Carl F. Craver Department of Philosophy; Philosophy Neuroscience and Psychology Washington University in St. Louis St. Louis, MO 63130 Ph. (314) 398-9819 ccraver@wustl.edu

AREAS OF SPECIALIZATION: *Philosophy of science*, with particular emphasis on the philosophy of cognitive science, neuroscience, and psychology. *Philosophy of mind*, with particular emphasis on memory, self, personhood, and agency. *History of neuroscience*, with particular emphasis on electrophysiology. *Cognitive Neuropsychology*, with particular emphasis on episodic memory and its role in decision-making.

EMPLOYMENT:

SU 2018	Visitor, University of Otago, Dunedin, NZ.
SP 2018	Visiting Fellow, SAGE Institute, Santa Barbara, CA.
FL 2017	Visiting Professor. Macquarie University, Sydney Australia.
2015	Visiting Professor. Macquarie University, Sydney Australia.
2013	Visiting Fellow, SAGE Institute, Santa Barbara, CA.
2012-Present	Professor. PNP Program. Washington University in St. Louis.
2012	Visiting Fellow, Universität Osnabrück.
2007-2012	Associate Professor. PNP Program, Washington University in St. Louis.
2010	Visiting Professor of Philosophy, Universität zu Köln.
2010 - 2011	Affiliated Faculty, University of Maryland, College Park.
2001-2007	Assistant Professor of Philosophy. PNP Program. Washington University in St. Louis.
1999-2001	Assistant Professor of Philosophy. Florida International University, Miami, FL.
1999	Post-Doctoral Fellow sponsored by National Science Foundation. Research Associate, Committee on the History and Philosophy of Science, and Instructor, University of Maryland, College Park.
1998	Cognitive Studies Post-Doctoral Fellow, Department of Philosophy; Research Associate, Committee on the History and Philosophy of Science, University of Maryland at College Park.
EDUCATION:	
Ph.D.	University of Pittsburgh, History and Philosophy of Science (1998) Thesis: "Neural Mechanisms: On the Structure, Function, and Development of Theories in

	Thesis: "Neural Mechanisms: On the Structure, Function, and Development of Theories in
	Neurobiology." Committee: P. Machamer (Chair), R. Olby, W. Salmon, K. Schaffner, and S.
	Small.
M.S.	University of Pittsburgh, Neuroscience (1996)
	Thesis: "Osmoregulation in Water-Deprived Rats Drinking NaCl Solutions."
	Committee: E. Stricker (Chair), J., A. Sved, W. Yates, and L. Rinamin.
B.A.	University of Pittsburgh, Philosophy, with honors (1989)
	Thesis: "Forgetting Yourself: The Memory Criterion of Personal Identity" (Joseph Camp and
	Richard Gale)

PUBLICATIONS:

Books

- Craver, C.F. and Darden L. (2013) In Search of Mechanisms: Discoveries Across the Life Sciences. University of Chicago Press: Chicago. Winner 2014 ALA Choice Award for Top 25 Outstanding Academic Titles.
- Craver, C.F. (2007) *Explaining the Brain: Mechanisms and the Mosaic Unity of Neuroscience*. Clarendon Press: Oxford.

Edited Books (forthcoming)

- J. Bickle, C.F. Craver, A.S. Barwich eds. (2022) Tool Use in Neuroscience. Routledge.
- C. Craver and C. Klein (forthcoming) Mind Design III. MIT PRESS.

Peer Reviewed Journal Articles

- Francken, J., Slors, M, and Craver, C.F., (forthcoming) Cognitive ontology and the search for neural mechanisms. *Synthese*.
- Craver, C.F., and Dan-Cohen, T. (2021) Experimental Artifacts. British Journal for the Philosophy of Science.
- Craver, C. F., Glennan, S., & Povich, M. (2021). Constitutive relevance & mutual manipulability revisited. *Synthese*. <u>https://doi.org/10.1007/s11229-021-03183-8</u>
- Mok, Jenkin N. Y., Leonard Green, Joel Myerson, Donna Kwan, Jake Kurczek, Elisa Ciaramelli, Carl F. Craver, and R. Shayna Rosenbaum. (2021) Does Ventromedial Prefrontal Cortex Damage Really Increase Impulsiveness? Delay and Probability Discounting in Patients with Focal Lesions. *Journal of Cognitive Neuroscience*, July 7, 2021, 1–19. <u>https://doi.org/10.1162/jocn_a_01721</u>.
- Ciaramelli, E., De Luca, F., Kwan, D., Mok, J., Bianconi, F., Knyagnytska, V., Craver, C., Green, L., Myerson, J., & Rosenbaum, R.S. (2021). The role of ventromedial prefrontal cortex in reward valuation and future thinking during intertemporal choice. *ELife*, *10*, e67387. <u>https://doi.org/10.7554/eLife.67387</u>
- Dozmorov, M. G., Cresswell, K. G., Bacanu, S.-A., Craver, C., Reimers, M., & Kendler, K. S. (2020). A method for estimating coherence of molecular mechanisms in major human disease and traits. *BMC Bioinformatics*, 21(1), 473. <u>https://doi.org/10.1186/s12859-020-03821-x</u>
- Mok, J.N.Y., Kwan, D., Green, L., Myerson, J., Craver, C.F., Rosenbaum, R. S. (2020) Is it time? Episodic imagining and the discounting of delayed and probabilistic rewards in young and older adults. *Cognition*. 199.
- Craver, Carl F., Mikhail Dozmorov, Mark Reimers, and Kenneth S. Kendler. (2020) Gloomy Prospects and Roller Coasters: Finding Coherence in Genome-Wide Association Studies. *Philosophy of Science* 87, no. 5: 1084– 95.
- Craver, C.F. (2020) "Remembering: Epistemic and Empirical" Memory and Philosophy. 11:2.
- Craver, C.F. and Kaplan, D. (2020) Are More Details Better? On the Norms of Completeness for Mechanistic Explanations. *British Journal for the Philosophy of Science*. <u>https://doi-org.libproxy.wustl.edu/10.1093/bjps/axy015</u>

Craver, C.F. (2019) Mechanism and Idealization: A Reply to Bokulich. The Monist. 102:525-530.

- Reimers, M., Craver, CF, Dosmorov, M., Bacanu, S. and Kendler, K. (2018) The Coherence Problem: Finding Meaning in GWAS Complexity" *Behavioral Genetics*. 49:187-195.
- Keven, N., Kurczek, J., Rosenbaum, R.S., Craver, C.F. (2017) "Narrative Construction is Intact in Episodic Amnesia" *Neuropsychologia*. 110: 104-112.
- Craver, C.F. and Povich, M. (2017) "The Directionality of Distinctively Mathematical Explanations." *Studies in the History and Philosophy of Science*. 63:31-38.
- Craver, C.F. (2016) "The Explanatory Force of Network Models." Philosophy of Science. 83: 698-709.
- Craver, C.F., Keven, N., Kwan, D., Kruczek, J., Duff, M., Rosenbaum, R.S. (2016) "Moral Judgment in Episodic Amnesia" *Hippocampus* 26: 975-979.
- Rosenbaum, R. S., D. Kwan, D. Floden, B. Levine, D. T. Stuss, and C. F. Craver. (2016). "No Evidence of Risk-Taking or Impulsive Behaviour in a Person with Episodic Amnesia: Implications for the Role of the Hippocampus in Future-Regarding Decision-Making." *The Quarterly Journal of Experimental Psychology*, 1–13.
- Kwan, D., C.F. Craver, L. Green, J. Myerson, F. Gao, S.E. Black, R. S. Rosenbaum (2015) "Cueing the Personal Future to Reduce Discounting in Intertemporal Choice: Is Episodic Prospection Necessary?" *Hippocampus* 25: 432-443.
- Malinowski, S. and Craver, C.F. (2014) "The Spine Problem: Finding a Function for Dendritic Spines." *Frontiers in Human Neuroscience*. 8: 95-97.
- Craver, C.F., Cova, F., Green, L., Myerson, J., Kwan, D., Rosenbaum, S.F., and Bourgeois-Gironde, S. (2014) "An Allais Paradox without MentalTime Travel." *Hippocampus*. DOI: 10.1002/hipo.22318
- Craver, C.F. Kwan, D., Steindam, C., and Rosenbaum, R.S. (2014) "Individuals with Episodic Amnesia are not Stuck in Time" *Neuropsychologia* 57:191-195.
- Craver, C.F., Graham, B., and Rosenbaum, R.S. (2014) "Remembering Mr. B" Cortex DOI: 10.1016/j.cortex.2013.11.001
- Kwan, D., Craver, C.F., Green, L., Myerson, J., Rosenbaum, S. R. (2013) "Dissociations in Future Thinking Following Hippocampal Damage: Evidence from Discounting and Time Perspective in Episodic Amnesia" *Journal of Experimental Psychology, General.* 142 (4), 1355.
- Craver, C.F. (2012) "A Preliminary Defense of Amnesic Selves: Toward a Clinical Moral Psychology" Social Cognition 30: 449-473.
- Kwan, D., Craver, C.F., Green, L., Myerson, J., Boyer, P., Rosenbaum, R.S. (2011) "Future Decision-Making without MentalTime Travel" *Hippocampus* 22: 1215-19.
- Piccinini, G. and Craver, C.F. (2011) "Integrating Psychology and Neuroscience: Functional Analyses as Mechanism Sketches" *Synthese* 183: 283-311.
- Kaplan, D.M. and Craver, C.F. (2011) "The Explanatory Force of Dynamical Models" *Philosophy of Science* 78 (4): 601-627.
- Craver, C.F. (2010) "Prosthetic Models." Philosophy of Science 77: 840-851.
- Kendler, K., Zachar, P., and Craver, C.F. (2010) "What Kinds of Things are Psychiatric Disorders?" Psychological Medicine 41: 1143-1150.

Robins, S.K. and Craver, C.F. (2010) "No-Nonsense Neuro-Law" Neuroethics (available online).

- Craver, C. F. (2009) "Mechanisms and NaturalKinds" Philosophical Psychology 22: 575-594.
- Craver, C. F. (2008) "Physical Law and Mechanistic Explanation in the Hodgkin and Huxley Model of the Action Potential" *Philosophy of Science* 75: 1022–1033.
- Craver, C.F. and Alexandrova, A. (2008) "No Revolution Necessary: Neural Mechanisms for Economics" *Economics and Philosophy* 24 (3): 381-406.
- Craver, C.F. (2007) "Constitutive Relevance" Journal of Philosophical Research 32: 1-30.
- Craver, C.F. and Bechtel, W.M. (2007) "Top-down Causation without Top-down Causes" *Biology and Philosophy* 22: 547-563.
- Wilson, R.A. and Craver, C.F. (2006) "Realization" in P. Thagard, ed., *Elsevier Handbook of the Philosophy of Psychology and Cognitive Science*. Dordrecht: Elsevier. 81-104.
- Craver, C.F. (2006) "When Mechanistic Models Explain" Synthese 153: 355-376.
- Craver, C.F. and L. Darden (2005) "Introduction" *Studies in History and Philosophy of Biological and Biomedical Sciences* 36:233-244.
- Craver, C.F. (2005) "Beyond Reduction: Mechanisms, Multifield Integration, and the Unity of Science" *Studies in History and Philosophy of Biological and Biomedical Sciences* 36:373-396.

Trans. into French in J. Gayon and Thomas Pradeu editors, *Anthology in Philosophy of Biology*. Les Editions Vrin, Paris.

- Craver, C.F. (2004) "Dissociable Realization and Kind Splitting" Philosophy of Science 71:960-971.
- Craver, C.F. (2003) "The Making of a Memory Mechanism" Journal of the History of Biology 36: 153-195.
- Craver, C.F. (2002) "Interlevel Experiments and Multilevel Mechanisms in the Neuroscience of Memory" *Philosophy of Science* Supplemental 69: S83-S97.
- Darden, L. and Craver, C.F. (2002) "Strategies in the Interfield Discovery of the Mechanism of Protein Synthesis" Studies in History and Philosophy of Biological and Biomedical Sciences 33: 1-28.
- Craver, C.F. (2001) "Role Functions, Mechanisms and Hierarchy" Philosophy of Science 68: 31-55.
- Craver, C.F., and Darden, L. (2001) "Discovering Mechanisms in Neurobiology: The Case of Spatial Memory" in P.K. Machamer, R. Grush, and P. McLaughlin (eds.), *Theory and Method in Neuroscience* Pittsburgh, PA: University of Pittsburgh Press. 112-137.
- Stricker, E.M. Craver, C.F., K.S. Curtis, K.A. Peacock-Kinzig, A.F. Sved and J.C. Smith (2001) "Osmoregulation in Water-Deprived Rats Drinking Concentrated NaCl Solutions: Effect of Area Postrema Lesions" American Journal of Physiology 280: R831-R842.

Machamer, P.K., Darden, L and Craver, C.F. (2000) "Thinking about Mechanisms" Philosophy of Science 67:1-25.

Translated into Italian (2007) as "Riflettere sui meccanismi" in Raffaella Campaner (ed.), La causalità tra filosofia e scienza. Bologna: Gedit Edizioni, , pp. 153-168. (Appeared in 2008)

Translated into Polish (2011). "Myślenie w kategoriach mechanizmów", *Przegląd Filozoficzno-Literacki* 2-3 (31): 145-173.

Translated into French (2011/12). "Réflexion sur les Mécanismes" in J. Gayon and Thomas Pradeu editors, *Anthology in Philosophy of Biology*. Les Editions Vrin, Paris.

Book Chapters and Encyclopedia Pieces.

- Craver, C.F. "Optogenetics and Maker's Knowledge" (2022) in J. Bickle, A.S. Barwich, and C.F. Cravereds. *Tool Use in Neuroscience*. Routledge.
- Craver, C.F. and Rosenbaum, S.R. (2018) "Consent without Memory" in Michalean, K. ed. New Essays in the *Philosophy of Memory*.
- Craver, C.F. and Povich, M. (2017) "Mechanistic Levels, Reduction, and Emergence" S. Glennan and P. Illari, eds., *Routledge Handbook of Mechanisms*. 185-205.
- Craver, C.F. (2017) "Stochastic Supervenience" in Feest and Biener, eds. *Epur Si Muove: Doing History and Philosophy of Science with Peter Machamer.* Springer.
- Roskies, A.R. and Craver, C.F. (2016) "The Philosophy of Neuroscience" in Paul Humphreys, ed. Encyclopedia of Philosophy of Science.
- Craver, C.F. and J. Tabery (2015) "Mechanisms in Biology" Stanford Encyclopedia of Philosophy.
- Craver, C.F. (2015) "Levels." OpenMIND Project. Open-mind.net/papers
- Craver, C.F. (2015) "Mechanisms and Emergence." OpenMIND Project. Open-mind.net/papers
- Craver, C.F. (2014) "The Ontic Account of Scientific Explanation" in Andreas Hütteman and Marie Kaiser eds. Explanation in the Biological and Historical Sciences. Springer.

Romero, F. and Craver, C.F. (2014) "Dispositions." Encyclopedia of Clinical Psychology. Wiley-Blackwell.

- Craver, C.F. (2013) "Functions and Mechanisms: A Perspectivalist Account" in P. Huneman, ed. *Functions*. Springer.
- Kaiser, M. and Craver, C.F. (2013) "Mechanisms and Laws: Clarifying the Debate" (accepted) in Hsiang-Ke Chao, Szu-Ting Chen and Roberta L. Millstein, eds. *Mechanism and Causality in Biology and Economics*, Springer.

Craver, C.F. (2013) "Mechanisms, multilevel" Springer Encyclopedia of Systems Biology.

- Craver, C.F. and Bechtel, W. (2013) "Interlevel Causation" Springer Encyclopedia of Systems Biology. 1044-1047.
- Craver, C.F. and Kaplan, D.M. (2011) "Towards a Mechanistic Philosophy of Neuroscience" Peter French and J Saatsieds. *Introduction to the Philosophy of Science*. London, UK: Continuum Press.
- Darden, Lindley and Craver, Carl F (2009) "Reductionism in Biology." In *Encyclopedia of the Life Sciences*. John Wiley & Sons, Ltd: Chichester http://www.els.net

- C.F. Craver and Robins, S.K. (2009) "Biological Clocks: Explaining with Models of Mechanisms" Oxford Handbook of Philosophy and Neuroscience. Oxford University Press: Oxford, USA, pp. 41-67.
- C.F. Craver (2009) "Neural Mechanisms," in J. Symons and P. Calvo, eds., *Routledge Companion to the Philosophy* of Psychology. Routledge. N.J. Ch. 24.
- C.F. Craver (2008) "Functions and Mechanisms in Neuroscience" in P. Poirier, L. Faucher, E. Racine and E. Ennan (eds). *Des neurones à la conscience: Neurophilosophie et philosophie des neurosciences*. Bruxelles: De Boeck Université,
- C.F. Craver (2007) "Julius Axelrod" in N. Koertge, ed. Dictionary of Scientific Biography. Gale/Cengage, p. 122.
- C.F. Craver and W. Bechtel (2005) "Mechanisms and Mechanistic Explanation" in S. Sarkar and J. Pfeiffer, eds. *The Philosophy of Science: An Encyclopedia*. Routledge Press, pp. 469-478
- C.F. Craver (2001) "Structures of Scientific Theories" in P.K. Machamer and M. Silberstein, eds. *Blackwell Guide* to the Philosophy of Science. Blackwell: Oxford, pp. 55-79.
- C.F. Craver (2005) "T.S. Kuhn" Encyclopedia Americana.
- C.F. Craver (2005) "I. Lakatos" Encyclopedia Americana.

Book Reviews, Commentaries and Misc.

- Craver, Carl, Krickel, Beate, "Mechanisms in Science." *Oxford Bibliographies in Philosophy*. Ed. Duncan Pritchard. New York: Oxford University Press, 30 October 2019.
- Craver, C.F. (2018) Review of Glennan's New Mechanical Philosophy. The British Journal for the Philosophy of Science. <u>https://bjpsbooks.wordpress.com/2018/02/19/stuart-glennan-the-new-mechanical-philosophy/</u>
- Povich, M. and Craver, C.F. (2018) Review of Lange's Because without Cause. Philosophical Review 127: 422-426.
- Henry, J. and Craver, C.F. (2018) "Episodic Memory as an Epistemic Trump Card" Behavioral and Brain Sciences.
- Kaplan, D.M. and Craver, C.F. (2016) "A Registration Problem for Functional Fingerprints" *Behavioral and Brain Sciences* Commentary. 39: e124.
- C.F. Craver (2015) "Book Review: The Memory Process by Nalbantian," et al. Memory Studies. 8: 117-124.
- C.F. Craver (2012) "Pope Benedict XIV and the Galileo Affair: An Interview with Maurice Finocchiaro" WUSTL Humanities Newsletter.
- C. F. Craver (2007) "Commentary on Trout" and "Commentary on Wolff." *Philosophy of Science Archives* . <u>http://philsci-archive.pitt.edu/archive/00003402/01/CMP_synopsis_final.doc</u>
- C.F. Craver (2006) Review of Eliot Valenstein's The War of the Soups and the Sparks. Isis 97: 803-804.
- B. Towl, J.D. Halverson, and C.F. Craver (2003) "Clark Glymour's *Mind's Arrows*: An Elusive Target" *Philosophical Psychology* 16: 157-164.
- C.F. Craver (2002) "Self Reflection: Review of Gallagher and Shear's *Models of the Self*" *Philosophical Psychology* 15: 213-216.

- C.F. Craver (2001) "Searching for Common Ground" (Golledge ed., *Wayfinding Behavior: Cognitive Mapping and Other Spatial Processes*) in *Psychologuy*. http://www.cogsci.ecs.soton.ac.uk/cgi/psyc/newpsy?11.111
- C.F. Craver and S.L. Small (1997) "Subcortical Aphasia and the Problem of Attributing Functional Responsibility to Parts of Distributed Brain Processes" *Brain and Language* 58: 427-35.

Articles/Films Translated:

- Graham, B. and Craver, C.F. trans. Gustav Störring (1936) "Memory loss through gas poisoning: A man without memory of time." Reprinted in *Cortex*.
- Graham, B. and Craver, C.F., trans. and subtitle: Memory loss through gas poisoning: A man without memory of time. Cortex.

Textbooks

W. Bechtel, A. Abrahamsen, P. Bradley, and C.F. Craver (circa 2003) *Inquiry*. Interactive Web Text on research methods for cognitive science. Includes basic critical thinking, experimental design, logic, philosophy of science, statistics, and history of cognitive science. Currently being used at UCSD and McMaster University.

Journal Issue Edited:

Craver, C.F., and Darden, L. eds. (2005) *Mechanisms in Biology*. With introduction. *Studies in the History and Philosophy of Biology and the Biomedical Sciences*. Includes selected papers from the 2nd Biennial Reichenbach Conference at Washington University, St. Louis.

GRANTS and Awards:

NSF Grant (2022-23) Episodic Memory and Time.

Outstanding Faculty Mentor Award (2018) Washington University in St. Louis.

Templeton Award: "Finding Coherence in GWAS" with Ken Kendler, Mark Reimers, Silviu Bacanu (2016-2018).

Arts and Sciences Teaching Innovation Grant. An EEG Tutorial for Inquiry in the Cognitive Sciences. (2017).

Choice Award for Outstanding Academic Titles for In Search of Mechanisms. (2014).

NEH Collaborative Grant "Discovering Biological Mechanisms" with Lindley Darden. (2010).

Center for Programs Grant "Memory and Moral Psychology" Washington University in St. Louis. (2008-11).

- NSF Grant "Historical, Philosophical, and Social Perspectives on Behavioral Genetics" with Sarah K. Robins and D.E. Goodman-Wilson (2008).
- Center for the Study of Human Values Development Grant, Washington University in St. Louis, "Memory and Moral Psychology." (Fall 2007).
- John T. Pisano Travel Grant, Office of NIH History, Bethesda, MD. (Fall 2005).
- Center for the Study of Human Values Development Grant, Washington University in St. Louis. "Neuroethics" with Joel Anderson. (Fall 2002).

- McDonnell Center for Higher Brain Function Grant. "The History of Long-Term Potentiation: Discovering Multilevel Mechanisms in the Neuroscience of Memory" (Summer 2002).
- Fund for the Improvement of Post-Secondary Education Grant with Bill Bechtel and Adele Abrahamson. "Inquiry in the Cognitive Sciences" (Summer 2001).
- Templeton Course Award, "Science and the Soul," with Paul Draper from the Center for Theology and Natural Science. (Fall 2000).

National Science Foundation Grant (SBR-9817942) with L. Darden. "Discovering Mechanisms" (Spring 1998).

CONFERENCES and WORKSHOPS ORGANIZED:

- "St. Louis Area Philosophy of Science Association" (SLAPSA XII) with Kent Staley, scheduled for St. Louis University but conducted via Zoom.
- "Midwest Memory Mayhem" with Sarah Robins and Marya Schectman at Washington University in St. Louis. Spring, 2020.
- "Neurotechnology" workshop with John Bickle at the University of Pittsburgh Center for Philosophy of Science. Spring, 2020.
- "Wilderness Symposium in the History and Philosophy of Biology VI" with Jim Tabery. Aurlundsdalen Valley, Norway. Summer 2019.
- St. Louis Area Philosophy of Science Assocation (SLAPSA XI) with Kent Staley at Washington University in St. Louis. Spring 2019.
- "Mechanisms: What do we know? Where are we going?" With Stuart Glennan at Butler University in Indianapolis March, 2019.
- "Wilderness Symposium in the History and Philosophy of Biology V: Shaw Nature Reserve" 2017. with Gar Allen and James Tabery.
- "Neuroscience and Decision-Making" with Julia Haas. Washington University in St. Louis. 2016.
- "Wilderness Symposium in the History and Philosophy of Biology IV: Saranac Lake" with James Tabery, Kevin Amidan. 2015.
- "St. Louis Area Philosophy of Science Association (SLAPSA VII)" with Kent Staley. St. Luis University. 2015.
- "Wilderness Symposium in the History and Philosophy of Biology III: Verdon Gorges" with James Tabery, Gar Allen, and Kevin Amidon. 2013.
- "Wilderness Symposium in the History and Philosophy of Biology II: Zion" with Jim Tabery and Kevin Amidon, Zion National Park, Utah. 2011.
- "St. Louis Area Philosophy of Science Association (SLAPSA IV)" w/ Kent Staley, St. Louis University. 2011.
- "Peterfest: A Conference in Honor of Peter Machamer" University of Pittsburgh Center for Philosophy of Science, October 2009.
- "Wilderness Symposium in the History and Philosophy of Biology I: Frasier Island" With Jim Tabery and Gar Allen. Frasier Island, Australia. 2009.

- "St. Louis Area Philosophy of Science Association (SLAPSA II)" with Kent Staley and Gualtiero Piccinini, January 2009. St. Louis University, St. Louis.
- "Future Directions in Behavioral and Psychiatric Genetics" with Don Goodman and Sarah Robins. Washington University in St. Louis. Summer 2008.
- "St. Louis Area Philosophy of Science Association (SLAPSA I; Inaugural Meeting)" with Kent Staley and Gualtiero Piccinini. January 2008. Washington University in St. Louis.
- "Toward an Integrated Science of Memory: Are We There Yet?" With Susan Fitzpatrick, Ellen Landers, and the James S. McDonnell Foundation. January 8-10, 2004. La Jolla, California.
- "Fashioning a Mechanistic Philosophy of Science" Third BiannualReichenbach Conference, November 15-17, 2003, Washington University in St. Louis.

"Neuroethics of Brain Damage" with Joel Anderson, January 14, 2002. Washington University.

SYMPOSIA ORGANIZED:

- "Cognitive Ontology" (with Caroline Stone) Washington University in St. Louis. Spring 2017.
- "Policing, Race, and the Mind" Washington University in St. Louis. (With Julia Haas) Spring 2015.
- "The ethical consequences of cognitive science" Washington University in St. Louis, Spring 2014.
- "Finding Humanity in Advanced Dementia" Washington University in St. Louis. Spring 2013 (with Richard Rubin and Jeff Dauer)
- "The Forgotten Life of Mr. B." 2012. A PNP Symposium at Washington University in St. Louis. Participants: Shayna Rosenbaum, Pascal Boyer, Gerhild Williams, Ben Graham.
- "Laws and Explanation: Lessons from Hodgkin and Huxley" *Philosophy of Science Association*. Vancouver, CA 2006.
- "Making Sense of Top-Down Causation" International Society for the History, Philosophy and Social Studies of Biology. Vienna, Summer 2003.
- "Realization and Explanation in Contemporary Neuroscience" *Philosophy of Science Association* Milwaukee: 2002. Participants: Carl Craver, Tom Polger, Barbara Von Eckardt and Rob Wilson.
- "Explanation and Discovery in the LTP/Learning and Memory Debate" for International Society for History, Philosophy, and Social Studies of Biology Meeting, 2001. Quinepeac, CN.

"Experimentation in Neuroscience" with V. G. Hardcastle, Philosophy of Science Association, 2000, Vancouver.

INVITED TALKS:

"Memory, Time, and Decisions-Making" University of Warwick June 2022.

- "Memory and Moral Decision-Making" University of Warwick. May 2022.
- "Philosophy and Science: A personal view" UCSB, March 2022.
- "Memory and time" and "In defense of the ontic conception" Johns Hopkins Philosophy and Neuroscience; November 2021

"What is the value of memory in a human life?" Butler University, October 2021.

- "Memory and Agency" Universidad de los Andes October 2021.
- "Prediction and Explanation in the Ventral Stream" GAC Conference for Computational Neuroscience, Septemer 2021.
- "Memory and Moral Decision-Making" Bochum Philosophy of Memory, June 2021.
- "Explanatory Knowledge and Maker's Knowledge" Neurorehabilitation group, WUSTL. March 2021.
- "Memory and Personhood" Bordeaux via skype July 3, 2020
- "Memory: Epistemic and Empirical" Utrecht, ND.
- "Memory and Moral Decision-Making" and "Gloomy Prospects and Roller Coasters" University of Wichita, NB.
- "Memory and Moral Decision-making" University of California, Merced, January 2019.
- "Mutual Manipulability Redux" University of Otago
- "Mutual Manipulability Redux" Online Conference on Neural Mechanisms, Spring 2018.
- "Consent without Memory" UCSB, Spring 2018.
- "Network models and Mechanistic Explanations" UCSB, Spring 2018.
- "Episodic Memory: Normative and Empirical" UCSB, Spring 2018.
- "Episodic Memory and Moral Agency" Dartmouth, Fall 2017.
- "Consent without Memory" Macquarie University, Fall 2017.
- "The Directionality of Distinctively Mathematical Explanations" Macquarie University, Fall 2017.
- "Levels and Interdisciplinarity" Penn State University, Workshop On Interdisciplinarity. Spring 2017.
- "Are More Details Better?" University of Cincinnati. Fall 2016.
- "The Explanatory Power of Network Models" Centro Lombardo; Mexico City. Fall 2016.
- "New Thoughts on Mechanisms and Natural Kinds" Centro Lombardo; Mexico City. Fall 2016.
- "Are More Details Better?" UNAM, Mexico City. Fall 2016.
- "Memory and the Space of Reasons" University of Toledo; Fall 2016.
- "Are More Details Better?" Philosophy; University of Helsinki. Fall 2016.
- "Ideals of Mechanistic Completeness: Are More Details Better?" Warsaw, Poland, Summer 2016.
- "Networks and Explanation" Society for Computing and Philosophy. Ferrara, Italy. Summer 2016.
- "Episodic memory and human agency" Seminar in Philosophy and Neuroscience, Duke Summer 2016.
- "Distinctively Mathematical Explanations Reconsidered" IHPST, Paris. Summer 2016.

"Are More Details Better?" Universidad de los Andes. Spring 2016.

- "Networks and Mechanistic Explanations" Rotman Institute, University of Western Ontario.
- "Memory and Moral Agency" Philosophy Department, University of Western Ontario.
- "Networks, Patterns, and Explanation" Berlin School for the Mind and Brain. Dec. 2015.

"Memory and Agency" Berlin School for the Mind-Brain. Dec. 2015

- "Mechanistic theories of psychiatric kinds" Leuven, Belgium. Oct 2015.
- "Integrating Philosophy and Neuroscience" Duke Philosophy of Neuroscience Colloquium. September 2015.
- "Episodic Memory, Time, and Practical Reason" Franke Program. Yale. Spring 2015.
- "Graphing the Dark Energy of the Brain" Shulman Neuroimaging Laboratory. Yale.
- "Episodic Memory and the Self." University of Illinois Chicago Circle Fall 2014.
- "Memory, Time, and Agency" University of Illinois Chicago Circle Fall 2014.
- "Jacques Loeb's Mechanism" Conference in Honor of Gar Allen. WUSTL; Fall 2014.
- "Integrating Multilevel Mechanisms" Bochum Mind-Brain Summer School. Summer 2014.
- "Memory and Temporal Consciousness" Bochum Mind-Brain Summer School. Summer 2014.
- "Social Mechanisms" Stockholm Social Science Roundtable. Spring 2014.
- "Memory and Temporal Consciousness" APA (Pacific) Spring 2014.
- "Graphing the Dark Energy of the Brain: Network Theory and Brain Mechanisms" Conference on Experimentation in Neuroscience. University of Pittsburgh. Fall 2013.
- "Amnesia and Temporal Consciousness" Department of Neurobiology and Anatomy, WUSTL. Fall 2013.
- "Explanation: The Ontic Conception" Missouri Philosophy of Science Association. Columbia, MO. Fall 2013.
- "Memory and Temporal Consciousness" Department of Zoology, Cambridge, UK.
- "Graphing the Dark Energy of the Brain: Network Theory and Brain Mechanisms" Conference on Mechanism and Topology. Belgrade, Serbia. Summer 2013.
- "Amnesics are not Stuck in Time" American Philosophical Association (Spring 2013)
- "Mechanisms and Explanation"; "Levels of Explanation: Some Mechanistic Ground Rules"; "Memory and Moral Psychology"; "Optogenetics and the Ascendancy of Maker's Knowledge". Distinguished Visiting Scholar Lecture Series (Four Talks, UCSB, Jan 2013)
- "Optogenetics and Maker's Knowledge" Tsching-Hua University, Taiwan (Fall 2012)
- "Memory, Time and Agency" University of California, Davis (Fall 2012)
- "Amnesia, Time and Agency" Pittsburgh Area Philosophy Workshop (Fall 2012)

"Levels in Neuroscience and Beyond" Philosophy Department, Gröningen, Netherlands

"Stochastic Supervenience?" Metaphysics of Science Workshop, Berlin, German (Summer 2012).

"Optogenetics and Maker's Knowledge" Center for Integrative Neuroscience, Teubingen, Germany (Summer, 2012).

"Memory and Agency: A Clinical Perspective" Department of Philosophy, Teubingen, Germany (Summer, 2012)

"Systems Explanation: An Ontic Account" Workshop on Systems Biology, Munich, Germany (Summer 2012)

- "Explanation: The Ontic Account"
- "Intervention in Biological Experiments: The Progress of Optogenetics" Minnesota Center for the Philosophy of Science. Workshop on Causality in the Sciences. (Spring 2012).
- "A Preliminary Defense of Amnesic Selves" Hendrix College. (Spring 2012)
- "Forgotten Selves: Amnesia and Moral Agency" Florida International University. (Spring 2012)
- "The Ontic Conception" Duke University (Spring 2012)
- "First Person Present: The Forgotten Life of Mr. B" Harvard University (Spring 2012)
- "Mechanistic Explanations for Dynamical Systems: An Ontic View" MIND Workshop, Frankfurt, Germany. (Fall 2011).
- "Memory and Moral Psychology" MIND Workshop, Frankfurt, Germany. (Fall 2011).
- "Amnesia and Practical Reason" University of Illinois, Chicago. (Fall 2011).
- "Lessons from Hodgkin and Huxley for Computational Neuroscience" Center for Advanced Studies, Hebrew University. Conference on Mechanisms and Computation. Spring 2011.
- "Optogenetics, Mechanisms, and Maker's Knowledge of the Brain" Weinberg Symposium on Optogenetics, University of Michigan. (Spring 2011).
- "In Defense of the Ontic Conception: Explanation and the Causal Structure of the World" Universität zu Köln. Spring 2011).
- "Toward an Epistemic Conception of Episodic Memory" Ruhr Universitåt, Bochum. (Spring 2011).
- "Memory and Moral Psychology" Univesitåt Osnabrück. (Spring 2011).
- "Optogenetics and Maker's Knowledge" Conference on Causality and Counterfactuals, ENS, Paris. (Spring 2011). Also delivered in Minnesota at the Center for Philosophy of Science for a Conference on Causation in Biology.

With Gualtiero Piccinini "Philosophy and the Brain: Computation, Realization, Representation,"

Saint Louis University, St. Louis, MO, (September 2010).

University of Missouri, Columbia, MO, (October 2010).

Hebrew University of Jerusalem, (May 2011).

"Episodic Memory and Moral Agency," Duke University (Winter 2011).

"Levels, Levels, and Levels" at Conference in Honor of William, University of Chicago (Spring 2010).

- Workshop on "Mechanisms, levels, and reduction" at the University of the Basque Country, San Sebastian, Basque Country. (Spring 2009).
- "Memory and Moral Psychology" University of Waterloo, BRAINDAY; York University; University of Utah; Georgia State University.

"Mechanisms and Natural Kinds" Kent, Canterbury UK (Fall 2009); IHPST Paris.

"Memory and Moral Psychology" Kazimierz Naturalism Workshop, Kazimierz Poland (Fall 2009)

"A field guide to levels" University of Maryland, College Park (Summer 2009)

"General Discussion" Workshop on Cognition (Adelaide, Australia Summer 2009)

"Mechanisms and Reduction" Hebrew University, Jerusalem, Israel (Spring 2009)

"A Field Guide to Levels" Tel Aviv University, Israel (Spring 2009)

"Why the Hodgkin-Huxley Model Does Not Explain the Action Potential" University of Chicago (Spring 2009)

"Levels and Reductionism in the Science of the Mind-Brain" Trondheim, Norway (Spring 2009)

"Mechanisms and Natural Kinds" Metaphysics of Science Symposium, University of Cincinnati (Spring 2009)

"The Mechanistic Alternative to Reduction" University of Lausanne, Switzerland (Winter 2008)

"The Mechanistic Alternative to Reduction" Donders Institute, Netherlands (Winter 2008)

"The Mechanistic Anti-Reductionist Consensus" University of Osnabrück, Germany. (Winter 2008)

- "Memory and Moral Psychology: Amnesia and Moral Responsibility." Bowling Green State University (March 2008).
- "Experiments, Instruments, and the Causal Structure of the World" UCSD. Spring 2008.
- "The action potential as epistemic object" conference on Epistemic Objects at Max Planck Institut fur Wissenschaftliches Geschichte. Berlin, Germany. (May 2008).

"Avoiding Spurious Unification" (March 2008). Virginia Commonwealth University; Psychiatry Grand Rounds.

- "Avoiding Spurious Unification: LTP as a Case Study in the Philosophy of Neuroscience" University of Munich, Germany. (Feb. 2008).
- "Spurious Unification: Has LTP been integrated with Memory?" University of Oslo, Norway (Fall 2007).
- Mini-course on "Philosophy of neuroscience" plus conference presentation on "Mechanisms and Natural Kinds," University of Helsinki, Finland (Fall 2007).
- "Levels of Mechanisms: A Field-Guide to the Hierarchical Structure of the World" Tsing Hua University, Bejing, China (Summer 2007).

"Action Potentials and the Heteronomy of Biology" University of Washington, Seattle (Spring 2007).

- "Activities and Causal Relevance" University of Maryland, College Park (Spring 2007).
- "Why mechanism?" University of Missouri Columbia, (Spring 2007).
- "Mechanisms and Explanation" Alumni Lecture, University of Pittsburgh, (Spring 2007).
- "Memory and Moral Psychology: The Case of K.C." Central Division of the American Philosophical Association, Invited Symposium on Neurophilosophy, (Spring 2007).
- "Mechanisms and Natural Kinds" Pacific Division of the American Philosophical Association; Metaphysics of Science Symposium, (Spring 2007).
- "Mechanisms and Modularity" University of Maryland, College Park (Winter 2006).
- "The right job for the Tools: Julius Axelrod and the Search for Metabolic Mechanisms" National Institute of Health, (Winter 2006).
- "Explaining the Brain" Presentation of my book to the Budapest Cognitive Sciences Semester, Budapest, Hungary (Fall 2006).
- "Interlevel Experiments and Mechanistic Explanation: Memory Molecules Revisited?" Institute Jean Nicod, Paris, France (Spring 2006).
- "When Models Explain" Interdisciplinary conference on Models and Modeling. University of California, San Diego. (Spring 2006).
- "Constitutive Explanatory Relevance" Conference on Explanation. University of Cincinnati. (Spring 2006).
- "Explanation in Neuroscience" Cognitive Science Colloquium, University of Arizona. (Winter 2006).
- "Relevance for Mechanisms" Keynote Speaker. University of Lund, Sweden (Winter 2005).
- "Toward a normative account of mechanistic explanation." Invited Speaker. McDonnell Philosophy of Neuroscience Project Final Conference; Pasadena, CA. (Summer 2005).
- "What are Levels? And What does it Mean to Integrate Them?" McDonnell Foundation Annual Grant Meeting; Palasades, NY. (Summer, 2005).
- "Levels and the Mosaic Unity of Neuroscience" Invited Session on Levels. Southern Society for Philosophy and Psychology, Durham, NC, (Summer 2005).
- "What is a Level?" University of California, San Diego, CA (Spring 2003).
- "Promises, Promises: Memory and Clinical Moral Psychology" University of Missouri, St. Louis Colloquium Series. (Fall 2003).
- "Discovering Mechanisms in Neuroscience" St. Louis University, (Spring 2003).
- "Of Two Minds: Revisiting Split Brain Syndrome" Florida International University, Miami (Spring 2002).
- "Cognitive Neuroscience and the Self" Committee for Philosophy and the Sciences Colloquium, University of Maryland, College Park, (Fall 2002).

- "The Long-Term Discovery of Long-Term Potentiation" Neural and Cognitive Systems Program at University of Maryland, College Park (Fall 2002).
- "Remembering Mechanisms: Theory Building and Reduction in the Neurosciences" Plenary Session. Society for Philosophy and Psychology, Cincinnati, OH, (Spring 2001).
- "Remembering Mechanisms: Theory Building and Reduction in the Neurosciences" Philosophy Colloquium, Washington University, St. Louis, (Spring 2001).
- "Remembering Mechanisms: Theory Building and Reduction in the Neurosciences" University of Cincinnati, (February 2001)
- "Mechanisms and Theory Construction in Neuroscience: LTP and Memory", delivered at the Minnesota Center for Philosophy of Science and SST Colloquium Series, (Spring 2000).
- "Discovering Mechanisms in Neuroscience: The Case of Learning and Memory" with L. Darden. Pittsburgh-Konstanz Colloquium in the Philosophy of Science, (Summer 1999).
- "Discovering Mechanisms in Neurobiology" with L. Darden. Miniseries in History and Philosophy of Biology, Committee on the History and Philosophy of Science, University of Maryland, (Spring 1998).
- "Functions and Mechanisms in Contemporary Neurobiology" Miniseries in History and Philosophy of Biology, Committee on the History and Philosophy of Science, University of Maryland, (Fall 1998).
- "Interfield Relations Between Psychology and Neuroscience: The Case of Learning and Memory" University of Maryland, (Fall 1997).
- Various talks at Washington University. Approximately 1-2 per year for History and Philosophy of Science; Philosophy; Philosophy-Neuroscience-Psychology WIPS; Brain, Behavior and Cognition Series; Medical Humanities; and Psychology Department.

CONFERENCE PRESENTATIONS:

"Explanation, Prediction, and Control in Sensory Physiology" GAC Symposium of Computational Cognitive Neuroscience Meeting. Sept 2021.

"Memory: Normative and Empirical" Cambridge, UK. June 2021 (via zoom). Kinds of Intelligence Workshop.

- "The Cycle of Cognitive Kinds" Cognitive Ontology Workshop University of Pittsburgh. March 2021.
- "Artifacts and Experimental Realism" American Philosophical Association, Eastern Jan 2021 (via zoom).
- "Optogenetics and Maker's Knowledge." Neurotechnology Workshop, University of Pittsburgh, Jan 2020.
- "Levels across the Neurosciences" Leiden Conference on Interdisciplinary Interactions, Nov. 2019.
- "Artifacts" Deep South Philosophy of Neuroscience Conference, Pensacola Sept. 2019.
- "Memory: Epistemic and Empirical" Wilderness Symposium, Norway July 2019.
- "Gloomy Prospects and Roller Coasters" ISHPSSB July 2019.
- "Memory and Time" Philosophy of Memory Conference, Grenoble, Summer, July 2019.
- "Memory and Time" University of Missouri St. Louis Gateway Conference, Keynote.

- "New Problems for New Mechanists" Conference on Mechanisms, Butler University, Indianapolis; March 2019, Keynote.
- "Gloomy Prospects and Roller Coasters" Philosophy of Science Association. Nov 2018.
- "The Mechanist's Lament" and "The Normative Divide" Workshop on Cognitive Ontology, Washington University in St. Louis
- "Episodic Memory: Empirical and Normative" Mental Time Travel Workshop, University of Otago.
- "What is Coherence" w/ Mark Reimers et al. Templeton Genetics Workshop, Charottesville, VA. Spring 2018.
- "What is the Coherence Problem for GWAS?" w/ Mark Reimers Templeton Genetics Workshop, Charlottesville, VA. Spring 2017.
- "Commentary on Staffel's Chapter 3: Is it rational to become more coherent?" Julia Staffel Symposium, WUSTL. Spring 2017
- "Mr. B Revisited" Wilderness Symposium (WISHKABIBBLE). Spring 2017.
- "Levels across the sciences" Interdisciplinarity Workshop, Penn State. Spring 2017.
- "What is the Coherence Problem for GWAS?" Templeton Behavioral Genetics Workshop. University of Virginia. Spring 2017.
- "Relevance in Explanation" Workshop on Relevance. Karolinska, Finland. Fall 2016.

"Response in Author Meets Critics Session on Craver and Darden In Search of Mechanisms" ISHPSSB July 2015.

"Asymmetries of distinctively mathematical explanation" WISHPSSB July 2015.

"Network explanation and the ontic conception" ISHPSSB. July 2015.

- Kwan, D., Craver, C.F., Myerson, J., Green, L., & Rosenbaum, R.S. (2015, March). Cueing the future to reduce delay discounting: The roles of age and reward amount. Poster to be presented at the annual Rotman Research Institute Conference, Toronto, ON, Canada
- Kwan, D., Craver, C.F., Myerson, J., Green, L., & Rosenbaum, R.S. (2015, August). Cueing the personal future to reduce delay discounting: Is episodic prospection necessary? Poster to be presented at the annual meeting of the American Psychological Association, Toronto, ON, Canada

"Gaphing the Brain's Dark Energy" PSA 2014; Chicago.

Kwan, D., Craver, C.F., Green, L., Myerson, J., Gao, F., & Rosenbaum, R.S. (2014). "Medial temporal lobe damage impairs use of episodic prospection to modulate intertemporal choice" [Poster presented at the Fourth Annual International Symposium on Biology of Decision-Making, Paris, France, May 2014].

"Optogenetics and Maker's Knowledge" SLAPSA, Spring 2012.

"A Preliminary Defense of Amnesic Selves" Moral Psychology Workshop, Washington University, Fall 2011.

"In Defense of the Ontic Conception" Wilderness Symposium II, Zion National Park, UT. Summer 2011.

"Functions and Mechanisms in Neuroscience" ISHPSSB. Salt Lake, UT, Summer 2011.

[&]quot;Maker's Integration" Minnesota Center Conference on Integrating Scientific Disciplines. Minneapolis, Fall 2011.

- With Gualtiero Piccinini "Integrating Psychology and Neuroscience: Functional Analyses as Mechanism Sketches," Eastern APA, Washington, D.C., December 2011.
- "Interlevel causation reconsidered" Congress of the French Society for the Philosophy of Science (Spring 2009).
- "Constitutive Explanatory Relevance" American Philosophical Association, Eastern Meeting, Winter 2009.
- "Model Organisms in Neuroscience" International Society for the History, Philosophy, and Social Studies of Biology, Brisbane, Australia, Summer 2009.
- "Computational Mechanisms" International Society for the History, Philosophy, and Social Studies of Biology, Brisbane, Australia, Summer 2009.
- "Vectors, Edges, and Activities in Psychological Models of Causation" Southern Society for Philosophy and Psychology, Spring 2008.
- "Prosthetic Models" Philosophy of Science Association Pittsburgh PA. Fall 2008.
- "Action Potentials and Explanation: A Reply to Weber" International Society for the History, Philosophy and Social Studies of Biology. Summer 2007.
- "Why The Hodgkin and Huxley Model Does Not Explain the Action Potential". Philosophy of Science Association. Fall 2006.
- "Why The Hodgkin and Huxley Model Does Not Explain the Action Potential" International meeting for the History of the Philosophy of Science, Paris, France, June 2006
- "Evolution and Development of the Brain: Response to Machery." Society for Philosophy and Psychology. June 2006.
- "Avoiding Billiard-Ball Bias: Response to Stuart Glennan" American Philosophical Association. April 2006.
- "Mechanisms and Natural Kinds" International Society for the History, Philosophy, and Social Studies of Biology. Guelph, Ontario. Summer 2005. Also University of Cincinnati 2008).
- "Why Higher Levels Matter" American Psychological Society. Los Angeles, NY. Summer 2005.
- "From Black Boxes to Mechanisms" Computational Modeling and Explanation in Neuroscience. Washington University in St. Louis, November 2004.
- "A Field Guide to Levels" American Philosophical Association, Pacific Division. Los Angeles, January, 2004.
- "What Does Philosophy Bring to the Study of Memory?" James S. McDonnell Foundation, La Jolla, California, January, 2004.
- "Levels of Mechanisms" Washington University in St. Louis, Reichenbach Conference, November 2003.
- "Toward a Clinical Moral Psychology: Revisiting the Case of H.M." Conference on Philosophical Psychopathology, University of Dayton, OH. October 2003.
- "Keeping Your Self: Dissociable Realization and Kind Splitting." Philosophy of Science Association Meeting. Milwaukee, WI. November 2002.
- "Being H.M." (w/ Joel Anderson) Neuroethics Symposium, Washington University in St. Louis. December 2002.

- "The Hippocampus Before H.M." International Society for the History of the Neurosciences. Los Angeles, CA. June 2002.
- Poster Presentation: "Remembering Mechanisms: The Long-Term Discovery of Long-Term Potentiation" Society for Neuroscience, San Diego, CA. November 2001.
- "Remembering Mechanisms: The Long-Term Discovery of Long-Term Potentiation" International Society for the History, Philosophy and Social Studies of Biology. : Quinnipiac College. July 2001.
- "Interlevel Experiments, Multilevel Mechanisms, and Robustness" Philosophy of Science Association, Vancouver. 2000..
- "Interlevel Experiments and Multilevel Mechanisms in Contemporary Neuroscience" Florida Philosophical Association Conference, University of Miami. November 1999.
- "The Enduring Search for Mechanisms in Neuroscience" History of Science Society Conference, Pittsburgh, Pittsburgh. November 1999.
- Poster Presentation: "Osmoregulation in Water-Deprived Rats Drinking NaCl Solutions," Poster presentation, Annual Conference of the International Society for the Study of Ingestive Behavior, Baton Rouge, LA. Fall 1996.
- With Steve Small, "Gall's Organology and Faculty Psychology" Annual Conference of the International Society for the History of the Neurosciences, Montreal. Summer, 1995.
- "The Churchlands and the Chinese Room" Delivered as part of the Graduate Student Presentation Series in the Department of Neuroscience in preparation for an invited lecture by Patricia Churchland, University of Pittsburgh, 1995.
- "Understanding Alzheimer's Disease" Delivered as part of the Graduate Student Presentation Series in the Department of Neuroscience, University of Pittsburgh, 1994.
- "What has the Philosophy of Science to do with the Philosophy of Mind?" Invited lecture at the in-house Conference on the Relationship Between the History and Philosophy of Science, Spring, 1993.

POST-DOCTORAL ADVISING

Andre Santana (Otago) (2019-21)

Joe McCaffrey (Pittsburgh) (2016-2018)

Eric Hochstein (Waterloo) (2014-2017)

Jens Harbecke (Lausanne) (2014-5)

Beate Krickel (Humboldt) (2014-5)

Yugi Suguwara (Kyoto) (2013)

DISSERTATIONS DIRECTED.

Judith Carlisle (current) "Kinds of Trauma"

Rick Shang (2021) "Historical and Philosophical Issues in Neuroimaging"

Caroline Stone (2020) "Construct Validity in Psychology"

Mark Povich (2018) "Towards a Generalized Ontic Conception of Scientific Explanation"

Timothy Oakberg (2016) "The Normative Problem of Shame"

Felipe Romero (2016) "The Collective Correction of Scientific Error."

Nazim Keven (2015) "Narrativity and the Self."

Sarah K. Robins. "The Constructive Trace Theory of Memory." (2012).

Don Goodman-Wilson. "Modularity and Causal Explanation." (2010)

DISSERTATION COMMITTEES:

Sarah Malanowski (2017) Individual Differences in Psychology.

Mike Dacey (Committee, completed 2014) Associations and Associtationist Models.

Jason Gardner (Committee, completed 2014) Biological Normativity.

Isaac Wiegman (Committee, completed 2014) Moral Psychology of Anger

- Sylvia Roloff (Committee, completed 2010) *Mechanism and Unification in the Science of Sex.* Department of Philosophy, University in St. Louis.
- Brandon Towl (Committee, 2008): Functionalism and Reduction. Department of Philosophy, PNP Program, Washington University in St. Louis. Spring 2008.
- Whit Schonbein (Committee, 2002) "An Intimate Affair: Cognition and its Physical Basis" Department of Philosophy, PNP Program, Washington University in St. Louis. Spring 2002.

OUTSIDE READER ON DISSERTATIONS and MFAs:

Chris Zerr (2021) Psychology, WUSTL

Mike Mazza (2020) Philosophy, St. Louis University.

Alexa Velez (2020) Fina Arts. WUSTL.

Sarah Weninger (2018) Fine Arts. WUSTL.

Young Bui. Psychology WUSTL. (2015)

Louis Olivera. Psychology WUSTL. (2015)

Diana Selmeczy. Psychology WUSTL. (2014).

Lena Kästner. Experimentation in Cognitive Neuroscience (2014)

Veli-Pekka Parkinnen. "Natural Kinds and Modularity" Oslo (2014)

Sarah Roe "The Salmon/Roe account of Mechanistic Explanation" U.C. Davis. (2013)

Samuli Pöhyhönen. "Natural Kinds in the Social Sciences" (2013). University of Helsinki.

Brian Bergstrom. "Epistemic Vigilance: The Error Management of Source Memory and Belief" (2012)

Karl Szpunar. "Priming of Episodic Future Thought" Psychology, Washington University in St. Louis, (2009)

- Khena Swallow. "Event boundaries and Memory" Psychology, Washington University in St. Louis (2007).
- Greg Burgess. "Global Fluid Intelligence and Working Memory" (2005) Department of Psychology, Washington University in St. Louis. (2006)
- David Gallo. "Using Recall to Reduce False Recognition" Department of Psychology, Washington University, St. Louis. (2003)

UNDERGRADUATE THESES DIRECTED

Lauren Kline. (2007) "Autonomy in the Homeless: Integrating Psychology and Philosophy"

Meera Kamanth. (2008) "The logic of double dissociation: Examples from Memory"

- Greg Gandenberger (2009) "Robustness in Experimental Techniques: The Invention of the Cathode Ray Oscilloscope." Philosophy, Washington University in St. Louis. (2009). Now published in *Philosophy of Science*.
- Ben Graham "The Curious Case of Mr. B: The man with a two-second memory" (2010-11). Currently deferred at Yale Law School to study Cognitive Neuroscience in Berlin. Now published in *Cortex*.

Chloe Steindam (2012-13) "Memory and Time." A version is now published in Neuropsychologia.

Levi Smolovyak (2013) "Topological Models in Neuroscience."

Jackie Oh (2015) "Remembering in Film and Philosophy: Memento and Eternal Sunshine of the Spotless Mind."

David Bender (2015) "Eliminativism and the Space of Reasons"

Elias Feldman (2017) "Memory and Moral Responsibility"

- Ainsley Tran (2020) "The moral significance of the stages of Alzheimer's Disease."
- I am a regular research mentor to students in the Hewlett Mind-Brain Program, accepting roughly one student per year for the last 15 years. I am secondary reader on approximately two honors theses per term.

TEACHING EXPERIENCE:

- 2002-Present Philosophy-Neuroscience-Psychology. Washington University in St. Louis. Courses INclude: Philosophy of Science, Philosophy of Cognitive Science, The Self, Understanding Scientific Reasoning, Mechanisms and Mechanistic Explanation, Inquiry in the Cognitive Sciences, Introduction to the Mind/Brain, The Scientific Mind (Cognitive Science of Science); Causation; Inquiry in the Cognitive Sciences, Philosophy of Mind; Philosophy of Biology; Philosophy of Neuroscience, Norms and Naturalism, Memory and MoralPsychology, Neuroscience and Personhood (with Larry Jacoby), Philosophy of Memory (with PascalBoyer), Advanced Philosophy of Science (Explanation); Advanced Philosophy of Science (Realism).
- 1999-2001 Assistant Professor. Philosophy, Florida International University. Courses: Biomedical Ethics, Critical Thinking, Philosophy of Mind, Philosophy of Psychology, Science and Religion.

1999	Instructor. Philosophy, University of Maryland, College Park. Course: Philosophy of Science.
1998	Instructor. Pennsylvania Governor's School for Science. Course: "Mechanisms in the History of the Organic Sciences."
1990-1998	Graduate Teaching Fellow. History and Philosophy of Science. Courses: Understanding Scientific Reasoning, Biomedical Ethics, Mind and Medicine. Teaching Assistant for classes including Freedom and Determinism, Philosophy of Psychology, and Philosophy of Biology.
1993-1995	Graduate Teaching Fellow. Neuroscience, University of Pittsburgh. Courses: Introduction to Neuroscience; Brain and Behavior; and Drugs and Behavior.
1989-1990	Graduate Teaching Fellow. Department of Rhetoric, University of Pittsburgh. Courses include: Argument and Debate; and Public Speaking. Also Assistant Debate Coach.