Subjective Agency Indicator

Controlling for Adaptive Preferences
Concepts

Inputs

rules → income → goods → capabilities → functionings → wellbeing

characteristics   midfare

Opportunity

Choice

Objectives
Relevance

• Obesity
  – expansion of opportunity set lead to aggravation of wellbeing

• Social Exclusion
  – Self-esteem, etc.

• Gender
  – Internalised values (voting, intrahousehold, birth)

• Employment
  – Overworked, necessity, degrading
Dataset

- 230 women: 2 spaces, 6 dimensions

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Agency question:
- No control, external pressure, please others, instrumental importance, fully endorse.
Problem

- **Interpersonal comparability** (Suh 1994)
  - Meaning, culture, etc.

- **Idiosyncratic differences** (Diener, Costa & McCrea, etc.)
  - Attitudes: optimism, self-esteem, neuroticism, etc.

- **Time adaptation** (Burchart, Brickman)
  - Duration of shock (injury, lottery, etc).

- **Structural adaptation** (Easterlin)
  - Social: caste, gender, religion, etc.

- **Values** (Diener and Fujita)
empowerment

welfare
empowerment

decision
Aggregating Across Dimensions

• Index:
  • Each dimension is indexed 0,1 (max, min in sample for each dim.)
  • Average index score across 6 dimensions in poverty/agency.
  • (-) Arbitrary weightings / (+) simplicity

• FGT scores:
  • Each dimension is considered as an observation
  • FGT score computed across 6 dimensions for each individual in two spaces
  • (-) Arbitrary Poverty Line / (+) FGT

• Ranksum:
  • Mann-Whitney two sample statistics (each dimension 1 observ.)
  • Probability that i has outperforms a given benchmark
  • (-) Less weight to outliers / (+) non-comparability of benchmarks across dimensions.
Graph 1: empowerment/ poverty indices

$y = -0.0399x + 0.693$

$y = 0.0786x + 0.7301$

$y = 0.0575x + 0.9551$
Conflicting Phenomena

• **Correlation:**
  – Better off people feel more empowered
    • Problem: double counting

• **Adaptation:**
  – Better off people are more demanding
    • Problem: measuring the opposite of what we’re trying to measure.

• **Difference:**
  – *Index*: If strong adaptation in some dimensions, strong correlation in others, it cancels out.
  – *Ranksum*: If correlation in more dimensions, then this will dominate.
  – *FGT*: If strong adaptation at high levels of income, this will dominate (see FGT2).
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Solution

- Panel
  - Can eliminate idiosyncratic and structural differences but not time and value-related adaptation

- Time series analysis
  - Requires long data series (virtually impossible for poverty work)

- Structural equation
  - Can help understand endogenous preferences
  - Requires a theoretical model of preference formation process
Solution

• Use the error term from the regression
  – Empowerment relative to peers.

• Advantage
  – Purge data of double counting and adaptation

• Disadvantage
  – Sample-specific
  – Peer-specific (might be judged as empowered, when in fact, it is just that your peers have adaptation)
  – Might lose important information in the process (correlation)
## Regressions

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### Results

- **Hausman Test:** 0 Rejected
- **G. Hausman:** 0 Rejected
- **Hausman Test:** - N/A
- **G. Hausman:** 0 Rejected

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### Results

- **Hausman Test:** - N/A
- **G. Hausman:** 0.304 Accepted
Graph 3: FGT indices (corrected for adaptive preferences)
Hybrid

- 1. General empowerment indicator (steps)
- 2. Decision Making Indicator
- 3. Agency Indicator

- Revised Agency Indicator : G + D *A
Graph 3: FGT indices (corrected for adaptive preferences)
Aggregation Across Spaces

• Stochastic Dominance (Duclos)
  – Union: poor if either disempowered or deprived
    • E.g. obesity
  – Intersection: poor if both disempowered and deprived
    • E.g. fasting.
Poverty Dominance Surface