

Reflections on Fourteen Cryptic Issues Concerning the Nature of Statistical Inference*

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Knowledge can be communicated by teaching, . . . , but all teaching starts from facts previously known, as we state in the Analytica Posteriori, since it proceeds either by way of induction, or else by way of deduction.

Aristotle, *Ethica Nicomachia* VI. iii. 3.

Summary

The present paper provides the original formulation and a joint response of a group of statistically trained scientists to fourteen cryptic issues for discussion, which were handed out to the public by Professor Dr. D.R. Cox after his Bernoulli Lecture 1997 at Groningen University.

Key words: Bayesian analysis; Decision analysis; Distributional inference; Epistemic uncertainty; Foundations of probability theory and statistics; Likelihood approach; Nonparametric statistics; Objectivistic and personalistic interpretation of probability; Possibility theory; Prior distributions; Semiparametric statistics; Time series analysis.

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