Economics at a crossroads

- Traditionally based on choice behavior
- Choices to be respected – consumer sovereignty

- Consistent choice explained by a utility representation
- Comparable utility representations lead to consistent normative evaluations of policies

The rational choice method has colonized political science, parts of sociology and is standard in 95% of economic analysis

At the same time….

- Accumulating evidence that choice is not consistent

Inconsistency as:

- Random error
- Biased error
- Weakness of will
- Multiple unreconciled objectives/drives of biological subsystems
    - Fitness for bygone environments?
- Presentation and context effects

Beneficial policy evaluation based on consumers' sovereignty:

Uncover and estimate a latent preference despite inconsistent observed choices

Different forms of inconsistency in simple problems and complex problems

Simple problems:

- We (outsiders) know what is best, and reflection by subject will generally agree.
- Benign paternalism can be useful in generating compliance.

Complex problems:

Too hard for outsiders.

Actual decision making

- A composition of many small complex problems
- Appear, in the aggregate, as a larger simpler problem.

Needs to be solved “on the ground”

Repeated or increasingly detailed questions about a choice problem may not reveal the same preference relation as “natural conditions”

- Reasons
- Finding one’s own way
- Time to explore counterfactuals

Non-stochastic true preference:

- Known to subject
- Unknown to subject

    Introspection costly or free

Intervention:

- Passive

    May have less influence on natural choice
- Active

    May help subject understand a complex problem or articulate reasons

Stochastic true preference

- Time scale may make a stable preference relation appear stochastic

    Preference for “variety”

Or,

- The preference may really be stochastic

Stochastic preference:

- How to distinguish stable random preference from error-ridden preference

Conditions for random choice to be consistent with an underlying stochastic preference relation:

Falmagne (1978) J. Math. Psych.
Barbara-Pattanaik (1986) Ecm.

Falmagne-Barbara-Pattanaik (FBP) test is based on “full observability”

x alternatives
X all possible alternatives
A available set

Data is c(x,A) = prob of selecting x from A
All (x,A) are in the domain.

Define q_c recursively by:

$$q_c(x,\phi) = c(x,X)$$

If not $x \varepsilon A$:

$$q_c(x,A) = c(x,X\backslash A) - \Sigma_{B \text{ in } A}\, q_c(x,B)$$

If $x \varepsilon A$:

$$q_c(x,A) = 0$$

FBP Necessary and Sufficient conditions for a rationalization by random preference:

$q_c(x,A)$ non-negative for all x,A

Three questions:

1. Need to have a method for testing the Falmagne conditions without enumerating (x,X).

    CS methods for restricting stochastic preference or using the structure of X are needed to make this computationally feasible.

2. Need to have a non-parametric estimate of stochastic preference based on limited data. In what cases can this be used as a stochastic latent preference?

3. What to do when FBP test fails on limited data set, even under the appropriate CS restrictions of preferences.