Corrado Corradi-Dell'Acqua, PhD

GENERAL INFORMATION

Working Address:

University of Geneva – CISA, Campus Biotech, Uni Dufour Rue Géneral Dufour 24, 1211 Geneve, Switzerland

EDUCATION

Cognitive Neuroscience Sector, International School for Advanced Studies (SISSA/ISAS), Trieste

(TS), Italy

Ph D., Neuroscience

October 2007

Dissertation Title: "Psychological and Neurological Reality of the Body Structural Description".

Supervisor: prof. Raffaella. I. Rumiati

UHSR Università Vita-Salute San Raffaele, Milano (MI), Italia

M S., Psychology

October 2001

Dissertation Title: "An Experimental Study of the Isochrony Principle".

Final Degree: 110/110 cum laude. Supervisor: prof. Paolo Viviani.

PRESENT POSITION Swiss Centre for Affective Sciences, University of Geneva, Geneva, Switzerland

Postdoctoral position

October 2009 – present

Topic: Neural signatures of pain empathy.

Technique/equipment: Pain & Olfactory stimulation, 3T functional Magnetic Resonance Imaging

(fMRI).

Supervisor: Prof. Patrik Vuilleumier.

WORKING EXPERIENCES

Cognitive Neuroscience Sector, International School for Advanced Studies (SISSA/ISAS), Trieste

(TS), Italy

Postdoctoral position

December 2007 – September 2009

Topic: Neural and electrodermal signatures of economical choices, neural connectivity of tool-use. *Technique/equipment*: Electrodermal activity, 3T fMRI, Positron Emission Tomography (PET),

Transcranial Magnetical Stimulation (TMS).

Supervisor: Prof. Raffaella I. Rumiati.

Dept. of Neurology, University Hospital of Aachen, RWTH Aachen, Aachen, Germany Institute of Neuroscience and Biophysics, Research Centre Jülich, Jülich, Germany

Postdoctoral position

March 2006 - November 2007

Topic: Neural bases of Body Representations, effect of top-down modulation in high-level visual processes of the human brain.

Technique/equipment: 3T fMRI. Supervisor: Prof. Gereon R. Fink.

RIKEN Brain Science Institute (BSI), Wako-Shi, Japan

RIKEN BSI Summer School Fellow

Topic: Neural correlates of Self-processing.

Technique/equipment: 4T fMRI.

Supervisors: Dr. Atsushi Iriki and Dr. Kang Cheng.

Cognitive Neuroscience Sector, International School for Advanced Studies (SISSA/ISAS), Trieste

(TS), Italy

PhD Student November 2001 – December 2005

Topic: Neural bases of Body Representations.

Technique/equipment: Psychophysical techniques, 1.5T fMRI

Supervisor: Prof Raffaella I. Rumiati.

UHSR Università Vita-Salute San Raffaele, Milano (MI), Italia

Undergraduate Student (M.S. thesis project)

October 2000 – October 2001

July 2005 – September 2005

Topic: Motor Control.

Technique/equipment: Kinematics of bimanual movements.

Supervisor: Prof. Paolo Viviani.

GRANTS

September, 2011 – Vulleumier P., & Corradi-Dell'Acqua C. Your pains and my dangers: Linking empathy to shared predictive coding in the human anterior insula. Swiss National Science Fundation. n. 32003B 138413. Sum awarded: 305'803CHF

PUBLICATIONS Corradi-Dell'Acqua C., Hofstetter C. & Vuilleumier P. (2013). Cognitive and affective theory of mind share the same local patterns of activity in posterior temporal but not medial prefrontal cortex. Social Cognitive and Affective Neuroscience. [Epub ahead of print] doi:10.1093/scan/nst097

> Mengotti P., Corradi-Dell'Acqua C., Negri G. A. L., Ukmar M., Pasavento V., & Rumiati, R. I. (2013). Selective imitation impairments differentially interact with language processing. Brain, 136,2602-2618

Corradi-Dell'Acqua C., Civai C., Rumiati R.I., & Fink G. R. (2013). Disentangling self- and fairnessrelated mechanisms in the Ultimatum Game: an fMRI study. Social Cognitive and Affective *Neuroscience*, *8*, 424-431

Koban L., Corradi-Dell'Acqua C., & Vuilleumier P. (2013) Integration of Error Agency and Representation of Others' Pain in the Anterior Insula. Journal of Cognitive Neuroscience, 25, 258-272.

Mengotti P., Corradi-Dell'Acqua C., & Rumiati R.I. (2012) Imitation components in the human brain: An fMRI study. NeuroImage, 59, 1622–1630.

Corradi-Dell'Acqua C., Tomelleri L., Bellani M., Rambaldelli G., Cerini R., Pozzi Mucelli R., Balestrieri M., Tansella M. & Brambilla P. (2012). Thalamic-insular dysconnectivity in Schizophrenia. Evidence from Structural Equation Modeling. Human Brain Mapping, 33, 740-752.

Corradi-Dell'Acqua C., Hofstetter C. & Vuilleumier P. (2011) Felt and observed pain have shared distributed representations in human anterior insula. Journal of Neuroscience, 31, 17996-18006. Papeo L., Corradi-Dell'Acqua C., & Rumiati R.I. (2011) "She" is not like "I". The tie between language and action is in our imagination. Journal of Cognitive Neuroscience, 23, 3939-3948.

Rumiati R.I., Papeo L., & Corradi-Dell'Acqua C (2010). Higher-level motor processes. Annals of the New York Academy of Sciences, 1191, 219-241.

Corradi-Dell'Acqua C., & Tessari A. (2010) Is the Body in the Eye of the Beholder? Visual Processing of Bodies in Individuals with Anomalous Anatomical, Sensory and Motor Features. Neuropsychologia, 48, 689-702.

Civai C., Corradi-Dell'Acqua C., Gamer M., & Rumiati R. I. (2010) Are irrational reactions to unfairness truly emotionally-driven? Dissociated behavioral and emotional responses in the Ultimatum Game task. Cognition, 114, 89-95.

Rumiati R. I., Carmo J. C., & Corradi-Dell'Acqua C. (2009) Neuropsychological perspectives on the mechanisms of imitation. Philosophical Transactions of the Royal Society. B., 364, 2337-2347.

Corradi-Dell'Acqua C., Tomasino B., & Fink G. R. (2009) What is the Position of an Arm relative to the Body? Neural Correlates of Body Schema and Body Structural Description. Journal of Neuroscience, 29, 4162-4171.

Viviani P., Burkhard P., Catalano Chiuvé S., Corradi-Dell'Acqua C., & Vindras P. (2009) Velocity control in Parkinson's disease: A quantitative analysis of isochrony in scribbling movements. Experimental Brain Research, 194, 259-283.

Corradi-Dell'Acqua C., Hesse M. D., Rumiati R. I., & Fink G. R. (2008). Where Is A Nose With Respect To A Foot? The Left Posterior Parietal Cortex Processes Spatial Relationships Among Body Parts. Cerebral Cortex, 18, 2879-2890.

Corradi-Dell'Acqua C., Ueno K., Ogawa A., Cheng K., Rumiati R. I., & Iriki A. (2008). Effects of Shifting Perspective of The Self: an fMRI study. NeuroImage, 40, 1902-1911.

Corradi-Dell'Acqua C., & Rumiati R. I. (2007). What Does The Brain Know About The Body? Evidence of Dissociable Representations. In: F. Santoianni and C. Sabatano (Eds.), Brain Development In Learning Environments: Embodied Cognition and Perceptual Learning (pp. 50-64). Newcastle, UK: Cambridge Scholar Publishing.

Tomasino B., Corradi-Dell'Acqua C., Tessari A., Spiezio C., & Rumiati R. I. (2004). A Neuropsychological Approach to Motor Control and Imagery. Behavioral and Brain Sciences, 23, 419.

SUBMITTED FOR PUBL.

MANUSCRIPTS Corradi-Dell'Acqua C., Schwartz S., Meaux E., Hubert B., Vuilleumier. P. & Deruelle C. Neural responses to emotional expression information in high- and low-spatial frequency in autism. Evidence for a cortical dysfunction. Frontiers in Human Neurosciences

> Corradi-Dell'Acqua C., Turri F., Kaufmann L., Clément F., & Schwartz S. Cheater or Unachiever? How the brain develops an impression of people's behavior in relation to rules and desires. Social Cognitive Affective Neuroscience

IN PREP.

MANUSCRIPTS Sharvit G., Corradi-Dell'Acqua C., Delplanque S., Vuilleumier P. Does Pain Smell Bad? Cross-modal anticipatory effects between nociception and olfaction.

SPECIAL ISSUES Corradi-Dell'Acqua C., Leiberg S., Koban L., Vuilleumier P., & Fehr E. (2013). What Determines Social Behavior? Investigating the role of emotions, self-centered motives, and social norms. Research Topic co-hosted by Frontiers in Human Neuroscience & Frontiers in Emotional Science.

ABSTRACTS AND CONFERENCE **PROCEEDINGS**

Pichon A., Coppin G., Delplanque S., Corradi-Dell'Acqua C., Margot C., Sander D., & Vuilleumier P. Cutting liking at its joints: in search of a dissociation between several types of olfactory experiences in the brain. Cognitive Neuroscience Society Annual Meeting Program 2013 (A supplement of the Journal of Cognitive Neuroscience) – Presented at: Cognitive Neuroscience Society Annual Meeting 2013, San Francisco, California, USA, April, 2013

Corradi-Dell'Acqua C., Hofstetter C. & Vuilleumier P. The lean and the rich side of emotions. Dissociated insular and temporo-parietal patterns in affective theory of mind task. Cognitive Neuroscience Society Annual Meeting Program 2012(A supplement of the Journal of Cognitive Neuroscience) – Presented at: Cognitive Neuroscience Society Annual Meeting 2012, Chicago, Illinois, USA, April, 2012

Corradi-Dell'Acqua, Civai C., & Rumiati R.I. Do I care for others' money as much as for my own? Playing the ultimatum game task in behalf of a third-party. In: F. Morganti, A. Carassa and G. Riva, Editors, Enacting intersubjectivity a cognitive and social perspective to the study of interactions, IOP Press, Amsterdam – Presented at: "Enacting Intersubjectivity: paving the way for a dialogue between cognitive science, social cognition and neuroscience", Lugano, Switzerland, 14 February 2009

Corradi-Dell'Acqua C., Tomasino B., & Fink G. R. Which is the Position of an Arm in the Whole Body? Investigating the Neural Correlates of Egocentric and Allocentric Body Reference Frames. Cognitive Neuroscience Society Annual Meeting Program 2008 (A supplement of the Journal of Cognitive Neuroscience), 141 (D119). - Presented at: Cognitive Neuroscience Society Annual Meeting 2008, San Francisco, California, USA, April, 2008

Corradi-Dell'Acqua C., Hesse M. D., Rumiati R. I., & Fink G. R. Where Is A Nose With Respect To A Foot? The Left Posterior Parietal Cortex Processes Spatial Relationships Among Body Parts. Neuroimage, 31, Supp 1. – Presented at: Twelth Annual Meeting of the Organization of the Human Brain Mapping, Firenze, Italy, June 2006

Corradi-Dell'Acqua C., Ueno K., Ogawa A., Cheng K., Rumiati R. I., & Iriki A. Effects of Shifting Perspective of The Self: an fMRI study. Neuroimage, 31, Supp 1. – Presented at: Twelth Annual Meeting of the Organization of the Human Brain Mapping, Firenze, Italy, June 2006.

Corradi-Dell'Acqua C., Sabatano C., & Rumiati R. I. The Development of The Internal Body Representation. Abstracts of the Psychonomic Society, 9, 54. – 45th Annual Meeting of the Psychonomic Society, Minneapolis, Minnesota, USA, November, 2004

ORAL

9 September 2013 – "Common activation patterns between basal cognitive/emotional processes $PRESENTATION S \\ and high-level social interactions "13th biannual congress of the swiss psychological society, Basel, the swiss psychological society is a superior of the swiss psychological society and the swiss psychological society is a superior of the swiss psychological society. \\$ Switzerland

> 2 August, 2013 - "Common activation patterns between basal cognitive/emotional processes and high-level social interactions". University of Trento, Rovereto, Italy. (invited talk)

> 15 June 2012 – "Felt and seen pain evoke same local patterns of cortical activity in the human insular and cingulate cortex" Human Brain Seminars at CHUV, Lausanne, Switzerland (invited talk)

11 May, 2012 – "Do I care for others' money as much as for my own? Disentangling self- and fairness- related neural mechanisms involved in the Ultimatum Game". First conference of the European Society for Cognitive and Affective Neuroscience, Marseille, France.

27 January, 2011 – "Felt and observed pain have shared distributed representations in human anterior insula". USGEB Symposium (Union Schwetzerischer Gesellschaften für Experimentelle Biologie/Union des Sociétés Suisses de Biologie Expérimentale), Zurich, Switzerland. (invited talk)

13 January 2011 – "Felt and seen pain evoke same local patterns of cortical activity in the human insular and cingulate cortex" Presentation to the Alpine Brain Imaging Meeting 2011, Champery, Switzerland

14 December, 2010 – "Shared insular structures in first- and third- person processing: evidence from pain sensation and economical decision making", University Paris Sud 11, Orsay, France. (invited talk)

7 May, 2010 – "Applicazione della Voxel-based Lesion-Symptom Mapping in uno studio su aprassia ed afasia", SINP (Società Italiana di Neuropsicologia) riunione primaverile, Bologna, Italy. (invited talk)

29 January, 2010 – "Neural Mechanisms of Body Space", Twenty-Eight European Workshop On Cognitive Neuropsychology, Bressanone, Italy (invited talk).

5 October, 2009 – "Do I care for others' money as much as for my own? Playing the ultimatum game task in behalf of a third-party", SINS (Italian Society for Neuroscience), Milano, Italy.

4 September, 2008 – "The Left Posterior Parietal Cortex Processes Spatial Relationships Among Body Parts", First Meeting of the Federation of the European Societies of Neuropsychology, Edinburgh, UK.

27 June, 2007 – "Neural Correlates of Egocentric and Allocentric Body Reference Frames", Frontiers of Knowledge in the XXI Century – Sciences in Dialogue in the New Europe, Trieste, Italy

TEACHING/ ACADEMIC EXPERIENCES

04 December, 2013 – member of the committee for the Master thesis defence "Role of the Human Amygdala in Processing of Goal-Relevance" by Hana Kutlíková, Master in Neuroscience, University of Geneva, Geneva, Switzerland.

28 August 2013 – "Common activation patterns between basal cognitive/emotional processes and high-level social interactions" Talk at the FENS-IBRO Training Centre 2013, Lausanne & Geneve, Switzerland

18-19 July, 2013 – "fMRI tutorial", SISSA International Summer School in Social Cognitive Neuroscience 2013 (ScoNe), Trieste, Italy.

10 July 2013 – Workshop on "Value, emotion and decision-making: psychological and neural mechanisms" by T. Brosch and C. Corradi-Dell'Acqua. International Summer School in Affective Sciences 2013, Château de Bossey, Bogis-Bossey, Switzerland.

30 April 2013 – "Self-based vs. Fairness-based economical decisions: neural correlates". Class for the Course of "Emotions et processus d'évaluation : Comprendre autrui" (by T. Brosch) in the Master in Affective Psychology, University of Geneve, Geneve, Switzerland.

15 February, 2013 – "Empatia ed autismo", ECM (Educazione Continua in Medicina, Continuing medical education) Class – "Neurobiologia e Neuroriabilitazione dell'autismo: le nuove frontiere della ricerca traslazionale", Udine, Italy

31 August, 2012 – member of the committee for the Master thesis defence "Social Appraisal in Adolescents, an fMRI study" by Brittany Anderson, Master in Neuroscience, University of Geneva, Geneva, Switzerland.

26 April 2012 & 25 April 2013 – "Investigating Moral Judgment through Cognitive Neuroscience and Neuroimaging". Class for the Course of "Neurosciences, éthique et evolution" (by Mauron A., Hurst S., Baertschi B.) in the Master in Neuroscience in the years 2012 and 2013, University of Geneve, Geneve, Switzerland.

15 December, 2011 – member of the committee for the PhD thesis defence "Les Mecanismes Neurocognitifs de l'inscription corporelle dans les jugements de lateralité" by Francois Traiel, Doctorat en Science du Sport, de la Motricité et du Muvement Humain, University Paris Sud 11, Orsay, France.

25 August, 2011 – "Investigation of Emotion Expression and Perception using fMRI" by C. Corradi-Dell'Acqua and S. Pichon. International Summer School in Affective Sciences 2013, Château de Bossey, Bogis-Bossey, Switzerland.

13 December, 2010 – member of the committee for the PhD thesis defence "Mécanismes Neurocognitifs de l'Auto-projection pour la Reconnaissance des Objets 3D" by Hela Chouk, Doctorat en Science du Sport, de la Motricité et du Muvement Humain, University Paris Sud 11, Orsay, France.

23 Mars 2010 – "Do I care for others' money as much as for my own? Playing the ultimatum game task in behalf of a third-party" Class of the course of Cognitive Psychology (2nd year of bachelor) as part of SHS (science humaine et sociale), EPFL, Lausanne, Switzerland.

19 Mars 2010, 06 May 2011, 04 May 2012 & 24 May 2013 – "Action and Body Representations". Class for the Course of "Introduction aux neurosciences cognitives et affectives" in the Master in Neuroscience in the years 2010, 2011, 2012 and 2013, University of Geneve, Geneve, Switzerland.

24 September, 2009 – "Le Neuroimmagini Funzionali", ECM Class – "Incontri con le Neuroscienze" Trieste, Italy

25 May, 2007 – "La Rappresentazione visiva del corpo umano e le sue basi neurali", ECM Class – "Neuropsicologia e Neuroimaging", Trieste, Italy.

PEER-REVISION Ad-hoc article for Journal of Neuroscience, Journal of Cognitive Neuroscience, Cortex, Social Cognitive and Affective Neuroscience, Cerebral Cortex, Human Brain Mapping, Neuroimage, PLoS One, Cognition, European Journal of Neuroscience, Brain Topography, Brain and Cognition, Experimental Brain Research, Neuroscience & Biobehavioral Reviews, Neurocase, Frontiers in Human Neurosciences, Journal of Psychiatric Research, Cognition & Emotion, Brain & Behavior.

Ad-hoc project reviewer for the Netherland Organization for Scientific Research (NWO).

SOCIETIES **MEMBER SHIP**

Society for Neuroscience; Cognitive Neuroscience Society; European Society for Cognitive and Affective Neuroscience; Swiss Society for Neuroscience.