Tommaso Ghilardi, Ph.D.

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Work Experience

2018 – · · · ·

Ph.D., Donders Center for Cognition in developmental cognitive psychology.

- **BABYBrain group.** I am working on the MOTION European project (MSCA): "Mobile Technology for Infant Social-Cognitive Neuroscience: Interdisciplinary Training Network for Innovative Infancy Research. My main interest is understanding how infants are able to extract complex statistical information from action sequences and use this knowledge to predict future actions. I use EEG and fNIRS to explore the neural correlates of action observation and prediction in infancy. I use behavioural measures with both adults and infants (e.g. eye-tracking) to study the learning of statistical information embedded in action sequences.
- **DCC EEG Lab Support.** As part lab support group of the Donders Center for Cognition my tasks are to train researchers who want to use the EEG setup by teaching practical and administrative steps of a session. I also take care of the supplies of the EEG labs.
- **DCC lab committee.** As part lab committee of the Donders Center for Cognition I represent the Baby & Child Research Center in the meetings held to discuss laboratory management.

2015 – 2018

Intern at Affiliative Behavior and Physiology Lab. I had the opportunity to be involved in physiological (ECG, EMG, EDA) and behavioural studies in the context of social interactions.

2016 – 2017

Thesis Research during Erasmus+ Japan. Thesis research projects conducted during a five months internship to the Department of Neurobiology and Behavior of Nagasaki University, Japan. The influence of ethnicity in the recognition ability of emotional faces. Research project that aimed to investigate how the ability to recognize emotional faces with graded emotional intensities could be affected by the ethnicity of the stimulus. Study conducted analyzing 64 channel EEG, ECG and behavioural data.

Additional experiences:

- DNA extraction using QIAamp DNA Mini kit
- Analysis of different genotypes for Oxytocin (rs53576, rs2254298)
- Testosterone levels of DNA samples analysis

Teaching

2019 & 2020 **Teacher assistant Brain & Cognition 1.** The properties of the brain allow us to perceive, move, think, learn, speak, sleep and experience emotions. The goal of this course was to provide insight into the way which these behaviours and cognitive processes can be explained from the workings of the brain. Briefly stated, "How does our brain enable behaviour?". As assistant teacher I weekly supervised groups of students guiding them through the work-group material and administering tests.

2017 **Lesson organizer of "Developmental Clinical Neuroscience".** I participated in the organization of the course material under the supervision of Professor Gianluca Esposito. Goal of the class was to provide an introduction to the Social and Affective Neuroscience and increase students multidisciplinary knowledge of physiological mechanism underlying social interaction.

2016 **Lesson organizer of "Social and Affective Neuroscience (SAN)".** I participated in the organization of the course material under the supervision of Professor Gianluca Esposito. Goal of the class was to: provide an introduction to the Social and Affective Neuroscience, increase students multidisciplinary knowledge of physiological mechanism underlying social interaction and improve students' skills regarding human physiology research. Lecture given: *"Processing Infant Direct Speech"*

Education

2016 – 2018 **M.Sc. Pychology-Neuroscience, Trento University, Italy**
First Class Honours. Thesis title: *Ethnicity and gender modulate the recognition of emotional facial expressions*.

2013 – 2016 **B.Sc. Sciences and techniques of cognitive psychology, Trento University, Italy.**

Skills

Languages Italian native speaker. Strong reading, writing and speaking competencies for English (C1 Advanced user certified by Cambridge English) and basic reading, writing and speaking competencies for Dutch.

Coding

Media Softwares Photoshop, Premier, Illustrator.

Misc. Academic research, Teaching, Training, LaTeX typesetting.

Awards

2018 **Merit Award** 2017 edition Trento University.

2019 **Travel award** Sackler Colloquium "The Brain Produces Mind by Modeling"

Research Publications

Journal Articles

1. **Ghilardi**, **T.**, Meyer, M., Monroy, C. D., Gerson, S. A. & Hunnius, S. (Accpeted registered report in completion). Statistics in motion: Does the infant motor system predict actions based on their transitional probability? *Developmental Science*.

2. Bonassi, A., **Ghilardi**, **T.**, Truzzi, A., Cataldo, I., Azhari, A., Setoh, P., Shinohara, K. & Esposito, G. (2017). Dataset on genetic and physiological adults□ responses to social distress. *Data in brief*, *13*, 742–748.

Posters

1. **Ghilardi**, **T.**, de Almeida Ivo, I., Meyer, M., Horschig, M. J., Colier, W. & Hunnius, S. (2020). Building action expectations in infants: An fnirs study, Budapest CEU Conference on Cognitive Development (BCCCD).

2. **Ghilardi**, **T.**, Bonassi, A., Gabrieli, G., Doi, H., Shinohara, K. & Esposito, G. (2018). The influence of ethnicity in the recognition ability of emotional faces and voices, Cognitive Science Arena (CSA), Brixen, Italy.

3. Truzzi, A., **Ghilardi**, **T.**, Bonassi, A., Cataldo, I., Shinoara, K., Bornstein, M. H. & Esposito, G. (2017). Genetic factors and adults' expectations towards relationships interact in affecting physiological responses to social distress, Workshop on Cognition Evolution (CogEvo), Rovereto, Italy.