

Ladislav Nalborczyk

POSTDOCTORAL RESEARCHER

LPC, LNC, ILCB, Aix-Marseille University, CNRS
3 place Victor Hugo, 13331 Marseille Cedex 3, France

✉ ladislav.nalborczyk@gmail.com | 🏠 [Inalborczyk.github.io](https://nalborczyk.github.io) | 📞 0000-0002-7419-9855 | 🌐 [Inalborczyk](#)

Research interests

I am a cognitive neuroscientist interested in the conscious experience of inner speech and its behavioural, physiological, and neural correlates in relation with phonetic and linguistic representations. In the fundamental part of my research, I am using a combination of methods to reveal hidden neuro-psycholinguistic properties of inner speech, to evaluate predictions of motor control models applied to inner speech, and to elaborate on a global developmental scenario where inner speech participates to the development of speech communication. In the applied dimension of my research, I am using machine learning and deep artificial neural networks to decode the content of both overt and covert speech from electrophysiological data. In parallel, I also work on the development and dissemination of rigorous experimental and statistical methods.

Academic positions

LPC, LNC, ILCB, CNRS, Aix-Marseille University

Marseille, France

POSTDOCTORAL RESEARCHER

April 2021 – March 2023

Investigating the inhibitory mechanisms underlying covert verbal actions. Clarifying the neural implementation and timecourse of these mechanisms during covert speech and covert typing.

GIPSA-lab, CNRS, Univ. Grenoble Alpes

Grenoble, France

POSTDOCTORAL RESEARCHER

March 2020 – February 2021

Decoding the neural (electrocorticographic) correlates of overt and covert speech using machine learning and deep artificial neural networks.

LPNC, Univ. Grenoble-Alpes & PANLAB, Ghent University

Grenoble (France) & Ghent (Belgium)

PHD STUDENT

October 2015 – September 2019

Research on the psychophysiological correlates of mental rumination and the role of the speech motor system in rumination.

Teaching data analysis and cognitive psychology in a Psychology BA.

LPNC, CNRS, Univ. Grenoble Alpes

Grenoble, France

MSC RESEARCH INTERNSHIP

February 2015 – June 2015

Five months research internship, working on the facial electromyographic correlates of induced mental rumination.

Education

Univ. Grenoble Alpes (France) & Ghent University (Belgium)

Joint PhD in Clinical, Experimental, and Cognitive Psychology, October 2015 – October 2019

Thesis title: Understanding rumination as a form of inner speech [📖](#)

Supervisors: Dr. H el ene L evenbruck (UGA), Pr. Ernst Koster (UGent), & Dr. Marcela Perrone-Bertolotti (UGA)

Grenoble Institute of Technology (France)


MSc in Cognitive Science, June 2015

Supervisors: Dr. H el ene L evenbruck (UGA) & Dr. Marcela Perrone-Bertolotti (UGA)

Pierre-Mendes France University (France)


BA in Psychology, June 2013

Publications

Publication summary: 18 publications in international peer-reviewed journals (9 of them as first or last author), with 590 citations, h-index: 11 (h articles cited at least h times, source [Google Scholar](#)). When applicable, preregistration, preprint, data, code, and supplementary materials are available online by clicking on the  icon. Shared first or last authorship is indicated with an asterisk. Names of supervised *students* are italicised.

IN THE PIPELINE


[2] **Nalborczyk, L.**, Longcamp, M., & Alario, F.-X. (in preparation). Probing the role of motor inhibition during imagined typing: evidence from an action-mode switching paradigm.


[1] **Nalborczyk, L.**, Longcamp, M., Bonnard, M., *Serveau, V.*, Spieser, L., & Alario, F.-X. (in-principle accepted). Distinct neural mechanisms support different forms of inner speech. Stage-1 registered report accepted at *Cortex*. 


INVITED JOURNAL CONTRIBUTIONS


[1] **Nalborczyk, L.** (2023). When randomization hurts. *Nature Reviews Psychology*, 2, 131. <https://doi.org/10.1038/s44159-023-00155-2>


PEER-REVIEWED JOURNAL ARTICLES


[18] Coretta, S., Casillas, J., ... **Nalborczyk, L.** ... & Roettger, T. B. (in press). Multidimensional signals and analytic flexibility: Estimating degrees of freedom in human speech analyses. *Advances in Methods and Practices in Psychological Science*. 


[17] Hoogeveen, S., Sarafoglou, A., Aczel, B., Aditya, Y., Alayan, A., ... **Nalborczyk, L.** ... & Wagenmakers, E.J. (2022). A Many-Analysts Approach to the Relation Between Religiosity and Well-being. *Religion, Brain, and Behaviour*. <https://doi.org/10.1080/2153599X.2022.2070255> 


[16] Danna, J., Longcamp, M., **Nalborczyk, L.**, Velay, J.-L., Commengé, C., & Jover, M. (2022). Interaction between orthographic and graphomotor constraints in learning to write. *Learning and Instruction*, 80, 101622. <https://doi.org/10.1016/j.learninstruc.2022.101622> 


[15] **Nalborczyk, L.** (2022). Re-analysing the data from Moffatt et al. (2020): What can we learn from an under-powered absence of difference? *Collabra: Psychology*, 8(1), 33059. <https://doi.org/10.1525/collabra.33059> 

[14] **Nalborczyk, L.**, Debarnot, U., Longcamp, M., Guillot, A., & Alario, F.-X. (2022). The role of motor inhibition during covert speech production. *Frontiers in Human Neuroscience*, 16:804832. <https://doi.org/10.3389/fnhum.2022.804832> 

[13] **Nalborczyk, L.**, Perrone-Bertolotti, M., Baeyens, C., Grandchamp, R., Spinelli, E., Koster, E.H.W., & Løevenbruck, H. (2022). Articulatory suppression effects on induced rumination. *Collabra: Psychology*, 8(1), 31051. <https://doi.org/10.1525/collabra.31051> 

[12] Geiger, S. J., Brick, C., **Nalborczyk, L.**, Bosshard, A., & Jostmann, N. B. (2021). More Green Than Gray? Toward a Sustainable Overview of Environmental Spillover Effects: A Bayesian Meta-Analysis. *Journal of Environmental Psychology*, 78, 101694. <https://doi.org/10.1016/j.jenvp.2021.101694> 

[11] Lacroix, A., **Nalborczyk, L.**, Dutheil, F., Kovarski, K., Chokron, S., Garrido, M., Gomot, M., & Mermillod, M. (2021). High spatial frequency information in primes hastens happy faces categorization in autistic adults. *Brain and Cognition*, 155, 105811. <https://doi.org/10.1016/j.bandc.2021.105811> 

[10] Rouy, M., Saliou, P., **Nalborczyk, L.**, Pereira, M., Roux, P*, & Faivre, N.* (2021). Systematic review and meta-analysis of metacognitive abilities in individuals with schizophrenia spectrum disorders. *Neuroscience and Biobehavioral Reviews*, 126, 329-337. <https://doi.org/10.1016/j.neubiorev.2021.03.017> 

- [9] Beffara Bret, B., Beffara Bret, A., & **Nalborczyk, L.** (2021). A fully automated, transparent, reproducible, and blind protocol for sequential analyses. *Meta-Psychology*, 5. <https://doi.org/10.15626/MP.2018.869> 
- [8] **Nalborczyk, L.***, Banjac, S.*, Baeyens, C., Grandchamp, R., Koster, E.H.W., Perrone-Bertolotti, M., & Løevenbruck, H. (2021). Dissociating facial electromyographic correlates of visual and verbal induced rumination. *International Journal of Psychophysiology*, 159, 23-36. <https://doi.org/10.1016/j.ijpsycho.2020.10.009> 
- [7] **Nalborczyk, L.**, Grandchamp, R., Koster, E.H.W., Perrone-Bertolotti, M., & Løevenbruck, H. (2020). Can we decode phonetic features in inner speech using surface electromyography? *PLOS ONE*, 15(5): e0233282. <https://doi.org/10.1371/journal.pone.0233282> 
- [6] Molto, L., **Nalborczyk, L.**, Palluel-Germain, R., & Morgado, N. (2020). Action effects on visual perception of distances: A multilevel Bayesian meta-analysis. *Psychological Science*, 31(5), 488-504. <https://doi.org/10.1177/0956797619900336> 
- [5] Landy, J. F., Jia, M., Ding I. L., Viganola, D., Tierney, W., ... **Nalborczyk, L.** ... Uhlmann, E. L. (2020). Crowdsourcing hypothesis tests: Making transparent how design choices shape research results. *Psychological Bulletin*, 146(5), 451-479. <https://doi.org/10.1037/bu10000220>
- [4] **Nalborczyk, L.**, Batailler, C., Løevenbruck, H., Vilain, A., & Bürkner, P.-C. (2019). An introduction to Bayesian multi-level models using brms: A case study of gender effects on vowel variability in standard Indonesian. *Journal of Speech, Language, and Hearing Research*, 62(5), 1225-1242. https://doi.org/10.1044/2018_JSLHR-S-18-0006 
- [3] **Nalborczyk, L.**, Bürkner, P.-C., & Williams, D. (2019). Pragmatism should not be a substitute for statistical literacy, a commentary on Albers, Kiers, and van Ravenzwaaij (2018). *Collabra: Psychology*, 5(1): 13. <https://doi.org/10.1525/collabra.197> 
- [2] Trafimow, D., Amrhein, V., Areshenkoff, C. N., Barrera-Causil, C., Beh, E. J., Bilgic, Y., ... **Nalborczyk, L.** ... Marmolejo-Ramos, F. (2018). Manipulating the alpha level cannot cure significance testing. *Frontiers in Psychology*, 9:699. <https://doi.org/10.3389/fpsyg.2018.00699>
- [1] **Nalborczyk, L.**, Perrone-Bertolotti, M., Baeyens, C., Grandchamp, R., Polosan, M., Spinelli, E., ... Løevenbruck, H. (2017). Orofacial electromyographic correlates of induced verbal rumination. *Biological Psychology*, 127, 53-63. <https://doi.org/10.1016/j.biopsycho.2017.04.013> 

BOOK-LENGTH PROJECTS

Nalborczyk, L. (in progress). Introduction à la modélisation statistique bayésienne : Un cours en R avec brms. Available online: <https://www.barelysignificant.com/IMSB2022/notes/>.

BOOK CHAPTERS

[2] Løevenbruck, H., Grandchamp, R., Rapin, L., **Nalborczyk, L.**, Dohen, M., Perrier, P., Baciú, M., & Perrone-Bertolotti, M. (2018). A cognitive neuroscience view of inner language: to predict and to hear, see, feel. In Langland-Hassan, P. & Vicente, A. (eds.), *Inner Speech: new voices*. Oxford University Press.

[1] Løevenbruck, H., **Nalborczyk, L.**, Perrone-Bertolotti, M., Baeyens, C., & Grandchamp, R. (2018). Un cas d'incarnation linguistique: implication du système moteur orofacial dans les ruminations mentales. *Recherches sur la philosophie et le langage*, numéro special "Cognition incarnée".

CONFERENCE PROCEEDINGS

[1] Molto, L., **Nalborczyk, L.**, Palluel-Germain, R., & Morgado, N. (2018). Action-specific effects on distance perception: A multilevel Bayesian meta-analysis. *Cognitive processing*, 19(S1), 1-76. <https://doi.org/10.1007/s10339-018-0884-3>

PHD THESIS

Nalborczyk, L. (2019). Understanding rumination as a form of inner speech: probing the role of motor processes. Univ. Grenoble Alpes & Ghent University. [📄](#)

Presentations

INVITED TALKS

[15] **Nalborczyk, L.** (2023). Uncovering the origins of inner speech sensory content: role of the speech motor system and neural mechanisms. French group of young researchers in speech, online seminar. [📄](#)

[14] **Nalborczyk, L.** (2022). The sound of your inner voice: Combining psycholinguistics and psychophysics to unveil the auditory content of inner speech. Laboratory of Cognitive Neuroscience, EPFL, Geneva, Switzerland.

[13] **Nalborczyk, L.** (2022). The sound of your inner voice: Combining psycholinguistics and psychophysics to unveil the auditory content of inner speech. FEMTO-ST Institute, Besançon, France.

[12] **Nalborczyk, L.** (2022). Bayesian multilevel models in R using brms. Brown bag meeting, Louvain-La-Neuve, Belgium.

[11] **Nalborczyk, L.** (2022). Towards an integrated account of covert verbal actions. Neuromod institute seminars, Nice, France.

[10] **Nalborczyk, L.** (2022). Moving to a World beyond $p < .05$ (and $BF > 3$): Why and how? Neuropsycholinguistics Lab seminar, University of Geneva, Switzerland. [📄](#)

[9] **Nalborczyk, L.** (2021). Moving to a World beyond $p < .05$. ILCB summer school, Marseille, France. [📄](#)

[8] **Nalborczyk, L.** (2021). Bayesian multilevel models in R using brms. Lab seminar, LIP, Grenoble, France. [📄](#)

[7] **Nalborczyk, L.** (2021). A gentle introduction to deep learning in R using Keras. Vendredi Quanti seminar, PACTE laboratory, Grenoble, France. [📄](#)

[6] **Nalborczyk, L.** (2020). Introduction to the Open Science Framework. “Open November” open science webinar, RJC ACAPS. [📄](#)

[5] **Nalborczyk, L.** (2020). Understanding covert verbal actions as simulated verbal actions. LPC online seminar. [📄](#)

[4] **Nalborczyk, L.** (2020). Bayesian multilevel models in R using brms. PPC seminar, GIPSA-lab, Grenoble, France. [📄](#)

[3] **Nalborczyk, L.** (2019). An introduction to Bayesian multilevel models using R, brms, and Stan. R in Grenoble working sessions, Grenoble, France. [📄](#)

[2] **Nalborczyk, L.** (2018). How to avoid common misinterpretations of p -values and Bayes factors. ENTPE seminars, Lyon, France. [📄](#)

[1] Beffara, B., **Nalborczyk, L.**, Héjja-Brichard, Y., & Bret, A. (2017). Open, slow, and sustainable science. PhD student day, LPNC, Grenoble, France.

WORKSHOP TALKS

[3] **Nalborczyk, L.** (2020). Introduction to Bayesian Statistical Modelling in R. Semaine DATA-SHS, MSH-Alpes, Grenoble, France. [📄](#)

[2] Beffara, B., Beffara Bret, A., **Nalborczyk, L.**, Héjja-Brichard, Y., & Beffara Bret, B. (2020). Introduction to the Open Science Framework. CRNL Workshop, “Publishing differently: new ways to evaluate and disseminate the scientific knowledge in the digital area”, Lyon, France. [📄](#)

[1] **Nalborczyk, L.** (2018). Introduction to Bayesian Statistical Modelling. UGent specialist (doctoral) course on Bayesian statistical modelling, Ghent, Belgium. [↗](#)

CONFERENCE TALKS

[12] **Nalborczyk, L.**, Longcamp, M., & Alario, F.-X. (2022). Motor inhibition prevents motor execution during imagined typing: evidence from an action-mode switching paradigm. Embodied and Situated Language Processing (ESLP) conference, Tourcoing, France.

[11] **Nalborczyk, L.**, Spieser, L., Longcamp, M., & Alario, F.-X. (2021). Distinct neural mechanisms support different forms of inner speech, a registered report. Lightning talk. International Workshop on Language Production, online. [↗](#)

[10] Geiger, S. J., Brick, C., **Nalborczyk, L.**, & Jostmann, N. B. (2021). More Green Than Gray? Toward a Sustainable Overview of Environmental Spillover Effects: A Bayesian Meta-Analysis. International Conference on Environmental Psychology, Siracusa, Italy.

[9] **Nalborczyk, L.** (2021). The Open Science revolution will fall short of its goals without a Slow Science revolution. Lightning talk. Open, slow, and sustainable science conference. Nantes, France. [↗](#)

[8] Rouy, M., Saliou, P., **Nalborczyk, L.**, Pereira, M., Roux, P., & Faivre, N. (2020). Systematic review and meta-analysis of the calibration of confidence judgments in individuals with schizophrenia. Neuromatch 3.0 online conference. [↗](#)

[7] **Nalborczyk, L.** (2019). Modelling potential biases in sequential analyses procedures. Lightning talk at the meeting of the Society for the Improvement of Psychological Science, Rotterdam, The Netherlands. [↗](#)

[6] **Nalborczyk, L.** (2018). Using information-theoretic approaches for model selection: moving from explanation toward prediction. Lightning talk at the meeting of the Society for the Improvement of Psychological Science, Grand Rapids, MI. [↗](#)

[5] Molto, L., **Nalborczyk, L.**, Palluel-Germain, R. & Morgado, N. (2018). Action-specific effects on distance perception: A multilevel Bayesian meta-analysis. 7th International Conference on Spatial Cognition, Rome, Italy.

[4] **Nalborczyk, L.** (2018). Sequential testing with information criteria and evidence ratios. *Bayes@Lund*, Sweden. [↗](#)

[3] **Nalborczyk, L.**, Perrone-Bertolotti, M., Baeyens, C., Grandchamp, R., Spinelli, E., Koster, E.H.W., & Løevenbruck, H. (2017). Verbal rumination as simulated speech. Embodied and Situated Language Processing conference. Moscow, Russia. [↗](#)

[2] **Nalborczyk, L.**, Perrone-Bertolotti, M., Baeyens, C., Keracheva, E., Grandchamp, R., Spinelli, E., Koster, E.H.W., & Løevenbruck, H. (2016). Rumination at the crossroads of embodied inner speech and emotion: facial electromyographic correlates. Consortium of European Research on Emotion (CERE). Leiden, Netherlands. [↗](#)

[1] **Nalborczyk, L.**, Løevenbruck, H., Perrone-Bertolotti, M., Baeyens, C., & Grandchamp, R. (2016). Verbal rumination as an embodied orofacial action. International conference Language and Enaction. Clermont-Ferrand, France. [↗](#)

CONFERENCE POSTERS

[9] **Nalborczyk, L.**, Longcamp, M., & Alario, F.-X. (2022). Motor inhibition prevents motor execution during imagined typing: evidence from an action-mode switching paradigm. 22nd meeting of the European Society for Cognitive Psychology (ESCoP), Lille, France. [↗](#)

[8] Garnier, M., Karam, C., **Nalborczyk, L.**, Botter, A., & Boudaoud, S. (2022). Towards an HD-sEMG mask to measure orofacial muscle activity during speech production. 8th International Conference on Speech Motor Control (SMC), Groningen, the Netherlands.

[7] Beffara, B., Bret, A., & **Nalborczyk, L.** (2019). A practical tutorial for safe sequential analyses. International Convention of Psychological Science, Paris, France. [↗](#)

- [6] Molto, L., **Nalborczyk, L.**, Palluel-Germain, R., & Morgado, N. (2019). A Bayesian multilevel meta-analysis of action constraints effects on distance perception. International Convention of Psychological Science, Paris, France. [📄](#)
- [5] **Nalborczyk, L.**, Perrone-Bertolotti, Baeyens, C., Grandchamp, R., Spinelli, E., Koster, E.H.W., & Løevenbruck, H. (2018). Can articulatory suppression disrupt repetitive negative thinking? The 16th European Workshop on Imagery and Cognition, Padua, Italy. [📄](#)
- [4] Molto, L., **Nalborczyk, L.**, Palluel-Germain, R., & Morgado, N. (2018). Action-specific effects on distance perception: A multilevel Bayesian meta-analysis. The 16th European Workshop on Imagery and Cognition, Padua, Italy. [📄](#)
- [3] Løevenbruck, H., Grandchamp, R., Rapin, L., **Nalborczyk, L.**, Dohen, M., Perrier, P., Baci, M., & Perrone-Bertolotti, M. (2018). A neurocognitive predictive model of willful inner speech production. The Probabilistic Brain Workshop, Durham, England. [📄](#)
- [2] **Nalborczyk, L.**, Løevenbruck, H., Keracheva, E., Koster, E.H.W., Baeyens, C., Grandchamp, R., & Perrone-Bertolotti, M. (2017). Articulatory suppression effects on verbal rumination. Cognitive Science Arena. Brixen, Italy. [📄](#)
- [1] **Nalborczyk, L.**, Baeyens, C., Grandchamp, R., Løevenbruck, H., Perrone-Bertolotti, M., & Polosan, M. (2015). Oro-facial electromyographic correlates of induced verbal rumination. Embodied and Situated Language Processing conference. Lyon, France. [📄](#)

Software

- [3] Nalborczyk, L. (2022). *imsb*. R package version 0.0.1, available on [Github](#).
- [2] Batailler, C., & **Nalborczyk, L.** (2017). *maskr*. R package version 0.0.1, available on [Github](#).
- [1] Nalborczyk, L. (2017). *ESTER: Efficient Sequential Testing with Evidence Ratios*. R package version 0.2.0, available on [Github](#).

Teaching and supervision

LECTURES, COURSES (>200H)

Bachelor courses

- Data Analysis, UGA, 2016 (36h)
 Introduction to Cognitive Psychology, UGA, 2016 (50h)
 Cognitive Psychology: Perception, Action and Categorisation, UGA, 2016 (42h)

Master courses

- Introduction to the philosophy of statistics, MASCO, AMU, 2022 (2h)
 Introduction to Bayesian statistics in jamovi, M2R in Cognitive Sciences, UGA, 2022 (2h)
 Introduction to Bayesian statistics in jamovi, M2R in Cognitive Sciences, UGA, 2021 (2h)

Doctoral courses

- Introduction to Bayesian statistical modelling in R, UGA, 2017–2022 (>100h), [website](#)

CO-SUPERVISION OF MASTER STUDENTS

- Mael Delem, Master 1 in Cognitive Sciences, UL2, 2021–2022
 Nina Stauffert, Master 1 in Cognitive Sciences, UL2, 2021–2022
 Clara Grégoire, Master 2 in Cognitive Sciences, AMU, 2021–2022
 Victor Serveau, Master 2 in STAPS (FHIE), AMU, 2021–2022
 Christophe Karam, Master 1 in Data Analysis: Linking Experiments to Theory (DALETh), UGA, 2020–2021
 Sonja Banjac, Master 2 in Cognitive Science, UGA, 2017–2018
 Myriam El-Helou, Master 1 in Applied Mathematics and Informatics, UGA, 2016–2017
 Elena Keracheva, Master 1 in Clinical Psychology, UGA, 2015–2016

Fellowships, grants, and awards

DOCTORAL AND POSTDOCTORAL FELLOWSHIPS

Two-year post-doctoral fellowship, Institute of Language, Communication and the Brain (2021–2023)

Two-year post-doctoral fellowship, Fyssen foundation (2020–2022), 60k€ (*declined*)

Three-year doctoral fellowship to pursue a joint PhD, Univ. Grenoble Alpes (2015–2018)

RESEARCH FUNDINGS

ILCB research funding to support the organisation of an international workshop on temporal cognition (2022), 1200€

ILCB research funding to support the “InnerSpeaking” project (2022), 5000€

Grant from the Flemish government to organise a doctoral course on Bayesian statistical modelling (2018), ~1000€

GRANTS AND AWARDS

Newly established researcher award from the city of Marseille (2021), 2000€

Travel grant, Society for the Improvement of Psychological Science (2019), 350€

Travel grant to attend the SIPS 2018 conference, FWO (2018), ~1000€

Academic services

Co-organiser of an international workshop on temporal cognition, June 2022 (France)

Co-organiser of a national conference on open, slow, and sustainable science, July 2021 (France)

Co-organiser of the doctoral school course *Introduction to Bayesian statistical modelling*, June 2018, UGent (Belgium)

Elected representative of the PhD students at the UGA academic council and research committee (2015–2017)

Ad hoc reviewing

Brain and Cognition

Collabra: Psychology

Cognition and Emotion

Language, Cognition and Neuroscience

Quarterly Journal of Experimental Psychology

Annals of Physical and Rehabilitation Medicine

Psychology of Consciousness: Theory, Research, and Practice

Recommender for Peer Community In (PCI) Health & Movement Sciences

Professional memberships

European Society for Cognitive Psychology (2022–Present)

Research in imagery and observation group (2021–Present)

Cognitive Science Society (2020–Present)

Center for Open Science, Ambassador (2017–Present)

Member of the Psychological Science Accelerator (2018–Present)

Society for the Improvement of Psychological Science (2017–Present)

Other contributions

ACTIVE MEMBER OF LOCAL ASSOCIATIONS FOR SCIENTIFIC COMMUNICATION

Member of the organising team of the 6th edition of *Pint Of Science France*, Grenoble, 2016

Member of the organising team of the 9th edition of the *ArtScienceTechnologie* event, Grenoble, 2015

POPULARISATION TALKS

Et si penser était une action ? *15th cognitive sciences forum, science slam*, Paris, 2016.

Technical skills

EXPERIMENTAL TOOLS

Electromyography, electrocardiography, eye-tracking, transcranial magnetic stimulation

COMPUTER TOOLS

Programming: R, Shiny, Python, *Matlab*, Bash

Experiment design: OpenSesame, PsychoPy, *E-prime*

Physiological signal processing: R, Python, *LabChart*, Biosemi, KubiosHRV

Statistical modelling: R, Stan, JASP, Jamovi, *SPSS*, *Statistica*

Deep learning: R, Python, Keras

Automatic speech recognition: Python, Kaldi, ESPnet

Version control: Git, Github, Gitlab

Collaborative and reproducible writing: RMarkdown, \LaTeX , Overleaf, Zotero

Open Science: Github, Gitlab, Open Science Framework, ArXiv

NB: italicised proprietary software programs will tend to disappear from my toolkit

Languages

French: Native

English: Full professional proficiency

Dutch: Beginner (CEFR: A2)

References

Available upon request