# Curriculum Vitae

Jérémie Beucler (MSc)

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### **Contact Information**

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# Summary

I am a second-year PhD student at LaPsyDÉ (Université Paris Cité), co-supervised by Wim De Neys, Zoe Purcell, and Lucie Charles (Queen Mary University of London). My research integrates computational modeling, behavioral experimentation, and large language models (LLMs) to explore how individuals engage with cognitive conflict and uncertainty in classic reasoning tasks such as base-rate neglect. I use evidence accumulation models to investigate how biased internal representations shape decision-making, cognitive effort, and confidence judgments. Ultimately, my goal is to model the mechanisms that underlie rational and irrational belief formation in humans.

### Professional Experience

### PhD - Modeling Deliberation Engagement in Reasoning

LaPsyDÉ (CNRS), September 2023 – Present

Supervisors: Wim De Neys, Zoe Purcell, Lucie Charles

#### Cognitive Science Consultant

Noese, March 2025 - Present

Design and validation of cognitive assessments, behavioral data analysis, and ensuring scientific rigor in scalable cognitive testing.

### Visiting Researcher - Computational Modeling of Reasoning

KU Leuven, Brain and Cognition Unit, September – November 2025 (Upcoming)

Host: Kobe Desender

Two-month international research stay focused on modeling reasoning engagement and metacognitive monitoring.

#### **MSc Research Projects**

• Intuitive Insight: Fast Associative Processes Drive Sound Creative Thinking

LaPsyDÉ (CNRS), April – September 2023

Supervisor: Wim De Neys

### • Intuitive Error Sensitivity in Semantic Illusions – EEG Study

University of Porto, February - April 2023

Supervisor: Juliana Novo Gomes

### • Semantic Illusions, Fast and Slow

LaPsyDÉ (CNRS), September 2021 – August 2022

Supervisor: Wim De Neys

### **BSc Research Projects**

### • Emotional State in Cognitive Dissonance

Laboratoire de Psychologie Sociale, Université de Paris, February – June 2021

Supervisor: David Vaidis

# • The Developmental Trajectory of Decreasing Marginal Utility in Children

BabyLab (INCC, CNRS), August 2020 - February 2021

Supervisor: Olivier Mascaro

### Applying Classification Image to Serial Dependence in Vision

Equipe Vision (INCC, CNRS), March – July 2020

Supervisor: Thérèse Collins

#### Education

### Master of Cognitive Sciences (Cogmaster)

ENS-PSL, 2021-2023

Major in Cognitive Psychology with coursework in cognitive neuroscience and computational modeling. Graduated with highest honors.

### Bachelor of Psychology

Université Paris Cité, 2018–2021

Psychological Sciences Track, obtained with highest honors.

# Élève-fonctionnaire normalien

École Normale Supérieure de Paris, 2017–2023

Civil servant scholarship awarded through national competitive entrance exam. Track in cognitive sciences with additional training in statistics, econometrics, and computer science.

### Classes Préparatoires A/L

Lycée Henri IV, Paris, 2014-2017

Post-secondary humanities curriculum for admission to French Grandes Écoles.

### **Publications**

#### Peer-Reviewed Papers

• Beucler, J., Voudouri, A., & De Neys, W. (2025, in press). Moses Illusions, Fast and Slow. *Journal of Experimental Psychology: Learning, Memory, and Cognition*.

#### Working Papers

- Beucler, J., Purcell, Z., Charles, L., & De Neys, W. (2025). Using Large Language Models to Estimate Belief Strength in Reasoning. *Under review, Behavior Research Methods*.
- **Beucler**, J., & De Neys, W. (2025). Intuitive Insight: Fast Associative Processes Drive Sound Creative Thinking. *Under review*, *Cognition*.

# Conferences, Talks, and Poster Presentations

#### **Talks**

- Modeling Base-Rate Neglect Using Biased Evidence Accumulation
  - Queen Mary University of London (Feb 2025)
  - KU Leuven (Dec 2024)
- Convergent Thinking, Fast and Slow
  - International Conference on Thinking, Milan (June 2024)

### Posters

- Computational Modeling of Heuristic and Base-rate Integration in Reasoning
  - Cognitive Computational Neuroscience Conference, Amsterdam (August 2025, Upcoming)
- Intuitive Insight: Fast Associative Processes Drive Sound Creative Thinking
  - Society for Neuroscience of Creativity, Paris (May 2025)
  - Society for Judgment and Decision Making, New York (Nov 2024)
- Moses Illusions, Fast and Slow
  - Psychonomic Society Annual Meeting, New York (Nov 2024)
- Leveraging LLMs for Automated Debunking of Logical Fallacies
  - EADM Summer School, Berlin (Sept 2024)

### Summer Schools and Additional Training

- BAMB! Summer School, Computational Modeling, Barcelona (2025)
- EADM Summer School, LLMs and Behavioral Science, Berlin (2024)
- Neuromatch Academy, Computational Neuroscience, Online (2023)
- UCL/PSL Summer School, Consciousness & Metacognition, Paris (2023)
- PSL Week, NLP for Social Sciences and Machine Learning, Paris (2022)

# Teaching Experience

- Teaching Assistant
  - Université Paris Cité, 2023–2025
    - Experimental Cognitive Psychology
    - Research Methods in Psychology (128 hours total)
- Workshop Instructor LaPsyDÉ

- Using Large Language Models in Psychology & Behavioral Science (April 2025)
- Introduction to Mixed-Effects Models in R (May 2024)

### Academic Service

- PhD Student Representative, LaPsyDÉ (2024–2025)
- Organizer, Scientific Methods Workshops, LaPsyDÉ (2023–2024)

### Scientific Skills

- **Programming Languages**: Python (advanced), R (advanced), JavaScript (intermediate), Matlab, HTML (basic)
- Machine Learning: Scikit-Learn
- Experiment Design Platforms: jsPsych, OpenSesame/Osweb, Expyriment, Psychtoolbox, Qualtrics, Testable
- Software Development:
  - Beucler, J. (2025). baserater (Author): An R package using large language models to estimate belief strength in reasoning (Version 0.1.0) [Computer software]. Zenodo. https://doi.org/10.5281/zenodo.15449192
- **High-Performance Computing**: SLURM-managed clusters for parallel fitting and simulations of computational models

### **Grants and Funding**

- 2025: International Mobility Grant (BDMI), Université Paris Cité €1,500
- 2025: Travel Grant, École Doctorale ED261 €466
- 2024: Jane Beattie Memorial Scholarship, Society for Judgment and Decision Making \$750
- **2024**: Travel Grant, École Doctorale ED261 €300
- 2023–2026: Contrat Doctoral Spécifique Normalien (CDSN), ENS Paris €37,493
- 2017–2023: Élève Normalien Scholarship, ENS Paris €47,160

# Languages

• French (Native), English (Fluent – academic/professional), German (Intermediate – B1)

### Additional Skills and Interests

• Certified First-aid Team Leader and Instructor

- Classical Singing
- Martial Arts (Wrestling, Grappling, Boxing, MMA)
- Driving License (B)