

Sonia Mele, Ph. D.

Born in Manduria (TA, Italy) on February 27th 1977

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Current position:

December 2013 to the present: Post-Doc fellowship at University of Ferrara. Supervisor prof. Laila Craighero.

I graduated in Psychology (five years degree) from the University of Padua with the thesis: "Introversion/extraversion and allocation of attentional resources: an event-related potential study", under the supervision of prof. Daniela Palomba. I then attended from 2004 to 2007 the XIX cycle PhD in Neuroscience at the University of Verona, under the supervision of prof. Giovanni Berlucchi. The main aims of the doctoral project were to show that subliminal visual stimuli can be processed without attention and affect relatively complex goal directed behaviors and to propose a revision of a currently popular model of the automatic orienting of visuospatial attention. After my doctorate, I was awarded several research fellowships at the University of Verona aimed at investigating the neural and cognitive aspects of visual attention. Since August 2011 I was for two years a post-doc fellow in the Cognitive Neuroscience Laboratory (Body Lab Udine group) at the University of Udine under the supervision of dr. Cosimo Urgesi. There, I was involved in two projects, one related to the influence of perceptual experience on the aesthetic appreciation of the body and the other related to conscious and unconscious perception of human actions and motor cortex activation. In both projects I used behavioural and transcranial magnetic stimulation methods. I also co-supervised a PhD student and collaborated with other two post-doc fellows in the lab.

Since December 2013 I've been post-doc fellow at the University of Ferrara under the supervision of prof. Laila Craighero. Working in collaboration with the Azienda Ospedaliero-Universitaria of Ferrara I have been involved in two main projects, one related to motor recovery (effects of repetitive arm training combined with functional electrical stimulation on upper extremity motor recovery in sub-acute stroke survivors) and the other related to brain activity in patients in minimally conscious state (role of transcranial direct current stimulation in minimally conscious state). I have been collaborating in other projects, such as: i) the role of facial muscles activity in emotional elaboration; ii) effects of observing different kinematics on motor resonance; automatic and voluntary orientation of visuospatial attention related to the kinematics of the movement.

Curriculum Studiorum

- July 1995 High school degree in Scientific Studies
- June 2002. Five years degree in Psychology. Thesis: "Introversion/extraversion and allocation of attentional resources: an event-related potential study", (supervisor: Professor Daniela Palomba)
- 2004–2006 PhD Student in Neuroscience at University of Verona, (supervisor: Professor Giovanni Berlucchi).

Research experiences

- August 2012 – November 2013: Post-Doc fellowship: “Neurofunctional Alterations of Body representation in Anorexia Nervosa: Neuropsychological Measures and Neurophysiologic Treatments”. University of Udine, Department of Human Sciences. Supervisor: Dr. C. Urgesi.
- June 2011 – July 2012: Post-Doc fellowship: “Connettività delle reti neurali deputate al controllo esecutivo e all’organizzazione semantica nelle patologie del controllo cognitivo”. University of Udine, Department of Human Sciences. Supervisor: Dr. C. Urgesi.
- July 2010 – December 2010: Research fellowship: “Basi neurali e cognitive dell’attenzione selettiva”. University of Verona, Department of Neurological, Neuropsychological, Morphological and Movement Sciences. Supervisor: Prof. C.A. Marzi.
- January 2007 - April 2010: Research fellowship: “Indagini neuropsicologiche sull’attenzione visiva in soggetti umani”. University of Verona, Department of Neurological & Vision Sciences, Physiology Section; supervisor: Prof G. Berlucchi and Prof. C.A. Marzi.
- May 2006 - December 2006: Research fellowship: “Indagini neuropsicologiche sui disturbi dell’attenzione in pazienti con lesioni cerebrali”. University of Verona, Department of Neurological & Vision Sciences, Physiology Section; supervisor: Prof. G. Berlucchi
- 2004-2005. Participation at the project: “Osservazione a lungo termine di una coorte di bambini vaccinati con il vaccino pertosse acellulare durante l’infanzia”. Istituto Superiore di Sanità Nazionale, Italy.
- 2003-2004. Apprenticeship post-laurea University of Verona, Department of Neurological & Vision Sciences, Physiology Section; supervisor: prof. C. A. Marzi
- 1999-2003. Learning of recording with EEG, ERPs, EMG, ECG, SCR. Department of General Psychology – Physiological laboratory University of Padua, supervisor: Prof. D. Palomba

Computer skills

Windows O.S. (all platforms):

- Internet and mail; Suite Office: Word, Excel, PowerPoint, with Macro in Visual Basic;
- Stat, SPSS;
- E-Prime;
- NeuroScan: Acquire, Edit;
- Brain Vision;
- Neuronavigation;
- TMS;
- Photoshop, CorelDraw. Premiere, AfterEffects.

Grant: History Online Projects Call 2016 by the FENS: project in collaboration with Tiziana Metitieri and Morgana Favero

Scientific Publications:

Ongoing Projects

- **Mele, S.,** Makris, S., Borgomaneri, S., Avenanti, A. and Urgesi C. Please, do not it! Simulation of disgusting and painful actions in the motor system. (in preparation)
- **Mele, S.,** Capurso, V., Cazzato, V and Urgesi C. The role of Extrastriate Body Area in esthetic perceptual experience. (in preparation)

Publications in peer reviewed journals

- **Mele, S.**, Cazzato, V., Di Taranto, F., Maestro, S., Fabbro, F., Muratori, F. and Urgesi, C. Altered norm-based reshaping of esthetic body ideals in adolescent patients with Anorexia Nervosa. *Body Image*. 2016 Dec;19:113-121.
- Cazzato, V, **Mele, S.**, and Urgesi C. Different contributions of visual and motor brain areas during liking judgments of same- and different-gender bodies. *Brain Res*. 2016 Sep 1;1646:98-108.
- Craighero L, Jacono M, **Mele S.** Resonating with the ghost of a hand: A TMS experiment. *Neuropsychologia*. 2016 Apr;84:181-92
- Cazzato, V., Mian, E., **Mele, S.**, Tognana, G., Todisco, P. and Urgesi, C. The effects of body image exposure on self-image and body esthetics in Anorexia Nervosa. *Exp Brain Res*. 2016 Mar;234(3):695-709.
- Craighero L, **Mele S**, Zorzi V. An object-identity probability cueing paradigm during grasping observation: the facilitating effect is present only when the observed kinematics is suitable for the cued object. *Front Psychol*. 2015 Sep 29;6:1479. Apr;84:181-92
- Bagattini, C., **Mele, S.**, Brignani, D. and Savazzi, S. No causal effect of left hemisphere hyperactivity in the genesis of neglect-like behavior. *Neuropsychologia*. 2015 Apr 9;72:12-21.
- Cazzato, V., Mian, E., Serino, A., **Mele, S.** and Urgesi, C. Distinct contributions of Extrastriate Body Area and Temporoparietal Junction in body image distortion. *Cogn Affect Behav Neurosci*. 2015 Mar;15(1):211-28.
- **Mele, S.**, Mattiassi, A. and Urgesi, C. Unconscious processing of body actions primes subsequent action perception but not motor execution. *J Exp Psychol Hum Percept Perform*. 2014 Oct;40(5):1940-62.
- Mattiassi, A., **Mele, S.**, Ticini, L. and Urgesi, C. Conscious and unconscious representations of observed actions in the human motor system. *J Cogn Neurosci*. 2014 Sep;26(9):2028-41.
- Cazzato, V, **Mele, S.**, and Urgesi C. Gender differences in the visual underpinning of perceiving and appreciating the beauty of the body. *Behav Brain Res*. 2014 May 1;264:188-96.
- **Mele, S.**, Cazzato, V and Urgesi C. The importance of perceptual experience in the esthetic appreciation of the body. *PLoS One*. 2013 Dec 4;8(12):e81378.
- **Mele, S.**, Berlucchi, G. and Peru, A., (2012) Inhibition of Return at foveal and extrafoveal locations: re-assessing the evidence *Acta Psychol (Amst)*. 2012 Nov;141(3):281-6.
- **Mele, S.**, Savazzi S., Marzi, CA, & Berlucchi, G., (2008) Reaction time inhibition from subliminal cues: Is it related to inhibition of return? *Neuropsychologia* 2008 Feb 12;46(3):810-9.

Contribution to Conference (posters and talks)

- Bagattini, C., Mele, S., Brignani D. and Savazzi S. (November 2014) *No causal effect of left hemisphere excitability*. the XXII Annual Meeting of the Italian Society of Psychophysiology, Firenze, Italy.
- Mele, S., Makris S, Borgomaneri S, Avenanti A and Urgesi C. (Settembre 2013) Per favore, non farlo! Simulazione di azioni disgustose e dolorosa nel Sistema motorio. Meeting of the Italian Association of Psychology (AIP), Section of Experimental Psychology, Rome, Italy.
- Mele, S. Perceptual adaptation and the esthetic appreciation of the beauty of the Body. (April 2013) Oral presentation at Conference on Body representation and Eating Disorders: Basic and clinical research approaches. Udine.
- Cazzato, V. Mian, E., Serino, A., Mele, S. and Urgesi C. (November 2012) *Ruolo della corteccia occipito-temporale laterale e della giunzione temporoparietale nella rappresentazione percettiva e meta-cognitiva del corpo*. Poster at SINP, Rome Italy.

- Bagattini, C., Mele, S., Brignani D. and Savazzi S. (September 2012) *Il Neglect dipende da uno squilibrio attenzionale interemisferico?* Meeting of the Italian Association of Psychology (AIP), Section of Experimental Psychology, Chieti, Italy.
- Mele, S., Cazzato, V. and Urgesi, C. (September 2012) *Magro o grasso? L'importanza dell'adattamento del peso corporeo nella percezione estetica.* Meeting of the Italian Association of Psychology (AIP), Section of Experimental Psychology, Chieti, Italy.
- Cazzato, V., Mele, S. and Urgesi C. (September 2012) *Ruolo dell'extrastriate body area e della corteccia premotoria nell'elaborazione del giudizio estetico di corpi: uno studio rTMS.* Meeting of the Italian Association of Psychology (AIP), Section of Experimental Psychology, Chieti, Italy.
- Cazzato, V., Mele, S. and Urgesi C. (July 2012). *Extrastriate body area and dorsal premotor cortices contribute to aesthetic processing of fatness and implied motion of body stimuli.* Poster at FENS forum, Barcelona Spain.
- Mattiassi, A., Mele, S. and Urgesi C. . (July 2012). *Subliminal Perception of Implied Actions* Poster at FENS forum, Barcelona Spain.
- Mele, S., Cazzato, V. and Urgesi, C. (July 2012). *Slim or fat? The importance of weight adaptation in body aesthetic perception.* Poster at FENS forum, Barcelona Spain.
- Mele, S., Brignani, D. and Savazzi S. (September 2010). *Ipsi- and contra-lateral effects of rTMS over the parietal cortex: an EEG study with healthy subjects.* Poster at International Conference on Parietal Lobe Function, Amsterdam, Netherlands.
- Mele, S., Berlucchi, G., (September 2009). *Fattori che influenzano il tempo di reazione manuale a stimoli luminosi lateralizzati.* Meeting of the Italian Association of Psychology (AIP), Section of Experimental Psychology, Chieti, Italy.
- Mele, S., Berlucchi, G., Marzi, CA, and Savazzi S. (September 2008). *Inibizione di ritorno con "cue" immaginata.* Meeting of the Italian Association of Psychology (AIP), Section of Experimental Psychology, Padova, Italy.
- Mele, S., Berlucchi, G., Marzi, CA, and Savazzi S. (September 2007). *Inhibition of Return: subliminal cue effect.* National Congress of the Italian Society of Neuroscience– SINS, Verona, Italy.
- Mele, S., Berlucchi, G., Marzi, CA, and Savazzi S. (September 2006). *Effetto Di Inibizione Di Ritorno (Ior): Inibizione e Facilitazione.* Meeting of the Italian Association of Psychology (AIP), Section of Experimental Psychology, Rovereto, Italy.
- Mele, S., Berlucchi, G., Marzi, CA, and Savazzi S. (September 2005). *Subliminal visual stimuli yield inhibition of return but not facilitation.* Poster at 37th European Brain and Behavior Society Meeting – EBBS, Dublin, Eire.
- Mele, S., Berlucchi, G., Marzi, CA, and Savazzi S. (September 2005). *Inibizione ma non facilitazione per stimoli invisibili.* Oral presentation at Meeting of the Italian Association of Psychology (AIP), Section of Experimental Psychology, Cagliari, Italy.

Scientific references

- Prof. Giovanni Berlucchi
Department of Neurological and Movement Sciences, University of Verona, Verona, Italy
- Prof. Carlo A Marzi
Department of Neurological and Movement Sciences, University of Verona ,Verona, Italy
- Prof. Laila Craighero
Department of Biomedical Sciences and Surgical Specialties, University of Ferrara, Ferrara, Italy

- Prof. Silvia Savazzi

Department of Neurological and Movement Sciences, University of Verona ,Verona, Italy

- Dr. Cosimo Urgesi

Department of Human Sciences, University of Udine, Udine, Italy