

Philosophy 920 – Fall, 2000
Evidential Issues in Evolutionary Biology
Elliott Sober

Available at University Bookstore:

CI = E. Sober (ed.), *Conceptual Issues in Evolutionary Biology*, MIT Press, 2nd ed., 1994.

PB = E. Sober, *Philosophy of Biology*. Westview Press, 1993.

RTP = E. Sober, *Reconstructing the Past*. MIT Press, 1988.

OFA = R. McNeill Alexander, *Optima for Animals*, Princeton UP, 1996.

* = Other readings available at the Humanities Building Copy Center.

Design, Evolution, and Likelihood

Sober, PB, ch. 1.

Sober, "Introduction to Bayesian Epistemology" (on Sober's web site).

*W. Paley, excerpt from *Natural Theology*. 1805.

*S.J. Gould, "The Panda's Thumb" and "Senseless Signs of History." From *The Panda's Thumb*. Norton, 1980.

Sober, PB, ch 2.

*I. Hacking, "The Inverse Gambler's Fallacy." *Mind*, 1987, 96: 331-340.

*R. Royall, *Statistical Evidence – a Likelihood Paradigm*. Chapman and Hall, 1998, ch 1-3.

M. Forster and E. Sober, "Why Likelihood?" (on Forster's web site).

Testing Hypotheses of Common Ancestry

E. Sober, PB, ch. 5.

W. Hennig, "Phylogenetic Systematics." in CI.

S. Farris, "The Logical Basis of Phylogenetic Analysis." in CI.

E. Sober, RTP.

*Sober, "Modus Darwin," *Biology and Philosophy*. 1999, 14: 253-278.

Testing Adaptive Hypotheses

*A.J. Cain, "The Perfection of Animals." In J. Carthy and C. Duddington (eds.),
Viewpoints in Biology, vol. 3. London Butterworths, 1964, pp. 36-63.

S. Gould and R. Lewontin, "The Spandrels of San Marco and the Panglossian Paradigm." In CI.

J. Maynard Smith, "Optimization Theory in Evolution." In CI.

R. McNeill Alexander, *OFA*, excerpts.

Sober, PB, ch 3,5.

*W. Mitchell and T. Valone, 1990, "The Optimization Research Program – Studying Adaptations by their Functions." *Quarterly Review of Biology* 65: 43-52.

*Mark Ridley, *The Explanation of Organic Diversity*, Oxford University Press, 1983, pp. 1-44.

*S. Orzack and E. Sober, "Adaptation, Phylogenetic Inertia, and the Method of Controlled Comparisons." unpublished mss.