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*Last Update: March 16, 2024*

I am a **postdoctoral researcher** at the University of Padova, department of Developmental Psychology and Socialization (DPSS) and **licensed psychologist**. I am interested in meta-analysis, Monte Carlo simulations for power and design analysis and multiverse analysis.

## CURRENT POSITION

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**Post-doctoral researcher (2 year research grant - type B)**

*2024 - ongoing*

📍 Department of Developmental Psychology and Socialization, University of Padova, Italy

Project: Multiverse meta-analysis (M-PSI/03) Supervisor: Prof. Gianmarco Altoè

## ACADEMIC ROLES

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**Culture della Materia (Teaching Assistant) of Psychometrics (M-PSI/03)**

*2023 - ongoing*

📍 University of Padova

## RESEARCH

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**Post-doctoral researcher (1 year research grant - type B)**

*2023 - 2024*

📍 Department of Developmental Psychology and Socialization, University of Padova, Italy

Project: Multiverse meta-analysis (M-PSI/03) Supervisor: Prof. Gianmarco Altoè

## EDUCATION

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**PhD in Psychological Sciences**

*2019 - 2023*

📍 University of Padova, Italy Project: The relationship between visual working memory and consciousness.  
Supervisor: Professor Paola Sessa, Co-supervisor: Professor Massimiliano Pastore

**M.S. in Clinical Developmental Psychology - 110 cum laude**

*2018*

📍 University of Padova, Italy Thesis: Visual Working Memory representations of infant faces during pregnancy as an adaptive mechanism. An EEG study. Supervisor: Professor Paola Sessa

**B.S. in Psychology - 110 cum laude**

*2016*

📍 University of Padova, Italy Thesis: Psychosocial well-being of adolescents with oncoemathological disease.  
Supervisor: Professor Ughetta Moscardino

<b>Internship</b>	2016
<p>📍 Hospital of Padova - Pediatrics Oncology Educational activities with in-patients children and their families  Research about the psychosocial well-being of in-patients adolescents Discussing about clinical cases in regular supervisions</p>	
<b>Internship</b>	2018
<p>📍 Department of Developmental Psychology and Socialization - University of Padova Research project about social cognition during pregnancy with EEG data collection</p>	
<b>Internship</b>	2018 - 2019
<p>📍 Department of Developmental Psychology and Socialization - University of Padova Research project about visual consciousness and sensorimotor simulation Research project about social cognition during pregnancy  Supervision of internship students in EEG laboratory</p>	
<b>Visiting PhD student</b>	2021
<p>📍 University of Tel-Aviv, Israel Research project about the relationship between Working Memory and Consciousness Supervisor: Professor Roy Luria</p>	
<b>Licensed Psychologist (Esame di Stato)</b>	2020
<p>📍 University of Padova, Italy</p>	

## AWARDS

<b>Reproducibility Award - Italian Reproducibility Network (ITRN)</b>	2024
<p>The paper <i>"Understanding meta-analysis through data simulation with applications to power analysis"</i> won the 2023 Reproducibility Award from the Italian Reproducibility Network (ITRN) DOI <a href="https://doi.org/10.5281/zenodo.10277050">10.5281/zenodo.10277050</a></p>	
<b>Mission Award to Psicostat by the Society for the Improvement of Psychological Science (SIPS)</b>	2023
<p>As an active member of the Psicostat research group (<a href="https://improvingpsych.org/mission/awards/">https://improvingpsych.org/mission/awards/</a>)</p>	

## TRAINING

<b>Bayesian Regression Modeling with BRMS</b>	2020
<p>📍 Potsdam University  Summer School in Bayesian Statistics for Cognitive Psychology</p>	
<b>Bayesian Statistical Analyses for the Human, Social and Cognitive Sciences</b>	2019
<p>📍 University of Verona</p>	
<b>Meta-Analysis with Metafor</b>	2021
<p>📍 Maastricht University  Intensive course about meta-analysis with the <a href="#">metafor</a> package held by Professor Wolfgang Viechtbauer</p>	

## TEACHING

<b>Meta-analysis Workshop - Cognitive Science Arena (3 hrs.)</b>	2023
<p>📍 Free University of Bozen-Bolzano  I held a workshop introducing meta-analysis with Monte Carlo simulations</p>	
<b>Generalized Linear Models - PhD Course in Psychological Sciences (15 hrs.)</b>	2023 - ongoing
<p>📍 University of Padova  I held the Generalized Linear Models course (Part A and B) within the PhD program in Psychological Sciences, University of</p>	

### **Replicability Crisis in Science? (5 hrs.)**

2023

📍 University of Padova

I held a series of workshops about statistical methods to assess replicability during the summer school [Replicability Crisis in Science?](#) organized at the Department of Statistics (University of Padova)

### **Statistical Methods and Data Analysis in Developmental Psychology (21 hrs., 3 CFU)**

2023

📍 University of Padova

Lecturer (*Docente a contratto*) for the Master's degree in Developmental and Educational Psychology, University of Padova  
[\[Materials\]](#)

### **Introduction to R (20 hrs.)**

2023

📍 University of Padova

I held an intensive course about programming in R as part of the [ARCA](#) courses, Department of Developmental Psychology and Socialization, University of Padova [\[Materials\]](#)

### **Data Analysis in Developmental Psychology [*didattica integrativa*] (15 hrs.)**

2023

📍 University of Padova

Lectures about R programming and data analysis (*Didattica Integrativa*) of the course "Data Analysis in Developmental Psychology" (Prof. Massimiliano Pastore), Master's degree in Psychology of Community, Wellness Promotion, and Social Change, University of Padova

### **Introduction to R (20 hrs.)**

2022

📍 University of Padova

I held an intensive course about programming in R as part of the [ARCA](#) courses, Department of Developmental Psychology and Socialization, University of Padova [\[Materials\]](#)

### **Data Analysis in Developmental Psychology [*didattica integrativa*] (20 hrs.)**

2022

📍 University of Padova

Lectures about R programming and data analysis (*Didattica Integrativa*) of the course "Data Analysis in Developmental Psychology" (Prof. Massimiliano Pastore), Master's degree in Psychology of Community, Wellness Promotion, and Social Change, University of Padova

### **Psychological Testing [*didattica integrativa*] (14 hrs.)**

2022

📍 University of Padova

Lectures about R programming and data analysis (*Didattica Integrativa*) of the course "Psychological Testing" (Prof. Gianmarco Altoè), Bachelor's degree in Developmental, Personality and Interpersonal Relationships Psychology, University of Padova

### **Introduction to R (20 hrs.)**

2021

📍 University of Padova

I held an intensive course about programming in R as part of the [ARCA](#) courses, Department of Developmental Psychology and Socialization, University of Padova [\[Materials\]](#)

### **Introduction to Visual Consciousness (2 hrs.)**

2021

📍 University of Padova

Lecture during the course "General Psychology" (Prof. Roberto Dell'Acqua), Bachelor's degree in Developmental, Personality and Interpersonal Relationships Psychology, University of Padova [\[Materials\]](#)

### **Visual Working Memory in Social Cognition (2 hrs.)**

2021

📍 University of Padova

Lecture during the course "General Psychology" (Prof. Paola Sessa), Bachelor's degree in Techniques and Methods in Psychological Science, University of Padova [\[Materials\]](#)

## Neural Correlates of Consciousness (2 hrs.)

2020 - ongoing

📍 University of Padova

I regularly held a two hours lecture during the course "Mechanism of Consciousness" (Prof. Roberto Dell'Acqua), Master's degree in Applied Cognitive Psychology, University of Padova [[Materials](#)]

## EEG laboratory training

2017 - 2019.0

📍 University of Padova

Supervision and coordinations of students during the training in the EEG laboratory

## Introduction to R (20 hrs.)

2024

📍 University of Padova

I held an intensive course about programming in R as part of the [ARCA](#) courses, Department of Developmental Psychology and Socialization, University of Padova [[Materials](#)]

# DISSERTATIONS

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I have co-supervised 5 Master's degree dissertations and 2 Bachelor's degree dissertations.

# PUBLICATIONS

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Del Popolo Cristaldi, F., G. Buodo, F. **Gambarota**, S. Oosterwijk, and G. Mento (2024). "How previous experience shapes future affective subjective ratings: A follow-up study investigating implicit learning and cue ambiguity". En. In: *PloS one* 19 (2), p. e0297954.

Di Rosa, E., F. Masina, A. Pastorino, E. Galletti, F. **Gambarota**, G. Altoè, N. Edelstyn, and D. Mapelli (2024). "Mood moderates the effects of prefrontal tDCS on executive functions: A meta-analysis testing the affective state-dependency hypothesis". En. In: *Journal of affective disorders* 351, pp. 920-930. ISSN: 0165-0327,1573-2517. DOI: 10.1016/j.jad.2024.02.009. <http://dx.doi.org/10.1016/j.jad.2024.02.009>.

**Gambarota**, F. and G. Altoè (2024). "Understanding meta-analysis through data simulation with applications to power analysis". En. In: *Advances in methods and practices in psychological science* 7 (1). ISSN: 2515-2459,2515-2467. DOI: 10.1177/25152459231209330. <http://dx.doi.org/10.1177/25152459231209330>.

Maffei, A., F. **Gambarota**, M. Liotti, R. Dell'Acqua, N. Tsuchiya, and P. Sessa (2024). "Conscious perception of fear in faces: Insights from high-density EEG and Perceptual Awareness Scale with threshold stimuli". In: *Cortex*. ISSN: 0010-9452,1973-8102. DOI: 10.1016/j.cortex.2024.02.010. <http://dx.doi.org/10.1016/j.cortex.2024.02.010>.

Del Popolo Cristaldi, F., F. **Gambarota**, and S. Oosterwijk (2023). "Does your past define you? The role of previous visual experience in subjective reactions to new affective pictures and sounds". En. In: *Emotion (Washington, D.C.)* 23 (5), pp. 1317-1333. ISSN: 1528-3542,1931-1516. DOI: 10.1037/emo0001168. <http://dx.doi.org/10.1037/emo0001168>.

Montuori, C., F. **Gambarota**, G. Altoé, and B. Arfé (2023). "The cognitive effects of computational thinking: A systematic review and meta-analytic study". En. In: *Computers & education* 210 (104961), p. 104961. ISSN: 0360-1315,1873-782X. DOI: 10.1016/j.compedu.2023.104961. <http://dx.doi.org/10.1016/j.compedu.2023.104961> (visited on Dec. 03, 2023).

Pezzetta, R., F. **Gambarota**, V. Tarantino, M. Devita, Z. Cattaneo, G. Arcara, D. Mapelli, and F. Masina (2023). "A meta-analysis of non-invasive brain stimulation (NIBS) effects on cerebellar-associated cognitive processes".

En. In: *Neuroscience and biobehavioral reviews* 157 (105509), p. 105509. ISSN: 0149-7634,1873-7528. DOI: 10.1016/j.neubiorev.2023.105509. <http://dx.doi.org/10.1016/j.neubiorev.2023.105509>.

Quettier, T., A. Maffei, F. **Gambarota**, P. F. Ferrari, and P. Sessa (2023). "Testing EEG functional connectivity between sensorimotor and face processing visual regions in individuals with congenital facial palsy". En. In: *Frontiers in systems neuroscience* 17, p. 1123221. ISSN: 1662-5137. DOI: 10.3389/fnsys.2023.1123221. <http://dx.doi.org/10.3389/fnsys.2023.1123221>.

**Gambarota**, F., N. Tsuchiya, M. Pastore, N. Di Polito, and P. Sessa (2022). "Unconscious Visual Working Memory: A critical review and Bayesian meta-analysis". En. In: *Neuroscience and biobehavioral reviews* 136 (104618), p. 104618. ISSN: 0149-7634,1873-7528. DOI: 10.1016/j.neubiorev.2022.104618. <http://dx.doi.org/10.1016/j.neubiorev.2022.104618>.

Verroca, A., C. M. de Rienzo, F. **Gambarota**, and P. Sessa (2022). "Mapping the perception-space of facial expressions in the era of face masks". En. In: *Frontiers in psychology* 13, p. 956832. ISSN: 1664-1078. DOI: 10.3389/fpsyg.2022.956832. <https://www.frontiersin.org/articles/10.3389/fpsyg.2022.956832>.

Quettier, T., F. **Gambarota**, N. Tsuchiya, and P. Sessa (2021). "Blocking facial mimicry during binocular rivalry modulates visual awareness of faces with a neutral expression". En. In: *Scientific reports* 11 (1), p. 9972. ISSN: 2045-2322. DOI: 10.1038/s41598-021-89355-5. <http://dx.doi.org/10.1038/s41598-021-89355-5>.

**Gambarota**, F. and P. Sessa (2019). "Visual working memory for faces and facial expressions as a useful"tool" for understanding social and affective cognition". En. In: *Frontiers in psychology* 10 (OCT), p. 2392. ISSN: 1664-1078. DOI: 10.3389/fpsyg.2019.02392. <http://dx.doi.org/10.3389/fpsyg.2019.02392>.

## ACCEPTED

Grassi, Altoè, Brattico, [...] **Gambarota**, [...] Zentner - Do musicians have better short-term memory than nonmusicians? A multi-lab study - *Advances in Methods and Practices in Psychological Science* [Registered Replication Report - Provisional Acceptance]

## UNDER REVIEW

**Gambarota** & Altoè - Ordinal regression models made easy. A tutorial on parameter interpretation, data simulation, and power analysis [[Preprint](#)]

## CONFERENCES

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### INVITED TALKS

**Gambarota** [presenter] & Altoè 2024  
Understanding meta-analysis through data simulation with applications to power analysis [*Invited*] - [Material](#)  
📍 Cognitive Science Arena (CSA) - Bressanone, Italy

### TALKS

**Gambarota** [presenter], Tsuchiya, Pastore, Di Polito and Sessa 2021  
Meta-analysis in Consciousness Research [*Talk*]  
📍 Conscious Brain Concepts Workshop - University of Oslo - Virtual

**Gambarota** [presenter], Zandonella Callegher, Linkersdörfer, Ling and Kothe 2021  
trackdown - Collaborative writing through literate programming in R [*Talk*] - [Slides](#)

- Gambarota [presenter], Luria and Sessa** 2022  
**Conscious and unconscious information processing in visual working memory [Talk] - [Slides](#)**  
📍 Italian Psychological Association (AIP) - Padova, Italy
- del Popolo Cristaldi, Gambarota and Oosterwijk** 2022  
**The role of past visual experience in subjective reactions to new affective pictures and sounds [Talk]**  
📍 Annual Conference of the Society for Affective Science (SAS) - Virtual
- del Popolo Cristaldi, Gambarota and Oosterwijk** 2022  
**The role of past experience in subjective ratings to affective predictions: cross-modality effects [Talk]**  
📍 Cognitive Science Arena (CSA) - Bressanone, Italy
- del Popolo Cristaldi, Gambarota and Oosterwijk** 2021  
**The role of previous probabilistic learning on the subjective affective experience [Talk]**  
📍 Italian Psychological Association (AIP) - Lecce, Italy
- Gambarota [presenter]** 2024  
**Cosa accade al di fuori della consapevolezza visiva? [Italian] [Talk] - [Slides](#)**  
📍 Brain Awareness Week - Padova, Italy

## POSTERS

- Quettier, Gambarota and Sessa** 2019  
**Look at others' smile: Sensorimotor modulation of visual awareness [Poster]**  
📍 Italian Society of Psychophysiology and Cognitive Neuroscience (SIPF) - Ferrara, Italy
- Gambarota [presenter], Pastore, Luria, Ferrari and Sessa** 2020  
**Visual Working Memory Precision for Emotional Faces in Moebius Patients [Poster]**  
📍 Cognitive Science Arena - Bressanone, Italy
- Gambarota [presenter], Zandonella Callegher, Linkersdörfer, Ling and Kothe** 2021  
**trackdown - An R package for collaborative writing and editing [Poster] - [Video](#), [Slides](#)**  
📍 Society for the Improvement of Psychological Science (SIPS) - Virtual
- Gambarota [presenter], Zandonella Callegher, Linkersdörfer, Ling and Kothe** 2021  
**trackdown - A simple framework for collaboration in a literate programming workflow [Poster] - [Video](#), [Slides](#)**  
📍 useR - Virtual
- del Popolo Cristaldi, Gambarota and Oosterwijk** 2022  
**Cross-modality effects in affective prediction construction: the role of past visual experience in subjective reactions to new affective pictures and sounds [Poster]**  
📍 Annual Conference of the European Society for Cognitive and Affective Neuroscience (ESCAN) - Virtual
- Pezzetta, Gambarota, Tarantino, Devita, Cattaneo, Arcara, Mapelli and Masina** 2022  
**Probing cerebellar involvement in cognition through neuromodulation: A meta-analysis on the effectiveness of non-invasive cerebellar stimulation [Poster]**  
📍 Transcranial Brain Stimulation in Cognitive Neuroscience Workshop - Rovereto, Italy
- Gambarota [presenter], Vesely, Finos, Altoè** 2023



## PEER REVIEWS

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See my Publons profile <https://www.webofscience.com/wos/author/record/G-9799-2015>

Ad-hoc reviewer for:

- International Journal of Psychology
- PLoS ONE
- Consciousness and Cognition

## PROFESSIONAL MEMBERSHIPS

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Italian Reproducibility Network (ITRN) from: 2023

The Society for the Improvement of Psychological Science (SIPS) from: 2023

Associazione Italiana di Psicologia, Sezione Sperimentale (AIP) from: 2022

## ORGANIZATION

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MRInference Winter School 2021

📍 University of Padova

I was part of the organizing committee of the "MRInference: from data to knowledge" winter school organized by the University of Padova

Italian Association of Psychology (AIP) 2022

📍 University of Padova

I was part of the organizing committee of the **XXX edition** of the Italian Association of Psychology (AIP) conference and editor of the Book of Abstract <https://www.padovauniversitypress.it/it/publications/9788869383168>

## THIRD MISSION (TERZA MISSIONE)

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Sito web <https://psicostat.dpss.psy.unipd.it/> del gruppo di ricerca multidisciplinare "Psicostat". 2023 - ongoing

📍 Online

Il sito raccoglie e condivide in modo open le attività del gruppo a favore degli utenti interessati [Iris ID: PEN-3397]

Sostenibilità umana: superare la società della performance e immaginare nuovi modelli - by TLON 2023

📍 Padova

Sensibilizzazione di tutto il personale del DPSS relativamente alle tematiche sulla società performante. Si è trattato di un workshop interattivo all'interno del retreat del dipartimento. La parte teorica è stata aperta alla cittadinanza attraverso la diretta fb, mentre la parte pratica è stata rivolta solo al personale dpss [Iris ID: PEN-2435]

## RESEARCH GROUPS

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Psicostat - [psicostat.dpss.psy.unipd.it](https://psicostat.dpss.psy.unipd.it) 2019 - ongoing

We are an interdisciplinary research group working in areas related to quantitative psychology, psychometrics, psychological testing and statistics.

Colab [colab.psy.unipd.it](https://colab.psy.unipd.it)

2019 - ongoing

The CoLab, established at the Department of Developmental Psychology of the University of Padova in the 2000, hosts a variety of research projects, which focus primarily on exploring the functional and neural mechanisms subserving attention and language abilities in human adults.

## RESEARCH SKILLS

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### OS

- Linux, Windows, MacOS

### PROGRAMMING LANGUAGES

- R (advanced)
- MATLAB (good)
- Python (good)
- Javascript (basic)

### WRITING

- LaTeX
- HTML, CSS
- Pandoc
- (R)Markdown
- Quarto

### EXPERIMENTS

- Psychopy (advanced)
- Eprime
- Presentation
- Psychtoolbox

### EEG/ERP

- EEGLab
- ERPLab
- Brainstorm
- Brainvision Analyzer

*Filippo Gambarota*