

Marieke LONGCAMP

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EDUCATION

2019 **Habilitation in Neuroscience**
Université Aix-Marseille (France)

2000-2003 **Ph.D. Neuroscience**
Université Aix-Marseille (France)

1998-2000 **M.A. Cognitive Science (Distinction)**
Université Aix-Marseille (France)

1995-1998 **B.A. Biology**
Université Aix-Marseille (France)

CURRENT POSITION

2022- **Full professor**
Faculty of Science, department of Cognitive Neuroscience.
Aix-Marseille Université, France

PREVIOUS POSITIONS

2011-2022 **Associate professor**
Faculty of Science, department of Cognitive Neuroscience.
Aix-Marseille Université, France

2009-2011 **Full-time CNRS researcher (delegation)**
Mediterranean Institute of Neuroscience
Marseille, France

2005-2009 **Associate professor**
Kinesiology department
University of Toulouse, France

2004 - 2005 **Postdoctoral researcher**
Brain Research Unit, Low Temperature Lab,
Helsinki University of Technology, Finland (Prof. R. Hari)

PREVIOUS RELEVANT RESEARCH WORK

My previous work dealt with the contribution of handwriting knowledge to visual recognition of single characters. I compared training via typing vs handwriting in children or in adults who were learning a new alphabet. I also did some studies on visual perception of handwritten characters.

My current work focuses on the cognitive and neural bases of handwriting and typing in adults and children. I study the neural correlates of handwriting using fMRI and EEG coupled with kinematics data acquired on a digitizing tablet, in monoscriptuals and biscriptuals (experts in two different scripts). I am also interested in functional brain changes during handwriting acquisition (Behavior, fMRI and morphometry). I study the interactions between linguistic processing and motor control in handwriting and typing using fMRI, EEG and behavior, and motor processes involved in the planning of keystrokes in word typing (behavior, EEG).

PUBLICATION RECORD

- Alhaddad G**, Danna J, Younes-Harb C, Velay J-L, **Longcamp M**. (2022). Effects of Biscrptuality on Graphomotor Coordination Dynamics. *Journal of Experimental Psychology: Human Perception and Performance*. In Press.
- Palmis, S., Velay, J.L., Habib, M., Anton, J. L., Nazarian, B., Sein, J., & **Longcamp, M**. (2021). The handwriting brain in middle-childhood. *Developmental Science*, 24, e13046.
- Longcamp, M.**, Hupé, J. M., Ruiz, M., Vayssière, N., & Sato, M. (2019). Shared premotor activity in spoken and written communication. *Brain and Language*, 199, 104694.
- Palmis, S., Velay, J. L., Fabiani, E., Nazarian, B., Anton, J. L., Habib, M., Kandel, S., & Longcamp, M. (2019). The impact of spelling regularity on handwriting production: A coupled fMRI and kinematics study. *Cortex*, 113, 111-127.
- Scaltritti, M., Alario, F. X., & **Longcamp, M**. (2018). The scope of planning serial actions during typing. *Journal of Cognitive Neuroscience*, 13, 1-10.
- Palmis, S., Danna, J., Velay, J. L., & **Longcamp, M**. (2017). Motor control of handwriting in the developing brain: A review. *Cognitive Neuropsychology*, 11, 1-18.
- Longcamp, M.**, Lagarrigue, A., Nazarian, B., Roth, M., Anton, J. L., Alario, F. X., & Velay, J. L. (2014). Functional specificity in the motor system: Evidence from coupled fMRI and kinematic recordings during letter and digit writing. *Human Brain Mapping*, 35, 6077-6087.
- Roux, F. E., Dufor, O., Giussani, C., Wamain, Y., Draper, L., **Longcamp, M.**, & Démonet, J. F. (2009). Graphemic/motor frontal area: Exner's Area revisited. *Annals of Neurology*, 66, 537-545.
- Longcamp, M.**, Boucard, C., Gilhodes, J. C., Anton, J. L., Roth, M., Nazarian, B., & Velay J. L. (2008). Learning through hand- or typewriting influences visual recognition of new graphic shapes: Behavioral and functional imaging evidence. *Journal of Cognitive Neuroscience* 20, 802-815.

RESEARCH FUNDING

- 2014-2022: Co-PI for grants from the Brain and Language Research Institute Aix-Marseille (ANR-16-CONV-0002), projects “Inner speech and inner writing”; “How fast do students type”; “The neural network of reading: does writing help the brain accommodate for linguistic diversity?” ; “Organization of orthographic and motor networks during the acquisition of handwriting” (overall 263 K€).
- 2020: PI for Grant from institut Neuromarseille (AMX-19-IET-004 and ANR-17-EURE-0029), 7 K€
- 2014-2018 : Partner ANR ECRIRE (ANR-14-CE30-0013), PI Sonia Kandel (Grenoble University). (200 K€).
- 2012-2015 : Partner ANR Programme Blanc SHS 2 (ANR-11-BSH2-0010). Synesthesia and language as MULTImodal Expertises. PI Jean Michel Hupé (CERCO Toulouse) (20 K€).
- 2006-2010 : Grant from Paul Sabatier University, Toulouse. “Appel d’offre opérations scientifiques 2006-2008” Neuro-biomechanics of cortex-muscle coherence in motor and perceptual tasks (200 K€)
- 2004: Postdoctoral Fellowship from the Fyssen foundation (40 K€).