Well-being measurement and fairness

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Outline

• Subjective well-being
• Opportunities
• Equivalence approach
• Examples
Well-being measurement: for what purpose?

• Health evaluation
  – Physical and mental well-being

• Living standards
  – Economic affluence

• Social welfare/justice evaluation
  – Advantage

• The measure of well-being is not a given that serves as an input to social evaluation, it is part of it: different principles of justice require different measures
Subjective well-being

1. Hedonic: emotions, feelings
2. Evaluative: satisfaction, eudaimonia

• Hedonic:
  – Good measure of advantage for hedonism (a perfectionist approach)
  – A relevant component of advantage for other approaches
  – A proxy of broader advantage?
Subjective well-being

1. Hedonic: emotions, feelings
2. Evaluative: satisfaction, eudaimonia

• Evaluative:
  – Not comparable when people use the scales differently
  – A source of information about values and preferences?
  – A good proxy for a broad measure of advantage? The “paradox of happiness”
Subjective well-being and income as outliers

Source: Decancq and Neumann, Oxford Handbook of WB and Public Policy
Opportunities

• Post-Rawlsian philosophy: personal responsibility, opportunities, capabilities

• Theoretical schools:
  – Utilitarian vs libertarian over the consequences of responsibility
  – Responsibility sphere: control vs preferences

• Empirical schools:
  – Disparity among circumstance groups (=inequality in average outcomes)
  – Hypothetical outcome (replace responsibility variable with reference value)
  – Multidimensional poverty
Responsibility is suspect but necessary

• The free will problem: social science based on metaphysics?
  – The disparity approach gives lower bounds
  – The hypothetical-outcome approach assumes responsibility for specific variables

• False positives: it is tough to be an undeserving poor

• But responsibility follows from freedom, respect for values & preferences
  – Replace the undeserving poor by the committed frugal
Fairness as respect for values & preferences

Indifference curves

is better off than
Fairness as respect for values & preferences

Indifference curves

- is better off than even if different individuals

Same-preference principle
Same-pref principle not satisfied by subjective well-being

Indifference curves

6  5

is better off than even if different individuals

Same-preference principle

Indifference curves

satisfaction
Same-pref principle not satisfied by opportunity approach

- Disparity approach: personal outcome replaced with average outcome in the circumstance group
- Hypothetical-outcome approach: personal outcome replaced with hypothetical outcome
Fairness as respect for values & preferences

• **Theorem**: A measure of well-being $w(x, R)$ satisfies the “same-preference” principle iff $w(x, R)$ is a representation of $R$ for every $R$.

• **Comment**: Anonymity brings interpersonal comparisons
Fairness as respect for values & preferences

Indifference curves

- 
  - is better off than
  - even if different PREFERENCES

Nested-contour principle
Fairness as respect for values & preferences

- **Theorem**: A measure of well-being $w(x, R)$ satisfies the “nested-contour” principle iff it is an increasing function of indifference curves.

- **Comments**:
  - Are these principles compelling? Only if all relevant dimensions of life are recorded
  - Is there a wedge between the same.Preference principle and the nested-contour principle? The latter follows from the former under “independence of irrelevant indifference curves”
  - Are there measures that satisfy these principles?
    - Not subjective well-being
    - Not opportunities
Equivalence approach

Compare people by their equivalent bundles on a reference path

Indifference curves
Equivalence approach

On the path, preferences are irrelevant
Equivalence approach

A dominating bundle is not necessarily better, it depends on preferences.

Theorem: No approach satisfies Same-Preference principle and Dominance principle.
Equivalence approach

The reference path can be a collection of nested sets

Indifference curves
Equivalence approach

A combination of equivalence indexes still satisfies the Nested-Contour principle

Indifference curves
Area approach

The area below indifference curves is the sum of equivalence indexes.
How to choose the reference(s)?

• One reference:
  – Locus of interpersonal comparisons that do not depend on preferences
  – “Normal” path (e.g., good health)
  – Average path of development: this minimizes the dependence on preferences

• Several references:
  – Then all interpersonal comparisons depend on preferences
  – Can there be several normal paths?
  – Central paths of development: can be combined with the area approach
Equivalence/area approach

Area approach restricted to a particular zone

Indifference curves
Other fairness principles

• Dominance (of bundles) restricted to a particular zone
• **Theorem:** The single-path equivalence approach is characterized by the Same-Preference principle and the Dominance principle restricted to a zone (and the zone must be a single path)
Equivalence approach characterized

Compare people by their equivalent bundles on a reference path
Equivalence approach characterized

With a larger zone, one can construct cycles
Other fairness principles

• Dominance (of bundles) restricted to a particular zone

• **Theorem**: The single-path equivalence approach is characterized by the Same-Preference principle and the Dominance principle restricted to a zone (and the zone must be a single path)

• This shows that the equivalence approach is compatible with an “objective” type of comparisons (i.e., made in the space of bundles)
Other fairness principles

- Indifference curves
- Supremum nested-contour principle
Other fairness principles

Theorem: Supremum nested-contour is equivalent to an equivalence approach with reference sets from below.
Other fairness principles

• Do people deserve their market earning potential (wage rates, for ordinary workers)?
• Does work aversion deserve favorable treatment? (e.g., because of care burden)
Consumption-work setting

consumption

labor
Equivalent budget of the 1st-best type
Choice of equivalent budget slope

Same slope for all: personal wage rate is irrelevant
Choice of equivalent budget slope

Flatter slope: more favorable to work-averse preferences
Choice of equivalent budget slope

Personal slope based on market wage rate: makes it possible to reward or punish the more productive
Reward the more productive labor consumption based on market wage rate: makes it possible to reward or punish the more productive people. The lower the reference labor for budget comparisons, the more productive people are rewarded.
Reward the more productive

The lower the reference labor for budget comparisons, the more productive people are rewarded

In the extreme, one obtains the libertarian approach
Punish the more productive labor consumption.

The lower the reference labor for budget comparisons, the more productive people are rewarded.

In the other extreme, one obtains the slavery of the talented.
Illustration: optimal income tax in the USA (maximin)

Budget under egalitarian-equivalent optimal tax
\( \lambda = 1, \text{ref. wage} = 0, 25, \text{or} 50 \)

- ref. wage = 0
- ref. wage = \( w_{\text{min}} \) (=25)
- ref. wage = 50
- Laissez-faire

Same slope for all, at 3 levels: 0, minimum wage, 2xminimum wage
Illustration: optimal income tax in the USA (maximin)

Slope = personal market wage rate, with 4 reference labor values: 0, 20%, 50%, 100% of full time
Actual US tax
Conclusion

• Fairness conditions help select well-being measures:
  – Same-preference principle excludes SWB and opportunity
  – Add Dominance principle over a zone -> equivalence approach
  – Market earning potential, work aversion -> particular equivalent budgets
References and further readings

- Decancq, Fleurbaey, Schokkaert, "Inequality, income, and well-being", in *Handbook of Income Distribution 2A*, Elsevier, 2015
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