EXPERIMENTS AND THEORY (Lecture 2) - worksheet


2. „The road to wisdom?
Well, it’s plain and simple to express.
Err, and err, and err again
But less and less and less.”
(A quip by Piet Hein, as related by Cosma Shalizi’s review of Mayo’s Error and the Growth of Experimental Knowledge; see www.santafe.edu/~shalizi/reviews/error)
Why does this quip describe well Smith’s view of reality (and maybe also the rhetoric) of experimentation? Explain.

3. Map the studies by Cherry et al. (AER 2002) and Bekkers (Survey of Research Methods 2007) to Figure 1 in Smith’s „Method in Experiment: Rhetoric and Reality“ (EE 2000). Explain exactly what is theory, what context, what experimental model, what data model, etc in those papers.

4. What is the essence of the Duhem-Quine problem? If a test supports a theory does that necessarily mean that the test was conducted properly and the theory has been supported? Explain your answer by means of the studies by Cherry et al. (AER 2002) and Bekkers (Survey of Research Methods 2007)

5. „The experiment is a model of a situation, just as it the theory.“ Comment.

6. Explain the motivation, design, implementation, and key results of Ortmann, Prokosheva, Rydval, Hertwig (2007), Valuing a Risky Prospect Less Than Its Worst Outcome: Uncertainty Effect or Task Ambiguity?

7. Explain the difference between a within-subject design and a between-subject design. What do Ortmann et al. Use? What problems could between-subject designs bring about? What do Andreoni & Miller use? What do Cherry et al use? What Bekkers?

8. Explain the motivation, design, implementation, and key results of Andreoni & Miller (ECMTA 2002). Do the results of that article support the results of the studies by Cherry et al. (AER 2002) and Bekkers (Survey of Research Methods 2007). If not, what could be possible reasons for differences?