



“Summary of article by Talbot Page: Intergenerational Justice as Opportunity” in Frontier Issues in Economic Thought, Volume 1: A Survey of Ecological Economics. Island Press: Washington DC, 1995. pp. 335-339

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Resource use can potentially result in long-term costs, and how we view these costs can determine how much emphasis we put on conservation and other alternative courses of action. This article distinguishes between two views, and considers each in the context of a utilitarian framework (the classical and neoclassical versions). The first, a global approach, discounts future costs, thus assigning weights to present and future costs. A positive discount rate implies that future costs count less than present costs. The second view argues that if costs are potentially large and very long-term, the resource base should be preserved intact. Notions of justice between generations are central to this view; it is referred to as the specialized approach.

GLOBAL VERSUS SPECIAL VIEWS OF LONG-TERM ENERGY COSTS

The central argument for discounting future costs (at a rate equal to the opportunity cost of capital) is that intergenerational efficiency will result. The criterion used for efficiency is that of Pareto optimality, i.e., a system is said to be efficient in an intergenerational sense if no one generation can be made better off without making another generation worse off. The problem with this criterion is that efficient allocations may not be fair or just. In contrast, the specialized approach is better suited to deal with issues of intergenerational justice.

DEFINING NEOCLASSICAL UTILITARIANISM

The notion of maximizing behavior is central to the economists' definition of utilitarianism. In fact, maximization is a universal process in the utilitarian framework. The following principles help define utilitarianism and clear away distinctions that can interfere with the maximization process:

- 1) **Only Preferences Matter:** Decisions can be made on a number of different bases, including morality, religion, habit, or the maximization calculus. If these different bases for decision making are recognized, then to explain a decision we must explain the process used and the interaction with other processes. Utilitarians do away with these differences and their accompanying complexities by assuming that each individual has only one preference ordering.
- 2) **All States are Comparable:** According to this principle, an individual is always able to judge whether he prefers one complete description of reality to another, or whether he is indifferent between the two states.

- 3) **Future and Present States are Directly Comparable:** This principle extends the second principle, suggesting that individuals can compare different future paths as well. One can think of different present states as different snapshots, and different paths in the future as different movies. The second principle argues that individuals can compare snapshots, and the third principle argues that individuals can compare different movies.
- 4) **Utilities of Different Individuals are Not Directly Comparable:** Neoclassical utilitarians argue that because utility is not observable, it is not comparable across individuals, nor can it be summed across individuals. Therefore, while classical utilitarians want to maximize the sum of utilities, neoclassical utilitarians believe that individuals maximize their own utilities, and we should therefore aim for Pareto optimality in decision making.
- 5) **Property Rights must be Well Specified:** Since the best way of revealing preferences is through the market system, the only important rights for neoclassical utilitarians are property rights.

DISCOUNTING WITHIN BOTH UTILITARIAN SYSTEMS

There are a number of arguments that use the principles described above to argue in favor of discounting. Four of these arguments are discussed in this section: two in the classical utilitarian tradition and two in the neoclassical utilitarian tradition. A counterexample is also offered to show that discounting does not inevitably follow from the principles outlined above.

The first argument for discounting involves an unselfish planner (a classical utilitarian) who weights each generation's utility by the probability that the generation will not exist. Thus, while the planner attaches equal importance to the utility of each generation, he accounts for the possibility that future generations may not exist, and therefore discounts their utilities. The problem with this approach is that if a constant probability of extinction in each year is assumed in order to yield a constant discount rate, then the probability of a future generation existing is independent of the actions of the present generation.

The second argument involves a selfish planner in the tradition of a neoclassical utilitarian. He wants to maximize only his own generation's welfare, but he is also blocked by a veil of ignorance from knowing which generation he belongs to. Being selfish, this planner weighs the utility of any generation by the probability that he will belong to it. As in the first case, the declining probability of the existence of future generations leads to an argument in favor of discounting.

The third argument involves a classical egalitarian utilitarian who is concerned about productivity. In models that allow for capital productivity, discounting at a rate of zero results in present generations sacrificing to invest more in favor of future generations. To achieve an egalitarian solution when generations achieve equal utilities across time, the discount rate must be equal to the marginal productivity of capital.

The fourth argument, based on a theorem by Tjalling Koopmans, argues that an intergenerational planner who is fair because he adopts a set of axioms that are neutral, innocuous, and fair, will select a social choice rule that discounts the utilities of future generations.

While these four arguments are all examples that start from a utilitarian tradition and favor discounting, discounting does not inevitably follow from the utilitarian framework. For example, when Kenneth Arrow's axioms are combined with crucial axioms of Koopmans', discounting does not follow. It is also interesting that in these variations on the fourth argument, Pareto optimality is always satisfied, whether or not discounting is favored. Therefore Pareto optimality cannot be the determinant of whether or not discounting should be adopted.

OUTSIDE THE NEOCLASSICAL SYSTEM

It is important to move outside of the neoclassical system to develop a common sense concept of justice that does not depend on preferences or utility. One reason for this is that the neoclassical framework is too narrow to reflect the normative issues that go into decision making. The following four distinctions are made with respect to the neoclassical principles outlined above:

- A) **All Ownership Rights are Not on Par:** This distinction is based on the Lockean notion of "just acquisition," in which ownership is a relative rather than an absolute concept. According to this notion, the larger the role one plays in the creation of a work, the larger is one's claim over the work. The present generation therefore does not have the right to run down the resource base that it did not help to create, when it is possible to treat it in a sustainable way.
- B) **Not All States or Goods are Completely Substitutable:** This distinction argues that some commodities are more essential than others, so equating the resource base with this generation's capital stock accumulation may be invalid. For example, energy and primary materials are embodied in capital, and thus capital cannot completely substitute for those ingredients.
- C) **Offsetting Harms with Benefits:** Utilitarians believe that avoiding harm and doing good are really the same thing, and therefore look for net benefits. However, in some cases this may not be in keeping with common sense notions of justice. For example, while killing one individual to save two renal disease sufferers may result in a net gain, common sense suggests that this is unjust. Similarly, in the intergenerational context, depleting the resource base and increasing the level of pollutants may be unjust even if there is a corresponding increase in the capital stock.
- D) **Opportunity vs. Utility:** Since it is easier to control the opportunities available to the next generation than to control future utility, it seems sensible to focus on passing on opportunities in the form of the cultural and natural resource bases.

THE INEFFICIENCY ISSUE

The main objection of neoclassical economics to special treatment of the resource base is that this could result in large inefficiencies. For example, a great deal of effort could be spent

preserving things that future generations may not want. This proposition deserves empirical and conceptual consideration.

From an empirical perspective, it seems unlikely that future generations will not want essential goods like health, alternative energy resources, water, soil, etc. Secondly, the increases in man-made capital are increasing our dependence on the resource base. Until this trend reverses, we must assume that future generations will value preserved resources. Third, switching from the current system of subsidizing depletion to taxing it will impose few, if any, costs today, while producing benefits in the future. Thus preserving the resource stock based on a notion of justice as equal opportunity may also increase intergenerational efficiency.

Finally, at a conceptual level, we must consider compensating investments. It is important to note that, in some cases, if compensating investments to protect future generations are not made in the present, then the compensation option is lost, since the investments must be made now in order to grow over time and actually become available in later years. In addition, the argument for discounting suggests that a project that harms the future is acceptable provided that enough benefits will accrue to compensate the future, whether or not compensation will actually be made. However, when the harm done to the future is grave, the argument that only the possibility of compensation is important - not actual compensation - loses its appeal.