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Cost-benefit Analysis, Values, Wellbeing and Ethics: An Indigenous Worldview Analysis

Yee Keong Choy

Faculty of Economics, Keio University, 2-15-45 Mita, Minato-ku, Mita, Tokyo 108-8345, Japan

A B S T R A C T

In cost-benefit analysis (CBA), values are often invoked to discuss maximization strategies that produce the highest state of social wellbeing expressed in terms of utility. Also, the conception of preferences is what individuals reveal as contributing to their wellbeing. However, as CBA ignores the empirically testable facts of how preferences are constituted, practical question arises about the legitimacy of the values themselves in contributing to welfare maximization. This paper seeks to uncover the meaning of wellbeing from lessons drawn from an extensive field study conducted with a group of indigenous people in Malaysia between 2008 and 2011. It concludes that despite decades of conceptual and analytical refinement, the price-based CBA is still limited in the practical world of evaluation because of the real difficulties it encountered in assessing the non-use and indirect use components of environmental assets that are non-subjectively distinguishable or are not traded in the market. Also, in ignoring individuals' value judgment and the various meanings of wellbeing from different socio-cultural backgrounds, CBA tends to lead to welfare distortions. To address these theoretical and practical deficiencies, it is necessary to embrace the heterodox school of Ecological Economics focusing on the social, cultural, and biophysical aspects of valuation processes.

1. Introduction

Cost-benefit analysis (CBA) involves the practical application of modern welfare economics to public policy. It aims to account for the positive and negative consequences (benefits and costs) of economic activities by converting them into monetary flow to determine which activity yields the greatest gain for society. Accordingly, any activity that makes everyone better off and no one worse off is considered as yielding the highest overall social wellbeing, and therefore most morally desirable.

This paper challenges the moral desirability of this utilitarian maximization logic using empirical evidence gathered from field studies conducted with a group of indigenous people in the tropical rainforests in the state of Sarawak in Malaysia between 2008 and 2011. By way of introducing this line of analysis, I shall first provide a brief discussion on the evolution of the welfare economic foundations of CBA dating back to the classical utilitarian studies of Jeremy Bentham (1748–1832) and John Stuart Mill (1806–1873). This is followed by a brief critical review of their application to welfare maximization decision-making. This theoretical assessment would provide the analytical scaffolding for the empirical study with the indigenous people of Sarawak.

The empirical study, using face-to-face interviews, identified why the local communities respond the way they do with respect to the economic use of the natural environment based on various moral principles and value judgments. It further analyses their environmental worldview and their interpretation of wellbeing based on deontological, or duty based ethics as deeply embedded in the indigenous centuries-old *adat* (custom).

On the whole, the analysis reveals that no matter how morally good an action or transaction can be in terms of the utility or benefits it produces, some actions, especially those involving environmental resource exploitation, are always morally undesirable because they ignore the social, cultural and ethical values of the environment. The studies also show that there is a range of unexamined welfare values and impractical assumptions underlying the welfare theory of utility maximization of CBA. Thus, despite providing information for the policy making process, it remains an inadequate theoretical instrument for promoting socio-economic welfare in a real world system.

2. Values, Wellbeing and Utilitarian Ethics: The Classical Perspectives

The concept of values is often invoked in the discussion of optimal resource use and welfare maximization. More particularly, values are viewed as the underlying determinant of and guiding principles for

E-mail address: cyk@keio.jp.

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specific attitudes, behaviours and beliefs for the efficient use of natural resources in promoting the highest social wellbeing.

However, the concept of values is interpreted in different ways in different disciplines. In conventional economics, values are reduced to commensurable money units. Based on this metric, it is possible to measure people's preference as values for particular goods (including environmental goods) expressed in terms of utility. From the classical perspectives, utility maximization is expressed in term of achieving “the greatest good for the greatest number”, a maxim invented by Joseph Priestley in 1768, later developed by Jeremy Bentham (1748–1832) and extended by John Stuart Mill (1806–1873) in the philosophical school of “consequentialism”. Jeremy Bentham developed his utility ethical system based on ancient hedonism which exalted the pursuit of physical pleasure and avoidance of physical pain. He produced seven criteria which describe the dimensions of the value of a pain or pleasure, for ethical decision-making. These criteria, often known as the felicific calculus or hedonic calculus, include intensity, duration, certainty or uncertainty, propinquity or remoteness, fecundity, purity, and extent (Bentham, 1907:25).

According to Bentham, an act is considered moral if the sum total of units of pleasure derived from these dimensions shows the greatest amount of happiness and the least amount of pain (Bentham, 1907). Bentham's utilitarianism is an *act* utilitarianism which is the purest form of utilitarianism as it is solely concerned with achieving the maximum good even if this may cause injustice to others. In other words, *act* utilitarianism allows individuals the complete freedom to perform acts leading to the greatest amount of happiness for all people regardless of personal feelings or societal constraints such as the law (see, for example, Smart, 1973; Babor, 2007). Bentham's utilitarianism is consequentialist because it is actuated by self-interest and judges an act by only its consequences. It may also be said that Bentham's approach to utilitarianism is *act* evaluation.

Acknowledging that Bentham's hedonistic conception of human motivation and the nature of happiness was much too narrow, John Stuart Mill introduced higher values of pleasure based on Aristotle's ethical concept of “eudaimonia”, translated by the neo-Aristotelian in the Anglo-Saxon world as “human flourishing”, and by others as “happiness” or “wellbeing” (Bruni, 2010). Aristotle considered “eudaimonia” as the highest good (final end) one can strive for and achieve in life based on the promotion of activities leading to happiness and flourishing. He claimed that “happiness is believed to be the most desirable thing in the world”, that it is something “final” and “is the end of all that man does” (1893: 14–15).

Aristotle's highest good has two major characteristics: it is desirable “for its own sake”, and is “not on account of something else” (1893: 320). Being eudaimon is the highest end, and all other goods (lesser goods or intermediate products) such as intellectual taste, fame, honour, and pleasure are sought after because they are instrument to the pursuit of the greatest good (eudaimonia)-the final end which is pursued for its own sake, and not for the sake of any other goal (see, for example, Aristotle, 1893: 10–11, 14–15; Bruni, 2010; Kraut, 2014). It is thus clear that eudaimonism is end-directed and places the individual's own eudemonia at the centre of ethical concern. Viewed from this perspective, it may well be remarked that Aristotle's ethical theory is highly individualistic or egoistic.

Using Aristotelian insights, Mill argued that it was not just the quantity of pleasure that mattered, but also the quality of happiness that is important. Noting that some kinds of pleasure are more desirable and more valuable, he contended that it was possible for an individual who has knowledge of these pleasures to compare and rank various alternatives and to determine the one which is superior to and more desirable than the rest, and which would lead to the greatest level of happiness.

Thus, adding Aristotle's quality of pleasure to Bentham's quantity of happiness, the classical utilitarian ethics culminated in “The Greatest Happiness Principle” (Principle of Utility) which holds that “actions are right in proportion as they tend to promote happiness, wrong as they tend to produce the reverse of happiness” (Mill, 1969: 210). That is to say, actions are considered as moral if they promote utility, and vice-versa, and humans are considered moral if their actions tend to promote utility for the greatest group of people possible based on the selection of higher values of pleasure that are desirable. In contrast to Bentham's *act* utilitarianism, Mill established *rule* utilitarianism which stresses the importance of following moral rules when seeking to maximize overall utility that benefits as many people as possible. Moral rules are defined as rules that are fair and just. Thus, in contrast to Bentham, Mill's approach to utilitarianism is *rule* evaluation.

It may be noted that the utilitarians' main focus of judgment is the result of their actions, that is, the quality of pleasure they would provide. Thus, utilitarianism is teleological-it is the end or purpose of an action that determines the standard of morality. In other words, an action is morally right if it leads to the highest amount of enjoyment or happiness. Simply stated, the utilitarian ethical system determines morality by the usefulness of the end result. It is “the ends justifies the means” ethical decision-making principle. It is a moral theory according to which the sum of individual utilities ought to be maximized (Gandjour, 2007). The quintessence of this conceptual argument laid the theoretical foundation on which all forms of utilitarianism are based, including the welfare economic foundation of CBA.

3. Classical Utilitarianism and the Welfare Economic Foundation of CBA

The Bentham-Mill utilitarianism exerts a decisive influence on the orientation of the theoretical foundation of new welfare economics (Gowdy, 2004). Following the classical philosophy of “The Greatest Good for the Greatest Number”, the goal of new welfare economic policy is to produce a “Pareto improvement”. A Pareto improvement is said to occur when at least one individual is made better off, and no one is made worse off. This may be expressed in terms of utility maximization. However, an individual's utility is usually defined in terms of the individual's preference (Harsanyi, 1992).

A major maximizing instrument which typically relies on the Paretian value judgment is CBA-the most widely applied and influential analytical tool in efficient or optimal resource utilization for the past few decades (O'Neill et al., 2008). CBA has its foundation on the classical utilitarian ethics, or more specifically, utilitarian welfare economics, in which costs and benefits are compared on the basis of whether their impacts lead to wellbeing improvement of the overall members of society (Mishan, 1976; Randall, 1982). Unlike classical utilitarianism which defines utility as “happiness”, welfare economics defines utility as the degree of satisfaction of one's preference (Gandjour, 2007). Welfare is equated with benefits measured in terms of utility while cost is a synonym of misfortune or “toil and trouble” associated with the effort to acquire goods and services measured in terms of disutility or forgone utility (Richards, 2013).

With the CBA tool of analysis, all outcomes of all possible courses of action, both positive and negative, which are expressed in monetary units, are aggregated and compared to determine whether the benefits exceed the costs. If the net benefits are positive, it is said to lead to improvement in wellbeing expressed in terms of a Pareto improvement. However, in practice, CBA only implements a potential Pareto improvement test, also known as the Kaldor-Hicks compensation test (Hicks, 1946).

The potential Pareto improvement is defined in terms of the benefits accruing to gainers being more than sufficient to compensate losers. However, in reality, no compensation needs to be made. Thus, for a Pareto improvement to occur, it would be sufficient to show that the size of the benefits is large enough to allow the gainers to compensate the losers and still remain better off even if no actual compensation is paid. The Kaldor-Hicks test is developed to allow economists to make policy recommendations without recourse to interpersonal comparison