Cameron Robert Jones

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Education

UC San Diego
2019 – 2024
[anticipated]

PhD, Cognitive Science (GPA: 4.00)
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
Using Large Language Models to investigate the role of knowledge,
embodiment, and reasoning in human language comprehension.

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. & Trott, S.. Multimodal Language Models Show Evidence of
Embodied Simulation

Under Review. Jones, C. R., Trott, S., & Bergen, B. Comparing Humans and Large Language
Models on an Experimental Protocol Inventory for Theory of Mind Evaluation (EPITOME).

Under Review. Jones, C. R. & Bergen, B. Does word knowledge account for the effect of world knowledge on pronoun interpretation?

2023. Jones, C. R. & Bergen, B. Does GPT-4 Pass the Turing Test? [preprint] [experiment]

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. *Invited Talk, 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*

Employment History

Data Engineer
2018 – 2019
AtomLeap, Berlin
Full-stack web development of natural language processing tools for competitive intelligence (data extraction, search, report generation).

Data Analytics Consultant
2017-2018
EY, Edinburgh
Development of natural language processing tools to support internal audit teams; data analytics in SQL to support financial audits.

Awards

Summer Graduate Teaching Scholarship
2019-2023
UC San Diego
$1200

Glushko Travel & Research Account	*2019-2023*
Dept. of Cognitive Science, UC San Diego	*$500 p.a.*

Highly Commended Dissertation Award	*2017*

School of Philosophy, Psychology & Language Sciences, Edinburgh University

Academic Service

Graduate Colloquium Organizer *2023 – Present*

Dept. of Cognitive Science, UC San Diego
Organizing departmental events and speaker series, including a debate: *Do Large Language Models understand language?*

Ad Astra Organizer *2022 – Present*

Dept. of Cognitive Science, UC San Diego
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] *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* |