

Cameron Robert Jones

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Education

- UC San Diego** 2019 – 2024
PhD, Cognitive Science (GPA: 4.00) [anticipated]
Advisor: Benjamin K. Bergen
- University of Edinburgh** 2016 – 2017
MSc, Evolution of Language and Cognition (Distinction)
Dissertation Advisor: Simon Kirby
Dissertation: The Effect of Biasing Information on a Transmission Chain of Short Texts
- University College London** 2012 – 2016
BA, Classics (First Class)

Research Experience

- Graduate Researcher, Language and Cognition Lab** 2019 – Present
Dept. of Cognitive Science, UC San Diego
PI: Benjamin K. Bergen
Investigating social intelligence in large language models, including theory of mind benchmarks, and interactive evals like the Turing test.
- Dissertation Research, Centre for Language Evolution** 2016-2017
Philosophy, Psychology & Language Sciences, University of Edinburgh
PI: Simon Kirby
Design and analysis of in-person experiments investigating how induced biases influence information propagation.

Publications

Under Review. Jones, C. R. & Bergen, B. People cannot distinguish between GPT-4 and a human in a Turing test.

Under Review. Jones, C. R., Bergen, B., & Trott, S.. Do Multimodal Large Language Models and Humans Ground Language Similarly?

To appear. Jones, C. R., Trott, S., & Bergen, B. Comparing Humans and Large Language Models on an Experimental Protocol Inventory for Theory of Mind Evaluation (EPITOME). *Transactions of the Association of Computational Linguistics* [[preprint](#)]

To appear. Jones, C. R. & Trott, S.. Multimodal Language Models Show Evidence of Embodied Simulation. *LREC-COLING 2024*

To appear. Jones, C. R. & Bergen, B. Does GPT-4 Pass the Turing Test? *NAACL* [[preprint](#)] [[experiment](#)]

2024. Jones, C. R. & Bergen, B. Does word knowledge account for the effect of world knowledge on pronoun interpretation? *Language and Cognition* [[paper](#)]

2023. Trott, S.*, Jones, C. R.*, Michaelov, J. A., Chang, T. A., & Bergen, B. Do Large Language Models know what humans know? *Cognitive Science (Vol. 47, No. 7)* [*co-first author] [[paper](#)] [[code](#)]

2022. Jones, C. R., Chang, T. A., Coulson, S., Michaelov, J. A., Trott, S., & Bergen, B. Distributional Semantics Still Can't Account for Affordances. In *Proceedings of the Annual Meeting of the Cognitive Science Society (Vol. 44, No. 44)*. [[paper](#)] [[code](#)]

2021. Jones, C. R., & Bergen, B. The Role of Physical Inference in Pronoun Resolution. In *Proceedings of the Annual Meeting of the Cognitive Science Society (Vol. 43, No. 43)*. [[paper](#)] [[code](#)]

2021. Binder, F. J.*, Jones, C. R.*, Kaufman, R. A., Lin, N. T., Poole, C. R., & Vul, E. Cognitive cost and information gain trade-off in a large-scale number guessing game. In *Proceedings of the Annual Meeting of the Cognitive Science Society (Vol. 43, No. 43)*. [*co-first author] [[paper](#)] [[code](#)]

2018. Jones, C. & Kirby, S. The Effect of Biasing Information on a Transmission Chain of Short Texts. *2nd Conference of the Cultural Evolution Society, Arizona, USA.*

Talks, Workshops, & Posters

2023. EPITOME: Experimental Protocol Inventory for Theory Of Mind Evaluation, *Workshop on Theory-of-Mind at ICML 2023* [[paper](#)]

2023. Does Matrix Multiplication Have a Theory of Mind?, *Comparative Cognition Lab, Dept of Cognitive Science, UC San Diego*

2023. Language Models for Psycholinguistic Analysis, *Brain and Cognition Lab, Dept of Cognitive Science, UC San Diego* [[notebook](#)]

2022. Language Comprehension Requires Affordances, with Arthur Glenberg. *Workshop on Embodied, Situated and Grounded Intelligence: Implications for AI. The Santa Fe Institute* [[recording](#)]

2022. Distributional Semantics Still Can't Account for Affordances. *Cognitive Science Society Conference*

2022. Situation Modelling in Humans and Machines, with Ronen Tamari. *Language and Vision Workshop. Cognitive Tools Lab, Dept of Psychology, UC San Diego*

2022. Can We Know Words by the Company They Keep? Guest Lecture on Distributional Methods in Computational Linguistics and their Limits. *Cognitive Science, Ilia State University, Georgia*

2022. Working with Language Models in Python. *Methods Training Assistant Workshop, Dept of Cognitive Science, UC San Diego* [[notebook](#)]

2022. Distributional Semantics Still Can't Account for Affordances. *Brain and Cognition Lab, Dept of Cognitive Science, UC San Diego*

2021. The Role of Physical Inference in Pronoun Resolution. *Poster Session, Cognitive Science Society Conference*

2021. Cognitive cost and information gain trade-off in a large-scale number guessing game. *Poster Session, Cognitive Science Society Conference*

2021. World Knowledge Influences Pronoun Resolution Both Offline and Online. *Centre for Research and Language, UC San Diego*

Media

2024. Understanding, Grounding, and Reference in LLMs, with Sean Trott. *The Gradient Podcast* [[link](#)]

2023. It takes a body to understand the world, with Arthur Glenberg. *The Conversation* [[link](#)]

2023. Does GPT-3 Have a Theory of Mind?, *Cognitive Science Society Blog* [[link](#)]

Employment History

Data Engineer <i>AtomLeap, Berlin</i> Full-stack web development of natural language processing tools for competitive intelligence (data extraction, search, report generation).	2018 – 2019
Data Analytics Consultant <i>EY, Edinburgh</i> Development of natural language processing tools to support internal audit teams; data analytics in SQL to support financial audits.	2017-2018
Intern <i>Wellcome Trust, London</i> Analysing the efficacy of the Trust's £6m <i>Neuroscience and Education</i> Initiative.	2015

Awards

Summer Graduate Teaching Scholarship <i>UC San Diego</i>	2019-2023 \$1200
Glushko Travel & Research Account <i>Dept. of Cognitive Science, UC San Diego</i>	2019-2023 \$500 p.a.
Highly Commended Dissertation Award <i>School of Philosophy, Psychology & Language Sciences, Edinburgh University</i>	2017

Academic Service

Graduate Colloquium Organizer <i>Dept. of Cognitive Science, UC San Diego</i> Organizing departmental events and speaker series, including a debate: <i>Do Large Language Models understand language?</i>	2023 – Present
Ad Astra Organizer <i>Dept. of Cognitive Science, UC San Diego</i>	2022 – Present

Organizing a weekly graduate student meeting to share in-progress research and get constructive feedback from peers.

Graduate Student Mentor

2023 – Present

Dept. of Cognitive Science, UC San Diego

Leading a mentor pod to foster community and support less experienced graduate students.

Graduate Student Representative

2022 – 2023

Dept. of Cognitive Science, UC San Diego

Represent the interests of graduate students through managing a \$10,000 budget, organizing colloquia, and liaising with faculty.

Methods Training Assistant

2021 – 2022

Dept. of Cognitive Science, UC San Diego

Weekly office hours and quarterly workshops to share information about programming, experimental design, and statistical analysis.

Webmaster

2018 – Present

Cultural Evolution Society

Maintaining the society's website [culturalevolutionsociety.org].

Ex-officio non-voting executive committee member.

Projects

Turing Test [turingtest.camrobjones.com]

2023

Interactive Turing Test implemented using GPT-4.

Paperbot [<https://github.com/camrobjones/paperbot>]

2023

CLI tool implementing Retrieval Augmented Generation (RAG) to query local repositories of academic paper PDFs using LLMs.

Hackercast [camrobjones.com/hackercast]

2023

Automated generation of a podcast summary of the top articles on Hacker News using GPT-4 and AWS Polly.

Point the Compass [camrobjones.com/pointthecompass]

2021

Web application to gather norms on the political compass. Users vote on the placement of topics along two political axes. Django, Vue.js

Spyke [camrobjones.com/spyke]

2020

Education and research web application to help users build interactive simulations of spiking neural networks. Django, Vue.js, NEURON

Genetic Algorithms [\[genetic-algorithms.com\]](https://genetic-algorithms.com)

2018

Generate art using a population of agents that evolve according to a genetic algorithm, where fitness is based on user preferences. Django.

Teaching Experience

Instructor of Record

COGS 9: Introduction to Data Science *Summer 2023*

Teaching Assistant

COGS 3: Introduction to Computing Bardolph, M. *Winter 2020*

COGS 3: Introduction to Computing Bardolph, M. *Spring 2020*

COGS 11: Minds & Brains Boyle, M. *Summer 2020*

COGS 15: Uncensored Intro. to Language Bergen, B. K. *Fall 2020*

COGS 102A: Cognitive Perspectives Johnson, C. *Winter 2021*

COGS 100: Cyborgs Now and in the Future Allen, M. *Summer 2021*

COGS 187A: Web Design and Info Architecture Kirsh, D. *Fall, 2021*

COGS 187B: Pro Practicum in Web Design Kirsh, D. *Winter, 2022*

COGS 9: Introduction to Data Science Shannon, K. *Summer, 2022*

DSGN 1: Design of Everyday Things Meyer, M. *Fall, 2022*

COGS 152: Cognitive Science of Mathematics Nuñez, R. *Winter, 2023*

COGS 153: Language Comprehension Trott, S. *Fall, 2023*

COGS 150: Large Language Models Trott, S. *Winter, 2024*

COGS 112: Humor Walker, D. *Spring, 2024*