

Ruth Forsdyke

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Research

- psychological factors that bias cognitions, particularly pro-social emotions and cognitive dissonance with primary applications to environmental economics.
- units and levels of selection, evolution of altruism and cognitive dissonance
- applied microeconomic theory, evolutionary economics, genetic algorithms

Education

Ph.D. Economics, Simon Fraser University, Burnaby, British Columbia (2004)

Fields: International Economics, Industrial Organization

M.A. Economics, Queen's University, Kingston, Ontario (1997)

Field: International Economics

B.Ed. Education, Queen's University, Kingston, Ontario (1992)

Intermediate/ Senior, Chemistry/ Mathematics

B.Sc.H. Biochemistry, Queen's University, Kingston Ontario, (First Class), (1989)

Thesis

Ph.D. Thesis Title: '*Group Selection, Altruistic Preferences, and Economic Theory*'

Supervisors: Jasmina Arifovic (senior), Steeve Mongrain (junior), Clyde Reed (junior)

M.A. Essay: '*Trade and Transboundary Pollution: A Critique and Extension of Copeland and Taylor*' (1995), Supervisor: Devon Garvie, Reader: Beverly Lapham

Academic Awards

Simon Fraser University Graduate Scholarship	Summer 1997, 1998
Simon Fraser University President's Stipend	Spring 2001
Queens University Graduate Scholarship	1995-1996
First Class Honors, Queens University (Undergraduate degree)	1989

Academic Work Experience

- *Senior Instructor (Part time, 85%)*: Dalhousie University (July 2017 – present)
- *Probationary Instructor (Part time, 85%)*: Dalhousie University (2015 to July 2017)
- *Instructor (LTA) (Part time, 70%)*: Dalhousie University (2012 – 2015)
- *Adjunct Professor*: Dalhousie University (2010 – 2012)
- *Assistant Professor*: Dalhousie University (2004 - 2010).
- *Sessional Instructor*: Simon Fraser University (1999-2003), Kwantlin University College (2001), British Columbia Institute of Technology (2002-2003).
- *Teaching Assistant*: Queens University (1995- 1996), Simon Fraser University (1996- 2002)
- *Secondary School Teacher*: Georges Vanier Secondary Summer School, Toronto (1994) Taylor's College Malaysia, Canadian Pre-University Program (1992-1993)
- *Research Assistant: Queen's University*
Dept. of Microbiology, Carstens E., Biological pesticides, spruce bud worm, (1990-1991)
Dept. of Biochemistry, Davies, D., Evolutionary divergence in flounder (1989-1990)
Dept. of Biochemistry, Forsdyke, D., Regulatory genes in immune system, (1987-88).

Publications

- Forsdyke, Ruth (2004) Economic Approaches to Understanding Cultural Diversity and Policy in the Cultural Industries, in *Canada-Ukraine Baltic Economic Management Training Project*.
- Blum, S., Forsdyke, R. E. & Forsdyke, D. R. (1990) Three human homologs of a murine gene encoding an inhibitor of stem cell proliferation, *DNA Cell Biol.*, 9:589-602.
- Siderovski, D. P., Blum, S., Forsdyke, R. E. & Forsdyke, D. R. (1990) A set of putative G0/G1 switch genes includes genes homologous to rodent cytokine and zinc finger protein-encoding genes, *DNA Cell Biol.*, 9: 579-587.

Textbooks

Field B., Olewiler N. & Forsdyke, R. (2002) *Instructor's Manual Environmental Economics, 2nd Canadian Ed.*, McGraw-Hill-Ryerson, Toronto.

Updated index to Allen D., Eaton C., Eaton D., *Microeconomics 4th Ed.*, Prentice-Hall, NJ.

Work in Progress

- *Integrated Assessment Modeling, Variant perspectives on climate change.*
- *Monetizations of Carbon Footprints using Carbon Price Trajectories and Social Discount Factors from Integrated Assessment Models* (CEA, 2014)
- *On Teaching International Trade Theory and Distributive Justice* (CEA 2009)
- *Environmental Information and Moral Suasion as Policy Tools: A Cross Disciplinary Perspective* (CEA 2008)
- *On Inconvenient Truths: Altruism, Information and Environmental Economics* (CEA 2007)
- *A Theory of a Hierarchy of Replicators: A Proposed Resolution to the Levels of Selection Debate* (CEA 2006)
- *On the Breadth of the Group Selection Concept: Natural Selection is a Group Selection Process* (2006)
- *Differentiation in Evolutionary Systems: An Examination of some Biological Ideas within an Economic Context and Vice Versa* (2002)
- *Group Selection and Random Drift, Arms Races and the Initiation of Altruism* (2001)
- *Long Run Investment Projects and Business Cycles: Revisiting Austrian Ideas in a Neo-Keynesian Framework* (2000)
- *Neutral Mutations and Random Drift: The Selection of "Irrational Behaviour" due to avoidance of low payoff Nash Outcomes* (1997, term paper)
- *An Evolutionary Model of Addiction* (1995, term paper)

Teaching

Courses Primary Instructor

- *Dalhousie (2004- current)*: ECON2200: Intermediate Microeconomics, ECON3330: International Trade, ECON5330: International Trade, ECON3318: Industrial Organization I, ECON3319: Industrial Organization II, ECON3335: Environmental Economics, ECON2216: Economics of Global Warming, ECON2850: Science and Economics of Climate Change (team taught with Dr. Glen Lesins from Atmospheric Science), ECON3350: Social Cost Benefit Analysis, ECON4002: Experiential Learning in Economics
- *Canada-Ukraine Baltic Economic Management Training Project (Summer, 2004)*.
- *Simon Fraser University (1999-2003)*: International Finance (3rd year), International Trade (3rd year), Environmental Economics (2nd year), Canadian Microeconomic Policy (2nd year).
- *Kwantlin University College (2001)*: Environmental Economics
- *British Columbia Institute of Technology (2002-2003)*: Introductory Macroeconomics

- *High School Teacher (1992-1994)*: Economics, Finite Mathematics, Chemistry (OAC).

Courses Teaching Assistant

Intermediate Macroeconomics (2nd year), International Trade (3rd year), Mathematical Economics with Maple tutorials (3rd year), Resource Economics (3rd year).

Directed Readings Courses (Dalhousie):

Lauersen, Alicia (2005), *Trade and the Environment*, Dalley, Peter (2005): *Game Theory*, Burchell, Suzanne (2004), *Trade Topics*

Thesis and Paper Supervision

Ph.D. Thesis

- Sinan, Hussein (current) *Socio-economic Dependency of Indian Ocean Coastal Countries on Tuna Resources and Impacts of Fisheries Management tools on their Livelihood* (committee member, reader)
- Wilson, Jeff (2013) *Rethinking Economics, Accounting for Environmental Impact at the Local Level* (committee member, reader, asked questions at defense, won Graedel Prize Journal of Industrial Ecology).

Master's Thesis/Essay Supervision of Economics/ Master of Development Economics

- Su, Yu (2018) *Statistical Verses Self-Perceived Discrimination: The Case of Canadian Working Age People with a Disability* (MA Essay, reader).
- Woodford, Sean (2016) *Ontario Electricity Market, Analysis of two Potential Market-Based Solutions to Further Integrate Renewable Energy into the Electricity Mix* (MA Essay, reader).
- Wu, Lingyun (2015) *A Comparative Analysis of the Performance of Canadian and U.S. Banks from 2005 to 2013 using the Stochastic Frontier Approach* (MA thesis, supervisor).
- Xu, Xhiqiang (2015) *What Kinds of People Prefer Credit Cards in China* (MDE essay, reader).
- Partridge Justin (2014) *Land use Factors Affecting Economic Damages from Land Falling Tropical Cyclones on the US Gulf and Atlantic Coasts* (MA thesis, supervisor).
- Ma, Sicong (2014) *Research on Driving Forces on Carbon Dioxide Emissions from Cement Production and Fossil Fuel Combustion in China* (MA thesis, supervisor).
- Luo, Mengdi (2014) *The Impact of English Language Proficiency on the Earnings of Male Immigrants, the case of Latin American and Asian Immigrants* (MA thesis, third reader).
- Shooshtari, Milad (2014) *Elasticity of Demand for Natural Gas in Western and Central Canada* (MA Thesis, third reader).
- Sun, Qian (2013) *Social Cost Benefit Analysis 3 Gorges Dam* (MA Thesis, supervisor).
- Nadeem, Syed Ali (2013) *The Financial Sector and Renewable Energy Development in Non-OECD Countries: An Empirical Analysis* (MA Thesis, reader).
- Duff, Ryan (2012) *Social Cost Benefit Analysis, Biofuels in Nova Scotia* (MDE Thesis, supervisor).
- Hamilton, David (2011) *Institutions, Trade and Culture* (MDE Thesis, reader).
- Yerex, Derek (2009) *Changing Approaches to Economic Reconstruction: Lessons Learned and Not*. [MDE thesis, reader published]
- Amy, Sharon (2009) *Physician Emigration from Developing Countries: An Empirical Analysis of the Inverse Care Law* (MDE Thesis, reader).

- Al-Abbassi, Soulaiffa (2009) *Microfinance, Institution Building and Development: An Egyptian Case Study* (MDE Thesis, reader).
- Moubarak, Ruba (2009) *Freedom to Development: Between Rhetoric and Reality* (MDE Thesis, reader).
- Baltimore, Kariyma (2008) *At What Price? Trade-Induced Adjustment Costs and Development in Small Island States: The Case of Antigua and Barbuda*, (IDS MA Thesis, reader, asked questions at defense).
- Holm, Catherine Alexa (2008) *Economic Analysis of Sexually Transmitted Infection Provision in Southern India* (MDE Thesis, reader).
- Gibbons, William (2008) *An Inconvenient Flush: Determinants and Trends Influencing Canadian Water Conservation Devices in the Canadian Residential Sector* (MDE Thesis, reader).
- Marsh, Katrina (2008, MDE) *The Environmental Impacts of Industrial Symbiosis*, (MDE Thesis, supervisor).
- Awoyiga, Babatunde Isma'eel (2008) *The Track to Deep Regional Integration: Are there any Trails left for Ecowas?*, (MDE Thesis, reader).
- Melanson, Leigh, Heather (2008) *Economic Analysis of Geriatric Telehealth Services in Alberta*, (MDE Thesis, reader).
- Naa-Ode Wilson (2007), *Pineapple Exports from Ghana to Europe: Industry Sustainability and Prospects for a Niche Organic Market*, (MDE Thesis, reader).
- Martin, Heather (2006) *Fair Trades at a Cross Roads* (MA Thesis, supervisor).
- Lessard, Trevor (2006) *Dutch Disease: Survey of theoretical and empirical literature and econometric tests on the Canadian economy*, (MA Thesis, supervisor).
- Llaguno, Lawrence (2006) *A Genetic Algorithm Approach to Optimal Binning in Locally Adaptive Kernel Density Estimation*, (MA Thesis, reader).
- Wozniak, David (2006), *An Exploration of Social Interactions, Identity and Status Motivations in an Economic Model of Conformity* (MA Thesis, supervisor).
- Fitzgerald, Natalie (2006), *Cost-Effectiveness of Pharmacy-Based Influenza Programs: A Case Study in the Capital District Health Authority, Halifax Nova Scotia*, (MA Thesis, 2nd reader).
- Stephen, Hamilton (2006) *Monetary Integration as a Framework for Caribbean Development and Political and Economic Integration: A Common Currency? Why Not?* (MDE Thesis, reader)
- Kassay, Ala (2006), *Preferential Trade Agreements: An Effective Conduit of Aid?* (MDE Thesis, 2nd reader)
- Steffler, Sarah (2005), *National Hockey League Performance Enhancing Substances Policy: a Framework for Evaluation*, (reader).
- MacNeill, Tim (2005), *Life in a Cultural Economy: The Market for Music and its Implications for Development Policy*, (MDE Thesis, reader).
- Deubry, Tammie (2005, paper) *Trade Liberalization in the Textile Industry and the Impact on Canadian Textile Mills*, (reader).

Honors Thesis

Economics:

Ryan, Katherine (2014) *Renewable Electricity Strategies for Nova Scotia: The Decision to Import*.
 Li, Lianlong (2014) *Determinants of Automobile Demand in China*.
 Web, Simon (2013) *Income Inequality, Consumption and the Ecological Footprint*.
 Harris, Christine (2013) *Price Discrimination and Market Concentration in the US Television Market*.

Bohn, Brendan (2008) *Electric Market Restructuring and Pollution Emissions in Ontario*.
 Gillis, Aaron (2007) *Nova Scotia Coal: Rebirth of an Industry*.

Environmental Science and Sustainability:

Kingfisher, Levi (2017) *Exploring the Relation Among Working Time, Consumption, and the Environment* (Combined Honours, Sustainability & Economics, supervisor).
 Cairo-Martinez, Lori (2015) *Attitudes towards Wind Power in Nova Scotia; A Newspaper Content Analysis* (Sustainability & Economics, supervisor)
 Vass, Tiffany (2013) *What is the significance of “community” wind energy? The influence of local project initiation, participation, and investment on local perceptions of small-scale wind energy projects in Nova Scotia* (Combined Honours, Env. Science and Econ., co-supervised)
 Hannah Van Hemmen (2011) *Determinants of Residential Solar Panel Adoption: Examining International Correlations and Patterns Over Time* (Env. Science, supervisor)
 Takuya Ozawa (2010) *Phenomenological Study of Urban Vegetable Gardening in Halifax: How Does Urban Vegetable Gardening Activity Affect the Daily Lives of the Gardeners and Their Sense of Community?* (supervisor)
 Parks, Andrew (2007) *Public Opinion and the Development of Wind Power in NS* (supervisor)
 Wicks, Ericka (2006): *A Feasibility Analysis of a Canadian Plastic Bag Tax* (reader)

Political Science:

Magill, Jonathan (2013) *Can a Late-Mover FIT in? Evaluating Green Energy Legislation in Germany and Ontario*. (Second Reader/ defense committee)

Environmental Programs:

- Panel Member for Movie Series SUST 101 “The Economics of Happiness”.
- Environmental Science Advisory Committee Meeting, Truro Agricultural Workshop (2013)
- Recent Guest Lectures (ENVI5031 "Green New Deal", 2019, SUST 101 "Externalities and Regulation", 2011)
- discussions with student delegates to UN FCCC COP 19 (Winter 2011)
- School of Sustainability Spring 2011 (2 day Workshop, Round Table on Oceans, Discussions with Dr. Bill Rees.
- Participated in hiring process, Environmental Science.

Professional Activities

- Environmental and Earth Sciences Chair Advisory Committee (2020)
- Community of Practice (2018 – current)
- Economics Women’s Bookclub (2017 – July 2019)
- Mitacs Accelerate Proposal referee (2017)
- Advising Sub-Committee (F.o.S.) (2018- current)
- Undergraduate Coordinator Economics (2016 –2019)
- Associate Undergraduate Advisor (2012- July 2016).
- Member of Senate Ad Hoc Committee on Fossil Fuel Divestment (2015 – 16)
- Curriculum Committee Faculty of Science (2015 – current)
- Judge Honours Thesis Poster Session in Economics (2015)
- Experiential Learning Course Coordinator (staggered responsibility, Dec 2014 – 2019)
- Secretary Economics Department (Fall 2014 – July 2018, July 2019 - current).
- Referee SSHRC Grants (2009, 2010, 2017)
- Recruitment for 2+2 China Program (2009)
- Library Coordinator (2010)

- Faculty of Science Honorary Degree Committee (2008, 2009)
- Interdisciplinary writing/reading group (M, Frappier, L. Meynell, S. Gibson, P. Hayat).
- Economics Department Internal Review (2006, 2013, 2019)
- Dalhousie Seminar Coordinator (2005- 2007).
- Travel Committee F.o.S. (member, 2005- 2010 & 2013-16, Chair, 2006-2010, 2015-16).
- Document on how Economics could contribute to European Centre of Excellence for FASS.
- Undergraduate and Anonymous Prize Committee (2004-2006, 2012- current, Chair, 2016- 19).
- Centre of Teaching and Learning workshops.
- Evolutionary Study Group, member (2004-2008).
- Referee, *The Journal of Economic Education* (1999).
- student references including Rosanna Nicols Rhode's Scholarship, 2009.
- Commented on Boland, L. (2003) *The Foundations of Economic Method: A Popperian Perspective 2nd Edition*, chapter 9, London: Routledge.

Conference and Seminar Participation

- Dal. Conference on Teaching & Learning, Post Conf. Science Teaching Workshop (2019)
- Canadian Economic Association Meeting (2006, 2007, 2008, 2009, 2014, presented), (2005, 2010, 2013, 2015, 2016, 2017, attended), discussant and session chair on various occasions.
- IAREP/SABE Behavioural Economics & Econ. Psychology (2006, 2009, 2018, attended).
- Canadian Society for Ecological Economics (2007, attended).
- Canadian Environmental and Resource Economics (2006, chair & discussant one session).
- Atlantic Canada Economic Association Meetings (2005, discussant two sessions).
- Canadian Public Economics Group (2005), chair environmental session.
- Department Seminar: “*The Units of Selection Debate: Genes, Individuals or Groups*” (2004)

Invited Talks:

- Darwin Bicentennial Lecture: “*Altruism, Information and Behaviour: A Darwinian Perspective on Creating the Good Society*”, (2009, University of Cape Breton).
- Lecture in *Ocean Governance: Policy and Management Program on Environmental Economics and Ocean's Management* (2008)
- Dalhousie Evolutionary Study Group: *Economics and Evolution: An Economist's Perspective on the Group Selection Debate* (2005)

Community:

- media participation: CBC radio (2008 & 2010), Chronicle Herald, Novanet News, Dalnews, King's Journalism student, Halifax Examiner (2019)
- Environmental Activism, attend protests and social media
- established several milkweed patches which attracted monarch larvae (2016- current),
- student events such as DUESA Gala, 2+2 China Party, Convocation.

Computer Skills:

Object Oriented Programming including genetic algorithms, Mathematica, C++ (Visual Studio, consul only), Pascal, Maple, Excel Solver, GAMs (basic), Stata (basic), Shazam, Dream, Adobe CS5, Corel Draw, Camtasia

Citizenship: Canadian/ British