

# Dominique Makowski

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URL: <https://dominiquemakowski.github.io/>  
Born: October 19, 1991 – France (28 years old)  
Nationality: French (FRA)



This CV is also available in a user-friendly format on my [personal website](https://dominiquemakowski.github.io/).

## Current position

*Research Fellow*  
[Clinical Brain Lab](#), Nanyang Technological University, Singapore

## Education

2014–18	DOCTOR OF PHILOSOPHY (PHD) <b>Psychology</b> , University of Sorbonne Paris Cité, Paris, France
2014–17	CERTIFIED PSYCHOTHERAPIST <b>Cognitive-Behavioural Therapy (CBT)</b> , French Association for Cognitive-Behavioural Therapy (AFTCC), Paris, France
2012–14	MASTER OF SCIENCE (MSc) - LICENCED NEUROPSYCHOLOGIST <b>Neuropsychology and Cognitive Psychology</b> , University of Sorbonne Paris Cité, Paris, France
2009–12	BACHELOR OF SCIENCE (BSc) <b>Psychology</b> , University of Sorbonne Paris Cité, Paris, France

## Experience

### Research

2019–present	RESEARCH FELLOW <a href="#">Clinical Brain Lab</a> , Nanyang Technological University, Singapore
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*Activity.* First postdoc position, working on a project funded by the ministry of defence about the neurocognitive correlates of deception and lies. Responsible for studies design and completion, data analysis, publications and co-supervision of one PhD student, two research assistants and several undergraduate interns.

*Supervisor.* Pr. Annabel Chen

### Teaching

2017–18	LECTURER (192 H) University of Sorbonne Paris Cité, Paris, France
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*Subject.* **Clinical Neuropsychology** (for bachelor and master degrees).

*Topics.* **Neurology and psychiatry** (main neurodegenerative, neurological and psychiatric disorders), **assessment** (examination, diagnostic, psychometry), **rehabilitation and psychotherapy** (CBT, mindfulness-based therapies, cognitive rehabilitation, practice supervision), **general neuroscience and psychology** (neuroanatomy, emotion regulation...).

2015–17	TEACHING ASSISTANT (144 H) University of Sorbonne Paris Cité, Paris, France
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*Subject.* **Differential cognitive psychology** for first year students.

*Topics.* Experimental methodology (assessment and related problems, scientific reasoning, psychometric properties of tests and questionnaires, statistics...) and introduction to concepts such as intelligence, personality and creativity.

2014-16

TEACHING ASSISTANT (48 H)  
University of Sorbonne Paris Cité, Paris, France

*Subject.* Cognitive psychology for third year students.

*Topics.* Models of working memory, mental imagery and categorisation.

## Clinical Activity

2013-14

INTERNSHIP (512 H)  
Department of adult psychiatry  
Pitié-Salpêtrière Hospital, Paris, France

*Activity.* Assessment and diagnostic of psychiatric or neurological illnesses among adults, as well as development and application of cognitive rehabilitation programs.

2012-13

INTERNSHIP (304 H)  
Department of geriatric psychiatry  
Sainte-Anne Hospital, Paris, France

*Activity.* Assessment and diagnostic of psychiatric and neurological illnesses among an elderly population.

2012-13

INTERNSHIP (96 H)  
Department of gerontology  
La Porte Verte Hospital, Versailles, France

*Activity.* Observation of assessment and diagnostic of memory related deficits such as neurodegenerative diseases, somatic ageing-related illnesses or depression.

## Communications

Summary	
Citations	317
h-index	9
First-author papers	13
Second-author papers	6
Senior-author papers	1
Invited-speaker talks	1
First-author talks	13
First-author posters	6

## Journal articles (peer reviewed)

Makowski, D., Pham, T., Lau, Z. J., Brammer, J. C., Lespinasse, F., Pham, H., Schötzel, C., & Chen, S. H. (*under review*). [NeuroKit2: A Python Toolbox for Neurophysiological Signal Processing](#).

Makowski, D., Pham, T., Lau, Z. J., Leow, D., Raine, A., & Chen, S. H. (*under review*). [The Structure of Deception: Validation of the Lying Profile Questionnaire](#).

Makowski, D., Ben-Shachar, M. S., Patil, I., & Lüdecke, D. (2020). [\[Methods and Algorithms for Correlation Analysis in R\]](#). *Journal of Open Source Software*, 5(51), 2306. [10.21105/joss.02306](https://doi.org/10.21105/joss.02306)

Blondé, P., Makowski D., Sperduti, M., & Piolino, P. (2020). [In Medio Stat Virtus: intermediate levels of mind wandering improve episodic memory encoding in a virtual environment](#). *Psychological Research*, 1-13.

Girardeau, J. C., Blondé, P., **Makowski D.**, Abram, M., Piolino, P., & Sperduti, M. (2020). **The impact of state and dispositional mindfulness on prospective memory: A virtual reality study.** *Consciousness and Cognition*, 81, 102920.

**Makowski, D.**, Ben-Shachar, M. S., Chen, S. H., & Lüdecke, D. (2019). **Indices of Effect Existence and Significance in the Bayesian Framework.** *Frontiers in Psychology*, 10, 2767.

**Makowski, D.**, Sperduti, M., Lavallée, S., Nicolas, S. & Piolino, P. (2019). **Adaptation and Validation of a French Short Version of the Affective Style Questionnaire.** *International Journal of Cognitive Therapy*, 1-13.

**Makowski, D.**, Ben-Shachar, M., & Lüdecke, D. (2019). **bayestestR: Describing effects and their uncertainty, existence and significance within the Bayesian framework.** *Journal of Open Source Software*, 4(40), 1541.

**Makowski, D.**, Sperduti, M., Blondé, P., Nicolas, S. & Piolino, P. (2019). **The Heart of Cognitive Control: Cardiac Phase Modulates Processing Speed and Inhibition.** *Psychophysiology*, e13490.

Lüdecke, D., Waggoner, P., & **Makowski, D.** (2019). **Insight: A unified interface to access information from model objects in R.** *Journal of Open Source Software*, 4(38), 1412.

**Makowski, D.**, Sperduti, M., Pelletier, J., Blondé, P., La Corte, V., Arcangeli, M., Zalla, T., Lemaire, S., Dokic, J., Nicolas, S., & Piolino, P. (2019). **Phenomenal, Bodily and Brain Correlates of Fictional Reappraisal as an Implicit Emotion Regulation Strategy.** *Cognitive, Affective, & Behavioral Neuroscience*, 1-21.

**Makowski, D.\***, Sperduti, M.\* Lavallée, S., Nicolas, S. & Piolino, P. (2019). **Dispositional mindfulness attenuates the emotional attentional blink.** *Consciousness & Cognition*, 67, 16–25.

**Makowski, D.** (2018). **Efficient and Publishing-Oriented Workflow for Psychological Science with the R Package 'psycho'.** *Journal of Open Source Software*, 3(22), 470.

Tuena, C., Serino, S., Gaston-Bellegarde, A., Orriols, E., **Makowski, D.**, Riva, G. & Piolino, P. (2017). **How Virtual Embodiment Affects Episodic Memory Functioning: a Proof-of-Concept Study.** *Annual Review of Cybertherapy and Telemedicine*, 15, 93-107.

Sperduti, M., Armougum, A., **Makowski, D.** & Piolino, P. (2017). **Interaction between attentional systems and episodic memory encoding: the impact of conflict on binding of information.** *Experimental Brain Research*, 235(12), 3553-3560.

**Makowski, D.** & Dutriaux, L. (2017). **Neuropsydia.py: A Python Module for Creating Experiments, Tasks and Questionnaires.** *Journal of Open Source Software*, 2(19), 259.

**Makowski, D.\***, Sperduti, M.\* Nicolas, S. & Piolino, P. (2017). **"Being there" and remembering it: Presence improves Memory Encoding.** *Consciousness & Cognition*, 53, 194–202.

Nicolas, S. & **Makowski, D.** (2017). **Centenaire Ribot (I). La réception de l'oeuvre de Théodule Ribot chez l'éditeur Ladrange (1870-1873).** *Bulletin de Psychologie*, 70(3), 163-178.

Sperduti, M., **Makowski, D.**, Blondé, P. & Piolino, P. (2017). **Meditation and successful aging: can meditative practices counteract age-related cognitive decline?**, *Gériatrie et Psychologie Neuropsychiatrie du Vieillissement*, 15(2), 205-13.

Sperduti, M.\* **Makowski, D.\***, Arcangeli, M., Wantzen, P., Zalla, T., Lemaire, S., Dokic, J., Pelletier, J. & Piolino, P. (2017). **The Distinctive Role of Executive Functions in Implicit Emotion Regulation.** *Acta Psychologica*, 173, 13-20.

Nicolas, S. & **Makowski, D.** (2016). **Can mental fatigue be measured by Weber's compass? Alfred Binet's answer on the value of aesthesiometry (tactile sensitivity) as an objective measure of mental fatigue.** *European Yearbook of the History of Psychology*, 2, 11-46.

Sperduti, M., **Makowski, D.**, & Piolino, P. (2016). **The protective role of long-term meditation on the decline of the executive component of attention in aging: a preliminary cross-sectional study.**

Sperduti, M.\*, Arcangeli, M.\* **Makowski, D.**, Wantzen, P., Zalla, T., Lemaire, S., Dokic, J., Pelletier, J. & Piolino, P. (2016). *The paradox of fiction: Emotional response toward fiction and the modulatory role of self-relevance*. *Acta psychologica*, 165, 53-59.

**Makowski, D.**, Sperduti, M., Blanchet, S., Nicolas, S. & Piolino, P. (2015). *Emotion regulation and the cognitive decline in aging: beyond the paradox*. *Gériatrie et Psychologie Neuropsychiatrie du Vieillissement*, 13(3), 301-8.

## Talks

**Makowski, D.**, Sperduti, M., Nicolas, S. & Piolino, P. (2017). *Interindividual Determinants of Emotion Regulation through Fiction*. 2ème Congrès Francophone de TCC, 14-16 June, Geneva, Switzerland.

**Makowski, D.** (2018, invited). *How Reality can Modulate Memory and Emotions*. CRPCPO's monthly seminar, 23 March, Amiens, France.

**Makowski, D.**, Sperduti, M., Nicolas, S. & Piolino, P. (2018). *Engagement in Fiction as an Altered State of Consciousness*. 6th Mind, Brain & Body Symposium, 15-16 March, Berlin, Germany.

**Makowski, D.**, Sperduti, M., Nicolas, S. & Piolino, P. (2017). *Vers la thérapie neurocognitive ? L'apport des neurosciences affectives dans la TCC*. 45ème congrès de l'AFTCC, 14-16 December, Paris, France.

Sperduti, M., **Makowski, D.** & Piolino, P. (2017). *The Role of Self-Relevance and Interindividual Variability in Executive Functions in Implicit Emotion Regulation*. International Society for the Study of Interindividual Differences (ISSID), 24-28 July, Warsaw, Poland.

**Makowski, D.**, Sperduti, M. & Piolino, P. (2017). *The Distinctive Effect of Emotion Regulation and Mindfulness on Attentional Capture*. 1ère Journée Scientifique des Jeunes Chercheurs du Centre de Recherches sur la Cognition et l'Apprentissage, 8 June, Poitiers, France.

**Makowski, D.**, Sperduti, M. & Piolino, P. (2016). *"Being there" and Remembering it: Presence enhances Encoding in Memory*. International Congress On Memory (ICOM), 17-22 July, Budapest, Hungary.

**Makowski, D.**, Sperduti, M. & Piolino, P. (2016). *The Sense of Reality as a feature of proto-Consciousness, its Alteration and Generation induced by Fictional Worlds*. Literary States of Consciousness, 2 June, Paris, France.

**Makowski, D.**, Sperduti, M. & Piolino, P. (2016). *Does Mindfulness ability differently affect Implicit and Explicit Emotion Regulation?* 2nd International Conference on Mindfulness (ICM), 11-15 May, Roma, Italy.

Sperduti, M., **Makowski, D.** & Piolino, P. (2016). *Does mindfulness enhance interoception? Dissociation between different interoceptive abilities*. 2nd International Conference on Mindfulness, 11-15 May, Roma, Italy.

**Makowski, D.**, Sperduti, M. & Piolino, P. (2015). *Bon et Mauvais Régulateurs Emotionnels: Un Rôle Spécifique de l'Inhibition ?* 56è Congrès National de la Société Française de Psychologie (SFP), 2-4 September, Strasbourg, France.

**Makowski, D.**, Sperduti, M., Pelletier, J. & Piolino, P. (2015). *Régulation émotionnelle et Self Control: De la recherche Fondamentale à l'Application Clinique*. 1er Congrès Francophone de TCC, 27-29 May, Lyon, France.

**Makowski, D.**, Sperduti, M., Arcangeli, M., Pelletier, J. & Piolino, P. (2014). *From Philosophy to the Rehabilitation of Psychiatric Patients: Fiction/Reality, Emotion et Cognitive Control*. Journée d'hiver de l'IUPDP, 19 December, Boulogne-Billancourt, France.

**Makowski, D.**, Sperduti, M. & Piolino, P. (2014). *L'émotion face à la fiction : l'étude de patients schizophrènes éclaire le paradoxe de la fiction.* 27 June, Fête de la Recherche, Boulogne-Billancourt, France.

**Makowski, D.**, & Rossi, S. (2013). *Le jugement esthétique chez l'enfant.* Journées Neurosciences, Esthétique, et Complexité, 28 September, Paris, France.

## Posters

**Makowski, D.**, Sperduti, M. & Piolino, P. (2016). *Régulation Emotionnelle, pleine-conscience et bien-être : Interactions et implication dans les troubles de l'humeur.* Journée d'hivers de la Société de Neuropsychologie de Langue Française, 5 December, Paris, France.

Blondé, P., Sperduti, M., **Makowski, D.** & Piolino, P. (2016). *Le rôle des réseaux attentionnels sur l'encodage en mémoire épisodique dans le cadre du vieillissement et de sa variabilité interindividuelle liée aux traits de pleine conscience.* Journée d'hivers de la Société de Neuropsychologie de Langue Française, 5 December, Paris, France.

**Makowski, D.**, Sperduti, M. & Piolino, P. (2016). *I know it's not real...what does it change?* nCPN day, 16 September, Paris, France.

**Makowski, D.**, Sperduti, M. & Piolino, P. (2015). *"j'avais l'impression d'y être" : Sentiment de présence et encodage en mémoire autobiographique.* Journée d'hiver de la Société de Neuropsychologie de Langue Française, 5 December, Paris, France.

Sperduti, M., **Makowski, D.** & Piolino, P. (2015). *Interaction entre systèmes attentionnels et encodage en mémoire épisodique.* Journée d'hivers de la Société de Neuropsychologie de Langue Française, 5 December, Paris, France.

**Makowski, D.**, Sperduti, M., Arcangeli, M., Pelletier, J. & Piolino, P. (2015). *I know it's not real...what does it change?* 12e colloque de la Société des Neurosciences, 19-22 May, Montpellier, France.

**Makowski, D.**, Sperduti, M., Arcangeli, M., Pelletier, J. & Piolino, P. (2014) *Emotion Regulation by fiction is related to cognitive inhibition.* Journée d'hiver de la Société de Neuropsychologie de Langue Française, 5 December, Paris, France.

Sperduti, M., **Makowski, D.**, Vialatte, F. & Piolino, P. (2014). *The decline of Autobiographical Memory in aging, inhibition and the cingulate cortex: an activation and resting state fMRI study.* Journées d'Etudes du Vieillissement, 15-16 September, Caen, France.

Sperduti, M., **Makowski, D.** & Piolino, P. (2014). *The protective role of meditation on the cognitive decline in aging: a cross-sectional study.* Journées d'Etudes du Vieillissement, 15-16 September, Caen, France.

**Makowski, D.**, Sperduti, M., Arcangeli, M., Pelletier, J. & Piolino, P. (2013). *QUID du paradoxe de l'émotion face à la fiction ? Nouvelles données physiologiques comparant la réponse émotionnelle à des scènes réelles ou fictionnelles.* Journées de l'IUPDP, 19 December, Boulogne-Billancourt, France.

## Public Popularisation

**Pint of Science**, *Back to the Matrix : pilule bleue ou rouge ?* 16 May 2018, Paris, France.

**Public Debate**, *Art & science discussion on sensory illusions.* 24 November 2017, Bordeaux, France.

**Magazine**, *Neuroanatomie de la réalité : quand le réel n'est plus.* 2016, *Les yeux brouillés*, 1, 48-55.

**National TV**, *The effect of violent images on the brain and body.* 2015, Testé sous contrôle médical, France 4

**Online journal**, "Avengers, l'ère d'Ultron" en 3D : aussitôt vu, aussitôt oublié ? 2015, francetvinfos.fr

# Skills

## Language

**French:** Native proficiency

**Polish:** Native proficiency

**English:** Fluent

**Italian:** A2 level (currently learning)

## Neuroimaging

Although I have received a formal training in MRI-related techniques (see [Additional Training](#)), my focus and main expertise lies with electrophysiological data, including **EEG**, **biosignals** (EDA, ECG and EMG) and their multimodal integration.

- **NeuroKit** (*main author*): Open-source python module for statistics and neurophysiological signal processing (EEG, EDA, ECG, EMG...).

## Statistics / Data Science

I use **R**, **Python** and **Julia** for data analysis. My knowledge is oriented toward the fields of *structural modelling* (mixed-effects models and structural equations) and *predictive modelling* (machine learning and deep learning). I'm more generally interested in best practices in statistics (Bayesian framework, reporting, reproducibility, open-source solutions) and their use in psychology and neuroscience.

- **easystats** (*main author*): Collection of R packages to facilitate the usage of best methodological practices and statistical tools.
- **psycho** (*main author*): R package implementing specific functions commonly used in psychological science.

## Programming

I use **Python** on a daily basis and have a working knowledge of **Matlab<sup>TM</sup>**. I'm also familiar with traditional experiment creation tools such as **E-prime<sup>®</sup>**, **PsychoPy<sup>®</sup>** or **OpenSesame<sup>®</sup>**.

- **Neuropsychia** (*main author*): Open-source python module for creating experiments, tasks and questionnaires (see technical publications).

# Additional Training

## RESEARCH

2019

### CITI CERTIFICATION

Collaborative Institutional Training Initiative  
*Ethics and scientific integrity in research.*

## TEACHING

2017

### ACADEMIC TEACHING CERTIFICATE

40h - University of Sorbonne Paris Cité, Paris, France  
*Pedagogy and innovative teaching.*

## CLINICAL ACTIVITY

- 2019 CERTIFIED HYPNOTHERAPIST<sup>1</sup>  
100h - National Guild of Hypnotists (NGH)  
*Hypnotherapy.*
- 2016 MASTER CLASS: MINDFULNESS BASED ON COMPASSION AND INSIGHT (MBCI)  
16h - Institute for psychiatry, Sainte-Anne Hospital, Paris, France  
*Mindfulness and compassion based rehabilitation.*
- 2016 FIRST AID CERTIFICATE (LEVEL 1)  
16h - University of Sorbonne Paris Cité, Paris, France  
*Vital assistance.*

## NEUROIMAGINING

- 2017 MULTISCALE NEURODYNAMICS OF EMOTIONS AND THEIR PATHOLOGIES: FROM OSCILLATIONS TO COMPLEX NETWORKS  
8h - University of Lille, Lille, France  
*Innovative EEG analysis methods in emotion research*
- 2016 INTRODUCTION TO EYE TRACKING  
5h - Memory and Cognition Lab', University of Sorbonne Paris Cité, Paris, France  
*Eye-tracking signal acquisition and processing with the SMI system*
- 2015 fMRI AND CONNECTIVITY  
32h - National Institute of Nuclear Sciences & Techniques (INSTN), Marseille, France  
*fMRI and connectivity analysis with Dr. J. L. Armony*
- 2014-15 fMRI : PREPROCESSING AND ANALYSIS  
32h - Sainte-Anne Hospital, Paris, France  
*fMRI processing with Dr. S. Charron*
- 2014 SIGNAL PROCESSING THEORY AND APPLICATION FOR EEG  
24h - École Supérieure de Physique et de Chimie Industrielle (ESPCI), Paris, France  
*Signal theory and its application for EEG with Dr. F. Vialatte*

## STATISTICS AND PROGRAMMING

- 2016 SCIENTIFIC PROGRAMMING WITH PYTHON AND SOFTWARE ENGINEERING BEST PRACTICES  
16h - Telecom ParisTech  
*Advanced python programming*
- 2016 P4N 2016: PYTHON FOR NEUROSCIENCE (AND PSYCHOLOGY)  
24h - University of Nottingham, Nottingham, UK  
*Experiment creation and data analysis with Dr. J. Peirce, the creator of Psychopy*
- 2015 STATISTICS AND R FOR THE LIFE SCIENCES  
16h - Harvard University, MA, USA  
*Online EdX course.*
- 2014 MACHINE LEARNING AND BRAIN-TO-COMPUTER INTERFACES  
16h - École Supérieure de Physique et de Chimie Industrielle (ESPCI), Paris, France  
*Machine learning and its application for Brain-Computer Interface with Dr. F. Vialatte.*
- 2014 INTRODUCTION TO STATISTICS WITH R  
40h - Paris Sud University, Paris, France  
*Online MOOC.*

# Miscellaneous

## Grants, Honours and Awards

- 2020 Society for the Improvement of Psychological Science (SIPS) Commendation for the *bayestestR* package (Makowski et al., 2019)
- 2014 PhD ministerial scholarship (3 years - 80 000€)

<sup>1</sup>Note that although trained and qualified, I do not endorse nor practice hypnosis.

## Editorial Responsibilities

2020–present ASSOCIATE EDITOR  
Frontiers in Psychology  
*Quantitative Psychology and Measurement Section.*

## Other Education

2017–18 *History of Arts* (74h), École du Louvre, Paris.

## Other Interests

**Art:** In particular Romanticism (18-19<sup>th</sup> century), Surrealism (20<sup>th</sup> century), Hyperrealism (21<sup>st</sup> century).

**Mythology:** Ancient religions and their shared patterns and motifs.

**Music:** Piano and guitar.

## References

- **Prof. Annabel Chen** (Postdoc supervisor): AnnabelChen@ntu.edu.sg
- **Dr. Marco Sperduti** (PhD cosupervisor): marco.sperduti@parisdescartes.fr
- **Prof. Pascale Piolino** (PhD cosupervisor): pascale.piolino@parisdescartes.fr