

Carl F. Craver
Department of Philosophy; Philosophy-Neuroscience-Psychology
Washington University in St. Louis
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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, and personhood. *History of neuroscience*, with particular emphasis on electrophysiology. *Cognitive Neuropsychology*, with particular emphasis on episodic memory and its role in decision-making.

EMPLOYMENT:

FL 2025 Visitor, Center for Memory and Place, University of Stirling.

SU 2024 Visitor, ImmunoConcept, University of Bordeaux.

SU 2022 Visitor, Royal Society for Philosophy, University College London.

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 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), 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:

Monographs

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.

In Progress: Craver, C.F. and Rosenbaum, R.S. (draft available) *Living without memory*.

Edited Books

Bickle, J., Craver, C. F. Barwich, A.S. eds. (2021) *Tool of Neuroscientific Experiment*. Philadelphia: Routledge Press.

Craver, C.F. and C. Klein (2023) *Mind Design III*. Cambridge: MIT Press.

In Press: Craver, C.F. and Santana, A. eds., *Oxford Handbook of Philosophy of Memory*.

Peer Reviewed Journal Articles

Carlisle, J. and Craver, C.F. (forthcoming) "Social Trauma" *Synthese*.

Craver, C.F. (2025) "Defending levels by trading waves for trees" *Synthese* (online)
<https://doi.org/10.1007/s11229-025-04967-y>

Craver, C.F., and Dan-Cohen, T. (2024) Experimental Artifacts. *British Journal for the Philosophy of Science*. 75 (1), 253-274

Siegel, G. and Craver, C.F. (2024) Phenomenal Laws and Mechanistic Explanations. *Philosophy of Science*. 91: 132-150.

Rosenbaum, R. S., Halilova, J. G., Kwan, D., Beneventi, S., Craver, C. F., Gilboa, A., & Ciaramelli, E. (2023). Temporal Construal Effects Are Independent of Episodic Future Thought. *Psychological Science*, 34(1), 75–86.

Fracken, J. C., Slors, M., & Craver, C. F. (2022). Cognitive ontology and the search for neural mechanisms: Three foundational problems. *Synthese*, 200(5), 378.

Craver, C. F., Glennan, S., & Povich, M. (2021). Constitutive relevance & mutual manipulability revisited. *Synthese*.
<https://doi.org/10.1007/s11229-021-03183-8>

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. https://doi.org/10.1162/jocn_a_01721.

- 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. <https://doi.org/10.7554/eLife.67387>
- 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. <https://doi.org/10.1186/s12859-020-03821-x>
- 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: 1-34.
- 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*. <https://doi-org.libproxy.wustl.edu/10.1093/bjps/axy015>
- 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 Mental Time 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 Mental Time 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 Natural Kinds" *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.
- Reprinted in a special issue of the top 30 articles in the Journal *Philosophy of Science*.
- 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.

Journal articles in Process:

- "Memory and Time I: Temporal Concepts" with Shayna Rosenbaum and Faraneh Vargha-Khadem (draft available)
- "Memory and Time II: Temporal Preferences and Decisions" with Shayna Rosenbaum and Faraneh Vargha-Khadem (draft available)

Book Chapters and Encyclopedia Pieces.

- Craver, C.F. (in press) "MRI in Psychiatry: A Reply to Heckers" in Zachar et al. eds. *Philosophy of Psychiatry*.
- Craver, C.F. (in press) "Mechanistic Psychiatry: Prospects and Confounds" in Zachar et al. eds. *Philosophy of Psychiatry*.
- Craver, C.F. (2024) Mechanistic Explanation. *Online Encyclopedia of Cognitive Science*. MIT Press.
- Craver, C.F., Tabery, J. and Illari, P (2024) "Mechanism in Science" *Stanford Encyclopedia of Philosophy* (rewrite of Craver and Tabery 2015)
- Craver, C.F. "Optogenetics and Maker's Knowledge" (2022) in J. Bickle, A.S. Barwich, and C.F. Craver eds. *Tool Use in Neuroscience*. Routledge.
- 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. 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 Saatsi eds. *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>
- Craver, C. F. 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.
- Craver, C. F. (2009) "Neural Mechanisms," in J. Symons and P. Calvo, eds., *Routledge Companion to the Philosophy of Psychology*. Routledge. N.J. Ch. 24.
- Craver, C. F. (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,
- Craver, C. F. (2007) "Julius Axelrod" in N. Koertge, ed. *Dictionary of Scientific Biography*. Gale/Cengage, p. 122.
- Craver, C. F. 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

Craver, C. F. (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.

Craver, C. F. (2005) "T.S. Kuhn" *Encyclopedia Americana*.

Craver, C. F. (2005) "I. Lakatos" *Encyclopedia Americana*.

Book Reviews, Commentaries and Misc.

David Colaço, Russell A Poldrack, Aliya Rumana, Thierault Jordan, Daniel C Burnston, Sofie Valk, Philipp Haeueis, Daniel Marguiles, Carl F Craver (2025) Do DNNs Explain the Visual System? PhilSci Archive.

Craver, C.F. (2018) Review of Glennan's *New Mechanical Philosophy*. *The British Journal for the Philosophy of Science*. <https://bjpsbooks.wordpress.com/2018/02/19/stuart-glennan-the-new-mechanical-philosophy/>

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* . http://philsci-archive.pitt.edu/archive/00003402/01/CMP_synopsis_final.doc

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 *Psychology*. <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 Störing (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*. A restored film from the German National Archive.

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.

Public-Facing Historical Work

Founder, contributor, and organizer of the *St. Louis Integrated Database of Enslavement (SLIDE)*, which compiles public records of enslaved and free Black people until emancipation in St. Louis County (<https://sites.wustl.edu/enslavementstl/>). The database is intended for use in reparative justice initiatives, family history research, and in the effort to preserve data concerning the legacies of enslavement in St. Louis. It has been featured in stories on local NPR and the Joe Madison Show. In addition to providing a much-needed resource, I also am developing methods to crowdsource responsible transcription of historical documents by groups of student in in-class exercises. Research projects from this work include: <https://storymaps.arcgis.com/stories/9837764f75be41bd9491a35e21e30b51>, <https://storymaps.arcgis.com/stories/1db257a8eaf24d55ad3a8ea66cfacaf8>, and a forthcoming article by Cecilia Wright on the lynching of Francis McIntosh in 1836.

GRANTS and Awards:

US 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).

NSF Grant (SBR-9817942) with L. Darden. “Discovering Mechanisms” (Spring 1998).

CONFERENCES and WORKSHOPS ORGANIZED:

Dynamic Models of Population-level Computation in Neural and Artificial Systems. With William Newsome (Stanford) Palo Alto, March 2025.

Wilderness Symposium VIII: Ponte de Barca, Portugal.

“SLAPSA XIV” with Anya Plutinski. WUSTL (2024).

“Wilderness Symposium VII: Tolbermory, Ontario” (2023) with James Tabery. Four day camping conference.
“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. Aurlundsdaalen Valley, Norway. Summer 2019.

St. Louis Area Philosophy of Science Association (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 Amidon. 2015.

“St. Louis Area Philosophy of Science Association (SLAPSA VII)” with Kent Staley. St. Louis 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 Biannual Reichenbach Conference, November 15-17, 2003, Washington University in St. Louis.

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

SYMPOSIA ORGANIZED:

“The Self in Science” (with Serife Tekin) Philosophy of Science Association; Fall 2026.

“Science without Levels” (with Angela Potochnik) Philosophy of Science Association; Fall 2022.

“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, Friendship, and Love” London School of Economics. January 2026.

“Memory, Friendship, and Love” University of Missouri, Department of Philosophy. Dec 2025.

“Externalism and Narrative Identity in Amnesia” Utrecht Roundtable on Assistive Technologies. July 2025.

“Social Trauma” Stirling University. October 2025.

“Lesions and Persons: Mechanistic methods across two Ontologies” University of Indian, Giere Lecture. April 2025

“Memory and Self Knowledge” Laser Series, Manhattan, February 2024.

“Memory and Time” Bordeaux, July 2024

“Memory and Moral Reasoning” Dartmouth College, April 2023.

“Mechanisms and Psychiatry” University of Copenhagen, May 2023.

“Memory, Time and Agency” University of Helsinki, May 2023.

“Lesions and Persons” University of Cincinnati, conference for Bob Richardson, October 2023.

“Episodic memory and the status of persons” Occupational Therapy, WUSTL. January 2023.

“Episodic Amnesia and the Ordinary Conception of Time” University of Arizona (Jan 2023), Australian National University (March 2023), Macquarie University (March 2023).

“Episodic amnesia and Regret” University of Arkansas. Feb 2023.

“Mechanisms and natural kinds in the science of memory” Mind Group, Frankfurt, Fall 2022.

“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, September 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 Universität, Bochum. (Spring 2011).

“Memory and Moral Psychology” Univesität 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 für 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, Beijing, 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:

“Lesions and Persons: Mechanistic Methodologies across Two Ontologies” Amsterdam Symposium on Cognitive Ontology” 08/25

“Memory and Remediation” Utrecht Symposium on Amnesia and Technology. 08/25.

“Lesions and Persons” ISHPSSB 2025, Porto Portugal. 07/25

“The Lost Mariner Reconsidered” *Wilderness Symposium* 2025. 07/25

“Dynamical Computation and Mechanistic Explanation” Symposium on Naturalized Philosophy of Mind, University of Porto, Portugal. 7/25.

“Explanations: Representations and their Normative Referents” Society for Philosophy and Neuroscience. 05/25.

“Dissociation and Looking Up” Bordeaux Summer School. July 2024.

“DNNs and Explanation,” Paris July 2024.

“Memory and Regret” Memory Mayhem, Purdue, April 2024.

“Memory and Social Trauma” PPE Conference, New Orleans 2023.

“Lesions and Persons” Cincinatti, Bob Richardson Workshop, September 2023.

“Artifacts” WISHKABIBBLE, Tobolmory, CA July 2023

“Mechanism, Abstraction and Idealization” Prague, May 2023.

“AI and Neurophysiology: A revolution in the making?” Helsinki May 2023.

“Social Trauma” PPE, New Orleans, 2023

“Social Trauma” Wishkabible, Ontario 2023.

“Defending Levels” Philosophy of Science Association Meeting, Fall 2022, Pittsburgh.

“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, Charlottesville, 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.

“Maker’s Integration” Minnesota Center Conference on Integrating Scientific Disciplines. Minneapolis, 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.

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.

Co-Directed w Jake Quilty Dunn (Current) Andrew Rameriz “Values of Detection”
Judith Carlisle (2024) “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:

Derek Braerman (2024) *Disease and Normativity*
Matt Kern (2024) *Natural Selection and Psychiatry*
Gabe Siegel (2023-4) *Vestibular Perception*
Sarah Malanowski (2017) *Individual Differences in Psychology*.
Mike Dacey (Committee, completed 2014) *Associations and Associationist 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) Fine 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 Parkkinen. "Natural Kinds and Modularity" Oslo (2014)

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

Samuli Pöyhönen. "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.”

Celia Wright (2023) “The Lynching of Francis McIntosh”

Olivia Drees (2024) Race, Poverty and Health Outcomes in St. Louis.

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 Moral Psychology, Neuroscience and Personhood (with Larry Jacoby), Philosophy of Memory (with Pascal Boyer), 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.