

# Dr Stephen Francis Mann



stephenfmann@gmail.com  
stephenfmann.com  
stephenfmann

## EDUCATION

FEB 2016	<b>Doctor of Philosophy</b>
-DEC 2020	AWARDED DECEMBER 2020 Philosophy <i>Australian National University (ANU)</i>
SEPT 2013	<b>Doctor of Philosophy</b>
-JAN 2016	CANDIDACY WITHDRAWN TO ATTEND ANU Philosophy <i>King's College London (KCL)</i>
SEPT 2006	<b>Master in Science</b>
-JUNE 2010	FIRST CLASS HONOURS Mathematics and Philosophy <i>University of Bristol, UK</i>

**Areas of specialisation:** Philosophy of biology, Computational modelling, Philosophy of science.

**Areas of competence:** Cultural evolution, Ethics of artificial intelligence, Philosophy of cognitive science.

## CURRENT POSITIONS

APRIL 2024 - PRESENT

Postdoctoral Researcher  
**Dept. of Linguistic and Cultural Evolution, Max Planck Institute for Evolutionary Anthropology**

Developing agent-based models of language evolution to understand linguistic diversity in Oceania.

## PREVIOUS ACADEMIC EMPLOYMENT

DECEMBER 2022 - MARCH 2024

Juan de la Cierva Postdoctoral Fellow  
**LOGOS Group, Universitat de Barcelona**

Investigating the relationship between *teleosemantics*, a theory of representation, and *communication theory*, a mathematical and engineering approach to signalling systems.

AUGUST 2021 - JUNE 2022

Postdoctoral Researcher  
**Surrey Morphology Group, University of Surrey**

Developed an agent-based computational model of language evolution using the Python and R programming languages.

FEB 2020 - MARCH 2020

Research Assistant  
**Centre of Excellence for the Dynamics of Language (ANU)**

Developing an agent-based computational model of the dynamics of cultural change in the songs of humpback whales. Unfortunately, due to the COVID-19 pandemic I left Australia earlier than planned. Funding rules meant this position was cut short.

## PEER-REVIEWED PUBLICATIONS

Pain, R. and **Mann, S. F.** (forthcoming) OPEN ACCESS  
Teleosemantics, structural resemblance and predictive processing.  
*Erkenntnis*.

**Mann, S. F.** (2023) OPEN ACCESS  
The relevance of communication theory for theories of representation.  
*Philosophy and the Mind Sciences*, 4, 32.

Turner, C. R., **Mann, S. F.**, Spike, M., Magrath, R. D., and Sterelny, K. (2023)  
Joint evolution of traits for social learning  
*Behavioral Ecology and Sociobiology*, 77, 47.

**Mann, S. F.** and Pain, R. (2022) OPEN ACCESS  
Teleosemantics and the free energy principle  
*Biology & Philosophy*, 37, 34.

**Mann, S. F.**, Pain, R., and Kirchhoff, M. (2022) OPEN ACCESS  
Free energy: a user's guide. Introduction to the Topical Collection 'The Free Energy Principle: From Biology to Cognition'  
*Biology & Philosophy*, 37, 33.

**Mann, S. F.** and Pain, R. (2022) OPEN ACCESS  
Teleosemantics and the hard problem of content  
*Philosophical Psychology*, 35(1), 22-46.

Roberts, S., ... **Mann, S. F.**, ... (2020)  
CHIELD: The Causal Hypotheses in Evolutionary Linguistics Database.  
*Journal of Language Evolution* 5(2), 101-120.

**Mann, S. F.** (2020)  
Consequences of a functional account of information  
*Review of Philosophy and Psychology* 11(3), 669-687.

**Mann S. F.** (2018)  
Attribution of information in animal interaction  
*Biological Theory* 13(3), 164-179.

## BOOK REVIEWS

**Mann S. F.** and Pfeifer, J. (2018)  
Review of *Studying Animal Languages Without Translation: An Insight from Ants* by Zhanna Reznikova.  
*Quarterly Review of Biology*, 93(1), 38.

## CONFERENCE PROCEEDINGS

Round, E. R., **Mann S. F.**, Beniamine, S., Lindsay-Smith, E., Esher, L., & Spike, M. (2022)  
Cognition and the stability of evolving complex morphology: An agent-based model.  
*Proceedings of the Joint Conference on Language Evolution (JCoLE)*, 635-642.

## TEACHING

MARCH 2020 - APRIL 2020  
Philosophy of Cognitive Science (3rd year)  
**Guest Lecturer (ANU)**

JULY 2019 - JAN 2020  
The Moral and Political Philosophy  
of Artificial Intelligence (3rd year)  
**Co-convenor (ANU)**

JULY 2017 - NOV 2017  
Biology, Society and Ethics (3rd year)  
**Tutor/Guest Lecturer (ANU)**

JULY 2017 - NOV 2017  
Philosophy of Biology (2nd year)  
**Tutor/Guest Lecturer (ANU)**

SEPT 2014 - JAN 2015  
Philosophy of Science (2nd year)  
Intermediate Logic (2nd year)  
Elementary Logic (1st year)  
**Tutor (KCL)**

## SERVICES TO THE PROFESSION

### Ad hoc reviewing

*Philosophy of Science, Biology & Philosophy, Synthese, Biological Theory, Erkenntnis, Ergo, Philosophy and the Mind Sciences, European Journal for Philosophy of Science, Phenomenology and the Cognitive Sciences, Theoria, AVANT, Philosophies, Qeios*

### Guest editing

2021 *Biology & Philosophy*

-22 Topical Collection

**The Free Energy Principle: From Biology to Cognition**  
(with Ross Pain and Michael Kirchhoff)

### Public outreach

2019 *HMI Interviews*

Conducted a series of filmed interviews with members of the Humanising Machine Intelligence project.  
Sample: [YouTube playlist](#)

2019 *Radio appearance*

MAR Guest on *Talk the Talk* linguistics radio show (Perth, Australia) and podcast (global), speaking on animal communication and human language.

### Conference organisation

2016 *ANU Philosophy Graduate Conference*

NOV Lead Organiser

Duties included liaising with accommodation and conference facilities management, communicating with attendees, and chairing presentations.

2016 *Australasian Postgraduate Philosophy Conference*

SEPT Co-organiser

Duties included communicating with attendees, chairing sessions, and coordinating small social events.

## OTHER WRITING

**Mann, S. F.** and Gregory, D. (2024) OPEN ACCESS  
Might text-davinci-003 have inner speech? *Think*, 23(67), 31-38.

**Mann, S. F.** (2023) Major Transitions: A Record of Reorganization of Individuality in the Colonial Organisms of Earth. *Life Beyond Us*, ed. Julie Nováková, Lucas K. Law, and Susan Forest. European Astrobiology Institute.

**Mann, S. F.**, Pain, R., and Kirchhoff, M. (2022) OPEN ACCESS  
'Life hates surprises': can an ambitious theory unify biology, neuroscience and psychology? *The Conversation*.

## SELECTED PRESENTATIONS

MAR 2024  
INVITED **The relevance of communication theory for theories of representation**  
*Centre for Cognitive Science (COGS)*  
University of Sussex  
Brighton, UK (talk given online)

MAR 2023  
INVITED **Degrees of proper function**  
*Empirical Philosophy Workshop*  
Universität Bielefeld  
Bielefeld, Germany

MAR 2023  
PEER  
REVIEW **Categorical variables and the strength of selection**  
*Predicting Evolution: The Price Equation and Its Applications*  
Universität Hannover  
Hanover, Germany

SEPT 2022  
INVITED **The relevance of communication theory for theories of representation**  
*Representation in Cognitive Science*  
Universitat de Barcelona  
Barcelona, Spain

NOV 2019  
PEER  
REVIEW **The mechanics of representation: teleosemantics meets the free energy principle (with Ross Pain)**  
*Mental Representations in a Mechanical World*  
Ruhr-Universität Bochum  
Bochum, Germany

SEPT 2018  
PEER  
REVIEW **Studying language change with evolutionary methods**  
*Evolving Minds*  
Charles Darwin University  
Darwin, Australia

## PROFESSIONAL EXPERIENCE

SEPT 2010 - MARCH 2013

Weaveability Limited  
**Developer**

Software Company based near Manchester, UK specialising in SAP eCommerce and Netweaver Solutions. Gained fluency with **Python, GitHub, HTML and JavaScript**, and website deployment with **Hugo** and **Google Cloud** services.