## Fausto Carcassi

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# **Employment**

## 08/23-Present University of Amsterdam

Assistant Professor in the Department of Linguistics and the Institute for Logic, Language and Computation.

## 08/22-08/23 University of Tübingen

 ${\it Judging \ Plausible \ Deniability \ (PlauDe)}$ 

Marie Skłodowska-Curie Individual Fellowship

Supervisor: Michael Franke

## 02/22-08/22 University of Tübingen

Postdoctoral researcher

Department of General Linguistics and Pragmatics

PI: Michael Franke

### 04/20-02/22 University of Amsterdam

Postdoctoral researcher

Cognitive Semantics and Quantities (ERC n. STG 716230)

PI: Jakub Szymanik

## Education

#### 09/16-07/20 University of Edinburgh

Link Ph.D., Linguistics and English Language

Title: The Cultural Evolution of Scalar Categorization: How cognition and communication affect the structure of categories on scalar conceptual domains. Supervisors: Simon Kirby, Marieke Schouwstra. Examiners: Wataru Uegaki, Michael Franke.

#### 09/15-08/16 University of Edinburgh

MSc, Philosophy

#### 09/12-08/15 Ruprecht-Karls-Universität Heidelberg

B.A., Philosophy

# Refereed Journal Articles

- 2023 Carcassi F., Szymanik J. (2023) The Boolean Language of Thought is
- Link recoverable from learning data. Cognition. https://doi.org/10.1016/j.cognition.2023.105541
- 2022 Carcassi F., Sbardolini G. (2022) Assertion, Denial, and the Evolution of
- Link Boolean Operators. Mind and Language. https://doi.org/10.1111/mila.12448
- 2022 Carcassi F., Szymanik J. (2022) Neural Networks Track the Logical
- Link Complexity of Boolean Concepts. Open Mind. https://doi.org/10.1162/opmi\_a\_00059
- 2022 Carcassi F., Szymanik J. (2022), Heavy Tails and the Shape of Modified
- Link Numerals. Cognitive Science, 46: e13176. https://doi.org/10.1111/cogs.13176
- 2021 Carcassi F., Szymanik J. (2021) An Alternatives Account of 'Most' and
- Link 'More Than Half'. Glossa: a journal of general linguistics, 6(1). https://doi.org/10.16995/glossa.5764
- 2021 Carcassi, F., Steinert-Threlkeld, S. and Szymanik, J. (2021), Monotone
- Link Quantifiers Emerge via Iterated Learning. Cognitive Science, 45: e13027. https://doi.org/10.1111/cogs.13027

# Proceedings

- 2024 Tsvilodub P., Franke M., Carcassi F. (2024) Cognitive Modeling with
- Link Scaffolded LLMs: A Case Study of Referential Expression Generation. ICML Workshop on Large Language Models and Cognition.
- 2024 van Tiel B., Carcassi F., Zheng, Y.Z. (2024) Word order and the
- Link learnability of artificial languages. Proceedings of the 46th Annual Meeting of the Cognitive Science Society.
- 2023 Carcassi F., Franke M. (2023) How to handle the truth: A model of
- Link politeness as strategic truth-stretching. Proceedings of the 45th Annual Meeting of the Cognitive Science Society.
- 2021 Carcassi F., Szymanik, J. (2021) 'Most' vs 'More Than Half': An
- Link Alternatives Explanation, Proceedings of the Society for Computation in Linguistics: Vol.4, Article 30.

2020 Carcassi F., Schouwstra M., Kirby S. (2020) The Advantage of Extreme Link Meanings in Cultural Evolution. The Evolution of Language: Proceedings of the 13th International Conference (EvoLang13). 2019 Carcassi F., Steinert-Threlkeld S., Szymanik J. (2019) The Emergence of Link Monotone Quantifiers via Iterated Learning. Proceedings of the 41st Annual Meeting of the Cognitive Science Society. 2018 Carcassi F., Kirby S., Schouwstra M. (2018) The Evolution of Adjectival Monotonicity. Proceedings of Sinn und Bedeutung 23. Link Invited Talks Evolving a Language in a Language of Thought 06/06/24The Scandinavian Association for Language and Cognition (SALC9), thematic session on explaining semantic universals. Norwegian University of Science and Technology Language Evolution and Meaning Space 09/01/24 Meaning, Language, and Cognition (MLC) talk series, Amsterdam Open-ending Cognitive Models with LLMs 15/12/23ACLC talk series, Amsterdam Active Inference and the probabilistic Language of Thought 11/07/23LOT2023, Nantes 07/07/23Computational Phenomenology Fridays Modelling argumentation with quantifiers 23/09/22 9th Experimental Pragmatics Conference (XPRAG), Pavia 18/05/22 CoSaQ Closing workshop, Amsterdam The importance of being earnest: Compositionality in the Arena of Use 02/04/22The Third Tsinghua Interdisciplinary Workshop on Logic, Language, and Meaning Updates and Boolean Universals 29/01/21EXPRESS Workshop Non-Assertoric Speech Acts, Amsterdam An Alternatives Account of 'Most' and 'More Than Half' Donders Computational Cognitive Science group, Nijmegen

Carcassi F., Szymanik J. (2021) The Shape of Modified Numerals.

Proceedings of the 43st Annual Meeting of the Cognitive Science Society.

2021

Link

| 08/05/20 $15/04/20$         | The role of learning in the evolution of semantic extremeness<br>Computation, Language, and Meaning Band of Researchers, Washington<br>Cognitive Semantics and Quantities, Amsterdam |
|-----------------------------|--|
| 25/02/19                    | The evolution of a semantic universal through iterated learning Mind and Cognition Group, Edinburgh  |
| 23/04/19                    | The semantic structure of gradable adjectives: an experiment and a Bayesian model Centre for Language Evolution, Edinburgh   |
| 22/11/18                    | Monotonicity in gradable adjectives: an evolutionary model and some experimental results Cognitive Semantics and Quantities seminar, Amsterdam                                       |
| 19/06/18                    | The evolution of adjectival monotonicity Centre for Language Evolution, Edinburgh  |
| Reviewed Talks & Posters    |  |
| 28/07/23                    | How to handle the truth: A model of politeness as strategic truth-stretching Annual Conference of the Cognitive Science Society (CogSci), Sydney                                     |
| 29/07/21                    | The Shape of Modified Numerals Annual Conference of the Cognitive Science Society (CogSci), Montreal   |
| 16/04/20                    | The Advantage of Extreme Meanings in Cultural Evolution<br>Evolang XIII (Cancelled due to Covid-19 pandemic)   |
| 03/08/21                    | The Emergence of Monotone Quantifiers via Iterated Learning Experimental approaches to language universals in structure and meaning (ExUni virtual Workshop at ESSLLI)               |
| $\frac{12/06/20}{27/07/19}$ | Meaning, Logic and Cognition, Amsterdam Annual Conference of the Cognitive Science Society (CogSci), Montreal  |
| 06/09/18                    | The Evolution of Adjectival Monotonicity Sinn und Bedeutung 23, Barcelona  |
| 30/08/18                    | The Evolution of Scalar Terms' Semantic Structure<br>Societas Linguistica Europaea, Tallin   |
| 7/12/17                     | The Evolution of Monotonicity in the Semantics of Gradable Adjectives 60th Language Lunch (Poster), Edinburgh  |

# Teaching

| 2023-Present         | University of Amsterdam  First Year Group Project Linguistics: An introduction to experimental methods in linguistics, including designing and running an experiment.      |
|----------------------|--|
| 2023-Present         | Semantics & Pragmatics: An introduction to formal semantics and Gricean pragmatics.  |
| 2023-Present         | Computational Methods: An introduction to various formal and computational tools for cognitive science.  |
| 2023-Present         | Introduction to Linguistics: We guided groups of students through designing and running their own variation of a Wug test.   |
| 2023-Present<br>Link | Cognitive Modeling: An introduction to various important Bayesian models of cognition, combining theoretical lectures and programming labs in R.                           |
| 2018                 | University of Edinburgh Guest Lecture for Current Issues in Semantics and Pragmatics   |
| 2010.10              | Tutoring for:  |
| 2018-19<br>2018-19   | Logic 1 (Introduction to Logic) Logic 2 (Introduction to Modal Logic)  |
| 2017-18, 2018-19     | Introduction to Cognitive Science  |
| 2017-18              | LEL 1B (Introduction to Linguistics)   |
| 2016-17, 2017-18     | Mind, Matter and Language  |
|                      | ESSLLI   |
| 2023<br>Link         | The probabilistic Language of Thought: A week-long version of my introduction to the pLoT.   |
| 2022<br>Link         | Computational Approaches to the Explanation of Universal Properties of Meaning (with Jakub Szymanik)   |
| 2022<br>Link         | University of Tübingen  The probabilistic Language of Thought: An introduction to contemporary models of the Language of Thought, combining theoretical lectures and labs. |
|                      | Various  |
| 11/04/22             | Mentor at the REST-CL Retreat for Students in Computational  |
| Link                 | Linguistics in Barcelona.  |
| 2023                 | The probabilistic Language of Thought: A one-day version of my   |
| Link                 | introduction to the pLoT taught at the LOT2023 workshop in Nantes.   |
| Supervision          |  |
| 2024                 | University of Amsterdam<br>Linguistics BA Thesis. Mačiuika, A. (2024) Probing for BERT-style<br>models' knowledge of differential object marking in Lithuanian.            |
| 2024                 | Linguistics BA Thesis. de Moel, A. (2024) How a Language of Thought model can predict human pattern perception in binary sequences.  |

- 2024 Linguistics BA Thesis. Gelmanaitė, S. (2024) Information structure and argument coding efficiency.
- 2024 Brain and Cognitive Sciences (MBCS) Thesis. Snyder, T. (2024) Modeling Ambiguity Resolution: Examining Game-Theoretic, Computational Pragmatics & Reinforcement Learning Frameworks.
- 2021 AI BA Thesis. de Kleuver, G. (2021) Cultural Evolution of Convex Color Terms and Degeneracy.
- 2021 AI BA Thesis. Duetz N. (2021) The Cultural Evolution of Color Convexity in a Population of Neural Networks.

# Public Engagement & Academic Service

- 2024-Present Language Evolution and Learning in Amsterdam (LELA) talk series Link organization.
- 2024-Present Program Committee for the BA Linguistics of the University of Amsterdam.
  - 2018 Exploring an Alien World, International Science Fair, Edinburgh. Collaborative work with Jonas Nölle. We developed a simple game in virtual reality (using C# + Unity) that was played by children.
  - 2016-17 Academic Support Officer, Edinburgh's Philosophy Society
- Reviewer for: Journal of Logic, Language, and Information, Linguistic Vanguard, ESSLLI, Memory & Cognition Journal, Annual Conference of the Cognitive Science Society (CogSci), Conference on Computational Natural Language Learning (SIGNLL), Workshop on Semantic Universals (Amsterdam Colloquium 2019), The Evolution of Language (EvoLang), Models of the Mind (Edinburgh 2018)