

Workshop 2.1

Experimental Approaches

Scope of Experiment

- Stage
 - On computer (e.g., multi-agent simulation)
 - In laboratory with subjects
 - “Social experiment”
- Interaction
 - Independent vs. interactive subjects
- Feedback
 - Information, payoffs, ...

Issues: External Validity

- Payoff
 - Represents real rewards/penalties?
 - Evokes irrelevant emotions/feelings?
 - Evokes false decision mechanisms?
- Sensation
 - Can frustration be represented?
- Time Scale
 - Memory decay – acceleration factor in trying to understand learning process
 - Irritation

Recommendations

- Literature review on the effect of rewards
- Conduct a range of experiments to determine effects of payoff strategies on various biases
- Hybrid experiment
 - Longitudinal experiment with intervening real experience/exposure
 - “Virtual” field experiment—lab experiment x field experiment
- Identify what can be measured and cannot be measured in experiment, and in real world
 - E.g., unstructured Verbal Data

Other Issues

- Experimental Setting
 - Complex and concrete to gain realism?
- Representing Interactions among Subjects
 - Sequential piece-wise decision
 - Dynamic inter-subject interaction?
- Ethics
 - Privacy
 - Manipulating outcomes

Recommendations

- Pivot experimental design off real-life experience
 - Customize questionnaire to individual situations
- Mixed input information—longitudinal, dynamic, interactive, static, ...
- Getting feedback on the realism/relevance of the experimental content
 - Decision rules that people bring to process are endogenous to experimental design
- Longitudinal SP experiments to assess impact of experience on responses

Recommendations

- Application and use of laboratory experimental results in practice
- Use of Experts
 - Synthesizing expert predictions as a method of forecasting

Recommendations

- Better reporting of experimental design and experiment administration
- Increasing importance of role of field experiments – workshop in next conference