

# Simone D'Ambrogio

PHD

Experimental Psychology, University of Oxford

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## Education

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### University of Oxford

PHD IN EXPERIMENTAL PSYCHOLOGY

Oxford, UK

2021 - present

### University of Pennsylvania

VISITING GRADUATE SCHOLAR, WHARTON NEUROSCIENCE INITIATIVE

Philadelphia, Pennsylvania

2020

### University of Padua

M.SC. IN APPLIED COGNITIVE PSYCHOLOGY (CUM LAUDE)

Padua, Italy

2017-2020

### Leiden University

ERASMUS + PROGRAM

Leiden, Netherlands

2018

### University of Padua

B.SC. IN PSYCHOLOGY (FIRST CLASS HONOURS)

Padua, Italy

2017-2017

## Research

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### Decision and Action, University of Oxford

Studying how the brain supports adaptive behavior, combining machine learning, non-invasive brain stimulation, and high-resolution brain imaging in humans and non-human primates.

Oxford, UK

2021 - present

### Platt Lab, Wharton Neuroscience Initiative, UPenn

Analysis and modeling of eye-tracking and pupillometry to study the role of attention in consumer decision-making.

Philadelphia, Pennsylvania

2020

### Junior Researcher Programme

Analysis and modeling of decision-making.

Cambridge, UK

2020

### Judgment and Decision-Making Lab, Padua University

Modeling and analyzing decision-making to enhance individual and societal well-being.

Padua, Italy

2018-2020

### PsicoStat Lab, Padua University

Development of statistical methods for data analysis in behavioural science.

Padua, Italy

2017-2020

## Summer Schools

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### Computational Neuroscience, Neuromatch Academy

Project on fMRI decoding analysis supervised by Prof. Samuel J. Gershman

Online

2021

### Psychology and Behavioral Sciences, JSchool

Studying how to improve real-world decision making

Siena, Italy

2020

## Conferences

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### Mathematics Of Neuroscience and AI (📺 Talk)

Hybrid artificial neural network modelling predicts behaviour and neural activity in a solution for Buridan's ass.

Rome, Italy

2024

### Foraging and information seeking conference (📄 Poster)

Discovery of Cognitive Strategies for Information Sampling with Deep Cognitive Modelling and Investigation of their Neural Basis

Lyon, France

2024

### Interdisciplinary Symposium on Decision Neuroscience (Poster)

Visuospatial working memory modulates the influence of visual attention on binary choice

Online

2021

<b>Wharton Neuroscience Initiative Annual Meeting</b> (Talk)	<a href="#">Online</a>
The effect of celebrity and visual attention on value-based decisions	2021
<b>Society for Neuroeconomics</b> (Poster)	<a href="#">Online</a>
The Effect of Celebrity and Visual Attention on Value-Based Decisions	2020
<b>Italian Ministry of Economic Development - Division V</b> (Talk)	<a href="#">Online</a>
Lessons from Decision Neuroscience to Inform Policy Making	2019
<b>Junior Researcher Programme Conference</b> (Poster)	<a href="#">Siena, Italy</a>
The Attentional Drift Diffusion Model with Temporal Information	2019
<b>PsicoStat Meeting</b> (🌐 Talk)	<a href="#">Padova, Italy</a>
Estimation of the attentional drift diffusion model parameters via Random Utility	2019

## Publications

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- D'Ambrogio, S.**, Grohn, J., Khalighinejad, N., Mattar, M., Hunt, L., & Rushworth, M. F. S. (2025, June 25). *Interpretable abstractions of artificial neural networks predict behavior and neural activity during human information gathering*. <https://doi.org/10.1101/2025.06.24.661282>
- Miyamoto, K., **D'Ambrogio, S.**, Harbison, C., Eichert, N., Schüffelgen, U., Emberton, A., Salet, J., Mars, R., Khalighinejad, N., & Matthew, R. (2025). *Neural recording, disruption, and connectivity analyses suggest an origin for metacognition in evidence accumulation mechanisms in primate ventral prefrontal cortex*. *Nature Human Behaviour* (Currently under review).
- Pan, D., **D'Ambrogio, S.**, Kingston, N., Rascu, M., Sankhe, P., Luo, S., Klein-Flügge, M. C., Mahmoodi, A., & Rushworth, M. F. S. (2025). *Causal necessity of human hippocampus for structure-based inference in learning*, 2025.08.19.664920. <https://doi.org/10.1101/2025.08.19.664920>
- D'Ambrogio, S.**, Werksman, N., Platt, M. L., & Johnson, E. N. (2023). *How celebrity status and gaze direction in ads drive visual attention to shape consumer decisions*. *Psychology & Marketing*, 40(4), 723–734. <https://doi.org/10.1002/mar.21772>
- Priolo, G., Stablum, F., Vacondio, M., **D'Ambrogio, S.**, Caserotti, M., et al. (2023). *The robustness of mental accounting: A global perspective*. Retrieved October 18, 2025, from [https://osf.io/apc26\\_v1](https://osf.io/apc26_v1)
- Ruggeri, K., Panin, A., ..., **D'Ambrogio, S.**, ..., Zupan, Z., & García-Garzon, E. (2022). *The globalizability of temporal discounting*. *Nature Human Behaviour*, 6(10), 1386–1397. <https://doi.org/10.1038/s41562-022-01392-w>

## Awards & Honours

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<b>Excellence Award</b>	<a href="#">UK</a>
Funded by the University of Oxford	2025
£ 1,044	
<b>PhD scholarship in Psychological Sciences</b>	<a href="#">Italy</a>
Funded by the University of Padua	2020
€ 45,343.28	
<b>Erasmus+ School of Psychology</b>	<a href="#">Italy</a>
Funded by the University of Padua	2018
€ 2,800	

## Technical skills

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### Programming Languages

Python – Julia – R – STAN –  
Node.js – JavaScript

### Software & Tools

FSL – SPM – Git – Bash –  
Markdown – LaTeX – Quarto –  
Arduino

### Computational Skills

High-Performance Computing  
(HPC) systems – parallelization  
with SLURM