## JOEL VELASCO

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### ACADEMIC EMPLOYMENT

Texas Tech University

Department Chair, Philosophy 2023-

Interim Department Chair, Philosophy 2021-2022

Associate Professor in Philosophy, 2019-

Assistant Professor in Philosophy, 2013-2019

California Institute of Technology

Ahmanson Postdoctoral Instructor in Philosophy, 2011-2013

Cornell University

Visiting Assistant Professor, Philosophy, 2010-2011

Stanford University

Humanities Fellow and Lecturer in Philosophy, 2008-2010

#### AREAS OF SPECIALIZATION

Philosophy of Biology, Philosophy of Science

## AREAS OF COMPETENCE

Logic, Metaphysics, Epistemology

## **EDUCATION**

Ph. D.	Philosophy	2008	University of Wisconsin-Madison
M.A.	Philosophy	2004	University of Wisconsin-Madison
B.A.	Philosophy	2001	University of Wisconsin-Madison
B.A.	Mathematics	2001	University of Wisconsin-Madison

#### DISSERTATION

Philosophy and the Tree of Life: The Metaphysics and Epistemology of Phylogenetic Systematics Chair: Elliott Sober (Philosophy)

## **PUBLICATIONS** (available at <a href="http://joelvelasco.net">http://joelvelasco.net</a>)

- 22. Phylogenetic Inference (with Matt Haber). *Stanford Encyclopedia of Philosophy*. https://plato.stanford.edu/entries/phylogenetic-inference/
- 21. The Use of Race in eGFR: Why Racial Justice Requires Accuracy (with Brad Snodgrass). *American Journal of Medicine* (2021) **134**(7): P827-828.
- 20. The Foundations of Concordance Views of Phylogeny. *Philosophy, Theory*,

- *and Practice in Biology* (2019) 11:20. http://dx.doi.org/10.3998/ptpbio.16039257.0011.020
- 19. Towards a Semantics for Metanormative Constructivism (with Jeremy Schwartz). *Philosophical Studies* (2019) 176(11): 3061-3076. https://doi.org/10.1007/s11098-018-1163-y
- 18. Universal Common Ancestry, LUCA, and the Tree of Life: Three Distinct Hypotheses about the Evolution of Life. *Biology and Philosophy* (2018) 33: 31 -- https://doi.org/10.1007/s10539-018-9641-3
- 17. Critical Notice of Elliott Sober's Ockham's Razors. *Mind* 127 (2018) 891-902 https://doi.org/10.1093/mind/fzx031
- 16. Updating on the Credences of Others: Disagreement, Agreement, and Synergy (with Kenny Easwaran, Christopher Hitchcock, and Luke Fenton-Glynn). *Philosopher's Imprint* 16(11) (2016) pp. 1-39.
- 15. Axiomatic Opportunities and Obstacles for Inferring a Species Tree from Gene Trees (with Mike Steel). *Systematic Biology* 63(5) (2014) 772-778
- 14. Evolutionary and Newtonian Forces (with Christopher Hitchcock). *Ergo* **1**(2) (2014) pp. 39-77
- 13. Deep Conventionalism about Evolutionary Groups (with Matthew Barker). *Philosophy of Science* 80(5) (2013) pp. 971-982
- 12. Philosophy and Phylogenetics. *Philosophy Compass* 8(10) (2013) pp. 990-998
- 11. Phylogeny as Population History. *Philosophy and Theory in Biology* (2013) 5:e402
- 10. The Tree of Life.
  In Michael Ruse (ed.) *The Cambridge Encyclopedia of Darwin and Evolutionary Thought*. Cambridge University Press (2013) 340-345
- 9. The Future of Systematics: Tree-Thinking Without the Tree *Philosophy of Science* 79 (2012) 624-636
- 8. Objective and Subjective Probability in Gene Expression.

  \*Progress in Biophysics and Molecular Biology 110 (2012) 5-10
- 7. Species, genes, and the tree of life.

  British Journal for the Philosophy of Science 61 (2010) 599-619
- 6. Testing for treeness: Lateral gene transfer, phylogenetic inference, and model selection (with Elliott Sober). *Biology & Philosophy* 25 (2010) 675-687

- 5. When monophyly is not enough: Exclusivity as the key to defining a phylogenetic species concept. *Biology & Philosophy* 24 (2009) 473-486
- 4. Species concepts should not conflict with evolutionary history, but often do. Studies in the History and Philosophy of Biological and Biomedical Sciences 39 (2008) 407–414
- 3. The prior probabilities of phylogenetic trees. Biology & Philosophy 23 (2008) 455–473
- 2. The internodal species concept: a response to "The tree, the network, and the species". *Biological Journal of the Linnean Society* 93 (2008) 865–869
- 1. Why non-uniform priors on clades are both unavoidable and unobjectionable. *Molecular Phylogenetics and Evolution* 45 (2007) 748–749

## **BOOK REVIEWS**

- 2. Review of *The Oxford Handbook of Philosophy of Biology*. ed. Michael Ruse, *Metascience* 21 (2012) 359-362
- 1. Review of *The Species Problem* by Richard Richards. *The Philosophical Review* 120 (2011) 598-602

## **PRESENTATIONS** (peer reviewed marked with "PR")

- 61. "What is the Value of Social Genomics? Or, How to understand GWASs, PGSs, and Prediction, Causation, and Explanation in Behavior Genetics" Sam Houston State University, (February, 2024)
- 60. "Updating on the Credences of Others" (written with Kenny Easwaran, Luke Glynn, and Chris Hitchcock)
  - University of Gdansk, (February, 2021 online)
- 59. "Comments on Pfeifer's Abstraction and Probabilities in Evolutionary Theory"
  - Chance and Probability in Science (Boulder, CO October 2018)
- 58-57. "Universal Common Ancestry, LUCA, and the Tree of Life: Three Distinct Hypotheses about the Evolution of Life"
  - University of Pennsylvania (March, 2018)
  - **PR** Philosophy of Science Association meeting (Atlanta, CA Nov 2016)
- 56. "Metanormative Practical Point of View Constructivism"
  - PR Central APA (Chicago, IL February 2018)
- 55. "The Foundations of Concordance Views of Phylogeny"
  - **PR** Species in the Age of Discordance (Salt Lake City, UT March 2017)
- 54. "The Principles of Rationality: Deciding What to Believe and How to Reason"
  - Texas Tech Alumni College (October, 2016)
- 53-52. "Updating on the Credences of Others" (written with Kenny Easwaran,

- Luke Glynn, and Chris Hitchcock)
- Texas Tech Graduate Philosophy Conference, (April, 2016)
- PR Formal Epistemology Workshop, WUSTL, (May, 2015)
- 51. "Judgment Aggregation and Phylogenetics"
  - PR International Society for the History, Philosophy, and Social Studies of Biology (Montreal, July 2015)
- 50. "A Disunified Account of Probability in Biology"
  - **PR** International Society for the History, Philosophy, and Social Studies of Biology (Montreal, July 2015)
- 49. "The Hypothetical Imperative as a Rule of Inference" (with Jeremy Schwartz)
  - **PR** St. Louis Conference on Reasons and Rationality, St. Louis (May, 2015)
- 48. "Conditionals and Actions" (comments on a paper by Hanti Lin)
  - Formal Epistemology Workshop, USC, (June, 2014)
- 47-44. "The Tree of Life: Metaphors, Models, and Reality
  - Metaphors and Analogies in Biology, Bristol, UK, (June 2014)
  - Universidade Federal de Minas Gerais (UFMG), Belo Horizonte, Minas Gerais, Brazil (October, 2013)
  - Texas Tech University (May, 2013)
  - California Institute of Technology (April, 2013)
- 43. "Evolutionary and Newtonian Forces" (written with Chris Hitchcock)
  - Texas Tech University (May, 2013)
  - PR APA Pacific Division (San Francisco, April 2013)
- 42-41. "Deep Conventionalism about Evolutionary Groups" (with Matt Barker)
  - **PR** Philosophy of Science Association meeting (San Diego, CA Nov 2012)
  - **PR** Philosophy of Biology at Madison (Madison, Wisconsin, May 2012)
- 40-36. "The Future of Systematics: Tree-Thinking Without the Tree"
  - University of Michigan (September, 2012)
  - Texas Tech University (February, 2012)
  - Gustavus Adolphus College (February, 2012)
  - Ohio State University (January, 2012)
  - California Institute of Technology (January, 2012)
- 35. "Objective and Subjective Probability"

Chance at the Heart of the Cell (Lyon, France, Nov 2011)

- 34. **PR** "Why Context Matters: An Inference Relative Understanding of Clade" International Society for the History, Philosophy, and Social Studies of Biology (Salt Lake City, Utah, July 2011)
- 33-30. "Tree-Thinking Without the Tree"
  - **PR** Philosophy of Science Association meeting (Montreal, Quebec, Nov 2010)
    - Reason with Diagrams Workshop (Stanford University, May 2010)
    - Bristol University (January 2010)
    - London School of Economics (December 2009)
- 29. "Prospects for a Universal Phylogeny"

Questioning the Tree of Life (London, UK, July 2010)

- 28. **PR** "The Last Universal Common Ancestor: Ontology, Semantics, and Epistemology" Philosophy of Biology at Madison (Madison, Wisconsin, May 2010)
- 27-25. "Species, Genes, and the Tree of Life"
  - PR APA Pacific Division (San Francisco, April 2010)
    - Stanford Humanities Fellows (May 2009)
    - California Academy of Sciences (February 2009)
- 24. **PR** "Mathematics and Leibnizian Necessity" APA Central Division (Chicago, February 2010)
- 23. **PR** "The Tree of Life: From Darwin to Today"
  150 years after *Origin*: Biological, Historical, and Philosophical Perspectives, Toronto, November 2009)
- 22. "Inferring Phylogenetic Networks"

  Perspectives on the Tree of Life (Halifax, July 2009)
- 21. **PR** "Parsimony and Model Selection in Phylogenetic Networks" Society for the Philosophy of Science in Practice (Minneapolis, June 2009)
- 20-19. "The Meaning of Phylogeny"
  - University of Minnesota (May 2009)
  - Bay Area Biosystematists meeting (April 2009)
- 18. **PR** "Developing a Phylogenetic Species Concept" APA Pacific Division (Vancouver, April 2009)
- 17-9. "The Consequences of Tree-Thinking: A Phylogenetic Perspective on the Species Problem"
  - Calfornia State University Los Angeles (January, 2012)
  - Concordia University (February 2011)
  - Virginia Tech (January 2011)
  - George Mason University (February 2010)
  - Cornell University (January 2010)
  - Stanford University (February 2009)
  - University of Western Ontario (February 2008)
  - Southern Methodist University (February 2008)
  - Florida State University (February 2008)
- 8. **PR** "What Species Trees Cannot Be"
  Philosophy of Science Association meeting (Pittsburgh, November 2008)
- 7. **PR** "The Biological Species Concept and Evolutionary History"

APA Central Division (Chicago, April 2008)

- 6-3. "The Prior Probabilities of Phylogenetic Trees"
  - University of Washington, Seattle (January 2008)
  - University of California, Irvine (January 2008)
  - **PR** International Society for the History, Philosophy, and Social Studies of Biology (Exeter, July 2007)
  - **PR** Formal Epistemology Workshop (Carnegie Mellon University, June 2007)
- 2. "What is the Tree of Life? Phylogenetic Classification and the Species Problem" Philosophy Department, University of Wisconsin-Madison (December 2007)
- 1. "Bayesian Phylogenetics and the Yule Birth Process"
  Evolution Seminar Series, University of Wisconsin, Madison (September 2007)

# **TEACHING**

For full teaching details including course descriptions, syllabi, etc. please visit <a href="http://joelvelasco.net/teaching">http://joelvelasco.net/teaching</a>