

# Pierrick Bourrat

## Curriculum Vitae

Macquarie University

Sydney, 2109 NSW

☎ (+61) 426400500

✉ p.bourrat@gmail.com

🌐 pierrickbourrat.com

AOS **Philosophy of Biology, Philosophy of Science, Evolutionary Biology.**

AOC **Philosophy of Cognitive Sciences, Evolutionary Psychology.**

### Current Position

- 2021–present **Senior Lecturer & ARC DECRA Fellow**, *Philosophy department*, Macquarie University, Sydney, Australia.
- 2021–present **Associate Investigator**, *ARC Centre of Excellence in Synthetic Biology*, Sydney, Australia.
- 2017–present **Research Affiliate**, *Philosophy department & Charles Perkins Centre*, The University of Sydney.

### Past Academic Employment

- 2017–2020 **Research Fellow**, *Philosophy department*, Macquarie University, Sydney, Australia.
- 2015–2017 **ARC Postdoctoral Research Associate & Associate Lecturer**, *The University of Sydney*, Australia.
- 2009–2010 **Research Assistant**, *Institute of Cognitive & Evolutionary Anthropology*, The University of Oxford.

### Education

- 2011–2015 **PhD in Philosophy**, *The University of Sydney*.
- 2009 **MA in Philosophy of Science**, *University Paris 7*.
- 2006–2008 **MSc in Evolutionary Biology & Ecology**, *University of Montpellier*, France.
- 2006–2008 **BSc in Biology**, *University Blaise Pascal*, Clermont-Ferrand, France.

### Language Skills

- French Mother tongue
- English Fluent

### Computer skills

NetLogo, SPSS, R

### Publications

(‘\*\*’ indicates ‘equal first author’ and ‘†’ indicate ‘corresponding author’)

### Monographs

1 **Bourrat, P.** (2021). *Facts, Conventions, and Levels of Selection*. Cambridge University Press.

### Peer-Reviewed Journal Articles

- 38 **Bourrat, P.**, Charbonneau, M., (accepted). “Grains of Description in Biological and Cultural Transmission”. In: *Journal of Cognition and Culture*.
- 37 Takacs, P., **Bourrat, P.**, (in press). “The arithmetic mean of what? A Cautionary Tale about the Use of the Geometric Mean as a Measure of Fitness”. In: *Biology and Philosophy* 11(4), p. 112.
- 36 **Bourrat, P.** (in press). “Evolutionary Transitions in Individuality by Endogenization of Scaffolded Properties”. In: *British Journal for the Philosophy of Science*.
- 35 **Bourrat, P.** (2022). “Unifying Heritability in Evolutionary Theory”. In: *Studies in History and Philosophy of Science* 91, pp. 201–210.
- 34 Takacs, P., **Bourrat, P.**, (2021). “Fitness: static or dynamic?” In: *European Journal for Philosophy of Science* 37(2), p. 12.
- 33 **Bourrat, P.** (2021). “Function, persistence, and selection: Generalizing the selected-effect account of function adequately”. In: *Studies in History and Philosophy of Science* 90, pp. 61–67.
- 32 **Bourrat, P.**, Griffiths, P., (in press). “The Idea of Mismatch in Evolutionary Medicine”. In: *British Journal for the Philosophy of Science*.
- 31 **Bourrat, P.** (2021). “Measuring Causal Invariance Formally”. In: *Entropy* 23(6), p. 690.
- 30 Charbonneau, M., **Bourrat, P.**, (in press). “Fidelity and the Grain Problem in Cultural Evolution”. In: *Synthese*.
- 29 Doucier, G., Takacs, P., **Bourrat**<sup>†</sup>, P., (2021). “Taming Fitness: Organism-Environment Interdependencies Preclude Long-Term Fitness Forecasting”. In: *BioEssays* 4, p. 2000157.
- 28 Black, A. J., **Bourrat, P.**, Rainey, P. B., (2020). “Ecological scaffolding and the evolution of individuality during the transition from cells to multicellular life”. In: *Nature Ecology & Evolution* 4, pp. 426–436.
- 27 **Bourrat, P.** (in press). “Heritability, causal influence and locality”. In: *Synthese*.
- 26 **Bourrat, P.** (2020). “Causation and SNP Heritability”. In: *Philosophy of Science* 87(5), pp. 1073–1083.
- 25 **Bourrat, P.** (2021). “Evolutionary Transitions in Individuality: a formal analysis”. In: *Synthese* 198(5), pp. 3699–3731.
- 24 **Bourrat, P.** (2020). “Natural Selection and the Reference Grain Problem”. In: *Studies in History and Philosophy of Science Part A* 80, pp. 1–8.

- 23 **Bourrat, P.** (2019). "Evolution is about Populations, but its Causes are about Individuals". In: *Biological Theory* 14(4), pp. 254–266.
- 22 **Bourrat, P.** (2019). "In What Sense Can There Be Evolution by Natural Selection without Perfect Inheritance?" In: *International Studies in the Philosophy of Science* 32(1), pp. 13–31.
- 21 **Bourrat, P.** (2019). "Evolutionary Transitions in Heritability and Individuality". In: *Theory in Biosciences* 138(2), pp. 305–323.
- 20 **Bourrat, P.** (2019). "Variation of Information as a Measure of One-to-One Causal Specificity". In: *European Journal for Philosophy of Science* 9(1), p. 11.
- 19 **Bourrat, P.** (2019). "On Calcott's Permissive and Instructive Cause Distinction". In: *Biology & Philosophy* 34(1).
- 18 **Bourrat, P.** (2018). "Have Causal Claims About the Gut Microbiome Been Over-Hyped?" In: *BioEssays* 40(12), p. 1800178.
- 17 Lu, Q., **Bourrat**<sup>\*†</sup>, P., (2018). "The Evolutionary Gene and the Extended Evolutionary Synthesis". In: *The British Journal for the Philosophy of Science* 69(3), pp. 775–800.
- 16 **Bourrat, P.**, Griffiths, P. E., (2018). "Multispecies Individuals". In: *History and Philosophy of the Life Sciences* 40(2).
- 15 **Bourrat, P.** (2018). "Natural Selection and Drift as Individual-Level Causes of Evolution". In: *Acta Biotheoretica* 66(3), pp. 159–176.
- 14 Lynch, K. E., **Bourrat**<sup>\*</sup>, P., (2017). "Interpreting Heritability Causally". In: *Philosophy of Science* 84(1), pp. 14–34.
- 13 **Bourrat**<sup>†</sup>, P., Lu, Q., Jablonka, E., (2017). "Why the Missing Heritability Might Not Be in the DNA". In: *BioEssays* 39(7).
- 12 **Bourrat, P.**, Lu, Q., (2017). "Dissolving the Missing Heritability Problem". In: *Philosophy of Science* 84(5), pp. 1055–1067.
- 11 **Bourrat, P.** (2017). "Explaining Drift from a Deterministic Setting". In: *Biological Theory* 12(1), pp. 27–38.
- 10 **Bourrat, P.** (2016). "Generalizing Contextual Analysis". In: *Acta Biotheoretica* 64(2), pp. 197–217.
- 9 **Bourrat, P.** (2015). "Levels, Time and Fitness in Evolutionary Transitions in Individuality". In: *Philosophy & Theory in Biology* 7.
- 8 **Bourrat, P.** (2015). "Levels of Selection Are Artefacts of Different Fitness Temporal Measures". In: *Ratio* 28(1), pp. 40–50.
- 7 **Bourrat, P.** (2015). "Distinguishing Natural Selection from Other Evolutionary Processes in the Evolution of Altruism". In: *Biological Theory* 10(4), pp. 311–321.

- 6 **Bourrat, P.** (2015). “How to Read ‘Heritability’ in the Recipe Approach to Natural Selection”. In: *The British Journal for the Philosophy of Science* 66(4), pp. 883–903.
- 5 **Bourrat, P.** (2014). “From Survivors to Replicators: Evolution by Natural Selection Revisited”. In: *Biology & Philosophy* 29(4), pp. 517–538.
- 4 Viciana, H., **Bourrat, P.**, (2011). “Is God an Adaptation? Essay Review on *The Evolution of God*, by Robert Wright”. In: *Philosophia* 39(2), pp. 397–408.
- 3 Atkinson, Q. D., **Bourrat\***, P., (2011). “Beliefs about God, the Afterlife and Morality Support the Role of Supernatural Policing in Human Cooperation”. In: *Evolution and Human Behavior* 32(1), pp. 41–49.
- 2 **Bourrat†**, P., Atkinson, Q. D., Dunbar, R. I., (2011). “Supernatural Punishment and Individual Social Compliance across Cultures”. In: *Religion, Brain & Behavior* 1(2), pp. 119–134.
- 1 **Bourrat†**, P., Baumard, N., McKay, R., (2011). “Surveillance Cues Enhance Moral Condemnation.” In: *Evolutionary psychology: an international journal of evolutionary approaches to psychology and behavior* 9(2), pp. 193–199.

#### Book Chapters

- 5 Doucier, G., Hammerschmidt, K., **Bourrat†**, P., (forthcoming). “Division of Labor and Fitness Decoupling in Evolutionary Transitions in Individuality”. In: *The evolution of multicellularity*. Ed. by Matthew D. Herron, Peter L. Conlin, and William C. Ratcliff. CRC Press.
- 4 **Bourrat†**, P., Viciana, H., (2016). “Supernatural Beliefs and the Evolution of Cooperation”. In: *Oxford Handbook of the Evolutionary Perspectives on Religion*. Ed. by James Liddle and Todd K. Shackelford.
- 3 **Bourrat, P.** (2015). “Origins and evolution of religion from a Darwinian point of view: synthesis of different theories”. en. In: *Handbook of Evolutionary Thinking in the Sciences*. Ed. by Thomas Heams, Philippe Huneman, Guillaume Lecointre, and Marc Silberstein. Springer Netherlands, pp. 761–780.
- 2 Duncan, M. J., **Bourrat\***, P., DeBerardinis, J., O’Malley, M., (2013). “Small things, big consequences: Microbiological perspectives on biology”. In: *The Philosophy of Biology*. Ed. by Kostas Kampourakis. Springer Netherlands, pp. 373–394.
- 1 **Bourrat, P.** (2011). “L’évolution de la religion d’un point de vue darwinien : synthèse des différentes théories”. In: *Les Mondes Darwiniens*. Ed. by Thomas Heams, Philippe Huneman, Guillaume Lecointre, and Marc Silberstein. Éditions Matériologique, pp. 1125–1258.

#### Encyclopedia Entries

- 4 **Bourrat, P.** (2019). “Adaptations: Product of Evolution”. en. In: ed. by Todd K. Shackelford and Viviana A. Weekes-Shackelford. *Encyclopedia of Evolutionary Psychological Science*, pp. 1–4.

- 3 **Bourrat, P.** (2019). “Genetic Relatedness”. en. In: ed. by Todd K. Shackelford and Viviana A. Weekes-Shackelford. *Encyclopedia of Evolutionary Psychological Science*, pp. 1–4. ISBN: 978-3-319-16999-6.
- 2 Wilkins, J. S., **Bourrat, P.**, (2018). “Replication and Reproduction”. In: ed. by Edward N. Zalta. Winter 2018. *The Stanford Encyclopedia of Philosophy*.
- 1 **Bourrat, P.** (2016). “Sélection Naturelle”. fr. In: ed. by Maxime Kristanek. *Encyclopédie Philosophique*.

#### Book Reviews

- 3 **Bourrat, P.** (2021). “Review *Inheritance Systems and the Extended Evolutionary Synthesis* by Eva Jablonka and Marion Lamb”. In: *BJPS Review of Books*.
- 2 **Bourrat, P.** (2017). “Review of *Biological Individuality: Integrating Scientific, Philosophical, and Historical Perspectives*, by Scott Lidgard and Lynn K. Nyhart (eds.)” In: *Notre Dame Philosophical Reviews*.
- 1 **Bourrat, P.** (2017). “Review of *Evolution by Natural Selection: Confidence, Evidence and the Gap*, by Michaelis Michael”. In: *Australasian Journal of Philosophy* 95(4), pp. 816–819.

#### Other

- 1 **Bourrat, P.** (2011). “Testing more specific hypotheses and going beyond correlations in the origins and evolution of religious beliefs. Comment on Ara Norenzayan’s *Big Gods: How Religion Transformed Cooperation and Conflict*”. In: *International Cognition and Culture Institute*.

## Talks

#### Refereed

- 24 Charbonneau, M., **Bourrat, P.**, (2021) “Is Fidelity a Causal Concept?” Culture Conference 2021, Virtual Conference
- 23 Lu, Q., **Bourrat, P.**, (2021) “On Estimating Heritability in Light of Structural Causal Modeling”. Third Conference on Science and Philosophy for Young Scholars in China, Fudan University, Shanghai
- 22 **Bourrat, P.** (2021) “Group selection: Convention or Fact?” PSA meeting, Baltimore
- 21 Takacs, P., **Bourrat, P.**, (2021) “Fitness: Static or Dynamic?” PSA meeting, Baltimore
- 20 **Bourrat, P.** (2019) “Aggregativity & Evolutionary Transitions in Individuality”. ISHPSSB conference, Oslo
- 19 **Bourrat, P.** (2019) “Evolutionary Transitions in Individuality as Transitions in Functional Non-Aggregativity”. Evolution of Complex Life Conference, Atlanta
- 18 **Bourrat, P.** (2018) “Causation and SNP Heritability”. PSA Meeting, Seattle

- 17 **Bourrat, P.** (2018) "Challenges for a Price Approach to Evolutionary Transitions in Individuality". AAP, Wellington, NZ
- 16 **Bourrat, P.** (2017) "Explaining Drift from a Deterministic Setting". ISHPSSB conference, Sao Paulo
- 15 **Bourrat, P.** (2017) "Explaining Drift from a Deterministic Setting". MuST 10, The University of Sydney
- 14 **Bourrat, P., Lu, Q.,** (2016) "Dissolving the Missing Heritability Problem". PSA Meeting, Atlanta
- 13 **Bourrat, P.** (2016) "Questioning the Relevance of the Multilevel Selection 1 / Multilevel Selection 2 Distinction in Evolutionary Transitions in Individuality". Philosophy of Biology in UK Conference, Bristol
- 12 **Bourrat, P.** (2016) "Challenging the Evidence for Species Selection and the Export-Of Fitness Model of Evolutionary Transitions in Individuality". MuST 9, Munich
- 11 Lu, Q., **Bourrat, P.,** (2015) "The Evolutionary Gene and the "Extended Evolutionary Synthesis"". ISHPSSB Conference, Montréal, Canada
- 10 **Bourrat, P.** (2015) "Are Reproduction and Inheritance Necessary Conditions for, or Products of, Evolution by Natural Selection?" ISHPSSB Conference, Organised Session "Rethinking Reproduction", Montréal, Canada
- 9 **Bourrat, P.** (2014) "Heritability and the Concepts of "Gene" and "Environment"". AAP, Australian National University, Canberra
- 8 **Bourrat, P., Lu, Qiaoying,** (2014) "Questioning the Role of Epigenetic Inheritance in Evolutionary Theory". MuST 7, The University of Sydney
- 7 **Bourrat, P.** (2013) "Revisiting Fitness: Trait-Based Fitness". ISHPSSB Conference, Montpellier, France
- 6 **Bourrat, P.** (2012) "Time and Fitness in Evolutionary Transitions in Individuality". PSA Meeting, San Diego
- 5 **Bourrat, P.** (2012) "The Role of Heredity and Reproduction in Evolution by Natural Selection". AAHPSSS Conference, The University of Sydney
- 4 **Bourrat, P.** (2012) "Evolution by Natural Selection and the Problem of Heritability". AAP, Woollongong, Australia
- 3 **Bourrat, P.** (2009) "La Théorie Du Signal Coûteux Appliquée à La Religion : Difficultés Conceptuelles" ("Costly Signaling Applied to Religion: Conceptual Difficulties"). 3rd Congress of the Society of Philosophy of Science, Paris
- 2 Viciana, H., **Bourrat, P.,** (2009) "The Evolution of Cultural Cognition and the Baldwin Effect: Which Conditions Are Essential for Categorizing Effects?" Cognition, Montreal

### Invited

- 21 **Bourrat, P.** (2019) "Causation and SNP Heritability". Genetics and Human Agency Annual Meeting, Charlottesville, Virginia
- 20 **Bourrat, P.** (2019) "Aggregativity and Evolutionary Transitions in Individuality". MPI for Evolutionary Biology, Plön
- 19 **Bourrat, P.** (2018) "Solving the Fitness-Decoupling Paradox in Evolutionary Transitions in Individuality". MPI for Evolutionary Biology, Plön
- 18 **Bourrat, P.** (2017) "Revisiting the Unit of Selection Problem". New Directions in the Origins and Maintenance of Individuality, Macquarie University, Australia
- 17 **Bourrat, P.** (2017) "Explaining Drift from a Deterministic Setting". Philosophy Work in Progress Seminar, Macquarie University, Australia
- 16 **Bourrat, P.** (2016) "Evolution by Natural Selection and the Price Equation". Sun Yat-sen University, Guangzhou, China
- 15 **Bourrat, P.** (2016) "Costly Signalling Theory Applied to Religion: An Example of Conceptual Difficulty in the Transition from the Use of Evolutionary-Biology Tools to Cultural Evolution". Sun Yat-sen University, Guangzhou, China
- 14 **Bourrat, P.** (2016) "Questioning the Relevance of the Multilevel Selection 1 / Multilevel Selection 2 Distinction in Evolutionary Transitions in Individuality". All Souls College, Oxford
- 13 Lu, Q., **Bourrat, P.**, (2015) "Epigenetic Inheritance and the Evolutionary Gene". Beijing Normal University
- 12 Lu, Q., **Bourrat, P.**, (2015) "Epigenetic Inheritance and the Evolutionary Gene". Lingnan University, Hong Kong
- 11 **Bourrat, P.** (2014) "Two Kinds of Drift: Deterministic and Probabilistic Drift". S-ANU Philosophy of Biology Meeting, Sydney
- 10 **Bourrat, P.** (2014) "Reconceptualising Evolution by Natural Selection". Philosophy Work in Progress Seminar, The University of Sydney
- 9 **Bourrat, P.** (2014) "A Superior Multilevel Causal Decomposition to Contextual and Neighbour Partitionings". S-ANU Philosophy of Biology Meeting, Sydney
- 8 **Bourrat, P.** (2013) "Distinguishing the Evolution of Altruism from the Evolution of Altruism by Natural Selection". S-ANU Philosophy of Biology Meeting, Sydney
- 7 **Bourrat, P.** (2012) "Two New Meanings of the Concept of Heritability and a Unified Conception of Evolution by Natural Selection". S-ANU Philosophy of Biology Meeting, Bundanoon, Australia
- 6 **Bourrat, P.** (2012) "Levels, Time and Fitness in Evolutionary Transitions in Individuality". PBDB 6, Moruya Heads, Australia

- 5 **Bourrat, P.** (2012) “Mechanisms of Natural Selection”. S-ANU Philosophy of Biology Meeting, Sydney
- 4 **Bourrat, P.** (2012) “Natural Selection and the Problem of Heritability”. IHPST, Paris
- 3 Atkinson, Q. D., **Bourrat, P.**, Whitehouse, H., (2010) “Cross-Cultural Variation in Religious Belief and Practice.” Cognition, Religion and Theology Project Conference, Merton College, Oxford
- 2 **Bourrat, P.** (2009) “Naturaliser La Religion à l’aide de Théories Darwiniennes : Quelques Enjeux Philosophiques Majeurs” (“Naturalizing Religion with Darwinian Theories: Some Major Philosophical Issues”). Workshop: New Paradigms in Ecology, Cargèse, France

### Posters

- 7 **Bourrat, P.** (2018) “A Version of the Price Equation for Evolutionary Transitions in Individuality”. Evolutionary Emergence of Life Cycles Workshop, MPI for Evolutionary Biology, Plön
- 6 Rainey, P., Doucier, G., **Bourrat, P.**, (2017) “Ecology-Driven Transitions in Individuality”. PSL OCAV Meeting, Paris
- 5 **Bourrat, P.**, Atkinson, Q., (2010) “Supernatural Policing and Human Cooperation”. 20th International Association for the History of Religions Quinquennial World Congress, Toronto, Canada
- 4 **Bourrat, P.**, Atkinson, Q., (2010) “Individuals’ Beliefs about God and the Afterlife Support the Importance of Supernatural Punishment in Human Cooperation”. European Human Behavior & Evolution Association Conference, Wroclaw, Poland
- 3 **Bourrat, P.** (2009) “Qu’est-Ce Qu’est Vraiment La Sélection de Groupe Aujourd’hui (“What Is Group Selection Nowadays”)”. Darwin: Entre Sciences et Humanités, Paris
- 2 **Bourrat, P.**, Tofalvy, T., Viciano, H., (2008) “Adaptive Models of Religious Forms: Framing the Controversy on Cultural Group Selection”. Academy of Sciences, New York. Values and Empathy across Social Barriers: A Neurocognitive Approach to Fairness, Barcelona, Barcelona

## Teaching Experience

### Course Coordinator

- 2020 **PHIL7001 “Research Topics in Philosophy II”**, *postgraduate course*, Macquarie University.
- 2020 **PHIL2032 “Science, Objectivity, and Reality”**, Macquarie University.
- 2020 **PHIL2049 “Evolution, Mind and Culture”**, Macquarie University.
- March 2016 **Intensive course on philosophy of biology**, Ludwig-Maximilians-Universität München (LMU Munich).



2015 **HPSC2101 & HPSC2901 “What is this Thing Called Science”**, The University of Sydney, Introduction to philosophy of science, approx. 250 students.

#### Lecturer

2019 **PHIL2677 How Biology Matters to Philosophy**, *Guest Lecturer for 2 weeks*, The University of Sydney.

2017 **PHL 363 Philosophy and Cognitive Science: An Introduction**, *Guest Lecturer for 2 weeks*, Macquarie University.

2016 **HPSC2101 & HPSC2901 “What is this Thing Called Science”**, The University of Sydney, Introduction to philosophy of science, approx. 250 students.

#### Tutor

2020 **PHIL1031 “The Philosophy of Human Nature”**, Macquarie University.

2015 **HPSC2901 “What is this Thing Called Science”**, The University of Sydney.

2014 **PHIL2627 “Philosophy and Psychiatry”**, The University of Sydney.

2012 **PHIL2627 “Philosophy and Psychiatry”**, The University of Sydney.

#### Supervision

##### Students

2014–2015 **Qiaoying Lu**, *PhD Student*, Sun Yat-Sen University, Guangzhou, China, now Assistant Professor at Peking University, Beijing, China.

2018 **Yuajan Li**, *PhD Student*, Beijing Normal University.

2018–2019 **Ying Liu**, *PhD Student*, The University of Sydney.

2018–2020 **Dr Carl Brusse**, *Research Associate*, The University of Sydney.

2018–2020 **Dr Carl Brusse**, *Research Associate*, The University of Sydney.

##### Postdocs

2018–2020 **Dr Guilhem Doucier**, *Research Associate*, Macquarie University.

2018–2020 **Dr Andrew Roberts**, *Research Associate*, Macquarie University.

---

## Professional Experience

### Visiting Researcher

2016, 2018, 2019 **Ecole Supérieure de Physique et Chimie Industrielle de Paris (ESPCI Paris-Tech)**, *Laboratoire de Génétique de l’Evolution*.

2018, 2019 **Max Plank Institute for Evolutionary Biology**.

### Visiting Student

2014 **University of Auckland, New Zealand**, *Advisors: Quentin Atkinson, Russell Gray*.

2014 **Massey University, New Zealand**, *Advisors: Paul Rainey, Katrin Hammerschmidt*.

2012 **City University of New-York**, *Advisor: Peter Godfrey-Smith*.

2011 **Australian National University**.

### Consulting

- 2015– **Member of the Advisory Board for the Simulating Religion Project**, led by Wesley J. Wildman, Saikou Y. Diallo, and F. LeRon Shults, Institute for the Bio-Cultural Study of Religion.
- Workshop/conference organisation**
- 2017 **New Directions in the Emergence and Maintenance of Individuality**, Macquarie University.
- 2015 **Modelling Non-Paradigmatic Evolutionary Processes**, The University of Sydney.
- 2012, 2014 **Organisation of the Sydney-Australian National University (S-ANU) workshop on philosophy of biology**, The University of Sydney.
- 2012 **Organisation of a publication course for postgraduate students**, The University of Sydney, Philosophy Department.
- Program Committee**
- 2021 Sixth Annual Conference of the Society for the Metaphysics of Science
- 2022 Seventh Annual Conference of the Society for the Metaphysics of Science
- Journal Editor**
- 2021– present **Associate Editor**, *British Journal for the Philosophy of Science*.
- Reviewer**
- Grant Proposal *USA National Science Foundation*
- Book proposals *Cambridge University Press*
- Philosophy Journals *Philosophical Studies* (x2), *Australasian Journal of Philosophy* (x3), *The British Journal for the Philosophy of Science* (x9), *Philosophy of Science* (x2), *European Journal for Philosophy of Science* (x4), *Biology & Philosophy* (x10), *Synthese* (x7), *Erkenntnis* (x4), *Studies in History and Philosophy of Science Part A*, *Studies in History and Philosophy of Science Part C* (x9), *International Studies in the Philosophy of Science*, *Review of Philosophy and Psychology* (x3), *Biological Theory* (x3), *Dialogue, History and Philosophy of the Life Sciences* (x4), *Evolutionary Studies in Imaginative Culture*, *Kairos* (x2) *Philosophy, Theory, and Practice in Biology* (x2)
- Scientific Journals *Journal of Molecular Evolution* *Developmental Psychology* *eLife* (x2), *Nature Human Behaviour*, *Journal of Personality and Social Psychology: Attitudes and Social Cognition*, *Biological reviews*, *Microbiome*, *Journal of Theoretical Biology*, *BMC Evolutionary Biology*, *Evolution and Human Behavior* (x2), *Functional Ecology*, *F1000*, *BioSystems*, *Biological Journal of the Linnean Society*, *Comptes Rendus Biologies*, *Human Genetics*, *PLOS ONE*, *Studies in Religion*

---

## Grants/Awards

- 2009 **Religion, Cognition and Theology Small Grant**, University of Oxford & John Templeton Foundation, Principal investigator for the project “Testing the Fear of Supernatural Punishment Hypothesis”, £ 13690.
- 2011-2014 **University of Sydney International Scholarship (USydis)**, ~AU\$ 200 000 for tuition fees and maintenance scholarship.

- 2011-2014 **Top-up Scholarship**, *The University of Sydney*, Australian Research Council's Discovery Projects funding scheme DP0878650, ~AU\$ 17500.
- 2011 **Lucy Firth publication prize, Semester 2**, *The University of Sydney*.
- 2012 **Lucy Firth publication prize, Semester 1**, *The University of Sydney*.
- 2012 **Postgraduate Research Support grant 2012**, *The University of Sydney*, School of Philosophical and Historical Inquiry, AU\$ 3000.
- 2012 **Doctoral Travel Grant 2013**, *The University of Sydney*, Faculty of Arts and Social Sciences, AU\$ 3000.
- 2012 **Lucy Firth publication prize, Semester 2**, *The University of Sydney*.
- 2013 **Postgraduate Research Support grant 2013**, *The University of Sydney*, School of Philosophical and Historical Inquiry, AU\$ 2700.
- 2013 **Travel Scholarship**, *International Society for History, Philosophy and Social Studies of Biology (ISHPSSB)*, US\$ 750.
- 2013 **Lucy Firth publication prize, Semester 1**, *The University of Sydney*.
- 2013 **Lucy Firth publication prize, Semester 2**, *The University of Sydney*.
- 2014 **Lucy Firth publication prize, Semester 1**, *The University of Sydney*.
- 2014 **Postgraduate Research Support grant 2014**, *The University of Sydney*, School of Philosophical and Historical Inquiry, AU\$ 821.
- 2014 **Lucy Firth publication prize, Semester 2**, *The University of Sydney*.
- 2015 **Conference Travel grant 2015**, *The University of Sydney*, School of Philosophical and Historical Inquiry, AU\$ 2990.
- 2016 **Mobility grant**, *Erasmus+ Initiative*, European Union and LMU, ~€ 3000.
- 2016 **Supplementary Funds**, *The University of Sydney*, School of Philosophical and Historical Inquiry, AU\$ 5000.
- 2017 **Macquarie University Research Fellowship**, ~AU\$ 350000.
- 2017 **Research Travel grant 2015**, *Macquarie University*, Faculty of Arts, AU\$ 4040.
- 2017 **Research Grant**, *Macquarie University*, Centre for Agency and Value and Ethics, AU\$ 3000.
- 2017 **Research Grant**, *The University of Sydney*, Sydney Centre for the Foundations of Science, AU\$ 4000.
- 2017 **Macquarie University Early Career Researcher of the Year**, *Category – Humanities, Business and Social Sciences*, Honourable Mention.
- 2018-2021 **Large Grant**, *John Templeton Foundation*, Co-Leader for the project "Constructing Objective Biological Criteria of Health", ~AU\$ 800000.
- 2019 **Travel Award**, *Georgia Institute of Technology*, for the "Evolution of Complex life Conference", ~AU\$ 350.
- 2020 **Publication Subsidy Scheme**, *Macquarie University*, Faculty of Arts, AU\$ 2000.
- 2020 **Discovery Early Career Research Award (DECRA)**, *Australian Research Council (ARC)*, for the project "Inheritance and the Emergence of Individuals: From Concepts to Practice", AU\$441200.

2021 **Research Grant**, *John Templeton Foundation*, Principal Investigator for the project “Evolutionary transitions in individuality: from ecology to teleonomy” as part of the Cohort Program “Agency, Directionality, and Function, AU\$723988.

---

## Public Outreach

2011 **The Good God Guide**, *The Economist*.

2012 **Why one look will put the fear of god into you**, *The Sydney Morning Herald*.

2013 **Religiosity about reproduction more than cooperation**, *The Conversation*.

---

## Memberships

Philosophy of Science Association

International Society for History, Philosophy, and Social Studies of Biology

Australasian Association of Philosophy

---

## References

upon request

Last updated: May 28, 2022