Valentin Guigon

CURRENT POSITION

Postdoctoral researcher

Social Learning and Decisions Lab, UMD March 2024 - Ongoing

> RESEARCH AND PERSONAL INTERESTS

Beliefs
Emotions
Information
Social learning
Decision-making
Modelling complex behaviors

Social sciences Public policies Epistemology Bouldering Poetry

CONTACT

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vguigon@umd.edu valentinguigon.github.io

EDUCATION

Doctorate degree - Cognitive neurosciences

2018-2022 | Neurosciences and Cognition Doctorate School, Lyon 1, France

Master degree - Cognitive Sciences

2016-2018 | Psychology Faculty, Lyon 2, France

Licence degree – Physiology & Neurosciences (specialization: "Adaptation & Cognition")

2015-2016 | Sciences Faculty, Marseille Saint Charles, France

Licence degree – Psychology

2012-2015 | Human Sciences Faculty, Aix en Provence, France

RESEARCH EXPERIENCE

Post-doctorate | Social Learning and Decisions Lab

University of Maryland, Maryland, USA March 2024 - Ongoing | Social decision making

Studies: Neurocomputational mechanisms underlying neurotypical and neuroatypical learning in social contexts.

PI: Caroline Charpentier

Post-doctorate | Neuroeconomics laboratory (ISCMJ) and Behavioral economics laboratory (GATE)

CNRS UMR 5229, France & CNRS UMR 2824, France March 2023 – October 2023 | Social decision making

Studies: Neurocognitive mechanisms underlying transmission of uncertain information in humans & Beliefs updating in social networks

Tools: Matlab - VBA toolbox, SPM | R - JAGS, BRMS

PI: Marie Claire Villeval & Jean-Claude Dreher

PhD | Neuroeconomics laboratory (ISCMJ) and Behavioral economics laboratory (GATE)

CNRS UMR 5229, France & CNRS UMR 2824, France October 2018 - December 2022 | Social decision making

Studies: Neurocognitive mechanisms underlying transmission of uncertain information in humans.

Tools: Matlab - VBA toolbox, SPM | R - JAGS, BRMS

Missions: Management of PhD behavioral and imaging studies.

Directors: Marie Claire Villeval & Jean-Claude Dreher

Research Internship | Neuroeconomics laboratory (ISCMJ),

CNRS UMR 5229, France

February - July 2018 | Decision making & Rewarding

Study: gPPI analysis of testosterone-induced effects on orbitofrontal-amygdala relationships during anticipation of primary and secondary rewards.

Tools: Matlab – SPM, CONN

Missions: Brain functional connectivity analysis.

Supervisor: Jean-Claude Dreher

PROJECT MANAGEMENT DATA ANALYSIS COMPUTATIONAL MODELLING EXPERIMENTAL DESIGN TEACHING & MENTORING

Research Internship | Neuroeconomics laboratory (ISCMJ),

CNRS UMR 5229, France

June - August 2017 | Decision making & Rewarding

Studies: Functional connectivity analysis in rewarded tasks and implementation of moral norms in tDCS disrupted decision-making behaviors.

Tools: Matlab - SPM, CONN

Missions: fMRI analysis & research and ethics protocols.

Supervisor: Jean-Claude Dreher

Research Intership | Neuroeconomics laboratory (ISCMJ),

CNRS UMR 5229, France

December 2016 - May 2017 | Impulsivity, Spatial discounting & VR

Study: Spatial proximity effects and impulsivity to action in a VR go/no-go task.

Missions: Experimental design, experimentation, statistics analyses, psychological processes modeling.

Supervisors: Jean-Claude Dreher & David O'Connor

Research Internship | Integrative and Adaptative Neurosciences Laboratory,

CNRS UMR 7260, France

March - April 2016 | Vestibular Cortex; Complex Systems

Study 1: Vestibular cortex, corporal self-consciousness.

Supervisor: Christophe Lopez

Study 2: Modelling patient-therapist-3rd party interactions in therapies and predicting subsequent emotional states (Lotka-Volterra models).

Supervisor: Laurent Pezard

Research Internship | Cognitive Psychology Laboratory

CNRS UMR 7290, France June-July 2015 | Green Nudges

Mission: Review of nudges theories and practices applied to

ecological transition.

Supervisor: Olivier Oullier

Professional Internship | La Poste Communication's direction (13), Marseille, France

April 2015 | Nudges, Engaging Communication & Elaboration Likelihood Model

Mission: Designing behavioral methods aiming at reducing employees' risky behaviors and promoting eco-responsibility, for communication managers.

Supervisors: Yousri Marzouki & Olivier Oullier

Research Technician | Speech and Language Laboratory,

CNRS UMR 7309, France May - June 2014 | Theory of Mind

Study: Experimentation and analysis of intentions attributions in healthy and schizophrenic patients during sentences judgement tasks.

Missions: Collecting data and behavior analysis.

Supervisor: Maud Champagne-Lavau

FELLOWSHIPS

IDEX Institutional Design and Economic Preferences: Theory and Experiments (INDEPTH) PhD fellowship (2018-2021)

LabEX CORTEX fellowship (2021-2022)

LabEX CORTEX fellowship (2022-2023)

CONTRIBUTIONS

Cortex-magazine, member of the editorial board (January 2023 – January 2024)

PUBLICATIONS

- **Guigon, V.**, Villeval, M. C. & Dreher, J. C. (2024). Metacognition during fake news detection induces an ineffective demand for disambiguating information. *Researchsquare*, 2024-06.
- Benistant, J., **Guigon, V.**, Nicolas, A., Derrington, E., & Dreher, J. C. (2024). Dynamic valuation bias explains social influence on cheating behavior. *bioRxiv*, 2024-05.
- **Guigon, V.**, Philippe, R., Benistant, J., Villeval, M.C., Dreher, J.-C. (2024). Neurocomputational processes of inferring others' preferences for information and fake news. *In preparation*
 - **Guigon, V.**, Dunne, S., Pazderska, A., Frodl, T., Nolan, J. J., Clairis, N., O'Doherty, J.P., Dreher, J.-C. (2024). Testosterone Causes Decoupling of Orbitofrontal Cortex-Amygdala Relationship While Anticipating Primary and Secondary Rewards. *In preparation*.
- O'Connor, D. A., Janet, R., **Guigon, V.**, Belle, A., Vincent, B. T., Bromberg, U., ... & Dreher, J. C. (2021). Rewards that are near increase impulsive action. *Iscience*, 24(4), 102292.
- Hu, Y., Philippe, R., **Guigon, V.**, Zhao, S., Derrington, E., Corgnet, B., ... & Dreher, J. C. (2022). Perturbation of Right Dorsolateral Prefrontal Cortex Makes Power Holders Less Resistant to Tempting Bribes. *Psychological Science*, *33*(3), 412-423.

SCIENCE DISSEMINATION

- **V. Guigon** (2023). Notre société est-elle de plus en plus polarisée ? Cortex-mag.net. https://www.cortex-mag.net/notre-societe-est-elle-de-plus-en-plus-polarisee/
- A. Sorce (2021). L'invité de la semaine Valentin Guigon, fake news et théories du complot. Pharefm.com. https://pharefm.com/2021/09/10/linvite-de-la-semaine-valentin-guigon-fake-news-complot/
- O. Mollaret (2021). À Lyon : les victimes de fake news « fonctionnent comme tout le monde ». Rue89lyon.fr. https://www.rue89lyon.fr/2021/08/16/lyon-victimes-fake-news/
 - Yanis (2021). Comment ne pas se faire avoir par les fake news? Alveole.media/cognitif. https://smartlink.ausha.co/cognitif/episode-bonus-comment-ne-pas-se-faire-avoir-par-les-fake-news
- A. Gabert (2020). Pourquoi les théories du complot plaisent à notre cerveau. Cortex-mag.net. https://www.cortex-mag.net/pourquoi-les-theories-du-complot-plaisent-a-notre-cerveau/

EXTERNAL FORMATIONS

Machine Learning with scikitlearn, INRIA, 36h | 2024 | Certified

Structural Equation Modeling, CenterStat, 18h | 2024 | Certified

Game Theory, Stanford University, Coursera, 17h | 2024

HuggingFace NLP course, huggingface.co, 49h | 2023

CS50, Harvard University, EdX, 30h | 2023

Machine learning with Python, IBM, Coursera, 15h | 2023

Bayesian statistics in Evolutionary Biology, LBBE, UCBL1, 27h | 2022 | Certified

Statistical Bayesian modelling, Ladislas Nalborczyk, MaiMoSiNe, 20h | 2021 | Certified

Model Thinking, Scott E. Page, Coursera, 27h | 2019-2020

Noninvasive Brain Stimulation Workshop, ISCMJ, Lyon, 14h | 2019 | Certified

Integrity and Ethics in research careers, UDL, FUN-MOOC, 30h | 2019-2021 | Certified

Consulting career for PhDs, UDL, Lyon, 18h | 2019 | Certified

Leaders of learning, Harvard University, FUN-MOOC, 15h | 2019 | Certified

Introduction to Neuroeconomics, Coursera, 31h | 2019

Principles of fMRI I & II, Martin Lindquist, Coursera, 17h | 2018

TEACHING EXPERIENCE

Mentoring | UCBL1 Neurosciences Master students, Université Claude Bernard Lyon 1, Lyon, France January - June 2024 | 1 semester | 3 students

Mentoring | UCBL1 Neurosciences Master 1 students, Université Claude Bernard Lyon 1, Lyon, France January – June 2023 | 1 semester | 3 students

SPM fMRI preprocessing and contrasting | UCBL1 Neurosciences PhD students, Université Claude Bernard Lyon 1, Lyon, France June 2023 | 1 day | 20 PhD students

Teaching assistant | Université Lumière Lyon 2, Bron, France September – December 2020 | 1 semester | 40 students | Cognitive Psychology, Licence 2

Courses: cognitive psychology (Methodology, Emotions, Working Memory, Executive Functions, Language).

Introduction to: epistemology and the problems of induction, beliefs, emotions as signaling, ontogenetics and phylogenetics of brain development, multi-level approaches, intercultural processes of decision-making.

Supervisor: Gaën Plancher

Teaching assistant | Université Lumière Lyon 2, Bron, France September – December 2019 | 1 semester | 40 students | Cognitive Psychology, Licence 2

Courses: cognitive psychology (Methodology, Emotions, Working Memory, Executive Functions, Language).

Introduction to: epistemology and the problems of induction, beliefs, behavior modelling, ontogenetics of brain development, intercultural decision-making.

Supervisor: Gaën Plancher

Teaching assistant | Université Lumière Lyon 2, Bron, France September – December 2018 | 1 semester | 80 students | Cognitive Psychology, Licence 2

Courses: cognitive psychology (Methodology, Emotions, Working Memory, Executive Functions, Language).

Supervisor: Gaën Plancher

Teaching assistant | Université Lumière Lyon 2, Bron, France September - December 2017 | 1 semester | 80 students | Introduction to cognitive psychology, Licence 1

Courses: research methodology and cognitive paradigms.

Supervisor: François Osiurak

June 08 2024