

# Rachell Powell

(pronouns: she/her/hers)
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### **EDUCATION**

**PhD.** Philosophy, Duke University (2009) **M.S.** Evolutionary Biology, Duke University (2009) **J.D.**, with honors, New York University Law School (2002) **B.A.** Philosophy, summa cum laude, Phi Beta Kappa, SUNY Binghamton (1999)

## AREAS OF SPECIALIZATION

Philosophy of Biological and Biomedical Science Bioethics / Political Philosophy / Philosophy of Cognitive Science

### **ACADEMIC POSITIONS**

**Boston University,** Department of Philosophy (since July 2011)

Full Professor 2023- present; Associate Professor 2018-2023; Assistant Professor, 2011-2018

Director, Center for Philosophy of Science, 2023-present

**Oxford University**, Faculty of Philosophy (2009-2011)

Arts and Humanities Research Council Fellow, Oxford Uehiro Centre for Practical Ethics James Martin Research Fellow, Institute for Science and Ethics, Oxford Martin School Research Associate, Oxford Centre for Neuroethics Research Associate, Corpus Christi College

**Georgetown University**, Department of Philosophy / Kennedy Institute of Ethics (2008-2009) *Visiting Assistant Professor of Philosophy* and *Senior Research Scholar*, respectively

Johns Hopkins University, Berman Institute of Bioethics (2008)

Greenwall Postdoctoral Fellow

## GRANTS, FELLOWSHIPS AND VISITING APPOINTMENTS

Templeton World Charity Foundation, Director and Co-Principle Investigator (\$240,000) (2019-22) Summer Scholar, National Humanities Center, postponed due to pandemic (2020) Mellon Foundation, Co-Principal Investigator (\$175,000) (w/ Juliet Floyd and Jim Katz) (2017-18) Ethics & Emerging Sciences Initiative, Co-Principal Investigator (\$100,000) (w/ Victor Kumar) (2017) NEH Collaborative Grant Award, Co-Principal Investigator (\$110,000) (w/ Allen Buchanan) (2016-18) John Templeton Foundation, Principal Investigator (\$140,000) (2014-16) Visiting Fellow, Berlin School of Mind and Brain, Humboldt University, Berlin (2016) Humanities Project Grant, Boston University (\$4,000): "Convergent Minds" (2015) Visiting Research Scholar, Washington University in St. Louis, Phil-Neuro-Psych Program (2015)

Visiting Research Fellow, National Evolutionary Synthesis Center (\$10,000) Duke University (2015)

Visiting Research Fellow, Center for Genetic Engineering and Society, N.C. State University (2014)

Research Fellow, National Humanities Center (\$55,000), Research Triangle, NC (2013)

Research Fellow, American Council of Learned Societies (\$35,000) (2013)

Boston University Center for the Humanities Fellowship (2013) (declined for NHC/ACLS fellowships)

Visiting Fellow, Konrad Lorenz Institute for Evolution and Cognition Research, Vienna (2012)

Visiting Assistant Professor, Boğaziçi University, Istanbul, Turkey (Summer 2012)

New Faculty Fellow, American Council of Learned Societies (2011) (declined for tenure-track job)

James B. Duke Fellow, Duke University Society of Fellow (2004-2008)

### JOURNAL APPOINTMENTS

**Journal of Medical Ethics,** Associate Editor, British Medical Journal Group (2011-2017) **Philosophy & Technology**, Associate Editor for Life Sciences (2012-present)

#### **BOOKS**

The Evolution of Normative Societies, under contract with Cambridge University Press (w/ Irina Mikhalevich)

Contingency and Convergence: Toward a Cosmic Biology of Body and Mind, MIT Press, 2020

The Evolution of Moral Progress: A Biocultural Theory, Oxford University Press, 2018 (w/ Allen Buchanan)

Genetic Engineering and the Future of Human Nature (in preparation)

Religion, Intolerance, and Conflict, Oxford University Press, 2013 (w/ Steve Clarke and Julian Savulescu, eds.)

## **ARTICLES**

- Powell, R. (in preparation). "Importing Biological Concepts into Bioethics: Three Problematic Cases (Death, Disease, Sex)."
- Powell, R. and Mikhalevich, I. (forthcoming), "Is Sentience an Evolved Trait?" in *Psychodiversity* G. Ramsey (ed.), Cambridge University Press.
- Powell, R. (2024). "Paleo Perspectives on Long-term Ethics." In *Long Termism*, Greaves, H., Barrett, J. and Thorstad, D. (eds.), Oxford University Press.
- Powell, R. (2023). "Social Norms and Superorganisms." Biology & Philosophy 38:21.
- Powell, R. and Mikhalevich, I. (2023). "Wonderful Mind: Convergentism and the Crusade Against Evolutionary Progress." *Journal of the Philosophy of History* 17: 77-103.
- Buchanan, A. and Powell, R. (2022). "Evolving Measures of Moral Success." In *Human Success: Evolutionary Origins and Ethical Implications*, Ramsey, G. and Desmond, H. (eds.), Oxford University Press.
- Powell, R., Mikhalevich, I., and Buchanan, A. (2021). "How the Moral Community Evolves." In *Rethinking Moral Status*, Savulescu, J. and Clarke, S. (eds.), Oxford University Press.
- Powell, R. and Mikhalevich, I. (2021). "Affective Sentience and Moral Protections." *Animal Sentience* 29(35) (reply to ~40 commentators).
- Mikhalevich, I. and Powell, R. (2020). "Target Article: Minds Without Spines: Toward a More Evolutionarily Inclusive Animal Ethics." *Animal Sentience* 29(1).
- Powell, R. (2020). "Copernicanism and its Biological Discontents." Lead Review, *The Great Silence* by Milan Ćirković, *Quarterly Review of Biology*.
- Powell, R. and Scarffe, E. (2019). "Rehabilitating 'Disease': Function, Value, and Objectivity in Medicine." *Philosophy of Science* 86(5): 1168-1178.

- Powell, R. and O'Malley, M. (2019). "Metabolic and Microbial Perspectives on the Evolution of Evolution." *Journal of Experimental Zoology B: Molecular and Developmental Evolution* 332(8): 321-330.
- Buchanan, A. and Powell, R. (2019). "Précis of The Evolution of Moral Progress: A Biocultural Theory." *Analyse & Kritik 41*(2): 183-194, along with a reply to commentators.
- Powell, R. and Scarffe, E. (2019). "Feature Article: Rethinking Disease: A Fresh Diagnosis and New Conceptual Treatment." *Journal of Medical Ethics* 45(9): 579-588, along with replies to commentaries.
- Mikhalevich, I., Powell, R. and Logan, C. (2017). "Is Flexible Behavior Evidence of Cognitive Complexity? How Evolution Can Inform Comparative Cognition." *Journal of the Royal Society Interface Focus* 7(3): 20160121.
- Powell, R., Mikhalevich, I. Logan, C., and Clayton, N. (2017). "Convergent Minds: The Evolution of Cognitive Complexity in Nature." *Journal of the Royal Society Interface Focus* 20170029.
- Buchanan, A. and Powell, R. (2017). "De-Moralization as Emancipation: The Evolution of Invalid Moral Norms." *Social Philosophy and Policy* 34(2): 108-135.
- O'Malley, M. and Powell, R. (2016). "Major Problems in Evolutionary Transitions: Toward a Metabolism-Based Account of Macroevolution." *Biology and Philosophy* 31(2): 159-189.
- Buchanan, A. and Powell, R. (2016). "A Naturalistic Theory of Moral Progress." Ethics 126: 983–1014.
- Powell, R. and Mikhalevich, I., (2016). "Sex, Lies and Gender." Journal of Medical Ethics 43: 14-16.
- Powell, R. and Buchanan, A. (2016). "The Evolution of Moral Enhancement." In *The Ethics of Human Enhancement: Understanding the Debate*, Clarke, S., Savulescu, J., Coady, C. A. J., Giubilini, A. and Sanyal, S. (eds.), Oxford University Press.
- Buchanan, A. and Powell, R. (2015). "The Limits of Evolutionary Explanations of Morality and Their Implications for Moral Progress." *Ethics* 126(1): 37-67.
- Powell, R. (2015). "In Genes We Trust: Genetic Engineering, Eugenics and the Future of the Human Genome." *Journal of Medicine and Philosophy* 40(6): 669-95.
- Powell, R. and Mariscal, C. (2015). "Convergent Evolution as Natural Experiment: The Tape of Life Reconsidered." *Journal of the Royal Society Interface Focus* 5(6): 1-13.
- Powell, R. (2015). "The Disvalue of Genetic Diversity or: How (Not) to Treat a Sandelian Ethos on Steroids." *American Journal of Bioethics* 15(6): 29-32.
- Powell, R. (2015). "Adopting a Technological Stance Toward the Living World: Promises, Pitfalls and Perils." In *The Role of Technology in Science: Philosophical Perspectives*, S.O. Hansson (ed.), Springer.
- Powell, R. (2015). "What is a Pet Worth?" In *The Oxford Companion to Practical Ethics*, David Edmunds (ed.) Oxford University Press.
- Powell, R. and Shea, N. (2014). "Homology Across Inheritance Systems." *Biology and Philosophy* 29(6): 781-806.
- Douglas, T. Powell, R. and Savulescu, J. (2013). "Is the Creation of Artificial Life Morally Significant?" *Studies in History and Philosophy of Biological and Biomedical Sciences* 44(4): 688–696.
- Powell, R and Holm, S. (2013). "Organism, Machine, Artifact: The Conceptual and Normative Challenges of Synthetic Biology." *Studies in History and Philosophy of Biological and Biomedical Sci.* 44(4): 627-631.
- Powell, R. and Clarke, S. (2013). "Religion and Intolerance." In S. Clarke, R. Powell, and J. Savulescu, (eds.), *Religion, Intolerance, and Conflict: A Scientific and Conceptual Investigation*, Oxford University Press.
- Powell, R. and Clarke, S. (2012) "Religion as an Evolutionary Byproduct: A Critique of the Standard Model." British Journal for the Philosophy of Science 63(3): 457-486 (editor's choice open access)
- Powell, R. (2012). "The Evolutionary Biological Implications of Human Genetic Engineering." *Journal of Medicine and Philosophy* 37(3): 204-226.
- Powell, R. (2012). "The Future of Human Evolution." British Journal for the Philosophy of Science 63: 145-175.

- Powell, R. (2012). "Convergent Evolution and the Limits of Natural Selection." *European Journal for the Philosophy of Science* 2(3): 355-373.
- Powell, R., Kahane, G. and Savulescu, G. (2012). "Evolution, Genetic Engineering and Human Enhancement." *Philosophy & Technology* 25(4): 439-458.
- Powell, R., Clarke, S. and Savulescu, J. (2012). "Prioritizing the Reduction of Parasite-Stress in the Allocation of Healthcare Resources." *Behavioral and Brain Sciences* 35(2): 90-1.
- Powell, R. (2012). "Respect for the Evolutionarily Given" *Philosophy & Technology* 25(4): 485-493.
- Powell, R. and Buchanan, A. (2011). "Breaking Evolution's Chains: The Prospect of Deliberate Genetic Modification in Humans." *Journal of Medicine and Philosophy* 36(1): 6-27 (re-printed in U.S. Presidential Commission for Bioethics Briefing Booklet)
- Buchanan, A. and Powell, R. (2011). "The Ethics of Synthetic Biology: Suggestions for a Comprehensive Approach." Policy Piece at *Bioethics.gov*.
- Powell, R. (2011). "On the Nature of Species and the Moral Significance of their Extinction." In *Oxford Handbook on Animal Ethics*, T.L. Beauchamp and R.J. Frey (eds.), Oxford University Press.
- Powell, R. (2010). "What's the Harm? An Evolutionary Theoretical Critique of the Precautionary Principle." *Kennedy Institute of Ethics Journal* 20(2): 181–206.
- Douglas, T., Devolder, K., Powell, R. and Rippon, S. (2010). "Resisting Sparrow's Sexy *Reductio*: Selection Principles and the Social Good," *American Journal of Bioethics* 10(7): 16-19.
- Powell, R. (2009). "Contingency in Macroevolution: Reply to Beatty." Journal of Philosophy 106(7): 390-404.
- Powell, R. and Buchanan, A. (2009). "Fidelity to Constitutional Democracy and to Robust International Law." In *Routledge Handbook of International Law*, D. Armstrong (ed.), Routledge.
- Buchanan, A. and Powell, R. (2008). "Constitutional Democracy and the Rule of International Law: Are They Compatible?" *Journal of Political Philosophy* 16(3): 326-349.
- Powell, R. (2007). "Is Convergence More than an Analogy? Homoplasy and its Implications for Macroevolutionary Predictability." *Biology and Philosophy* 22: 565-578.
- Powell, R. (2007). "The Law and Philosophy of Preventive War: An Institution-Based Approach to Collective Self-Defense." *Australian Journal of Legal Philosophy* 32: 67-89.

### **JOURNALS EDITED**

- "Convergent Minds: The Evolution of Cognitive Complexity in Nature," *Journal of the Royal Society Interface Focus* (2017) (as main editor, w/ Nicola Clayton, Corina Logan, and Irina Mikhalevich, eds.).
- "Organism, Machine and Artefact: The Conceptual and Normative Challenges of Synthetic Biology," *Studies in Hist. and Philosophy of Biological and Biomedical Sciences* 44(4) (2013) (edited w/ Sune Holm)
- "Evolution, Genetic Engineering and Human Enhancement," *Philosophy & Technology* 25 (2012) (as main editor, w/ Guy Kahane and Julian Savulescu, eds.)

## EDITORIALS / BOOK REVIEWS

- "The Misguided Rush to Reopen Universities: Science and Ethics Paint a Harsh Reality," *Inside Higher Education* (with Irina Mikhalevich)
- "What is Paradoxical About Fermi's Paradox," Acta Biotheretica (w/ Cansu Hepcaglayan and Aja Watkins)
- "Public Health, Justice and Cultural Variation," Journal of Medical Ethics (2016)
- "Human Evolution: Contemporary Debates in Historical Context," review of *The Philosophy of Human Evolution* by Michael Ruse, *Metascience* 23: 285–291 (2015)

- "Limited Forms Most Beautiful," review of *Convergent Evolution* by George McGhee," *Acta Biotheoretica* 62(1): 115–121 (2015).
- "Evolution, Evoconservatism, and the Future of Human Morality," Aeon (2015) (w/ Allen Buchanan)
- "Is Preventive Suicide a Rational Response to a Presymptomatic Diagnosis of Dementia?" *Journal of Medical Ethics* (2014)
- "The Biomedical Enhancement of Moral Status." Journal of Medical Ethics 39(2): 65-66 (2013)
- "Cloning the Wooly Mammoth: The Ethics." The Conversation (2013) (w/ Julian Savulescu)
- "Beyond the Blueprint: Genetic Exceptionalism and Enhancement." *Philosophy Now* 91 (2012)
- "Governmental Coercion in the Name of Health." Journal of Medical Ethics 38(6): 325-326 (2012)
- "Nanoethics: Big Ethical Issues with Small Technology," Notre Dame Phil. Reviews (2010)

### REFEREE

Biology and Philosophy • British Journal for the Philosophy of Science • Ethics • Studies in History & Philosophy of Biological & Biomedical Sciences • American Journal of Bioethics • Mind • European Journal for Philosophy of Science • Erkenntnis • Philosophy Compass • Philosophy, Politics and Economics • Review of Philosophy & Psychology • Frontiers in Psychology • Ethics & International Affairs • Philosophy & Technology • Bioethics • Theoretical Medicine & Bioethics • Ethical Theory & Moral Practice • Medicine, Health Care & Philosophy • Journal of Medical Ethics • Journal for General Philosophy of Science • Origins of Life and Evolution of the Biosphere • MIT Press • Oxford University Press • National Humanities Center • NEH • University of Leuven • Wellcome Trust Foundation • Environmental Ethics • Philosophy

### PROFESSIONAL CONSULTING AND MEDIA INTERVIEWS

Panelist, National Endowment for the Humanities, Collaborative Research Grant Program (2012/2019) Washington Post / ABC News / NPR / Boson Globe / USA Today / Commonwealth Magazine Nuffield Council on Bioethics, U.K. (2011): Synthetic Biology U.S. President's Commission on Bioethics (2010): Synthetic Biology (w/ Allen Buchanan)

## LEGAL EXPERIENCE

Skadden, Arps, Slate, Meagher & Flom LLP, New York, NY

Attorney, Complex Mass Torts and Class Action Product Liability Litigation, 2001-2004 Awards: Pro Bono Publico Service Award, 2002-2003 (asylum law)

The Legal Aid Society New York, NY: Student Attorney Practitioner, Aug. 2001-May 2002

## **COURSES TAUGHT**

Philosophy of Biology • Bioethics • Philosophy of Science •
Biomedical Enhancement • Healthcare Ethics • Philosophy of Genomics • Human Nature •
Environmental Philosophy • Philosophy of War • Applied Ethics • Ethical Theory • Philosophy of Law

# **CONFERENCES / TALKS**

- ❖ Contingency and Convergence in the Evolution of Normative Societies, Santa Fe Institute, 2025
- Social Norms in Social Insects, Tufts University, 2025
- Importing Biological Concepts into Medicine: Death Disease and Sex, CUNY Grad Center, 2025
- ❖ Biological Concepts in Bioethics: Three Problematic Cases, Duke University Centennial, 2024
- Human Nature A-Drift, Duke University, 2024
- Normative Societies, York University, 2024

- Germline Engineering and the Future of Human Nature, Northeastern University, 2024
- Social Norms in the Wild, University of Rochester, 2024
- ❖ The Normative Foundations of Ultracooperation, CUNY Graduate Center, 2023
- Social Norms and Superorganisms, International Society for the History, Philosophy, and Social Studies of Biology (ISHPSSB), Toronto, 2024
- ❖ Longtermism and Long-term Evolution, Oxford University, 2023
- ❖ Dobbs and the Future of Reproductive Rights, Boston University, 2022
- \* The Contingency of Cumulative Cultural Species, Oxford University, 2022
- Normativity Naturalized, Southern Society for Philosophy and Psychology, 2022
- \* The Fate of Moral Progress, Global Priorities Institute, Oxford U, 2022
- Social Norms and Superorganisms: A Case for Deep Convergence, Duke University, 2022
- \* Major Transitions in Normativity, German Society for Philosophy of Science, Berlin, 2022, rescheduled
- Social Norms and Superorganisms, London School of Economics, 2021
- Normativity in Nature, Normative Animals Conference, York University, 2021
- Normativity and Moral Value, NIH Bioethics Colloquium, National Institute of Health, 2021, presented by Irina Mikhalevich
- Normativity in the Living World, Evolution of Normativity Workshop, John Carrol University and York University, 2021, with Irina Mikhalevich
- ❖ Minds Without Spines, Animal Cognition Working Group, York University, 2021, w/ Irina Mikhalevich
- ❖ Diverse Intelligences Summer Workshop, University of St. Andrews, Scotland, 2020
- ❖ The Evolution of Moral Progress, American Philosophical Association, Author Meets Critics, 2020, w/ Allen Buchanan
- \* Where Are They? Evolutionary Perspectives on Fermi's Paradox, BU Mind & Morality Lab, 2019
- \* Long-Term Trends in Evolution, workshop participant, Biosphere 2, Oracle, Arizona, 2019
- ❖ The Evolution of Moral Standing, University of Arizona, 2019
- \* Rehabilitating Disease, Philosophy of Science Association Meeting, 2018
- \* Rethinking Disease: A Fresh Diagnosis and a New Treatment, University at Albany, 2018
- \* The Evolution of Moral Progress, University of Oxford, book launch, 2018
- ❖ An Evolutionary Argument for Ethical Pluralism, University of Oxford, 2018
- ❖ Disease Concepts in an Institutional Setting, University of Oxford, 2018
- ❖ Disease: Navigating the Intersection of Evolution, Morality & Culture, University of Miami Law, 2018
- \* Toward a Cosmic Biology, Oakland University, 2017
- Moral Enhancement and Evolution, Boston University Mind and Morality Lab, 2017
- \* Major Evolutionary Transitions, Philosophy of Science Association, Symposium Organizer, Fall 2016
- \* Replaying the Tape of Life and Mind: Berlin School of Mind and Brain, Humboldt University, 2016
- ❖ Moral Plasticity and Evolutionary Neuroscience, Duke University Center for Science and Society, 2016
- \* Replaying the Tape of Life, Washington University in St. Louis, 2015
- \* Convergent Minds: Evolution of Cognitive Complexity in Nature, Organizer, Boston University, 2015
- \* Evolution and Moral Progress, plenary address, University of Melbourne, 2015
- Gouldian Contingency, History of Biology Seminar, Marine Biological Laboratory, Woods Hole, 2015
- Convergent Evolution as Natural Experiment, Australasian Association of Philosophy, Sydney, 2015
- \* Theoretical Implications of Convergent Evolution, National Evolutionary Synthesis Center, 2015
- Science and Ethics of De-extinction, North Carolina State University, 2015
- ❖ Major Evolutionary Transitions, APA Midwestern, 2015
- \* Convergent Evolution: Life on Earth and Elsewhere, New York Port Washington Public Library
- ❖ Macroevolutionary Thought Experiments, Duke University, 2014
- \* Convergence as Natural Experiment: The Tape of Life Reconsidered, University of Cambridge, 2014
- ❖ Major Problems in Major Evolutionary Transitions, Duke University, 2014
- \* The Ethics of Artificial Life, North Carolina State University, 2014
- ❖ Inclusivist Morality as Evolutionary Anomaly, University of Arizona, 2014
- The Evolution of Morality and its Implications for Evoconservatism, Duke University, 2013

- ❖ Artificial Life, ISHPSSB Montpellier, France, 2013
- \* The Limits of Evolutionary Explanations of Morality, Boston Colloquium in Philosophy of Science, 2013
- \* The Future of Human Nature, George Washington University / Loyola University Chicago, 2013
- \* Evolutionary/Ethical Implication of Germline Modification, AAP New Zealand, APA Pacific, 2012
- ❖ Is the Creation of Artificial Life Morally Significant? CAPPE, Univ. of Melbourne, Australia, 2012
- ❖ Biological Evolution in a Technological Species, Boğaziçi University, Istanbul, Turkey, 2012
- \* Human Evolution: Past, Present, Future, Konrad Lorenz Institute for Evolution Research, Vienna, 2012
- \* Biological Evolution in a Technological Species, Boston Philosophy of Science Colloquium, 2011
- Evolution and the Ethics of Human Germ-Line Modification, Sabanci University, Istanbul, Turkey, 2011
- ❖ The Ethics of Human Germ-Line Modification, New York University, 2011
- ❖ In Genes We Trust, Boston University, 2011
- ❖ Organizer: Organism and Machine: The Conceptual and Normative Challenges of Synthetic Biology, University of Copenhagen, 2011 (w/ Sune Holm)
- ❖ A Future Without Genetic Engineering: Medicine, Evolution and the Preservation of Human Good, James Martin Advanced Research Seminar, Oxford University, 2010
- \* The Ethics of Synthetic Biology: A Comprehensive Approach (w/ Allen Buchanan), material presented by Buchanan at the meeting of the U.S. Presidential Commission for Bioethics, 2010
- Genetic Engineering and Human Variation, Consortium for the Ethics of Emerging Technologies, Oxford University, 2010
- ❖ Adaptationism and the Limits of Natural Selection, Altenberg Symposium in Theoretical Biology, Konrad Lorenz Institute for Evolution and Cognition Research, University of Vienna, 2010
- ❖ Is Religion an Adaptation or a Byproduct? University of Edinburgh, International conference on Science and Religion, 2010 (European Society for the Study of Science and Theology).
- ❖ Organizer: Scientific Perspectives on Religious Conflict, University of Oxford, 2010 (w/ Steve Clarke)
- ❖ Is Extinction Really Forever? Convergent Evolution and the Limits of Natural Selection, Darwin Day Speaker, Department of Evolution, Ecology and Behavior, Georgetown University (2009)
- \* What's the Harm? A Skeptical Assessment of the Precautionary Principle, Georgetown Univ. Conference on the Ethics of Emerging Biotechnologies, 2008
- Precaution and Genetic Modification, Johns Hopkins University, Berman Inst. of Bioethics, 2008
- \* Contingency in Macroevolution, Rutgers Univ. Philosophy Dept. Colloquium (2008)
- \* Reading the Book of Life, Florida State Univ. Department of Philosophy (2008)
- \* This Gouldian View of Life, University of Kansas, Philosophy Colloquium (2008)
- \* Faculty Advisory Committee, Provost Lecture Series: Science & Human Nature (2007-2008)

## **DISSERTATION**

Reading the Book of Life: Contingency and Convergence in Macroevolution (2009)

Supervisors: Alex Rosenberg / Robert Brandon

Committee: Dan McShea, Karen Neander, Owen Flanagan

**Abstract**. Biologists have long debated whether the shape of complex life represents the fluky culmination of an eminently unrepeatable series of contingencies, or whether there is a greater necessity to life's grand parade of forms. Gould believed that replaying the tape of life would result in a radically different macroevolutionary outcome—a morphological menagerie bearing little resemblance to complex life as we know it. Others have argued that the evolution of animal life is highly replicable because it is significantly constrained by physical and biological laws. In this thesis, I analyze several key theoretical concepts in this debate, especially the notion of contingency as it functions in macroevolutionary theory, and I explore methodological hurdles confronting the empirical resolution of this controversy.

## **BIOLOGY MASTERS THESIS**

Extinction and Reiteration in the History of Life: A Macroevolutionary Dialectic (2009)

Supervisor: V. Louise Roth

**Abstract**. In this thesis, I examine the macroevolutionary dialectic between the extinction of biological forms on the one hand, and their evolutionary reiteration on the other, especially the iterated evolution of robust image-forming sensory modalities including vision, echolocation, and electrolocation.

### LAW SCHOOL THESIS

Science and Law in the Construction of Human Races (2002)
Supervisor: F. Michael Higginbotham

**Abstract**. In this thesis I explore the interaction between racist law and flawed science in perpetuating the American racial caste system in the Antebellum and post-Civil War South.

### PROFESSIONAL SERVICE

## **Journal Appointments and Editorships**

Associate Editor, *Journal of Medial Ethics*, British Medical Journal Group (2011-2017)

Associate Editor for Life Sciences, *Philosophy & Technology* (2012-present)

Guest Editor, Special Issue: "Human-Machine Interface," Philosophy & Technology (2019)

Guest Editor, Special Issue: "Convergent Minds: The Evolution of Cognitive Complexity in Nature," *Journal of the Royal Society Interface Focus* (2017) (as main editor)

Guest Editor, Special Issue: "Organism, Machine and Artefact: The Conceptual and Normative Challenges of Synthetic Biology," *Studies in Hist. and Philosophy of Biological and Biomedical Sciences* 44(4) (2013) (edited w/ Sune Holm)

Guest Editor, Special Issue: "Evolution, Genetic Engineering and Human Enhancement," *Philosophy & Technology* 25 (2012) (as main editor)

### Refereeing

I regularly referee for over 30 leading international philosophy journals and top academic presses, as well as institutes for advanced study and globally renowned foundations, including:

Biology and Philosophy • British Journal for the Philosophy of Science • Ethics • Philosophy of Science • Studies in History and Philosophy of Biological and Biomedical Sciences • Journal for General Philosophy of Science • American Journal of Bioethics • Mind • European Journal for Philosophy of Science • Erkenntnis • Philosophy Compass • Philosophy, Politics and Economics • Review of Philosophy & Psychology • Ethics and International Affairs • Philosophy & Technology • Bioethics • Theoretical Medicine & Bioethics • Ethical Theory and Moral Practice • • Theoretical Medicine & Bioethics • Philosophical Psychology • Biological Theory • Medicine, Health Care and Philosophy • Journal of Medical Ethics • MIT Press • Oxford University Press • National Humanities Center • National Endowment for the Humanities • University of Leuven • Wellcome Trust Foundation • Environmental Ethics • Philosophy • Biosemiotics

## **Professional Consulting**

Panelist, National Endowment for the Humanities, Collaborative Research Grant Program (2020/2019/2012)

Nuffield Council on Bioethics, U.K, on the Ethics of Synthetic Biology (2011)

U.S. President's Commission on Bioethics (2010): Synthetic Biology (w/ Allen Buchanan)

Media Interviews on Emerging Ethical Issues: Washington Post / ABC News / NPR / Boson Globe / USA Today / Commonwealth Magazine

## **Supervision and Graduate Examinations**

Dissertation Defense (advisee, 2024, Marie Kerguelen Le Blevennec, tenure track at University of Alabama)

Dissertation Defense (advisee, 2020, Eric Scarffe, tenure track at Miami International University)

Currently supervising: Brian Moen (ABD)

Qualifying Research Exams (2020/2021)

Qualifying Papers (three times)

## **University-Level Committees**

Taskforce: LGBTQ Faculty Center Naming Committee

Taskforce: The Future of Humanities at Boston University (2020-present)

Committee for the Development of the JD/MA and PPE Programs (2020-present)

General Education Satellite Committee - Critical Thinking Component (2018)

### **Search Committees**

Faculty Search Committee for Philosophy of Science (2023-2043)

Faculty Search Committee for Philosophy of Science (2022-2023)

Faculty Search Committee for Ethics, Political, and Legal Philosophy (2021-2022)

Faculty Search Committee for Philosophy of Mind/Cognitive Science/Neuroscience hire (2018)

## **Admissions Committees and Events**

Graduate Admissions Committee (twice)

Seven-Year Accelerated Medical Program Admissions/Interview Committee (three times)

Workshop for Admitted Graduate Students (twice)

CAS Workshop on Grant-Seeking in the Humanities (twice)

### **Other Committees**

Tenure Committee (2023)

Department Policy Review Committee (2020-2021)

Climate Committee (2021-present)

Mid-Tenure Review Committees

Finley Visiting Professorship Committee (2021-present)

### **Student Activities and Outreach**

Transgender Day of Remembrance

LGBTQ+ Outreach and Panels

Adviser to the Debate Club Society

First-Year Student Outreach Program

## **Organized Events (often with external grant support)**

Mellon Sawyer Seminar and Series of Public Talks (2018-2019);

Conference: "The Future of Future Studies," joint with Harvard University (2019)

Conference: "Human-Machine Interface" (2019)

Kilachand Honors Panel: "Genetic Enhancement: From Frankenstein to CRISPR" (2018)

Boston University Mind & Morality Lab: "Moral Enhancement and Evolution" (2018)

Boston University Mind & Morality Lab: "Biological Perspectives on Fermi's Paradox" (2019)

Conference: "Convergent Minds" (2017), in collaboration with BU Anthropology

LANGUAGES: Proficient in written and spoken Korean; French; some Turkish

**HOBBIES**: Hiking, snorkeling, wildlife photography, fossil hunting, dog training, aquariums, sports that involve balls