

Curriculum Vitae

ROBERTO BOTTINI

Ph.D.

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Associate Professor
CIMEC - Center for Mind/Brain Sciences
University of Trento
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38123, Mattarello (TN)
Italy

EMPLOYMENT

May 2019 – Present. Associate Professor at CIMEC (Center for Mind/Brain Sciences, Trento, Italy).

June 2017 – March 2019. Post-Doctoral Fellow at CIMEC (Center for Mind/Brain Sciences, Trento, Italy) and SISSA (School of advanced Studies, Trieste, Italy).

January 2015 – June 2017. Post-Doctoral Fellow at CIMEC (Center for Mind/Brain Sciences), University of Trento, Italy.
Advisor: Dr. Olivier Collignon

June 2013 – December 2014. Post-Doctoral Fellow at MoMo Lab, Department of Psychology, University of Milano-Bicocca, Italy.
Advisor: Dr. Davide Crepaldi

July 2011 – June 2013. Post-Doctoral Fellow at the New School for Social Research, Department of Psychology, New York, NY, U.S.A.
Advisor: Prof. Daniel Casasanto

January – May 2011. Visiting researcher. Max Plank Institute for Psycholinguistics, Nijmegen, The Netherlands.

EDUCATION

January 2008 – December 2010. PhD in *Anthropology and Epistemology of Complexity*, University of Bergamo.
Advisor: Prof. Enrico Giannetto
Dissertation: *An interdisciplinary study of time in language and mind*. University of Bergamo. Italy.

July 2010 – November 2010. Visiting Ph.D student at the Max Plank Institute for Psycholinguistics, Nijmegen, The Netherlands.
Local Advisor: Prof. Daniel Casasanto

March – April 2010. Visiting Ph.D student at the Federal University of Rondonia, Departement of Vernacular Languages, Porto Velho, Brazil.

Local Advisor: Prof. Wany Sampaio

November – December 2009. Visiting Ph.D student at the University of Portsmouth, Faculty of Psychology, UK.

Local Advisor: Prof. Chris Sinha

February – July 2009. Visiting Ph.D student at the Max Plank Institute for Psycholinguistics, Nijmegen, The Netherlands.

Local Advisor: Prof. Daniel Casasanto

Undergraduate and Master

2004 – 2006. Master's Degree in Clinical Psychology. University of Padova, Faculty of psychology.

Thesis: *The construction of consciousness in the process of communication. The spatialization of beliefs as fundamental step for the development of a Theory of Mind.*

Advisor: Prof. Alessandro Salvini

Final Grade: 110/110 with distinction

2001 – 2004 . Undergraduate degree in Psychology. University of Padova, Faculty of Psychology.

Thesis : *Psychoanalysis and Buddhism.*

Advisor: Prof. Ivano Spano

Final Grade: 110/110 with distinction

Ph.D. DISSERTATION

Bottini, R. (2011). *An interdisciplinary study of time in language and mind.* University of Bergamo, Bergamo (Italy).

BOOKS

Salvini, A. & **Bottini, R.** (2011). *Il nostro inquieto segreto. La coscienza, psicologia e psicoterapia .* Ponte alle Grazie. Firenze.

PAPERS

Bottini R, Ferraro, S., Nigri, A., Cuccarini V., Bruzzone, M. G. & Collignon, O. (*submitted*). Brain regions involved in conceptual retrieval in sighted and blind people, *Journal of Cognitive Neuroscience*, 1-17.

- Mattioni, S., Rezk, M., Cuculiza Mendoza, K.E., Battal, C., **Bottini, R.**, van Ackeren, MJ., Oosterhof, N.N., Collignon, O. (2020). Categorical representation from sound and sight in the ventral occipito-temporal cortex of sighted and blind, *eLife*.
- Morucci P, **Bottini R** & Crepaldi D. (2019). Augmented Modality Exclusivity Norms for Concrete and Abstract Italian Property Words, *Journal of cognition*, 2.1.
- Bottini, R.**, Barilari, M., & Collignon, O. (2019). Sound symbolism in sighted and blind. The role of vision and orthography in shape-sound correspondences, *Cognition*, 185, 62-70
- Crollen V., Spruyt, T., Mahau, P., **Bottini, R.**, and Collignon, O. (2019). How visual experience and task context modulate the use of internal and external spatial coordinate for perception and action, *Journal of Experimental Psychology: Human Perception and Performance*, 45(3), 354.
- Barilari, M., Collignon, O., & **Bottini, R.** (2018). Is red heavier than yellow when you cannot see it? Crossmodal correspondences in sighted and blind, *i-Perception*, 9(1).
- van Ackeren, M., Barbero, F., Mattioni, S., **Bottini, R.** and Collignon, O. (2018). Neuronal populations in the occipital cortex of the blind synchronize to the temporal dynamics of speech, *eLife*, 7, e31640.
- Bottini, R.**, Mattioni S., & Collignon O. (2016). Early blindness impact on the spatial organization of verbal Working Memory. *Cortex*, 83, 271-279
- Bottini, R.**, Bucur, M., & Crepaldi, D. (2016). The nature of semantic priming by subliminal spatial words. Embodied or disembodied? *Journal of Experimental Psychology: General*.
- Bottini, R.**, Crepaldi, D., Casasanto, D., Crollen, V., & Collignon, O. (2015). Space and Time in the Sighted and Blind. *Cognition*, 141, 67-72.
- Casasanto, D. & **Bottini, R.** (2014). Spatial language and abstract concepts. *WIREs Cognitive Science*, 5, 139–149. doi: 10.1002/wcs.1271
- Casasanto, D. & **Bottini, R.** (2014). Mirror reading can reverse the flow of time. *Journal of Experimental Psychology: General*. 143(2), 473-9.
- Bottini, R.** & Casasanto, D. (2013). Space and time in the child's mind: Metaphoric or ATOMIC? *Frontiers in Cognitive Science*.

BOOK CHAPTERS

- Bottini, R.** & Salvini, A. (2015) La coscienza analogica e i suoi stati modificati. In E. Casiglia (ed.) Trattato di ipnosi e alter modificazioni di coscienza. CLEUP. Padova.
- Bottini, R.** & Kuijsten, M. (2011). Può il linguaggio dar forma alla coscienza? In Salvini, A. & Bottini, R. (Eds.) *Il nostro inquieto segreto. La coscienza, psicologia e psicoterapia* Ponte alle Grazie. Firenze

Salvini, A. & **Bottini, R.** (2011). Una domanda imbarazzante: La coscienza che cos'è? In Salvini, A. & Bottini, R. (Eds.) *Il nostro inquieto segreto. La coscienza, psicologia e psicoterapia* Ponte alle Grazie. Firenze

Bottini, R. & Casasanto, D. (2010). Implicit spatial length modulates time estimates, but not vice versa. In *Spatial Cognition VII*. C. Hölscher, T. F. Shipley, M. Olivetti Belardinelli, J. A. Bateman, & N. S. Newcombe (Eds.), 152 - 162, Berlin Heidelberg: Springer.

Casasanto, D. & **Bottini, R.** (2010). Can mirror-reading reverse the flow of time? In *Spatial Cognition VII*. C. Hölscher, T. F. Shipley, M. Olivetti Belardinelli, J. A. Bateman, & N. S. Newcombe (Eds.), 335-345, Berlin Heidelberg: Springer.

PEER-REVIEWED CONFERENCE PROCEEDINGS

Bottini, R., Casasanto, D., Nadalini, A., & Crepaldi, D. (2016). Stepping out of the Chinese Room: Word meaning with and without consciousness. *CLiC it*, 78.

Bottini, R., Guarino, C. & Casasanto, D. (2013). Space is special: A domain-specific mapping between time and nontemporal magnitude. In M. Knauff, M., Pauen, N. Sebanz, & I. Wachsmuth (Eds.) *Proceedings of the 35th Annual Conference of the Cognitive Science Society* (pp. 233-238). Austin TX: Cognitive Science Society.

Gijssels, T., **Bottini, R.**, Rueschemeyer, S.A. & Casasanto, D. (2013). Space and Time in the Parietal Cortex: fMRI Evidence for a Neural Asymmetry. In M. Knauff, M., Pauen, N. Sebanz, & I. Wachsmuth (Eds.) *Proceedings of the 35th Annual Conference of the Cognitive Science Society* (pp. 495-501). Austin TX: Cognitive Science Society.

Bottini, R. & Casasanto, D. (2010). Implicit spatial length modulates time estimates, but not vice versa. In S. Ohlsson & R. Catrambone (Eds.), *Proceedings of the 32nd Annual Conference of the Cognitive Science Society* (pp. 1348-1353). Austin, TX: Cognitive Science Society.

Casasanto, D. & **Bottini, R.** (2010). Can mirror-reading reverse the flow of time? In S. Ohlsson & R. Catrambone (Eds.), *Proceedings of the 32nd Annual Conference of the Cognitive Science Society* (pp. 1342-1347). Austin, TX: Cognitive Science Society.

TALKS

Bottini R., (2019). *The spatial organization of knowledge beyond hippocampal cognitive maps*, Invited talk at Neuromania, Torun, Poland, 04/09/2019.

Bottini R., (2019). *Different neural networks for conceptual retrieval in sighted and blind*, Invited talk at KAIST-CIMeC Symposium, Rovereto, Italy, 19/04/2019.

Bottini R., (2019). *The spatial representation of time in the mind and brain*, Invited talk at the Workshop 'The Flow of Time', in Venice, Italy, 18-20/01/2019.

- Bottini R.**, (2018). *Different neural networks for conceptual retrieval in sighted and blind*, Invited talk at University of Tübingen, Department of Psychology, Germany, 05/12/2018.
- Bottini R.**, (2017). *The role of consciousness in semantic processing: Insights from masked priming and spatial language*. Spatial Language and Spatial Cognition Workshop, December 6-7, Trondheim, Norway.
- Bottini R.**, (2017). *Space-Time relationships across the senses*. Timing Research Forum. October 23-25, Strasbourg, France.
- Bottini R.**, Casasanto D., Yap D., Crepaldi D., & Collignon O. (2016). *Metaphorical gestures for time in early and late blind*. Seventh Conference of the International Society for Gesture Studies, July 18-22, Paris.
- Bottini R.**, Bucur M., Crepaldi D. (2016). *The nature of semantic priming by subliminal spatial word. Embodied or disembodied?* International meeting of the Psychonomic society, 5-8 May, 2016, Granada (Spain).
- Bottini R.** (2016). *How vision shapes spatial representations of time, numbers and order*. International meeting of the Psychonomic society, 5-8 May, 2016, Granada (Spain).
- Bottini R.**, Mattioni S., & Collignon O. (2016). *Early blindness impact on the spatial organization of verbal Working Memory*, European Workshop on Cognitive Neuropsychology (EWCN), 24-29 Jan 2016 Bressanone (Italy).
- Bottini R.**, (2015). *The role of consciousness in semantic processing. Insights from masked priming*, Invited talk at SISSA, Neuroscience Area, Trieste, Italy, 26/11/2015.
- Bottini R.**, (2015). *The role of consciousness in semantic processing. Insights from masked priming*, Invited talk at Institut du Cerveau et de la Moelle Epinière (ICM), Paris, France, 17/11/2015.
- Bottini R.**, (2015). *The role of consciousness in semantic processing. Insights from masked priming*, Invited talk at University of Geneva, Department of Psychology, Geneva, Switzerland, 16/11/2015.
- Bottini R.**, Bucur, M. & Crepaldi, D. (2015). *The nature of sensorimotor facilitation by subliminal words. Embodied or disembodied?* Embodied and Situated Language Processing (ESLP), 29-30 Jul 2015 Lyon (France).
- Bottini R.**, Crepaldi, D., Casasanto, D., Crollen, V., & Collignon, O. (2015). *Space and Time in the Sighted and Blind*. 16th International Multisensory Research Forum, 13-16 Jun, Pisa (Italy).
- Bottini R.**, Crepaldi, D., Casasanto, D., Crollen, V., & Collignon, O. (2015). *Space and Time in the Sighted and Blind*, European Workshop on Cognitive Neuropsychology (EWCN), 25-30 Jan, 2015, Bressanone (Italy).
- Crepaldi D. & **Bottini R.** (2014). *Acoustic and Visual Masked Priming are Both Sensitive to Morphology*. Psychonomic Society's 55th Annual Meeting, Long Beach, LA, USA.

- Bottini R.** & Casasanto, D. (2014). *Beyond ATOM. Space and Time in the Human Mind*. Language, Culture and Mind VI, Lublin, Poland.
- Bottini R.**, Crepaldi, D., Casasanto, D., Crollen, V., & Collignon, O. (2014). *No time in my hands. different spatial coordinates support temporal and numerical concepts in blind and sighted individuals*. Symposium: Embodiment of Abstract Concepts. What's Special About Space. University of Milan-Bicocca, Milano, June 9th 2014.
- Bottini R.** & Casasanto, D. (2013). *Space is special: A domain-specific mapping between time and nontemporal magnitude*. 35th Annual Meeting of the Cognitive Science Society, Portland, OR.
- Bottini R.** (2011) *Coscienza, linguaggio e metafore*. La coscienza di sé: Alterità, Trascendenza, Disagio e Psicoterapia, Montegrotto Terme (PD), Italy. (Invited talk)
- Bottini R.** (2010). *Walking through time*. 2nd Conference of Clean Language, London. (Invited talk)
- Bottini R.** & Casasanto, D. (2010). *Implicit spatial length modulates time estimates, but not vice versa*. Spatial cognition, Mt. Hood/Portland, OR.
- Bottini R.** & Casasanto, D. (2010). *Implicit spatial length modulates time estimates, but not vice versa*. 32nd Annual Meeting of the Cognitive Science Society, Portland, OR.
- Bottini R.** & Casasanto, D. (2010). *Implicit spatial length modulates time estimates, but not vice versa*. Language, Culture and Mind IV, Turku, Finland.

CONFERENCE POSTERS

A list of conference posters from my lab can be found here:

<https://docs.google.com/document/d/1vWxrBW0FaoQBWri0ScKTigrteGdadkRhAZsd7nLcsNI/edit?usp=sharing>

RESEARCH GRANTS

July 2018. ERC Starting Grant, European Research Council; PI; 1498644 Euros

TEACHING

Spring/Fall 2011. Teaching Assistant: Experiential Relativity (Prof. Daniel Casasanto), The New School for Social Research, New York, NY

2015 – Present. Ad-Hoc classes on Embodied cognition, Embodied semantics, Numerical cognition and neurobiology of consciousness

SUPERVISION

Current:

Lorenzo Vignali (Postdoc; Semantics & blindness; MEG)

Yangwen Xu (Postdoc; Semantics & blindness; fMRI)

Léo Dutriaux (Postdoc; Spatial representations; fMRI; MEG)
 Federica Sigismondi (Ph.D. Student; Cognitive maps; fMRI; MEG)
 Giuliano Giari (Ph.D. Student; Cognitive maps; fMRI; MEG)
 Linda von Sobbe (Ph.D. Student; Time representation; fMRI)
 Anna d'Urso (RA, Language processing, MEG/Behavioral)
 Christian Mangione (RA, cognitive maps, fMRI)

Previous:

Jacopo Turini (Master Student; Semantic processing; MEG)
 Chiara Luna Rivolta (Master Student; Unconscious perception; MEG)
 Marco Barilari (Intern; Sound symbolism, Consciousness; Behavioral, fMRI)
 Camilla Endrizzi (Master Student; Consciousness & Semantics; MEG)
 Piermatteo Morucci (Intern; Semantics; Behavioral)
 Jessica Calzà (Master Student; semantics; fMRI)
 Gianluca Morciano (Master Student; Spatial Representations; Behavioral)
 Ilenia Papparella (Undergraduate; Space-Time asymmetry; Behavioral)
 Madalina Bucur (Master Student; Consciousness & Semantics)

REVIEWING

Cerebral Cortex; HBM; Journal of Experimental Psychology: General; Journal of Experimental Psychology: HPP; Cognition; Cortex; Plos one; Cognitive Psychology; Hippocampus; Consciousness and Cognition; Acta Psychologica; Developmental Science; Quarterly Journal of Experimental Psychology; Attention, Perception, & Psychophysics; Cognitive Science; Frontiers in Psychology; Psychological Research; Frontiers in Integrative Neuroscience; Cognitive Processing; Language & Cognition; Timing and Time Perception.

COMPUTATIONAL SKILLS

Programming languages: R, Matlab.
 Statistical software: R, SPSS, JASP.

LANGUAGE SKILLS

Fluent: Italian, English, French.
 Basic: Portuguese, Spanish