Kent W. Staley
Curriculum Vitae

Department of Philosophy
Saint Louis University
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Education

The Johns Hopkins University, Baltimore, Maryland. M.A. in Philosophy, May, 1992. Ph.D. in Philosophy, May, 1998. Dissertation: "Over the Top: Experiment and the Testing of Hypotheses in the Search for the Top Quark." Peter Achinstein, advisor.

The Johns Hopkins University Center for History and Philosophy of Science. Certificate in graduate program in History and Philosophy of Science, June, 1995.

Grinnell College, Grinnell, Iowa. B.A. in Physics, May, 1986.

Appointments

1997 – 2001	Assistant Professor, Dept. of Philosophy, Arkansas State University
Spring 2001	Visiting Assistant Professor, Dept. of Philosophy, Boston University
2001 – 2006	Assistant Professor, Dept. of Philosophy, Saint Louis University
2006 – present	Associate Professor, Dept. of Philosophy, Saint Louis University

Books

The Evidence for the Top Quark: Objectivity and Bias in Collaborative Experimentation. Cambridge University Press, 2004.

Articles

"The CDF Collaboration and Argumentation Theory: The Role of Process in Objective Knowledge" (with Bill Rehg). Forthcoming in *Perspectives on Science*.

"Robust Evidence and Secure Evidence Claims." *Philosophy of Science*, 71 (2004), 467–88.

"What Experiment Did We Just Do? Counterfactual Error Statistics and Uncertainties about the Reference Class." *Philosophy of Science* 69 (2002), 279–99.

"Lost Origins of the Third Generation of Quarks: Theory, Philosophy, and Experiment." *Physics in Perspective* 3 (2001), 210–229.

"Golden Events and Statistics: What's Wrong with Galison's Image/Logic Distinction?" *Perspectives on Science* 7 (1999), 196–230.

"Logic, Liberty, and Anarchy: Mill and Feyerabend on Scientific Method." *The Social Science Journal* 36 (1999), 603–614.

"Novelty, Severity, and History in the Testing of Hypotheses: The Case of the Top Quark." *Philosophy of Science* 63 (1996, Proceedings of PSA 96), S248–255.

Book Chapters

"Agency and Objectivity in the Search for the Top Quark." In Peter Achinstein (ed.), *Scientific Evidence: Philosophical Theories and Applications*. Johns Hopkins University Press, 2005, pp. 165–84.

Reviews and Other Publications

Review of *The Philosophy of Scientific Experimentation*, edited by Hans Radder. *Philosophy of Science*, 72 (2005), 525–28.

Review of *Selectivity and Discord: Two Problems of Experiment*, by Allan Franklin. *Metascience*, 13 (2004), 75–78.

Review of *Natural Laws in Scientific Practice*, by Marc Lange. *Review of Metaphysics* 56 (2002), 435–36.

Review of *The Scopes Trial: A Photographic History*, by Edward Caudill, Edward Larson, and Jesse Fox Mayshark. *Arkansas Review* 32 (2001), 78–79.

Review of *Image and Logic*, by Peter Galison. *Philosophy of Science* 67 (2000), 339–41.

"The Discovery of the Electron." Text for website sponsored by the American Institute of Physics. www.aip.org/history/electron

Paper Presentations

"Error-statistical Theory Assessment and Alternative Hypothesis Problems: A Role for Plausibility Judgments?" Workshop paper presented at First Symposium on Philosophy, History, and Methodology of Experimental Reasoning, Reliability, Objectivity, and Rationality (ERROR), Virginia Tech, June 2, 2006.

"Probability in Fine-tuning Design Arguments." Paper presented at American Philosophical Association Pacific Division meeting, Portland, Oregon, March 22, 2006.

"The Evidence for the Top Quark: Disputes and Statistics." Colloquium presented to University of Colorado, Boulder physics department, December 8, 2004.

"The CDF Collaboration and Argumentation Theory: The Role of Process in Objective Knowledge" (with Bill Rehg). Paper presented at Philosophy of Science Association, Austin, Texas, November 18, 2004.

"Anti-matter and God: On Fine-tuning and Scientific Inquiry." Colloquium presented to Washington University philosophy department, October 28, 2004.

"The Pursuit of Experiment by Other Means: The Evolution of An Experimental Research Report in High Energy Physics." Paper presented at the History of Science Society, Cambridge, Massachusetts, November 21, 2003

"Robustness and Security." Paper presented at Twelfth International Congress of Logic, Methodology and Philosophy of Science," Oviedo, Spain, August 9, 2003

"Agency and Objectivity in the Search for the Top Quark." Paper presented at Johns Hopkins University Conference on Scientific Evidence, Baltimore, Maryland, April 13, 2003

"Robustness Reconsidered." Paper presented at Northwest Philosophy Conference, Portland, Oregon, October 26, 2002

"Demarcation and Severe Testing." Paper presented at the Canadian Society for History and Philosophy of Science, Toronto, Ontario, May 26, 2002

"What Experiment Did We Just Do? Counterfactual Error Statistics and Uncertainties about the Reference Class." Paper presented at the Seventeenth Biennial Meeting of the Philosophy of Science Association, Vancouver, British Columbia, November 3, 2000

"Objective Evidence from Subjectively Biased Experimenters: The Uses of Probability Models." Paper presented at the Arkansas Philosophical Association, University of Arkansas, Fayetteville, Arkansas, October 21, 2000

"Mill on Scientific Method in the System of Logic and On Liberty." Paper presented at HOPOS 2000: Third International History of Philosophy of Science Conference, Vienna, Austria, July 2000

"Lost Origins of the Third Generation of Quarks." Paper presented at the annual meeting of the History of Science Society, Pittsburgh, Pennsylvania. November, 1999

"Golden Events and Statistics." Paper presented at the meeting of the Society for the Social Studies of Science, Halifax, Nova Scotia. October, 1998

"Bayesians, Bias, and Particle Physics." Paper presented at the meeting of the Southern Society for Philosophy and Psychology, New Orleans, Louisiana. April, 1998

"Novelty, Severity, and History in the Testing of Hypotheses: The Case of the Top Quark." Paper presented at the Fifteenth Biennial Meeting of the Philosophy of Science Association, Cleveland, Ohio, November, 1996

Works in Progress

Fine Tuning Problems in Physics and Philosophy: A book-length project on the appeal to fine-tuning in arguments for theism and on the role of fine-tuning considerations within physics, with reference to historical developments concerning quantum electrodynamics and supersymmetric field theory. (currently exists in the form of a long paper — to be developed and expanded to book length)

"Evidential Collaborations: Epistemic and Pragmatic Considerations in 'Group Belief"': I take up the debate among social epistemologists over the status of statements of putative group beliefs. The debate has turned in part on alleged differences between the individual and group cases regarding the role of evidence and epistemic considerations as opposed to pragmatic considerations. Focusing on research groups in the sciences, I show how a broadened view of epistemic considerations reveals that pragmatic considerations serve to strengthen the epistemic status of claims made by groups. (in preparation)

"Probability in Fine-tuning Design Arguments": I seek to show that, under any of the principal candidates for an interpretation of probability statements, probabilistic arguments for theism based on fine-tuning considerations run into conceptual difficulties. (under revision)

"Error Statistics and 'Fundamental' Physics": It has been claimed that the error-statistical theory of evidence is inadequate for "high-level" theories. I distinguish evidential from other kinds of theoretical assessment. Using the example of quantum electrodynamics (QED), I argue that the respects in which QED has not been supported by error-statistical evidence are precisely those in which we should be diffident in our attitude toward its truth or empirical adequacy. (writing is in progress)

Honors and Grants

SLU Mellon Faculty Development Grant. "Fine-tuning Problems in Physics and Philosophy." For research on fine-tuning problems in cosmology and fine-tuning arguments in philosophy of religion. Summer 2005.

SLU Summer Research Award. "New Theories, New Methods: Theoretical and Methodological Innovation in High

Energy Physics." For research on the search for new symmetries in physics. Summer 2004.

SLU Mellon Faculty Development Grant. "In Search of Supersymmetry." For research on history of development of supersymmetric field theories. Summer 2003

SLU Mellon Faculty Development Grant. "In Search of Supersymmetry." For research on search for supersymmetric particles at Fermi National Accelerator Laboratory. Summer 2002

NEH Summer Stipend, "Collaborative Experimental Reasoning in High Energy Physics: Historical and Philosophical Perspectives on the Search for the Top Quark" (FT-45784-01). Summer 2001

Participant, NEH Summer Seminar, "Philosophy of Experimental Inference: Induction, Reliability, and Error." Directed by Deborah Mayo, Virginia Tech. Summer 1999

Faculty Research Grant, Arkansas State University, Summer 1998. To aid collection of oral history interviews at Fermi National Accelerator Laboratory for use in book project on the search for the top quark

Grant-in-Aid, American Institute of Physics, 1995–96. For dissertation research at Fermi National Accelerator Laboratory

Department Fellowship, Department of Philosophy, Johns Hopkins University, 1989–91

Summer Internship, Fermi National Accelerator Laboratory, Batavia, Illinois. Summers, 1984 and 1985. Assisted in construction and installation of large particle-detection apparatus for scattering experiment

Muehrcke Scholarship, Grinnell College, 1982–86

Service to the Profession

Program, Planning, and Publicity Committee, First Symposium on Philosophy, History, and Methodology of ERROR (Experimental Reasoning, Reliability, Objectivity, and Rationality), Blacksburg, Virginia, June 2006.

Organizer for "Collaboration Experiments," a workshop at the 2004 meeting of the Philosophy of Science Association, Austin, Texas.

I have served as referee for articles submitted to *Philosophy of Science*, *Perspectives on Science*, and *Philosophical Studies*, as a manuscript referee for Cambridge University Press and Johns Hopkins University Press, and as a proposal referee for the National Science Foundation.