

## JOEL VELASCO

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### ACADEMIC EMPLOYMENT

Texas Tech University  
Interim Department Chair, Philosophy 2021-  
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 <http://joelvelasco.net>)

21. Phylogenetic Inference (with Matt Haber). *Stanford Encyclopedia of  
Philosophy*. Forthcoming
20. The Use of Race in eGFR: Why Racial Justice Requires Accuracy (with Brad  
Snodgrass). *American Journal of Medicine* (2021) **134**(7): P827-828.
19. The Foundations of Concordance Views of Phylogeny. *Philosophy, Theory,  
and Practice in Biology* (2019) 11:20.

18. 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>
17. 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>
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

3. Review of Elliott Sober’s Ockham’s Razors. *Mind* 127 (2018) 891-902  
<https://doi.org/10.1093/mind/fzx031>
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”)

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”
  - California 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)

## **HONORS AND AWARDS**

2021 Inductee – Texas Tech Teaching Academy  
2018 Texas Tech Professing Excellence Award  
2017 Texas Tech Department of Philosophy Teacher of the Year Award  
2016 Humanities Fellowship at Texas Tech University

Network member of “Questioning the Tree of Life”  
An international network of philosophers and biologists, which is the  
recipient of a £70,000 grant from the Leverhulme Trust (2009-2011)

University Dissertation Fellowship (Spring 2007)  
Highly competitive funding from UW for dissertation research

Vilas Travel Fellowship, UW-Madison (2006)  
Competitive university award to dissertators for conference travel  
expenses

Winner of Oliver Prize (2004)  
Annual award for best essay by a philosophy graduate student at UW-  
Madison

## **TEACHING—FULL RESPONSIBILITY**

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

### **At Texas Tech University, Fall 2013-**

Philosophy of Science: Classification, Natural Kinds, and Kinds of  
Humans (grad seminar)  
Seminar in Philosophical Writing (grad seminar)  
Philosophy of Science (grad seminar)  
Seminar in Teaching Philosophy (grad seminar)  
Philosophy of Science: Phylogenetic Inference (grad seminar)  
Seminar in Logic (grad seminar)  
Philosophy of Science: Evolution of Cooperation (grad seminar)  
Epistemology: Bayesian Epistemology (grad seminar)  
Philosophy of Science: Causation, Laws, and Explanation (grad seminar)  
Beginning Philosophy (x3) (one honors)  
Logic (11x) (four honors)  
Science and Society (7x) (three honors)

Philosophy of Science (3x)  
Philosophy of Biology (8x) (one honors)  
Advanced Logic: Conditionals  
Special Topics in Philosophy: Decision Theory  
Epistemology

Individual research courses with undergraduates and graduate students in:  
Logic, Game Theory, Decision Theory, Epistemology, Causation,  
Philosophy of Physics, Philosophy of Biology, Causation in  
Physics (19 total courses with 29 total students)

Master's Theses and Reports Directed:

2019 Master's Thesis Chair "A Defense of Expected Utility Theory"  
2019 Master's Report Chair "The Nature of Epistemic Reasons: Hypothetical or Categorical: A Reply to Thomas Kelly"  
2019 Master's Report Chair "A Defense of Truth-Conditional Accounts of Conditionals"  
2018 Master's Report Chair "Two Conceptions of Ground and a Dilemma for Schaffer"  
2017 Master's Thesis committee co-chair (Physics dept) "Time Reversal Invariance in Quantum Mechanics"  
2017 Master's Report Chair "How could Altruistic Behavior Evolve?"  
2016 Master's Report Chair "Descriptive and Normative Accounts of Rational Choice"  
2016 Master's Report Chair "A New Route to Causal Pluralism"  
2016 Master's Report Chair "Discussion on the debate on Sober's 'would promote' statements in evolutionary biology"  
2016 Master's Report Chair "A pincer problem for the DN model of scientific explanation"  
2016 Master's Thesis Chair "The Earthly Wager"

**At the California Institute of Technology, Fall 2011-Spring 2013**

Philosophy of Biology: Probability, Causation, and Laws in Biology  
Probability, Evidence, and Belief  
Introduction to Philosophy of Science  
Introduction to Philosophy of Biology  
Knowledge and Reality (freshman introduction to Humanities) (2x)

**At Cornell University, Fall 2010-Spring 2011**

Probability and Epistemology (undergraduate/graduate)  
Philosophy of Biology  
Philosophy and Biological Systematics (graduate seminar)  
Introduction to Deductive Logic

**At Stanford University, Fall 2008-Spring 2010**

Topics in Philosophy - For Education Program for Gifted Youth  
Evidence and Evolution (graduate seminar)  
Probability and Epistemology (graduate seminar)  
Philosophy of Biology (2x)

**At the University of Wisconsin, Madison, Spring 2005-Spring 2008**

Elementary Logic (2x)  
Reason in Communication  
Contemporary Moral Issues (2x as writing intensive, 1x as lecture)

**OUTREACH**

“Is Fine-Tuning of the Universe Evidence for God” (debate with Robin Collins)  
Veritas Forum at Texas A&M, College Station, TX, February 2019

“Universal Common Ancestry” (debate with Paul Nelson)  
St. Edward’s University, Austin, TX, October 2016

“The Tree of Life: A Debate about Common Ancestry” (debate with Paul Nelson),  
Pennsylvania Highlands Community College, March 2014

“The Many Facets of Altruism” – 3 day seminar given at the Telluride House at  
Cornell University for the Telluride Association Winter Program (January, 2011)

**SERVICE**

Interim department chair, Philosophy (Fall 2021-present)  
Served on 5th year review committee for Dean Brent Lindquist (Dean, Arts and Sciences) (Fall 2019)  
Served on hiring committees for Texas Tech University (fall 2012, 2013, 2016, chair 2019)  
Philosophy department director of undergraduate studies (2016-2021)  
Philosophy department faculty awards committee (2016-2021)  
Philosophy department scholarship committee (2014-2021)  
Philosophy department colloquium committee (2013-2016)  
University Core Curriculum Committee (Philosophy, Language, and Culture subcommittee) (2015-2021)

Contemporary Moral Issues Training Instructor, UW-Madison 2005-2006



Trained other graduate students to teach their own writing intensive, applied ethics course. Discussed topic selection, course organization, and how to teach writing.

Served on planning committees for:

Darwin Day at the University of Wisconsin, Madison (February, 2007)

Bay Area Biosystematists (2009-2010)

Planned and hosted meetings/workshops:

Soberfest (Wisconsin-Madison, May 2013)

Race in Philosophy and Biology (Stanford, January 2010)

Workshop on Phylogenetic Trees (Stanford, May 2010)