

Milano, August 2019.

Curriculum Vitae
Zaira Cattaneo

E-mail zaira.cattaneo@unimib.it
Phone +39-02-6448-3843

POSITION

2017-now Associate Professor in Psychobiology and Physiological Psychology (MPSI-02), Department of Psychology, University of Milano-Bicocca, Milano, Italy

OTHER (PRIOR) ROLES

2008-2017 Assistant Professor (“Ricercatore”) in Psychobiology and Physiological Psychology (MPSI-02), Department of Psychology, University of Milano-Bicocca, Milano, Italy

2010-now Member of the Cognitive Neuroscience and TMS laboratory, Brain Connectivity Center, IRCCS Mondino, Pavia, Italy.

2014-now Member of the Milan Center for Neuroscience (<http://neuromi.it/>)

2016-2017 Member of the scientific committee for the Ph.D. program in Neuroscience, Department of Medicine, University of Milano-Bicocca.

2014-2016 Member of the inter-departments committee for the Promotion of Research, University of Milano-Bicocca.

2011-2016 Member of the scientific committee for the Ph.D. program in Experimental Psychology, Linguistic and Cognitive Neurosciences, Department of Psychology, University of Milano-Bicocca.

TRAINING AND EDUCATION

2017 (April) Habilitation as Full Professor in MPSI-02 (Psychobiology and physiological psychology)
2014 Habilitation as Associate Professor in MPSI-02 (Psychobiology and physiological psychology)
2011 Professional Habilitation as Psychologist in Italy
2007 Institute for Advanced Study (IUSS) (3-years program), Pavia, Italy
(<http://www.iusspavia.it/eng/index.php?id=3>)
2006 Ph.D. in Psychology, University of Pavia, Pavia, Italy

Training

2006-2008 Postdoctoral researcher, Department of Psychology, University of Pavia, Italy

09/2007-03/2008 Research Fellow, Berenson-Allen Center of Noninvasive Brain Stimulation, Beth Israel Medical Center, Harvard Medical School, Boston (US)

09/2005	Visiting Research Fellow, Helmholtz Institute, Utrecht University, NL
2004	Visiting Research Fellow, Rochester Institute of Technology, Rochester, US
2002-2005	PhD student, University of Pavia

ACADEMIC TEACHING

Department of Psychology, University of Milano-Bicocca (Neuropsychology area)

2017-now	Cognitive Neuroscience (master course in English)
2017-now	Psychobiology of behavioural disorders
2015-2017	Evaluative methods and techniques in neuropsychology
2014-2015	Psychobiology of behavioural disorders
2012-2016	Evaluative methods and techniques in neuropsychology
2010-2011	Psychobiology of behavioural disorders
2009-2010	Evaluation and rehabilitation in neuropsychology
2008-2009	Behavioural and physiological methods for neuropsychological diagnosis and rehabilitation

Department of Psychology, University of Pavia (Experimental Psychology area):

2006-2008	Psychodiagnosis of cognitive abilities (master course)
2005-2008	Psychology of Individual differences

RESEARCH ACTIVITY

AWARDS

2014 PAUL BERTELSON AWARD 2015, European Society of Cognitive Psychology (ES COP) “granted every two years to an outstanding young scientist for making a significant contribution to European Cognitive Psychology”.

2016 Best scientific article in pre-clinical research for year 2014, IRCCS Casimiro Mondino

INVITED PRESENTATIONS/CHAIRS

Keynote lectures:

Cattaneo, Z (2016) Keynote lecture “Brain stimulation and the neural bases of aesthetic appreciation”, *14th Conference of the International Association of Empirical Aesthetics*. Wien, Austria.

Cattaneo, Z (2015). Paul Bertelson Award Keynote lecture, *19th ESCOP Conference*, Paphos, Cyprus.

Chair:

2016 *6th International Conference on Transcranial Brain Stimulation 2016-* Session title: “What is stimulated? Beyond M1”, September 7-10, Gottingen, Germany.

Other invited talks in national and international conferences/workshops/seminars:

- **Cattaneo Z** (2018). The spatial representation of time following sensory deprivation. *The Blind Brain Workshop on the Sensory Deprived Brain*, IMT Lucca, Italy, October 11-13 2018.
- **Cattaneo Z** (2018). Neural bases of aesthetic evaluation: insight from non-invasive brain stimulation. *Visual Neuroaesthetics Symposium (VisNA) 2018*. Max Planck Institute for Empirical Aesthetics, Frankfurt, Germany
- **Cattaneo Z** (2017). Le neuroscienze come strumento di controllo sociale. Convegno: *Technopolis: verso la "città" sicura?* Di.SEA.DE, Università di Milano-Bicocca, October 11 2017.
- **Cattaneo Z** (2017). Enhancing cognitive functions by means of Transcranial Magnetic Stimulation. *Workshop on Cognitive Enhancement, ESCOP 2017*, Potsdam, September 3, 2017.
- **Cattaneo Z** (2017). Brain stimulation in Neuroaesthetics. *International workshop in neuroaesthetics*, Palma, May 2017.
- **Cattaneo Z** (2016). From Symmetry Perception to Neuroaesthetics. *PhiloNeuro seminars*, Università Statale di Milano, Facoltà di Filosofia, February 29, Milan, Italy
- **Cattaneo Z** (2015). From Symmetry Perception to Neuroaesthetics. *Workshop on Perception: Embodied Cognition, Empathy, Normativity/Values, Social Cognition*, Università Vita-San Raffaele, Facoltà di Filosofia, October 15, Milan, Italy
- **Cattaneo Z.** (2014). What can we do about the preference for curvature from the neuroimaging studies? *Symposium on The Human Aesthetic (and Moral) Nature: The preference for curvature*. EVOCOG-IFISC/UIB research group, December 17-18, University of the Balearic Islands, Palma de Mallorca (Spain).
- **Cattaneo Z** (2013). Blind vision: perceptual and cognitive functioning in the blind, *2nd Challenges Workshop Andrea Bocelli Foundation-Massachusetts Institute of Technology*, December 5-6, Boston, US.
- **Cattaneo Z** (2012). What could neurophysiology add to assessment for Early Intervention of VI infants and children? *2nd World Congress of Paediatric Ophthalmology and Strabismus*, September 7-9, Milan, Italy.
- **Cattaneo Z** (2011). Visual cortical activation states associated with short-term memory and mental imagery. *International Neuropsychological Symposium 2011*, June 21-25, Mondsee, Austria.
- **Cattaneo Z** (2010). What happens in the early processing of visual information, V1/V2? *Provision 1^ International Conference (Visual problems in children with brain damage. What is new?)*, September 8-11, Dortmund, Germany.

- **GRANTS**

- 2019 "Social cognition in the blind brain" - PRIN call 2017 (2017_55TKFE) funded by The Ministry of Education, Universities and Research (Italy) (540.750 euro). PI of the Unit Milano-Bicocca.
- 2018 "A beautiful brain: aesthetic experience in the human brain" -University of Milano-Bicocca, competitive funds "Fondo Ateneo quota competitiva" (25.000 euro). PI.

2017	"Neurocognitive underpinnings of social perception abilities in congenital and acquired cerebellar disorders: Neuropsychological evaluation and treatment." funded by The Italian Ministry of Health to Medea-Mondino IRCCS (407.449,50 euro). PI of the Unit IRCCS Mondino Foundation.
2017	"Emerging 'moral' technologies and the ethical-legal challenges of new subjectivities" P.I. Dr. Silvia Salardi - University of Milano-Bicocca. European Commission, Education, Audiovisual and Culture Executive Agency, Jean Monnet Activities 2017 Call EAC/A03/2016 (21.962 euro). Co-applicant.
2016	"Aesthetics in the Brain: an interdisciplinary investigation on the functional and neural mechanisms mediating aesthetic experience"- PRIN call 2015 (2015_WXAXJF) funded by The Ministry of Education, Universities and Research (Italy) (212.995 euro). PI and national coordinator.
2015	University of Milano-Bicocca, competitive funds "Fondo Ateneo quota competitiva" (25.000 euro). PI.
2012	"Neuropsychological bases of social and emotion perception" - FIRB 2012 (RBFR12F0BD) funded by The Ministry of Education, Universities and Research (Italy) (865.800 euro). PI of the Unit Milano-Bicocca.
2012	"Investigating congenital prosopagnosia using tDCS"- Bando Vigoni 2011, Ateneo-Italo Tedesco 2011 - DAAD (German Academic Mobility Organization), 01/2012-12/2013. PI of the Unit Milano-Bicocca.
2008	"A life-span perspective on cognitive impairment in low-vision: hints for possible rehabilitation strategies". Joint research projects within the <u>Executive programme of cooperation</u> in the field of science and technology between Italy and United States of America for the years 2008-2010 (Mobility expenses covered). Co-applicant.
2009	"Sensory deprivation as a model to understand brain functional development and plasticity: a multidisciplinary study in humans" - PRIN 2009 (2009RC9X8T) funded by The Ministry of Education, Universities and Research (Italy). (Coordinator: prof. T Vecchi). Co-applicant.
2003	Award, Institute for Advanced Study (IUSS) 2003-2006 Pavia (approx. 6.000 euros)

- EDITORIAL ACTIVITY

Referee for the following institutions/organizations:

- COST Actions (European Cooperation in Science and Technology), Brussels, Belgium
- National Science Foundation USA
- Mind Science Foundation, USA
- FCT Foundation for Science and Technology, Portugal
- Fund for Scientific Research-FNRS, Belgium
- Economic and Social Research Council – ESRC- UK
- Austrian Science Fund
- Netherlands Organisation for Scientific Research (NWO, the Dutch Research Council)
- Research Foundation Flanders (FWO, Belgium)
- European Conference on Visual Perception
- Ministero dell'Istruzione, dell'Università e della Ricerca (MIUR)
- Associazione Italiana di Psicologia
- 6th International Conference on Transcranial Brain Stimulation (2016)
- National Science Center (Poland)

Referee for the following International scientific journals (>50; alphabetic order):

Acta Psychologica	Laterality: Asymmetries of Body, Brain and Cognition
Behavioral and Brain Functions	Learning and Individual Differences
Behavioral Brain Research	Journal of Neuropsychology
Behavior Research Methods	Medical Hypotheses
Biological Psychology	Neuroimage
Brain and Cognition	Neuropsychologia
Brain Research	Neuropsychology
Brain Stimulation	Neuropsychology Review
Brain Topography	Neuropsychological Rehabilitation
Canadian Journal of Experimental Psychology	Neuroscience
Cerebral Cortex	Neuroscience Letters
Cognition	Perception
Cognitive and Behavioral Neurology	PlosOne
Cognitive Processing	Psychology and Neuroscience
Cognitive Science	Psychology of Aesthetics, Creativity, and the Arts
Cognition	Psychomusicology
Cortex	Medical Hypotheses
Experimental Brain Research	Music, Mind, and Brain
European Journal of Neuroscience	Psychonomic Bulletin and Review
Frontiers in Psychology	Quarterly Journal of Experimental Psychology
Functional Neurology	Rivista Internazionale di Filosofia e Psicologia
Human Brain Mapping	Scientific Reports
I-perception	Social Cognitive and Affective Neuroscience
Journal of Cognitive Enhancement	Studia Psychologica
Journal of Cognitive Neuroscience	Symmetry.
Journal of Neuroscience	
Journal of Neural Transmission	
Journal of Visualized Experiments	

- *INTERNATIONAL SOCIETIES MEMBERSHIP*

International Neuropsychological Symposium (INS, selective admission)
European Society of Cognitive Psychology (ESCOP)
Italian Association of Psychology (AIP)
Organization of Human Brain Mapping (OHB)

PUBLICATIONS

BOOKS

1. **Cattaneo Z & Vecchi, T.** (2011). *Blind vision. The neuroscience of visual impairment.* The MIT Press, Cambridge, Massachusetts, US.
2. **Cattaneo Z & Vecchi, T.** (2006). *Psicologia delle differenze sessuali.* Carocci: Roma.

ARTICLES IN PEER-REVIEWED JOURNALS and BOOK CHAPTERS (ordered for research topic):

Cerebellum in sensory and social processing

1. Ferrari C, Cericugno, A, Urgesi, C, & **Cattaneo Z** (2019). Cerebellar contribution to emotional body language perception: a TMS study. *Social Cognitive and Affective Neuroscience*.
2. Ferrari C, **Cattaneo Z**, Oldrati V, Casiraghi L, Castelli F, D'Angelo E, Vecchi T. (2018). TMS Over the Cerebellum Interferes with Short-term Memory of Visual Sequences. *Scientific Reports*, 8(1),6722.
3. Ferrari C, Oldrati V, Gallucci M, Vecchi T, & **Cattaneo Z** (2018). The role of the cerebellum in explicit and incidental processing of facial emotional expressions: A study with transcranial magnetic stimulation. *Neuroimage*. 169:256-264.
4. Gamond L, Ferrari C, La Rocca S, **Cattaneo Z** (2017). Dorsomedial prefrontal cortex and cerebellar contribution to in-group attitudes: a TMS study. *European Journal of Neuroscience*, 45(7):932-939.
5. Lega C, Vecchi T, D'Angelo E, & **Cattaneo Z** (2016). A TMS investigation on the role of the cerebellum in pitch and timbre discrimination. *Cerebellum and Ataxia*, Mar 2;3:6.
6. **Cattaneo Z**, Renzi, C., Casali, S., Silvanto, J., Vecchi, T., Papagno, C., D'Angelo, E. (2014). Cerebellar vermis plays a causal role in visual motion discrimination. *Cortex*, 58, 272-280.
7. Renzi, C., Vecchi, T, D'Angelo, E, Silvanto, J, & **Cattaneo Z** (2014). Phosphene induction by cerebellar transcranial magnetic stimulation. *Clinical Neurophysiology*, 125(10), 2132-2133.

Neuroaesthetics and symmetry

10. **Cattaneo Z.** (2019). Non-invasive brain stimulation: Contribution to research in neuroaesthetics. *Oxford Handbook of Neuroaesthetics*.
11. **Cattaneo Z.** (2019). Non-invasive brain stimulation: an overview of available approaches for research in neuroaesthetics. *Empirical Studies of the Arts*, 37(2):153-171
12. Ferrari C, Schiavi S, & **Cattaneo Z.** (2018). TMS over the superior temporal sulcus affects expressivity evaluation of portraits. *Cognitive, Affective, and Behavioral Neuroscience*, 18(6):1188-1197.
13. Nadal M, Schiavi S, **Cattaneo Z.** (2018). Hemispheric asymmetry of liking for representational and abstract paintings. *Psychonomic Bulletin & Review*, 25(5):1934-1942.
14. **Cattaneo Z** (2017). The neural basis of mirror symmetry detection: a review. *Journal of Cognitive Psychology*, 29(3), 259-268.
15. **Cattaneo Z**, Bona S, Silvanto J. (2017). Not all visual symmetry is equal: partially distinct neural bases for vertical and horizontal symmetry. *Neuropsychologia*, 104, 126-132.
16. Actis-Grosso R, Lega C, Zani A, Daneyko O, **Cattaneo Z**, & Zavagno D (2017). Can music be figurative? Exploring the possibility of crossmodal similarities between music and visual arts. *Psihologija*, 50(3), 285-306.
17. Ferrari, C., Nadal, M., Schiavi, S., Vecchi, T., Cela-Conde, C., & **Cattaneo Z** (2017). The dorsomedial prefrontal cortex mediates the interaction between moral and aesthetic valuation: a TMS study on the Beauty-is-Good stereotype. *Social, Cognitive & Affective Neuroscience*, 12(5):707-717.
18. **Cattaneo Z**, Schiavi S, Silvanto J, Nadal M. (2017). A TMS study on the contribution of visual area V5 to the perception of implied motion in art and its appreciation. *Cognitive Neuroscience*, 8, 59-68.
19. Ferrari C, Lega C, Tamietto M, Nadal M, & **Cattaneo Z** (2015). I find you more attractive...after (prefrontal cortex) stimulation. *Neuropsychologia*, 72, 87-93.
20. **Cattaneo Z**, Lega C, Ferrari C, Vecchi T, Cela-Conde CJ, Silvanto J, & Nadal M (2015). The role of the lateral occipital cortex in aesthetic appreciation of representational and abstract paintings: a TMS study. *Brain and Cognition*, 95, 44-53.
21. Bona S, **Cattaneo Z**, Silvanto J. (2015). The causal role of the occipital face area (OFA) and lateral occipital (LO) cortex in symmetry perception. *Journal of Neuroscience*, 35(2), 731-738.

22. **Cattaneo Z.**, Lega, C., Gardelli C, Merabet, LB, Cela-Conde C, Nadal M. (2014). The role of prefrontal and parietal cortices in aesthetic appreciation of representational and abstract art: a TMS study. *Neuroimage*, 99, 443-450.
23. Bona S, Herbert A, Toneatto C, Silvanto J, & **Cattaneo Z** (2014). The causal role of the lateral occipital complex in visual mirror symmetry detection and grouping: an fMRI-guided TMS study. *Cortex*, 51:46-55.
24. **Cattaneo Z**, Lega C, Flexas A, Nadal M, Munar E, Cela-Conde CJ. (2014). The world can look better: enhancing beauty experience with brain stimulation. *Social Cognitive and Affective Neuroscience*. 9(11), 1713-21.
25. **Cattaneo Z**, Mattavelli, G., Papagno, C., Herbert, A.M., & Silvanto, J. (2011). The role of the human extrastriate visual cortex in mirror symmetry discrimination: A TMS adaptation study. *Brain & Cognition*, 77(1), 120-127.

**For studies on symmetry detection in the blind see section “Sensory deprivation”

Sensory deprivation

26. Ferrari, C. Papagno, Todorov A, & **Cattaneo Z**. (2019). Differences in emotion recognition from body and face cues between deaf and hearing individuals. *Multisensory Research*, 32(6):499-519.
27. Ciricugno A, Rinaldi L, Vecchi T, Merabet LB, & **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*.
28. Rinaldi L, Vecchi T, Merabet LB, **Cattaneo Z** (2018). The spatial representation of number, time, and serial order following sensory deprivation: a systematic review. *Neuroscience & Biobehavioral Reviews*, 90, 371-380.
29. **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. *Quarterly Journal of Experimental Psychology*, 71(11):2325-2333.
30. **Cattaneo Z**, Lega C, Rinaldi L, Fantino M, Ferrari C, Merabet LB, & 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(4):813-821.
31. Bauer CM, **Cattaneo Z**, & Merabet LB (2018). Early Blindness is Associated with Increased Volume of the Uncinate Fasciculus. *European Journal of Neuroscience*. 47(5):427-432.
32. Rinaldi L, Vecchi T, Fantino M, Merabet LB, & **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(3):444-450.
33. Ferrari C, Vecchi T, Merabet LB, & **Cattaneo Z**. (2017). Blindness and social trust: the effect of early visual deprivation on judgments of trustworthiness. *Consciousness & Cognition*, 55, 156-164.
34. Gamond L, Vecchi T, Ferrari C, Merabet LB, & **Cattaneo Z** (2017). Emotion processing in early blind and sighted individuals. *Neuropsychology*, 31(5):516-524.
35. **Cattaneo Z**, Cecchetto C, & Papagno C (2016). Deaf individuals show a leftward bias in numerical bisection. *Perception*, 45(1-2):156-64.
36. Rinaldi L, Vecchi T, Fantino M, Merabet LB, **Cattaneo Z** (2015). The effect of hand movements on numerical bisection judgments in early blind and sighted individuals. *Cortex*, 71, 76-84.
37. Bauer C, Yazzolino L, Hirsch G, **Cattaneo Z**, Vecchi T, Merabet L (2015). Neural correlates associated with superior tactile symmetry perception in the early blind. *Cortex*, 63, 104-117.
38. **Cattaneo Z** & Merabet, L. (2015). Brain plasticity and development. In Lueck, A.H., & Dutton, G.N. (Eds.). *Impairment of vision due to disorders of the visual brain in childhood: A practical approach*. New York: AFB Press.
39. **Cattaneo Z**, Bona S, Monegato M, Pece A, Vecchi T, Herbert AM, Merabet L (2014). Visual symmetry perception in early onset monocular blindness. *Visual Cognition*, 22(7), 963-974.
40. **Cattaneo Z**, Bona S, Bauer C, Silvanto J, Herbert A, Vecchi T, Merabet L. (2014) Symmetry detection in visual impairment: behavioural evidence and neural correlates. *Symmetry*, 6, 427-443.
41. **Cattaneo Z**, Lega, C., Cecchetto, C., & Papagno, C. (2014). Auditory deprivation affects biases of visuospatial attention as measured by line bisection. *Experimental Brain Research*, 232(9), 2767-2773.

42. **Cattaneo Z**, Vecchi, T., Monegato, M., Pece, A., Merabet, L.B., & Carbon, C.C. (2013). Strabismic amblyopia affects relational but not featural and Gestalt processing of faces. *Vision Research*, 80, 19-30.
43. **Cattaneo Z**, Vecchi T, Fantino M, Herbert A, Merabet LB (2013). The effect of vertical and horizontal symmetry on memory for tactile patterns in late blind individuals. *Attention, Perception & Psychophysics*, 75, 375-382.
44. Renzi, C., **Cattaneo Z**, Vecchi, T., & Cornoldi, C. (2013). Imagery in the blind. In S. Lacey, R. Lawson (Eds). *Multisensory imagery: theory and applications*. New York: Springer.
45. **Cattaneo Z**, Fantino M, Tinti C, Pascual-Leone A, Silvanto J, & Vecchi T (2011). Spatial biases in peripersonal space in sighted and blind individuals revealed by a haptic line bisection paradigm. *Journal of Experimental Psychology: Human Perception & Performance*, 37(4):1110-21.
46. **Cattaneo Z**, Fantino M, Silvanto J, Tinti C, Vecchi T (2011). Blind individuals show pseudoneglect in bisecting numerical intervals. *Attention, Perception & Psychophysics*, 73(4), 1021-8.
47. **Cattaneo Z**, Fantino M, Tinti C, Silvanto J, Pascual-Leone A, & Vecchi T (2010). Symmetry perception in the blind. *Acta Psychologica*, 134(3):398-402.
48. **Cattaneo Z**, Fantino M, Tinti C, Silvanto J, Vecchi T (2010). Crossmodal interaction between the mental number line and peripersonal haptic space representation in sighted and blind individuals. *Attention, Perception & Psychophysics*, 72 (4), 885-890.
49. **Cattaneo Z**, & Vecchi, T. (2008). Supramodality effects in visual and haptic spatial processes. *Journal of Experimental Psychology: Learning, Memory ad Cognition*, 34 (3), 631-642.
50. **Cattaneo Z**, Vecchi, T., Cornoldi, C., Mammarella, I., Bonino, D., Ricciardi, E., & Pietrini, P., (2008). Imagery and spatial processes in visual impairments. *Neuroscience and Biobehavioral Reviews*, 32, 1346–1360.
51. **Cattaneo Z**, Bhatt, E., Merabet, L.B., Pece, A., & Vecchi, T. (2008). The influence of reduced visual acuity on age-related decline in spatial working memory: an investigation. *Aging, Neuropsychology and Cognition*, 15, 687–702.
52. **Cattaneo Z**, Merabet, L.B., Bhatt, E., & Vecchi, T. (2008). Effects of complete monocular deprivation on visuo-spatial memory. *Brain Research Bulletin*, 77, 112-116.
53. **Cattaneo Z**, Vecchi, T., Monegato, M., Pece, A., & Cornoldi, C. (2007). Effects of late visual impairment on mental representations activated by visual and tactile stimuli. *Brain Research*, 1148, 170-176.
54. Monegato, M., **Cattaneo Z**, Pece, A., & Vecchi, T., (2007). Comparing the effects of congenital and late visual impairments on visuospatial mental abilities. *Journal of Visual Impairment and Blindness*, 101, 278-295.
55. Vecchi, T., **Cattaneo Z**, Monegato, M., Pece, A., Cornoldi, C., & Pietrini P. (2006). Why Cyclops could not compete with Ulysses: monocular vision and mental images. *Neuroreport*, 17, 723-726.

Face processing: perceptual mechanisms and social inferences

56. De Carli P, Bakermans-Kranenburg MJ, Parolin L, Lega C, Zanardo B, **Cattaneo Z**, Riemf MME (2019). A walk on the dark side: TMS over the right Inferior Frontal Gyrus (rIFG) disrupts behavioral responses to infant stimuli. *Social Neuroscience*.
57. Bona S, Silvanto J, **Cattaneo Z**. (2018). TMS over right OFA affects individuation of faces but not of exemplars of objects. *Neuropsychologia*, 117:364-370.
58. Ferrari C, Gamond L, Gallucci M, Vecchi T, & **Cattaneo Z** (2017). An exploratory TMS study on prefrontal lateralization in valence categorization of facial expressions. *Experimental Psychology*, 64, 282-289.
59. Gamond, L., & **Cattaneo Z** (2016). The dorsomedial prefrontal cortex plays a causal role in mediating in-group advantage in emotion recognition: a TMS study. *Neuropsychologia*, 93, 312-317.
60. **Cattaneo Z**, Daini R, Malaspina M, Manai F, Lillo M, Fermi V, Schiavi S, Suchan B, Comincini S. (2016). Congenital prosopagnosia is associated with a genetic variation in the oxytocin receptor (OXTR) gene: an exploratory study. *Neuroscience*, 339, 162-173.
61. Bona S, **Cattaneo Z**, Silvanto J. (2016). Investigating the causal role of rightOFA in holistic detection of Mooney faces and objects: an fMRI-guided TMS study. *Brain Stimulation*, 9(4):594-600.

62. Ferrari, C., Vecchi, T., Todorov, A., & **Cattaneo Z** (2016). Interfering with activity in the dorsomedial prefrontal cortex via TMS affects social impressions updating. *Cognitive, Affective, & Behavioral Neuroscience*, 16(4):626-34.
63. Ferrari C, Lega C, Vernice M, Tamietto M, Mende-Siedlecki P, Vecchi T, Todorov A, **Cattaneo Z**. (2016). The dorsomedial prefrontal cortex plays a causal role in integrating social impressions from faces and verbal descriptions. *Cerebral Cortex*, 26(1):156-65.
64. Renzi, C., Ferrari, C., Schiavi, S., Pisoni, A., Papagno, C., Vecchi, T., Antal, A., **Cattaneo Z** (2015). The role of the occipital face area in holistic processing involved in face detection and discrimination: a tDCS study. *Neuropsychology*, 29(3), 409-416.
65. **Cattaneo Z**, Schiavi S, Lega C, Renzi C, Tagliaferri M, Boehringer J, Carbon CC, & Vecchi T (2014). Biases in spatial bisection induced by viewing male and female faces. *Experimental Psychology*, 61(5), 368-377.
66. **Cattaneo Z**, Lega C, Boehringer J, Gallucci M Girelli L, Carbon CC (2014). Happiness takes you right: the effect of emotional stimuli on line bisection. *Cognition and Emotion*, 28(2), 325-44.
67. **Cattaneo Z**, Renzi C, Bona C, Merabet LB, Carbon CC, & Vecchi, T. (2014). Hemispheric asymmetry in discriminating faces differing for featural or configural (second-order relations) aspects. *Psychonomic Bulletin and Review*, 21(2):363-9.
68. Renzi, S., Schiavi, S., Carbon, C.C., Vecchi, T., Silvanto, J., & **Cattaneo Z** (2013). Processing of featural and configural aspects of faces is lateralized in dorsolateral prefrontal cortex: a TMS study. *Neuroimage*, 74, 45-51.
69. **Cattaneo Z**, Mattavelli G, Platania E, Papagno C (2011). The role of the prefrontal cortex in controlling gender-stereotypical associations: A TMS investigation. *Neuroimage*, 56(3), 1839-46.
70. Mattavelli G, **Cattaneo Z**, Papagno C (2011). Transcranial magnetic stimulation of medial prefrontal cortex modulates face expressions processing in a priming task. *Neuropsychologia*, 49(5), 992-8.

Methodological aspects in brain stimulation

71. Silvanto J, Bona S, Marelli M, & **Cattaneo Z** (2018). On the mechanisms of Transcranial Magnetic Stimulation (TMS): How brain state and baseline performance level determine behavioral effects of TMS. *Frontiers in Psychology*, 9:741.
72. **Cattaneo Z**. (2018). La profezia tecnologica tra scienza e mito. In C. Buzzacchi-P. Costa-F. Pizzolato (a cura di), Technopolis. La città sicura tra mediazione giuridica e profezia tecnologica, Giuffrè, Milano 2018
73. Silvanto J & **Cattaneo Z** (2017). Common framework for “virtual lesion” and state-dependent TMS: the facilitatory/suppressive range model of online TMS effects on behaviour. *Brain & Cognition*, 119, 32-38.
74. Silvanto J, Bona S, **Cattaneo Z** (2017). Initial activation state, stimulation intensity and timing of stimulation interact in producing behavioral effects of TMS. *Neuroscience*, 363, 134-141.
75. Silvanto, J. & **Cattaneo Z** (2014). State-dependency protocols. Rotenberg, A., Horvath, J.C. & Pascual-Leone, A. (Eds.). *NeuroMethods: Transcranial Magnetic Stimulation*. New York: Springer Publishing Company, pp.153-176.
76. Ferrari, C., Cavallini, E., Bottioli, S., Casiraghi, L., Renzi, C., **Cattaneo Z**, & Vecchi, T. (2012). Cerebral stimulation as a tool of intervention for memory decline in aging: state of the art and future perspectives. *Ricerche di Psicologia* 2-3, 257-273.
77. **Cattaneo, Z**, & Silvanto, J. (2008). Time course of the state-dependent effect of transcranial magnetic stimulation in the TMS-adaptation paradigm. *Neuroscience Letters*, 443, 82-85.
78. Silvanto, J., **Cattaneo Z**, Battelli, L., Pascual-Leone, A. (2008). Baseline cortical excitability determines whether TMS disrupts or facilitates behaviour. *Journal of Neurophysiology*, 99, 2725-30.

Space and mental representations

79. Rinaldi L, Lega C, **Cattaneo Z**, Girelli L, Bernardi N (2016). Grasping the sound: auditory pitch influences size processing in motor planning. *Journal of Experimental Psychology: Human Perception and Performance*, 42(1):11-22.

80. **Cattaneo Z**, Silvanto, J. (2015). Mental imagery, Visual Cognition. In: James D. Wright (editor-in-chief), *International Encyclopedia of the Social & Behavioral Sciences, 2nd edition, Vol 15*. Oxford: Elsevier. pp. 220–227.
81. Plow EB, **Cattaneo Z**, Carlson TA, Alvarez GA, Pascual-Leone A., & Battelli L (2014). The compensatory dynamic of inter-hemispheric interactions in visuospatial attention revealed using rTMS and fMRI. *Front. Hum. Neurosci.* 8:226.
82. Lega, C, **Cattaneo, Z**, Merabet, LB, Vecchi, T, Cucchi, S (2014). The effect of musical expertise on the representation of space. *Front. Hum. Neurosci.* 8:250.
83. Gallace, A., Soravia, G., **Cattaneo, Z**, Moseley, GL, Vallar, G (2014). Temporary interference over the posterior parietal cortices disrupts thermoregulatory control in humans. *PlosOne*, 9(3):e88209.
84. Blini E, **Cattaneo Z**, Vallar G. (2013). Different effects of numerical magnitude on visual and proprioceptive reference frames. *Front Psychol.*, 4:190.
85. Lega C, Cucchi S, Vecchi T., **Cattaneo Z** (2013). L'influenza dell'esperienza musicale sulla rappresentazione dello spazio peripersonale: uno studio di bisezione tattile. *Giornale Italiano di Psicologia (Italian Journal of Psychology)*, 2, 409-416.
86. Bona, S., **Cattaneo Z** , Vecchi., T., Soto, D., Silvanto, J. (2013). Metacognition of visual short-term memory: Dissociation between objective and subjective components of VSTM. *Frontiers in Perception Science*, 4:62.
87. **Cattaneo Z**, Bona S, Silvanto J. (2012). Cross-adaptation combined with TMS reveals a functional overlap between vision and imagery in the early visual cortex. *Neuroimage*, 59(3):3015-20.
88. **Cattaneo Z**, Lega, C., Vecchi, T., Vallar, G. (2012). Listening to white noise counteracts visual and haptic pseudoneglect. *Perception*, 41, 1395-1398.
89. **Cattaneo Z**, Fantino M, Mancini F, Mattioli F, & Vallar G. (2012). Listening to numbers affects visual and haptic bisection in healthy individuals and neglect patients. *Neuropsychologia*, 50, 913-925.
90. **Cattaneo Z**, Fantino M, Silvanto J, Vallar G, & Vecchi T (2011). Tapping effects on numerical bisection. *Experimental Brain Research*, 208(1):21-8.
91. Renzi C, Vecchi T, Silvanto J, **Cattaneo Z**. (2011). Overlapping representations of numerical magnitude and motion direction in the posterior parietal cortex: A TMS-adaptation study. *Neuroscience Letters*, 490(2):145-9.
92. **Cattaneo Z**, Pisoni A, Papagno C, Silvanto J (2011). Modulation of visual cortical excitability by working memory: effect of luminance contrast of mental imagery. *Front. Psychology* 2:29.
93. Silvanto J, & **Cattaneo Z**. (2010). Transcranial magnetic stimulation reveals the content of visual short-term memory in the visual cortex. *Neuroimage*, 50(4), 1683-9.
94. **Cattaneo Z**, Vecchi T, Pascual-Leone A, Silvanto J. (2009). Contrasting early visual cortical activation states causally involved in visual imagery and short-term memory. *European Journal of Neuroscience*, 30(7):1393-400.
95. **Cattaneo Z**, Silvanto, J., Battelli, L., & Pascual-Leone, A. (2009). The mental number line modulates visual cortical excitability. *Neuroscience Letters*, 462, 253–256.
96. **Cattaneo Z**, Silvanto, J., Pascual-Leone, A., & Battelli, L. (2009). The middle range of the number line orients attention to the left side of visual space. *Cognitive Neuropsychology*, 14, 1-12.
97. **Cattaneo Z**, Silvanto, J., Pascual-Leone, A, & Battelli, L. (2009). The role of the angular gyrus in the modulation of visuospatial attention by the mental number line. *Neuroimage*, 44(2), 563-8.
98. **Cattaneo, Z**, & Silvanto, J. (2008). Investigating visual motion perception using the TMS-adaptation paradigm. *Neuroreport*, 19(14), 1423-1427.
99. **Cattaneo Z**, Rosen, M., Vecchi, T., & Pelz, J. (2008). Monitoring eye movements to investigate the picture superiority effect in spatial memory. *Perception*, 37, 34-49.
100. Vecchi, T., & **Cattaneo Z** (2008). La memoria di lavoro nella tradizione europea e nordamericana. In R.S. Feldman, *Essentials of Understanding Psychology*, edizione italiana, McGraw-Hill, Milano.
101. **Cattaneo Z**, Postma, A., & Vecchi T. (2007). The picture superiority effect in working memory for spatial and temporal order. *Psychologica*, 50, 102-109.
102. **Cattaneo Z**, Postma, A., & Vecchi T. (2006). Gender Differences in Memory for Object and Word locations: The Role of Stimulus Transformations. *Quarterly Journal of Experimental Psychology*, 59, 904-919.
103. **Cattaneo Z**, Fastame, M.C., Vecchi T., & Cornoldi, C. (2006). Working memory, imagery and visuo-spatial mechanisms. In T. Vecchi & G. Bottini (Eds.), *Imagery and spatial cognition: Methods, models*

- and clinical assessment*, 101-137. John Benjamins Publishers: Amsterdam and Philadelphia, The Netherlands/USA.
104. **Cattaneo Z**, Cavallini, E., Fastame, M.C., Palladino, P., & Vecchi, T. (2003). Mantenimento e elaborazione in memoria di lavoro: Procedure sperimentali e implicazioni teoriche. In A. Pagnin & M.A. Zanetti (a cura di), *Processi cognitivi: Studi e ricerche. Saggi in onore di Ornella Andreani Dentici*, ETS, Pisa.
 105. Cavallini, E., Fastame, M.C., **Cattaneo Z**, Palladino P., & Vecchi T. (2002). Theoretical and practical aspects of working memory. In S. Shohov (Ed.), *Perspectives in cognitive psychology*, pp. 69-91. Nova Science Publishers: New York.

Language processing

106. Pisoni A, Cerciello M, **Cattaneo Z**, Papagno C (2017). Phonological facilitation in picture naming: when and where? A tDCS study. *Neuroscience*, 352, 106-121.
107. **Cattaneo Z**, Pisoni A, Gallucci M, Papagno C. (2016). tDCS effects on verbal fluency: A response to Vannorsdall et al. (2016). *Cognitive and Behavioural Neurology*, 29(3):117-21.
108. Pisoni A, Vernice M., Iasevoli L, **Cattaneo Z**, Papagno C. (2015). Guess who? Investigating the proper name processing network by means of tDCS. *Neuropsychologia*, 66, 267-278.
109. Papagno, C., Mattavelli, G., **Cattaneo Z**, Romito, L., Albanese, A. (2013). Ambiguous idiom processing in PD patients. *Cognitive Neuropsychology*, 30(7-8):495-506.
110. **Cattaneo Z**, Devlin, J., Lega, C., Vecchi, T. (2013). Il contributo della stimolazione cerebrale alla comprensione dell'organizzazione del linguaggio. In S. Rastelli (a cura di), *La ricerca sperimentale sul linguaggio: acquisizione, uso, perdita*. Pavia, Pavia University Press.
111. Pisoni, A., Papagno, C., **Cattaneo Z** (2012). Neural correlates of the semantic interference effect: new evidence from tDCS. *Neuroscience*, 223C:56-67.
112. **Cattaneo Z**, Pisoni A, Papagno C (2011). Transcranial direct current stimulation over Broca's region improves phonemic and semantic fluency in healthy individuals. *Neuroscience*, 183, 64-70.
113. **Cattaneo Z**, Devlin JT, Salvini F, Vecchi T, Silvanto J. (2010). The causal role of category-specific neuronal representations in the left ventral premotor cortex (PMv) in semantic processing. *Neuroimage*, 49, 2728-2734.
114. **Cattaneo Z**, Devlin, J.T., Vecchi, T., Silvanto, J. (2009). Dissociable neural representations of grammatical gender in Broca's area investigated by the combination of satiation and TMS. *Neuroimage*, 47(2), 700-4.
115. **Cattaneo Z**, Rota, F., Walsh, V., Vecchi, T., & Silvanto, J. (2009). TMS-adaptation reveals abstract letter selectivity in the left posterior parietal cortex (PPC). *Cerebral Cortex*, 19(10):2321-5.
116. **Cattaneo Z**, Rota, F., Vecchi, T., & Silvanto, J. (2008). Using state-dependency of transcranial magnetic stimulation (TMS) to investigate letter selectivity in the left posterior parietal cortex: a comparison of TMS-priming and TMS-adaptation paradigms. *European Journal of Neuroscience*, 28, 1924–1929.

PRESS IMPACT

RADIO PROGRAMS (interviews):

- **RADIO 24** 05/08/2018 *DUE PESI DUE MISURE* – Il QI: come si misura, a che serve misurarlo, è ancora utile?
- **RADIO 3** 28/05/2018 *RADIO 3 SCIENZA* - Il riconoscimento dei volti.
- **RADIO 24** 26/03/2011 *MOEBIUS* - Uomini e maschilismo.
- **Ecoradio** 16/03/2011 *LA CENTESIMA SCIMMIA* – Maschilismo.
- **CBC RADIO ONE** 01/12/2013 *SPARK* - Beauty and Brain Stimulation.
- **RADIO 24** 23/11/2013 *MOEBIUS* - L'opera d'arte piace di più dopo la stimolazione elettrica del cervello.
- **Radio Kiss Kiss** 16/03/2011 *DIRETTA (ORA: 17:48)* - Gli uomini e il maschilismo.

NEWSPAPERS/MAGAZINES (interviews)

- **La Repubblica** 24/05/2018 “*Rage rooms: un metodo sbagliato. Ci rende impreparati alla vita reale*” (*C. di Cristofaro*)
- **Il Giornale** 31/03/2018 “*Da noi si fa all'asilo: musica classica e teatro*” (*E.Cusmai*)
- **Il Sole 24ORE** 08/07/2014 “*Vuoi avere più successo al lavoro? / Mente aperta per le nuove idee*” (*C. di Cristofaro*)
- **La Repubblica** 14/01/2014 “*Un navigatore per non vedenti Bocelli mette al lavoro il MIT*” (*A.D'amico*) 11
- **Io Donna (Corriere della Sera)** 06/04/2013 “*La nostra vera sfida e' restare in Italia, mica scoprire bosoni*” (*M.Di lucchio*) 15
- **Il Venerdì (La Repubblica)** 29/04/2011 “*il maschilismo? un istinto contro cui si batte la corteccia cerebrale*” 6
- **Focus.it** 23/03/2011 “*Il cervello mette un freno al maschilismo*”
http://www.focus.it/comportamento/psicologia/23032011-1120-991-il-cervello-mette-un-freno-al-maschilismo_C12.aspx
- **BostonGlobe** 03/11/2013 “*To appreciate beauty, zap your brain*”
<http://www.bostonglobe.com/ideas/2013/11/03/appreciate-beauty-zap-your-brain/IIRFtTZM8j5cATVN3tKcNM/story.html>
- **Newscientist.com** 31/10/2013 “*Zapping your brain enhances your love of classic art*”
<http://www.newscientist.com/article/dn24500-zapping-your-brain-enhances-your-love-of-classic-art.html>
- **Newscientist.com** 02/05/2013 “*Mindscapes: The woman who can't recognise her face*”
<http://www.newscientist.com/article/dn23482-mindscapes-the-woman-who-can-t-recognise-her-face.html>
- **Pacific Standard Megazine** 19/11/2013 “*Bored by Botticelli? Hook Up the Electrodes*”
<http://www.psmag.com/blogs/news-blog/bored-botticelli-try-jolt-brain-art-appreciation-70247/>

Others:

- “*Le neuroscienze e la danza*” – 30 Maggio 2019- Università di Milano-Bicocca per il programma **ONDANCE – Roberto Bolle**
- Contributo al **Festival del Silenzio** 3-5 Maggio 2019, Fabbrica del Vapore, Milano. Contributo video su neuroestetica.
- **Il Venerdì di Repubblica** 12/05/2006 (Rubrica Segnalati da Corrado Augias). Review on my book “Psicologia delle differenze individuali” – suggested book.