

# Three Challenges in Evaluating Social Welfare and Well-being

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# Overview

- When using social welfare as a measure of "social goodness" in normative evaluation, we need to clarify our approach regarding at least three key issues:
  1. how to measure individual well-being and living standards;
  2. how to aggregate and evaluate distributions of individual well-being across society;
  3. what normative criteria should be used for our evaluation of social welfare.

# 1. Individual well-being/living standard

- The first challenge in our discussion is figuring out how to measure an individual's **well-being** or **living standards**. For the sake of simplicity, I'll be setting aside the problems of risk and uncertainty.
- As **Arrow's theorem** showed, it is impossible to construct a meaningful **social welfare function** in the setting of **ordinal interpersonal non-comparable utilities**.
- If we allow for **interpersonal comparisons of well-being**, various "possibility theorems" emerge. As Sen and his followers have powerfully argued, such comparisons ***are*** indeed possible.

# 1. Individual well-being/living standard

- Any theory suggesting that the living standards of billionaires and homeless people are incomparable is not just incorrect, but could even be harmful to society.
- Relying on **income** or **happiness** as proxies for individual well-being leads to the problems.
- In fact, happiness is often plagued by issues like **adaptive preferences** and the **hedonic treadmill**. We don't have a reliable tool to compare an unhappy person who is wealthy with a happy person who is living in poverty.

# 1. Individual well-being/living standard

- Simply using income or purchasing power as measures of individual well-being can be misleading. For example, as Sen points out, African-American males in the 1980s had a shorter life expectancy than poorer people in some developing countries.
- To address these complexities, welfare economists propose alternative approaches such as the **equivalent approach** and the **capability approach** as more suitable measures of living standards.

# 1. Individual well-being/living standard

- Objectivism or Subjectivism of Living Standards
- Fleurbaey's **Equivalent Approach** (Subjective Indicator, See Fleurbaey 2009)
  - individual well-being = the value of multidimensional factors following an individual's own preference.
  - violates the **dominance principle** (Even if individual A has advantage over individual B in all dimensions, A may be judged to have lower well-being than B).
  - is fully consistent with a person's preference (If individual A prefers an opportunity X to an opportunity Y, X for A must be evaluated as having higher well-being than Y for A).

# 1. Individual well-being/living standard

- Objectivism or Subjectivism of Living Standards
- Sen's **Capability Approach** (Objective Indicator, See Sen 1985)
  - individual well-being = the value of multidimensional opportunities for choice that a person can enjoy.
  - satisfies the dominance principle (If individual A has advantage over individual B in all dimensions, A is judged to have higher well-being than B).
  - is inconsistent with a person's preference (Even if individual A prefers an opportunity X to an opportunity Y, X for A may not be evaluated as having higher well-being than Y for A).

# 1. Individual well-being/living standard

- Objectivism or Subjectivism of Living Standards
- Mathematical results (See **the indexing dilemma**) show that well-being indicators must fall into one of two categories—either subjective or objective.
- Given this result, the capability approach seems to provide a suitable measure of living standards. This is partly because individual preferences can often be ambiguous, variable, unobservable, and biased, that means the significant problem about adaptive preferences and misspecification of preferences within subjective indicators. The CA simply provides information of objective values of choice opportunities and achievement of life dimensions.



# 1. Individual well-being/living standard

- Multidimensional and complex components of individual well-being
  - Effective purchasing power (real purchasing power of necessities, considering intra-household distribution)
  - Leisure time
  - Health (physical and mental)
  - Education level, knowledge, and skills
  - Household property, financial assets, social security
  - Social capital
  - Safety and security
  - Quality of the natural environment
  - Effective freedom and civil rights

## 2. How should individual well-being be aggregated?

- Given a measure of individual well-being, we obtain a distribution of individual well-being. Then, how should we aggregate and evaluate this distribution?
- When comparing economies across countries, the standard practice of using indicators like total or average income completely overlooks a crucial aspect: **distributional equity**. Indeed, these methods state a perfect equal distribution is socially indifferent from a perfect unequal distribution when they have the same total income.

## 2. How should individual well-being be aggregated?

- To improve this limitation, I axiomatically derived a general method for comparing distributions, which includes a simpler approach. Essentially, by employing the following methods, we can easily compare the distribution of living standards between countries, moving beyond mere averages to understand the approximate real picture of well-being distributions.
- Intra-national aggregation (Sakamoto & Mori 2021; Sakamoto 2024a)
  - **Quantile Mean Comparison Method:** A method that sets population ratio divisions for well-being and calculates and compares the average level within those population ratio divisions (a simplified version of rank-weighted utilitarianism).
  - **Interval Population Ratio Comparison Method:** A method that sets welfare level divisions and calculates and compares the population ratio within those welfare divisions (a simplified version of generalized utilitarianism/prioritarianism).

## 2. How should individual well-being be aggregated?

- However, these methods have serious flaws. Our moral intuition strongly suggests it's wrong to demand great sacrifices from a **disadvantaged minority** for the sake of even larger overall gains that result from very tiny benefits spread across a **wealthy majority**. Yet, these methods must go against this moral intuition.
- The similar problem also arises in intertemporal aggregation problems. For example, the standard time discounting approach allows a large sacrifice of the future generations for a small benefit of the current generation. Hence, in aggregation problems, a method for appropriately balancing the interests of the minority and the majority is needed. I don't have time to go into detail, but I have recently proposed a balanced solution to this problem.(Sakamoto 2024b; Sakamoto@Voorhoeve 2025).

# 3. What is fairness?

- A final challenge in measuring social welfare is how to take into account normative criteria other than Pareto efficiency and distributive equity.
- As **Sen's liberal paradox** illustrates, different normative criteria often clash. Therefore, when we're trying to evaluate social goodness, we have to carefully balance the **trade-offs** between them.
- For instance, recent research explores a theory of social welfare functions that incorporates principles like **libertarian ownership** and **moral desert**. In this framework, any infringement on an individual's legitimate property rights or moral desert is seen as a direct loss in social welfare. This loss is evaluated separately from people's well-being, influencing the assessment of social goodness. Research is also ongoing to integrate many other normative criteria such as luck egalitarianism and the principles of needs and sufficiency into social welfare functions.

# 3. What is fairness?

- Examples of other normative ideals to consider :
- Principle of Desert and Ownership
  - Who deserves to get/not get what?
  - What is legitimate ownership? How strong are ownership rights?
  - What are the legitimate penalties for violating justice of ownership and transfer procedures?
  - Do profits from rent-seeking deserve legitimate ownership?

# 3. What is fairness?

- Examples of other normative ideals to consider :
- Equality of Effective Opportunity (Scope and Intensity of Compensation for Non-Responsible Factors)
  - What is the scope and intensity of factors for which an individual cannot be held responsible?
  - What is the appropriate level of social compensation for non-responsible factors?
- Principle of Needs and Sufficiency
  - What is the unacceptable level of poverty?
  - How much moral claim should be recognized for improving the level of unacceptable poverty?

# 3. Conclusion

- To assess and compare the desirability of societies and various groups, we need to answer the following three questions:
  - 1. Allowing comparisons of individual well-being, it is necessary to choose whether to use subjective or objective well-being indicators (I believe that objective indicators are better than subjective indicators, in order to objectively compare data from countries and regions).



# 3. Conclusion

- To assess and compare the desirability of societies and various groups, we need to answer the following three questions:
  - 2. A method is needed to aggregate and evaluate distributions of individual well-being. I believe that the quantile mean comparison method and the interval population ratio comparison method are good ones that can simply provide a general evaluation. However, these methods fail to take into account the interests of minorities, so we additionally need to appropriately balance the interests of the majority and minority.

# 3. Conclusion

- To assess and compare the desirability of societies and various groups, we need to answer the following three questions:
  - 3. We also need to balance various normative criteria. I believe that it is important for economists to examine theoretical consistency between various criteria and construct a functional form for balancing them. In addition, I believe that the parameters for balancing should be decided through public debates.

# References

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