An Executive Function for Stability

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1 Motivations

Dasgupta [4] suggests human well-being can be defined as the value that someone attaches to personal circumstances in a social state of affairs and the rights that they enjoy. Therefore, to establish a state of well-being it would be a natural duty to comply with just institutions where they apply to myself and to assist in the establishment of just arrangements where they do not exist. In order to insure the integrity of agreements, it is useful to make public knowledge proposals for a sense of what is right which is strictly complied with. However, there is no expectation that others share similar interests.

2 A Note on Intuitionism

There is a body of literature that give a prominent place to the appeal of basic intuition unguided by constructive and ethical criteria. Moore [8] asserts that:

"The property of goodness cannot be defined."

However, I believe there is a need to support more than a mere de facto resolution of competing interests and a reliance on existing conventions and established expectations that would likely result. To achieve this, a general solution is needed to the priority problem of assigning weights to competing principles of justice.

3 Minimum Decency

Rawls' [13] full statement of justice for institutions is a concise and widely recognised solution to the priority problem of justice as fairness. A sense of which I wish to share and apply. An account, but not a defence, follows.

3.1 First principle

"Each person is to have an equal right to the most extensive total system of equal basic liberties compatible with a similar system of liberty for all."

3.2 Second principle

"Social and economic inequalities are to be arranged so that they are both:

- a) to the greatest benefit of the least advantaged, consistent with the just savings principle, and
- **b)** attached to offices and positions open to all under conditions of fair equality of opportunity."

3.3 First priority rule: the priority of liberty

"The principles of justice are to be ranked in lexical order and therefore liberty can be restricted only for the sake of liberty. There are two cases:

- a) a less extensive liberty must strengthen the total system of liberty shared by all;
- b) a less than equal liberty must be acceptable to those with lesser liberty."

3.4 Second priority rule: the priority of justice over efficiency and welfare

"The second principle of justice is lexically prior to the principle of efficiency and to that of maximising the sum of advantages; and fair opportunity is prior to the difference principle. There are two cases:

- a) an inequality of opportunity must enhance the opportunities of those with the lesser opportunity;
- **b)** an excessive rate of saving must on balance mitigate the burden of those bearing the hardship."

3.5 General conception

"All social primary goods—liberty and opportunity, income and wealth, and the bases of self-respect—are to be distributed equally unless an unequal distribution of any or all of these goods is to the advantage of the least favoured."

4 Rate of saving

Rawls' second priority rule stipulates a requirement to control rates of saving, so that excessive rates on balance mitigate the burden of those bearing the hardship. Therefore, there is a requirement to estimate the present generations rate of saving. This returns an aggregation of the well-being of individuals, often described as *intergenerational well-being*.

4.1 Cost-benefit analysis

Dasgupta [5] explains how we value when comparing objects and we evaluate when comparing the benefits of actions. Valuation and evaluation both involve comparisons between worlds with and without the course of action or object. This process is called social cost-benefit analysis and involves measuring consumer and producer surpluses. Carrying out social cost-benefit analysis requires a quantitative formulation of intergenerational well-being, for which Ramsey's Mathematical Theory of Saving [12] is a well respected candidate and can be summarised as follows:

$$V_t = \sum_{t=0}^{\infty} \beta^{(\tau - t)} \cdot U(C_{\tau}) \quad \text{for} \quad t \ge 0$$
 (1)

where,

$$\beta = \frac{1}{(1+\mu)} \tag{2}$$

Where, V_t is intergenerational well-being, β is the discount factor, U is well-being, C_{τ} is consumption during time-step, t is time and μ the social discount-rate.

$$\mu = \sigma \cdot (C_t) + \delta \tag{3}$$

Where, σ is the marginal utility of consumption and the difference in the utility one would gain from a unit of consumption by those of low and high incomes, g is the long-term growth rate in consumption, δ is the pure rate of time preference and our impatience to consume resources in fear of extinction.

$$S = \frac{\mu - \delta}{\sigma \cdot \mu} \tag{4}$$

Where, S is the savings rate and the proportion of output that should be invested. In practical applications, $U(C_{\tau})$ can be substituted for net cash-flow in time period to yield a familiar equation.

4.2 Accounting

To establish estimates for rates of saving it is necessary to account for circumstances with and without a course of action or object. There are a broad range of influences on well-being that need to be accounted for. Dasgupta [6] proposes a convenient taxonomy illustrated in Figure 1.

Enabling assets allow society to be more precise about their influences on the physical environment, may be defined as software and possibly released for mass production. Dasgupta[5] also describes how enabling and production assets can exhibit different types of value:

Use-value: the contribution of an asset to well-being once consumed;

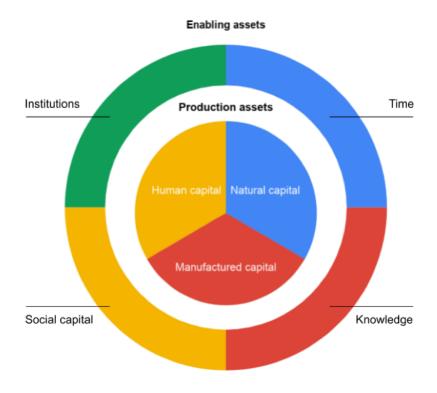


Figure 1: Dasgupta's taxonomy of influences on human well-being

Intrinsic-value: the contribution of an asset to well-being in the understanding that it exists (e.g. believing that polar bears roam free in the arctic);

Option-value: the contribution of an asset to well-being in the understanding that it may be consumed at some point in the future.

The attitudes and preferences that characterise a state of well-being are not defined and need to be found. Recognised methods to evaluate social attitudes and preferences

Stock markets: Determines the values of a supply of commodities through a process of market clearing.

Hedonic regression: Determines the value of amenities by comparing house prices and the amenities available on different parcels of land to each other using regression analysis.

Satisfaction/approval surveys: Determines the level of approval from a representative sample of respondents for a particular amenity. Arrow et al. [1] recognised that respondent heuristics prevent valuation of an amenity using survey methods.

4.3 Externalities

Often, one's own activities can yield personal benefits at the expense of those who have no interest. Environmental pollution is a good example, where the impacts upon others may not be accounted for by the source. Coase [3] has demonstrated that by collecting reliable information about the precise sources of these activities and impacts on property rights effective resolutions can be found.

4.4 A selection of social contributions and their savings rates

Table 1 provides statistics of social discount rates applied to various social contributions, including social-cost benefit of greenhouse gas emissions and large-scale infrastructure. Note, savings rates marked with * have been used to inform UK domestic policies. What needs to be considered here is whether any savings rates are excessive and, if so, whether such excessive rates of saving on balance mitigate the burden of those bearing the hardship.

Contribution	μ	σ	g	δ	S
Cline, 1992 [2]	0.05	1.5	0.033	0	0.67
Nordhaus, 1994 [10]	0.05	1	0.02	0.03	0.4
Stern, 2006 [15]*	0.05	1	0.049	0.001	0.98
Parkinson, 2015 [11]*	0.038	1.4	0.02	0.01	0.53
HM Treasury, 2018 [7]*	0.025	1	0.02	0.005	0.8

Table 1: A selection of social contributions

5 A Note on Perfectionism

There is a body of thought that define the duty and obligations of individuals so as to maximise the achievement of human excellence in art, science and culture. Neitzsche [9] states:

"Mankind must work continually to produce individual great human beings—this and nothing else is the task... for the question is this: how can your life, the individual life, retain the highest value, the deepest signflicance?... Only by your living for the good of the rarest and most valuable specimens."

However, in order to arrive at perfectionism, Rawls [14] asserts that we would have to attribute all parties to a prior acceptance of a certain style and aesthetic grace, and to advance the the pursuit of knowledge and the cultivation of the arts. Whilst I believe values of excellence may be recognised, human principles need to be pursued within the limits of the principle of free association. The coercive apparatus of the state would not be used to win greater liberty or larger shares of wealth on the grounds

that ones activities are of more intrinsic value. The social resources necessary to support associations dedicated to advancing the arts, sciences and culture generally are to be won as a fair return for services rendered, or from such voluntary contributions as citizens wish to make. The state might limit its support to cases of overcoming isolation and assurance.

References

- [1] Arrow K.J. Solow R.M. Portney P. Leamer E. Radner R.; Schuman H. (1993) Report of NOAA Panel on Contingent Valuation., Federal Register, pp. 4601-46014
- [2] Cline W.R. (1992) The Economics of Global Warming., Washington D.C.: Institute for International Economics
- [3] Coase R.H. (1960) *The Problem of Social Cost.*, The Journal of Law and Economics, 3, pp. 1-44
- [4] Dasgupta P. (2001) The Notion of Well-Being., In: Human Well-Being and the Natural Environment. Oxford: Oxford University Press, pp. 122-138
- [5] Dasgupta P. (2001) Valuing Goods., In: Human Well-Being and the Natural Environment. Oxford: Oxford University Press, pp. 122-138
- [6] Dasgupta P. (2015) Disregarded Capitals: What National Accounting Ignores., Accounting and Business Research, 45(4), pp. 122-138
- [7] HM Treasury (2018) The Green Book, Central Government Guidance on Appraisal and Evaluation., London: UK Government
- [8] Moore G.E. (1903) Principa Ethica. Dover Publications
- [9] Morgan G.A. (1941) What Nietzsche Means. Cambridge, MA: Harvard University Press
- [10] Nordhaus W.D. (1994) Managing the Global Commons: The Economics of Climate Change., Cambridge, MA: MIT Press
- [11] Parkinson A.T. (2015) An Exploration of Building Energy Performance and Financial Value with Demonstration on UK Offices., PhD Thesis: University of Cambridge
- [12] Ramsey F.P. (1928) A Mathematical Theory of Saving. Economic Journal, 38(152) pp. 543-559
- [13] Rawls J. (1971) Further Cases of Priority. In: A Theory of Justice. Cambridge, MA and London: Harvard University Press, pp. 298-303

- [14] Rawls J. (1971) *The Principle of Perfection.* In: A Theory of Justice. Cambridge, MA and London: Harvard University Press, pp. 325-332
- [15] Stern N.H. (2006) The Stern Review of the Economics of Climate Change., Cambridge: Cambridge University Press