

Dominique Makowski

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Born: October 19, 1991 – France (28 years old)
Nationality: French (FRA)



Current position

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

Education

2019	CERTIFIED HYPNOTHERAPIST ¹ Hypnotherapy , National Guild of Hypnotists (NGH)
2014–18	DOCTOR OF PHILOSOPHY (PHD) Psychology , University of Sorbonne Paris Cité, Paris, France
2014–17	CERTIFIED PSYCHOTHERAPIST Cognitive-Behavioural Therapy (CBT) , French Association for Cognitive-Behavioural Therapy (AFTCC), Paris, France
2012–14	MASTER OF SCIENCE (MSc) - LICENCED NEUROPSYCHOLOGIST Neuropsychology and Cognitive Psychology , University of Sorbonne Paris Cité, Paris, France
2009–12	BACHELOR OF SCIENCE (BSc) Psychology , University of Sorbonne Paris Cité, Paris, France

Experience

Research

2019	POSTDOC Clinical Brain Lab, Nanyang Technological University, Singapore
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Activity. Working on a project 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.

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

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	186
h-index	8
First-author papers	11
Second-author papers	5
Senior-author papers	1
Invited-speaker talks	1
First-author talks	13
First-author posters	6

Journal articles (peer reviewed)

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**. *Aging, Neuropsychology, and Cognition*, 23(6), 691-702.

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, Switzer-

land.

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.** & 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 Setpember, 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

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™**. I'm also familiar with traditional experiment creation tools such as **E-prime®**, **PsychoPy®** or **OpenSesame®**.

- **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

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 <i>fMRI processing with Dr. S. Charron</i>
2014	SIGNAL PROCESSING THEORY AND APPLICATION FOR EEG 24h - École Supérieure de Physique et de Chimie Industrielle (ESPCI), Paris, France <i>Signal theory and its application for EEG with Dr. F. Vialatte</i>

STATISTICS AND PROGRAMMING

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

Miscellaneous

Editorial Responsibilities

2020–present	ASSOCIATE EDITOR Frontiers in Psychology <i>Quantitative Psychology and Measurement Section.</i>
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Other Education

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

Art: Surrealism, Hyperrealism (21st century), romanticism (18-19th century) and expressionism.
British culture during the romantic era: literature, science, history, poetry...
Music: Piano and guitar.