

CURRICULIM VITAE

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CURRENT POSITION

2016 - Associate Professor, Department of Psychology, Università Milano - Bicocca, Milano, Italy.
2014 - Executive and Scientific Board, Milan Center for Neuroscience, Milan, Italy

PRECEDING POSITIONS

- 2008 - 2016 Assistant Professor, Department of Psychology, Università Milano - Bicocca, Milano, Italy.
- 2007 - 2010 Post-doc/Visiting Researcher, Bernstein Centre for Computational Neuroscience, Charité - Universitätsmedizin, Berlin.
- 2003 - 2007 Post-doc Fellowship, Psychology department, Università Milano - Bicocca.
- 2006 - 2007 - Visiting scientist, Neuroimaging Lab, IRCCS Santa Lucia, Roma.

EDUCATION

- 1999-2003 PhD, Cognitive Neuroscience Sector, SISSA, Trieste. Thesis: "Neural basis and functional architecture of Inductive Reasoning: neuropsychological evidence" Supervisor: Tim Shallice; External Advisors: John Duncan, Paolo Nichelli
- 2001 Summer Institute in Cognitive Neuroscience, Dartmouth College, Hanover, NH, USA
- 1998 Medical Doctor degree, Università Statale di Milano. Supervisor: Erminio Capitani.

ACTIVE COLLABORATIONS

- Giosuè Baggio, Language Acquisition and Language Processing Lab, Department of Language and Literature, Norwegian University of Science and Technology, Trondheim, Norvegia
- Luca Bonatti, Albert Costa, ICREA, Barcellona, Universitat Pompeu Fabra, Spagna
- Paolo Cherubini, Dipartimento di Psicologia, Università Milano - Bicocca, Milano, Italia
- Davide Crepaldi, SISSA, Trieste, Italia
- Ansgar Endress, Department of Psychology, City University London, UK.
- John-Dylan Haynes, Bernstein Centre for Computational Neuroscience, Charité - Universitätsmedizin, Berlino, Germania
- Alessandro Laio, Daniele Amati, Michele Allegra, Statistical and Biological Physics sector, SISSA, Trieste, Italia
- Simona Luzzi, Department of Experimental and Clinical Medicine, Polytechnic University of Marche, Ancona, Italy
- Aldo Rustichini, Department of Economics, University of Minnesota, Minneapolis, MN, USA.

SCIENTIFIC INTERESTS

Inductive reasoning and learning; Decision Theory; Game Theory; Deductive reasoning; Control/Executive functions; Frontal lobe functions; Semantic Memory; Functional and structural neuroimaging; Development of diagnostic tools.

SCIENTIFIC AND PROFESSIONAL SOCIETIES

- Italian Medical Association
- Society for Neuroscience

AD-HOC REVIEWER FOR INSTITUTIONS

- European Commission (ERC Starting Grants), EU
- French National Research Agency (ANR), (JCJC program) France
- Institut national de la santé et de la recherche médicale, INSERM (Atip-Avenir program), France
- Natural Sciences and Engineering Research Council of Canada, Canada
- Phd program in Psychological Sciences, Università degli Studi di Padova, Italy
- Institute for Advanced Studies, PhD program in Cognitive Neuroscience and Philosophy of Mind, Pavia, Italy
- SISSA, Cognitive Neuroscience Sector, PhD Program, Italy

AD-HOC REVIEWER FOR SCIENTIFIC JOURNALS

Behavioural Brain Research, Bilingualism, Brain and Behavior, Brain and Language, Brain Research, Cerebral Cortex, Cognitive, Affective, and Behavioral Neuroscience, Cognitive Processing, Cognitive Science, Cortex, European Journal of Neuroscience, Experimental Brain Research, Frontiers in Human Neuroscience, Human Brain Mapping, Journal of Cognitive Psychology, Journal of Cognitive Neuroscience, Journal of Neuroscience, Journal of Neuroscience Methods, Journal of Neurolinguistic, Neuroimage, Neuropsychologia, Neuropsychology, Neuroscience Letters, Plos One, Scientific Reports.

PUBLICATIONS ON SCIENTIFIC JOURNALS

1. Pischedda, D., Gørgen, K., Haynes, J.-D., & **Reverberi, C.** (2017). Neural Representations of Hierarchical Rule Sets: the Human Control System Represents Rules Irrespective of the Hierarchical Level They Belong to. *Journal of Neuroscience*, 3088–16.
2. Luzzi, S., Baldinelli, S., Ranaldi, V., Fabi, K., Cafazzo, V., Fringuelli, F., ..., **Reverberi, C.**, Gainotti, G. (2017). Famous faces and voices: Differential profiles in early right and left semantic dementia and in Alzheimer's disease. *Neuropsychologia*, 94, 118–128.
3. Allegra, M., Seyed-Allaei, S., Pizzagalli, F., Baftizadeh, F., Maieron, M., **Reverberi, C.**, Laio, A., Amati, D. (2017). fMRI single trial discovery of spatio-temporal brain activity patterns. *Human Brain Mapping*, 38(3), 1421–1437.
4. Luzzi, S., Coccia, M., Polonara, G., **Reverberi, C.**, Ceravolo, G., Silvestrini, M., ... Gainotti, G. (2017). Selective associative phonagnosia after right anterior temporal stroke. *Neuropsychologia*.
5. Nardo, D., Console, P., Reverberi, C., & Macaluso, E. (2016). Competition between Visual Events Modulates the Influence of Salience during Free-Viewing of Naturalistic Videos. *Frontiers in Human Neuroscience*, 10.
6. Baggio, G., Cherubini, P., Pischedda, D., Blumenthal, A., Haynes, J.-D., & **Reverberi, C.** (2016). Multiple neural representations of elementary logical connectives. *NeuroImage*, 135, 300–310.
7. Bellan, V., Wallwork, S. B., Stanton, T. R., **Reverberi, C.**, Gallace, A., & Moseley, G. L. (2016). No Telescoping Effect with Dual Tendon Vibration. *PLOS ONE*, 11(6), e0157351.
8. **Reverberi, C.***, Kuhlen, A.*, Abutalebi, J., Greulich, R. S., Costa, A., Seyed-Allaei, S., & Haynes, J.-D. (2015). Language control in bilinguals: Intention to speak vs. execution of speech. *Brain and Language*, 144, 1–9.
9. Schuck, N. W., Gaschler, R., Wenke, D., Heinzle, J., Frensch, P. A., Haynes, J.-D., & **Reverberi, C.** (2015). Medial Prefrontal Cortex Predicts Internally Driven Strategy Shifts. *Neuron*, 86(1), 331–340.

10. Bonatti, L. L., Cherubini, P., & **Reverberi, C.** (2015). Nothing new under the sun, or the moon, or both. *Frontiers in Human Neuroscience*, 588.
11. Luzzi, S., Fabi, K., Cafazzo, V., Fringuelli, F. M., **Reverberi, C.**, Baldinelli, S., ... Snowden, J. S. (2015). Semantic Corticobasal Dementia: Challenging Nosology in Frontotemporal Lobe Degeneration. *Alzheimer Disease and Associated Disorders*, 29(4), 360–363.
12. Luzzi, S., Cafazzo, V., Damora, A., Fabi, K., Fringuelli, F. M., Ascoli, G., ... **Reverberi, C.** (2015). The neural correlates of road sign knowledge and route learning in semantic dementia and Alzheimer's disease. *Journal of Neurology, Neurosurgery, and Psychiatry*, 86(6), 595–602.
13. Wisniewski, D., **Reverberi, C.**, Tusche, A., & Haynes, J.-D. (2015). The Neural Representation of Voluntary Task-Set Selection in Dynamic Environments. *Cerebral Cortex*, 25(12), 4715–4726.
14. Wisniewski, D.*, **Reverberi, C.***, Momennejad, I., Kahnt, T., & Haynes, J.-D. (2015). The Role of the Parietal Cortex in the Representation of Task–Reward Associations. *The Journal of Neuroscience*, 35(36), 12355–12365.
15. **Reverberi, C.**, Cherubini, P., Baldinelli, S., & Luzzi, S. (2014). Semantic fluency: Cognitive basis and diagnostic performance in focal dementias and Alzheimer's disease. *Cortex*, 54, 150–164.
16. **Reverberi, C.**, Gorgen, K., & Haynes, J.-D. (2012). Distributed Representations of Rule Identity and Rule Order in Human Frontal Cortex and Striatum. *Journal of Neuroscience*, 32(48), 17420–17430.
17. **Reverberi, C.**, Bonatti, L. L., Frackowiak, R. S. J., Paulesu, E., Cherubini, P., & Macaluso, E. (2012). Large scale brain activations predict reasoning profiles. *NeuroImage*, 59(2), 1752–64.
18. **Reverberi, C.**, Gorgen, K., & Haynes, J.-D. (2012). Compositionality of rule representations in human prefrontal cortex. *Cerebral cortex* (New York, N.Y. : 1991), 22(6), 1237–46.
19. **Reverberi, C.**, Pischedda, D., Burigo, M., & Cherubini, P. (2012). Deduction without awareness. *Acta psychologica*, 139(1), 244–53.
20. Heinzle, J., Anders, S., Bode, S., Bogler, C., Chen, Y., Cichy, R. M., Hackmack, K., Kahnt, T., Kalberlah, C., **Reverberi, C.**, Soon, C.S., Tusche, A., Weygandt, M., Haynes, J.-D. (2012). Multivariate decoding of fMRI data. *e-Neuroforum*, 3(1), 1–16.
21. **Reverberi, C.**, Cherubini, P., Frackowiak, R. S., Caltagirone, C., Paulesu, E., & Macaluso, E. (2010). Conditional and syllogistic deductive tasks dissociate functionally during premise integration. *Hum Brain Mapp*, 31(9), 1430-1445.
22. **Reverberi, C.**, Rusconi, P., Paulesu, E., & Cherubini, P. (2009). Response demands and the recruitment of heuristic strategies in syllogistic reasoning. *Q J Exp Psychol (Colchester)*, 62(3), 513-530.
23. **Reverberi, C.**, Shallice, T., D'Agostini, S., Skrap, M., & Bonatti, L. L. (2009). Cortical bases of elementary deductive reasoning: Inference, memory, and metaduction. *Neuropsychologia*, 47(4), 1107-1116.
24. **Reverberi, C.**, Cherubini, P., Rapisarda, A., Rigamonti, E., Caltagirone, C., Frackowiak, R. S., et al. (2007). Neural basis of generation of conclusions in elementary deduction. *Neuroimage*, 38(4), 752-762.
25. Negri, G. A., Lunardelli, A., **Reverberi, C.**, Gigli, G. L., & Rumiati, R. I. (2007). Degraded semantic knowledge and accurate object use. *Cortex*, 43(3), 376-388.
26. Koch, I., **Reverberi, C.**, & Rumiati, R. I. (2006). Learning hierarchically structured action sequences is unaffected by prefrontal-cortex lesion. *Experimental Brain Research*, 175(4), 667-675.

27. **Reverberi, C.**, Laiacona, M., & Capitani, E. (2006). Qualitative features of semantic fluency performance in mesial and lateral frontal patients. *Neuropsychologia*, 44(3), 469-478.
28. **Reverberi, C.**, Toraldo, A., D'Agostini, S., & Skrap, M. (2005). Better without (lateral) frontal cortex? Insight problems solved by frontal patients. *Brain*, 128(Pt 12), 2882-2890.
29. **Reverberi, C.**, D'Agostini, S., Skrap, M., & Shallice, T. (2005). Generation and recognition of abstract rules in different frontal lobe subgroups. *Neuropsychologia*, 43(13), 1924-1937.
30. **Reverberi, C.**, Lavaroni, A., Gigli, G. L., Skrap, M., & Shallice, T. (2005). Specific impairments of rule induction in different frontal lobe subgroups. *Neuropsychologia*, 43(3), 460-472.
31. **Reverberi, C.**, Capitani, E., Laiacona, M. (2004) Variabili semantico-lessicali relative a tutti gli elementi di una categoria semantica: Indagine su soggetti normali italiani per la categoria "frutta". *Giornale Italiano di Psicologia*, 31(3), 497-522.
32. Toraldo, A., & **Reverberi, C.** (2004). Misprojection of landmarks onto the spatial map. *Brain and Cognition*, 55(3), 479-489.
33. **Reverberi, C.**, Lavaroni A, Gigli G.L., Skrap M., Shallice T. (2002) Inductive inferences and frontal lobes. *Cortex*, 38, 899-902.
34. Toraldo, A., **Reverberi, C.**, Rumiati, I. R. (2001) Critical dimensions affecting imitation performance of patients with ideomotor apraxia. *Cortex*, 37, 737-40.

* Shared first authorship

BOOK CHAPTERS / PROCEEDINGS

35. Haynes, J.-D., Wisniewski, D., Gorgen, K., Momennejad, I., & Reverberi, C. (2015). fMRI decoding of intentions: Compositionality, hierarchy and prospective memory. In 3rd International Winter Conference on Brain-Computer Interface (BCI) (pp. 1–3). Presented at the 2015 3rd International Winter Conference on Brain-Computer Interface (BCI).
36. Bellan, V., Reverberi, C., & Gallace, A. (2012). Evidence for "Visual Enhancement of Touch" Mediated by Visual Displays and Its Relationship with Body Ownership. In P. Isokoski & J. Springare (Eds.), *Haptics: Perception, Devices, Mobility, and Communication* (pp. 58–66). Springer Berlin Heidelberg.
37. Reverberi, C., & Toraldo, A. (2012). Basi fisiologiche dell'attività psichica. In P. Cherubini (Ed.), *Psicologia Generale* (pp. 49–87). Milano: Raffaello Cortina Editore.
38. Reverberi, C., Burigo, M., Cherubini, P. (2009) A subliminal premise can automatically trigger an elementary deductive inference. *CogSci2009 Proceedings*.

ORAL PRESENTATIONS / INVITED SEMINARS

1. Seminar at Moshe Bar Lab, Ramat Gan, Israel, Jan 2018, Brain network dynamics during strategy shifts and incremental task optimisation.
2. Seminar at Social Mind Center, Central European University, Budapest, Hungary, Sept 2017, Representation and discovery of task features in human frontal cortex.
3. Seminar at Coricelli Lab at CIMEC, Trento, Italy, July 2017, Long range connectivity patterns reflect progressive learning and global strategy shifts.
4. Seminar at Department of Experimental Psychology, Ghent University, Ghent, Belgium, Feb 2017, Representation and discovery of task features in human frontal cortex.
5. Seminar at CiMEC, Rovereto, Italy, June 2016, Combining propositions and rules. Exploring the biological basis of compositionality in humans.

6. Seminar at LUISS, Rome, Italy, June 2016, Representation and discovery of task features in human frontal cortex.
7. Neuroeconomics Seminar at the University of Zurich, Zurich, Switzerland, November 2015, The representation of multiple task features in human frontal cortex.
8. Seminar at Coricelli Lab at CIMEC, Trento, Italy, July 2015, The representation of multiple task features in human frontal cortex.
9. 14th European Congress of Psychology, Milano, Italy, July 2015, Medial prefrontal cortex predicts internally driven strategy shifts.
10. Seminar at the Jerome Prado lab, Lyon, France, February 2015, The representation of multiple task features in human frontal cortex.
11. Workshop on baby logic and related topics, Barcelona, Spain, September 2014, Multiple brain codes in task representation and human deductive reasoning.
12. 9th FENS Forum of Neuroscience, Milano, Italy, July 2014, Representation of multiple task features in human frontal cortex.
13. XIX Congresso di Psicologia sperimentale, Roma, Italy, September 2013, La rappresentazione di regole complesse è compositiva.
14. Seventh International Conference on Thinking, London, UK, July 2012, Towards a multicomponential view of human deduction: behavioral and neural evidence.
15. SISSA, March 2012, Trieste, Italy, Rule guided behavior: representation, inference and choice.
16. ICREA, February 2011, Barcelona, Spain, Rule guided behavior: representation, inference and choice.
17. Institut für Neuro- und Bioinformatik, December 2010, Lübeck, Germany, Rule guided behavior: representation, inference and choice.
18. Cognitive Science Society, July 2009, Amsterdam, Holland, A subliminal premise can automatically trigger an elementary deductive inference.
19. 14th German-American Frontiers of Science Symposium, June 2008, Potsdam, Germany, With no reason: Neural basis of unconstrained decision-making.
20. Sixth International Conference on Thinking, Venezia, Italy, August 2008, Neural basis of generation of conclusions in elementary deduction.
21. Bernstein Centre for Computational Neuroscience, Berlin, Germany, 2007, Neural basis and functional organization of inductive and deductive reasoning
22. Seminar at Paolo Nichelli lab, Modena, Italy, June 2007, Organizzazione funzionale e substrato neurale del ragionamento induttivo e deduttivo.
23. Riunione della Società Italiana di Neuropsicologia, Bologna, Italy, May 2006, La generazione di conclusioni deduttive richiede manipolazioni sintattiche.
24. Riunione della Società Italiana di Neuropsicologia, Bologna, Italy, May 2005, Basi neurali e architettura funzionale dei processi di ragionamento induttivo: evidenza neuropsicologica.
25. Rovereto (Italy), Italian Association for Cognitive Sciences, September 2002.
26. Reverberi C., Lavaroni A, Gigli G.L., Skrap M., Shallice T., Inductive inferences and frontal lobes. Mexico City (Mexico), Topics in Modern Neurobiology, November 2001. Reverberi C., Disorders of Executive Functions: deficits on Inductive Reasoning.

GRANTS

1. PRIN 2010-2011 - 2010RP5RNM - Problem solving e decisione: aspetti logici, psicologici e neuroscientifici nell'ambito della giustizia penale. - Member

2. Giovani Ricercatori 2010 - GR-2010-2311171 - Attention control in complex environments: mechanisms of spatial orienting in the intact and the damaged human brain. - Member
3. PRIN 2008 - 20083NAH2L - Il ragionamento induttivo: Modelli, comportamento e applicazioni. - Member
4. Fellowship on a competitive project presentation, 2003, Università Milano – Bicocca

PRIZES AND AWARDS

- Annual individual founding of basic research. Italian Ministry of Education, University and Research, 2017
- Best poster at the International Conference on Cognitive Neuroscience of Executive Functions, Padua, Italy, 2017
- Large scale brain activations predict reasoning profiles - Best scientific paper 2011 for the journal "Neuroimage", 2011

TEACHING

Active courses

1. Decision Making (56 hours, graduate students), Università Milano-Bicocca
2. General Psychology (56 hours, undergraduate students), Università Milano-Bicocca
3. Diagnostic reasoning for the health professions (8 hours, post-graduate students), Università Milano-Bicocca

Past courses

Psychology of thinking and reasoning, Sensation and perception, Executive Functions and Decision Making, Experimental Methods