ROSS PAIN

Department of Philosophy
Cotham House, University of Bristol
Bristol, BS6 6JL

Email: ross.pain@bristol.ac.uk
Web: https://philpeople.org/profiles/ross-pain

AOS: Philosophy of science (esp. biology, cognitive science and archaeology/anthropology)
AOC: Philosophy of mind

ACADEMIC EMPLOYMENT

University of Bristol May 2023-
Postdoctoral Research Associate

Australian National University November 2021-April 2023
Research Fellow (Level B)

EDUCATION

PhD Australian National University, Philosophy 2017-2022

MA La Trobe University, Philosophy 2014-2016

BA La Trobe University (Hons - 1st class) 2008-2013

PUBLICATIONS

Edited collections

1. "Material Evidence and Cognitive Evolution" (with Rachael Brown & Ceri Shipton). Topical collection in *Biological Theory* on cognitive archaeology.

2. 'The Free Energy Principle: From Biology to Cognition' (with Michael Kirchhoff & Stephen Francis Mann). Topical collection in *Biology and Philosophy* on the Free Energy Principle.

Journal articles & book chapters

1. "Free Energy: A User's Guide" (with Stephen Francis Mann & Michael Kirchhoff). *Biology & Philosophy*, 37, 33 (2022).
https://doi.org/10.1007/s10539-022-09864-z
2. "Cognitive Archaeology meets Cultural Evolutionary Psychology". *Oxford Handbook of Cognitive Archaeology*, (2023).
https://doi.org/10.1093/oxfordhb/9780192895950.013.50

3. "Teleosemantics and the Free Energy Principle" (with Stephen F. Mann). *Biology and Philosophy*, 37, 34 (2022).
https://doi.org/10.1007/s10539-022-09868-9

4. "Stone Tools, Predictive Processing & the Evolution of Language". *Mind & Language*, 38(3), 711–731 (2023).
https://doi.org/10.1111/mila.12419

5. "How WEIRD is Cognitive Archaeology? Engaging with the Challenge of Cultural Variation and Sample Diversity" (with Anton Killin). *Review of Philosophy & Psychology*, 14, 539-563 (2023).
https://doi.org/10.1007/s13164-021-00611-z

6. "Cognitive Archaeology & the Minimum Necessary Competence Problem" (with Anton Killin). *Biological Theory*, 18, 269-284 (2023).
https://doi.org/10.1007/s13752-021-00378-7

7. "Teleosemantics and the Hard Problem of Content" (with Stephen Francis Mann) *Philosophical Psychology*, 35:1, 22-46 (2022).
https://doi.org/10.1080/09515089.2021.1942814

8. "Mind the Gap: A More Evolutionarily Plausible Role for Technical Reasoning in Cumulative Technological Culture" (with Rachael L Brown). *Synthese*, 199 (1-2): 2467-2489 (2021).
https://doi.org/10.1007/s11229-020-02894-8

9. "What Can the Lithic Record Tell Us About the Evolution of Hominin Cognition?" *Topoi*, Vol. 40, No. 1 (2021): 245-259.
https://doi.org/10.1007/s11245-019-09683-0

Commentaries, reviews & introductions

1. "Does Science Grow? Review of Chris Haufe's 'How Knowledge Grows'". *Evolution*, Volume 77, Issue 12, December 2023, 2699–2702.
https://doi.org/10.1093/evolut/qpad167.

2. "Archaeology and Cognitive Evolution: Introduction to the Thematic Section". *Biological Theory*, 18, 231-233 (2023).
https://doi.org/10.1007/s13752-023-00448-y

3. "Gadgets Meet Artefacts: Aligning Heyes' Cultural Evolutionary Account with the Archaeological Record". *Perspectives on Psychological Science*, 19(1), 44-45.
https://doi.org/10.1177/17456916231187405

4. "No tinkering allowed: When the end-goal requires a highly specific or risky, and complex action sequence, expect ritualistic scaffolding." (with Rachael L Brown). *Behavioral and Brain Sciences*, Vol. 45, E2525 (2022).
https://doi.org/10.1017/S0140525X22001315

5. "Culture, genes, selection, and learning: a response to Nichols, Mackey & Moll" (with Anton Killin). *Philosophical Psychology*, 35:2, 297-300 (2022).
https://doi.org/10.1080/09515089.2021.1980205

6. "Unification at the Cost of Realism and Precision" (with Rachael L Brown, Carl Brusse & Bryce Huebner). *Behavioral and Brain Sciences*, Vol. 43, Ed. 95 (2020).
http://dx.doi.org/10.1017/S0140525X19002760

7. "'You: A Natural History' by William B. Irvine". *Quarterly Review of Biology*, Vol. 95, No. 3 (2020): 250-251.
   https://doi.org/10.1086/710394
8. "Phenomenology and Cognitive Neuroscience: Can a Process Ontology Help Resolve the Impasse?" *Australasian Philosophical Review*, Vol. 2, No. 2 (2018): 204-208.
   https://doi.org/10.1080/24740500.2018.1552098

Public philosophy

1. "Life hates surprises: Can an ambitious theory unify biology, neuroscience and psychology?" (with Stephen Francis Mann and Michael Kirchhoff). *The Conversation*, August 2022.
   https://theconversation.com/life-hates-surprises-can-an-ambitious-theory-unify-biology-neuroscience-and-psychology-184052
2. "What is the Difference Making Cause?" (with Michael Raetz). Letter to *The Australian Geologist*, Issue no. 195, 2020.

In progress

1. "Hierarchical cognition and the Evolution of Syntax"
2. "Teleosemantics and Predictive Processing" (with Stephen Francis Mann).
3. "Causation and Explanation in Paleoarchaeology" (with Ronald J Planer).
4. "Teleoseantics, Structural Representation and the Proximate/Ultimate Distinction".
5. "Between Nature and Culture: Developing a Third way for Causal Cognition" (with Rachael L Brown).
6. "The Philosophy of Trust and the Problem of Conceptual Scope" (with Caroline Hendy and Jenny Munt).

GRANTS AND AWARDS

Awards

- **2019:** Australasian Association of Philosophy Postgraduate Prize.
- **2015:** Shortlisted for the Australasian Association of Philosophy Postgraduate Prize**.**
- **2012:** La Trobe University: David Hume Philosophy Prize.

Grants

- **2021:** Forethought Fellowship, Global Priorities Institute, University of Oxford: AUD $14,000.
- **2019:** ANU CASS workshop grant (with Rachael Brown): AUD $10,000.
- **2019:** Passmore Scholarship for graduate student travel: AUD $2,000.
- **2019:** ANU CASS workshop grant (with Colin Klein): AUD $2,250.
- **2018:** ANU CASS workshop grant (with Colin Klein): AUD $15,000.
- **2018:** ANU CASS research grant (with Alan Hajek): AUD $6,000.

- **2017:** Australian National University Research Scholarship: AUD $26,682 per annum over 3 years.
- **2013:** La Trobe University Travel Grant: AUD $1000.
- **2012:** Australian Postgraduate Award: AUD $24,254 per annum over 2 years.

CONFERENCE PAPERS

Peer reviewed/invited

- **2023:** "Hierarchical Cognition and the Evolution of Syntax". Origins of Syntax workshop, University of Warwick.
- **2023:** "From Tool Morphology to Cognitive Capacity: a Trait-Based Methodology for Cognitive Archaeology". International Society for the History, Philosophy and Social Studies of Biology Biannual Conference.
- **2023:** "Major Transitions in Cultural Evolution?" (with Arsham Nejad Kourki). British Society for the Philosophy of Science Annual Conference.
- **2023:** "Causation and Explanation in Palaeoarchaeology" (with Ron Planer). Past Materials, Past Minds workshop, University of Exeter.
- **2022:** "Between Nature and Culture: Developing a Third way for Causal Cognition" (with Rachael L Brown). London School of Economics.
- **2022:** "Stone Tools, Predictive Processing and the Evolution of Language". British Society for the Philosophy of Science Annual Conference.
- **2022:** "Between Nature and Culture: Developing a Third way for Causal Cognition" (with Rachael L Brown). Causation in Biology workshop, University of Kent.
- **2021:** "How WEIRD is Cognitive Archaeology?" (with Anton Killin)**.** International Society for the History, Philosophy and Social Studies of Biology Annual Meeting.
- **2021:** "Cognitive Archaeology meets Cultural Evolutionary Psychology"**.** Philosophy of Biology at Dolphin Beach**.**
- **2021:** "Cognitive Archaeology and the Minimum Necessary Competence Problem" (with Anton Killin). Society for American Archaeology Annual Meeting.
- **2020:** "What Can the Lithic Record Tell Us About the Evolution of Hominin Cognition?'. British Society for the Philosophy of Science Annual Conference (accepted, but conference cancelled due to COVID19)**.**
- **2019:** "The Mechanics of Representation" (with Stephen Mann). Mental Representations in a Mechanical World workshop, Ruhr-Universität Bochum.
- **2019:** "Inferring Minds from Material Remains"**.** Retuning Cognition with a Pair of Rocks workshop, University of Pittsburgh HPS**.**
- **2018:** "Prediction and Uncertainty" (with Stephen Mann)**.** Australasian Association of Philosophy and Psychology, Macquarie University.
- **2018:** "Carnap & Sellars on the Problem of Universals"**.** Phenomenology and Pragmatism, Deakin University**.**
- **2015:** "Sellarsian Picturing & Scientific Realism"**.** Australasian Association for the History, Philosophy and Social Studies of Science, University of Melbourne.
- **2015:** "Pragmatism, Naturalism & Abstracta"**.** Sellars in a New Generation, Kent State University.

Other seminar and workshop presentations

- **2023:** "The philosophy of Trust and the Problem of Conceptual Scope" (with Jenny Munt and Caroline Hendy). Egenis Philosophy Colloquium, University of Exeter.
- **2023:** "The cultural evolution of cultural evolution: aligning the model with archaeological data" (with Christine Balasa). Major Transitions in Biology and Culture workshop, University of Bristol.
- **2022:** "Progress We Can Be Proud Of" (with James Willoughby). Philsoc seminar, Australian National University.
- **2021:** "Stone Tools, Predictive Processing & the Evolution of Language". Philsoc seminar, Australian National University.
- **2021:** "On Philosophical Progress" (with James Willoughby). Kioloa Graduate conference, Australian National University.
- **2021:** "Between Nature & Culture: Developing a Third Way for Causal Cognition" (with Rachael L Brown). PBANSHEE seminar, Online meeting.
- **2021:** "How WEIRD is Cognitive Archaeology" (with Anton Killin). New Work in Social & Cultural Evolution, Australian National University.
- **2019:** "The Mechanics of Representation" (with Stephen Mann). Philsoc seminar, Australian National University.
- **2019:** "Metalinguistic Anti-realism". Philosophy of mind seminar, Australian National University.
- **2019:** "Addressing the Minimum Necessary Competence Problem" (with Anton Killin). Material Evidence & Cognitive Evolution workshop, Australian National University.
- **2019:** "Analyticity & Easy Ontology" (with Szymon Bogacz). Australasian Association of Philosophy, University of Wollongong.
- **2019:** "Teleosemantics & the Free Energy Principle" (with Stephen Mann). Australasian Association of Philosophy, University of Wollongong
- **2019:** "Analyticity for Novices" (with Szymon Bogacz). Kioloa Graduate conference, Australian National University.
- **2019:** "Cognitive-transition inferences". Philsoc seminar, Australian National University.
- **2018:** "Analyticity and Neo-Carnapianism" (with Szymon Bogacz). Philosophy of mind seminar, Australian National University.
- **2018:** "Prediction & Uncertainty" (with Stephen Mann). Kioloa Graduate conference, Australian National University.
- **2018:** "Representationalism, 4E cognition & the Predictive Brain". Kioloa Graduate conference, Australian National University.
- **2017:** "The Problem with Affordances" (with Nik Alksnis). Australasian Society for Cognitive Science, Charles Sturt University.
- **2017:** "Carnap & Sellars on Abstract Entities". Kioloa Graduate conference, Australian National University.
- **2016:** "Two Types of Carnapian Deflation". Australian Metaphysics Conference, Australian National University.

- **2016:** "Realism & Anti-realism in Metaontology"**.** Philosophy seminar, La Trobe University.
- **2015:** "Two Types of Carnapian Deflation"**.** Philsoc seminar, Australian National University**.**
- **2015:** "A Metalinguistic Defence of Strong Deflationism"**.** Australasian Association of Philosophy, Macquarie University.

TEACHING EXPERIENCE

University of Bristol   2023-

- **2022:** PHIL200063 Beyond Humanity. One guest lecture.

Australian National University   2017-2023

- **2022:** PHIL3078 The Philosophy of Emotion. One guest lecture.
- **2022:** PHIL3079 Evolution and Human Nature. Tutor.
- **2021:** PHIL3073 Advanced Ethics: Trust & Cooperation in Philosophy & Evolution (with Jenny Munt).
  - Full responsibility for unit; from design, through to delivery, lecturing, tutoring and marking.
- **2020:** PHIL3076 Philosophy of the Life Sciences: Cognitive Science. Lecturer & Convener.
  - Full responsibility for unit; from design, through to delivery, lecturing, tutoring and marking.
- **2020:** PHIL3074 Advanced Philosophical Topics: Human Evolution. Tutor & one guest lecturer.
- **2019:** PHIL3076 Animal Cognition. Two guest lectures.
- **2019:** PHIL2126 Science in Society. Tutor & one guest lecture.
- **2018:** PHIL1005 Logic & Critical Thinking. Tutor.

La Trobe University   2013-2016

- **2015:** PHIL4HONS Philosophy Honours. Two guest lectures.
- **2015:** PHIL1CRT Logic & Critical Thinking. Tutor.
- **2014:** PHIL1GPI Great Philosophical Ideas. Tutor.
- **2014:** PHIL1PPR Philosophical Problems. Tutor.

RELEVANT NON-ACADEMIC EMPLOYMENT (CASUAL AND PROFESSIONAL)

Casual academic employment

- **2019-2021:** Research assistant to Dr Rachael Brown, Director, Centre for Philosophy of the Sciences. Duties included organising regular weekly Centre meetings and occasional workshops, editing, literature reviews and other research tasks.

Professional experience

My professional background is in information management, quality assurance and document/data control. I have worked in ISO 9001 regulated environments in large construction projects across the resources and energy sector, and more recently in the health sector.

- **2015-2017:** Victorian Aboriginal Community Controlled Health Organisation. Quality, Risk & Compliance Officer.
- **2013-2015:** Australian Red Cross Blood Service (Information Services). Quality assurance/document control officer.
- **2009-2013:** Energy Australia (LOPS/Mortlake project). Quality assurance/document control officer.
- **2003-2005:** Newcrest Mining (Telfer project). Document/data controller.

COURSEWORK (ANU)

- **2019:** Naturalising Desire: Julia Haas.
- **2019:** Prediction in Complex Sciences: Alkistis Elliott-Graves.
- **2019:** Introduction to German: GERM6501.
- **2019:** Language and Mind: Phillip Pettit.
- **2018:** Writing Philosophy: Daniel Stoljar and Alan Hajek.
- **2018:** Social Generics: Renee Bolinger and Justin D'Ambrosio.
- **2018:** Python Training Course: Colin Klein and Matthew Spike.
- **2018:** Statistical Design Course: Statistical Consulting Unit.
- **2018:** Experimental Philosophy: Matthew Lindauer.
- **2017:** Philosophy of Linguistics: Matthew Spike.
- **2017:** Value Theory: Wlodek Rabinowicz.

PROFESSIONAL SERVICE

Referee for: *Philosophy of Science*, *Australasian Journal of Philosophy*, *The British Journal for the Philosophy of Science*, *Biology and Philosophy*, *Journal of the Royal Society Interface*, *Philosophical Transactions of the Royal Society B*, *Erkenntnis*, *Synthese*, *Proceedings of the Royal Society B*, *European Journal for the Philosophy of Science*, *Evolutionary Biology*, *Consciousness & Cognition*, *Review of Philosophy & Psychology*, *Phenomenology and the Cognitive Sciences*, *Topoi*.

- **2023**: Principal organiser: Major Transitions in Biology and Culture Workshop, University of Bristol.
- **2022**: Principal organiser: From Casual Reasoning to Scientific Thinking workshop, Australian National University.
- **2022**: Principal organiser: Biology and Morality workshop, Australian National University.

- **2021**: Program committee for the British Society for the Philosophy of Science Annual Conference.
- **2021**: Participant in honours mentoring program, ANU.
- **2020**: Author of 'Issues facing graduate students' survey project, ANU (with Tim Williamson).
- **2020**: Principal organiser: New Work in Social & Cultural Evolution, Australian National University.
- **2019**: ANU Minorities and Philosophy (MAP) representative.
- **2019**: Principal organiser: Material Evidence and Cognitive Evolution, Australian National University.
- **2018/19**: ANU: Philsoc convener (August 2018 – May 2019).
- **2018**: Organiser: ANU Philosophy Kioloa Graduate Conference.
- **2017**: Organiser: ANU Philosophy Kioloa Graduate Conference.
- **2014**: Organiser: "Philosophy and God" course for the Melbourne Free University.
- **2013**: La Trobe University Postgraduate Representative.

PROFESSIONAL AFFILIATIONS

- Global Priorities Institute, University of Oxford. Fellow.   Feb 2022 to present
- Evolution of Cultural Diversity Initiative, ANU. Affiliate member.   Jan 2022 to present

REFERENCES

Professor Kim Sterelny
School of Philosophy
Australian National University
Phone: +61 2 6125 2886
Email: kim.sterelny@anu.edu.au

Dr. Rachael Brown
School of Philosophy
Australian National University
Phone: +61 402 098 909
Email: rachael.brown@anu.edu.au

Professor Cecilia Heyes
All Souls College
University of Oxford
Phone: +44 (0)1865 279394
Email: cecilia.heyes@all-souls.ox.ac.uk

Professor Samir Okasha
Department of Philosophy
University of Bristol
Phone: +44 117 455 2321
Email: samir.okasha@bristol.ac.uk

Professor Alison Wylie
Department of Philosophy
University of British Columbia
Phone: +1 604 822 6574
Email: alison.wylie@ubc.ca

Professor Thomas Wynn
Department of Anthropology
University of Colorado, Colorado Springs
Phone: +1 719 255 3126
Email: twynn@uccs.edu