

MARCO TULLIO LIUZZA
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Google Scholar H-Index: 4

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RESEARCH INTERESTS

The role of emotions in intergroup processing: I have recently started to address the role of different discrete emotions in prejudice. In particular, I am studying the role of disgust in internalized homophobia and its neural correlates using functional Magnetic Resonance Imaging (fMRI). Additionally, I started to study the impact of the stereotype content model on our economic behaviour when interacting with members of stereotyped groups.

Gaze following and social cognition: During my PhD program I primarily studied how this apparently reflexive social behaviour is modulated by high-level social and cognitive dimensions such as political affiliation and political ideology. I carried out this line of research by means of saccadic behavioural measures and neural investigation techniques (fMRI). These techniques allowed me to investigate both the neural correlates of the observed behaviour and how following an in-group member's gaze affected the functional connectivity of different brain areas.

Motor resonance, social cognition and individual differences: I have recently investigated how automatic embodied simulation can be modulated by individual differences (e.g. gender, personality, values ideology etc.) while observing realistic social interactions. In particular, I have recently investigated the interplay between the moral connotation of the observed action and the personality dispositions of the onlooker modulating her/his motor resonance using a single pulse Transcranial Magnetic Stimulation and fMRI.

RESEARCH TECHNIQUES

- Functional magnetic resonance imaging
- Eye tracking (pupil dilation and saccades)
- Transcranial magnetic stimulation
- Electromyography
- Skin conductance
- Heart rate

EDUCATION

July 2014: Introduction to Bayesian Statistics, Methodological School of the Italian Association of Psychology (AIP), 7th-12th July, Bertinoro (FC), Italy.

April 2014: Statistical Analysis of fMRI Data, Coursera online course offered by the Johns Hopkins University.

July 2013: International Summer School in Social and Cognitive Neuroscience (SCoNe), 14th-28th July, Trieste, Italy.

July 2012: International Society of Political Psychology Summer Academy, 3rd-5th July, Chicago, IL, USA.

November 2011: European PhD in Cognitive Plasticity and Rehabilitation, Sapienza University of Rome, Italy. Dissertation: "A gaze into politics: The role of ideology, personality and political group processing in shaping automatic social behaviors". Supervisor: Professor Salvatore Maria Aglioti. Final mark: Excellent.

January 2011-October 2011: Visiting scholar at Northwestern University, Evanston, IL, USA. Department of Psychology, Social Affective and Cultural Neuroscience Lab. PI: Joan Chiao.

May 2009: Magstim TMS Summer School 2009 on Attention Perception and Motor Cognition, 29th and 30th of May. University College of London, London, UK.

June 2008: Sense of Body Summer School, Bologna and Cesena, Italy.

March 2008: Master of Arts in Semiotics, University of Bologna, full marks and honors (110/110, *cum laude*). Thesis: "Spinoza, the world as expression: Body and passions among philosophy, cognitive sciences and semiotics". Supervisor: Federico Montanari (Political Discourse Analysis), Assistant Supervisor: Anna M. Borghi (Cognitive Psychology).

February 2005: Bachelor of Arts in Communication Science, University of Roma Tre, full marks (110/110). Thesis: "The Paul Grice's Conversational Theory in the Computer Mediated Communication". Supervisor: Roberto Pujia (Philosophy of

Language).

RESEARCH EXPERIENCE AND COLLABORATIONS

January 2013-Present: Postdoctoral research fellow at the Department of Psychology, Sapienza University of Rome, Italy.

December 2012-Present: Affiliated with the Neuroimaging Lab directed by Dr. Emiliano Macaluso, IRCCS Santa Lucia Foundation, Rome, Italy.

May 2012-July 2012: Visiting scholar at the Visual Perception, Neuroscience and Cognition Lab directed by Professors Satoru Suzuki and Marcia Grabowecky, Department of Psychology, Northwestern University, Evanston, IL, USA.

January 2012-December 2012: Postdoctoral research fellow at IRCCS Santa Lucia Foundation, Rome, Italy.

January 2011-October 2011: Visiting Scholar at the Social Affective and Cultural Neuroscience Lab directed by Joan Chiao, Department of Psychology, Northwestern University, Evanston, IL, USA.

November 2008-November 2011: PhD student in Cognitive Plasticity and Rehabilitation, University of La Sapienza, Rome, Italy.

May 2008 – November 2008: Assistant Researcher at the Embodied Cognition Lab (www.emco.unibo.it), Bologna, Italy.

May 2008: Web Master of the European ROSSI Project, Emergence of Communication in Robots through Sensorimotor and Social Interaction (www.rossiproject.net).

TEACHING EXPERIENCE

March 2012-Present: Assessor for the Master's Program in Neuroscience of Leadership, Professional Development Foundation and Middlesex University, UK.

November 2011-Present: Research supervisor of three PhD students and two Research Assistants at the Social and Cognitive Neuroscience Lab at Sapienza University of Rome.

March 2014: Lecturer at Sapienza University of Rome on the topic of the neural underpinnings of social categorization, stereotypes and prejudice.

March 2014: Lecturer at Unitelma Sapienza University of Rome on the topic of emotions and decision making.

GRANTS

LIUZZA

July 2013-July 2014: I hold research funds as a PI of the following project: “Neural correlates of the internalization of homophobia: The role of disgust and conformism” (prot. C26N139L7N), Avvio alla Ricerca, Sapienza University of Rome, Italy.

OTHER RESEARCH ACTIVITIES

2014-Present: Reviewer for the National Science Centre (Narodowe Centrum Nauki – NCN, Poland)

2013-Present: Anonymous reviewer, Scientific Reports

2012-Present: Anonymous reviewer, Social Cognitive Affective Neuroscience

2011-Present: Anonymous reviewer, PLoS One

AFFILIATIONS

2011-Present: International Society of Political Psychology (ISPP)

2011-Present: Association For Psychological Science (APA)

2010-Present: Social and Affective Neuroscience Society (SANS)

2009-Present: Associazione Italiana di Psicologia (AIP)

LANGUAGES

Italian: Native

English: Fluent

Spanish: Good

French: Basic

INFORMATIC SKILLS

Operative Systems: Windows, Mac OS, Ubuntu

Programming Languages: Matlab (good), R (fair), HTML (basic), C++ (basic).

Software and Toolboxes:

fMRI data analysis and experiment presentation: Eprime, Experiment Builder, Experiment Centre, Matlab (toolboxes: SPM8, gPPI toolbox, MarsBar, Cogent, Anatomy Toolbox, ART Toolbox)

Behavioural and physiological data analysis software and toolboxes: R, Statsoft Statistica, SPSS (Macros: PROCESS, Bootstrap), Matlab (Toolboxes: Optimization Toolbox), BeGaze Plot, Spike 2 (EMG)

Stimuli building software and toolboxes: Adobe Photoshop, AdobePremiere, Matlab (shine, Cogent Graphic library)

PUBLICATIONS

Submitted

Chiesa PA, **Liuzza MT**, Acciarino A and Aglioti SM. "Subliminal Perception of Others' Physical Pain and Pleasure".

In preparation

Cazzato V, **Liuzza MT**, Macaluso E, Caprara GV and Aglioti SM. "Preference to in-group Politicians' gaze as reflected in Frontal Eye Field activation. An fMRI study".

Porciello G, **Liuzza MT**, Crostella F, Caprara GV and Aglioti SM. "Political popularity reflected in the eyes of the voters".

Liuzza MT, Macaluso E, Chiesa PA and Aglioti SM. "Homophobia and (anti)conformism toward a sexual minority: The role of anterior Insula: An fMRI study".

Chiesa PA, **Liuzza MT**, Macaluso E and Aglioti SM. "Neural correlates Subliminal Perception of Others' Physical Pain and Pleasure: An fMRI study".

2014

Tidoni E, Grisoni L, **Liuzza MT** and Aglioti SM. "Rubber hand illusion highlights massive visual capture and sensorimotor face-hand remapping in a tetraplegic man". *Restorative Neurology and Neuroscience* [Epub ahead of print].

Porciello G, Crostella F, **Liuzza MT**, Valentini E and Aglioti SM. "rTMS-induced virtual lesion of the posterior parietal cortex (PPC) alters the control of reflexive shifts of social attention triggered by pointing hands". *Neuropsychologia*, 59:148-56. Doi: 10.1016/j.neuropsychologia.2014.04.017.

Holmes BS, Porciello G, **Liuzza MT**, Crostella F, Aglioti SM and Bufalari I. "Interpersonal Multisensory Stimulation reduces the overwhelming distracting power of self-gaze: psychophysical evidence for 'engagement'". *Scientific Reports* (accepted).

LIUZZA

Liuzza MT, Candidi M, Sforza AL and Aglioti SM. "Harm avoiders suppress motor resonance to observed immoral actions". *Social Cognitive and Affective Neuroscience*, 2014 Feb 12 [Epub ahead of print]. Doi: 10.1093/scan/nsu025.

2013

Liuzza MT, Vecchione M, Dentale F, Crostella F, Barbaranelli C, Caprara GV and Aglioti SM. "A look into the ballot box: gaze-following conveys information about implicit attitudes toward politicians". *Quarterly Journal of Experimental Psychology*, 66(2):209-16. Doi: 101080/174702182012754909.

2012

Liuzza MT, Candidi M and Aglioti SM. "Non Farlo! Negazione linguistica e simulazione delle azioni" ("Linguistic negation and action simulation"). *Rivista Italiana di Filosofia del linguaggio*, 5:127-13. Doi: 104396/20120310.

Liuzza MT, Borghi AM and Cimatti F. "Linguistic Tools for Embodied Minds". *Rivista Italiana di Filosofia del linguaggio*, 6(2): 43-58. Doi: 10.4396/20120704.

2011

Liuzza MT, Setti A and Borghi AM. "Kids observing other kids' hands: Visuomotor priming in children". *Consciousness and Cognition*, 21(1):383-92. Doi: 101016/j.concog201109015.

Liuzza MT, Cazzato V, Vecchione M, Crostella F, Caprara GV and Aglioti SM. "Follow My Eyes: The Gaze of Politicians Reflexively Captures the Gaze of Ingroup Voters". *PLoS ONE*, 6(9), e25117. Doi: 101371/journalpone0025117.

Liuzza MT and Aglioti SM. "Neuroscienze in società: come lo studio del cervello sociale ci aiuta a capire chi siamo". ("Social and cultural neuroscience: at the intersection between brain and social sciences"). *Sistemi intelligenti, Cognizione e socialità*, a XXII(2):359-366. Doi: 101422/35362.

Liuzza MT, Candidi M and Aglioti SM. "Do not resonate with actions! Reading action-related, negative polarity sentences modulates cortico-spinal facilitation". *PlosOne*. Doi: 101371/journalpone0016855.

2010

Liuzza MT, Cimatti F and Borghi AM. *Lingue, corpo, pensiero: le ricerche contemporanee (Languages, Body, Thought: contemporary researches)*, Carocci editore, Roma.

Gaudiello I, **Liuzza MT** and Caligiore D. "Prefrontal Cortex and action sequences: A review on neural computational models". In Serra R, Villani M and Poli I (Eds) *Artificial life and Evolutionary computation: Proceedings of WIVACE 2008*, World Scientific Publishing Co Pte Ltd, pp121-130.

TALKS

2012

September: Liuzza MT, Candidi M and Sforza AL. "Società e morale nel sistema motorio: il ruolo delle differenze individuali" (Morality and society in the Motor system: the role of individual differences"). Oral communication, XVII Congress of the Italian Psychology Association (AIP), Chieti (Italy), 20-23 September 2012.

2011

October: Liuzza MT. "Follow my eyes: Gaze-following behavior as a possible tool for political psychology". Social Area Brown Bag, Northwestern University, 14 October, Evanston, IL, USA.

September: Porciello G, Crostella F, Liuzza MT, Valentini E and Aglioti SM. "Attenzione riflessa indotta dall'osservazione delle mani altrui e corteccia parietale posteriore Uno studio di rTMS" (Hand observation induced reflexive social attention and the parietal cortex, an rTMS study). Oral communication, XVII Congress of the Italian Psychology Association (AIP), Catania (Italy), 13-15 September.

2010

November: Liuzza MT. "Gaze following: The importance of society and culture in modulating a reflexive-like behaviour". Cognitive Brain Mapping Group, 3 November.

September: Liuzza MT, Vecchione M, Dentale F, Crostella F, Caprara GV and Aglioti, SM. "Attenzione sociale riflessa e atteggiamenti impliciti come possibili predittori dell'intenzione di voto: uno studio su movimenti saccadici e misure implicite" ("Reflexive social attention and implicit attitudes as predictor of vote intention: a saccadic movement and implicit measures study"). XVI congresso nazionale AIP, Bologna, Italy.

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March: Liuzza MT, Cazzato V, Vecchione M, Dentale F, Crostella F, Caprara GV and Aglioti SM. "Uno sguardo che cattura: attenzione sociale ed affiliazione politica" ("A catching gaze: social attention and political affiliation"). Brain Awareness Week, Rome, Italy.

2009

November: Liuzza MT, Cazzato V, Vecchione M and Crostella F. "Uno sguardo che cattura: attenzione sociale ed affiliazione politica" ("A catching gaze: social attention and political affiliation"). Riunione della Società italiana di Neuropsicologia, Bologna, Italy.

2008

September: Gaudiello I, Liuzza MT and Caligiore D. "Prefrontal Cortex and action Sequences: A review on neural computational models". WIVACE 2008, Italian Workshop on Artificial Life and Evolutionary Computation, Venezia, Italy.

POSTERS

2012

May: Liuzza MT, Porciello G, Crostella F, Caprara GV and Aglioti SM. "Political popularity reflected in the eyes of the voters". Poster presentation, 24th Annual Convention of the Association of Psychological Science (APS), Chicago, IL (USA), accepted, 24-27 May.

May: Holmes B, Porciello G, Liuzza MT, Crostella F, Aglioti SM and Bufalari I. "Reflexive social attention and self-other distinction: psychophysical evidence for 'engagement'". Poster presentation, Concepts, Actions and Objects: Functional and Neural Perspectives (CAOs) 2012, Rovereto, (Italy), 24-27 May, 2012.

May: Porciello G, Crostella F, Liuzza MT, Valentini E and Aglioti SM. "The posterior parietal cortex mediates reflexive shifts of social attention triggered by hand-pointing: A rTMS study". Poster presentation, Concepts, Actions and Objects: Functional and Neural Perspectives (CAOs) 2012, Rovereto, (Italy), 24-27 May, 2012.

2010

October: Liuzza MT, Vecchione M, Dentale F, Caprara GV and Aglioti SM. "Proneness to the gaze of politicians and implicit attitude predict voting intention". 4th Annual Meeting of the Social & Affective Neuroscience Society, Chicago, 29-31 October, 2010.

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October: Cazzato V, Macaluso E, **Liuzza MT**, Caprara GV and Aglioti SM. "Reflexive social attention modulated by political affiliation: An fMRI study". Nijmegen (NL), Workshop: The Embodied Mind: Perspectives and Limitations, 27-28 October, 2010.

June: **Liuzza MT**, Candidi M and Aglioti SM. "Linguistic negation is mapped in the cortico-spinal system". Magstim/University of Oxford TMS Summer School, Oxford.

2009

September: **Liuzza MT**, Candidi M and Aglioti SM. "La negazione nel sistema corticospinale: uno studio di TMS" ("Linguistic negation within the cortico-spinal system: a TMS study"). XV congresso nazionale AIP, Chieti.

July: Burke K, Setti A, **Liuzza MT**, Borghi AM and Newell FN. "Visuo-motor resonance in older adults". 10th International Multisensory Research Forum, New York.

Rome, 9th of January 2015

Marco Tullio Liuzza

