

CURRICULUM VITAE - JOHN COLLIER

Personal Data

Born: March 28, 1950, Campbellton, New Brunswick, Canada

Citizenship: Canadian

Marital status: single

Areas of Specialization

Philosophy of Science, Philosophy of Biology, Information Theory, Systems Theory

Areas of Competence

Logic, Set Theory, Philosophy of Language, Early Modern Philosophy, Philosophy of Mind, Epistemology and Metaphysics, Cognitive Science

Education

University of Western Ontario	Ph.D.	June, 1984,	Philosophy of Science
University of California, Los Angeles	M.A.	June, 1975,	Philosophy
Massachusetts Institute of Technology	S.B.	June, 1972,	Philosophy
Massachusetts Institute of Technology	S.B.	June, 1971,	Earth and Planetary Science

Dissertation

Title: Progress in Scientific Revolutions: The Problem of Semantic Comparability

Supervisor: William Demopoulos

Work History

Emeritus Professor, University of KwaZulu-Natal, 2015 on

Senior Research Associate, University of KwaZulu-Natal, 2014 to present.

Visiting Scholar, History and Philosophy of Science, Institute of Biology, Federal University of Bahia, Sept-Dec 2012, June-Sept 2013, Aug-Nov 2014, Feb-May 2015.

Professor, University of KwaZulu-Natal, 2008 to 2013.

Associate Professor, University of KwaZulu-Natal, 2003 to 2007.

Visiting Docent, Institute for Design and Technology Assessment, Vienna University of Technology, 2002.

Visiting Scholar, Konrad Lorenz Institute for Evolution and Cognition, 2002.

Research Associate, Department of Philosophy, University of Newcastle, 1994 to 2001 (Complexly Organised Adaptive Systems Group, ARC Large Grant).

Senior Lecturer, History and Philosophy of Science, University of Melbourne, 1993 to 1994.

Lecturer, History and Philosophy of Science, University of Melbourne, 1991 to 1992.

Assistant Professor, Philosophy, University of Calgary, 1988 through 1990.

Visiting Research Associate, Indiana University, 1987-88.

Assistant Professor, Philosophy, Rice University, 1986 - 1987.

Sessional Instructor, Philosophy, University of Calgary, 1982 - 1986.

Visiting Lecturer, Philosophy, University of British Columbia, 1981 - 1982.

Teaching Assistant, Philosophy, University of Western Ontario, Sept. 1976 - April 1981.

Physical Scientist, Earth Physics Branch, Dept. of Energy, Canada, June 1975 - Sept. 1977

Teaching Assistant, Philosophy, University of California, Sept. 1973 - March 1974

Geophysicist (Summer) Iron Ore Co of Canada, Summers 1971-1973

Academic honours and awards

NRF rating B2, 2015-2020

NRF rating B2, 2009-2014

NRF rating B3, 2004-2008

Best Paper Award. Computing Anticipatory Systems 1998, Liège, July, 1998.

Canada Research Fellowship, 1988-93 (departed before completed)

Fellow, Scientia, Rice University, 1986-87

University of Calgary Post-Doctoral Research Fellowship, 1984-86

Western Ontario Special University Scholarship, 1976-78, 80-82

Ontario Graduate Scholarship, 1978, 1979

M.I.T. National Scholar, 1967

Sun Life Mathematics Scholarship, 1967

Quebec Society of Physicists Scholarship, 1967

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Courses taught:

Environmental Ethics	UKZN	2013 Sem 1
Cognitive Science	UKZN	2013 Sem 1
Cognitive Science (teach half course)	UKZN	2012 Sem 1
Pragmatism: Peirce and Rorty	UKZN	2011 Sem 2
Cognitive Science (supervise course)	UKZN	2011 Sem 1
Cognitive Science (supervise course)	UKZN	2010 Sem 1
Pragmatism: Peirce and Rorty	UKZN	2010 Sem 2
Political Philosophy	UKZN	2010 Sem 1
Pragmatism: Peirce and Rorty	UKZN	2009 Sem 2
Cognitive Science	UKZN	2009 Sem 1
Ethics – Evolutionary Moral Realism	UKZN	2009 Sem 1
Pragmatism: Rorty and Peirce	UKZN	2008 Sem 2
Metaphysics – Identity (post-grad)	UKZN	2008 Sem 2
Ethics – Evolutionary Moral Realism	UKZN	2008 Sem 1
Political Philosophy	UKZN	2008 Sem 1
Cognitive Science	UKZN	2008 Sem 1
Causation (post-grad seminar)	UKZN	2007 Sem 2
Pragmatism: Rorty and Peirce	UKZN	2007 Sem 2
Cognitive Science	UKZN	2007 Sem 1
Political Philosophy	UKZN	2007 Sem 1
Interactivism (grad cognitive science)	UKZN	2006 Sem 2
Chomsky (grad political philosophy)	UKZN	2006 Sem 1
Cognitive Science	UKZN	2006 Sem 1
Political Philosophy	UKZN	2006 Sem 1
Pragmatism: Rorty and Peirce	UKZN	2005 Sem 2
Evolutionary Ethics	UKZN	2005 Sem 1
Cognitive Science	UKZN	2005 Sem 1
Political Philosophy	UKZN	2005 Sem 1
Political Philosophy	UKZN	2004 Sem 2
Cognitive Science	UKZN	2004 Sem 1
Political Philosophy	Natal	2003 Sem 2
Cognitive Science	Natal	2003 Sem 1
Science, Life and Mind	Melbourne	1993 Sem 2
Philosophy of Science	Melbourne	1993 Sem 2
Biology and Human Nature (grad)	Melbourne	1993 Sem 1
Science, Life and Mind	Melbourne	1992 Sem 2
Philosophy of Science	Melbourne	1992 Sem 2
Realism, Relativism and Naturalism (grad)	Melbourne	1992 Sem 1
Science, Life and Mind	Melbourne	1991 Sem 2

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Philosophy of Science	Melbourne	1991 Sem 2
Biology and Human Nature (grad)	Melbourne	1991 Sem 1
Logic I	Calgary	1990 (Winter)
Philosophy of Perception (grad)	Calgary	1990 (Winter)
Science and Philosophy	Calgary	1989 (Winter)
Philosophy of Natural Science	Calgary	1988 (Fall)
Graduate Seminar in Phil. of Science	Rice	1987 (Winter)
Philosophical Issues in Science	Rice	1987 (Winter)
Problems in Philosophy	Rice	1986 (Fall)
Philosophy of Science	Rice	1986 (Fall)
Logic II	Calgary	1986 (Winter)
Advanced Topics in Epistemology (grad)	Calgary	1985 (Fall)
Philosophy of Science	Calgary	1985 (Winter)
Problems in Epistemology	Calgary	1984 (Spring)
Introductory Formal Logic	Calgary	1984 (Spring)
Philosophy in the Twentieth Century	Calgary	1983-84
Philosophy of Natural Science	Calgary	1984 (Winter)
Introductory Logic (2 sections)	Calgary	1983 (Fall)
Introductory Logic (2 sections)	Calgary	1982 (Fall)
Writings of John Locke	Calgary	1982 (Fall)
Introductory Logic	UBC	1982 (Spring)
Deductive Logic	UBC	1981-82
Philosophy of Science	UBC	1981-82
Introduction to Scientific Reasoning	UBC	1981-82
Introductory Philosophy	UWO	1980-81
Introductory Philosophy	UWO	1979-80
Informal Logic	UWO	1976-77, 1977-78

Reading courses and Directed Study Supervised

Metaphysics, Philosophy of Science, Philosophy of Biology, Set Theory, Philosophy of Perception, Cognitive Science, and Evolutionary Epistemology, and various tutorials, including Plato, and Metaphysics in 1998.

PhD completed under my supervision

Roderick D. Buchanan, *The MMPI and personality assessment in American clinical psychology, 1935-1965*, completed February 1993.

Scott Muller, *Asymmetry Foundations of Information*, Completed August 2004, cosupervisor with C.A. Hooker.

Carel W.T. Joubert, *An Ontological and Moral Perspective on Sensemaking and Decision Making with Respect to the Person*, completed November 2008.

Other Supervisions

Ph.D. supervision: Mahomed Russol 2012-, Pravin Pillay 2008-2010-resigned, Bryan Marcus Peters 2006-current, Chirag Patel 2008-resigned; Arnold Shepperson 2005-2006 (died), Phillip Hoffmann, 1990; Alexandros Malikotsinas 1991-?; Hee Joo Park 1991-?; Carol Steiner, 1992-96 (with Helen Verran), Cass Wigley 1993-?, Tokofumi Yamamoto 1993-96

Masters supervision: Stephen Campbell, 1989-1990; Mark Zangari, 1991, Natalie Jerimijenko, 1992-?; Gabriella Stephenson, 1992-?, Richard Gogerly, 1993-?; Deborah Dowling, 1993-?; Tony Horn, 2009-2010; Russell Grant, 2010-?; Khondlo Mtshali, 2010-?

Honours supervision: Deborah Dowling, 1991; Konrad Talmont-Kaminski, 1993, Tony Horn 2009, Russell Grant 2009

Conference Organization

“Non-Equilibrium Macro-Systems in Biology”, University of Calgary, October 25-27, 1990
International Society for History, Philosophy and Social Studies in Biology: organiser for Australasian region for 1993 meetings.
Co-organiser, Semiotics, Energy, Evolution: web journal, email list, conference (Toronto, 2001)
Co-organiser, International Society for the Interdisciplinary Study Of Symmetry (Sydney 2001)
Co-Chair, Foundations of Information Science, online conference, May – September 2002
Program Committee, Alife 2004 (VIII)

Grants

NRF Incentive Grant 2015-2020, Rand 80000 per year
NRF Incentive grant 2009 - 2014, Rand 80000 per year
NRF Incentive grant 2008 Rand 80000
University of Natal Competitive Research Grant, State Functions in Non-Equilibrium Systems, 2003, Rand 20000.
Small Australian Research Council Grant, “Computer Model of Speciation Under Non-Equilibrium Conditions”, 1993, \$13000.
University of Calgary Conference Grant, “Non-Equilibrium Macro-Systems in Biology”, Oct. 1990, \$1500.
Social Sciences and Humanities Research Council of Canada, Aid to Occasional Scholarly Conferences, “Non-Equilibrium Macro-Systems in Biology”, Oct. 1990, \$4000.

Consulting

Human Strategies in Complexity project, Vienna University of Technology, University Kassel, Russian Academy of Sciences, and Kiev National Shevchenko University, 2002 - 2003.

Service to the profession and professional memberships

Book referee for MIT Press, University of Chicago Press, SUNY Press, University of Calgary Press, Oxford University Press, University of Melbourne Press, Springer-Verlag, Kluwer, Bertalanffy Center for the Study of Systems Science. Springer-Verlag.
Referee for *Philosophy of Science*, *Biology and Philosophy*, *Australasian Journal of Philosophy*, *Canadian Journal of Philosophy*, *South African Journal of Philosophy*, *Dialogue*, *Journal of Theoretical Biology*, *Acta Biotheoretica*, *Behavioral and Brain Sciences*, *British Journal for the Philosophy of Science*, *Symmetry: Science and Culture*, *Entropy*, *e-journal for cognition • communication • co-operation*, *Taxon*, *Synthese*, *Erkenntnis*, *Artificial Life*, *Theoria*, *Foundations of Science*, *Biological Theory*, *Biosystems*, *Proceedings of the Royal Society*, *Ecology and Society*, *Critical Arts*, *Information*, *Complexity*, *Biosemiotics*, *Foundations of Physics*, *Cognitive Processing*, Canadian Philosophical Association, US Department of Energy, US National Endowment for the Humanities, Monash University Conference on Information, Statistics and Induction in Science, Fourth Australian Cognitive Science Conference, Alife 2000, Alife 2002, Alife 2004, National Research Foundation (South Africa), various sundry others
Mailing list manager: Organisation, Complexity and Autonomy (OCA), and Emergence, Chaos, Hierarchy, Organisation (ECHO)
Behavioral and Brain Sciences Associate.
Associate Editor, *Springer Science Reviews*
Scientific Advisory Board, International Society for the Interdisciplinary Study of Symmetry.
Scientific Advisory Board, Computing Anticipatory Systems (CASYS).
Governing Board, Virtual Institute for Semiosis, Evolution, Energy (past)
Past Editor, On Line Journal for *Semiotics*, *Evolution*, *Energy*, *Development*
Editorial Board, *Entropy*, An International and Interdisciplinary Journal of Entropy and Information Studies
Editorial Board, *CCC (e-journal for cognition • communication • co-operation)*
Editorial Board, *Biological Theory*
Consulting Editor, *Cybernetics and Human Knowing*
Scientific Board, *Foundations of Information Science*
Fellow, *Bertalanffy Center for the Study of Systems Science*, Vienna
Board and founding member, *Science of Information Institute*
Treasurer, *South African Journal of Philosophy* (2004-2007)
National Research Foundation (South Africa) rating Committee, Philosophy and Politics (2004-2006)
National Research Foundation (South Africa) Doctoral Scholarship Panel, (November 2013)
Member, Philosophy of Science Association
Member, International Society for History, Philosophy and Social Studies of Biology
Member, International Society of Biosemiotic Studies

Administration

University of Calgary, Department of Philosophy
Computer resource officer
Speakers Committee chair

CURRICULUM VITAE – JOHN COLLIER

University of Melbourne, Department of History and Philosophy of Science

Science Faculty representative

Faculty of Arts Progress Committee

Faculty of Arts Admissions Committee

Department LAN manager

ALSO Foundation, Melbourne (\$1.5 million yearly budget charity umbrella organisation)

Secretary, 1992-1994

Board Member 1991-1994

Welfare Facilitator 1992-1994

University of KwaZulu-Natal, School of Philosophy and Ethics

Faculty Higher Degrees Committee, 2004-2011 (end of Faculty)

School speakers organizer 2004-2010

Chair, School Higher Degrees Committee, June 2008 to March 2010

Acting Head of School, Philosophy and Ethics, from March 1 2010 to March 31 2011

Discipline representative on School of Religion, Philosophy and Classics Research and Higher Degrees Committee, 2012-2014

Treasurer, *South African Journal of Philosophy* (2004-2007)

Philosophical Publications**In print or page proofs completed**

24 book reviews on various subjects, plus:

- Collier, John. 2017. Information dynamics, self-organization, and the implications for management. In Wolfgang Hofkirchner and Mark Burgin (eds) *Future Information Society: Social and Technological Problems*. Singapore: World Scientific.: 35-57.
- Collier, John. 2014. Informal pragmatics and Linguistic Creativity. *South African Journal of Philosophy* 33(2): 121-129.
- Collier, J. 2014. Signs Without Minds. Vinicius Romanini and Elizeo Fernandez, eds. *Peirce and Biosemiotics: A Guess at the Riddle of Life*, Springer.
- Collier, John. 2014. Emergence in dynamical systems. *Analiza i Egzystencja (Analysis and Existence)* 23: 17-40.
- Collier, John and Michael Stingl. 2013. Evolutionary Moral Realism. *Biological Theory*. 7: 218-226.
- Argyris Arnellos & Luis Emilio Bruni & Charbel Niño El-Hani & John Collier. 2012. Anticipatory Functions, Digital-Analog Forms and Biosemiotics: Integrating the Tools to Model Information and Normativity in Autonomous Biological Agents. *Biosemiotics* 5: 331-367.
- Collier, John. 2012. Information, causation and computation. *Information and Computation: Essays on Scientific and Philosophical Understanding of Foundations of Information and Computation*. Ed by Gordana Dodig Crnkovic and Mark Burgin. World Scientific: 89-106.
- Collier, John. 2012. Interpretants. In Donald Favereau, Paul Cobley and Kalevi Kull, eds. *A More Developed Sign: Interpreting the Work of Jesper Hoffmeyer*. Tartu Semiotics Library 10, Tartu University Press, Tartu 2012: 175-177.
- Collier, John and Graeme Cumming. 2011. A dynamical approach to ecosystem identity. In B. Brown, K. de Laplante and K. Peacock, *Philosophy of Ecology*. Dordrecht: North-Holland: 201-218.
- Collier, John. 2011. Holism and emergence: Dynamical complexity defeats Laplace's Demon. *South African Journal of Philosophy*. **30**, 2: 229-243.
- Collier, John. 2011. Explaining biological functionality: Is control theory enough? *South African Journal of Philosophy*. **30**, 1: 53-62.
- Collier, John. 2011. Kinds of information in scientific use. *Cognition, Communication, Co-operation*. **9**, 2: 295-304.
- Collier, John. 2010. Prospects for reconciling Sellars' world images. *South African Journal of Philosophy*. **29**, 4: 343-356.
- Collier, John. 2010. A dynamical account of individuation and diversity. In Paul Cilliers (ed.) *Complexity, Difference and Diversity*. Berlin: Springer: 79-93.
- Collier, John. 2008. A dynamical account of emergence. *Cybernetics and Human Knowing*. **15** no. 3-4: 75-86.
- Collier, John. 2008. The dynamics of emergence: Response to Eugenio Andrade's comments, 'From a dynamical to a semiotic account of emergence'" *Cybernetics and Human Knowing*. **15** no. 3-4: 97-99.
- Collier, John. 2008. Information in biological systems. *Handbook of Philosophy of Science, Volume 8, Philosophy of Information*, eds. Pieter Adriaans and Johan van Benthem. Elsevier: 763-787.
- Collier, John. 2008. Simulating autonomous anticipation: The importance of Dubois' Conjecture. *Biosystems* **91**: 346-354.
- Fuchs, Christian and John Collier. 2007. A dynamic systems view of economic and political theory. *Theoria* **113**: 23-52.
- Collier, John. 2007. Rhythmic entrainment, symmetry and power. In Kurt A. Richardson and Paul Cilliers (eds) *Explorations in Complexity Thinking: Pre-Proceedings of the 3rd International Workshop on Complexity and Philosophy*. ICSE Publishing, Mansfield, MA: 78-91.
- Ladyman, James and Don Ross, with David Spurrett and John Collier. 2007. *Every Thing Must Go: Metaphysics Naturalized*, Oxford, University of Oxford Press.
- Collier, John 2006. Conditions for Fully Autonomous Anticipation. In: *Computing Anticipatory Systems: CASY'05 - Sixth International Conference*, edited by D. M. Dubois, American Institute of Physics, Melville, New York, AIP Conference Proceedings 839: 282-289.
- Collier, John and Konrad Talmont-Kaminski. 2005. Pragmatist Pragmatics: The functional context of utterances. *Philosophica* **75**: 61-88.
- Cumming, G. S., and J. Collier. 2005. Change and identity in complex systems. *Ecology and Society* **10**(1): 29.
- Stingl, Michael and John Collier. 2005. Reasonable Partiality from a Biological Point of View. *Ethical Theory and Moral Practice* **8**: 11-24.

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- Talmont-Kaminski, Konrad and John Collier. 2004. Saving the distinctions: distinctions as the epistemologically significant content of experience. In Johann Christian Marek, Maria Elisabeth Reicher (ed.) Contributions of the Austrian Ludwig Wittgenstein Society XII (Austrian L Wittgenstein Society, Kirchberg): 373-375.
- Stingl, Michael and John Collier. 2004. After the fall: Religious capacities and the error theory of morality. *Behavioral and Brain Sciences* **27**: 751-752.
- Collier, John. 2004. Reduction, Supervenience, and Physical Emergence. *Behavioral and Brain Sciences* **27**:5: 629-630.
- Collier, John. 2004. Organized Complexity: Properties, Models and the Limits of Understanding. Proceedings of the 2nd. Biennial Havana International Complexity Seminar (and its Parallel Workshop on Complex Biological Systems), January 7-10th, 2004.
- Collier, John. 2004. Autonomy, Anticipation and Novel Adaptations. In Irina Dubranova (ed) *Science of Self-Organization and Self-Organization of Science* (Kyiv: Abris).
- Collier, John. 2004. Interactively Open Autonomy Unifies Two Approaches to Function. In: *Computing Anticipatory Systems: CASY'03 - Sixth International Conference*, edited by D. M. Dubois, American Institute of Physics, Melville, New York, AIP Conference Proceedings **718**: 228-235.
- Collier, John. 2004. Self-organization, Individuation and Identity. *Revue Internationale de Philosophie* **59**: 151-172.
- Collier, 2003. John. Fundamental Properties of Self-Organization. Vladimir Arshinov and Christian Fuchs (eds) , *Emergence, Causality, Self-Organisation* (Moscow, NIA-Piroda): 150-166.
- Collier, John. 2003. Organisation in Biological Systems. Vladimir Arshinov and Christian Fuchs (eds), *Causality, Emergence, Self-Organisation* (Moscow, NIA-Piroda): 287-302
- Collier, John. 2003. Hierarchical Dynamical Information Systems With a Focus on Biology. *Entropy*, **5** : 100-124.
- Collier, John. 2002. What is Autonomy? *Partial Proceedings of CASYS'01: Fifth International Conference on Computing Anticipatory Systems, International Journal of Computing Anticipatory Systems*: **12**: 212-221, published by CHAOS.
- Collier, John. 2001. Dealing With the Unexpected. *Partial Proceedings of CASYS 2000: Fourth International Conference on Computing Anticipatory Systems, International Journal of Computing Anticipatory Systems*, **10**: 21-30, published by CHAOS.
- Collier, John and Mark Burch. 2000. Symmetry, Levels and Entrainment. *Proceedings of the International Society for Systems Sciences*.
- Collier, John. 2000. Information Theory as a General Language for Functional Systems. *Computing Anticipatory Systems: CASY'99 - Third International Conference*, edited by D. M. Dubois, American Institute of Physics, Melville, New York, AIP Conference Proceedings **517**: 124-130.
- Collier, John. 2000. Is There Virtue in Modern Science? *Biology and Philosophy* **15**: 773-784.
- Collier, John. 2000. Autonomy and Process Closure as the Basis for Functionality. *Closure: Emergent Organizations and their Dynamics*, edited by Jerry L.R. Chandler and Gertrudis van de Vijver, Volume 901 of the *Annals of the New York Academy of Science* : 280-291.
- Collier, John. 1999. The Dynamical Basis of Information and the Origins of Semiosis. In Edwina Taborsky (ed) *Semiosis, Evolution, Energy: Towards a Reconceptualization of the Sign*. Aachen Shaker Verlag 1999 Bochum Publications in Semiotics New Series. Vol. 3: 111-136.
- Collier, John and C.A. Hooker. 1999. Complexly Organised Dynamical Systems. *Open Systems and Information Dynamics*, **6**: 241-302.
- Collier, John. 1999. Causation is the Transfer of Information. Howard Sankey (ed) *Causation and Laws of Nature* (Dordrecht, Kluwer): 279-331.
- Collier, John. 1999. Autonomy in anticipatory systems: significance for functionality, intentionality and meaning. In *Computing Anticipatory Systems, CASYS'98 - Second International Conference*, edited by D. M. Dubois, American Institute of Physics, Woodbury, New York, AIP Conference Proceedings **465**: 75-81.
- Collier, John and Mark Burch. 1998. Order From Rhythmic Entrainment and the Origin of Levels Through Dissipation", *Symmetry: Culture and Science Order / Disorder*, Proceedings of the Haifa Congress, 1998 Vol. 9, Nos. 2-4: 165-178.
- Collier, John and Scott Muller. 1998. The Dynamical Basis of Emergence in Natural Hierarchies. In George Farre and Tarko Oksala (eds) *Emergence, Complexity, Hierarchy and Organization, Selected and Edited Papers from the ECHO III Conference, Acta Polytechnica Scandinavica, MA91* (Finish Academy of Technology, Espoo)
- Collier, John. 1998. Information Increase in Biological Systems: How Does Adaptation Fit? for *Evolutionary Systems*, Gertrudis van der Vijver, Stanley N. Salthe and Manuela Delpos (eds) (Dordrecht, Kluwer): 129-140.
- Collier, John. 1996. Looking Beyond the Veil of Natural Selection. *Biology and Philosophy* **12** : 89-99.
- Collier, John. 1996. The Emergence of the Internalist Perspective in Western Science. *Contemporary Philosophy* **24-11**: 355-362 (in Japanese).
- Collier, John. 1996. Information originates in symmetry breaking. *Symmetry: Culture & Science* **7**: 247-256.

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- Collier, John. 1996. On the Necessity of Natural Kinds. In Peter Riggs (ed) *Natural Kinds, Laws of Nature and Scientific Reasoning* (Dordrecht, Kluwer): 1-10.
- Collier, John. 1993. Whence the Motive for Collaboration? *Behavioral and Brain Sciences* **16**: 517-518.
- Collier, John. 1993. Holism in the New Physics. *Descant* **79/80**: 135-154.
- “Evolutionary Naturalism and the Objectivity of Morality”, John Collier and Michael Stingl, *Biology and Philosophy* **8** (1993): 47-60, reprinted in Paul Thompson, ed., *Issues in Evolutionary Ethics*, SUNY Press, Albany, 1995, pp. 409-429.
- Collier, John. 1993. Out of Equilibrium: New Approaches to Biological and Social Change”, *Biology and Philosophy* **8**: 445-456.
- Collier, John. 1992. Critical Notice of Paul Thompson, *The Structure of Biological Theories*. *Canadian Journal of Philosophy* **22**: 285-296.
- Collier, John. 1991. Critical Notice of Richard Alexander, *The Biology of Moral Systems*. *Canadian Journal of Philosophy* **21**: 73-88.
- Collier, John 1990. Could I Conceive Being a Brain in a Vat? *Australasian Journal of Philosophy*, **68**: 413-419.
- Collier, John. 1990. Two Faces of Maxwell's Demon Reveal the Nature of Irreversibility. *Studies in the History and Philosophy of Science*, **21** (1990): 257-268.
- Collier, John. 1990. Intrinsic Information. In Philip Hanson (ed) *Information, Language and Cognition: Vancouver Studies in Cognitive Science, Vol. 1* (University of Oxford Press): 390-409.
- Brooks, D.R., John Collier, B.A. Maurer, J.D. Smith and E.O. Wiley. 1989. Entropy and Information in Biological Systems. *Biology and Philosophy* **4**: 407-432.
- Collier, John. 1989. A Non-Equilibrium Model of Evolution. *Proceedings of the 13th Annual Wittgenstein Conference* (Verlag Holder-Pichler-Tempsky): 290-292.
- Collier, John. 1988. Letter to the Editor. *Biology and Philosophy* **3**: 501-503.
- Collier, John. 1988. Supervenience and Reduction in Biological Hierarchies. In M. Matthen and B. Linsky (eds) *Philosophy and Biology: Canadian Journal of Philosophy Supplementary Volume 14*: 209-234.
- Savitt, Steven and John Collier. 1988. Tachyons and Causal Theories of Space-Time. *Proceedings of the XVIIth World Congress of Philosophy Vol. III* (Editions Montmorency): 155-159.
- Collier, John. 1988. The Dynamics of Biological Order. In B. Weber, D. Depew and J.D. Smith (eds) *Entropy, Information and Evolution* (MIT Press).
- Collier, John. 1987. Theory Ladenness. In P. Weingartner and G. Schurz (eds) *Logic, Epistemology and Philosophy of Science, Proceedings of the 11th Annual Wittgenstein Congress* (Vienna: Holder-Pichler-Tempsky): xx .
- Collier, John. 1987. Critical Notice of Philip Kitcher, *Vaulting Ambition*. *Canadian Journal of Philosophy* **17**: 881-894.
- Brooks, D.R., E.O. Wiley and John Collier. 1987. Definitions of Terms and the Essence of Theories: A Rejoinder to Wicken. , *Systematic Zoology*. **35**(4): 640-647.
- Collier, John. 1986. How Not to Defend Metaphysical Realism”, *Southwestern Phil. Rev.* **3**: 19-27.
- Collier, John. 1986. *Dialogue* **25**: 349-352.
- Collier, John. 1986. Entropy in Evolution. *Biology and Philosophy* **1**: 5-24.
- Collier, John. 1984. Pragmatic Incommensurability. In *PSA 84*, P. D. Asquith and P. Kitcher (eds) (East Lansing: Philosophy of Science Association): 146-153.
- Collier, John. 1984. Frequency-Dependent Causation: a Defense of Giere. *Philosophy of Science* **50**: xx.
- Collier, John. 1979. Information as a Measure of Epistemic Utility. *Methodology and Science*. **12** #4, Dec.

Submitted, in revision or in press

Reference as Achievement, (2013, with Konrad Talmont-Kaminski, in review

Invited Papers from 1996

- “What is autonomy?” XI International Brazilian Meeting on Cognitive Science, São Paulo, Brazil, October 30-November 1.
- “What we can discover from Dimensional Analysis of the information concept”, Plenary talk. The Seventh International Conference on the Foundations of Information Science, Gothenburg, June 2017.
- “Physical information systems” Digitalization for a Sustainable Society, Theoretical Information Studies, Gothenburg June 2017.

- “Irreducibility and Instinct” University of Lethbridge, April 14, 2017.
- “What Must the World Be Like to Have Information About It?” Triangular relationship Information-Reality-Cognition through the prism of Physical-Biological-Cognitive Sciences, Computing and Philosophy at The Sixth International Conference on the Foundations of Information Science 2015, the Fifth ICTs and Society Conference 2015, the Second International Conference on Philosophy of Information 2015, and The Difference that Makes a Difference (DTMD) 2015 - 3rd International Conference. June 2015.
- “Information dynamics, self-organization and the implications for management” Plenary talk at The Sixth International Conference on the Foundations of Information Science 2015, the Fifth ICTs and Society Conference 2015, the Second International Conference on Philosophy of Information 2015, and The Difference that Makes a Difference (DTMD) 2015 - 3rd International Conference. June 2015.
- “A dynamical interpretation of emergence and its consequences” Keynote Lecture, European Meetings on Cybernetics and Systems Science, Vienna, April 2014.
- “Coordinating the transfer of information” Language as Social Coordination, Warsaw, Poland, September 2010, Plenary lecture.
- “How do we choose what game to play?” Kazimierz Naturalized Epistemology Workshop 6, Kazimierz, Poland, September 2010
- “Kinds of information in scientific use” Foundations of Information Science/International Society for Information Studies, Beijing, August 2010
- “Complexity in Biology” Complejiadad 2010, 5th Biennial Congress, Havana, Cuba, January 2010
- “Rationality and Motivation” Kazimierz Naturalized Epistemology Workshop 5, Kazimierz, Poland, September 2009
- “System interpretable signs: Where mere information ends and meaning begins” Kazimierz Naturalized Epistemology Workshop 4, Kazimierz, Poland, September 2008.
- “Is truth a value in naturalized epistemology? If so, is it a natural value?” Kazimierz Naturalized Epistemology Workshop 3, Kazimierz, Poland, September 2007.
- “Autonomy and Anticipation” Workshop on artificial autonomy, San Sebastian, Spain, March 2007.
- “Reaching for the Moon: Evolutionary Moral Realism”, with Michael Stingl, Seminar on Naturalistic Metaethics, Philosophy of Science Association, Vancouver Canada, November 2006.
- “The significance of embodiment for knowledge”, Kazimierz Naturalized Epistemology Workshop 2, Kazimierz, Poland, September 2006.
- “Do systems biology and biosemiotics have anything to tell each other?” Gatherings in Biosemiotics 6, Salzburg, Austria, July 2006.
- “Autonomy and Anticipation”, and closing roundtable plenary discussion on the Future of Artificial Life, Artificial Life X, Bloomington, Indiana, June 2006.
- “Conditions for a naturalized epistemology”, Kazimierz Naturalized Epistemology Workshop 1, Kazimierz, Poland, September 2005.
- “Conditions for Fully Autonomous Anticipation” Computing Anticipatory Systems 2005, Liège August 2005.
- “Generalizing Entropy and Information Concepts”, Foundations of Information Science, Paris July 2005.
- “Functionality and Self-Organization in Biology”, Dalhousie University, Halifax, Canada, January 2004
- “Functionality and Autonomy”, University of Alabama, Birmingham, January 2004
- “Tetralectics: Ancient and Modern Precursors”, Plenary Talk, Symmetry Festival, Budapest, August 2003.
- “Two Approaches to Biological Function”, University of Natal, plenary talk to Human Sciences Graduate Student Conference, October 2002, Philosophy, University of Newcastle, February 2003.
- “Holism and Emergence: Dynamical Complexity Defeats Laplace's Demon” Wissenschaftliche Gesellschaft: Dynamik - Komplexität - menschliche Systeme, Vienna, May 2002; Faculty of Philosophy, University of Ghent, Workshop on Evolution and Complexity, June 2002.
- “Evolutionary Moral Realism” HPS, ELTE University, Budapest, April 2002, Philosophy, University of Newcastle, March 2003
- “Function in Open Autonomous Systems”, Konrad Lorenz Institute for Evolution and Cognition Research, March 2002, Vienna University of Technology, March 2002
- “Emergence in Bénard Cells and Developmental and Evolutionary Analogues” Vienna University of Technology, February 2002.
- “Functionality and Autonomy in Open Dynamical Systems”, Carleton University Cognitive Science, October, 2001.
- “What is Autonomy?” Anticipatory Systems: CASYS 2001- *Fourth International Conference*, Liege, Belgium.
- “Dealing With the Unexpected”, *Anticipatory Systems: CASY 2000 - Third International Conference*, Liege,

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Belgium.

- "Bénard Cells: A Model Dissipative System", with Mishtu Banerjee, ECHO IV, Odense, Denmark, August 2000.
- "Incommensurability as a Pragmatic Problem", University of Hannover, August, 1999.
- "Information Theory as a General Language for Functional Systems", Computing Anticipatory Systems 1999, Liège, August, 1999.
- "Autonomy and Process Closure as the Basis for Functionality", Closure, Gent, May 1999.
- "Order from Rhythmic Entrainment and the Emergence of Levels", with Mark Burch, International Society for the Interdisciplinary Study of Symmetry, Closing Plenary, Haifa, September 1998.
- "The Dynamical Basis of Emergence in Natural Hierarchies", with Scott Muller, Emergence, Chaos, Hierarchy, Organization, Helsinki, July 1998.
- "The Dynamic Basis of Information", Semiosis, Evolution, Energy Conference, Toronto, October 1997.
- "Reconciling Causal and Inferential Models of Representational Content", Distinguished Cognitive Science Lecture Series, Carleton University, October, 1997.
- "Neither Nature Nor Nurture", Symposium on Emergent Biology, International Society for the History and Philosophy of Biology, Seattle, 1997.
- "Holism in the New Physics", Canterbury University, April, 1997.
- "Information and Symmetry", University of Auckland, April, 1997.
- "Emergence in Natural Hierarchies", Caltech, Oct. 1996.
- "Causation is Information Transfer", UBC, Oct. 1996.
- "Problems for Evolutionary Naturalism in Ethics", Simon Fraser University, Oct. 1996, University of Victoria, Oct. 1996.
- "Evolutionary Progress Through Non-Optimal Adaptation", International Congress on Systematics and Evolutionary Biology VI, Budapest, Aug. 1996, Evolution seminar, BioSciences, University of Toronto, Sept 1996.

Plus 43 previous invited papers and 80 conference papers