ERIC DIETRICH

Curriculum Vitae Department of Philosophy Binghamton University (State Univ. of New York) Binghamton, NY 13902-6000 dietrich@binghamton.edu http://www.bingweb.binghamton.edu/~dietrich

Professional History

2003 - Present	Professor of Philosophy, Dept. of Philosophy, Binghamton University.		
2013 - 2014	Director of Undergraduate Studies, Department of Philosophy,		
2003 - 2005	Director of the Philosophy Department's Graduate Program in		
	Social, Ethical, Political, and Legal Philosophy (SPEL)		
2000 - 2003	Director of Undergraduate Studies, Department of Philosophy,		
	Binghamton University.		
Spring 2001	Visiting Associate Professor, Department of Philosophy, Virginia Tech.		
	(In 2000, Binghamton University unexpectedly closed its graduate program in		
	cognitive science. Because of that, I switched my research focus from cognitive		
	science to philosophy.)		
1997-2001	Director of Graduate Studies for the Program in Philosophy, Computers,		
	and Cognitive Science (PACCS), Binghamton University.		
1994	Associate Professor with tenure, Department of Philosophy, Program in		
	Philosophy, Computers, and Cognitive Science, Binghamton University.		
1988-1994	Assistant Professor, Department of Philosophy, Program in Philosophy,		
	Computers, and Cognitive Science, Binghamton University.		
1987-1988	College Assistant Professor, Department of Computer Science, and Research		
	Scientist, Computing Research Laboratory, New Mexico State University		
	Las Cruces, New Mexico.		
1986-1987	Research Scientist, Computing Research Laboratory, New Mexico State		
	University, Las Cruces, New Mexico.		
1986 (Summer)	Research Scientist, Center for Cybernetic Communication		
	Research, Colorado State University, Ft. Collins, Colorado.		
1984-1986	Technical Director and a founding member, Applied Artificial Intelligence Lab,		
	Breit International, Boulder, Colorado.		
1981-1984	Engineer, Artificial Intelligence Unit, Martin Marietta Aerospace (now: Lockheed		
	Martin), Denver, Colorado.		

Education

1983-1985	Ph.D.	University of Arizona, Philosophy (Awarded Dec., 1985)
1980-1981	Gradua	te Fellow, Indiana University, Computer Science Department
1976-1980	M.A.	University of Arizona, Philosophy (Awarded May, 1978)
1974-1976	B.S.	University of Wyoming, Mathematics (High Honors)
1972-1974	A.S.	Casper College, Mathematics

Refereed Publications

Books

- Dietrich, E. (2015). *Excellent Beauty: The naturalness of religion and the unnaturalness of the world*. Columbia University Press.
- Dietrich, E. and Hardcastle, V. (2004). *Sisyphus's Boulder: Consciousness and the Limits of the Knowable.* Amsterdam: John Benjamins.
- Dietrich, E. and Markman, A. (eds.) (2000). *Cognitive Dynamics: Conceptual change in humans and machines*. Mahwah, NJ: Lawrence Erlbaum.
- Dietrich, E., (ed.) (1994). *Thinking Computers and Virtual Persons: Essays on the Intentionality of Machines*. San Diego, CA.: Academic Press.

Research Papers

- Dietrich, E. (2017). Do nonclassical worlds entail dualism? Constructivist Foundations.
- Dietrich, E. (2016). Philosophy of Artificial Intelligence. In Brian McLaughlin, ed., *Macmillan Interdisciplinary Handbooks Philosophy: Mind.* Gale, Cengage Learning.
- Dietrich, E. and Fields, C. (2015). Science generates limit paradoxes. Axiomathes, March 2015.
- Dietrich, E. (2014). Some Strangeness in the Proportion: Science reveals a universe of mysteries. In Deepak Chopra (ed.) *Brain, Mind, Cosmos: The Nature of Our Existence and the Universe* (Sages and Scientists Series Book 1).
- Dietrich, E. and Hall, T. (---). An It Harm None: From Wiccan Ethics to an Ethicless Religion.
- Dietrich, E. (2011). There is no progress in philosophy. In *Essays in Philosophy*, v. 12, n. 2, issue date: July 2011, edited by Eric Dietrich and Zach Weber, issue topic: *Philosophy's Future: Science or Something Else?* (20,000 downloads as of Summer 2016.)
- Dietrich, E. (2011). Homo sapiens 2.0: Building the better robots of our nature. Invited paper. In M. Anderson and S. Anderson, (eds.), *Machine Ethics*, Cambridge University Press.
- Dietrich, E. (2010). Analogical insight: toward unifying categorization and analogy. *Cognitive Processing*, v 11, # 4 (2010), Page 331.
- Dietrich, E., and Hall, Tara Fox (2010). The Allure of the Serial Killer. In Sara Waller (ed). *Serial Killers and Philosophy*, John Wiley.
- Dietrich, E.and Rose, Julietta. (2009). The Paradox of Consciousness and the Realism/Anti-Realism Debate. *Logos Architekton*, v. 3, n. 1, pp. 7-37.
- Dale, R. E., Dietrich, A. Chemero (2009). Explanatory Pluralism in Cognitive Science, *Cognitive Science*, v. 33, no. 2, pp. 739-742.
- Dietrich, E. (2008). The Bishop and Priest: Toward a point-of-view based epistemology of true contradictions. *Logos Architekton*, v. 2, n. 2, pp. 35-58.
- Dietrich, E. (2008). Some Strangeness in the Proportion, or How to stop worrying and learn to love the Mechanistic Forces of Darkness. Commentary on E. Selinger and T. Engström's "A Moratorium on Cyborgs: Computation, Cognition, and Commerce." *Phenomenology and the Cognitive Sciences*, v. 7, pp. 349-352.

- Dietrich, E. (2008). Pluralism, Radical Pluralism, and the Politics of the Big Bang. J. of Exper. and Theor. *Artificial Intelligence*, pp. 231-237.
- Dietrich, E. (2008). Toward Extending the Relational Priming Model: Six Questions. Commentary on Robert Leech, Denis Mareschal, Richard Cooper's "Analogy as Relational Priming: A developmental and computational perspective on the origins of a complex cognitive skill". *Behavioral and Brain Sciences*, v. 31:4, pp. 383-384.
- Dietrich, E. (2007). After the Humans are Gone. Philosophy Now, v. 61, May/June, 2007, 16-19.
- Dietrich, E. (2006). Representation. In P. Thagard (ed.), *Handbook of Philosophy of Psychology and Cognitive Science*. Elsevier Science.
- Wilson, D. S., E. Dietrich, A. B. Clark (2003). On the Inappropriate Use of the Naturalistic Fallacy in Evolutionary Psychology. *Biology and Philosophy*, v. 18, 669-682.
- Dietrich, E., A. B. Markman, M. Winkley (2003). The Prepared Mind: The Role of Representational Change in Chance Discovery. In Yukio Ohsawa and Peter McBurney (eds.) *Chance Discovery by Machines*, Berlin: Springer-Verlag, pp. 208-230.
- Dietrich, E. and A. B. Markman (2003). Discrete Thoughts: Why cognition must use discrete representations. *Mind and Language*. v. 18, n. 1, pp. 95-119.
- Dietrich, E. (2003). An ABSURDIST model vindicates a venerable theory. *Trends in Cognitive Sciences*, v. 7, n. 2, pp 57-59.
- Dietrich, E. (2002). The Philosophy of Artificial Intelligence. The entry in *Encyclopedia of Cognitive Science*, Macmillan, Volume 1, pp. 203 -208.
- Hardcastle, V. G. and E. Dietrich (2001). Toward a book of counter-examples for cognitive science: Dynamic systems theory, emotion, and aardvarks. *Danish Yearbook of Philosophy* 36: pp. 35-48.
- Dietrich, E. (2001). It Does So! Review of Jerry Fodor's *The Mind Doesn't Work That Way: The scope and limits of computational psychology.* AI Magazine v.22, n. 4, pp. 141-144.
- Dietrich, E., & A. B. Markman (2001). Dynamical description versus dynamical modeling: Reply to Chemero, *Trends in Cognitive Sciences*, 5(8), p. 332.
- Dietrich, E. and A. Gillies (2001). Consciousness and the limits of our imaginations. *Synthese* v. 126, n. 3, pp. 361-381.
- Dietrich, E. (2000). Cognitive Science and the Mechanistic Forces of Darkness, or Why the Computational Science of Mind Suffers the Slings and Arrows of Outrageous Fortune. *Techné*: eJournal of the *Society for Philosophy and Technology*, Winter, <u>http://scholar.lib.vt.edu/ejournals/SPT/v5n2/dietrich.html</u>
- Markman, A. and E. Dietrich (2000). Extending the classical view of representation. *Trends in Cognitive Science* v. 4, n. 12, pp. 470-475.

Markman, A. and E. Dietrich (2000). In defense of representation. Cognitive Psychology 40, pp. 138-171.

Dietrich, E. (2000). Analogy and conceptual change, or You can't step into the same mind twice. In E. Dietrich and A. Markman (eds.) *Cognitive Dynamics: Conceptual change in humans and machines*. Mahwah, NJ: Lawrence Erlbaum, pp. 265 – 294.

- Dietrich, E. and A. Markman (2000). Cognitive Dynamics: Computation and representation regained. In Dietrich, E. and Markman, A. (eds.) *Cognitive Dynamics: Conceptual change in humans and machines*. Mahwah, NJ: Lawrence Erlbaum, pp. 5 29.
- Markman, A. and E. Dietrich (1999). Wither structured representation? Commentary on Perceptual Symbol Systems by Lawrence Barsalou; *Behavioral and Brain Sciences*, 22 (4), pp. 626 627.
- Dietrich, E. (1999). Algorithm. The entry in the *MIT Encyclopedia of the Cognitive Sciences*. Wilson, R. and Keil, F. (eds). MIT Press, pp. 11 12.
- Van Heuveln, B., E. Dietrich, (1999). Brute association is not identity. Invited commentary on A Connectionist Theory of Phenomenal Experience by Gerard O'Brien and Jonathan Opie; *Behavioral and Brain Sciences*. 22 (1), p. 171.
- Dietrich, E. and A. Markman (1998). All information processing entails computation, or if R. A. Fisher had been a cognitive scientist. Commentary on The Dynamical Hypothesis in Cognitive Science by T. van Gelder; *Behavioral and Brain Sciences*, 21 (5), pp. 637-638.
- Dietrich, E. (1998). Zombies only seem logically possible, or How consciousness hides the truth of Materialism: A Critical Review of <u>The Consciousness Mind</u> by David Chalmers. *Minds and Machines*, 8 (3), pp. 441-461.
- Van Heuveln, B., E. Dietrich, M. Oshima, (1998). Let's Dance: The Equivocation in Chalmers' Dancing Qualia Argument. *Mind and Machines*, 8 (2), pp. 237 249.
- Loren, L., E. Dietrich, C. Morrison, J. Beskin (1998). What it means to be situated. *Cybernetics and Systems*, 29 (8), pp. 751-777.
- Changsin Lee, C., B. van Heuveln, C. Morrison, and E. Dietrich, (1998). Why connectionist nets are good models: Commentary on Green on Connectionist-Explanation *Psycoloquy* 9 (17), *Psycoloquy*.98.9.17.connectionist-explanation.14.lee, http://www.cogsci.ecs.soton.ac.uk/cgi/psyc/newpsy?9.17
- Markman, A., E. Dietrich, (1998). In defense of representation as mediation (plus several replies to commentaries). *Psycologuy*.98.9.48.representation-mediation, http://www.cogsci.ecs.soton.ac.uk/cgi/psyc/newpsy?9.48.
- Loren, L. and E. Dietrich (1997). Merleau-Ponty, Embodied Cognition, and the Problem of Intentionality *Cybernetics and Systems*, 28 (5), pp. 345-358.
- Loren, L. and E. Dietrich (1996). Phenomenology and Situated Action, in *Proceedings of AAAI Workshop on Embodied Cognition and Action*, published by AAAI Press, Menlo Park, CA, (FS9602), Massachusetts Institute of Technology, Cambridge, Massachusetts, November 9-11, 1996. pp. 78-81.
- Dietrich, E. and C. Fields (1996). The role of the frame problem in Fodor's modularity thesis: a case study of rationalist cognitive science, in Ford, K. and Pylyshyn, Z. (eds.) *The Robot's Dilemma Revisited*. Ablex. pp. 9-24.
- Dietrich, E., C. Morrison, and M. Oshima (1996). Conceptual Change as Change of Inner Perspective, in Proceedings of AAAI Workshop on Embodied Cognition and Action, published by AAAI Press, Menlo Park, CA, (FS9602), Massachusetts Institute of Technology, Cambridge, Massachusetts, November 9-11, 1996, pp. 37-41.
- Morrison, C. and E. Dietrich (1995). Structure-Mapping vs. High-level Perception: The Mistaken Fight Over the Explanation of Analogy, in *Proceedings of the 17th Annual Conference of the Cognitive Science Society*, Pittsburgh, Pennsylvania, July 22-25, 1995, pp. 678-682.

- Wolf, D., J. Beskin, and E. Dietrich (1995). Does Meta-Space Theory Explain Insight? in Proceedings of the 17th Annual Conference of the Cognitive Science Society, Pittsburgh, Pennsylvania, July 22-25, 1995, pp. 781-785.
- Dietrich, E. (1994). Thinking Computers and the Problem of Intentionality, in Dietrich, E. (ed.), *Thinking Computers and Virtual Persons: Essays on the Intentionality of Machines*. Academic Press.
- Paradis, R., E. Dietrich (1994). Concept Development in a Scaffolded Neural Network, in *Proceedings of IEEE World Congress on Computational Intelligence IEEE International Conference on Neural Networks*, Walt Disney World Dolphin Hotel, Lake Buena Vista, Florida, June 26-July 2, 1994, pp. 2339-2343.
- Paradis, R., E. Dietrich (1994). Cumulative Learning in a Scaffolded Neural Network, in *Proceedings of World Congress on Neural Networks 1994 (WCNN '94)*, Town and Country Hotel, San Diego, CA, June 4-9, 1994, Vol II, pp. 775-780.
- Dietrich, E. (1993). The Ubiquity of Computation, *Think*, v. 2, June 1993, pp. 27-29. Reprinted in *Psycologuy* 12 (040), Symbolism and Connectionism, 2001. http://www.cogsci.ecs.soton.ac.uk/cgi/psyc/newpsy?12.040
- Dietrich, E. and S. Downes (1992). Overview of the Second International Workshop on Human and Machine Cognition: Android Epistemology. *AI Magazine*, 13 (3), Fall, pp. 17-19.
- Dietrich, E. and C. Fields (1992). The wanton module and the frame problem, in Burkholder, L. (ed.) *Philosophy and the Computer*. Westview Press, pp. 92-104.
- Dietrich, E. (1991). Overview of the First International Workshop on Human and Machine Cognition: The Frame Problem. *AI Magazine*, 11 (5), January, pp. 60-64.
- Dietrich, E. (1990). Computationalism, Social Epistemology. 4 (2), pp. 135-154. (with commentary)
- Dietrich, E. (1990). Replies to my computational commentators, Social Epistemology. 4 (4), pp. 369-375.
- Dietrich, E. (1990). Programs in the Search for Intelligent Machines: The Mistaken Foundation of AI, in Partridge, D. & Wilks, Y. (eds.) *The Foundations of Artificial Intelligence: A Source Book*. Cambridge: Cambridge University Press.
- Dietrich, E. (1989). Is Thagard's Theory of Explanatory Coherence The New Logical Positivism?, Commentary on Explanatory Coherence by Paul Thagard; *Behavioral and Brain Sciences* 12 (3).
- Dietrich, E. (1989). Semantics and the Computational Paradigm in Cognitive Psychology, *Synthese*, 79 (1), pp. 119-141.
- Wilks, Y., A. Ballim, E. Dietrich (1989). Pronouns in Mind: Quasi-indexicals and the 'Language of thought', *Computers and Artificial Intelligence*. 8 (6), pp. 493-503
- Dietrich, E. (1988). Computers, Intentionality, and the New Dualism, *Computers and Philosophy Newsletter*, Carnegie- Mellon University, 3 (3), pp. 127-143.
- Dietrich, E. and C. Fields (1988). Some Assumptions Underlying Smolensky's Treatment of Connectionism, Commentary on "On the Proper Treatment of Connectionism" by Paul Smolensky; *Behavioral and Brain Sciences* 11 (1), pp. 29-31.
- Prasad, N., S. Ranade, E. Dietrich, R. Hartley, P. Kalra (1988). A Speculative Framework for the Application of Artificial Intelligence to Large Scale Interconnected Power Systems, *Proceedings of the Symposium on Expert System Applications to Power Systems*.

- Fields, C., M. Coombs, E. Dietrich, and R. Hartley (1988). Incorporating Dynamic Control into the Model Generative Reasoning System, *Proceedings of 1988 European Conference on Artificial Intelligence*, *European Conference on Artificial Intelligence (ECAI-88)*.
- Fields, C. and E. Dietrich (1987). Intentionality is a Red Herring, *Behavioral and Brain Sciences* 10, pp. 756-757.
- Prasad, N., S. Ranade, E. Dietrich, R. Hartley (1987). Speculation on the Nature of Knowledge-Based Systems in a Power Systems Environment, in *Proceedings of the 19th Annual North American Power Symposium.* pp. 323-332.
- Fields, C. and E. Dietrich (1987). A Stochastic Computing Architecture for Multi-Domain Problem Solving, in *Proceedings of the Second International Symposium on Methodologies for Intelligent Systems*, Oak Ridge National Laboratory, pp. 227-238.
- Fields, C. and E. Dietrich (1987). Multi-Domain Problem Solving: A Test Case for Computational Theories of Intelligence, in *Proceedings of the Second Rocky Mountain Conference on Artificial Intelligence*, University of Colorado, pp. 205-223.
- Hartley, R., M. Coombs, and E. Dietrich (1987). An Algorithm for Open-world Reasoning using Model Generation, in *Proceedings of the Second Rocky Mountain Conference on Artificial Intelligence*, University of Colorado, pp. 193-204.
- Dietrich, E. and C. Fields (1986). Creative Problem Solving Using the Wanton Inference Strategy, in *Proceedings of the First Annual Rocky Mountain Conference on Artificial Intelligence*, Boulder, CO: Breit International, pp. 31-41.
- Dietrich, E. and M. Imamura (1983). EMES: An Expert System for Space Station Energy Management, in Proceedings of the 1983 Intersociety Energy Conversion Engineering Conference.
- Cummins, R. and E. Dietrich (1982). PATHFINDER: Investigating the Acquisition of Communicative Conventions, in *Proceedings of the 4th Annual Meeting of the Cognitive Science Society*, pp. 30-32.

Reviews and Essays

- Dietrich, E. (2012). "Review of "The Death of Philosophy: Reference and Self-Reference in Contemporary Thought"," *Essays in Philosophy*: v. 13, no. 2. <u>http://commons.pacificu.edu/eip/vol13/iss2/16</u>
- Dietrich, E. (2009). A new dream for 21st century science: : It's time to abandon the search for a single principle to explain the world. *Binghamton Research*, published by Binghamton University, SUNY, pp. 58-61.
- Dietrich, E., Hardcastle, V. (2002). A Connecticut Yalie in King Descartes' Court: A review of *Mind and Mechanism* by Drew McDermott, MIT Press, Cambridge, MA, 2001. *Newsletter of the Cognitive Science Society.*
- Giesy, Courtney and Dietrich, E. (2001). Review of *Concepts: Where cognitive science went wrong* by Jerry Fodor. *Newsletter of the Cognitive Science Society.*
- Gillies, A. and E. Dietrich (1998). Review of *Cognitive Carpentry* by John Pollock. *International Studies of Philosophy*, 30 (2), pp. 151-153.

Jetai Editorials (J. of Experimental and Theoretical AI)

- Subvert the Dominant Paradigm! A Review of *Computationalism: New Directions* Edited by Matthias Scheutz. 2002.
- Homo sapiens 2.0: Why we should build the better robots of our nature. 2001, 13 (4), 323-328.

Banbury Bound, or Can a machine be conscious? 2001, 13 (2), 177-180.

- Concepts: Fodor's little semantic BBs of thought -- A critical look at Fodor's theory of concepts. 2001, 13 (2), 89-94.
- AI, Concepts, and the Paradox of Mental Representation, with a brief discussion of psychological essentialism. 2001, 13 (1), 1-7.
- A Counterexample to All Future Dynamic Systems Theories of Cognition. 2000, 12(2), 377-382.

Dynamic systems and paradise regained, or how to avoid being a calculator. 1999, 11(4), 473-478.

- Fodor's gloom, or What does it mean that dualism seems true? 1999, 11 (2), 145-152.
- AI, situatedness, creativity, and intelligence; or the Evolution of the little hearing bones. 1996 8 (1), 1-6.
- AI and the mechanistic forces of darkness. 1995, 7 (2), 155-161.
- AI and the tyranny of Galen, or Why evolutionary psychology and cognitive ethology are important to AI. 1994, 6 (4), 325-330.

Talks and Presentations

- Sermon: *Excellent Beauty: The naturalness of religion and the unnaturalness of the world.* Unitarian Universalist Congregation of the Wyoming Valley, in Wyoming, PA. July 12, 2015.
- The Trouble With Philosophy. Invited TEDx talk at Binghamton University. April 2, 2011.
- *After the Humans Gone*. Invited talk. Department of Philosophy, Rochester Institute of Technology, January 25, 2008.
- *The Bishop and Priest: How a contradiction can be true.* Invited talk. Cognitive Science Program, University at Buffalo (SUNY), February 28, 2007.
- *Science and Enduring Mystery*. Paper presented to the Science and Enduring Mystery Symposium, October, 2007, Binghamton University.
- Discrete Thoughts. Invited talk. Cornell Psychology Department, Cornell University, October 27, 2006.
- *After the Humans are Gone.* Douglas Engelbart Keynote Address, North American Computers and Philosophy Conference, Rensselaer Polytechnic Institute, August, 2006.
- *The Impossibility of Understanding Consciousness*. Invited talk for the Program in Minds and Machines. Rensselaer Polytechnic Institute. November 2004.
- *Discrete Thoughts and the Nature of Semantics*. Invited talk. Cognitive Science Program, SUNY-Buffalo, March 2004.
- *The True Nature of Philosophy, plus some stuff on computers*. Invited talk to the Gifted Students Program, Blue Ridge School District, Susquehanna County, Pennsylvannia. Groundhog Day, 2004.

- *Discrete Thoughts*. Invited talk for the Program in Minds and Machines. Rensselaer Polytechnic Institute. April 4, 2003.
- Homo sapiens 2.0: Why should build the better robots of our nature. Invited talk for the *Trathen Lectures: Evolutionary Visions – Evolving Minds, Evolving Machines*. Part of the First Year Studies Program in Minds and Machines. Rensselaer Polytechnic Institute. October 4, 2001.
- *Can a Machine be Conscious? -- Sure, but it won't help.* Invited paper for the *Can a machine be conscious?* workshop, Cold Spring Harbor, New York, May 13-16, 2001.
- *Fodor's Gloom: Why we will never understand consciousness.* Invited talk for the *Metaphysics of Consciousness Workshop,* SUNY Buffalo, November 4 - 6, 1999.
- *Representation: Where we are and where we are going.* Invited symposium talk at the 1999 meeting of the *Cognitive Science Society,* Simon Fraser University, Vancouver, British Columbia, Canada.
- Artificial Intelligence and Mechanistic Forces of Darkness. Keynote Presentation, 1999 meeting of the Society for Philosophy and Technology, San Jose State University, San Jose California.
- *Thinking Computers and Virtual Persons.* The 1998 Demorest Lecture in the Humanities, for the *Casper College Humanities Festival: Questions of Technology and the Humanities.* Sponsored by the Wyoming Council for the Humanities.
- Materialism Can't Win, but It Can Draw. Invited paper presented to Center for Cognitive Science, State University of New York at Buffalo, October 9, 1996.
- *Two Faces of Creativity in Analogy*, (with Clay Morrison). Refereed poster presented at the *Creative Concepts Conference*, Texas A&M University, May 18-20, 1995.
- What Creativity Is Not, (with Jon Beskin and D. Wolf). Refereed poster presented at the Creative Concepts Conference, Texas A&M University, May 18-20, 1995.
- Invited panel member: What Does AI Have To Do With The Brain? Florida AI Research Symposium 1993.
- Brittleness and Plasticity. Paper presented to PACCS Graduate Program, Binghamton University, 1993.
- *Analogy and the Evolution of Intelligence*. Invited paper presented to Center for Research on Concepts and Cognition, Indiana University, 1992.
- *The Evolution of Intelligence.* Refereed paper presented to 2nd International Workshop on Human & Machine Cognition, 1991.
- Wanton Analogical Reasoning and the Frame Problem. Invited paper presented to Department of Computer Science, SUNY Buffalo, 1989.
- *Creative Problem Solving, the Frame Problem, and Wanton Inference.* Paper presented to The Computing Research Laboratory, New Mexico State University, 1986.
- *Wanton Inference and Analogy.* Paper presented to Department of Computer Science, Indiana University, 1986.

Grants and Contracts

2006 *Science and Enduring Mystery* (\$7,000 + \$1500 from other sources). Binghamton University Provost's Interdisciplinary Studies Award for a conference on the topic of enduring mysteries and unsolvable problems in science. Symposium title: *Science and Enduring Mystery*. The symposium was held on October 13-14, 2006.

- 1999 2001 *Visual Analogies* (\$46,485.00). Intelligent Reasoning Systems, Incorporated; Austin, Texas. To investigate visual concept construction in machines and analogies between such concepts.
- 1990 1995 Graduate Research Initiative Grant (\$72,000.00), for a PACCS Artificial Intelligence Laboratory; awarded in the spring of 1990.
- 1989 present Support for Journal of Experimental and Theoretical Artificial Intelligence (JETAI).
- 1989 Awarded a *Conversations in the Disciplines* grant (\$1925) from State University of New York Foundation for the workshop Artificial Intelligence: a new science or a dying art form? (Received extra funding for workshop from the American Association for Artificial Intelligence (\$1325) and IBM (\$500).)

Professional Services

- Founding Editor and Editor-in-Chief (1988 Present): *Journal of Experimental and Theoretical Artificial Intelligence*, published by Taylor and Francis, Ltd.
- Leaf Editor, PhilPapers Project, 2010 Present.
- Program committee member: Philosophy and Theory of Artificial Intelligence, Conference in Thessaloniki, October, 3-4, 2011.
- Organized and chaired: *Symposium on Science and Enduring Mystery*. Binghamton University. October, 13, 2006.
- Book Review Editor for the *Newsletter of the Cognitive Science Society*. cognitivescience.com. (Until 2001).
- Editorial Board Member: Psyche, an electronic journal publication. ISSN 1039-723X (until 2006).
- Editorial Board Member (1989 1999): International Journal of General Systems, Gordon and Breach Science Publishers.
- Editorial Board Member (1992-1994): Applied Intelligence, Kluwer Academic Publishers.
- Journal Referee for Cognition, Journal of Consciousness Studies, Cognitive Science, Synthese, Philosophy of Science, Behavioral and Brain Sciences, Minds and Machines, and Psycoloquy.
- Referee for the *Cognitive Science Society's* annual conference.
- Referee for the Columbia University Press.
- Referee for Academic Press, Oxford University Press, Columbia University Press, and others.
- Program Committee member: Florida Artificial Intelligence Research Symposium, May 11-14, 1997.
- Discussion Group Leader for *Workshop on Computational Intelligence and It's Application*, Binghamton University, November 1, 1996.
- Program Committee member: Intelligence in Neural & Biological Systems, Washington, D.C., May 29-31, 1995.

- Organizing Committee member: *The Workshop on The Search For Mind* at the Tenth Biennial Conference on AI and Cognitive Science sponsored by The Society for the Study of Artificial Intelligence and Simulation of Behavior, April 3-4, 1995.
- Program Committee member: Eighth International Symposium on Methodologies For Intelligent Systems, October 1994.
- Program Committee member: Florida Artificial Intelligence Research Symposium, May 5-7, 1994.
- Workshop Chair & Organizer: Analogy and Computation, at the *Florida Artificial Intelligence Research Symposium*, May 5-7, 1994.
- Program Committee member: Third International Workshop on Human & Machine Cognition, May 1993.
- Program Committee member: Florida Artificial Intelligence Research Symposium, May 1993.
- Co-Chair and Host: 5th Annual Meeting of the *Human Behavior and Evolution Society*, Binghamton University, August 5-8, 1993.
- Conference Chair and Organizer: Artificial Intelligence: a new science or a dying art form? A SUNY Research Foundation *Conversations in the Disciplines*, Binghamton University, June 21-23, 1990.
- Organizing Committee: *First Rocky Mountain Conference on Artificial Intelligence*, University of Colorado, June, 1986. Proceedings published as Proceedings of the First Annual Rocky Mountain Conference on Artificial Intelligence, Boulder, CO: Breit International Dietrich, E. and C. Fields (eds.) (1986).
- Session Chair and Session Organizer: *Advances in Reasoning Systems*, Artificial Intelligence Conference, Oakland University, 1983, Rochester, Michigan.

Graduate Thesis Committees

Dissertation Director (Ph.D.)

- Nathan Schmidt. *Evolution and Moral Agency: What is it like to be a moral agent*. Philosophy Department, Binghamton University, Ph.D. awarded May 2014.
- Tom Eskridge. *Continuous Flow Analogical Reasoning*. Program in Philosophy, Interpretation, and Culture, Binghamton University. Ph.D. awarded May 2012.
- Brian McKeon. *The Hobgoblin of Little Minds: Points of view on paradoxes and true contradictions*. Program in Philosophy, Interpretation, and Culture, Binghamton University. Ph.D. awarded May, 2007.
- Michael Winkley. *Strang: A Model of Analogical Conceptual Change*. Program in Philosophy, Interpretation, and Culture, Binghamton University. Ph.D. awarded May, 2006.
- Bram van Heuveln. *Emergent Cognition*. Program in Philosophy, Computers, and Cognitive Science (PACCS), Department of Philosophy. Ph.D. awarded August 2000.
- Robert Davidson. *On the significance of experience: Discovering experience's role in the mind*. PACCS, Department of Philosophy. Ph.D. awarded May 2000.
- Clayton Morrison. *Situated Representation: Solving the Handcoding Problem with Emergent, Structured Representation.* PACCS, Department of Philosophy. (Defended August 1998; officially graduated May 1999.)

- Lewis Loren. *Cognitive Bodies: The Phenomenology of Artificial Intelligence*. PACCS, Department of Philosophy. Ph.D. awarded August, 1998. (Defended August 1998; officially graduated May 1999.)
- Rose Paradis. *An Automated Auditor: Hybrid Architectures and the Brittleness Problem.* PACCS, Department of Philosophy. Ph.D. awarded August, 1998. (Defended August 1998; officially graduated May 1999.)

Master's Thesis Director

- Adam Karman. Reductive Panpsychism and Subjective Causation. Department of Philosophy, May, 2012.
- Roberto Ruiz. Neitzche was not a misogynist. Department of Philosophy, August, 2005.
- Jonathan Ward. Merleau-Ponty and the New Media: Thoughts on digital film. PACCS, Department of Philosophy, May 2000.
- Douglas Beyer. *From PuppyPaste to DogPaste: Toward a situated, learning analogy maker.* PACCS, Department of Philosophy, August 1998.
- Michiharu Oshima. Analogy and Structure Altering. PACCS, Department of Philosophy, December 1996.
- Clayton Morrison. *Analogy and Constructive Representation*. PACCS, Department of Philosophy, December 1994.
- Harold Ley. *Explanation-Based Reasoning and the Hemple of Doom*. PACCS, Department of Philosophy, May 1994.
- David Wolf. Heuristic Search Space Theory is not a Theory. PACCS, Department of Philosophy, 1993.
- Peter Resnick. Intentionality is Phlogiston. PACCS, Department of Philosophy, 1989.
- Committee Member (Bachelor's Honors, Master's, Doctorate)
- Katya Ahr, *Music Tempo and Reading Speed: The effect of background music on overall reading time.* Undergraduate Honors Thesis Committee, Department of Psychology. April 2012.
- Edgar Valdez, Unrestricted Intuition: Eliminating the Fifth Postulate from Kant's A Priori Intuition of Space. Dissertation, Department of Philosophy, Binghamton University. April, 2011
- Spencer Lo, A Madhayamka Solution to the Problem of Induction. MA Thesis, Department of Philosophy, Binghamton University, April, 2008.
- John Sullins, *A model of the evolution of ethics*. Ph.D. Dissertation, Department of Philosophy, Binghamton University, June, 2001.
- Chang-Sin Lee, *The Acquisition of Mental Vocabulary and the Development of Social Cognition*. Ph.D. Dissertation, PACCS, Department of Philosophy, June 1998.
- Peter Cariani, *On the Design of Devices with Emergent Semantics*, Ph.D. Dissertation, Department of Systems Science, Binghamton University, 1989.

Outside Examiner

- Aliza Baltz, *Reproductive Decision-Making in Budgerigars*, Ph.D. Dissertation, Department of Biology, Binghamton University, 1994.
- William Romey, *Grouping in Whirligig Beetles*, Ph.D. Dissertation, Department of Biology, Binghamton University, 1993.
- Peter W. Letkiewicz, Modeling Visual Information Processing: The Theories and Neurophysiological Operations of the Human Visual System, Master's Project, Department of Systems Science, Binghamton University, 1993.
- Gerrald George Pechanek, *PLAN: Pyramid Learning Architecture Neural Computer*, Ph.D. Dissertation, Department of Electrical Engineering, Binghamton University, 1991.
- Lee Dugatkin, *Game Theory and the Evolution of Cooperation: Models and Tests*, Ph.D. Dissertation, Department of Biology, Binghamton University, 1991.

Courses Developed and Introduced

- Constructing the World? (Advanced undergraduate/graduate course, Dept. of Philosophy, Binghamton University).
- 20th Century Philosophy (Advanced undergraduate/graduate course, Dept. of Philosophy, Binghamton University).
- Relativism (Advanced undergraduate/graduate course, Dept. of Philosophy, Binghamton University).
- Consciousness (Junior-level undergraduate course, Dept. of Philosophy, Binghamton University).
- Science and Religion (Junior-level undergraduate course, Dept. of Philosophy, Binghamton University).
- Spinoza, Berkeley, and Quine (Advanced undergraduate/graduate course, Dept. of Philosophy, Binghamton University).
- Consciousness, Science, and Religion I and II (Advanced undergraduate/graduate course. Dept. of Philosophy, Binghamton University).
- Epistemology (Advanced undergraduate course. Dept. of Philosophy, Binghamton University).
- Capstone Seminar in Philosophy (Advanced undergraduate course. Dept. of Philosophy, Binghamton University).
- Philosophy of Mind (Graduate/advanced undergraduate course. Dept. of Philosophy, Binghamton University).
- The Evolution of Immorality (Graduate and Advanced Undergraduate Course, jointly taught with Anne Clark and David Wilson from the Dept. of Biology, Binghamton University).
- Master Class in Cognitive Science (Graduate course for the Program in Philosophy, Computers, and Cognitive Science (PACCS), Binghamton University. Cognitive Scientists from around the country were flown in and give a one day class on their research. Offered for four semesters from Fall 1998 until May 2000).

Artificial Neural Networks (Required PACCS Graduate course, Binghamton University).

Computational Theories of Mind (Required PACCS Graduate course, Binghamton University).

Programming for Cognitive Science (Required PACCS Graduate course, Binghamton University).

Witchcraft and Science (Advanced Undergraduate Course, Dept. of Philosophy, Binghamton University).

Ethics and Evolution (Advanced Undergraduate Course, Dept. of Philosophy, Binghamton University).

Modeling and Simulation Laboratory (Graduate course, Binghamton University).

Cognitive Ethology (Graduate course, Binghamton University, co-taught with Professor Anne Clark, Biology Department).

Introduction to Philosophy: Evolution and Ethics (Undergraduate course, Binghamton University).

Connectionism and the Mind (Graduate course, Binghamton University).

Methodologies for Artificial Intelligence (Graduate course, New Mexico State University).

Faculty Service

Philosophy Club Faculty Advisor 2014 – 2016.

Interim Director of the Undergraduate Program in the Department of Philosophy, September 2013 – August 2014.

Faculty advisor, Philosophy Club, 2012 - present

Director of the SPEL Graduate Program in the Department of Philosophy, 2003 - 2005.

- Director of the Undergraduate Program in the Department of Philosophy, 2000 2003.
- Director of the Graduate Program in Philosophy, Computers, and Cognitive Science (PACCS), Dept. of Philosophy, 1997 2001.

Fellow of Dickinson College, Binghamton University, 1993- present.

Member of the Philosophy Department's Undergraduate Advisory Committee. 1998 - 2000.

Member of Science Across the Curriculum Steering Committee, Binghamton University. 1996-2000.

Member of the Binghamton Univ. Undergraduate Faculty Mentoring Program, 1996 - 1998.

Interim Director of the Undergraduate Program in the Department of Philosophy, Spring semester, 1997.

Faculty Senate, Binghamton University, Department of Philosophy, 1996-1997.

Systems Administrator for the PACCS Sun System Workstation Local Area Network 1991-1999.

Faculty Advisor for Undergraduate Special Interest Housing Module: Computer Science, Robotics and Engineering (CoRE), Dickinson College 1991-1996.

Philosophy Department Representative of Harpur College Council (the arts & science college committee) Spring 1991.

Awards and Honors

- 2006 Douglas Engelbart Keynote Address, North American Computers and Philosophy Conference, Rensselaer Polytechnic Institute, August, 2006.
- 1999 State University of New York's Chancellor's Award for Excellence in Teaching
- 1999 Binghamton University's Award for Excellence in Teaching.
- 1998 *Demorest Lecturer*: Casper College Humanities Festival on Questions of Technology and the Humanities. Lecture title: "Thinking Computers and Virtual Persons." Sponsored by the Wyoming Council for the Humanities. Casper, Wyoming.
- 1995 *Exemplary Alumnus,* Casper College, Awarded on the occasion of the college's 50th Anniversary.
- 1980-1981 Research Fellowship, Computer Science Department, Indiana University.
- 1976 Elected to Phi Beta Kappa Honor Society, University of Wyoming.

Professional Affiliations

American Association for the Advancement of Science American Philosophical Association Association for Advancement Artificial Intelligence (1983 - 2010) Cognitive Science Society.

Significant Climbs

Bolt Face, Red Rocks, Casper Mountain, Wyoming Northwest Dihedrals Bottom and Top, Red Rocks, Casper Mountain, Wyoming Great Roof, Red Rocks, Casper Mountain, Wyoming Great Face, Red Rocks, Casper Mountain, Wyoming Roped solo, Arête Route, Red Rocks, Casper Mountain, Wyoming North Face, Northern Ridge, Red Rocks, Casper Mountain, Wyoming Winter ascent of the South Teton, March, Wyoming, 1974 The Grand Teton, Upper Exum Ridge, Teton National Park, Wyoming, 1975 Baxter's Pinnacle, Cascade Canyon, Teton National Park, Wyoming Cloud Peak, Big Horn Mountains, Wyoming Ream Route, Gannett Peak, Wind River Mountains, Wyoming Two ascents of Devil's Tower, Leaning Column Route and Wiesner, DT National Monument, Wyoming North Face, Lankin Dome, Sweetwater Rocks, Wyoming Roped solo of East Side, Lankin Dome, Sweetwater Rocks (Granite Knobs), Wyoming Onsight solo of Edward's Crack, Vedauwoo State Park, Wyoming Strawberry Jam, Vedauwoo State Park, Wyoming. Orange Christmas, Vedauwoo State Park, Wyoming. Fall Wall and Upper Fall Wall, Vedauwoo State Park, Wyoming E. O. Lieback, Vedauwoo State Park, Wyoming Cold Finger, Vedauwoo State Park, Wyoming TM Chimney, Vedauwoo State Park, Wyoming Walt's Wall Route, Vedauwoo State Park, Wyoming

Mantle Route, Vedauwoo State Park, Wyoming 5.7 Cracks, Vedauwoo State Park, Wyoming Roped solo, Southwest Friction and Kim, Poland Hill, Vedauwoo State Park, Wyoming Old Main (several ascents), Medicine Bow Peak, Snowy Range, Wyoming Diamond (several ascents), Medicine Bow Peak, Snowy Range, Wyoming School House (several ascents), Medicine Bow Peak, Snowy Range, Wyoming Unnamed Route, Mt. Lemmon, Tucson, Arizona Granite Dells (several ascents), Prescott, Arizona East Slab, The Dome, Boulder Canyon, Boulder, Colorado Third Flatiron, Flatirons, Boulder Colorado Bastille Crack, Eldorado Canyon, Boulder Colorado Roped solo, unnamed face, upper Eldorado Canyon, Boulder Colorado The Bulge, Eldorado Canyon, Boulder Colorado Calypso, Wind Tower, Eldorado Canyon, Boulder Colorado Love, NCAR, Ridge 1, Boulder Colorado Matron, North Face, Boulder Colorado Organ Mountains (and environs), Las Cruces, New Mexico, various rock climbs Gunks and Minnewaska State Park, Shawangunk Ridge, New York, various well-known and not-so-wellknown rock climbs.

(*last revised:* 6/2017)