

UNIVERSITÀ DEGLI STUDI DI MILANO

selezione pubblica per n. 1 posto di Ricercatore a tempo determinato ai sensi dell'art.24, comma 3, lettera a) della Legge 240/2010 per il settore concorsuale 11/E1 - PSICOLOGIA GENERALE, PSICOBIOLOGIA E PSICOMETRIA, settore scientifico-disciplinare M-PSI/02 - PSICOBIOLOGIA E PSICOLOGIA FISIOLÓGICA presso il Dipartimento di Filosofia Piero Martinetti, (avviso bando pubblicato sulla G.U. n. 17 del 02/03/2021) Codice concorso 4526

## **[Valentina Bianco]** **CURRICULUM VITAE**

### **INFORMAZIONI PERSONALI (NON INSERIRE INDIRIZZO PRIVATO E TELEFONO FISSO O CELLULARE)**

COGNOME	BIANCO
NOME	VALENTINA
DATA DI NASCITA	[ 20, 05, 1986 ]

### **Professional Experience**

02/01/2020-31/12/2020: Post-Doctoral Fellowship “Predictive brains in social contexts” Advisors: Prof. Andrea Marini, Prof Cosimo Urgesi

02/01/2019-31/12/2019 Research Scholar @ Cognitive Processes Electrophysiology Lab @ IRCCS Fondazione Santa Lucia (Rome, Italy) Advisors: Prof. Francesco Di Russo, Prof. Donatella Spinelli

02/01/2018-31/12/2018 Research Scholar @ Social Neuroscience Department @ IRCCS

Fondazione Santa Lucia (Rome, Italy) Advisors: Prof. Francesco Di Russo, Prof. Donatella Spinelli

01/11/2016-30/10/2017: Visiting Graduate Researcher at Department of Psychiatry and Biobehavioural Science University of California, Los Angeles, USA Advisor: Prof. Marco Iacoboni

### **Education**

15/05/2018 Ph.D. Thesis Defense “The Proactive Control: Brain Correlates of Cognitive and Motor Anticipation of Actions”

06/11/2014-15/05/2018 Ph.D. Human Movement and Sport Science, University of Rome “Foro Italico”

01/11/2016-30/10/2017: Visiting Graduate Researcher at Department of Psychiatry and Biobehavioural Science University of California, Los Angeles, USA

01/10/2017-31/10/2018: Master Marketing and Communication Sciences (Romebusinessschool, Rome, Italy)

2005-2010: MSc in Pharmacy. University of Chieti and Pescara “G. d’Annunzio” (score: Magna cum laude)

### **Advanced training:**

11/21-23 2018 Brain Stimulation and Brain Plasticity: from Basic Research to Clinical Practice (Università Bicocca, Milan, Italy)

Spring 2017 Psych 186D Neuroinformatics Studio: fMRI Lab (UCLA, Los Angeles, USA)

Summer 2017 Stats 20-1 Introduction to Statistical Programming with R (UCLA, Los Angeles, USA)

06/13-17 2016 Summer School “Integration of Methods and Techniques for Research, Clinical Practice and Rehabilitation in Psychophysiology and Neuroscience” (Università Cattolica Sacro

Cuore, Milan, Italy)

### **Scientific consultant/collaborator experience:**

2020 Clinical evaluator for validation of a transcranial direct stimulation device (Isemed, International Services for Medical Devices, Imola)

2020 “Analysis and interpretation of electroencephalographic data obtained from participants wearing multifocal lenses” (Progetto ID 2019-CONT-0306/PER- Brain Adaptation to Multifocal lenses, BAM study, Resp. Dott. Fabrizio Zeri, Università degli studi Milano Bicocca)

### **Editorial, reviewing Experience**

2015-now: Ad-hoc reviewer: *Plos One*, *European Journal of Neuroscience*, *Brain Research*, *Scientific Reports*, *Neuropsychologia*, *Clinical Neurophysiology*

### **Current collaborations**

Prof. Giacomo Koch (IRCCS Fondazione Santa Lucia, Rome): inhibitory control in eating disorders

Prof. Francesco Di Russo (University of Rome “Foro Italico”): cognitive and motor inhibitory control

Prof. Marco Iacoboni (UCLA, Los Angeles): action observation and imitation

Dott. Silvia Picazio (IRCCS Fondazione Santa Lucia, Rome): food related motor behavior

Prof. Filippo Zappasodi (University of Chieti G. D’Annunzio): motor anticipation in sports contexts

Prof. Donatella Spinelli (University of Rome “Foro Italico”): visual processing by means of EEG

Prof. Giuseppe Vannozzi (University of Rome “Foro Italico”): gait and posture kinematics

### **Language Skills**

English: Fluent CAE (Certificate in Advanced English) (C1 level)

### **Technical Skills**

Operative System: Windows, Mac

Experienced Techniques: EEG, EMG, TMS, tDCS, fMRI, DTI

Scientific Application: BrainVision Analyzer 2 (EEG), Brainsight Neuro-navigation (TMS), FSL (fMRI), Brainsuite (DTI), Signal, e-Prime, Presentation

Programming: R project

Statistical Analysis: Statistica, R

Graphics & Audio/Video editing: Adobe Photoshop, CorelDraw

### **Awards and Grants**

2021: Post-Doctoral Fellowship “Social Perception and Error Monitoring”

2020: **Research Collaborator for: GR-2019-12369640** “Cerebellar non-invasive stimulation on food related inhibitory control: a novel intervention in anorexia nervosa” funded by Italian Ministry of Health (450.000€)

2019: Post-Doctoral Fellowship “Predictive brains in social contexts”

2018: Research Scholarship “Effect of cognitive reserve on proactive and reactive cognitive processes in the elderly”

2018: **Prize for Best Ph. D Thesis in Experimental Psychology** received from Association of Italian Psychology (AIP) Experimental Section (Thesis: The Proactive Control: Brain Correlates of Cognitive and Motor Anticipation of Actions)

2017: Research Scholarship “Sport and motor/cognitive rehabilitation. Neural basis of brain plasticity of motor and cognitive processes induced by sports activity and its use in rehabilitation contexts”

### **In the News**

2017: about Bianco et al., 2017c “Exercise-Related Cognitive Effects on Sensory-Motor Control in Athletes and Drummers Compared to Non-athletes and Other Musicians”. *Neuroscience*, 360: 39-47

<https://www.freedrummingstudio.it/i-benefici-cognitivi-dellesere-batteristi/>

2018: about Ph.D. Thesis “Proactive Control: Brain Correlates of Cognitive and Motor Anticipation of Actions”

<https://www.aipass.org/vincitori%20del%20premio%20AIP%20sperimentale%20per%20la%20migliore%20tesi%20di%20dottorato%202018>

2019: about Bianco et al., 2019a “Modality-specific sensory readiness for upcoming events revealed by slow cortical potentials”. *Brain Structure and Function*, 1-11.

<https://www.pisavisionlab.org/wp-content/uploads/2020/06/Locandina-seminario-RomeiBianco.pdf>

### **Teaching Experience/Mentoring activities**

16-19/06/21: Erasmus + Teaching Assignment: Overview of the EEG, ERP and TMS technique in basic and clinical research, Universidad de Sevilla. Invitation by: Prof. Manuel Vazquez Marrufo

2020/2021: Adjunct Professor: M-PSI/02 Notions of Psychobiology and Psychological Physiology Applied to Motor Sciences. (40 h, 5 CFU) @ Sport Science Faculty, University of Udine

2018/2019: Lecturer for Didactic Seminar Activity: “Positive Effects of Sport and Music Activities on Brain Cognitive Processes” @ Sport Science Faculty, University of Foro Italico in Rome

Informal mentor for University Students and Ph.D Students at University of Foro Italico in Rome, University of California Los Angeles and University of Udine

### **Membership**

01/01/2018-now Italian Society of Psychophysiology (SIPF)

01/01/2020-now European Society For Cognitive Psychology (ESCOP)

01/01/2020-now Association of Italian Psychology – Experimental Section (AIP)

### **Invited Talks**

- Musical expertise and inhibitory control: evidence of modality-specific and modality-independent anticipatory slow-waves markers of neuroplasticity, Virtual Federation of the European Neuroscience Societies (FENS) Regional Meeting 2021, August 24-27 2021
- Musical expertise and the transfer effect for tasks challenging inhibitory control: ERP evidence of the importance of sensory modalities, Congresso Società Italiana di PsicoFisiologia e Neuroscienze Cognitive (SIPF), November 20-28, 2020, Italy
- Behavioral and neurophysiological measures of action anticipation in healthy populations and in athletes July 20, Science and Research Centre Koper, Institute for Kinesiology Research, Koper, Slovenia
- Effects of motor experience on anticipatory brain functions Mens sana in corpore sano: psychobiological effects of physical activity April 24-28, 2020 Erice, Sicily, Italy (postponed to 2021 due to COVID-19)
- Modality-specific sensory readiness for upcoming events revealed by slow cortical potentials. Consiglio Nazionale delle ricerche (CNR) January 24, 2020, Pisa, Italy
- Tell me how you prepare and I will tell you how you process. The event-related potentials (ERPs) as a tool to understand the way the brain anticipates future events. Congresso Società Italiana di PsicoFisiologia e Neuroscienze Cognitive (SIPF), November 14-16, 2019, Ferrara, Italy

### **List of Publications**

*Peer-reviewed journals: Published*

1. Perrotta, D., **Bianco, V.**, Berchicci, M., Quinzi, F., Perri, R.L. (2021) Anodal tDCS over the dorsolateral prefrontal cortex reduces Stroop errors. A comparison of different tasks and designs. *Behavioural Brain Research*, 405, 113215. [I.F. 3.0]
2. Di Russo, F., Berchicci, M., **Bianco, V.**, Mussini, E., Perri, R.L., Pitzalis, S., Quinzi, F., Tranquilli, S. & Spinelli, D. (2020) Sustained visuospatial attention enhances lateralized anticipatory ERP activity in sensory areas *Brain Structure and Function* [I.F. 3.6]
3. Di Russo, F., Berchicci, M., **Bianco V.**, Perri, R.L., Pitzalis, S., & Mussini, E. (2020). Modulation of anticipatory visuospatial attention in sustained and transient tasks. *Cortex*. [I.F. 4.0]
4. Mussini, E., Berchicci, M., **Bianco, V.**, Perri, R. L., Quinzi, F., & Di Russo, F. (2021). Effect of task complexity on motor and cognitive preparatory brain activities. *International Journal of Psychophysiology*. 2021, 159, 11–16. [I.F. 2.6]
5. Perri, R. L., **Bianco, V.**, Facco, E., & Di Russo, F. (2020). Now you see one letter, now you see meaningless symbols: Perceptual and semantic hypnotic suggestions reduce Stroop errors through different neurocognitive mechanisms. *Frontiers in Neuroscience*, 14, 1361.
6. Mussini, E., Berchicci, M., **Bianco, V.**, Perri, R. L., Quinzi, F., & Di Russo, F. (2020). The Role of Task Complexity on Frontal Event-related Potentials and Evidence in Favour of the Epiphenomenal Interpretation of the Go/No-Go N2 Effect. *Neuroscience*, 449, 1-8. [I.F. 3.2]
7. **Bianco, V.**, Berchicci, M., Livio Perri, R., Quinzi, F., Mussini, E., Spinelli, D., & Di Russo, F. (2020). Preparatory ERPs in visual, auditory, and somatosensory discriminative motor tasks. *Psychophysiology*, e13687. [I.F. 3.7]
8. Berchicci, M., **Bianco, V.**, & Di Russo, F. (2020). Electrophysiological sign of stronger auditory processing in females than males during passive listening. *Cognitive Neuroscience*, 1-6. [I.F. 3.0]
9. Perri, R. L., Facco, E., Quinzi, F., Bianco, V., Berchicci, M., Rossani, F., & Di Russo, F. (2020). Cerebral mechanisms of hypnotic hypoesthesia. An ERP investigation on the expectancy stage of perception. *Psychophysiology*, e13657. [I.F. 3.7]
10. **Bianco, V.**, Finisguerra, A., Betti, S., D'Argenio, G., & Urgesi, C. (2020). Autistic Traits Differently Account for Context-Based Predictions of Physical and Social Events. *Brain Sciences*, 10(7), 418. [I.F. 3.3]
11. Quinzi, F., Berchicci, M., **Bianco, V.**, Di Filippo, G., Perri, R. L., & Di Russo, F. (2020). The role of cognitive reserve on prefrontal and premotor cortical activity in visuo-motor response tasks in healthy old adults. *Neurobiology of Aging*. [I.F. 4.4]
12. de Tommaso, M., Betti, V., Bocci, T., Bolognini, N., Di Russo, F., Fattapposta, F., **Bianco, V.**, ... & Piccione, F. (2020). Pearls and pitfalls in brain functional analysis by event-related potentials: a narrative review by the Italian Psychophysiology and Cognitive Neuroscience Society on methodological limits and clinical reliability—part I. *Neurological Sciences*, 1-25. [I.F. 2.4]
13. Berchicci, M., Russo, Y., **Bianco, V.**, Quinzi, F., Rum, L., Macaluso, A., ... & Di Russo, F. (2020). Stepping forward, stepping backward: a movement-related cortical potential study unveils distinctive brain activities. *Behavioural Brain Research*, 112663. [I.F. 3.0]
14. Chacko, S. C., Quinzi, F., De Fano, A., **Bianco, V.**, Mussini, E., Berchicci, M., ... & Di Russo, F. (2020). A single bout of vigorous-intensity aerobic exercise affects reactive, but not proactive cognitive brain functions. *International Journal of Psychophysiology*, 147, 233-243. [I.F. 2.8]
15. **Bianco, V.**, Berchicci, M., Quinzi, F., Perri, R. L., Spinelli, D., & Di Russo, F. (2019b). Females are more proactive, males are more reactive: neural basis of the gender-related speed/accuracy trade-off in visuo-motor tasks. *Brain structure and function*, 225(1), 187-201. [I.F. 3.6]
16. **Bianco, V.**, Perri, R. L., Berchicci, M., Quinzi, F., Spinelli, D., & Di Russo, F. (2019a). Modality-specific sensory readiness for upcoming events revealed by slow cortical potentials. *Brain Structure and Function*, 225(1), 149-159. [I.F. 3.6]
17. Di Russo, F., Berchicci, M., **Bianco, V.**, Perri, R. L., Pitzalis, S., Quinzi, F., & Spinelli, D. (2019). Normative event-related potentials from sensory and cognitive tasks reveal occipital and frontal activities prior and following visual events. *Neuroimage*, 196, 173-187. [I.F. 5.9]
18. Perri, R. L., Berchicci, M., **Bianco, V.**, Quinzi, F., Spinelli, D., & Di Russo, F. (2019). Perceptual load in decision making: The role of anterior insula and visual areas. An ERP study. *Neuropsychologia*, 129, 65-71 [I.F. 2.9]
19. Quinzi, F., Berchicci, M., Perri, R. L., **Bianco, V.**, Labanca, L., Macaluso, A., & Di Russo, F. (2019). Contribution of cognitive functions to postural control in anticipating self-paced and externally-triggered lower-limb perturbations. *Behavioural brain research*, 366, 56-66. [I.F. 3.0]

20. Quinzi, F., Berchicci, M., **Bianco, V.**, Perri, R. L., & Di Russo, F. (2019). The independency of the Bereitschaftspotential from previous stimulus-locked P3 in visuomotor response tasks. *Psychophysiology*, 56(3), e13296. [I.F. 3.7]
21. Quinzi, F., Perri, R. L., Berchicci, M., **Bianco, V.**, Pitzalis, S., Zeri, F., & Di Russo, F. (2018). Weak proactive cognitive/motor brain control accounts for poor children's behavioral performance in speeded discrimination tasks. *Biological Psychology*, 138, 211-222. [I.F. 2.8]
22. Perri, R. L., Berchicci, M., **Bianco, V.**, Quinzi, F., Spinelli, D., & Di Russo, F. (2018). Awareness of perception and sensory-motor integration: ERPs from the anterior insula. *Brain Structure and Function*, 223(8), 3577-3592. [I.F. 3.6]
23. Perri, R. L., Berchicci, M., **Bianco, V.**, Spinelli, D., & Di Russo, F. (2018). Brain waves from an "isolated" cortex: contribution of the anterior insula to cognitive functions. *Brain Structure and Function*, 223(3), 1343-1355. [I.F. 3.6]
24. **Bianco V.**, Berchicci M, Perri RL, Quinzi F, & Di Russo F. (2017c). Exercise-Related Cognitive Effects on Sensory-Motor Control in Athletes and Drummers Compared to Non-athletes and Other Musicians. *Neuroscience*, 360: 39-47. [I.F. 3.2]
25. **Bianco V.**, Berchicci M, Perri RL, Spinelli D, & Di Russo F. (2017b). The proactive self-Control of actions: Time-Course of underlying brain activities. *NeuroImage*, 156: 388-393. [I.F. 5.9]
26. **Bianco V.**, Di Russo F, Perri RL, Berchicci M (2017a). Different Proactive and Reactive Action Control in Fencers' and Boxers' Brain. *Neuroscience*, 20: 260-268. [I.F. 3.2]

### *Proceeding Abstracts*

1. Pisoni A., Bianco V., Arrigoni E., Di Russo F., & Romero Lauro L.J. Functional features of the Bereitschaftspotential Potential: a TMS-EEG study on cortical excitability and connectivity of the SMA in Go/No-go tasks. 22-25 Sep 2020, Brainbox Initiative Conference. Virtual conference.
2. Bianco, V., Finisguerra, A., Betti, S., D'argenio, G., & Urgesi, C. (2020). Autistic Traits Differently Account for Context-Based Predictions of Physical and Social Events. 02-04 Sep 2020, AIP Experimental Psychology Section. Virtual conference
3. Pisoni, A., Bianco, V., Arrigoni, E., Di Russo, F., & Lauro, L. R. (2020). P169 Functional features of the Bereitschaftspotential Potential: A TMS-EEG study on cortical excitability and connectivity of the SMA in Go/No-go tasks. *Clinical Neurophysiology*, 131(4), e108-e109.
4. Picazio S, Bianco V., Di Russo F., Koch G. Inhibitory control in food-related motor task. Fifth NeuroMI International Meeting. Food for brain: promoting health and preventing diseases. 20-22 Nov 2019, Milano, Italy
5. Bianco V., Perri R.L., Berchicci M., Quinzi F., Spinelli D., Mussini E., Di Russo F. Anticipatory ERPs during visual, auditory and somatosensory tasks: modality-specific or supra-modal? Congresso Società Italiana di PsicoFisiologia e Neuroscienze Cognitive (SIPF), 14-16 Nov 2019, Ferrara, Italy
6. Perri R.L., Bianco V., Quinzi F., Berchicci M., Mussini E., Di Russo F. Hypnosis as a hypofrontality state: electrophysiological signs of reduced top-down control in a group of medium hypnotizable subjects. Congresso Società Italiana di PsicoFisiologia e Neuroscienze Cognitive (SIPF), 14-16 Nov 2019, Ferrara, Italy
7. Mussini E., Berchicci M., Bianco V., Perri R.L., Quinzi F., Spinelli D., Di Russo F. Does anxiety affect the motor and cognitive preparation? Evidence from a decision-making task. Congresso Società Italiana di PsicoFisiologia e Neuroscienze Cognitive (SIPF), 14-16 Nov 2019, Ferrara, Italy
8. Mussini E., Berchicci M., Bianco V., Perri R.L., Quinzi F., Di Russo F. Is cognitive preparation modulated by anxiety level? XXV Congress AIP Experimental Section Sep 18-20,2019, Milan, Italy
9. Berchicci M, Bianco V, Quinzi F, Girardi M, Nicolò A, Sacchetti M, Di Russo F. Cortical dynamics and attentional processing during an incremental cycling exercise to exhaustion Progress in Motor Control XII: Movement Improvement July 7-10, 2019 Amsterdam, the Netherlands.
10. Bianco V., Berchicci M., Perri R.L., Quinzi F., Spinelli D., Di Russo F. Different proactive brain processing explains the gender-difference in speed-accuracy trade-off. Organisation of Human Brain Mapping (OHBM) 9-13 Jun, Rome, Italy
11. Bianco V., Perri R.L., Berchicci M., Quinzi F., Spinelli D., Di Russo F. Modality-specific sensory anticipation of upcoming events (2018) Congresso Società Italiana di PsicoFisiologia e Neuroscienze Cognitive (SIPF), 15-17 Nov, Torino, Italy
12. Mussini E., Bianco V., Berchicci M., Perri R.L., Quinzi F., Spinelli D., Di Russo F. The effect of

- complexity on pre- and post- stimulus phases in discriminative response task (2018) Congresso Società Italiana di PsicoFisiologia e Neuroscienze Cognitive (SIPF), 15-17 Nov, Torino, Italy
13. Quinzi F., Berchicci M., Perri R.L., Bianco V., Mariani P., Macaluso A, Di Russo F. Higher order cognitive area contribute to postural control in anticipating predictable and unpredictable lower limb perturbation. (2018) Congresso Società Italiana di PsicoFisiologia e Neuroscienze Cognitive (SIPF), 15-17 Nov, Torino, Italy
  14. Mussini E., Bianco V., Berchicci M., Perri R.L., Quinzi F., Spinelli D., & Di Russo F. Effect of task complexity on motor and cognitive preparation. (2018) SEPEX-SEPNECA-AIP experimental, 3-6 July, Madrid
  15. Berchicci M, Quinzi F Bianco V Perri R.L. Vannozzi G. Di Russo F. (2017) Getting ready to walk: Combining Neuromotor Control and Peripersonale/Extrapersonal Space Nov 16-18 XXV Congress of the Italian Association of Psychophysiology and Cognitive Neuroscience
  16. Perri RL. Berchicci M. Bianco V. Spinelli D. Di Russo F. (2017) Signals from an hidden island: Novel ERP components from the anterior Insula and their involvement in visual recognition and in action-related evidence accumulation Nov 16-18 XXV Congress of the Italian Association of Psychophysiology and Cognitive Neuroscience
  - Quinzi F. Perri R.L. Berchicci M. Bianco V. Spinelli D. Pitzalis S. Zeri F. Di Russo F. Different motor control strategy between children practicing Tennis and Tae Kwon Do (2016) Oct 2016 SISMES
  17. Perri RL. Berchicci M. Bianco V. Spinelli D. Di Russo F (2016) Early prefrontal ERPs reflect the anterior insular processing associated with sensory-and visuomotor- awareness. Sep 2016 XXII Congress of the Italian Association of Psychology Rome (Italy)
  18. Bianco V. Berchicci M. Perri R. L. Di Russo F. (2016) Can Music Boosts your Brain as Sport? Comparing Drummers, No-Drummer Musicians and Athletes July 2016 · 21st Annual Congress of the EUROPEAN COLLEGE OF SPORT SCIENCE, July 6-9 Vienna – Austria
  19. Berchicci M. Bianco V Spinelli D, Di Russo F (2015) Pre-stimulus brain activities in visual and auditory tasks. International Meeting Research Forum June 13-16 Pisa (Italy)
  20. Bianco V. Berchicci M. Spinelli D. Di Russo F. (2015). Different premotor control in open and closed-skill sports. "A bridge from the past to the future" ISSP 50th. April 19-20 Rome (Italy).
  21. Berchicci M, Bianco V, Spinelli D, Di Russo F (2015). Pre-stimulus brain activity in visual and auditory tasks. XVI International Multisensory Research Forum. June 13-16 Pisa (Italy).
  22. Di Russo F, Perri R.L., Berchicci M, Lucci G, Bianco V., Spinelli D. (2015) The premotor origin of the N2 component in Go/No-go tasks. From segregation to integration: The complexity of human brain functions XXIII SIPF Conference November 19-21. Lucca (Italy).

Data

05/03/2021

Luogo

Udine