

ERC Starting Grant Proposal by Jan Sprenger

"Modeling Scientific Disagreement"

Full List of References

- ◆ Van Asselt, M., and J. Rotmans (2002): Uncertainty in integrated assessment modelling: from positivism to pluralism. *Climatic Change* 54: 75-105.
- ◆ Aumann, R.J. (1976): Agreeing to Disagree. *The Annals of Statistics* 4: 1236–1239.
- ◆ Berger, J.O. (2003): Could Fisher, Jeffreys and Neyman Have Agreed on Testing? *Statistical Science* 18: 1-32 (with discussion).
- ◆ Bernardo, J.M. (2011): Integrated objective Bayesian Estimation and hypothesis testing, in *Bayesian Statistics 9* (J. M. Bernardo, M. J. Bayarri, et al, eds.), 1-68 (with discussion). Oxford: Oxford University Press
- ◆ Birnbaum, A. (1962): On the foundations of statistical inference. *Journal of the American Statistical Association* 57: 269-306.
- ◆ Bovens, L., and S. Hartmann (2003): *Bayesian Epistemology*. Oxford: Oxford University Press.
- ◆ Christensen, D. (2007): Epistemology of Disagreement: The Good News. *Philosophical Review* 116:187-217.
- ◆ Crupi, V., and K. Tentori (2012): A second look at the logic of explanatory power (with two novel representation theorems). *Philosophy of Science* 79: 365-385.
- ◆ Daston, L., and Galison, P. (2007): *Objectivity*. New York: Zone Books.
- ◆ Dawid, R., S. Hartmann and J. Sprenger (2012): The No Alternatives Argument. Conditionally accepted by *The British Journal for the Philosophy of Science*.
- ◆ Douglas, H. (2009): *Science, Policy, and the Value-free Ideal*. Pittsburgh: University of Pittsburgh Press.
- ◆ Elga, A. (2007): Reflection and Disagreement. *Noûs* 41: 478–502.
- ◆ Elga, A. (2010): Subjective Probabilities Should Be Sharp. *Philosophers' Imprints* 10.
- ◆ Feldman, R., and T. Warfield (2011, eds.): *Disagreement*. Oxford: Oxford University Press.
- ◆ Fidler, F. (2012): *From Statistical Significance to Effect Estimation: Statistical Reform in Psychology, Medicine and Ecology*. London: Routledge/Taylor and Francis.
- ◆ Goldman, A. (1999): *Knowledge in a Social World*. Oxford: Oxford University Press.
- ◆ Goodman, S.N. (1999): Toward Evidence-Based Medical Statistics: The *P* Value Fallacy. *Annals of Internal Medicine* 130: 995-1021.
- ◆ Goodman, S.N. (2007): Stopping at nothing? Some dilemmas of data monitoring in clinical trials. *Annals of Internal Medicine* 146: 882-887.
- ◆ Hacking, I. (1965): *Logic of Statistical Inference*. Cambridge: Cambridge University Press.
- ◆ Hansson, S.O. (2006): Uncertainty and the Ethics of Clinical Trials. *Theoretical Medicine and Bioethics* 27: 149-167.
- ◆ Harman, G. (1965): *Inference to the Best Explanation*. Princeton: Princeton University Press.
- ◆ Hempel, C.G. (1965): *Aspects of Scientific Explanation*. New York: The Free Press.
- ◆ Hitchcock, C., and J. Woodward (2003): Explanatory Generalizations, Part II: Plumbing Explanatory Depth. *Noûs* 37: 181-199.
- ◆ Howson, C., and P. Urbach (2006): *Scientific Reasoning: The Bayesian Approach*. La Salle: Open Court.
- ◆ Kelly, T. (2005): The Epistemic Significance of Disagreement. In J. Hawthorne & T. Gendler (eds.), *Oxford Studies in Epistemology, Volume 1*. Oxford: Oxford University Press.
- ◆ Kitcher, P. (1993): *The Advancement of Science*. Oxford: Oxford University Press
- ◆ Lehrer, K., and C. Wagner (1981): *Rational Consensus in Science and Society*. Dordrecht: Reidel.
- ◆ Lipton, P. (2004): *Inference to the Best Explanation*. 2nd edition. London: Routledge.

- ◆ Lombrozo, T. (2007): Simplicity and probability in causal explanation. *Cognitive Psychology* 55: 232-257.
- ◆ Longino, H. (1990): *Science as Social Knowledge. Values and Objectivity in Scientific Inquiry*. Princeton: Princeton University Press.
- ◆ Martini, C., J. Sprenger and M. Colyvan (2012): Resolving Disagreement Through Mutual Respect. *Erkenntnis*, in print.
- ◆ Mayo, D.G. (1996): *Error and the Growth of Experimental Knowledge*. Chicago: Chicago University Press.
- ◆ Mayo, D.G., and M. Kruse (2001): Principles of Inference and their Consequences, in J. Williamson and D. Corfield (eds.): *Foundations of Bayesianism*. Dordrecht: Kluwer.
- ◆ Mayo, D.G., (2010): An Error in the Argument from Conditionality and Sufficiency to the Likelihood Principle, in Mayo, D.G., and A. Spanos (eds): *Error and Inference: Recent Exchanges on Experimental Reasoning, Reliability and the Objectivity and Rationality of Science*: 305-314. Cambridge: Cambridge University Press.
- ◆ McGrew, T. (2003): Confirmation, Heuristics and Explanatory Reasoning. *The British Journal for the Philosophy of Science* 54: 553-567.
- ◆ Montori, V.M., et. al. (2005): Randomized trials stopped early for benefit: A systematic review. *Journal of the American Medical Association* 294: 2203-2209.
- ◆ Nardini, C., and J. Sprenger (2012): Bias and Conditioning in Sequential Medical Trials. Accepted for publication in *Philosophy of Science*.
- ◆ Pearl, J. (2009): *Causality*. Cambridge: Cambridge University Press. 2nd edition.
- ◆ Pocock, S. (2006): Current controversies in data monitoring for clinical trials. *Clinical Trials* 3: 513-521.
- ◆ Porter, T. (1995): *Trust in Numbers*. Princeton: Princeton University Press.
- ◆ Regt, H. de, and D. Dieks (2005): A Contextual Approach to Scientific Understanding. *Synthese* 144: 137-170.
- ◆ Reiss, J. (2007): *Error in Economics: Towards a More Evidence-Based Methodology*. London: Routledge.
- ◆ Royall, R. (1997): *Statistical Evidence – A Likelihood Paradigm*. Chapman & Hall, London.
- ◆ Rudner, R. (1953): The Scientist Qua Scientist Makes Value Judgments. *Philosophy of Science* 20: 1-6.
- ◆ Schupbach, J. (2011): *Studies in the Logic of Explanatory Power*. Ph.D. dissertation, University of Pittsburgh.
- ◆ Schupbach, J., and Sprenger, J. (2011): The Logic of Explanatory Power. *Philosophy of Science* 78: 105-127.
- ◆ Shafer, G. (1976): *A Mathematical Theory of Evidence*. Princeton: Princeton University Press.
- ◆ Sprenger, J. (2009): Evidence and Experimental Design in Sequential Trials. *Philosophy of Science* 76: 637-649.
- ◆ Sprenger, J. (2012a): Significance Testing: The Case of Lindley's paradox, accepted for publication in *Philosophy of Science*.
- ◆ Sprenger, J. (2012b): Environmental Risk Analysis: Robustness is Essential for Precaution. *Philosophy of Science*, in print.
- ◆ Sprenger, J., and D. Teira (2012): The Ethics of Statistical Testing, to appear in C. Luetge (ed.): *Handbook of the Philosophical Foundations of Business Ethics*. Berlin: Springer.
- ◆ Steele, K., H. Regan, M. Colyvan and M. A. Burgman (2007): Right Decisions or Happy Decision Makers? *Social Epistemology* 21: 349–368.
- ◆ Steele, K. (2012): The scientists qua policy advisor makes value judgments. Forthcoming in *Philosophy of Science*.
- ◆ Strevens, M. (2009): *Depth: An account of scientific explanation*. Cambridge/MA: Harvard University Press.
- ◆ Tentori, K., Crupi, V., Bonini, N., & Osherson, D. (2007): Comparison of confirmation measures. *Cognition* 103: 107–119.

- ◆ Vallinder, A., and E. Olsson (2012): Trust and the Value of Overconfidence: A Bayesian Perspective on Social Network Communication. Forthcoming in *Synthese*.
- ◆ Walley, P. (1991): *Statistical Reasoning with Imprecise Probabilities*. London: Chapman and Hall.
- ◆ Williamson, J. (2005): *Bayesian Nets and Causality: Philosophical and Computational Foundations*. Oxford: Oxford University Press.
- ◆ Williamson, J. (2010): *In Defence of Objective Bayesianism*. Oxford: Oxford University Press.
- ◆ Woodward, J. (2003): *Making Things Happen. A Theory of Causal Explanation*. Oxford: Oxford University Press.