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Merit Goods and their Impact on Environmental Valuation

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The concept of merit goods is introduced and two groups of merit goods are found to be important for environmental economics, namely goods with high information requirements and goods in which partial preference orders play a role. It is shown that only Contingent Valuation (CV) can serve as a base for valuation methods for merit goods. Problems that arise once the CV setting is confronted with the merit goods concept are shown and it is discussed how CV should be adapted.

Key words: Merit Goods, Contingent Valuation, CV

1. Introduction

Compared with mere private and public goods, the category of merit goods is still very much of a crank in economic theory. Some economists simply mistake merit goods for public goods (Sherman, 1985), some consider them to be entirely illegitimate (Solf, 1993), and others consider the concept of merit goods to be of sociological rather than economic nature (Priddat, 1994). A recent publication by Tietzel and Müller (1998) rejects the concept of merit goods, arguing that the few valid concepts on the theory of merit goods already form parts of other theories.

Contrary to the massive critique of the concept of merit goods in economics, the concept's philosophical core has increasingly found support during the last decade. The notion that individual preferences are not necessarily the only determinant of a rational supply of public goods was most prominently and fundamentally put forward by Sagoff (1994,

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1996). However, the economic foundations of the doubts that have been stressed are weak at best.

This paper argues that by taking into account the concept of merit goods in environmental economics, the limits of individual preferences will not only become visible but can also be integrated in economic theory. The attempt is made, not only to justify and elaborate upon the economic concept of merit goods as well as classifying different categories, but also to estimate the direct impact of this concept on the existing techniques of environmental valuation.

In order to reach this goal, three steps must be taken. To the degree possible, section 2 describes the state of the art on merit goods. This statement is as careful as it is, for it appears that the number of exact understandings of merit goods slightly exceeds the number of articles that have been written on this subject. Therefore, it will prove to be necessary to make certain choices between the different points of view. It is also clear that a discussion on merit goods within the scope of environmental economics will have certain parallels to the ongoing discussion on the nonuse values of environmental goods. Section 3 will shed some light on these differences. Section 4 is devoted to an examination of conventional methods of environmental valuation, in respect to their applicability for merit goods. The shortcomings of methods such as the Contingent Valuation Method (CV) and alternative methods will be made clear in this section and lead the reader directly into the subject matter of section 5. Without attempting to develop a new methodology of its own, at the end of the paper it is outlined in which direction environmental valuation would have to move as soon as merit goods were to be evaluated.

2. The concept of merit goods

The concept of merit goods was introduced by Musgrave in 1957 and developed in greater detail two years later in his "Theory of Public Finance" (Musgrave, 1959). To quote his understanding of merit wants, they "are met by services subject to the exclusion principle and are satisfied by the market within the limits of effective demand. They become public wants if considered so meritorious that their satisfaction is provided for through the public budget, over and above what is provided for through the market. (...) The satisfaction of merit wants, by its very nature, involves interference with consumer preferences." (Musgrave,

1959; 13) What is interesting about the generation of the term is that it was much more driven by economic practice than by economic theory: It appears that Musgrave developed his limitational approach on consumer sovereignty mainly by observing the phenomenon of a public supply of goods that could not be traced back to consumer sovereignty, e.g. schooling or housing for the poor. This may be the reason why few concrete measures for the normative determination of merit goods were developed by Musgrave himself, which leads McLure (1968) to call merit wants a “normatively empty box”. It left room for massive criticism of the concept, of which Baumol's (1962) may be the most prominent: “I want badly to be protected from those who are convinced that they know better than I do what is really good for me, and I want others to receive similar protection.”

Since the origin of the “merit goods” concept, a development can be observed during the course of which, slowly, some hypotheses that justify the definition of merit goods have been put forward under which circumstances it could be justified to define merit goods. Largely following a classification suggested by Erlei (1992), we will differentiate between paternalistic and individualistic merit goods, i.e. between a concept that assumes an agent superior to the consumer (usually the state) and a concept that does not.

2.1 Paternalistic merit goods

Paternalistic merit goods belong to the “classical” category that dominated the discussion in the first decades after the concept of merit goods was introduced (Folkers, 1974; Head, 1966; Head, 1969). The most important constitutive element of paternalistic merit goods is their lack of accordance with consumer preferences. Consequently, a forced, subsidised - or in the case of demerit goods - overtaxed or forbidden consumption can only be justified if consumers' preferences are “wrong” or distorted. We will now consider four different approaches to explain the possibility of distorted preferences and verify their relevance with regard to environmental goods.

- Wrong or missing information may justify the public provision of goods. “The consumer may lack basic information on the product necessary for a correct choice between market alternatives.” (Head, 1969; 215) In this case, the state has two possibilities: It may either provide a sufficient amount of information for the consumer or decide to supply the good itself. Mackscheid (1974) and Erlei (1992)

assume that the cost of information supply will necessarily lie below the cost of the public provision of the good. This may be the case for private goods, while for public goods this assumption should be questioned. Let us consider the case of biodiversity: Will it be more expensive to protect a single species that may be essential for the ecological balance of wetlands, or would it prove to be more costly to inform everyone concerned with wetland use that this species is essential for ensuring ecological balance, thus generating a preference for the preservation of this species? It becomes clear that for environmental goods, missing information may indeed be a reason for the definition and supply of a public good. This standpoint with regard to the environment, by the way, is not a new one (Ophuls, 1977).

- A related argument is that the provision of merit goods may induce a learning process, which may end up with a generated preference for the good. Recently, Norton et al. (1998) published a paper that defends a very similar view under the aim of sustainability, albeit arguing from the point of view of Ecological Economics rather than from a merit goods perspective. Critics such as Andel (1984) argue that the retrospective decision is distorted as well, because the costs were not taken into consideration and only the consumer feels the benefits. Schmidt (1970) even goes as far as comparing the induction of preferences to brainwashing. However, in practice, there are goods such as drug withdrawal treatments for which you could indeed argue that preference for such goods could only be generated by their provision. With regard to the environment, you could argue that preferences for a national park, e.g., could only be generated by forcing people to go there in the first place. This rigorous view, however, would be subject to Andel's objection. Therefore, this kind of merit goods will not be examined any closer within the scope of this paper.
- Even if complete information was provided, individuals can still make wrong consumption decisions. Systematically, this will be the case with children or the mentally ill, persons who are unable to process information adequately. Such mislead decisions will also occur on particular markets, e.g. the market for drugs, where consumption leads to decreased self-control. This perception was criticised on the grounds that no preference system can be judged as being wrong (McLure, 1968). Andel (1984), however, justifies the concept of wrong preferences with the necessity of education in modern society. Furthermore, the phenomenon of regret that almost

everyone experiences once in a while, shows that a fair number of our decisions prove to be wrong *ex post*. Although it is an interesting question who is to make decisions for subjects with insufficient abilities to make decisions themselves, this question has no particular relevance for the discussion of environmental goods. Neither do environmental goods play a particular role for persons with limited abilities to decide for themselves, nor do such goods limit the ability to form preference systems. Hence, there is no need to discuss this point in any detail.

- If we assume that all consumers have the same abilities to form their preferences, in the complex world we live in, it would be impossible for everyone to procure all the information necessary for rational decision-making. In this case, it would be rational for consumers to delegate a certain amount of their consumer decisions to a principal (often the state) that has sufficient information to make utility-maximising decisions. This group of merit goods has characteristics similar to those of the first category mentioned as well as involving an equally high relevance for environmental goods. The only difference to the first category is that consumers are now willing to delegate decisions voluntarily.

2.2 Individualistic merit goods

One of the core questions of merit goods is whether their existence can be brought into line with the notion of the priority of individualistic preferences. Brennan and Lomasky (1983) developed an approach that was elaborated upon by Erlei (1992). They argued that there is not necessarily any inconsistency between the provision of merit goods and an individualistic approach, if you consider that one individual may have more than one preference order.

It can indeed be argued that all of us have three preference orders which may well be inconsistent with one another. These preference orders can be categorised as follows:

- Market preferences;
- Reflective preferences;
- Political preferences.

While statements on market preferences are likely to begin with "I want..." reflective preferences may start with "I should..." and political preferences with "Society should...".

Because the marketplace reflects market preferences as well as usually being the only kind of preferences that are taken into account in classical economics, their definition is fairly straightforward. Market preferences can well be measured in terms of consumption.

Reflective preferences, on the other hand, reflect the opinions that people have in their minds and that they may state in conversations or in interviews. While market preferences have their immediate consequence in reality, reflective preferences do not have a direct impact. Often referred to as 'moral beliefs', reflective preferences are often considered to be constitutional for human beings (except by economists).

The third category of preferences is political preferences. They are stated by voting behaviour. In the long run, political preferences that are reflected by voting results in politics will usually have an effect on the voting subject. It is unclear (and rarely discussed) to which extent political preferences are influenced by market preferences and to which degree they are influenced by reflective preferences.

In Germany, i.e., organic food can serve as an environmentally relevant example for the differences between reflective and market preferences. Market preferences have led to the fact that organic foods hold a 3 per cent share of the German food market (BMVEL, 2001). However, consumer surveys show that more than 90 per cent of respondents have positive connotations with organic food (von Alvensleben and Bruhn, 2001). What is more, asked after the share of organic food in their actual diet, respondents replied with an average of 28 per cent, i.e. nearly a tenfold overstatement! This effectively illustrates how far reflective preferences can diverge from market preferences.

With regard to political preferences, by means of a simple calculation, Brennan and Lomasky (1983) showed that in some cases, it might prove to be rational to vote in favour of reflective preferences rather than for market preferences. This would speak in favour of voting for governments that provide merit goods, that is to say goods that cannot prevail on the free market. To take the example above, if people politically support their government promoting organic foods (as is the case in Germany); they show that the provision of merit goods is not necessarily contradictory to an individualistic approach.

The example of organic foods shows how relevant parted preference orders can be for environmental goods. The preliminary conclusion is that paternalistic and individualistic merit goods exist and that they are relevant for environmental goods, insofar as they are defined by consumers' or taxpayers' lack of information or by parted preference orders.

3. Merit goods and passive use values

It should have become clear that the ‘merit good’ argument is not identical to the argument of “passive use values” or “nonuse values”. Both concepts share a common ground, based on Sagoff’s (1995; 162) remark that “natural objects or systems are valuable independently of what people want”. The extensive debate as to whether value components of a public good such as the intergenerational value (Pommerehne, 1987) or the existence value (Pearce and Turner, 1990) interfere with conventional valuation methods (Lazo, 1992; Rosenthal and Nelson, 1992; Kotchen, 2000) refers to distinct value components that were possibly neglected by the valuation methods referred to above. The same debate must also be carried out for merit goods. .

However, there are important principal differences between the discussion on passive use values and merit goods. Passive use values always refer to the value of the public good for a subject outside of our current human society. This makes it difficult to find judgements based on objective measures. In the case of intergenerational values, we have to anticipate preference orders for coming generations. Wouldn’t it have been all but impossible for our ancestors to anticipate our preference orders? In the case of existence values, we must find a balance between human preferences and preferences of other species. The ontological argument of “life in the midst of life that wants to live” seems intuitively plausible in the case of charismatic species like elephants, but is largely neglected in the case of potatoes and midges. Therefore, it is hardly surprising that references made to ‘moral values’ in favour of nonuse values usually remain bloodless and abstract.

Operationalisation of merit goods is easier, as the concept refers to preferences inside of our current human society. Thus, the discussion on the reduction of emissions into the Mediterranean would not have to focus on the possible preferences of our unborn grandchildren or on the existence value of fishes and algae, but on the perceptions of present society, based on different levels of information and different preference orders.

Another important difference is that it is hardly possible to imagine negative passive use values, but it is possible to imagine that accounting for meritosity reduces the value of environmental goods. To use the example of the Mediterranean once more: Consider that the willingness to accept stated for emissions into a certain sea is based on the wrong assumption that the buffer capacity of the sea is low and that, with

emissions, its environmental quality is entirely distorted. Would experts who know about the buffer capacity make the decision, the willingness to accept would - on a rational basis - be lower. Strictly speaking, the emission itself would then qualify as a merit good, because its value is higher (i.e. the damage done is lower) than consumer preferences account for.

4. Merit Goods and Environmental Valuation

In the first place, it is useful to distinguish between the two different approaches of environmental valuation. CV as a direct valuation method differs fundamentally from revealed preference techniques in that CV attempts to measure the total value. Revealed preference techniques "are usually only capable of capturing the quasi-public value, that is the direct use portion of total value, because they rely on the availability of an implicit private market for a characteristic of the good in question." (Carson et al., 2001; 176) It easily becomes clear that the travel cost method, for instance, is not an appropriate instrument for the valuation of merit goods. Somebody driving to a recreational site will only do so if he knows enough about it to recognise that the benefits are larger than the costs. And, by definition, his decision to spend petrol will be based on market preferences rather than reflective preferences.

We can, therefore, direct our attention to the potential of CV to find appropriate values for merit goods and will divide the discussion of this issue into the problem of missing information and parted preferences.

4.1 CV and incomplete information

Since CV was developed, the information requirements of respondents have become abundantly clear. Blomquist and Whiteheads (1998) conclude that "information about quality is a determinant of willingness to pay for wetland preservation". Similar results for recreational sites by Ajzen et al. (1996) are hardly surprising either, given the fact that every purchasing decision depends on a certain amount of information. The core question is rather how much information a rational decision requires at the very least. Assuming that there is a reasonable answer to this question, the next question is if average respondents in a CV setting

possess this information and if the missing information can be supplied at the beginning of an interview.

There will be examples in which missing information does not cause major problems in the ability to evaluate an environmental good. This would be the case, for example, if a recreational site without any hidden treasures of biodiversity (Norton, 1986) would be evaluated *in situ* by the respondent. However, there are plenty of environmental goods for which any valuation as to a realistic value requires enormous amounts of information. Take Arrows (1993) scenario to lay open the shortcomings of CV: "Suppose information is desired about individuals' willingness to pay to prevent a chemical leak into a river. Presumably, their responses would depend importantly on how long it would take for the chemical to degrade naturally in the river (if it would at all), what ecological and human health damage the chemical would do until it had degraded and so on." It is clear that it would hardly be possible to supply all relevant information within a CV setting.

Take Swiss agri-environmental programs as another point in case. They consist of more than a dozen very sophisticated packages farmers can choose. To name but one of the not so complex, farmers are rewarded if they grow oilseed and grain without using fungicides and insecticides, while the use of mineral fertiliser and herbicides is still allowed. Would you like to ask your milkman what he would be willing to pay for this combination? If you wanted to ask anybody, it supposedly would be qualified scientists who know more about the interrelation between chemical substances, crops, and soil than you do.

We should not fall for the illusion, though, that providing complete information on environmental goods would be possible. There are only different degrees of knowledge. It is even doubtful that there is a clear borderline dividing a sufficient degree of knowledge from an insufficient one. This notion makes the concept of paternalistic merit goods being very much a gradual rather than an absolute matter. Institutional economists know this specific character of the economic commodity information and call it the 'information paradox' (Kasper and Streit, 1999).

This should not mislead us from the fact that - within a CV study - there is no opportunity to inform respondents on the characteristics of an environmental good for a longer period of time than say twenty minutes; whereas specialists on the same good may have spent years to gather all data available on the good and its ecological context.

4.2 CV and parted preferences

Which set of preference orders identified above is measured by means of CV: market, political, or reflective preferences? Usually, only one value per person is ascertained. This means that a choice has to be made regarding the preference order at stake.

At least, it can be said that a great deal of attention has been spent on recording market preferences by means of CV. After CV was first developed, it was discovered that what is referred to as a hypothetical bias, i.e. deviations between the stated value of an environmental good and the 'real' market preference, occurred and this was described as being a major problem (Mitchell and Carson, 1989; Blumenschein et al. 1998; Hart and Latacz-Lohmann, 2001). Bjornstadt et al. (1997), however, show a promising method allowing for both market preferences and reflective preferences to be revealed. According to their variety of CV, which they call "Learning Design", they ask respondents to state their willingness to pay for environmental goods in hypothetical referenda and real referenda. Even although their 'real referenda' are not in fact real referenda: This is the first method that enables respondents to distinguish their market preferences from their reflective preferences. This methodological approach even allows us to take political preferences into account as well. According to a suggestion made by Sagoff (1998), political preferences can be accounted for in the CV process by choosing a more co-operative and deliberative setting for the construction of willingness to pay estimates. Although Sagoff himself considers his suggestion just as an improvement for CV, it could also be understood as a distinct instrument to measure political preferences. Quiggin (1998) calls this approach the 'citizen choice approach'.

5. Discussion

Although the concept of merit goods is often be rejected by mainstream economists, merit goods nevertheless play an important role in virtually all societies of the world. No funded opera house and no public health system can be justified without accounting for the existence of merit goods. We must, indeed, choose between the inability to explain the behaviour of all or practically all governments and the concession regarding the incompleteness of classical economic theories.

With regard to environmental goods, two arguments that support the concept of merit goods can be stated: First, an appropriate evaluation of

public goods requires a sufficient level of information. Although, admittedly, the exact meaning of the word 'sufficient' is not quite clear in this context, it is clear that such a degree of knowledge is more likely to be obtained during years of college studies than over the course of a few minutes before a CV setting.

If an economic commodity with high information requirements is to be evaluated, it could make sense to restrict willingness-to-pay bids to specialists on the respective field. The definition of "high information requirement" is not straightforward. However, usually it proves to be possible to assess that the valuation of a possible extinction of aqua fauna in a river would require more scientific background than the visibility of a mountain due to sulphur dioxide emissions. Therefore, it is no coincidence that the latter has been a popular object of CV (e.g. Bartlit, 1984; Levy, 1995), whereas the first has not. The choice of experts to carry out environmental valuations is not an entirely new idea (Milgrom, 1992); the concept of merit goods, however, delivers theoretical support for this approach.

If - because of increased information requirements - we were to carry out CV studies with skilled specialists instead of with average consumers, what exactly are we to estimate? We should now take into account that market, reflective, or political preferences - each distinct from the other and dependent on the actual trial setting chosen - can be estimated by means of CVs. However, we would not attach great importance to the personal market preferences of the scientists interviewed, because such would not automatically reflect consumers' market preferences. If we take into account market mechanisms, then everyone should be able to participate. This paradox should lead us to making a decision in favour of political preferences. Few deciding for many is exactly a political mechanism that a credible valuation method should account for. Hence, Sagoff's (1998) suggestion to create deliberate and cooperative valuation processes with discursive approaches to value elicitation would prove to be appropriate for settings in which certain specialists would have to decide on the provision of environmental goods. It is interesting to note that in a recently published article on the impacts of Social Choice preference axioms for environmental valuation, Gans (1999; 412) comes to very similar conclusions, suggesting "a type of quasi judicial environmental review board" for complex decisions. It is still too early; however, to determine the exact institutional form of a setting that would have certain 'round table' characteristics. Therefore, it would prove to be advantageous if future research were to elaborate upon practical settings for such a citizen choice approach.

Possibly, we would not be going too far by suggesting that by adapting CV to the characteristics of merit goods, economists would be able to improve their understanding of the important role merit goods play in existing societies. Similarly, it was not before the valuation of public goods was operationalised that mainstream economics began to acknowledge the relevance of public goods in society.

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