'Economism and its Limits'

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Notes on Contributors

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INTRODUCTION

In its broadest sense, 'economism' is the claim that decision makers and theorists have overestimated the contribution that the economic realm can make to policy making. Given a society's limited resources, public policy often requires taking decisions among conflicting desires and goals. How best to make such choices - the 'allocation of scarce resources among competing ends' - has troubled analysts for quite some time, and economics has been a sought-after discipline to provide guidance in that endeavor. Government agencies, unlike private corporations, do not face the danger of bankruptcy when implementing a policy that is not efficient and often find their budget constraints 'softened' (Kornai 1986). While private firms have to minimize their costs due to external market pressures exerted upon them, few such pressures exist for government agencies. Hence, inefficiency tends to be more severe and prolonged than in the private sector (Leibenstein 1966). Given that in some welfare states the allocative sector can be as large as half of GDP and that it requires an extensive bureaucracy with a plethora of laws and regulations, the quid pro quo question of how most efficiently to organize it is undeniably imminent.

The application of private sector management techniques, discussed in chapters VI.3 and VI.6 in this volume, has been heralded as pointing into the right direction. The incorporation, privatization, marketization and deregulation of public services and the reassigning of policy responsibility from bureaucratic administrators to the most cost-effective private bidder through 'temporary contracts' were seen as methods to ascertain the desired levels of efficiency. They were based on economic evaluation techniques that enabled policy makers to identify, measure, value and compare the consequences of alternative policy programs.

These economic evaluations can be seen as proceeding through a number of stages. First, for any proposal under consideration, including the option of doing nothing, a qualitative statement of its expected costs and benefits is to be provided. Second, each cost and benefit should be rendered in quantitative form. Third, each quantity should be translated into a common currency (usually monetary values). Fourth,

the total expected costs or benefits should be calculated. Finally a decision should be taken on the basis of which proposal produces the greatest sum of benefits over costs, so understood. The first stage seems essential to any rational decision-making process, but each further stage is highly contested.

In this chapter we will address difficulties that these phases give rise to in theory and practice. We will do so against the background of the most popular economic evaluation technique currently employed in policy making, that of cost-benefit analysis (CBA). After setting the scene, in section one, with a brief outline of the meaning of economism as a term and concept, section two will explore the issues related to the measurement and monetary valuation of the items that are to be included in economic evaluations (what we might call the valuation problem). To be sure, if the methodology of economic evaluations is not to be arbitrary or fetishistic, some connection between the currency of evaluation and human well-being, at least broadly conceived, must be established. After all, the monetary value of a good reflects the strength of individuals' preferences for that good, which in turn is a measure of the welfare provided by it. Implementing this rationale exposes serious weaknesses, however. They must not go unnoticed and require comprehensive exploration. Section three will then deal with the problem of comparing costs and benefits across lives (what we might call the commensurability problem), while section four outlines the issue of how individuals' values as human beings might be overridden by economic evaluations (the intrinsic value problem). Although these charges can be brought against any policy domain to a greater or lesser degree we will place them into the specific context of healthcare provision and environmental regulation so to make the discussion more tangible. In the concluding section we will then develop a set of recommendations that we would want economic approaches to public policy to follow if the pitfalls of economism are to be avoided.

I. ECONOMISM AS A TERM AND CONCEPT

Claims of economism can come in two disguises. The first is a psychological account about the motivation that drives human action, which is assumed to be predominantly spurred by economic motives so to improve one's own material well-being. First introduced in this sense by communist intellectuals at the beginning of the 20th century, economism was seen as an antipode to class-consciousness, ideology and political activity. Sections within the socialist movement were accused, for example, by Lenin (1964, 29) and Gramsci (1971, 165) of betraying their common cause because they were too happy to settle for better economic terms and conditions on which to sell their labor power, found cozy arrangements with capitalist industrialists, and generally refused to engage in the more demanding revolutionary struggle to obtain political power. More muted instances of this account are still heard today: trade unions are said to direct their behavior depending on the extent to which employers are willing to raise salaries for their members; and political parties are accused of obtaining funds from pressure groups to sponsor the voting campaigns of their candidates - in exchange for which they support policies that these economic interests favor and at the expense of satisfying the preferences or their constituents.

The second account, which we are henceforth concerned with in this chapter, refers to the theoretical foundations on which public policy is and should be built. Economism understood in this political theory sense lays blame on public policy for delineating economic efficiency as the predominant policy objective; for applying elaborate economic tools to identify the policy option best suited to achieve that goal; and for relying on the market, or some proxy, as the institution best equipped to set the required framework. The policy choices made as a result, so the claim goes, trump, or at least reduce, other important values that guide human behavior and that society might therefore uphold, such as solidarity, community, equality or friendship (Henderson 1996).

The emphasis on economic efficiency became particularly noteworthy in the 1980s, when the new center-right governments that had come into power in the US, the UK and Germany started to subject their public expenditures to much more stringent economic scrutiny. They saw the expansion of the welfare state in previous decades as having had adverse effects on economic efficiency and international competitiveness,

which has thus become a source of major economic problems, including declining productivity growth and high levels of unemployment (Okun 1975). Hence, governments decided to cut public spending and taxes and to reassign responsibility for individual well-being from the state to the individual. Investments into public services such as health, transport and education dropped dramatically and were kept at low levels for many years to come.

Two decades later many industrialized countries were rewarded in their economic policies with substantial increases in output of products and services as well as greater international competitiveness. These successes came at a considerable price in terms of domestic income distribution however. For although the causal link between high levels of equality and low levels of efficiency has been contested as 'elusive' (LeGrand 1991, ch. 3), the two countries most concerned about efficiency and the free market experienced above average shifts in income distribution: in the UK, the so-called 'Gini-coefficient', a common statistical index in the social sciences to measure diversity and inequality in income and wealth within a society, rose from 0.25 in 1979 to 0.35 in 2000, while the US saw an increase from 0.36 to 0.43 over the same period (Coudouel and Hentschel, 2000).[2]

The ramifications of greater inequality and competitive pressure were not only felt by the poor and vulnerable. A general dissatisfaction grew among citizens with the absence of rewards that they, at least in the long run, anticipated in exchange for the sacrifices and hardships they increasingly incurred in daily life. The discontent became widespread, uniting individuals with diverse agendas against the ramifications of domestic as well as international economic policies. The unprecedented demonstrations the world saw at the end of the millennium in Prague, Seattle, Genoa, and Washington among others, united the most unlikely bedfellows: farmers complaining about the decline of rural communities found themselves standing shoulder-to-shoulder with 'deep ecologists' demanding sensible stewardship of the resources and value that nature offered. And while feminists decried the absence of the value of household labor in economic calculations, religious leaders raged against the portrayal of human beings as intrinsically motivated by hedonistic interests. By that time, then, the claim of economism no longer emanated from within the political left, as it had done during Marx's and Lenin's time, but cut well across the political left-right spectrum.

The methodological and philosophical difficulties that we will draw out in this chapter will go some way to shed light on the reasons for the public's discontent with economistic policy approaches. A suitable starting point to do so is to examine the evaluation method most commonly employed to ensure that desired efficiency levels are achieved, that of cost-benefit analysis (CBA).[3] CBA enables analysts to exploit a set of analytical tools used in economics and econometrics to evaluate project investments and policy options and has been made a legal prerequisite in most countries. In the USA, for example, a comparison of costs and benefits has been recommended since the Roosevelt administration. Executive order 12991, signed by President Reagan in 1981, later codified CBA as a requirement for agencies when conducting risk assessments in health, safety and environmental regulation (Smith 1984; PCCRA 1997; for the UK: HM Treasury 1997).

There is a large body of literature available dealing with CBA, some of which dates back to the 1920s, when large-scale engineering projects in the US required some type of project evaluation. Although CBA is not really a self-contained field of economics but sits somewhat uneasily between several scholarly discourses including philosophy, psychology and politics (Adler and Posner 2001; Layard and Glaister 2001), the central procedures of CBA have been predominantly defined by economists. The standard introductory textbook, too, has been written by an economist (Mishan 1972) and is now available in its 8th imprint. While the scope of CBA was often confined to costs and benefits that accrued to a single enterprise only, Mishan soon demanded that CBA be carried out in such a way as to include all known costs, external or internal, and be "concerned with the economy as a whole, with the welfare of a defined society, and not any smaller part of it" (p. 11).

Appreciating the effects on the welfare of the whole society, however, required of policy makers to apply ever greater levels of analytical sophistication so to be able to capture the additional dimensions by which societies have come to define said welfare – such as the environment, health, and safety, to mention but a few. As the remit for economic methodologies became therefore ever more expansive, additional problems, at operational as well as conceptual level, presented themselves. Sections II to IV will outline one of them each.

II. THE VALUATION PROBLEM

Economism, we have pointed out, is the charge that a theorist or policy maker has over-estimated the significance of the economic realm. To accuse followers of CBA of economism is, then, to suppose that they have made some sort of mistake in applying their economic rationale; most likely one of reductionism, in which some value important to societal well-being is either incorrectly reduced to a monetary metric or ignored altogether. This is what we might call the valuation problem, and one area in which this criticism has been made is the policy domain of environmental regulation.

When public policy involves decision-making about ecological systems, the prices for the natural services and goods required to implement a policy option need to reflect the true costs incurred in their creation, not only those that are reflected in market prices. Through an analysis of costs and benefits that incorporates these externalities, policy makers try to ensure that a certain stock of natural resources can be maintained, including the quality of soil, ground and surface water, land biomass, and, possibly, the waste-assimilation capacity of the receiving environments (Hanley and Spash, 1993). As part of a CBA, the costs and benefits of alternative policy options need to be measured. To do so, quantitative relationships between, for example, pollution exposure on the one hand and some human or ecological response on the other are needed to estimate the marginal change the policy will bring about.

This can be a substantial endeavor because, contrary to a CBA carried out by a firm, public policy decisions have to include the impact not only on a corporate entity but on wider society as well. The crucial feature of some of the goods in need of valuation is that we care about them - such as clean air and water, the countryside etc. - but they are not traded in commercial markets and therefore have no market price. Many of nature's services fall into this category of public goods (Hardin 1982): while they are consumed jointly, no one can be excluded from using them ('non-excludability'), and one

person's use does not limit another's ('non-rivalry' or 'non-divisibility'), at least up to some congestion point. Tangible natural resources that are traded in a market represent only a small part of the services that nature provides. Our ecosystem, with its abiotic (i.e. nonliving) and biotic (living) components such as climate, soils, bacteria, plants and animals, provides additional services from which the human population, either directly or indirectly, derives benefits. They include raw materials and waste assimilation of course, but also entail functions usually not included in CBAs, such as hydrological flows, regulation of global temperature, biological control, nutrient cycling, to mention but a few.

The reason for their absence is due to problems economists and policy makers face with the accurate estimation of the value of these services. In the past decades, several attempts have been made to address this issue, and a number of valuation techniques have been advanced that examined revealed behavior in a market. The intention has been to assign a monetary value to both the stocks of natural assets and their use as material inputs and sinks for waste residuals. Most of these methods are only applicable to limited contexts and therefore have their particular strengths and weaknesses. Such is the case for the 'Travel Cost Method', which establishes a relationship between the costs individuals are willing to incur to visit resources with recreational functions; 'Hedonic Pricing' for goods the value of which can be inferred from a proxy-good in the market - such as property values indicating the costs of noise levels in a given neighborhood; and 'Opportunity Costs' where one resource use precludes another (for a concise overview see Turner et al. 1994, 114-27).

A significant advance towards a more universally applicable method was made when, from the 1960s onwards, 'Contingent Valuation' (CV) was introduced as another valuation technique, which was not based on individuals' revealed but on their stated references. With CV, economists sought to create hypothetical markets for all goods traded outside the market system, by asking people what they would pay, if there was a market and they had to (Arrow et al. 1992). Contingent Valuation is an umbrella term that covers divergent methodological approaches but usually employs surveys to elicit respondents' value for a commodity and their willingness to pay (WTP) for the satisfaction of a preference or accept compensation (WTA) for forgoing its satisfaction.

With the help of CV, considerations of what policy choice might be in society's overall interest can be informed by economic evaluations such as CBA of how these values balance up.

These surrogate valuation methods established themselves very quickly in the academic and policy-making communities. They constituted a paradigm shift in economic theory, away from the study of actors' revealed preferences in the market (Robbins 1932) towards the study of stated preferences and human behavior in experimental settings. CV experienced continuous methodological improvements throughout the 1980s and 1990s reaching ever higher levels of sophistication and purported objectivity. Leading environmental economists such as Pearce (1993) in the UK and Kneese (1984) in the US have endorsed the suitability of this approach for public policy.

In the mid 1990s a team of researchers around Robert Costanza was then able to consolidate more than one hundred of such CV analyses so to produce the most comprehensive study to date on the value of nature (Costanza et al. 1997). They estimated that the annual value of seventeen different ecosystem services is equivalent to US$33 trillion, with nutrient cycling (17,075bn) and waste treatment (2,227bn) at the top of the price list. The methods' success was not only confined to academic studies such as Costanza's, however. In the US, they also became a legally binding procedure on which, for example, compensation payments for the environmental damage inflicted by the 1989 Exxon Valdez tanker catastrophe were based. But as sophistication advanced, so did the controversies and debates surrounding the method, some themes of which are worth summarizing here.

First, there is the criticism advanced, for example, by Diamond and Hausman (1993) that WTP is an inadequate proxy for market prices because of the ambiguity and limited reliability of the stated preferences used in CV, as opposed to those revealed in a market. A price is the economic value beyond which people would cease to demand a good and spend their money on some other source of satisfaction instead. In an actual market, consumers' willingness and financial constraints sets the price at which goods are exchanged in such a way. In a CV setting this is not necessarily the case. The US$33 trillion price tag that Costanza et al. have put on nature does not fulfill this requirement.

If these ecosystem services were actually be paid for, the global price system would be very different from what it is today. The implication of Constanza's analysis is that, in trying to replace these services, global GDP, which currently stands at US$18 trillion, would need to increase by a further US$33 trillion, without immediate increase in material possessions that individuals would be able to experience qualitatively or quantitatively in exchange for the higher prices that they would have had to pay.

This objection has some merit because CV is by definition a hypothetical approach, with hypothetical markets, a hypothetical provisioning of commodities and hypothetical payments. As Hayek (1975) had already explained for the related case of collectivist economic planning, individuals cannot articulate their preference independent of the context for action that the market place supplies. The difference between hypothetical statements of value and those that are obtained when real economic commitments would have to be made can never be known. Hypothetical bias is not the only weakness of CV, however.

Second, there is a set of criticisms directed at the assumption underlying survey methodologies that coherent preferences on policy issues are susceptible to valuation and extractable through interviews or questionnaires. However, uncertainty, the novelty of the survey situation, question construction, and phrasing often make public opinion on policy issues unintelligible if not misleading. Once a particular machinery for making social choices from individual tastes is established it might be in the individual's strategic interest not to reveal her real preferences (Neumann and Morgenstern 1947). To borrow a well known example from another sub-field of political science, once a society has established a first-past-the post electoral system, citizens are likely to vote for the less desirable major party candidate instead of the minor party candidate they really favor. Underestimating the methodological difficulty of encoding such context-laden statements is therefore difficult, and CV could not possibly do justice to policy proposals aiming to launder them.

Third, the deficiencies of applying CV to economic decision making points to the more fundamental issue whether public policy should be sensitive to preference satisfaction at all - no matter whether hypothetically stated or actually revealed in a market (Sagoff 1988). CBA functions on the basis that an allocation of resources is

preferable if people's preferences are better met. This view is founded on the economic assumptions inherent in consumer choice theory that, first, an individual consistently knows what she needs (usually referred to as the 'rationality' ideal), and, second, that her well-being depends on her subjective sense of satisfaction, which is best achieved by letting her preference determine the use of a society's resources (the 'consumer sovereignty' ideal). It is then possible to define an economic function for that individual such that the benefit of an alternative is greater than other alternatives over which it is preferred. These assumptions underpin not only the branch of economics, usually referred to as 'normative welfare economics', that we are concerned with in this chapter. But general economic theory, too, has relied on these assumptions to explain why the autonomous consumer acting in the free market is a better judge of her utility than a central planner. These assumptions have allowed practitioners and theorists in the field to derive the shape of demand curves and explain the efficient functioning of the market (Samuelson 1948; Lipsey and Christal 1999).

Scholars critical of the idea's moral credentials have attacked the naïve form of subjectivism inherent in the theory, which conceals well known facts about human nature: that the psychological mechanisms by which social causes are transformed into beliefs and preferences let individuals adjust their aspirations to their perceptions of possibilities, giving rise to the phenomenon of 'adaptive preference formation' (Elster 1983); that they might be malformed so that their satisfaction will inflict harm on themselves (the heroin addict; the gambler) or others (the murderer) and should therefore not be accepted as legitimate input into economic evaluations (Sen 1987); that preference satisfaction fails to accord the proper moral status to those beings – both human (e.g. children) and non-human (e.g. animals) that are incapable of expressing a preference; that people wrongly predict the effects of their own choices on their future well-being (Kahneman 2003); and that, finally, preference satisfaction endorses individual choice based on errors, ignorance or misinformation, as it is incapable of distinguishing them from those based on knowledge.

Consumers are, then, not always the best judges of their preferences, and WTP is a poor proxy for market prices: Policies should not always satisfy what respondents have stated as preferences at the outset. To Richardson (2001), these phenomena are

understandable and can be attributed to consumers' 'incomplete thinking'. As consumers' experience grows, 'practical intelligence' allows them to continue deliberating about the pros and cons of policy options. They then expectedly overturn their preferences in light of new and better information, a fact about human nature that economic tools such as CBA are incapable of factoring in.

To be sure, some economists have concerns about the morally questionable results produced by the equal treatment of uninformed or malevolent preferences in their models. Yet they have failed to command widespread assent in the discipline. Mishan's standard textbook, for example, seems to be unsure whether, or how, questionable preferences should be treated (Mishan 1972, 386-8). These preferences are methodologically too meddlesome to deal with. As a minimum he is prepared to exclude from economic evaluations states of mind such as 'envy' or mere 'dislike'. Yet, as Rhoads (1999, ch. 9) shows, even that concession is not accepted among the majority of economists, who insist that no principle or law should constrain consumers' will and sovereignty.

Fourth, the valuation of nature begs the more fundamental and therefore rather well rehearsed question how to understand the concept of value in the first place. Assigning a value to nature requires the appraisal of fundamental philosophical issues about the role of economic value and human well-being. Economics and the market system, as the basis from which costs and benefits are imputed, are cultural phenomena that reflect just one way of perceiving the world, which is not necessarily shared by all. Nature can also be attributed what Krutilla (1967) has called 'existence value' whereby the survival of species itself is deemed to be worth protecting. Often, that value cannot be priced in real or hypothetical markets because the expected benefits do not accrue to those who might be asked to reveal or state a WTP for their preference. Respondents would have to perform the difficult conceptual exercise to determine the residual value of a good that they never have used and never will be using. Existence value is therefore not intelligibly assessed by either WTP, CV or markets.

Fifth, even if we cast aside the debate about existence value and assume that human well-being is accepted as the determining objective of valuation, it is still not clear that market prices indicate or reveal anything about the contribution they make to that

goal in a substantive sense. As the 18th century economist Adam Smith (1979) remarked with his 'water-diamond paradox', the term 'value' has two distinct meanings: sometimes it expresses the utility of some particular object, at other times the power of purchasing other goods which the possession of that object conveys. He called the former 'value in use' and the latter 'value in exchange' and observed that the things which have the greatest value in use (water) have frequently little or no value in exchange; and, conversely, those that have the greatest value in exchange (diamonds) have frequently little or no value in use. Exchange value bears no necessary connection to value in use. Yet, while the latter produces the benefit to individuals and thus augments society's well-being, it is the former that is used to impute values into economic evaluations such as CBA or, at the most aggregate level, into a nation's gross domestic product (GDP).

It did not take long for economists to develop 'marginalism' as an attempt to resolve the paradox: as water is not very costly to acquire and therefore consumed at high volumes (at least in developed economies), the marginal use value we obtain from an additional bottle is rather low; and so is the exchange value, the price, we are willing to pay for it. The exchange value of diamonds, in turn, is high due to the good's scarcity and the comparatively higher marginal cost an increase in its supply incurs. We consume diamonds at low volumes as a result and are afforded a high marginal use value for every additional unit we consume. Hence, exchange value and use value are, it is said, identical, provided we assess both at the margin and not in total. For the total value of water is, so the argument concludes, of course very high when a large volume of it is consumed, while the total value received from diamonds is relatively low when few diamonds are consumed.

This argument does not hold up to rigid scrutiny, however, as marginalism seems an odd concept to apply to many goods we use in daily life. The value (in affording happiness and contentment) of a teddy bear to a child, for example, or that of a wedding ring to its bearer cannot be adequately expressed by the exchange value that these items command in retail. Their use value is not meaningfully assessed through reference to the scarcity of teddy bears or the marginal value that a second or third ring might provide. For the particular case of environmental goods the additional problem presents itself that they are, for the most part, not traded in markets at all. There is no exchange value for

the air that we breath or the solar energy that heats our planet, although both are required for our survival and are therefore of high use value to us. They are, in fact, so-called 'essential goods': the demand for air, water, and the sun is never zero, even at extreme prices. Under essentiality the maximum value in use of one additional unit of these goods is equal to total income, an assessment that is not true for most other goods that are used in the production process. It is therefore misleading to treat them in the same way as other goods. Hence, while exchange value and use value at the margin might be synonymous for some goods, they are not so for others, including those provided by nature.

    In concluding this section, we should acknowledge, then, that the economic value of some goods cannot be ascertained; that for those goods for which valuation is possible economic value might not be a correct indicator for preference satisfaction or well-being; and that, even if it was, preferences are not always a suitable basis for public policy. The undermining of these assumptions calls into question the tools economists use to study efficiency. Conventional economic valuation is deficient and in need of improvement, or replacement, by a model that better reflects the interaction between the economy and the physical and biological world. Some important work has still to be done. At this point in time, policy makers need to be aware of the limits of the valuation of costs and benefits. Before we indicate some ways out of this impasse in the conclusion, a second issue area is worth being carved out.

III. THE COMMENSURABILITY PROBLEM

Once attributes of well-being have been valued in the way discussed above, policy makers have to compound these attributes into a single aggregated standard so to decide who in a society should be given scarce resources. To do so, various attributes of individual well-being need to be commensurate across lives so that an increase in well-being for individual A can be weighed against the foregone improvement individual B

would have experienced. This next phase in public decision making, however, gives rise to various issues that we will draw out against the background of healthcare as the second policy domain that governments tend to subject to economic evaluations.

The provision of healthcare is an activity different to other policy domains on many levels, with important ramifications for the applicability of economic evaluations. Individuals do not willingly enter the healthcare market as they do for other services that governments might provide. Nor do they know when they will be in need of healthcare or what form of healthcare they will then require (Arrow 1963). As patients rarely have experience from previous purchases of healthcare, these decisions are, in general, not made by the consumer either but by a doctor. The doctor is also seen to be better equipped to calculate the many probability terms involved in alternative treatments. In economic parlance, she acts for the patient as an agent, a special relationship that creates two important dissociations.

First, the consumer becomes dissociated from the market. Healthcare services are sought after not based on preferences of the consumer alone, as indifference map demand theory in economics would assume, but they are either split or based solely on those of the agent (Mooney 1992, 67-82). Price formation theory, too, is repudiated as the consumer is rarely able to make a rational, informed choice in the market. He has only little information about the level of benefit or well-being various healthcare services and medical treatments might provide. These information asymmetries might be brought about consciously - by the doctor withholding information from his patient or, vice versa, by the patient concealing the true nature of her illness - or are merely due to the highly specialized knowledge required to understand the causes and effects of illnesses. The claim that consumers seek healthcare is therefore misleading too: individuals do not seek healthcare. Rather their goal is health. This is an important distinction: while healthcare resources are consumed by medical personnel, it is the patient who experiences the anticipated improvements in health and welfare that the resource consumption promises.

Second, the government as financial supplier becomes dissociated from the market also. Doctors as street-level providers possess significant discretion over the healthcare resources that governments have to pay for. Policy makers have therefore only

limited possibilities to control the expenditure for these services. In an effort to regain that control some governments have attempted to challenge, with various degrees of success, the clinical autonomy of doctors through the creation of internal markets and other measures inspired by the New Public Management approach.

Shortcomings in economic assumptions notwithstanding, economic evaluations in healthcare provision are more in demand than ever before, greatly spurred by the ever-growing share of GDP that is absorbed by the treatment of nations' aging populations. Carrying out CBAs in such policy contexts promises guidance for decision makers as to the optimal distribution of medical manpower, R&D funding, reimbursement practices, capital controls, and safety regulations. Costs and benefits accrue at three different points, or channels, where healthcare is provided: cure (to improve health), care (to retain dignity for those who are sick), and prevention (to reduce the probability of illness or premature death). The benefits in these channels are established by valuing the respective effects a policy has on the state of health of the individual(s) in question. The methods used to conduct this activity have attracted their own set of criticism. They are similar to the charges elucidated in section II above and will therefore not be rehearsed here.

Rather, we direct our attention to a related issue, the aggregation of attributes of well-being, which represents itself as soon as health improvements have been valued. Aggregation is a task not confined to healthcare but is pursued in all policy domains and for all goods and services that governments provide. Aggregation needs to be done over different outcomes of varied interventions undertaken on different problems. Staying with health care as a policy domain, for life threatening diseases such as coronary bypass surgery or tetanus the primary outcome will obviously be defined as death or survival. Case fatality rate and survival rate may in such cases be good indicators of the achievements of heath care reached. Each survival can then be indexed with the value 1 and each fatality with 0. Treatment of most other illnesses - or, for that matter, effects of other policy decisions on well-being - does not result in such binary outcomes however, and measuring them in such a way means that everyone who survives a medical intervention is given the same value, no matter if the person is confined to bed or is actively able to play sports. A more accurate measure would be required for these cases,

one that is able to capture benefits in form of subsequent <u>grades</u> of well-being between the two end points of the spectrum.

In a move to develop an adequate methodology to develop such an index, scholars began, from the 1970s onwards, to define health in terms of 'utility of life' (Torrance <u>et al.</u> 1972; Zeckhauser and Shephard 1976). Three decades of research and numerous refinements later, utility of life has come to be calculated along two dimensions: (a) the duration of life as measured in life years and (b) the quality of life as experienced by the individual's physical, social and emotional functioning. The latter is elicited via patient questionnaires and interviews, where rating scale, time trade-off or standard gambling techniques (of which more will be heard in a moment) are applied across a multitude of domains - including mobility, emotion, cognition and pain - so to arrive at the weighted preference that each domain commands (Drummond <u>et al.</u> 1997, 150-83). The greater the preference for a particular health state, the greater the 'utility' associated with it. Utilities of health states are generally expressed on a numerical scale ranging from 0 to 1, in which 0 represents the utility of the state 'dead' and 1 the utility of a state lived in 'perfect health'. Finally, utilities are multiplied by the remainder of an individual's lifetime for each outcome to calculate so-called 'Quality-adjusted life years (QALYs)'. The QALY benefit associated with any given intervention is calculated as the difference between the QALYs available with that intervention and the QALYs available without that intervention. The results can then be used to create 'cost-per-QALY' rankings for different interventions which aids in deciding on 'best-buy' strategies, and to develop statistics on 'Disability-adjusted life-year expectancies (DALYs)' across countries (WHO 2000, 176-83; Murray 1996).

The QALYs approach is an exercise in what is commonly called 'multi criteria mapping' and thus akin to methods developed to address aggregation issues in other policy domains. It soon established itself as the most sophisticated and therefore default methodology for measuring and aggregating individual levels of human well-being in general and quality of life in healthcare in particular. In no other policy sector has there been developed a similarly refined approach. And as a non-monetary standard it has the added benefit of bypassing the criticisms about monetary valuation that we elaborated upon in the previous section.

Despite the advantages of using a single indicator to measure the effectiveness of health-care interventions, QALYs have been widely criticised on ethical, conceptual and operational grounds, casting doubts on whether the underlying methodology actually solves the problem of incommensurability. The possibility of combining quantity and quality of life in a single index is rooted in the school of political philosophy known as utilitarianism. It is the foundation for the economic analysis of individual behaviour and has emerged in the works of Jeremy Bentham and John Stuart Mill in the 18th and 19th century respectively. Now known as the 'interpersonal comparison of well-being' problem, it has kept philosophers on their toes ever since (Elster and Roemer 1991).[4] Bentham's intention was to provide the British parliament with a political theory that could be used to construct sound and rational policies rather than letting them rely on vague and biased intuitions. The theory's main prescription was to enact laws that are dictated by the principle of utility, when in like manner the tendency which it has to augment the utility (or 'happiness' as Bentham called it) of the community is greater than any which it has to diminish (Bentham 1970). In what became later known as classical utilitarianism, this principle directs the policy maker to maximize the utility of the members of a society.

Utilitarian theory has been persistently attractive to generations of policy makers and political theorists because of its simplicity; its scientific allure as a theory that can be written down as a mathematical formula; and its concern for human welfare as the core of moral philosophy. Yet it has also attracted its fair share of criticism, resulting in many authors proposing modifications and re-definitions to make the theory more palatable. This is certainly not the place to rehearse this debate. The reader may refer to the extensive research produced on the topic, with the collection edited, for example, by Glover (1990) providing a good starting point. Sen (1987, 39) is more useful for us in that he has drawn out the elementary requirements of any utilitarian moral principle. These are (1) welfarism, requiring that the goodness of a state of affairs be a function only of the utility information regarding that state; (2) sum-ranking, requiring that utility information regarding any state be assessed by looking only at the sum-total of all the utilities in that state; and (3) consequentialism, requiring that every choice, whether of

actions, institutions, motivations, rules etc., be ultimately determined by the goodness of the consequent state of affairs.

Note that the first requirement about welfarism can only be made to work if individuals are assumed to be able to evaluate their utility; if that utility can be made known to interested third parties, such as policy makers, through some sort of valuation; and if that valuation can be measured in quantitative terms. These assumptions have already been questioned in section II when we discussed the case of environmental goods. It is the second requirement on sum-ranking which we are concerned with in the current context of aggregation of utilities and QALYs. Bentham insisted that sum-ranking is possible because, to him, the item to be aggregated (happiness) denoted only one type of experience (the feeling of pleasure). Hence, utility was, in his view, easily aggregated across lives, for it was only one, not multiple, experiences that people would encounter. It didn't take long before philosophers objected that some pleasures differ in kind according to the value individuals attach to them. And these are not the same across lives.[5]

Given the multiplicity of states of health that individuals might experience, the question then remains whether it is possible to know how much healthier some are compared to others. We are certainly able to make such a comparison in an ordinal sense, e.g. I can stipulate that I feel better than someone who is in great physical pain. However, to compare utilities across lives, I need to be able to make the comparison in a cardinal sense, i.e. I need to know exactly how much better I am. Cardinality, in turn, implies two requirements that need to be satisfied (Bossert 1991): (1) a number must be attached to the outcome that represents the strength of the preference relative to others, so that a health state of, say, 0.6 is three times better than one of 0.2; and (2) the scale must have an equal interval property where equal differences at different points along the response scale are equally meaningful, so that boosting a patient from, say, 0.1 to 0.2 on that scale is of equal benefit to raising someone from 0.8 to 0.9.

Health scientists and policy makers have recently started to develop various preference elicitation techniques in an effort to calculate the required QALY weightings. Various psychological studies suggest that because of cognitive limitations in humans, the techniques do not always elicit responses that satisfy the two requirements. With the

rating scale approach, for example, individuals are asked to rank health outcomes from most preferred to least preferred and to place them on a scale such that the intervals between placements correspond to the differences in preference as perceived by the individual. However, psychologists have challenged the meaningfulness of the cardinal statements thus produced by respondents. As Bleichrodt and Johannesson (1997) argue, subjective impressions cannot be discriminated equally at each level of a scale. Individuals will attempt to use categories equally often and spread their responses when cases are actually close together (the 'spacing out' bias), or they compress them when the underlying attributes are actually far apart (the 'end-of-scale bias).

The standard gamble, as a second method, induces the individual to choose between two alternatives: (a) no treatment at all which will result in a specified state of ill-health, or (b) treatment that could result in either death or illness-free health, each with a probability of p and 1-p respectively. The probability is then varied until the respondent is indifferent between the two alternatives, thus producing the preference score sought after. Tversky et al. (1990), however, have shown through various laboratory experiments that individuals have the tendency to reverse previously revealed preferences. They might use inappropriate psychological representations and simplifying heuristics that misdirect their decisions. Psychologists have attributed this phenomenon to the serial way by which individuals process information: they use an anchoring technique for the first piece of information and then gradually adjust their decision making with each additional piece of information they obtain.

Finally, the time trade-off presents individuals with a choice of living for a defined amount of time in perfect health or a variable amount of time in an alternative state that is less desirable. The time is varied until the respondent is indifferent between the two alternatives. The method's application, however, has found patients to prefer, for example, immediate death to being in a state of mild dysfunction for three months. This suggests that individuals misunderstand the nature of the trade-off, reducing the meaningfulness of the results on a utility scale that ranges between 0 and 1.

Patients' responses as well as the metric underlying their measurement cannot, then, be standardized across individuals. Epistemological difficulties remain when adding up or comparing subjective levels of satisfaction that the consumption of goods gives to

individuals (Nord 1999). The preference elicitation techniques used with the QALY approach encounter too many teething problems that prevent policy makers to uncover stable and consistent preferences revealing true commensurate valuations. Notably, the failure to make attributes of well-being commensurate does not mean that comparisons are futile exercises. Incommensurability does not deny the possibility of comparisons of course. Neither does it need to be inconsistent with fundamental assumptions in decision theory: reason-guided choice is still possible even without commensurability, as the data underlying QALYs are still useful to make more simple comparisons through ordinal rankings (Sunstein 1997, 39). Yet, they lack the precision that is required to impute them into economic methodologies such as CBA.

More exchange between psychologists, economists and philosophers seems necessary. For the case of health care in the UK, for example, the National Center for Research Methodology (NCRM) and the National Institute for Clinical Excellence (NICE) have recently commissioned joint research projects with the aim of determining the societal value of a QALY.[6] This project addresses, among other issues, the conceptual link between a QALY and an individual's WTP as well as the relative value of health gains to different beneficiaries, according to personal attributes such as age, education, and geography. These initiatives could shed more light on the problem at hand. Until solutions are developed from those (and other) findings, however, the second requirement on sum ranking that Sen specified for utilitarian theory remains unsatisfied.

To be sure, as Kymlicka (2001, 18) rightly reminds us, in daily life practical reasoning constantly requires us to make decisions about how to balance different kinds of goods that are incommensurable, by simply judging what is better or worse overall. While we might go along with his assessment for the individual decisions we make in our personal lives, we believe it is an ill-advised position to take for the analysis of public policy. The economic evaluation techniques used to arrive at policy decisions differ in their level of complexity from the balancing acts between the comparatively few personal values that inform our individual choices. We can revisit and re-assess the ordinal rankings we have made in a personal choice situation at any given time. Economic evaluation techniques, by contrast, balance many more preferences and values that are

held by markedly more individuals and eventually produce only one (usually quantitative) recommendation. From that moment on, they conceal the complex weighing process between the different cardinal attributes that had been imputed beforehand.

Admittedly, for evaluation techniques to work the imputed preferences and values need to be made explicit in the first place, which is an approach preferable to making policy choices on the basis of decision makers' implicit (and therefore concealed) assumptions and preferences. Yet, once all of the relevant goods are aligned along a single metric, they are no longer visible, or perhaps become invisible (Sunstein 1997, 50). People can no longer make judgements based on qualitative differences. Hence, if we want the policy recommendation to be meaningful and accurate we need to ensure that the numerical values imputed into the analysis at the outset have been compared and aggregated accurately. This does demonstrably not always hold true, in which case the policy choice needs to be made through alternative measures. Some of these we will present in the conclusion below.

IV. THE INTRINSIC VALUE PROBLEM

At the end of section II we introduced the concepts of 'existence value', 'exchange value' and 'use value' to our discussion. We defined existence value as a value that a good can have independent of the effects it produces for human well-being, such as the survival of species. We also contended that exchange value, as the metric that is imputed into economic evaluations, bears no necessary connection to the value in use that produces the benefit to individuals and thus augments human well-being.

There is a crucial link between these three concepts that merits further exploration: economic evaluations impose a unitary standard (usually money) on the valuation and comparison of goods and thus subordinate both existence value and use value to the new standard of exchange value. While we have already drawn out some aspects of this relationship for objects (i.e. environmental goods in section II and healthcare services in section III), we will, in this section, develop that point in more

detail for <u>subjects</u>. We will argue that the intrinsic value of human beings (as the equivalent to the existence value of objects) is crowded out by economic evaluations.

To understand why, let us assume that, in some distant future, the problem of valuation and aggregation expounded earlier will have been solved and that it is therefore possible to evaluate policy programs according to the extent to which they maximize benefits to society. Now consider the following simplified case borrowed from Harris (1975): a hospital has admitted four patients who are all bound to die if no suitable organ donor is soon to be found. The next morning, the postman enters the building to deliver his daily load of letters and parcels. From previous conversations the nurse recalls that he would be a suitable donor for all four patients. As a possible route of action she could now kill him, harvest his organs and thus enable the four patients to survive. If numbers count and we conduct a simple CBA we would have to conclude that sacrificing the postman is the superior alternative: four lives are more valuable than one and the highest aggregate level of welfare is achieved if the postman dies and the four patients live.

Most of us would consider this option as objectionable of course. In most contexts it strikes us intuitively as unfair if a few may be sacrificed for the benefit of the greater good of the many. Yet, given the economic rationale of benefit maximization it is justifiable, if not mandatory, to proceed that way. The problem we encounter here is caused by the formally equal way by which these evaluations treat human beings: every individual counts as one and can thus be added up to, or traded against, somebody else. This observation is akin to the phenomenon of 'commodification' originally developed by Karl Marx (1964, 96-105). In capitalist societies, so Marx argued, the mode of production comes under private ownership, commodity production proliferates, and labor division becomes increasingly fragmented. Forced to sell their labor power to survive, workers themselves become akin to a commodity and are reduced from the status of a qualitative individual to mere exchange value in the form of labor. Where once the goal of production was the simple satisfaction of needs, and exchange was driven through the need for the other's use value, capitalism eliminates individual exchange. It subordinates use value to exchange value and establishes exchange value as an independent logic. In the extreme but quite common form of trading stocks, for

example, there is no longer a physical referent at all: money is made out of money with no apparent connection to the world of real commodities.

The reduction of human beings to a number - either expressed as a simple unit as in the organ donor case or as a monetary WTP value attached to their preferences - assumes equivalence between attributes of persons and thus dissolves their qualitative differences into the identity of a single quantitative metric. Such a metric might in general solve the problem of aggregation (how to compare levels of well-being), and the monetary metric as exchange value in particular might solve the problem of exchange (how to trade qualitatively unique goods in equal quantitative ratios), but it transforms subjects into abstract entities that are deprived of their unique characteristics.

One such characteristic is that each individual has intrinsic value: we have an interest in our own continued existence and cannot be used solely as a means for assisting other individuals as ends in themselves. Intrinsic values are non-relational: they are not defined relative to some other human being, species, or object, nor to the benefit it might provide to them. My intrinsic value is the value I have in and of myself, beyond any value I might have as a means to further ends. I am therefore to be respected as a rights-bearer proper, as an end in myself. Rights are principles that assign claims or entitlements to someone against someone, and are usually interpreted as "trumping" consequential claims made in the name of welfare (Dworkin 1977). That means that I should never be treated in certain ways, even if the calculation of aggregated individual well-being shows that the action which has these effects would be the most beneficial one overall.

Reducing individuals to a monetary metric might change the way we perceive their value to us. Margaret Jane Radin (1996) illustrates the implications for the trade in 'commodities' such as sex, children, and body parts and observes that there are not only willing buyers for such commodities but some desperately poor people are willing sellers, too. To her, this reflects a persistent dilemma in liberal societies: freedom of choice is valued but, at the same time, choices ought to be restricted to protect the integrity of what it means to be a person. She views this tension as primarily the result of underlying social and economic inequalities, which need not reflect an irreconcilable conflict in the

premises of liberal democracy but a mere setting of the right priorities in distributive policy choices.

Political philosophy has therefore sought to embed intrinsic value and individual rights into some concept of justice, such as a (Neo-)Kantian imperative to treat others fairly or Locke's view that people have the right to be protected against the breaches of their rights by the actions of others. Even utilitarians like Mill have endorsed rights and intrinsic values as a possible strategy to maximize utility. Such a position is known as rule utilitarianism, in contrast to act utilitarianism which is the view Bentham originally suggested. It postulates that the principle of utility can yield a notion of 'rights' if we appreciate the way a person's rights are defined by rules regarding the treatment of human beings that are by and large utility maximizing.

This is no place to develop the pros and cons of any of these concepts. It is important to note, however, that, while constraining economic evaluations through intrinsic values and individual rights can be attractive to a great variety of traditionally juxtaposed theories of morality, the resulting consensus in political philosophy cannot be transferred easily to public policy formation or economic evaluation techniques. This follows because, to follow Ruth Chang's (1997, 5-23) helpful distinction, intrinsic values give rise to the problem of ordinal <u>incomparability</u>. The reader might recall from section III that we concluded that attributes of well-being are incommensurable across lives, i.e. that they cannot be compared cardinally for the purpose of aggregation, but that at least ordinal comparisons are available as a basis for rational choice. We now encounter the more severe case where the relevant imputations for the analysis are not even comparable in that latter sense.

This follows because the practical role of intrinsic values is neither to prescribe an end to be maximized nor to prescribe an attitude toward an aggregate. As such there are multiple ways in which we can sharpen our understanding of a person's intrinsic value, such as by love, respect, honor, or admiration. In some cases one understanding might be privileged while in another it isn't. This vagueness disallows for any strand of the usual trichotomy of comparison ('better than', 'worse than', 'equally good as') to hold, which applies to comparisons between intrinsic values themselves as much as between them and other quantifiable values.

While incomparability might be less of a problem for clear-cut cases such as the life-or-death choices to be made in the organ transplant scenario mentioned earlier, other policy decisions are more clearly subject to this limitation. Health care, to stay in the same policy domain, does not only suffer from a lack of organs for example. Hospital beds, technical equipment, and medical personnel, too, are scarce resources that can be distributed among patients in different ways. Economic evaluations would recommend that these should be used less intensively for the care of acute or incurable patients as they require far more of them than does the care of convalescing patients. Similarly, applying the QALY approach explicated in section III to the optional treatment of either an elderly person or a young child would result in the preference to be given to the latter, because QALY scores are particularly high for those who still have many years to live and therefore have a greater 'capacity to benefit'. Economic evaluations applied in an unconstrained way would therefore lead to the marginalization of the incurable, chronically ill, or the elderly. They would override individuals' intrinsic value in terms of their dignity and, possibly, their right to live.

To be sure, in some contexts an intelligible response that bypasses the intrinsic value problem is possible. The application of distributional weights, for example, can go a long way to ensure an equitable distribution of scarce resources that does not neglect groups who are in need (Layard and Walters 2001). However, while the existence of a tangible criterion to define disadvantage allows us to identify some such groups – e.g. income levels as an indicator that demarcates the needy poor from the non-needy rich – other groups which we deem worthy of special consideration, and would ideally want to apply appropriate distributional weights to, are less lucidly identified. How, for example, should we weigh the feelings of love, respect, honor or admiration by which we grant a person her intrinsic value? How do we gauge the underlying psychological processes? Our choice between these feelings does not proceed on some measurable comparison but on the more intangible principle of obligation.

Intrinsic values cannot be ranked ordinally in a meaningful way then. There is no way to incorporate them into any type of evaluation. The policy maker is thus faced with a situation in which he can choose to either (1) ignore the intrinsic value, or to (2) admit it as a constraint and reject the policy recommendation under review. The former will

then judge the recommendation to be permissible whereas on the latter it is impermissible. Judging the policy as impermissible, in turn, implies that any benefits which would result from rights-incompatible actions must be excluded from the action decision altogether. It places limits on what would otherwise be the implication of aggregative economic evaluations and restricts governmental action.

This is, of course, not a satisfying conclusion to arrive at because our following option 2 puts the whole exercise of economic evaluation into question in the first place while under option 1 intrinsic values are crowded out and 'forgotten' by the imperative of identifying, collecting, measuring and aggregating other values that <u>are</u> comparable. Two alternative and somewhat juxtaposed approaches to the dilemma seem to be on offer both of which, however, require further refinement and specification if they are to provide meaningful solutions.

There is, first, the suggestion made by Schrader-Frachette (1991, ch. 11) that each group affected by a proposed policy program should conduct their own economic evaluation as an intermediate stage of a more extensive process of participative justice. This approach would not only allow for a separate assessment of intrinsic values and a weighing of their merits. It would also reflect different methodological, ethical and social assumptions and thus portray all sides of a given story. The end result would then likely to be an evaluation with a multidimensional array of benefits and costs. Alternatively, we might want to embrace the work begun by Scanlon (1991) on the compatibility of the ethical and economic conception of value that individuals attach to human well-being. Instead of granting various stakeholder groups to carry out multiple evaluations that are later democratically deliberated upon, Scanlon suggests a single common index, a shared conception between philosophers and economists of things good and bad in life. These would not only consist of exchangeable goods but which could also refer to other levels of development and states of consciousness. If developed further, as suggested by Kopp (1993), to clarify <u>who</u> should determine which goods and conditions for a good life make it onto that index, this line of thought could indeed result in a more complete economic theory.

CONCLUSION

In each of the previous three sections we have outlined an issue area that decision makers need to be aware of when devising public policy that is based on economic evaluations such as CBA. That awareness is not equally called for in all policy domains, as policy decisions in some domains are less vulnerable to our criticisms than in others. It remains up to the judgment of the reader to assess the relevance of the three issue areas and, possibly, conclude that CBA can be applied unequivocally to help solve a given policy problem. When decisions have to be made in domains such as those referred to in this chapter, however, policy makers are advised to consider other methodological approaches that bypass the pitfalls identified. To that end we offer below two alternative approaches. They are not fundamentally new evaluation techniques but are best seen as less stringent variants of CBA and should therefore be easily comprehensible.

In section II we saw that not all costs and benefits that enter economic evaluations can be measured in monetary terms, as some valuation techniques rest on contestable assumptions regarding the quantification of economic value. As a possible way out of this impasse, the policy maker could replace CBA with a similar technique, that of cost-utility analysis (CUA). The difference is that, while CBA converts benefits into a monetary metric as a common unit, CUA expresses benefits in terms of the utility it provides to the individual - such as QALYs in the case of health care. It is a non-monetary concept for estimating the value to society of improvements in a status of well-being and thus side-steps the problem of monetary conversion.

Its merits as a non-monetary economic evaluation technique notwithstanding, CUA remains, just as CBA is, vulnerable to the criticisms we raised in section II and III: calculating utility ratings by quizzing individuals for their preferences of well-being is contestable because these preferences might be non-authentic, malformed, strategically motivated or simply uninformed. And individuals differ - across lives and across stages of their own life - in how they value particular states of well-being. Any attempt to aggregate such incommensurable attributes into a single standard brings about methodological as well as ethical issues.

To cater to these objections, cost-effectiveness analysis, or CEA, recommends itself as yet another evaluation technique. Both CBA/CUA as well as CEA are formal methods for comparing the benefits and costs of a policy program. The difference is that, while CBA and CUA convert these benefits into monetary value and utility respectively as a common unit, CEA expresses benefits as such, i.e. in terms of a natural unit as some standard of outcome. In the case of healthcare such an outcome could, for example, constitute the incremental reduction in mortality rate or the increase in the number of immunizations delivered, rather than the monetary value or utility that CBA/CUA would calculate for each of these effects. In the case of environmental regulation an outcome could, for example, constitute the level of air quality as measured by the ambient ozone level, rather than the economic value or utility it provides to humanity. CEA thus side-steps the problem of monetary conversion as found in CBA <u>and</u> the problem of preference satisfaction and utility aggregation as found in CUA.

The detour comes at a price, however, because CEA is a much less powerful tool than CBA or CUA. It can only assess alternative policies where costs relate to a single common effect as measured on a natural scale (such as mortality rate) which may differ in magnitude among the policy options evaluated. It can then be used to choose among those options in terms of their effectiveness-to-cost ratio. Conversely, if the budget is predetermined, that is the costs are 'fixed', it can, again, only be used to compare various policy options as to their rate of attaining that non-quantified goal, such as decreasing mortality. What it cannot do is to give an indication <u>how</u> <u>much</u> should be spent to achieve a policy outcome. Neither can CEA give guidance whether a policy intervention is worth doing at all, for it tacitly assumes that the objective has been deemed worth meeting beforehand. It does therefore not specify how far a program's ratio of effects to costs can fall before it is no longer worth doing. To determine if resources have been allocated in such a way that benefits to society have been maximized is not possible with CEA.[7]

What neither CBA, CUA nor CEA can solve, however, is the intrinsic value problem that we addressed in section IV. Intrinsic values are not merely not commensurable, they are, more fundamentally, also not comparable with other benefits and costs. All too often, they are therefore 'forgotten' in economic evaluations although

they should be allowed to restrict the projects that government may permissibly carry out. In policy practice, such side constraints can be feasibly implemented by giving a veto power to the individuals impacted by the proposed policy. It does not follow, of course, that such rights automatically override any possible net benefits of a proposed policy, but neither are they morally irrelevant.

In concluding, economic tools are very general techniques that have very stringent information requirements not all of which can always be met. They can therefore not function as a fundamental standard of choice among policy options. This is not a reason to reject economic evaluations per se as they do provide us with information that is morally relevant and thus possibly uncovers hitherto concealed judgments by policy makers eager to cater to special interests. It is, we have argued, both unethical and irrational in general to ignore the cost and benefits of a pending policy decision. Yet, it is a reason to acknowledge that economic evaluations should be understood as an input into, rather than a substitute for, political deliberation and judgment (Sunstein 2002). Not all situations call on us to maximize value. Some simply compel us to respect it. Economic evaluations should be seen as a useful heuristic to raise red flags about policy proposals and identify the economic factors involved. Whether economic factors are, in fact, the dominant concern at all in a given situation is a judgment that will have to remain within the realm of responsibility of the policy maker.

REFERENCES

Adler, M.D. and Posner, E.A., eds. 2001. Cost Benefit Analysis - Legal, Economic, and Philosophical Perspectives. Chicago University Press.

Arrow, K.J. 1963. 'Uncertainty and the Welfare Economics of Medical Care'. The American Economic Review 53[5]: 941-73.

Arrow K., Solow, R., Learner, E., Portney, P., Schuman, H. 1992. Report of the NOAA Panel on Contingent Valuation. Washington, D.C: National Oceanic and Atmospheric Administration.

Bentham, J. 1970. An Introduction to the Principles of Morals and Legislation. J.Burns and H.L.A. Hart, eds. London: Athlone Press.

Bleichrodt, H. and Johannesson, M. 1997. 'An experimental test of the theoretical foundation for rating scale valuations'. Medical Decision Making. 17[2]: 208-17.

Bossert, W. 1991. 'On intra-and inter-personal utility comparisons'. Social Choice and Welfare. 8: 207-220.

Chang, R. 1997. Ed. Incommensurability, Incomparability, and Practical Reason. Cambridge, Ma.: Harvard University Press.

Costanza, R. et al. 1997. 'The Value of the world's ecosystem services and natural capital'. Nature 387: 253-61.

Coudouel, A and Hentschel J. 2000. Poverty Data and Measurement. Washington DC: World Bank. Available at http://www.worldbank.org/poverty/strategies.

Diamond, P.A. and Hausman, J. 1993. 'On contingent valuation measurement of non-use values'. Pp. 170-90, in Contingent Valuation – A Critical Assessment, ed. J. Hausman. New York: North Holland.

Drummond, M.F., Brien, B., Stoddart, G.L., and Torrance, G.W. 1997. Methods for the Economic Evaluation of Health Care Programmes. 2nd edition. Oxford: Oxford University Press.

Dworkin, R. 1977. Taking Rights Seriously. Cambridge, Ma.: Harvard University Press.

Elster, J. Sour Grapes. Cambridge: Cambridge University Press.

–– and Roemer, J. 1991. Eds. Interpersonal Comparisons of Well-being. Cambridge University Press.

Glover, J., ed. 1990. Utilitarianism and its Critics. New York: MacMillan.

Gramsci, A. 1971. Selections from the Prison Notebooks of Antonio Gramsci. Q. Hoare and G.N. Smith, eds. New York: International Publishers.

Hanley, N. and Spash, C. 1993. Cost-Benefit Analysis and the Environment. Aldershot: Edward Elgar.

Hardin, R. 1982. Collective Action. Baltimore, Md.: John Hopkins University Press.

Harris J. 1975. 'The Survival Lottery'. Philosophy 50: 81-7.

Hayek, F. 1975. Collectivist Economic Planning: Critical Studies on the Possibilities of Socialism. London: Routledge.

Henderson, H. 1996. 'Fighting Economism'. Futures 28: 580-4.

HM Treasury 1997. Appraisal and Evaluation in Central Government: Treasury Guidance. London: HMSO.

Holland, A. 1995. 'Cost-Benefit Analysis – A Philosopher's View'. Pp. 21-38, in *Environmental Valuation – New Perspectives*, eds. K.G. Willis, J.T. Corkindale. Wallingford: CAB.

Kahneman, D. 2003. 'A Psychological Perspective on Economics'. *American Economic Review* 93: 162-168

Kneese, A. 1984. *Measuring the Benefits of Clean Air and Water*. Washington: Resources for the Future.

Kopp, R. 1993. 'Environmental Economics: Not dead but thriving'. *Resources* 111: 7-12.

–––, Krupnik, A.J. and Toman, M. 1997. *Cost-Benefit Analysis and Regulatory Reform : An Assessment of the Science and the Art*. Discussion Paper 97-19. Washington: Resources for the Future.

Kornai, J. 1986. 'The Soft Budget Constraint'. *Kyklos* 39[1]: 3-30.

Krutilla, J. 1967. 'Conservation Reconsidered'. *American Economic Review*. 57[5]: 777-86.

Kymlicka, W. 2001. *Contemporary Political Philosophy - An Introduction*. Oxford: Oxford University Press.

Layard, R. and Walters, A.A. 2001, 'Income Distribution', in Layard and Glaister 2001: 179-98.

––– and Glaister, S. eds. 2001. *Cost-Benefit Analysis*. 2nd ed. Cambridge University Press.

Le Grand, J. 1991. *Equity and Choice*. London: Harper Collins.

Lenin, V.I. 1964, 'A Caricature of Marxism and Imperialist Economism'. in V.I. Lenin, *Collected Works Vol 23*, 5th edition. Moscow: Progress Publishers.

Leibenstein, H. 1966. 'Allocative Efficiency vs. "X-Efficiency"'. *American Economic Review*. 56: 392-415.

Lipsey, R.G. and Chrystal K.A. 1999. *Principles of Economics.*. 9th edition. Oxford University Press.

Marx, K. 1964. *Economic and Philosophic Manuscripts*. New York: International Publishers.

McLellan, David 2000. *Karl Marx - Selected Writings*. Oxford University Press.

Mishan, E.J. 1972. *Cost-Benefit Analysis*. New York: Praeger.

Murray, C.J. 1996. 'Rethinking DALYs'. Pp. 1-98. *The Global Burden of Disease*, ed. Christopher J. Murray and Alan D. Lopez. Cambridge, Mass.: Harvard School of Public Health.

Mooney, G. 1992. *Economics, Medicine, and Health Care*. London: Harvester Wheatsheaf.

Neumann, J. and Morgenstern O. 1947. *Theories of Games and Economic Behavior*. Princeton: Princeton University Press.

Nord, E. 1999. *Cost Value Analysis in Health Care: Making Sense of QALYs*. Cambridge: Cambridge University Press.

Okun, A. 1975. *Equality and Efficiency : The Big Trade Off*. Washington D.C.: Brookings Institution.

Pearce, D. 1993. *Economic Values and the Natural World*. London: Earthscan.

PCCRA Presidential/Congressional Commission on Risk Assessment and Risk Management (1997), *Framework for Environmental Health Risk Management*, Vols. 1/2, Washington: USA.

Radin, M.J. 1996. *Contested Commodities: The Trouble with the Trade in Sex, Children, and Body Parts*. Cambridge, Ma.: Harvard University Press.

Rhoads, S.E. 1999. *The Economist's View of the World*, Cambridge University Press.

Richardson, H.S. 2001. 'The Stupidity of the Cost-Benefit Standard'. In Adler and Posner 2001: 135-68.

Robbins, L. 1932. The Nature and Significance of Economic Science. London: Macmillan.

Sagoff, M. 1988. The Economy of the Earth. Cambridge University Press.

Samuelson. P.A. 1948. Foundations of Economic Analysis. Cambridge, Ma.: Harvard University Press.

Scanlon, M. 1991. 'The Moral Basis of Interpersonal Comparison', in Elster and Roemer 1991: 17-44.

Sen, A. 1987. On Ethics and Economics.. Oxford: Basil Blackwell.

Shrader-Frechette K. 1991. Risk and Rationality – Philosophical Foundations for Populist Reforms. Berkely: University of California Press.

Smith, A. 1979. The Wealth of Nations - Books I-III. London: Penguin.

Smith, V. 1984. ed. Environmental Policy Under Reagan's Executive Order: The Role of Benefit-cost Analysis. University of North Carolina Press.

Sunstein C. 1997. 'Incommensurability and Kinds of Valuation: Some Applications in Law'. Pp. 34-54. In R. Chang ed. Incommensurability, Incomparability, and Practical Reason. Cambridge, Ma.: Harvard University Press.

–– 2002. Risk and Reason: Safety, Law, and the Environment. Cambridge University Press.

Torrance, G. Thomas, W H. and Sackett, D L. 1972. 'A Utility Maximization Model for Evaluation of Health Care Programmes'. Health Services Research 7: 118-133.

Turner, R.K., Pearce, D., and Bateman, I. 1994. Environmental Economics. Hemel Hempstead: Harvester Wheatsheaf.

Tversky, A., Slovic, P. and Kahneman, D. 1990. 'The Causes of preference reversals'. American Economic Review. 80[1]: 205-18.

WHO World Health Organization 2000. The World Health Report 2000 - Health Systems: Improving Performance. Geneva: World Health Organization.

Woods, N. 2000. 'Order, Globalization, and Inequality in World Politics'. Pp. 8-35. in A. Hurrell & N. Woods, eds. Inequality, Globalization, and World Politics. Oxford University Press.

Zeckhauser, R. and Schaefer, E. 1968. 'Public Policy and Normative Economic Theory'. Pp. 27-102 in R.A. Bauer and K.J. Gergen, eds., The Study of Policy Formation. New York: The Free Press.

Zeckhauser, R. and Shephard, D. 1976. 'Where now for saving lives?' Law and Contemporary Problems. 40(b): 5-45.

ENDNOTES

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[2] The Gini-coefficient varies between the limits of 0 (perfect equality) and 1 (perfect inequality) and is best understood as the geometrical divergence in a diagram between a 45 degree line on the one hand, which represents perfect equality, and the Lorenz curve beneath it on the other, which measures percentage income distribution (as plotted on the y axis) across the percentage of the population (as plotted on the x axis).

[3] In some (mostly US American) literature the method is also referred to as 'benefit-cost analysis'.

[4] We use 'utility' here interchangeably with the terms 'welfare' and 'well-being' as the satisfaction accruing to an individual from the consumption of a good or service.

[5] The utility concept as used by most economists and philosophers in the 19th and 20th centuries is theoretically distinct from the utility used in the QALY methodology. The former describes decisions where goods are received with certainty, whereas the latter does so for probabilistic outcomes under uncertainty. Decision theory under uncertainty aspires to the more rigid requirements as stipulated by the so-called von Neumann Morgenstern utility theory (Neumann and Morgenstern 1947), whereas the conventional philosophical/economic understanding sees a utility merely as the satisfaction of preferences. For our discussion this is no relevant distinction, however: NM utilities cover decision making theory at the individual level only and cannot be used to compare welfare between individuals (Zeckhauser and Schefer 1975, 41; Drummond et al. 1997: 150).

[6] See www.publichealth.bham.ac.uk/nccrm/publications.htm for publications of future research results.

[7] Note that some authors and literatures treat CUA as a particular case of CEA, or CEA and CUA as particular cases of CBA. The three techniques may therefore appear under different labels.