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Selected Publications

Makowski, D., Pham, T., Lau, Z. J., Brammer, J. C., Lespinasse, F., Pham, H., Schötzel, C., & Chen, S. A. (2021). NeuroKit2: A Python Toolbox for Neurophysiological Signal Processing. *Behavior Research Methods*, 1-8.

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*, 19(4), 1-21.

Makowski, D., Sperduti, M., Blondé, P., Nicolas, S., & Piolino, P. (2019). The heart of cognitive control: Cardiac phase modulates processing speed and inhibition. *Psychophysiology*, 57(3).

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

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.

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

Publication List

REALITY PERCEPTION AND MANIPULATION

Makowski, D., Lau, Z. J., Pham, T., Ayache, J., Sperduti, M., Sumich, A., Heym, N. & Chen, S., A. (under review). Psychological Determinants of the Susceptibility to COVID-19 Fake News.

Makowski, D., Lau, Z. J., Pham, T., Boyce, W. P. & Chen, S. A. (2021). A Parametric Framework to Generate Visual Illusions using Python. *Perception*, 50(11), 950-965.

Makowski, D., Pham, T., Lau, Z. J., Raine, A., & Chen, S. H. (2021). The Structure of Deception: Validation of the Lying Profile Questionnaire. *Current Psychology*, 1-16.

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*, 19(4), 1-21.

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

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.

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.*, 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.

NEUROPHYSIOLOGY, EMOTION REGULATION AND INTEROCEPTIVE PROCESSES

Lau, Z. J.*, Pham, T.*, Chen, S. A., & **Makowski, D.** (under review). Brain Entropy, Fractal Dimensions and Predictability: A Review of Complexity Measures for EEG in Healthy and Neuropsychiatric Populations. *PsyArXiv*.

Pham, T., Lau, Z. J., Chen, S. H. A., & **Makowski, D.** (2021). Heart Rate Variability in Psychology: A Review of HRV Indices and an Analysis Tutorial. *Sensors*, 21(12), 3998.

Makowski, D., Pham, T., Lau, Z. J., Brammer, J. C., Lespinasse, F., Pham, H., Schötzel, C., & Chen, S. A. (2021). NeuroKit2: A Python Toolbox for Neurophysiological Signal Processing. *Behavior Research Methods*, 1-8.

Makowski, D., Sperduti, M., Blondé, P., Nicolas, S., & Piolino, P. (2019). The heart of cognitive control: Cardiac phase modulates processing speed and inhibition. *Psychophysiology*, 57(3).

Makowski, D., Sperduti, M., Lavallée, S., Nicolas, S., & Piolino, P. (2019). Adaptation and Validation of a Short French Version of the Affective Style Questionnaire. *International Journal of Cognitive Therapy*, 13(2), 146-158.

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., Sperduti, M., Blanchet, S., Nicolas, S. & Piolino, P. (2015). Régulation Emotionnelle face au Déclin Cognitif dans le Vieillessement : Un Faux Paradoxe ? | Emotion regulation and the cognitive decline in aging: beyond the paradox. *Gériatrie et Psychologie Neuropsychiatrie du Vieillessement*, 13(3), 301-8.

STATISTICS

Lüdtke, D., Patil, I., Ben-Shachar, M., Wiernik, B., Waggoner, P., & **Makowski, D.** (2021). see: An R Package for Visualizing Statistical Models. *Journal of Open Source Software*, 6(64), 3393.

Lüdtke, D., Ben-Shachar, M., Patil, I., Waggoner, P., & **Makowski, D.** (2021). performance: An R Package for Assessment, Comparison and Testing of Statistical Models. *Journal of Open Source Software*, 6(60), 3139.

Ben-Shachar, M. S., Lüdtke, D., & **Makowski, D.** (2020). effectsz: Estimation of Effect Size Indices and Standardized Parameters. *Journal of Open Source Software*, 5(56), 2815.

Lüdtke, D., Ben-Shachar, M. S., Patil, I., & **Makowski, D.** (2020). parameters: Extracting, Computing and Exploring the Parameters of Statistical Models using R. *Journal of Open Source Software*, 5(53), 2445.

Makowski, D., Ben-Shachar, M. S., Patil, I., & Lüdtke, D. (2020). Methods and Algorithms for Correlation Analysis in R. *Journal of Open Source Software*, 5(51), 2306.

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

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

Lüdtke, 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. (2018). The psycho Package: An Efficient and Publishing-Oriented Workflow for Psychological Science. *Journal of Open Source Software*, 3(22), 470.

MISCELLANEOUS

Lee, H., Jacquot, A., **Makowski, D.**, Arcangeli, M., Dokic, J., Piolino, P., & Sperduti, M. (*under review*). Beauty is in the eye of the beholder: Evidence from a common mnemonic advantage between aesthetics judgement and self-reference. *PsyArXiv*.

Blondé, P., Sperduti, M., **Makowski, D.**, & Piolino, P. (2022). Bored, distracted, and forgetful: The impact of mind wandering and boredom on memory encoding. *Quarterly Journal of Experimental Psychology*, 75(1), 53-69.

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*, 85(4), 1613-1625.

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

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.

Nicolas, S., & **Makowski, D.** (2017). Centenaire Ribot (I). La réception de l'oeuvre de Théodule Ribot chez l'éditeur Ladrance (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 Vieillessement*, 15(2), 205-13.

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.

Communications

GENERAL AUDIENCE / MEDIA COVERAGE

- Invited on the "Learning Bayesian Statistics" Podcast, [#55 Neuropsychology, Illusions & Bending Reality, with Dominique Makowski](#). 01 Feb 2022, [learnbayesstats.com](#)
- Speaker at the Pint of Science, [Back to the Matrix : pilule bleue ou rouge ?](#). 16 May 2018, Paris, France.
- Invited to participate in a Public Debate, [Art & science discussion on sensory illusions](#). 24 November 2017, Bordeaux, France.
- Published article in magazine, [Neuroanatomie de la réalité : quand le réel n'est plus](#). 2016, Les yeux brouillés, 1, 48-55.
- Featured on National TV, [The effect of violent images on the brain and body](#). 2015, Testé sous contrôle médical, France 4
- Research Featured in Online journal, ["Avengers, l'ère d'Ultron" en 3D : aussitôt vu, aussitôt oublié ?](#) 2015, [francetvinfo.fr](#)

TALKS

Co-organizer (2021). *La recherche aux temps de la COVID, 1ère journée du Collaborative COgnitive Science*, 29 November, Online.

Makowski, D., Sperduti, M., Nicolas, S. & Piolino, P. (2018). *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*. CRPCO'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 and 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

- Lau, Z. J., Pham, T., Boyce, W. P., Chen, S. A., & **Makowski, D.** (2021). *A Parametric Framework to Generate Visual Illusions using Python*. 43rd European Conference on Visual Perception, 22-27 Aug. Online.
- 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 Vieillessement, 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 Vieillessement, 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.