Max Taylor-Davies

https://maxtaylordavi.es

Email : s2227283@ed.ac.uk

Summary

I am a third-year PhD student in **computational cognitive science** and **AI**. My research is primarily concerned with **social cognition and learning** in humans and artificial agents. I am also interested in reinforcement learning, evolution, moral cognition, and AI alignment (among other topics).

Education

- **University of Edinburgh** — Edinburgh, UK
  PhD, Centre for Doctoral Training in Robotics and Autonomous Systems — *Sep 2022 – ongoing*
- **Imperial College London** — London, UK
  MEng Molecular Bioengineering; 1st class honours — *Oct 2017 – Jul 2021*

Other research experience

- **INRIA Flowers Lab** — Bordeaux, France
  Visiting researcher (mentored by Clément Moulin-Frier) — *June 2024 – Sep 2024*
- **UCL Visual Plasticity Lab** — London, UK
  Research Assistant — *Mar 2022 – Sep 2022*

Employment

- **PolyAI** — London, UK
  Intern → Software engineer (part-time) — *June 2020 – June 2021*
- **MedEngine** — Berlin, Germany
  Intern → Research engineer (part-time) — *June 2018 – Oct 2019*

Teaching

- **Seminar in Cognitive Modelling** — University of Edinburgh
  Teaching assistant + marker — *2023-24, 2024-25*

Selected Papers

- **Taylor-Davies, M.**, Hamon, G., Boulet, T., & Moulin-Frier, C. *Emergent kin selection of altruistic feeding via non-episodic neuroevolution* (EvoApps 2025)

- **Taylor-Davies, M.** & Lucas, C.G. *Rational compression in choice prediction* (International Conference on Cognitive Modeling 2024)

- McCallum, S., **Taylor-Davies, M.**, Albrecht, S. & Suglia, A. *Is feedback all you need? leveraging natural language feedback in goal-conditioned reinforcement learning* (Goal-Conditioned Reinforcement Learning Workshop, NeurIPS 2023, **selected for spotlight talk**)

- **Taylor-Davies, M.**, Droop, S. & Lucas, C.G. *Selective imitation on the basis of reward function similarity* (CogSci 2023)

Invited talks

- *Learning about and from other agents*, guest lecture in 'computational cognitive science' class @ Edinburgh University (November 2024)

- *Social learning and social groups* @ Human Decision-making Lab, Edinburgh University (November 2023)

- *Imitation, preferences and group identity* @ Computational Cognitive Development Lab, Brown University (November 2023)

Reviewing

Cognition, CogSci 2024, CogSci 2023