



Chiara Della Libera, PhD

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Current position

Researcher (Assistant Professor) in Physiology (BIO/09) at the Department of Neurosciences, Biomedicine and Movement Sciences, University of Verona, Section of Physiology and Psychology, since September 1st 2011.

Research interests and lines of research

I investigate Selective Attention, that is the process allowing the deployment of limited processing resources on items that are deemed as relevant, while preventing distraction from non-relevant competing materials. In particular, I have an interest in the adaptive properties of Selective Attention, that allow it to become shaped by experience.

Besides conducting research on the basic mechanisms in healthy adults and children, I also try to elucidate the dysfunctions that underlie Selective Attention alterations found in special populations:

- Individuals with addiction problems
- Children with neurodevelopmental disorders such as Tourette Syndrome, Autistic Spectrum Disorders and ADHD

Personal information

Born in Verona (Italy) on July 15th 1976.

Married, two daughters (Emilia b. August 20th 2007, and Lucia b. May 7th 2009).

Institutional engagement

Since 2015 I am a member of the Review Board for Research Involving Human Participants (CARU – Comitato di Approvazione per la Ricerca sull'Uomo) of the University of Verona.

Since 2017 I am the Representative for Researchers (Assistant Professors) in the Council Board of the Department of Neurosciences, Biomedicine and Movement Sciences.

Work experience

Dates	March 2001 – February 2002
Position	Post graduate research training, Supervisor Prof. Franca Stabulum
Employer	University of Padua (Italy), Department of General Psychology

Dates	January 2002 – December 2005
Position	PhD Student, Supervisor Prof. Leonardo Chelazzi
Employer	University of Verona (Italy), Department of Neurological and Vision Sciences, Section of Physiology

Dates	January 2006 – May 2011
Position	Postdoctoral fellow, Supervisor Prof. Leonardo Chelazzi
Employer	University of Verona (Italy), Department of Neurological, Neuropsychological, Morphological and Movement Sciences, Section of Physiology and Psychology

Dates	September 2011 – present
Position	Researcher (Assistant Professor) in Physiology
Employer	University of Verona (Italy), Department of Neuroscience, Biomedicine and Movement Sciences

Dates	October – November 2015
Position	Visiting researcher
Employer	Vrije Universiteit Amsterdam (The Netherlands), Department of Experimental and Applied Psychology

Education and training

Date	June 1994
Title awarded	High school diploma
Organization	Rosemount High School, Rosemount, MN (U.S.A.)

Date	July 1995
Title awarded	High school diploma in business and foreign languages (English and German)
Organization	ITPACLE Marco Polo, Verona (Italy)

Date	February 2001
Title awarded	Degree in General and Experimental Psychology – Neuropsychology
Thesis title	Il costo residuo nel cambiamento di compito (<i>The residual cost in task switching</i>)
Supervisor	Prof. Franca Stablum
Organization	University of Padua (Italy), Faculty of Psychology

Date	October 2004
Title awarded	European Diploma in Cognitive and Brain Sciences (EDCBS)
Organization	Hanse-Wissenschaftskolleg (HWK), Delmenhorst (Germany)

Date	March 2006
Title awarded	fMRI Visiting fellowship
Organization	MGH/MIT/HMS Athinoula A. Martinos Center for Biomedical Imaging, Charlestown, MA (U.S.A.)

Date	May 2006
Title awarded	PhD in Neuroscience
Thesis title	Visual selective attention and the effects of monetary rewards
Supervisor	Prof. Leonardo Chelazzi
Organization	Department of Neurological and Vision Sciences, University of Verona (Italy)

Awards

Year	2005
Award	Young researchers grant
Organization	European Society for Cognitive Psychology (ESCoP)

Year	2006
Award	AIP award for the best PhD thesis in Psychology
Organization	Italian Psychology Association (AIP)

Year	2010
Award	Young Researchers Award
Organization	Italian Psychology Association (AIP), branch of Experimental Psychology

Competitive research grants

Year	2014
Grant	Young Researchers Grant
Project title	The effects of rewards on visual selective attention: From basic science to translational approaches
Asset	€ 12.000
Organization	Department of Neurological and Movement Sciences, University of Verona

Year	2015
Grant	Cooperint mobility grant
Project title	Visiting researcher period at Vrije Universiteit, Amsterdam
Asset	€ 3.000
Organization	University of Verona

Years	2016 – 2017
Grant	Basic Research Grant 2015
Project title	Learning to ignore – New adaptive features of selective attention
Asset	€ 54.000
Organization	University of Verona

Years	2017 – 2018
Grant	Scientific Research Grant
Project title	Characterizing the nature of attentional deficits in Autistic Spectrum Disorders (ASD)
Asset	€ 8.000
Organization	Brain Research Foundation, Verona

Years	2018 – 2019 (renewable)
Grant	Scientific Research Grant in collaboration with Dr Leonardo Zocante (PI)
Project title	In your gaze is your future. Early diagnosis of autism and eye movements
Asset	€ 25.000 (total grant € 53.500)
Organization	Compagnia di San Paolo, Turin, through Brain Research Foundation, Verona

Memberships

Member of the following national and international scientific societies: Italian Physiological Society (SIF); Italian Association for Psychology (AIP), branch of Experimental Psychology; Association for Neuroscience “Giuseppe Moruzzi”; European Brain and Behaviour Society (EBBS); European Society for Cognitive Psychology (ESCoP); Psychonomic Society (associate member); Vision Sciences Society (VSS). Since 2002 I am registered as a Practitioner Psychologist.

Teaching experience

Current teaching appointments

Since 2011 I am the coordinator of the Course in *Kinesiology*, for the BA in Physical Therapy, Medical School, University of Verona (Vicenza detachment), within which I teach the *Physiology of movement* module (20 credit hours).

Coordinator (since 2017) of the Course in *Physiology*, for the BA in Physical Therapy, Medical School, University of Verona (Vicenza detachment), within which I teach (since 2015) the *Neurophysiology* module (35 credit hours).

Since 2017 I teach the *Physiology* module (36 credit hours) for the BA in Nursing Sciences (group with even registration numbers), Medical School, University of Verona, within the Course of *Morphological and Functional Fundamentals of Life*.

Since 2014 I am a member of the Teaching board of the PhD Course in *Neuroscience, Psychological and Psychiatric Sciences and Movement Sciences*, at the University of Verona.

Public engagement

Organization of dissemination events

Dates	April – May 2006
Event	A scuola con il cervello (<i>Take your brain to school</i>)
Description	Series of meetings aiming at promulgating knowledge on neuroscience among secondary school students in the city of Verona through dedicated seminars and lectures.
Dates	November 2006 – March 2007
Event	Cerebralmente (<i>Literally: “In a cerebral way”. A wordplay with the words “brain” and “mind”</i>)
Description	Series of seminars aiming at promulgating knowledge on neuroscience among the general public, organized jointly with the Literary Society of Verona.
Dates	May 2014
Event	La bufala è servita (<i>The hoax is served</i>)
Description	National initiative, organized jointly with the group <i>Italia Unita per la Scienza</i> , aiming at raising public awareness on the diffusion through the media and social networks of scientific disinformation.

Invited speaker in dissemination events

Date	March 2011
Event	Infinitamente, Verona
Description	I was invited to hold the seminar <i>Attenzione ed esperienza. La pratica rende davvero perfetti? (Attention and experience. Does practice really make perfect?)</i>
Date	October 2013
Event	Festival della Scienza di Genova (<i>Genoa Science Festival</i>)
Description	Invited to hold the Lectio magistralis <i>Il piacere della bellezza nel cervello di chi guarda. Le neuroscienze dell'esperienza edonica (The pleasure of beauty in the brain of the beholder. The neuroscience of hedonic experience).</i>
Date	October 2017
Event	Brain Awareness Week, Verona
Description	Invited to hold the seminar <i>Attention and the Brain</i> to middle school students.

Publications

Publications in peer reviewed scientific journals

- Di Caro, V., Theeuwes, J., **Della Libera, C.**, (under review). Suppression history of distractor location biases attentional and oculomotor control. *Visual Cognition*.
- Ferrante, O., Patacca, A., Di Caro, V., **Della Libera, C.**, Santandrea, E., & Chelazzi, L. (2018). Altering spatial priority maps via statistical learning of target selection and distractor filtering. *Cortex*, 102, 67-95.
- Della Libera, C.**, Calletti, R., Estocinová, J., Chelazzi, L., & Santandrea, E. (2017). Reward-based Plasticity of Spatial Priority Maps: Exploiting Inter-subject Variability to Probe the Underlying Neurobiology. *Cognitive Neuroscience*, 8(2), 85-101.
- Estocinová, J., Lo Gerfo, E., **Della Libera, C.**, Chelazzi, L., & Santandrea, E. (2016). Augmenting Distractor Filtering via Transcranial Magnetic Stimulation of the Lateral Occipital Cortex. *Cortex*, 84, 63-79.
- Perlato, A., Santandrea, E., **Della Libera, C.** & Chelazzi, C. (2014). Biases of attention in chronic smokers: Men and women are not alike. *Cognitive, Affective & Behavioral Neuroscience*, 14, 742-755.

Chelazzi, L., Estocinová, J., Calletti, R., Lo Gerfo, E., Sani, I., **Della Libera, C.** & Santandrea, E. (2014). Altering spatial priority maps via reward-based learning. *The Journal of Neuroscience*. 35, 8594-8604.

Chelazzi, L., Perlato, A., Santandrea, E. & **Della Libera, C.** (2013). Rewards Teach Visual Selective Attention. *Vision Research*, 85, 58-72.

Chelazzi, L., **Della Libera, C.**, Sani, I. & Santandrea, E. (2011). Neural Basis of Visual Selective Attention. *Wiley Interdisciplinary Reviews: Cognitive Science*, 2(4), 392-407.

Della Libera, C., Perlato, A. & Chelazzi, L. (2011). Dissociable effects of reward on attentional learning: From passive associations to active monitoring. *PLoS ONE*, 6(4): e19460.

Della Libera, C. & Chelazzi, L. (2009). Learning to attend and to ignore is a matter of gains and losses. *Psychological Science*, 20(6), 778-784.

Mirabella, G., Bertini, G., Samengo, I., Kilavik, B. E., Frilli, D., **Della Libera, C.**, & Chelazzi, L. (2007). Neurons in area V4 of the macaque translate attended visual features into behaviorally relevant categories. *Neuron*, 54(2), 303-318.

Della Libera, C. & Chelazzi, L. (2006). Visual selective attention and the effects of monetary rewards. *Psychological Science*, 17(3), 222-227.

Publication in peer-reviewed non ISI journal

Della Libera, C. & Stablum, F. (2004). Processi e meccanismi sottostanti il cambiare compito (*Processes and mechanisms underlying task switching*). *Giornale Italiano di Psicologia, (Italian Psychology Journal)*, 31(2), 279-303.

Book chapters

Chelazzi, L., **Della Libera, C.** & Santandrea, E. (2009). Attentional mechanisms in the ventral pathway. In L. Squire, T. Albright, F. Bloom, F. Gage and N. Spitzer (Eds.), *The New Encyclopedia of Neuroscience* (pp. 647-653), Elsevier, Oxford.

Della Libera, C. & Chelazzi, L. (2015). Capitolo 14. Aspetti generali della funzione visiva. In *Fisiologia e biofisica medica*, F. Grassi, D. Negrini e C.A. Porro (Eds.), Milano: Poletto editore.

Della Libera, C. & Chelazzi, L. (2015). Capitolo 15. Principi di ottica fisiologica. In *Fisiologia e biofisica medica*, F. Grassi, D. Negrini e C.A. Porro (Eds.), Milano: Poletto editore.

Della Libera, C. & Chelazzi, L. (2015). Capitolo 17. Elaborazione corticale dei segnali visivi. In *Fisiologia e biofisica medica*, F. Grassi, D. Negrini e C.A. Porro (Eds.), Milano: Poletto editore.

Conference presentations

Since 2001 I have authored over thirty national and international peer-reviewed conference presentations, in the form of either posters or spoken communications. I was the presenting author in over half of these.

Referee activity

I regularly act as a referee for the following scientific journals: *Annals of the New York Academy of Sciences*, *Attention Perception & Psychophysics*; *Cognition*; *Cognitive Affective & Behavioral Neuroscience*; *Current Directions in Psychological Science*; *Emotion*; *Experimental Brain Research*; *Frontiers in Human Neuroscience*; *Journal of Cognitive Psychology*; *Journal of Experimental Psychology: Human Perception and Performance*; *Journal of Experimental Psychology: Learning, Memory and Cognition*; *Journal of Neurology, Neurosurgery & Psychiatry*; *Journal of Vision*; *Neuropsychologia*; *Neuroscience Letters*; *Perception*; *Personality and Social Psychology Bulletin*; *Physiology & Behavior*; *PLoS ONE*; *Proceedings of the Royal Society B*; *Psychological Science*; *Psychological Research*; *Psychonomic Bulletin & Review*; *Psychophysiology*; *Scientific Reports*; *Visual Cognition*.

I act as an external consultant referee for the *FWO Vlaanderen – Fonds Wetenschappelijk Onderzoek, Research Foundation – Flanders, Belgium*.