, 6(1). [10.5334/joc.231](https://doi.org/10.5334/joc.231)
10. Gatti, D., Marelli, M., Vecchi, T. & **Rinaldi, L.** (2023). Spatial representations without spatial computations. *Psychological Science*, 33, 1947-1958. <https://doi.org/10.1177/095679762210948>

11. Gatti, D., Marelli, M., & **Rinaldi, L.** (2023). Out-of-vocabulary but not meaningless: Evidence for semantic-priming effects in pseudoword processing. *Journal of Experimental Psychology: General*, *152*(3), 851–863. <https://doi.org/10.1037/xge0001304>
12. Gatti, D., Marelli, M., Mazzoni, G., Vecchi, T. & **Rinaldi, L.** (2023). Hands-on false memories: A combined study with distributional semantics and mouse-tracking. *Psychological Research*, *87*, 1129–1142. <https://doi.org/10.1007/s00426-022-01710-x>
13. Gatti, D., Stagnitto, S.M., Basile, C., Mazzoni, G., Vecchi, T., **Rinaldi, L.**, & Lecce, S. (2022). Individual differences in theory of mind correlate with the occurrence of false memory: a study with the DRM task. *The Quarterly Journal of Experimental Psychology*, *76*, 2107–2121. <https://doi.org/10.1177/17470218221135178>
14. Gatti, D., **Rinaldi, L.**, Marelli, M., & Vecchi, T. (2022). Cerebellar involvement in distributional semantic learning: insights from a combined TMS-computational approach. *Brain Stimulation*, *15*, 999–1001. <https://doi.org/10.1016/j.brs.2022.07.004>
15. Günther, F., & **Rinaldi, L.**, (2022). Language statistics as a window into mental representations. *Scientific Reports*, *12*, 8043. <https://doi.org/10.1038/s41598-022-12027-5>
16. Adriano, A., **Rinaldi, L.**, & Girelli, L. (2022). Spatial frequency equalization does not prevent spatial-numerical associations. *Psychonomic Bulletin and Review*, *29*, 1492–1502. <https://doi.org/10.3758/s13423-022-02060-w>
17. **Rinaldi, L.**, Parente, L., & Marelli, M. (2022). Toward a unified account of non-symbolic and symbolic representations of number: Insights from a combined psychophysical-computational approach. *Psychonomic Bulletin and Review*, *29*, 985–994. <https://doi.org/10.3758/s13423-021-02043-3>
18. Gatti, D., **Rinaldi, L.**, Marelli, M., Mazzoni, G., & Vecchi, T. (2022). Decomposing the semantic processes underpinning veridical and false memories. *Journal of Experimental Psychology: General*, *151*, 363–389. <https://doi.org/10.1037/xge0001079>
19. Adriano, A., **Rinaldi, L.**, & Girelli, L. (2022). Non-symbolic numerosity in sets with illusory contours exploits a context-sensitive, but contrast-insensitive, visual boundary formation process. *Attention, Perception, & Psychophysics*, *84*, 205–220. <https://doi.org/10.3758/s13414-021-02378-y>
20. Adriano, A., Girelli, L., & **Rinaldi, L.** (2022). Number is not just an illusion: Discrete numerosity is encoded independently from perceived size. *Psychonomic Bulletin and Review*, *29*, 123–133. <https://doi.org/10.3758/s13423-021-01979-w>
21. Abbondanza, M., **Rinaldi, L.**, Foppolo, F., & Marelli, M. (2021). The mental representation of non-numerical quantifiers: The Spatial-Linguistic Association of Response Codes (SLARC) effect. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *47*, 2021–2028. <https://doi.org/10.1037/xlm0001037>
22. Gatti, D., **Rinaldi, L.**, Ferreri, L., & Vecchi, T. (2021). The human cerebellum as a hub of the predictive brain. *Brain Sciences*, *11*, 1492. <https://doi.org/10.3390/brainsci11111492>
23. Gatti, D., **Rinaldi, L.**, Cristea, I., & Vecchi, T. (2021). Probing cerebellar involvement in cognition through a meta-analysis of TMS evidence. *Scientific Reports*, *11*, 14777. <https://doi.org/10.1038/s41598-021-94051-5>
24. Adriano, A., Girelli, L., & **Rinaldi, L.** (2021). Ratio-effect in visual numerosity comparison is preserved despite spatial frequency equalization. *Vision Research*, *183*, 42–52. <https://doi.org/10.1016/j.visres.2021.01.011>

25. Adriano, A., Girelli, L., & **Rinaldi, L.** (2021). Non-symbolic numerosity encoding escapes spatial frequency equalization. *Psychological Research*, 85, 3061-3074. <https://doi.org/10.1007/s00426-020-01458-2>
26. Adriano, A., **Rinaldi, L.**, & Girelli, L. (2021). Visual illusions as a tool to hijack numerical perception: Disentangling non-symbolic number from its continuous visual properties. *Journal of Experimental Psychology: Human Perception and Performance*, 47, 423-441. <https://doi.org/10.1037/xhp0000844>
27. **Rinaldi, L.**, & Marelli, M. (2020). Maps and space are entangled with language experience. *Trends in Cognitive Sciences*, 24, 835-855. <https://doi.org/10.1016/j.tics.2020.07.009>
28. Conte, F., Costantini, G., **Rinaldi, L.**, Gerosa, T., & Girelli, L. (2020). Intellect is not that expensive: differential contribution of cultural and socioeconomic factors to crystallized intelligence in a sample of Italian adolescents. *Intelligence*, 101466. <https://doi.org/10.1016/j.intell.2020.101466>
29. **Rinaldi, L.**, Ciricugno, A., Merabet, L., Vecchi, T., & Cattaneo, Z. (2020). The Effect of Blindness on Spatial Asymmetries. *Brain Sciences*, 10, 662. <https://doi.org/10.3390/brainsci10100662>
30. **Rinaldi, L.**, Di Luca, S., Toneatto, C., & Girelli, L. (2020). The effects of hemispheric dominance, literacy acquisition and handedness on the development of visuospatial attention: a study in preschoolers and second graders. *Journal of Experimental Child Psychology*, 195, 104830. <https://doi.org/10.1016/j.jecp.2020.104830>
31. Petilli, M.A., **Rinaldi, L.**, Trisolini, D., Girelli, L., Vecchio, L.P. & Daini, R. (2020). How difficult is it for adolescents to maintain attention? The differential effects of video games and sports. *The Quarterly Journal of Experimental Psychology*, 73, 968-982. <https://doi.org/10.1177/1747021820908499>
32. Lega, C., Cattaneo, Z., Ancona, N., Vecchi, T., & **Rinaldi, L.** (2020). Instrumental expertise and musical timbre modulate the spatial representation of pitch. *The Quarterly Journal of Experimental Psychology*, 73, 1162-1172. <https://doi.org/10.1177/1747021819897779>
33. **Rinaldi, L.**, & Marelli, M. (2020). The use of number words in natural language obeys Weber's law. *Journal of Experimental Psychology: General*, 149, 215-230. <https://doi.org/10.1037/xge0000715>
34. Günther, F., **Rinaldi, L.**, & Marelli, M. (2019). Vector-based models of semantic memory: A review and clarification of common misconceptions from a cognitive perspective. *Perspectives on Psychological Sciences*, 14, 1006-1033. <https://doi.org/10.1177/1745691619861372>
35. Ciricugno, A., **Rinaldi, L.**, Vecchi, T., Merabet, L., & Cattaneo, Z. (2019). The role of binocular vision in driving pseudoneglect in visual and haptic bisection: evidence from strabismic and monocular blind individuals. *Multisensory Research*, 1, 1-19. <https://doi.org/10.1163/22134808-20191347>
36. Nava, E., **Rinaldi, L.**, Bulf, H., & Macchi Cassia, V. (2018). The developmental progress of the spatial representation of numbers and time towards an adult-like pattern: a study in 6- and 10-year old children. *Cognitive Development*, 48, 52-61. <https://doi.org/10.1016/j.cogdev.2018.08.001>
37. **Rinaldi, L.**, Merabet, L., Vecchi, T., & Cattaneo, Z. (2018). The spatial representation of number, time, and serial order following sensory deprivation: a systematic review. *Neuroscience & Biobehavioral Reviews*, 90, 371-380. <https://doi.org/10.1016/j.neubiorev.2018.04.021>
38. **Rinaldi, L.**, Bertolini, G., Bockisch, C.J., Maravita, A., Girelli, L., & Brugger, P. (2018). More far is more right: Manual and ocular line bisections, but not the Judd illusion, depend on radial space. *Brain and Cognition*, 122, 34-44. <https://doi.org/10.1016/j.bandc.2018.01.009>

39. Cattaneo, Z., Lega, C., **Rinaldi, L.**, Merabet, L., Ferrari, C., & Vecchi, T. (2018). The Spatial Musical Association of Response Codes does not depend on a normal visual experience: a study with early blind individuals. *Attention, Perception & Psychophysics*, *80*, 813-821. <https://doi.org/10.3758/s13414-018-1495-x>
40. Cattaneo, Z., **Rinaldi, L.**, Geraci, C., Cecchetto, C., & Papagno, C. (2018). Spatial biases in deaf, blind and deafblind individuals as revealed by a haptic line bisection task. *The Quarterly Journal of Experimental Psychology*, *71*, 2325-2333. <https://doi.org/10.1177/1747021817741288>
41. **Rinaldi, L.**, Maggioni, E., Olivero, N., Maravita, A., & Girelli, L. (2018). Smelling the space around us: Odor pleasantness shifts visuospatial attention in humans. *Emotion*, *18*, 971-979. <http://dx.doi.org/10.1037/emo0000335>
42. Tobia, V., **Rinaldi, L.**, & Marzocchi, G.M. (2018). Time processing impairments in preschoolers at risk of developing difficulties in mathematics. *Developmental Science*, *21*, e12526. <doi/10.1111/desc.12526/full>
43. **Rinaldi, L.**, Vecchi, T., Fantino, M., Merabet, L., & Cattaneo, Z. (2017). The ego-moving metaphor of time relies on visual experience: no representation of time along the sagittal space in the blind. *Journal of Experimental Psychology: General*, *147*, 444-450. <http://dx.doi.org/10.1037/xge0000373>
44. Nava, E., **Rinaldi, L.**, Bulf, H., & Macchi Cassia, V. (2017). Visual and proprioceptive feedback differently modulate the spatial representation of number and time in children. *Journal of Experimental Child Psychology*, *161*, 161-177. <http://dx.doi.org/10.1016/j.jecp.2017.04.012>
45. **Rinaldi, L.**, & Karmiloff-Smith, A. (2017). Intelligence as a Developing Function: A Neuroconstructivist Approach. *Journal of Intelligence*, *5*, 1-26. <10.3390/jintelligence5020018>
46. **Rinaldi, L.**, & Girelli, L. (2017). A bodily sense of magnitude. Commentary: From 'sense of number' to 'sense of magnitude' – The role of continuous magnitudes in numerical cognition. *Frontiers in Psychology*, *8*, 652. <https://doi.org/10.3389/fpsyg.2017.00652>
47. **Rinaldi, L.**, Locati, F., Parolin, L., & Girelli, L. (2017). Distancing the present self from the past and future: Psychological distance in anxiety and depression. *The Quarterly Journal of Experimental Psychology*, *70*, 1106-1113. <http://dx.doi.org/10.1080/17470218.2016.1271443>
48. **Rinaldi, L.** (2016). Rescuing my time from science. *Science*, *354*, 1666. <doi/10.1126/science.354.6319.1666>
49. **Rinaldi, L.**, & Girelli, L. (2016). A Place for Zero in the Brain. *Trends in Cognitive Sciences*, *8*, 563-564. <http://dx.doi.org/10.1016/j.tics.2016.06.006>
50. Girelli, L., Perrone, G., Croccolo, F., Roman, E.H., Bricolo, E., Mancin, M., & **Rinaldi, L.** (2016). Manual actions cover symbolic distances at different speed. *Acta Psychologica*, *169*, 56-60. <doi:10.1016/j.actpsy.2016.05.002>
51. **Rinaldi, L.**, Di Luca, S., Henik, A., & Girelli, L. (2016). A helping hand putting in order: Visuomotor routines organize numerical and non-numerical sequences in space. *Cognition*, *152*, 40-52. <http://dx.doi.org/10.1016/j.cognition.2016.03.003>
52. **Rinaldi, L.**, Locati, F., Bernardi, N.F., Parolin, L., & Girelli, L. (2016)\*. Walking on a mental time line: Temporal processing affects step movements along the sagittal space. *Cortex*, *78*, 170-173. <http://dx.doi.org/10.1016/j.cortex.2016.02.013>

\* Pubblicazione selezionata per la copertina della rivista.

53. **Rinaldi, L.,** Gallucci, M., & Girelli, L. (2016). Spatial-numerical consistency impacts on preschoolers' numerical representation: children can count on both peripersonal and personal space. *Cognitive Development, 37*, 9-17. <http://dx.doi.org/10.1016/j.cogdev.2015.10.006>
54. **Rinaldi, L.,** Lega, C., Cattaneo, Z., Girelli, L. & Bernardi, N.F. (2016). Grasping the sound: Auditory pitch influences size processing in motor planning. *Journal of Experimental Psychology: Human Perception and Performance, 42*, 11-22. <http://dx.doi.org/10.1037/xhp0000120>
55. **Rinaldi, L.,** Vecchi, T., Fantino, M., Merabet, L., & Cattaneo, Z. (2015). The effect of hand movements on numerical bisection judgments in early blind and sighted individuals. *Cortex, 71*, 76-84. <http://dx.doi.org/10.1016/j.cortex.2015.06.005>
56. **Rinaldi, L.,** Brugger, P., Bockisch, C. J., Bertolini, G., & Girelli, L. (2015). Keeping an eye on serial order: ocular movements bind space and time. *Cognition, 142*, 291-298. <http://dx.doi.org/10.1016/j.cognition.2015.05.022>
57. **Rinaldi, L.,** Di Luca, S., Henik, A. & Girelli, L. (2014). Reading direction shifts visuo-spatial attention: an Interactive Account of attentional biases. *Acta Psychologica, 151*, 98-105. <http://dx.doi.org/10.1016/j.actpsy.2014.05.018>
58. **Rinaldi, L.,** & Girelli, L. (2012). Il ruolo dell'Associazione Numeri-Spazio nella competenza numerica prescolare [The role of Number-Space Association in preschoolers' numerical competence]. *Giornale Italiano di Psicologia, 4*, 931-940. <http://dx.doi.org/10.1421/73149>
59. Previtali, P., **Rinaldi, L.,** & Girelli, L. (2011). Nature or Nurture in finger counting: a review on the determinants of the direction of number-finger mapping. *Frontiers in Cognition*, doi: 10.3389/fpsyg.2011.00363. <http://dx.doi.org/10.3389/fpsyg.2011.00363>

### **Invited lectures/presentations**

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1. **Rinaldi, L.** (2021). Spatial representations recovered from language. *8th International Conference on Spatial Cognition: "Cognition and Action in a Plurality of Spaces"*. September 2021, Rome (online, Italy).
2. **Rinaldi, L.** (2020). Finding structure in natural language. *XXVI Congresso Annuale della Sezione di Psicologia Sperimentale (AIP)*. September 2020, Lecce (online, Italy).
3. **Rinaldi, L.** (2019). Bringing order out of chaos: when language structures time. *The Flow of Time: An Interdisciplinary Workshop*. Venezia (Italia).
4. **Rinaldi, L.** (2019). Dissociating sensorimotor experience from language statistics: insights from the representation of number and time. *CIMeC*. Rovereto (Italia).
5. **Rinaldi, L.,** & Girelli, L. (2018). Organizzare i numeri nello spazio aiuta: evidenze in età prescolare. September 2018, *AIRIPA*, Arezzo (Italia).
6. **Rinaldi, L.** (2018). Dissociating sensorimotor experience from language statistics: insights from the representation of number and time. *SISSA University, Invited seminar by Prof. Davide Crepaldi*. June 2018, Trieste (Italy).
7. **Rinaldi, L.** (2018). Sensorimotor foundations of the spatial representation of time. *48th Annual Meeting of the Jean Piaget Society*. June 2018, Amsterdam (Netherlands).

8. **Rinaldi, L.** (2017). Il tempo scorre: Il contributo del sistema sensorimotorio alla rappresentazione spaziale del tempo. *Congresso Annuale della Sezione di Psicologia Sperimentale (AIP)*. September 2017, Bari (Italy).
9. **Rinaldi, L.** (2016). Sensorimotor experience binds space and time in the human mind. *Festival della Luce*. May 2017, Como (Italy).
10. **Rinaldi, L.** (2016). The role of sensorimotor experience in the representation of time. *University of Sussex, Invited seminar by Dr. Marianna Obrist*. August 2016, Brighton (UK).
11. **Rinaldi, L.** (2016). The development of temporal concepts: a sensorimotor perspective. *Birkbeck, University of London, Centre for Brain and Cognitive Development*. August 2016, London (UK).
12. **Rinaldi, L.** (2016). Sensorimotor experience constrains serial and temporal order processing. *Learning, grouping, chunking, restructuring symposium*. July 2016, Nice (French).
13. **Rinaldi, L.** (2016). Sensorimotor experience biases human attention through space and time. *Birkbeck, University of London, Invited seminar by Prof. Matthew Longo*. July 2016, London (UK).
14. **Rinaldi, L.** (2015). Situating numbers on an experienced space. *6th International Conference on Spatial Cognition: "Space and Situated Cognition"*. September 2015, Rome (Italy).
15. **Rinaldi, L.** (2015). When crossmodal correspondences reach the motor system. *Improvers' Course on Music Cognition*. June 2015, Pavia (Italy).
16. **Rinaldi, L.** (2014). Experience biases our attention through space and time. *Université Du Luxembourg, Invited seminar by Prof. Christine Schiltz*. November 2014, Luxembourg.
17. **Rinaldi, L., Lega, C., Cattaneo, Z., Girelli, L. & Bernardi, N.F.** (2014). Prendi il suono! Influenza dell'altezza del suono nel controllo motorio. *Congresso Annuale della Sezione di Psicologia Sperimentale (AIP)*, September 2014, Pavia (Italy).
18. **Rinaldi, L., & Girelli, L.** (2013). Organizzare i numeri nello spazio aiuta: evidenze in età prescolare. *Congresso Annuale della Sezione di Psicologia dello Sviluppo (AIP)*. September 2013, Milan (Italy).

### **Oral presentations at conferences/meetings**

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1. Gatti, D., Marelli, M., Vecchi, T. & **Rinaldi, L.** (2022). Spatial representations without spatial computations. *XXX Congress of the Italian Psychology Association. September, 2022, Padova (Italy)*.
2. Abbondanza, M., Amenta, S., **Rinaldi, L.**, & Marelli, M. (2022). Word processing and spatial representations: how sub-lexical chunks can activate the horizontal Mental Time Line. *European Workshop on Cognitive Neuropsychology*. January 2022, Brixen (Italy).
3. Abbondanza, M., **Rinaldi, L.**, Foppolo, F., & Marelli, M. (2021). The small goes left, the large goes right: spatial representation of linguistic quantifiers. *Psycholinguistics in Flanders*. May 2021, online (Belgium).
4. Adriano, A., **Rinaldi, L.**, & Girelli, L. (2021). A biological foundation for spatial-numerical associations? The origin is not in the brain's asymmetric preferences for spatial frequency. *XXVII Congresso AIP Sezione Sperimentale*. September 2021, Lecce (Italy).

5. Gatti, D., **Rinaldi, L.**, Marelli, M., Mazzoni, G., & Vecchi, T. (2021). Hands-on false memories: A combined study with distributional semantics and mouse-tracking. *XXVII Congresso AIP Sezione Sperimentale*. September 2021, Lecce (Italy).
6. Gatti, D., Marelli, M., Mazzoni, G., **Rinaldi, L.**, & Vecchi, T. (2021). Il coinvolgimento del cervelletto nella memoria semantica: evidenze di neurostimolazione. *SIPF 2021*. September 2021, Palermo, Italy.
7. Gatti, D., **Rinaldi, L.**, Marelli, M., Mazzoni, G., & Vecchi, T. (2020). Decomposing the semantic processes underpinning veridical and false memories. *XXVI Congresso Annuale della Sezione di Psicologia Sperimentale (AIP)*. September 2020, Lecce (online, Italy).
8. **Rinaldi L.**, Ciufoletti R., Conti S., & Girelli L. (2019). Pensare con i piedi: Il ruolo del controllo fine e grosso-motorio nello sviluppo cognitivo. *Congresso Annuale della Sezione di Psicologia Sperimentale (AIP)*. September 2019, Milan (Italy).
9. Parente L., Marelli M., & **Rinaldi L.** (2019). I modelli semantici distribuzionali predicano il pensiero numerico simbolico e nonsimbolico. *Congresso Annuale della Sezione di Psicologia Sperimentale (AIP)*. September 2019, Milan (Italy).
10. Adriano A., **Rinaldi L.**, & Girelli L. (2019). Il Senso dei Numeri: tutta un'illusione? *Congresso Annuale della Sezione di Psicologia Sperimentale (AIP)*. September 2019, Milan (Italy).
11. Rizzi E., **Rinaldi L.**, & Girelli L. (2019). Eventi personali e non-personali attivano differenti sistemi di riferimento spaziali della Mental Time Line. *Congresso Annuale della Sezione di Psicologia Sperimentale (AIP)*. September 2019, Milan (Italy).
12. Conte F., Costantini G., Gerosa T., **Rinaldi L.**, & Girelli L. (2019). L'intelligenza non costa: apporto differenziale di fattori culturali e socio-economici al funzionamento cognitivo in adolescenza. *Congresso Annuale della Sezione di Psicologia Sperimentale (AIP)*. September 2019, Milan (Italy).
13. Girelli L., Ciufoletti R., Conti S., & **Rinaldi L.** (2019). Moving hands, running feet: the motor side of cognitive control in childhood. *Healthy and Active Children*. September 2019, Verona (Italy).
14. **Rinaldi, L.**, & Marelli, M. (2018). The semantics of numerical symbols in natural language obeys Weber's law. *Joint Congress of the SEPEX, SEPNECA and AIP experimental*. July, 2018, Madrid (Spain).
15. **Rinaldi, L.**, (2017). Sensorimotor experience biases human attention through space and time. *Congresso Annuale della Sezione di Psicologia Sperimentale (AIP)*. September 2017, Bari (Italy).
16. Tobia, V., **Rinaldi, L.**, & Marzocchi, G.M. (2016). Time processing impairments in preschoolers at risk of developing difficulties in mathematics. *EDA: 5th All European Dyslexia Conference*. September 2016, Modena (Italy).
17. **Rinaldi, L.**, & Girelli, L. (2015). Mind the Space in Time: The Role of Sensorimotor Experience in Temporal Order Processing. *The Cognitive and Neural Basis for the Development of Numerical Understanding*. April 2015, Beer Sheva and Haifa (Israel).
18. **Rinaldi, L.**, & Girelli, L. (2014). Back to the future or forward to the past? Mind the space in time. *Embodiment of abstract concepts: what's special about space*. June 2014, Milan (Italy).

19. **Rinaldi, L.**, Lega, C., Cattaneo, Z., Girelli, L., & Bernardi, N.F. (2014). Pitch and grasp the sound! Action planning dances on pitch dimension. *Cognitive Science Arena for Beginners II*. February 2014, Brixen (Italy).
20. **Rinaldi, L.**, Bertolini, G., Bockisch, C.J., Maravita, A., Girelli, L., & Brugger, P. (2014). Asymmetries in near and far space: commonalities and differences between manual and ocular bisection. *Thirty-Two European Workshop on Cognitive Neuropsychology*. January 2014, Brixen (Italy).
21. **Rinaldi, L.**, Lega, C., Cattaneo, Z., Girelli, L., & Bernardi, N.F. (2013). Pitch and grasp the sound! Action planning dances on pitch dimension. *The Trieste Symposium on Perception and Cognition*. November 2013, Trieste (Italy).
22. **Rinaldi, L.**, Di Luca, S., Henik, A., & Girelli, L. (2013). An Interactive Account of visuo-spatial asymmetries: visuo-motor exploration is situated between biological and cultural determinants. *Embodied & Situated Language Processing Conference*. July 2013, Potsdam (Germany).
23. **Rinaldi, L.**, Di Luca, S., Henik, A., & Girelli, L. (2013). A helping hand putting in order? Language dependent constraints underlying order-fingers mapping. *Cognitive Science Arena for Beginners*. February 2013, Brixen (Italy).
24. Girelli, L., & **Rinaldi, L.** (2013). L'associazione numeri-spazio nello sviluppo della competenza numerica. October 2012, AIRIPA, Bari (Italia).
25. **Rinaldi, L.**, Di Luca, S., Henik, A., & Girelli, L. (2012). Influenza contestuale dei sistemi di letto-scrittura nei processi di attenzione visuo-spaziale. *Congresso Nazionale dell'Associazione Italiana di Psicologia (AIP)*, Sezione di Psicologia Sperimentale. September 2012, Chieti (Italy).

#### **Poster presentations at conferences/meetings**

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1. Conte, F., Costantini, G., **Rinaldi, L.**, Gerosa, T., Mondini, S., Girelli, L. Cognitive Reserve Potential questionnaire. Uno strumento per misurare il potenziale di riserva cognitiva in adolescenza. *X National Conference of the Italian Neuropsychology Association (SINP)*. November 2021, Modena (Italy).
2. Gatti, D., **Rinaldi, L.**, Marelli, M., & Vecchi, T. (2021). Processing of semantic associations in the cerebellum: a TMS study. *XI SRCA Congress*. June 2021, Virtual meeting.
3. Gatti, D., **Rinaldi, L.**, Marelli, M., & Vecchi, T. (2021). Processing of semantic associations in the cerebellum: a TMS study. *28th Annual Meeting of the Cognitive Neuroscience Society – CNS 2020*. April 2021, virtual meeting.
4. Abbondanza, M., Foppolo, F., **Rinaldi, L.**, & Marelli, M. (2020). Spatial representation of linguistic quantifiers. *Experiments in Linguistic Meaning*. September 2020, Virtual meeting.
5. Adriano, A., **Rinaldi, L.**, & Girelli, L. (2019). Grouping objects with Illusory Contour lines reduces the perceived numerosity. A study with comparison and estimation tasks. *The Trieste Symposium on Perception and Cognition*. November 2019, Trieste (Italy).
6. Abbondanza, M., Foppolo, F., **Rinaldi, L.**, & Marelli, M. (2019). Quantifiers and analogue quantity processing: an eye-tracking study. *Brain, Language & Learning*. September 2019, Siena (Italy).

7. Marelli, M., & **Rinaldi**, L. (2018). Numerals Beyond Language: When Word Usage is Governed by Psychophysical Laws. *Eleventh International Conference on the Mental Lexicon*. September 2018, Edmonton (Canada).
8. Lega, C., Cattaneo, Z., Girelli, L., Vecchi, T., Bernardi, N.F, & **Rinaldi**, L. (2017). Auditory pitch shapes grasping movements: the role of automaticity and musical expertise. *The Neurosciences and Music-VI*. June 2017, Boston (USA).
9. Mazzanti, S., Sacco, E., **Rinaldi**, L., & Girelli, L. (2017). “Mani abili per menti abili”? L’importanza della valutazione delle abilità fine-motorie in età prescolare. *Developmental Neuropsychology Workshop*. February, 2017, Brixen (Italy).
10. **Rinaldi**, L., Maggioni, E., Olivero, N., Maravita, A., & Girelli, L. (2015). Pleasantness smells like a spatial boundary: Odor pleasantness shifts visuospatial attention in humans. *International Convention of Psychological Science*. March 2015, Amsterdam (Netherlands).
11. **Rinaldi**, L., Lega, C., Cattaneo, Z., Girelli, L., & Bernardi, N.F. (2015). Pitch and grasp the sound! Action planning dances on pitch dimension. *Thirty-Three European Workshop on Cognitive Neuropsychology*. January 2015, Brixen (Italy).
12. **Rinaldi**, L., Brugger, P., Bertolini, G., Bockisch, C.J., & Girelli, L. (2014). Keeping an eye on temporal order: ocular movements bind space and time. *14th European Workshop of Imagery and Cognition (EWIC)*, June 2014, Cyprus.
13. Lega, C., Bernardi, N.F., Ancona, N., Cattaneo, Z., Girelli, L., & **Rinaldi**, L. (2014). Musical expertise modulates the spatial organization of pitch representation. *The Neurosciences and Music-V*. May 2014, Dijon (France).
14. **Rinaldi**, L., Lega, C., Cattaneo, Z., Girelli, L., & Bernardi, N.F. (2014). Pitch and grasp the sound! Action planning dances on pitch dimension. *The Neurosciences and Music-V*. May 2014, Dijon (France).
15. **Rinaldi**, L., Di Luca, S., Henik, A., & Girelli, L. (2013). An Interactive Account of visuo-spatial asymmetries: developmental and cross-cultural impact of reading and writing systems. *Eighteenth Conference of the European Society for Cognitive Psychology (ESCOP)*. August 2013, Budapest (Hungary).
16. **Rinaldi**, L., Di Luca, S., Henik, A., & Girelli, L. (2013). A helping hand putting in order? Language dependent constraints underlying order-fingers mapping. *Thirty-First European Workshop on Cognitive Neuropsychology*. January 2013, Brixen (Italy).
17. **Rinaldi**, L., Di Luca, S., Henik, A., & Girelli, L. (2012). Reading direction shifts visuo-spatial attention: when attentional biases are cultural based. *5th International Conference on Spatial Cognition: “Space and Embodied Cognition”*. September 2012, Rome (Italy).
18. **Rinaldi** L., & Girelli, L. (2011). The role of number-space associations in preschoolers' numerical competence. *Typical and Atypical Neurocognitive Aspects of Numerical Processing*. April 2011, Beer Sheva and Haifa (Israel).

## Organized workshops and symposia

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1. **Rinaldi, L.** & Bottini, R. (2024). Cognitive maps, from space to concepts. *Learning and Plasticity Meeting*. April 2024, Äkäslompolo (Finland).
2. **Rinaldi, L.** & Marelli, M. (2024). More than words: the impact of language on perception. *University of Pavia*. February 2024, Pavia (Italy).
3. **Rinaldi, L.** & Marelli, M. (2023). More than words: the impact of language on perception. *European Workshop on Cognitive Neuropsychology*. January 2023, Brixen (Italy).
4. **Rinaldi, L.** (2022). Was that real? Walking the thin line between real and false memories. *XXX Congress of the Italian Psychology Association*. September 2022, Padova (Italy).
5. **Rinaldi, L.** (2018). Grasping numbers: is it really all about the senses? New insights from language research. *Joint Congress of the SEPEX, SEPNECA and AIP experimental*. July 2018, Madrid (Spain).
6. Girelli, L., Bottini, R. & **Rinaldi, L.** (2014). Embodiment of abstract concepts: what's special about space. Department of Psychology, University of Milano-Bicocca. June 2014, Milan (Italy).

## Journal reviewing

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### International:

*Acta Psychologica*

*Attention, Perception & Psychophysics*

*Behavior Research Methods*

*Brain and Cognition*

*Child Development Perspectives*

*Cognition*

*Cognitive Development*

*Cognitive Processing*

*Cognitive Science*

*Consciousness & Cognition*

*Cortex*

*Current Directions in Psychological Science*

*Experimental Brain Research*

*Frontiers in Psychology*

*Journal of Experimental Psychology: General*

*Journal of Experimental Psychology: Human Perception and Performance*

*Journal of Experimental Psychology: Learning, Memory and Cognition*

*Journal of Intelligence*

*Journal of Neurophysiology*

*Journal of Vision*

*Laterality*

*Multisensory Research*

*Neurological Sciences*

*Neuropsychologia*

*Neuroscience & Biobehavioral Reviews*

*PLoS One*

*Psychological Reports*

*Psychological Research*

*Psychology of Aesthetics, Creativity, and the Arts*  
*Psychology of Language and Communication*  
*Psychonomic Bulletin & Review*  
*Scientific Reports*  
*Swiss Journal of Psychology*  
*The Quarterly Journal of Experimental Psychology*

**National:**

*Disturbi di Attenzione e Iperattività*  
*Giornale Italiano di Psicologia*

**Grant reviewing**

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*Natural Sciences and Engineering Research Council of Canada, Canada (NSERC)*  
*French National Research Agency, France (ANR)*

**Society Membership**

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*Association for Psychological Sciences (APS), European Society of Cognitive Psychology (ESCP),*  
*Associazione Italiana di Psicologia: Sezione Sperimentale (AIP).*

**Media coverage**

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1. Perrone et al. Temporal perception in closed skills sports: an experimental study on elite swimmers and runners. *Psychology of Sport and Exercise* (2023):

- **La Gazzetta dello Sport** – 21/01/24

<https://www.gazzetta.it/salute/per-lo-sport/21-01-2024/orologio-interno-come-regolarlo-con-il-nuoto-lo-studio-cosa-sapere.shtml>

- **Le Scienze** – 19/10/23

<https://www.lescienze.it/news/2023/10/19/news/un-orologio-interno-che-spacca-il-secondo-possiamo-ottenerlo-grazie-al-nuoto-13805524/>

2. Gatti et al. Spatial representations without spatial computations. *Psychological Science* (2022):

- **La Stampa** – 02/11/22

<https://www.lastampa.it/tuttoscienze/2022/11/02/news/e-il-linguaggio-che-ci-orienta-nello-spazio-12211114/>

- **Prima Pavia** – 28/10/22

<https://primapavia.it/attualita/lo-studio-delluniversita-di-pavia-per-fare-geografia-non-servono-per-forze-le-immagini/>

3. Petilli et al. How difficult is it for adolescents to maintain attention? *QJoEP* (2020):

- **Il Giorno** - 15/04/20

<https://www.ilgiorno.it/milano/cronaca/lo-sport-aiuta-a-pensare-bene-bocciati-i-videogiochi-action-1.5108553>

- **Scuola24, Il Sole 24 Ore** - 15/04/20

<http://scuola24.ilsole24ore.com/art/scuola/2020-04-14/praticare-sport-e-giocare-videogiochi-action-effetti-opposti-capacita-attenzione-prolungata-adolescenti-181540.php?uuid=ADDIdDK>

4. Rinaldi et al., Walking on a mental time line, *Cortex* (2016):

- **Scientific American** - 1/11/16

<https://www.scientificamerican.com/article/how-we-make-sense-of-time/>

- **Focus** - 20/04/16

<http://www.focus.it/scienza/scienze/il-futuro-e-davanti-a-noi-il-passato-dietro>

- **Panorama** - 20/04/16

<http://www.panorama.it/scienza/salute/il-nostro-corpo-e-una-macchina-del-tempo-la-scoperta-degli-scientziati-italiani/>

- **Le Scienze** - 19/04/16

[http://www.lescienze.it/lanci/2016/04/19/news/universita\\_milano-bicocca\\_il\\_nostro\\_corpo\\_e\\_una\\_macchina\\_del\\_tempo-3058377/](http://www.lescienze.it/lanci/2016/04/19/news/universita_milano-bicocca_il_nostro_corpo_e_una_macchina_del_tempo-3058377/)

- **OK Salute e Benessere**- 20/04/16

<http://www.ok-salute.it/psiche-e-cervello/corpo-macchina-del-tempo/>

5. Rinaldi et al., Keeping an eye on serial order, *Cognition* (2015):

- **La Repubblica** - 09/07/15

[http://www.repubblica.it/scienze/2015/07/09/news/gli\\_occhi\\_si\\_muovono\\_da\\_sinistra\\_a\\_destra\\_la\\_direzione\\_per\\_ricordare-118706583/](http://www.repubblica.it/scienze/2015/07/09/news/gli_occhi_si_muovono_da_sinistra_a_destra_la_direzione_per_ricordare-118706583/)

- **TGCOM 24** - 09/07/15

[http://www.tgcom24.mediaset.it/salute/memoria-davvero-visiva-muovendo-gli-occhi-ricordiamo-meglio\\_2121568-201502a.shtml](http://www.tgcom24.mediaset.it/salute/memoria-davvero-visiva-muovendo-gli-occhi-ricordiamo-meglio_2121568-201502a.shtml)

- **Il Secolo XIX** - 10/07/15

[http://www.ilsecoloxix.it/p/magazine/2015/07/10/ARd77e4E-aiutano\\_memoria\\_muovendosi.shtml](http://www.ilsecoloxix.it/p/magazine/2015/07/10/ARd77e4E-aiutano_memoria_muovendosi.shtml)

- **Panorama** - 09/07/15

<http://www.panorama.it/scienza/salute/gli-occhi-funzionano-come-un-laser-per-cercare-tra-ricordi/>

- **Focus** - 09/07/15

<http://www.focus.it/scienza/salute/gli-occhi-funzionano-come-un-laser-per-cercare-tra-ricordi>

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*Le dichiarazioni rese nel presente curriculum sono da ritenersi rilasciate ai sensi degli artt. 46 e 47 del D.P.R. 445/2000.*