

Konstantinos Voudouris

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EXPERIENCE

Research Scientist, Cognitive Science

Alignment Team—UK AI Security Institute

London, UK

Dec 2025–Present

Post-doctoral Research Scientist, Helmholtz Munich

Institute for Human-Centered AI (PI: Eric Schulz)

Munich, Germany

Jul 2024–Nov 2024

Post-doctoral Research Assistant/Associate, University of Cambridge

Major Transitions in the Evolution of Cognition (PIs: M. Halina, A. Barron, C. Klein)

Cambridge, UK

Nov 2023–Jul 2024

EDUCATION

PhD (Psychology, Philosophy of Science, Artificial Intelligence)

Passed with *no corrections* (Thesis: [From Animals to Algorithms](#)).

University of Cambridge

Oct 2020–Mar 2024

Visiting Scholar

Psychology Department (Sponsor: Alison Gopnik)

University of California, Berkeley

Jul–Sep 2023

MPhil (Biological Sciences: Psychology)

Passed with *minor corrections*

University of Cambridge

Oct 2019–Sep 2020

MA *Cantab.* (Theoretical and Applied Linguistics)

Starred Double First, *1st in cohort*

University of Cambridge

Oct 2016–Jun 2019

SELECTED PEER-REVIEWED PUBLICATIONS (*FIRST AUTHOR, †SENIOR AUTHOR)

Slater, B., Mecattaf, M. G., Tešić, M., Prunty, J., **Voudouris, K.**[†] & Cheke, L. G.[†] (2025). A little less conversation, a little more action, please: Investigating the physical common-sense of LLMs in a 3D embodied environment. *PRICAI 2025*. ([Pre-Print](#))

Voudouris, K.^{*} (forthcoming). Cognitive Simplicity As An Idealization. *Animal Behavior & Cognition*. ([Pre-Print](#))

Voudouris, K.^{*} (2025). [Analogies And The Associative-Cognitive Distinction In Comparative Psychology](#). *Biology & Philosophy*, 40, 19. ([Pre-Print](#))

Binz, M., ..., **Voudouris, K.**, ..., Schulz, E. (2025) [A foundationmodel to predict and capture human cognition](#). *Nature* 644, 1002-1009.

Voudouris, K.^{*}, Schulze-Buschoff, L. M.^{*}, Akata, E., Bethge, M., Tenenbaum, J., & Schulz, E. (2025) Testing the limits of fine-tuning for improving visual cognition in vision language models. *42nd Intl Conference on Machine Learning*. ([Pre-Print](#))

Pacchiardi, L., **Voudouris, K.**, Slater, B., Martinez-Plumed, F., Zhou, L., Hernández-Orallo, J., & Schellaert, W. (2025) PredictaBoard: Benchmarking LLM Score Predictability. *Findings of the ACL*. ([Pre-Print](#))

Voudouris, K.^{*}, Cheke, L. G., & Schulz, E. (2025) [Bringing comparative cognition approaches to AI systems](#). *Nature Reviews Psychology*.

Voudouris, K.^{*}, ..., & Cheke, L. G. (2025) [The Animal-AI Environment: A Virtual Laboratory For Comparative Cognition and Artificial Intelligence Research](#). *Behavior Research Methods*, 57:107.

Kipnis, A., **Voudouris, K.**, Buschoff Schulze, L., & Schulz, E. (2025) metabench—A sparse benchmark for reasoning and knowledge in large language models. *13th Intl Conference on Learning Representations*. (ICLR) 2025. ([Pre-Print](#)).

Voudouris, K.^{*}, Farrar, B. G., Cheke, L. G., & Halina, M. (2025) Morgan’s Canon and the Associative-Cognitive Distinction Today: A Survey of Practitioners. *Journal of Comparative Psychology* ([Pre-Registration](#); [Pre-Print](#)) (JCP Best Paper Award Finalist).

Voudouris, K.^{*}, Liu, J. D., Siwinska, N., Schellaert, W., & Cheke, L. G. (2024). [Investigating Object Permanence in Deep Reinforcement Learning Agents](#). In *Proceedings of the Annual Meeting of the Cognitive Science Society* (Vol. 46).

Voudouris, K.^{*}, Cheke, L. G., & Halina, M. (2024). [The Future is Computational Comparative Cognition](#). *Comparative Cognition & Behavior Reviews*, 19.

Voudouris, K.^{*}, Donnelly, N., Rutar, D., Burnell, R., Burden, J., Hernández-Orallo, J., & Cheke, L. G. (2022). [Evaluating Object Permanence in Embodied Agents Using the Animal-AI Environment](#). *EBeM’22: Workshop on AI Evaluation Beyond Metrics*, July 25, 2022, Vienna, Austria.

Voudouris, K.^{*}, Crosby, M., Beyret, B., Hernández-Orallo, J., Shanahan, M., Halina, M., & Cheke, L. (2022). [Direct Human-AI Comparison in the Animal-AI Environment](#). *Frontiers in Psychology* 13:711821.

RESEARCH PROJECT SUPERVISION

PhD Student Assistant Supervisor

Helmholtz Munich - 2 students

Jul 2024—Present

Munich, Germany

Psychology & Behavioural Sciences Dissertation Supervisor

Department of Psychology (Statistics, AI Evaluation, Cognitive Modelling) - 4 Students

Oct 2021—Jun 2023

Cambridge, UK

SELECTED INVITED TALKS, WORKSHOPS, & SYMPOSIA ([‡]CO-PRESENTED)

What Are AI Capabilities & How Can We Measure Them? *Science of Intelligence Seminar, March 20 2025, TŮ Berlin.*

Generalization in Fine-Tuned Vision Language Models *Kinds of Kinds of Intelligence, January 31 2025, University of Cambridge.*

Intuitive Physics in Animals and Machines *Intuitive Physics Across Species and Development Workshop, December 17-18 2024, MPI for Evolutionary Anthropology, Leipzig, Germany.*

Measurement Layouts for Capability-oriented AI Evaluation[‡] *AAAI-24, February 20 2024, Vancouver, Canada.*

Studying Artificial and Natural Intelligence with the Animal-AI Environment *ARCANI Workshop, March 28 2024, Macquarie University, Sydney, Australia.*

Oops, I Did It Again: A typology of phonological iterativity[‡] *Penn Linguistics Conference March 20 2021.*

WORKSHOPS, TUTORIALS, & SYMPOSIA

Co-organiser and co-presenter of the *Measurement Layouts for Capability-oriented AI Evaluation* Lab at AAAI-24 (Vancouver, Feb 2024).

Co-organiser of the *Predictable AI* Conference in Valencia, Spain (8th March 2023).

RESEARCH GRANTS

Voudouris, K.. Graham, C. R. Scimeca, L, Roll, N. Methods for evaluating short-cut learning in transformer-based ASR systems and its implications. (**£3,120**). *Cambridge Language Sciences Incubator Fund 2021.*

Voudouris, K.. Graham, C. R., and Shinohara, Y. AccentBench: A Framework for evaluating ASR generalisation from native to non-native speech. (**£2,960**). *Cambridge Language Sciences Incubator Fund 2022.*

TEACHING

Cambridge University Undergraduate Supervision: **Cognitive Neuroscience & Experimental Psychology** (Part IB, second-year; 2022-2023), **Philosophy of Cognitive Science** (Part II, third-year; 2022-2023), **Comparative Cognition** (Part II, third-year; 2022-2023), **Phonological Theory** (Part II, second- and third-year; 2020-2022). **Introduction to Linguistics** (2020, 2021; [Syllabus](#)).

MEDIA & PROFESSIONAL SERVICES

Interview with Greg Goth for *Communications of the ACM* (Sept 2022) **Is AI Becoming Sentient?** **Podcast with Kyle Polich** for *DataSkeptic* (May 2024) **Evaluating AI Abilities.** **CFI Blog** (June 2024) **Cognitive Psychology for AI Evaluation.** **Reviewer** for *Synthese*, *Linguistics Vanguard*, *ICLR 2025*, *British Journal of Philosophy of Science*, *CogSci 2025*, *CCN 2025*, *AI & Society*.

TECHNICAL SKILLS

Programming Languages: Python, Julia, R, PowerShell, SQL, L^AT_EX.

Libraries and Frameworks: git, Docker, Lux.jl, MySQL, SLURM, tidyverse, torch, transformers, trl, unsloth.

Natural Languages: English (native), Greek (C1), French (B2), German (B1), Turkish (A2), Mandarin Chinese (A2).

REFERENCES

Eric Schulz Postdoc Advisor (eric.schulz@helmholtz-munich.de)

Lucy Cheke PhD Supervisor (lgc23@cam.ac.uk)

Marta Halina PhD Supervisor (mh801@cam.ac.uk)

José Hernández-Orallo Academic Collaborator (jorallo@upv.es)

Nicola Clayton PhD Examiner (nsc22@cam.ac.uk)

Cameron Buckner PhD Examiner (cjbuckner@uh.edu)