Observations on the Possibility of Welfare Economics and Capability Approach

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Three Central Observations

(O_1) Lineage of Non-Consequentialist Welfare Economics

Arthur Pigou; John Hicks; Amartya Sen

(O_2) Transcendental Institutionalism versus Comparative Assessment Approach in Welfare Economics

Pigou: Instruments for Bettering Human Life

Kaldor and Hicks: Compensation Principles

Bergson and Samuelson: Social Welfare Function

Amartya Sen: Focus on Capabilities and Functionings

(O_3) Interface between Public Action and Individual Freedom of Choice

John Stuart Mill; Friedrich Hayek; Amartya Sen

Welfare Economics and Social Choice Theory

Welfare Economics: A branch of normative economics, which is concerned with the critical examination of the performance of actual and/or imaginary economic systems and also with the critique, design, and implementation of alternative economic policies.

Social Choice Theory: Another branch of normative economics which is concerned with the evaluation of alternative methods of collective decision-making as well as with the logical foundations of welfare economics.

A Bird's-Eye History of Welfare Economics

Pigou's Proclamation: Preface to *The Economics of Welfare* (1920): "The complicated analyses which economists endeavour to carry through are not mere gymnastic. They are instruments for the bettering of human life."

Orthodox Understanding of Pigou's Research Program:

Design an institutional framework of the economy so as to identify and implement a solution $x^* \in S$ to the following problem:

(B-P) Max $\{u_1(x) + u_2(x) + \cdots + u_n(x)\}$ over all $x \in S$,

where S is the set of feasible social alternatives, u_i is the utility function of individual i, and **(B-P)** is the abbreviation of (Bentham and Pigou) [utilitarian sum total of individual utilities].

Lionel Robbins's Epistemological Criticism

"By the end of the century, positivism is well represented in the passionate writings of Vilfredo Pareto. The time was overripe within the Anglo-Saxon tradition for nihiristic questioning of the inherited Bentham-Edgeworth hedonistic utilitarianism. When Robbins sang out that the emperor had no clothes --- that you could not prove or test by any empirical observations of objective science the normative validity of comparisons between different persons' utilities --- suddenly all his generation of economists felt themselves to be naked in a cold world. Most of them had come into economics seeking for the good. To learn in midlife that theirs was only the craft of a plumber, dentist, or cost accountant was a sad shock."

Paul Samuelson, "Bergsonian Welfare Economics," 1981.

Two Schools of "New" Welfare Economics

Compensation Principles School: Kaldor and Hicks

The *Kaldor superiority relation P_K*: $x\,P_K\,y$ if and only if there is an x^* in $C(x)$ such that x^* is Pareto superior to y, where $C(x)$ is the compensatory equivalence class of x.

The *Hicks superiority relation P_H* is defined by $x\,P_H\,y$ if and only if there is *no* alternative $y^* \in C(y)$ such that y^* is Pareto superior to x.
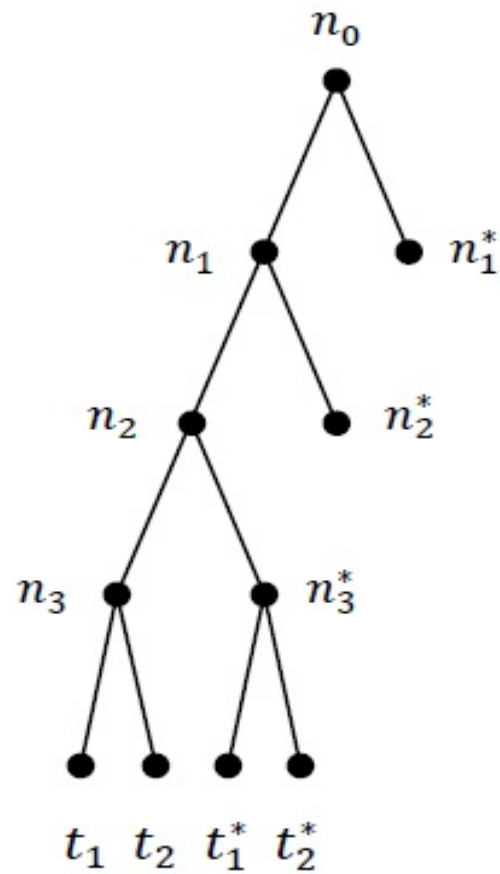
Social Welfare Function School: Bergson and Samuelson

Design an institutional framework of the economy so as to identify and implement an x^* in S such that

(B-S) Max $f(u_1(x), u_2(x), \ldots, u_n(x))$ over all $x \in S$,

where f is the Bergson-Samuelson social welfare function, which is given exogenously from outside of economics.

Informational Tree of Normative Judgments

Classifications of Informational Bases

n_0 : initial node

n_1 : consequentialism

n_1^* : non-consequentialism

n_2 : welfarist consequentialism (welfarism)

n_2^* : non-welfarist consequentialism (non-welfarism)

n_3 : welfarism with ordinal utilities or welfares

n_3^* : welfarism with cardinal utilities or welfares

t_1 : welfarism with interpersonally non-comparable ordinal utilities

t_2 : welfarism with interpersonally comparable ordinal utilities

t_1^* : welfarism with interpersonally non-comparable cardinal utilities

t_2^* : welfarism with interpersonally comparable cardinal utilities

John Hicks's Farewell to Economic Welfarism

John Richard Hicks, "Preface --- and a Manifesto," in *Wealth and Welfare: Collected Essays on Economic Theory*, Vol. 1, Basil Blackwell, 1981. Originally published in 1959.

Hicks's esoteric *manifesto* posed the following two questions.

(Q_1) Did Hicks's *manifesto* aim at economic welfarism, but not at welfarism more generally? Put differently, was Hicks resigned to stay within the territory of welfarism even after he denied economic welfarism, or was he ready to cross the welfarist boundary towards non-welfarism?

(Q_2) Supposing that Hicks was ready to leave the kingdom of welfarism, how far was he ready to go back along the informational tree of normative judgments? Was he willing to remain within the territory of consequentialism, or was he willing to cross the consequentialist boundary towards non-consequentialism?

Non-Consequentialist Economics of Well-Being and Freedom: John Rawls and Amartya Sen

Rawls's Theory of Justice

John Rawls argues that the **two principles of justice** would be chosen in the original position of primordial equality.

The **first principle** requires that each person is assured of an equal right to the most extensive liberty compatible with a similar liberty for all persons.

The **second principle** requires that inequalities are arbitrary unless it is reasonable to expect that they will work for every person's advantage. In other words, social inequalities should be so arranged as to make the worst-off person best-off.

Sen's Theory of Functioning and Capabilities

The basic purpose of the capability approach is to drive in a wedge between the traditional concentration on *opulence* or *utility* and the Aristotelian concentration on the *achievement of valuable functionings* and the *capability to achieve such func- tionings* as the informational basis of welfare economics.

The functionings represent parts of the state of a person --- in particular the various things that he/she manages to do or be in leading a life. The capability of a person reflects the alternative combinations of functionings the person can achieve, and from which he/she can choose. The assessment of welfares and of freedoms can be related to the achieved functionings and to the capability to achieve them.

Articulation of the Capability Approach (1)

c : characteristic function

f_i : individual i's utilization function

F_i : individual i's accessible utilization functions

$\boldsymbol{b}_i = f_i(c(\boldsymbol{x}_i))$: the being or doing that i can manage to achieve by
using the commodity vector $\boldsymbol{x}_i$ in his/her possession
by means of an appropriate choice of utilization func-
tion f_i from F_i

$A_i(\boldsymbol{x}_i : F_i)$: the set of all attainable functioning vectors on the basis
of the commodity vector $\boldsymbol{x}_i$ via the choice of $f_i \in F_i$:

$$A_i(\boldsymbol{x}_i : F_i) := \{ \boldsymbol{s}_i \mid \exists f_i \in F_i : \boldsymbol{s}_i = f_i(c(\boldsymbol{x}_i))\}.$$

Articulation of the Capability Approach (2)

E_i : the set of individual i's entitlement

$A_i(E_i : F_i) := \cup A_i(\boldsymbol{x}_i ; F_i)$ over all $\boldsymbol{x}_i$ in E_i : individual i's capability, which represents the effective freedom that i entertains, given his/her command over commodity vectors circumscribed by E_i, and the extent F_i of his/her freedom of choosing a utilization function.

The well-beings of individuals hinge squarely on the profile $\boldsymbol{E} = (E_1, E_2, \ldots, E_n)$ of entitlements, the transformation function c, the profile $\boldsymbol{F} = (F_1, F_2, \ldots, F_n)$ of admissible utilization functions, the profile $\boldsymbol{v} = (v_1, v_2, \ldots, v_n)$ of individual evaluation functions, which shows i's evaluation of his/her functioning vectors such that, for any two functioning vectors $\boldsymbol{s}, \boldsymbol{t}$, $v_i(\boldsymbol{s}) \geq v_i(\boldsymbol{t})$ implies that the functioning vector $\boldsymbol{s}$ represents a no less valuable way of life than the life circumscribed by another functioning vector $\boldsymbol{t}$ in i's own judgments, and the profile $\succcurlyeq$ $= (\succcurlyeq_1, \succcurlyeq_2, \ldots, \succcurlyeq_n)$ of extended evaluation orderings.

On the Concept of Extended Evaluation Ordering

 The concept of *extended evaluation ordering* is introduced to make the notion of the intrinsic value of freedom of choice operational. It is formally defined by $\succcurlyeq_i$ such that $(s, S) \succcurlyeq_i (t, T)$ holds if and only if, according to i's judgments, choosing s from S is at least as good as choosing t from T.

 Individual i has an intrinsic preference for the freedom of choice if $(s, S) >_i (s, \{s\})$ holds for some (s, S) such that $s \in S$ and $\{s\} \subsetneqq S$,

 For the sake of consistency it is assumed that the evaluation function v_i and the extended evaluation ordering $\succcurlyeq_i$ are so related that $(s, \{s\}) \succcurlyeq_i (t, \{t\})$ holds if and only if $v_i(s) \geq v_i(t)$ holds.

Articulation of the Capability Approach (3)

Our interpretation goes as follows. We start from Rawls's "first principle of justice," which requires that "each person is to have an equal right to the most extensive basic liberty compatible with a similar liberty for others." It is required that the economic system should be so arranged that the profile E of individual entitlements and the profile F of sets of accessible utilization functions should satisfy the following condition. Let A^* be such that $A \in A^*$ holds if and only if the profiles E and F can be so arranged that

$$A = A_1 (E_1 : F_1) = A_2 (E_2 : F_2) = \ldots = A_n (E_n : F_n)$$

holds. Making use of A^*, we define $A (E : F)$ as a $\supseteq$-maximal element of A^*, viz.

$$A (E : F) \in A^* \ \& \ [\ \nexists A \in A^*: A \supseteq A (E : F) \ \& \ \neg A (E : F) \supseteq A\ ]$$

holds. By definition, $A (E : F)$ embodies the basic idea of equitable allocation of maximal overall freedom, which seems to lie at the core of Sen's capability approach.

Articulation of the Capability Approach (4)

We now define the best functioning vector for each individual i subject to the "first principle of justice" by $s_i^* \in A\,(E:F)$ such that

$$\forall\ s_i \in A\,(E:F): (s_i^*, A\,(E:F)) \succcurlyeq_i (s_i, A\,(E:F)).$$

Observe that the "first principle of justice," which requires that all individuals have the equal capability $A\,(E:F)$, need not imply that the profile E of individual entitlements [resp. the profile F of sets of accessible utilization functions] should be such that $E_i = E_j$ for all i and j [resp. $F_i = F_j$ for all i and j] must hold. Quite to the contrary, if someone in the society is either handicapped, or is facing racial or sexual discrimination, the economic system should be so arranged as to compensate him/her by securing his/her preferentail access to more fertile entitlement [resp. the richer set of utilization functions] so that we can secure equal overall freedom for all individuals.

Concluding Observations

(O_1) Although Pigou was a devoted utilitarian in the tradition of Jeremy Bentham, Pigou had his doubt on the exclusive use of welfarist informational basis of welfare econom-ics. Hicks opened the Pandora's box of non-welfarist informational bases of welfare economics, which is even more far-reaching than he seems to have thought. Rawls and Sen developed two fully-fledged theories based on the non-consequentialist informational bases.

(O_2) Sen's dechotomy in the theory of justice between trans-cendental institutionalism and comparative assessment approach has a parallel dichotomy in welfare economics.

Concluding Observations Continued

(O_3) Interface between Public Action and Individual Freedom of Choice is one of the crucial issues in moral and political philosophy. John Stuart Mill, Friedrich Hayek, and Isaiah Berlin, among many others, made their respective contributions to this intriguing issue. Amartya Sen turned over a new leaf in this arena through his capability approach to the theory of well-beings and individual freedoms by means of functionings and capabilities.

Agenda and Non-Agenda of Government

We have to discriminate between what Bentham, in his forgotten but useful nomenclature, used to term *Agenda* and *Non-Agenda*, and to do this without Bentham's prior presumption that interference is, at the same time, 'generally needless' and 'generally pernicious'. Perhaps the chief task of economists at this hour is to distinguish afresh the *Agenda* of the government from the *Non-Agenda*; and the companion task of policies is to devise forms of government within a democracy which shall be capable of accomplishing the *Agenda*.

John Maynard Keynes, "The End of Laissez-Faire," 1926.

Reprinted in *The Collected Writings of John Maynard Keynes*, Vol. IX, *Essays in Persuasion*, Macmillan, 1972, p. 288.

Background Writings: Kotaro Suzumura

On Social Choice Theory and Welfare Economics

Arrow, K. J., A. K. Sen, K. Suzumura, eds. (2002): *Handbook of Social Choice and Welfare*, Vol. 1, North-Holland/Elsevier.

Arrow, K. J., A. K. Sen, K. Suzumura, eds. (2011): *Handbook of Social Choice and Welfare*, Vol. 2, North-Holland/Elsevier.

Suzumura, K. (1983/2009): *Rational Choice, Collective Decisions and Social Welfare*, Cambridge University Press.

Suzumura, K. (2016): *Choice, Preferences, and Procedures: A Rational Choice Theoretic Approach*, Harvard University Press.

Background Writings: Kotaro Suzumura

Papers Related to Capability Approach

Suzumura, K. (2016a): "Equitable Allocation of Maximal Over-all Freedom: Sen's Capability Approach Revisited," forth-coming in E. Chiappero, M. Qizilbash, and S. Osmani, eds., *Handbook on Capability Approach*, Cambridge University Press.

Suzumura, K. (2016b): "Pigou's 'Old' Welfare Economics, Hicks's Farewell to Welfarism and Sen's Non-Consequentialist Approach to Well-Being and Freedom," to be presented at the International Workshop 2016 held at Hitotsubashi University.