Dr Travis LaCroix | CURRICULUM VITAE

Contact \boxtimes 740 Social Science Tower

Information University of California, Irvine

Department of Logic and Philosophy of Science

3151 Social Sciences Plaza Irvine, CA 92697-5100 travislacroix.github.iouci.academia.edu/tlacroix

tlacroix@uci.edu

CITIZENSHIP Canada

Areas of Philosophy of Language & Linguistics

Specialisation Philosophy of Machine Learning (esp. AI Ethics)

Areas of Philosophy of Biology & Behavioural Science

COMPETENCE Classical & Evolutionary Game Theory

Formal and Social Epistemology General Philosophy of Science

APPOINTMENTS Mila - Québec Artificial Intelligence Institute, Montréal, Québec CAN

Visiting Researcher / Research Assistant, July 2018 – June 2020

Supervisor: Yoshua Bengio

Concordia University, Montréal, Québec CAN

Coordinator, Social Justice Centre, October 2019 – June 2020

EDUCATION University of California, Irvine, Irvine, California USA

Ph.D, Philosophy, March 2020. GPA: 3.96/4.00 Department of Logic and Philosophy of Science

Dissertation: "Complex Signals: Modularity, Reflexivity, & Hierarchical Structure"

Committee: Jeffrey A. Barrett (Chair)

Brian Skyrms Simon Huttegger Cailin O'Connor

M.A., Social Science, March 2018

Institute for Mathematical Behavioral Science

Simon Fraser University, Burnaby, British Columbia CAN

M.A., Philosophy, April 2016. GPA: 4.05/4.33

Thesis Topic: "On Signalling Games and Their Models"

Committee: Nicolas Fillion (Chair)

Matt DeVos

University of British Columbia, Vancouver, British Columbia CAN

B.A. (Hons.), Philosophy; English Literature, April 2014. GPA: 81.5/100

First-class standing

Camosun College, Victoria, British Columbia CAN

A.A., English, April 2011. GPA: 8.14/9

Publications

Peer-Reviewed Publications

- Barrett, Jeffrey A. and Travis LaCroix. 2020. "Epistemology and the Structure of Language." Erkenntnis (Forthcoming). doi.org/10.1007/s10670-020-00225-4
- Travis LaCroix. 2020. "Communicative Bottlenecks Lead to Maximal Information Transfer." Journal of Experimental and Theoretical Artificial Intelligence (Forthcoming). doi.org/10.1080/0952813X.2020.1716857
- 4. LaCroix, Travis. 2019. "Using Logic to Evolve More Logic: Composing Logical Operators via Self-Assembly." British Journal for the Philosophy of Science (Forthcoming). doi.org/10.1093/bjps/axz049
- 3. LaCroix, Travis. 2019. "Biology and Compositionality: Empirical Considerations for Emergent-Communication Protocols." NeurIPS 2019 Workshop on Emergent Communication: Towards Natural Language.

 arxiv.org/abs/1911.11668
- 2. LaCroix, Travis. 2019. "Evolutionary Explanations of Simple Communication: Signalling Games & Their Models." Journal for General Philosophy of Science / Zeitschrift für allgemeine Wissenschaftstheorie (Forthcoming). doi.org/10.1007/s10838-019-09481-7
- LaCroix, Travis. 2018. "On Salience and Signalling in Sender-Receiver Games: Partial Pooling, Learning, and Focal Points." Synthese (Forthcoming). doi.org/10.1007/s11229-018-1766-z

ARTICLES

Papers Under Review

(Drafts available upon request)

Revise & Resubmit Decision Received

"Dynamics of Retraction in Epistemic Networks" (w/ C. O'Connor & A. Geil) [R&R from *Philosophy of Science*] "Power by Association" (w/ C. O'Connor) [R&R from Ergo]

Under Review

"Emergent Communication & Conflict of Interest" (w/ M. Noukhovitch, A. Courville)

"Learning from Learning Machines" (w/ Y. Bengio)

"Reference by Proxy and Truth-in-a-Model"

"Reflexivity, Functional Reference, and Modularity"

"What Russell Can Denote"

Conference Presentations

Refereed Talks

14. "Learning from Learning Machines: Optimisation, Rules, & Social Norms" (T. LaCroix and Y. Bengio)

Canadian Society for the History & Philosophy of Science London, Canada, 30 May - 1 June 2020.

13. "Emergent Communication Under Conflict of Interest"

(M. Noukhovitch, T. LaCroix, and A. Courville)

EvoLang XIII: Evolution of Language International Conferences

Brussels, Belgium, 14–17 April 2020. [Cancelled due to COVID-19]

12. "Learning from Learning Machines: Optimisation, Rules, & Social Norms" (T. LaCroix and Y. Bengio)

Artificial Intelligence and Moral Learning, Symposium at AISB-2020: Society for the study of Artificial Intelligence and Simulation of Behaviour London, UK, 6–9 April 2020. [Cancelled due to COVID-19]

11. "Biology and Compositionality"

Neural Information Processing Systems (NeurIPS) 2019

Workshop on Emergent Communication

Vancouver, Canada, 8–14 December 2019.

10. "Learning from Learning Machines: Optimisation, Rules, & Social Norms" (T. LaCroix and Y. Bengio)

Canadian Society for Epistemology

Montréal, Québec, 14–16 November 2019.

"Accounting For Role-Asymmetries In the Evolution of Compositional Signals"
 Canadian Philosophical Association

Vancouver, Canada, 1–4 June 2019.

8. "Using Logic to Evolve More Logic: Composing Logical Operators via Self-Assembly" Society for Exact Philosophy
Toronto, Canada, 17–19 May 2019.

 "Using Logic to Evolve More Logic: Composing Logical Operators via Self-Assembly" American Philosophical Association, Pacific Division Vancouver, Canada, 17–20 April 2019.

6. "Less is More: Degrees of Compositionality for Complex Signals" Philosophy of Science Association

Seattle, USA, 1–4 November 2018. Symposium Contribution.

5. "Reference by Proxy and Truth-in-a-Model"

Western Canadian Philosophical Association

Calgary, Canada, 26–28 October 2018.

4. "On The Role of Power in the Evolution of Inequitable Norms"

(T. LaCroix and C. O'Connor)

L'Association Canadienne de Philosophie

Montréal, Québec, 4–7 June 2018.

3. "The Role of Power in the Evolution of Inequitable Norms"

(T. LaCroix and C. O'Connor)

Latin American Association for Analytic Philosophy, and Colombian Conference on Logic, Epistemology, and Philosophy of Science Villa de Leyva, Colombia, 16–18 May 2018.

- 2. "On Salience and Signaling in Sender-Receiver Games" Western Canadian Philosophical Association Regina, Canada, 13–15 October 2017.
- 1. "Signalling Games & Their Models" Colombian Conference on Logic, Epistemology, & Philosophy of Science Bogotá, Colombia, 17–19 February 2016.

Commentor

- 3. "A Pragmatic-Semiotic Defence of Bivalent Logic" (Marc Champagne) CPA/ACP 2019 Annual Congress, University of British Columbia, Vancouver, Canada, 1–4 June 2019.
- 2. "Responsibility for Saying and Asserting" (Henry Schiller) CPA/ACP 2018 Annual Congress, Université du Québec à Montréal, Montréal, Canada, 4–7 June 2018.
- 1. "Simplicity and A Priori Probability Principles" (Noa Latham) CPA/ACP 2018 Annual Congress, Université du Québec à Montréal, Montréal, Canada, 4–7 June 2018.

Academic EXPERIENCE

Teaching Assistant

University of California, Irvine

Inductive Logic, Simon Huttegger	Spring 2018
Department of Logic and Philosophy of Science (31)	
Department of Philosophy (31)	
Introduction to Linguistics, Arunima Choudhury	Winter 2018
Department of Linguistics (3)	
Acquisition of Language, Lisa Pearl	Fall 2017
Department of Linguistics (51)	
Department of Cognitive Sciences (56)	
Inductive Logic, Simon Huttegger	Spring 2017
Department of Logic and Philosophy of Science (31)	
Department of Philosophy (31)	
Probability and Statistics for Economics I, Kent Johnson	Winter 2017
Department of Economics (15A)	
non Fraser University	

Sim

Critical Thinking (PHIL xx1), Jillian McIntosh	Spring 2016
Critical Thinking (PHIL xx1), Jillian McIntosh	Fall 2015
Critical Thinking (PHIL xx1), Jillian McIntosh	Spring 2015
Introduction to Ethics (PHIL 120W), Evan Tiffany	Fall 2014

Guest Lectures

University of California, Irvine

"Language and Cognition" Acquisition of Language (Linguistics/Psychology), 1 Dec. 2017.

Research Assistant

University of California, Irvine

Social Dynamics and Diversity in Epistemic Communities Cailin O'Connor (NSF Grant 1535139)

2017 - 2019

Simon Fraser University

Constructing Questions for Critical Thinking Jillian McIntosh

Spring 2015

University of British Columbia

Aristotle's Earlier Logic John Woods

Summer 2014

GRANTS AND FELLOWSHIPS

Research Awards

Social Sciences and Humanities Research Council, Joseph-Armand Bombardier Canada Graduate Scholarships, Simon Fraser University (CAD 17,500), 2015-2016

Social Sciences and Humanities Research Council, Joseph-Armand Bombardier Canada Graduate Scholarships, University of British Columbia (CAD 17,500), DECLINED, 2014-2015

Academic Awards

University of California, Irvine

Associate Dean's Graduate Fellowship (USD 6,900), 2020, DECLINED.

Chancellor's Club Fund for Excellence Fellowship (USD 12,000), 2019, NOMINATED.

Justine Lambert Graduate Prize in the Foundations of Science, for "On Salience and Signaling: Partial Pooling, Learning, and Focal Points" (USD 1000), 2018.

Social Science Merit Fellowship (USD 257,818), 2016–2022

Simon Fraser University

Graduate Fellowship (CAD 6250), 2015

University of British Columbia

John Alexander Scholarship in Humanities (CAD 1500), 2014

Robert and Kazuko Barker Award (CAD 225), 2014

Professional Service **Referee.** British Journal for the Philosophy of Science (2019, 2020); Inquiry: An Interdisciplinary Journal of Philosophy (2019); EvoLang XIII: Evolution of Language International Conferences (2020); The Vancouver Summer Philosophy Conference (2019).

Symposium Organiser. "Evolutionary Explanations of Compositional Communication" Philosophy of Science Association 2018 Biennial Meeting, November, 2018.

Chair. The Vancouver Summer Philosophy Conference (19–23 August 2018, Vancouver, CAN); F-SEW: Formal Social Epistemology Workshop (25–26 May 2018, Irvine, USA); The Western Canadian Philosophical Association 54th Annual Meeting (13–15 October 2017, Regina, CAN); The Ninetieth Annual Meeting of the American Philosophical Association, Pacific Division (30 March – 3 April 2016, San Francisco, USA).

Specialised Concordia University

TRAINING Sexual Violence Awareness & Prevention Training Fall 2019

University of California, Irvine

Sex Offense Prevention Training Fall 2017
Teaching Assistant Professional Development Program Fall 2016

Simon Fraser University

TA/TM Day: Teaching Orientation Program 2014–2016

Languages English (native), French (intermediate)

TECHNICAL Mathematics: ODEs / PDEs, Linear Algebra, Multivariate / Vector Calculus

CAPACITIES Logic: Set Theory, Modal Logic, Predicate Logic

Programming Languages: Python, Java, Javascript

Markup: LATEX, HTML, CSS

Computation and Graphing: R, MatLab, Excel

Affiliations Canadian Philosophical Association

Philosophy of Science Association Society for Exact Philosophy American Philosophical Association

References

Jeffrey A. Barrett

Chancellor's Professor
Logic and Philosophy of Science
University of California, Irvine

Dissertation committee chair; doctoral

supervisor; co-author

Cailin O'Connor

Associate Professor Logic and Philosophy of Science University of California, Irvine Committee member; co-author

Brian Skyrms

Distinguished Professor Logic and Philosophy of Science University of California, Irvine Committee member

Joshua Armstrong

Assistant Professor
Department of Philosophy

University of California, Los Angeles

Academic colleague (external)

Simon Huttegger

Professor

Logic and Philosophy of Science University of California, Irvine

 $Committee\ member$

Last updated: March 14, 2020