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Benefit transfers of cultural heritage values: How far can we go?

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ABSTRACT

Assessing the economic values attached to alternative land uses when cultural heritage goods are at stake makes the valuation process more articulated. Economic elicitation of cultural heritage values is quite a recent practice. Not many case studies have applied non-market valuation techniques, such as contingent valuation methods or travel cost methods, to derive monetary estimates of cultural goods attribute and even fewer applications have been policy oriented. These studies, particularly contingent valuation ones, have very high implementation costs. Hence, to obtain primary estimates of cultural values, agencies need to spend a great deal of money and time. Since these resources are scarce, there is an impinging need to consider the possibility of transferring benefit estimates from a specific "study site" for which data has been collected, to a "policy site" for which there is little or no information.

Value transfer studies in cultural heritage economics are rather rare, and the idea itself is quite controversial. In this paper we offer a concise – and certainly not exhausting – review of some recent value transfer studies in this area, with a particular view to spatial variability and transferability. We discuss limits and potentialities of benefit transfer approach for cultural values, aiming to raise debate on the topic. We acknowledge the local nature of cultural values and the strict relationship with the population to which the specific heritage belongs, but we focus on the more universally shared values that are embedded in cultural heritage and on possible ways of expressing them in terms of priorities and clusters. More research is needed in this direction before dismissing the possibility to apply benefit transfer in the case of cultural values estimates.

Key words: *benefit transfer, meta-analysis, cultural heritage values*

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1. The problem

The estimation of the economic values of cultural goods in a policy-oriented perspective is an issue of paramount importance. In recent years, the literature debate has shown how cultural heritage can play a strategic role in the economic development of cities and regions, both in terms of the economic stock of resources it represents (Thorsby, 1999) and the impacts it has on other economic sectors, i.e. the tourism sector and the flows of related services that it generates.

This paper focuses on an issue that seems to have been overlooked by literature so far, i.e. the possibility to transfer values estimates of cultural goods from a *study site* to a *policy site,* problem generally know as *benefit transfer*. Whilst this issue has been debated in the case of environmental value transfer, very little has been done with cultural values. Several reasons are behind the current lack of debate on a topic that might have big political implications. Though now the question of how to estimate the value of public goods is becoming a crucial one in the cultural economic scene, economic elicitation of cultural heritage values is quite a recent practice. Not many case studies have applied non-market valuation techniques, such as contingent valuation methods or travel cost methods, to derive monetary estimates of cultural goods' attributes and even fewer applications have been policy oriented (Schutster, 2003). Controversies had arisen around the issue of the validity and reliability of cultural values estimates, which have often shown to be not only site specific, but also quite sensitive to the used valuation method. This has caused, at times, severe scepticism about the possibility of using the obtained estimates in Cost Benefit Analysis (CBA), and the initial reluctance of Local Agencies to commission similar studies for policy purposes. Therefore, researchers had to dedicate their efforts to the refinement of the available valuation techniques before focusing on the possibility to learn from the previous body of knowledge and transfer the estimated values. Many case studies had to tackle these scientific challenges in order to provide a tool that could appeal to decision makers, a tool they could feel confident enough to use for resources' allocations.

Once the initial diffidence of Local Agencies had been won, other problems have recently arisen in the economic valuation of cultural goods. These studies, particularly contingent valuation ones, have very high implementation costs. Hence, to obtain primary estimates of cultural values, local agencies need to spend a great deal of money and time. Since these resources are scarce, there is an impinging need to consider the possibility of

transferring benefit estimates from a specific "study site" for which data has been collected, to a "policy site" for which there is little or no information. That's why we regard this as the appropriate moment to focus on the limitation and potential of benefit transfer of cultural values. We aim to bring attention to the topic, venturing possible research avenues that might be explored in the near future, in the hope that research efforts might be substantial and tailored to the specific issue at hand, namely the challenge represented by the site-specific nature of cultural heritage combined with the need of learning from previous studies, drawing general conclusions.

Many cultural goods have a *public* or *quasi-public* good nature, and the change in their provision brings positive and negative externalities that have to be accounted in CBA for an optimal management of these resources. As it has been pointed out (Thorsby, 1999), in economics we now distinguish four different forms of capitals. The *physical capital* (Hicks, 1974) as the primary stock of goods, such as plants, buildings etc, was discussed and acknowledged since the beginning. On its implicit definition economics was initially based. Then, the notion of *human capital* was introduced, (Becker, 1964), indicating how people's skills, knowledge and experience were as important as the physical capital itself to produce economic outputs. In more recent years (Jansson et al, 1994) the concept of *natural capital* was brought forward, meaning the stock of renewable and non-renewable resources that nature provides us. Debate has arisen around this concept, and careful attention has been devoted to the issues of preservation of natural capital, and elicitation of its non-market value, within the sustainability concept defined by environmental economists. Many of the valuation techniques that might be successfully applied to elicit monetary measures to cultural goods have been developed within this framework.

Building on these classifications of different forms of capitals in economics, Throsby defines *Cultural Capital* as "the stock of cultural value embodied in an asset. This stock may give rise to a flow of goods ad services over time, i.e., to commodities that themselves may have both cultural and economic value" (Thorsby, 1999). Throsby highlights how there is a correlation between the cultural and economic value of items of cultural capital, but not a perfect one. The concept of cultural values has been widely used in different discourses, such the sociological one, but stressing the economic dimension of values associated with cultural assets has many implications for the management of cultural goods. From this it stems, for instance, that *preservation of historic heritage* maintains the level of cultural capital producing multidimensional non-market social benefits, e.g. social identity and cohesion, becoming one of the major features of cities' sustainable development. These non-market

benefits need to be accounted for in Social Cost Benefit Analysis, hence bringing to the fore the role played by their economic assessment and the strategic importance now played by valuation methods in decision making processes dealing with cultural assets. As mentioned above, and discussed into more details in the following sections, non market valuation techniques, such as hedonic prices, travel costs and contingent valuation have been used to elicit monetary expressions of cultural values, despite the caveats that each of the techniques imposes. To what extent the estimates obtained by means of these techniques can be used to draw lessons for sites other than the ones object of the main study, is the basic question that we pose and discuss in these pages. How far can we go with benefit transfer of cultural economic values?

The transfer of environmental values has caused already controversy in the academic domain, so it should not surprise that it has spurred, and even more will, debate and controversy in the cultural economic field. Transferring environmental values has soon become appealing to local environmental agencies, and sometimes quite improper forms of transfer have been applied in practice. Also in the real estate market, a "surrogate value" is often applied to properties of unknown market value. If this is the unregulated practice, research efforts should be targeted to discuss the principles of this approach, developing a more rigorous one, aiming to define guidelines for its application (Brower, 2000).

The major criteria for a sound values transfer can be summarised as follows:

- Studies considered for inclusion must be based on adequate data, sound economic methods and correct empirical techniques
- Studies should describe willingness to pay (WTP) as a function of relevant explanatory factors
- Sites must have similar populations
- The environmental good and the change in provision levels at the different sites should be similar
- Sites should have similar characteristics
- The constructed markets, including distribution of property rights, should be the same

In practice, one can transfer point estimates (average WTP) or a transfer equation measuring WTP as a function of household's characteristics. Meta-analysis can also be used to explain differences in valuation outcomes, such as variations in WTP found in several studies. Results from meta-analysis seem to suggest that differences in study design can

explain variability in valuation outcomes (Brower, 2000). Of course, the used elicitation technique may matter and one has to bear in mind that certain values seem more easily computable, more meaningful and transferable than others. For existence and non-use values contingent valuation (CV) is the only available technique.

When transposing the above discussion to the cultural economic field, we have that non-use values often account for the most important part of the total economic value (TEV) of cultural goods. The application of stated preferences techniques, such as CV or conjoint analysis (CA), become the only available option, despite the biases that CV estimates seem to show, due to survey inaccuracies, anchoring effects, elicitation format effects, framing effects etc. Nonetheless, CV appear to be, as Epstein points out, a necessity:

> "There are so many public situations in which alternative tools of valuation seem to fail that CV techniques are adopted by default. […] CV will continue to be used in spite of the obvious weaknesses of survey techniques, until someone comes up with an alternative method powerful enough to displace it. After over 50 years of trying, I doubt that any robust alternative will ever be developed." (Epstein, 2003)

Also within the more established realm of environmental value transfer, care has to be used when dealing with CV findings, usually associated with non-use values. Current studies appear quite heterogeneous from a methodological point of view, so that it appears difficult to define strict and efficient guidelines for value transfer. Among the arguments against value transfer, there is the issue of site specific values, in other words to what extent these environmental values, that might just be embedded in specific local conditions, can be transferred to other sites. This is also the major point that has been brought forward against the transfer of cultural values, given their local nature and specificity (Pearce et al,2002).

In this paper we discuss alternative ways of analysing the above problem, mainly rooted in the potential that classification of goods, i.e. the development of appropriate taxonomies of cultural goods and their relationship with different categories of use and non use values, together with the use of clustering and a spatial economic analysis might have in improving value transfer. We attempt a first classification and a discussion of the problem in section 5.

The rest of the paper is organised as follows: first we discuss the economic nature of cultural heritage, then we provide a comparison of the available assessment methods for cultural heritage, thirdly we discuss into further details the issue of value transfer for cultural goods, and finally we propose a taxonomy of cultural goods and discuss the potential of clustering and spatial economic analysis for benefit transfer.

2. Cultural Heritage as an Economic Good

Cultural heritage refers to a set of recognized assets that reflect the historical, socio-economic, political, scientific, artistic or educational importance of a good that has been created as a visible landmark by our ancestors. Very often such a social capital good was not deliberately created as a sign of history by the previous generation, but it just happened to survive the tides of history and to be recognized as such by a subsequent generation.

The supply side of cultural heritage is noteworthy, as there is not a production system – at least not in the short run – for cultural heritage. There are only two relevant elements in this regard, viz. the act of recognition (e.g., a listing procedure for monuments) and the maintenance task. Thus, the supply side is not driven by a transparent market orientation. It is clear that cultural heritage conceived of as a specific form of cultural capital may have different forms of governance and authority structures ranging from private to public ownership and management (see Sabel and Kling 2001, Schuster 1998 and Throshy 1999).

The demand side is also interesting, as the absence of a supply side market mechanism (and related pricing behaviour) may lead to distortions at the demand side. There is no well defined equilibrium price, as the value of a cultural good – as a social asset – cannot unambiguously be determined. In various cases, there is even a free entry to cultural goods (e.g., visits to churches, or museum visits on public holidays). Consequently, a traditional economic supply-demand analysis where prices act as equilibrating parameters does not hold for the cultural heritage market.

Cultural heritage has an important feature that distinguishes it from normal economic goods. Cultural heritage is a historical social asset that cannot be substituted in case of loss or major damage. There is essentially no market for such goods, as they are often unique in nature and cannot be reproduced. A Roman church, an urban scenery, a museum complex or a historical urban district – once destroyed – is gone forever. Does this mean that the economics discipline is not relevant in this setting? Absolutely not; cultural heritage falls under the scarcity regime in economics and requires scarce resources to be produced and to be maintained. Furthermore, even if a good is unique or non-reproducable, its loss has economic implications. We may refer here to studies on the values of loss of human life, where concepts like the statistical value of human life has been developed by using methods like conjoint analysis and hazard modelling (see e.g., Navrud and Ready 2002, Noonan 2003, or Santagata and Signorello 2000). As will be shown later in this paper, there is a wide variety of statistical methods related to experimental psychology that are able to encapsulate the assessment of the

economic value of a good once lost.

Contingent valuation plays increasingly a role in cultural economics, especially in non-market valuation issues where it is a main challenge to translate individual values into aggregate social values. Clearly, the use of stated preferences has several advantages (see e.g. Alberini et al. 2003), but it definitely has also rather strict limitation, as was convincingly argued in recent contributions to the date by Epstein (2003) and Throsby (2003).

A major question is of course whether aggregated stated preferences demonstrate a rather robust result across different cultural assets or sites. To answer this question, a meta-analytic experiment would be necessary, based on a comparative synthesis of different individually-based studies (see Noonan 2003). It is clear that this branch of research on cultural asset evaluation still needs significant progress.

In addition, there is another approach in economic analysis, which stems from compensation theory. If a physical good is (threatened to be) lost, one may try to compensate for this loss by either reconstructing the same assets or by using surveys among the public in order to assess the total amount of compensatory payments that are necessary to restore the original utility level. There are several examples of a physical compensation for a cultural good once lost, e.g., when a theatre, an old urban district or a historical bridge or building would be lost and restored, even though it is not exactly the same social good but a quasi-cultural good. Alternatively, once might ask how much it would cost to rebuild a physical cultural heritage good after it would be lost, even when it would not be actually reconstructed. These compensation approaches are usually labelled shadow project analyses and are very helpful in assessing the socio-economic value of cultural or environmental goods.

Nevertheless, there is public concern about the maintenance of cultural heritage and there is societal interest in enjoying the cultural value of these assets. Is it possible to identify and analyse these societal needs, even if they cannot be expressed in the ‘measuring rod of money’? And is it possible to transfer obtained empirical values or preferences for cultural heritage goods to other sites or goods not yet investigated (e.g., via benefit transfer mechanisms)? And which research methodologies are available or needed in order to meet the demand for an unambiguous assessment of cultural values? How can we analyse synergy of cultural heritage as reflected in cultural complexes in old cities (such as Venice, Jerusalem, Amsterdam or Madrid)? And finally, is it possible to gauge the influence of the presence and use of cultural heritage in contemporary cities on the cities’ economic growth or their sustainable development?

A complicated problem in cultural heritage evaluation is caused by the fact that these

historico-cultural artefacts do often not stand alone, but form a portfolio of cultural assets (e.g., an ancient city is more than the sum of its constituent buildings, or a cultural landscape is more than the sum of its constituent pastures). These spatial externalities in cultural heritage are difficult to handle, although compound preference elicitation and judgement methods may be helpful in this framework (see e.g. Hagerhall 2000 for an application of so-called clustering predictors to Swedish cultural landscapes).

3. A Comparison of Assessment Methods for Cultural Heritage

Cultural heritage – and more generally culture - has a value, but its measurement is fraught with many problems. Since most cultural goods are not offered in a free market context based on monetary transactions, the financial measuring rod is not satisfactory. Nevertheless, since we know that cultural goods contribute to the well-being of people and hence satisfy the needs of (members of) society, several ways do exist to estimate the extent to which cultural goods are important to needs' satisfaction, by deploying quasi-prices. Examples are revealed preference techniques, through which on the basis of actual choices reflected in behaviour the implicit willingness to pay can be estimated, experimental preference techniques, through which on the basis of experimental market–like condition trade-offs among various goods can be inferred, or stated preference techniques, through which on the basis of survey techniques the maximum willingness to pay for goods can be derived.

Stated preference methods have been derived in the marketing literature, but have gradually found a broad application in micro-based economic research (see Adamowicz 1995). Especially in the recreational literature stated preference methods have gained much popularity, while in recent years the emphasis has predominantly been on non-use values of sites, for instance, by using pairwise comparison questions on attributes of sites (provided at least one of the attributes can be assigned a monetary value). It is clear that a careful specification of such choice experiments is a sine qua non. This approach has in empirical economic research many merits, as this multi-attribute experiment is able to encapsulate many dimensions of actual choices, especially in a repeated choice context (cf. Gregory et al. 1993).

A well-known and increasingly popular subset of the class of stated preference methods is the contingent valuation methodology. This method has become fashionable in various branches of economics, dealing within tangible goods, such as cultural economics and environmental economics. This technique selects a sample of relevant individuals or survey

respondents in a given choice or evaluation context, and asks them how much they are prepared to pay for a hypothetical incremental change in the quantity of the good offered (e.g., a recreational area, a museum, an amphitheatre etc.). These individuals are not necessarily users of the good concerned, so that also non-use values (such as existence and altruistic values) can be taken into consideration. Their willingness-to-pay is then elicited by relevant survey questions, either open-ended questions or dichotomous choice formats (see also Hausman 1993).

Clearly, contingent valuation methods have intrinsic limitations and caveats, as the choice context, the survey question, the specific cultural good concerned, the set of relevant alternatives and the survey unit (e.g., individual or family) have to be carefully chosen and described. Nevertheless, the use of these techniques has signifantly increased in the past decades and, consequently, these methods have become a standard element in the toolbox of cultural economists. Applications can be found in many fields of culture, such as arts, historical sites, theatres, museums, heritage, archaeological sites, broadcast, libraries and so forth (see for a broad review Noonan 2000). They have demonstrated their potential in particular in case of non-use and bequest values, and may hence be seen as important tools for the valuation and comparative assessment of cultural heritage.

An important question often addressed in the literature is what we can learn from individual case studies for a next case study. How general are the results of case study research? Can we transfer findings from a set of rather similar case studies to a new case study? This question is known as the benefit transfer (or value transfer) issue and seeks to investigate under which (general and specific) conditions common findings from various case studies are more or less valid for a new given case at a distinct site. This question will be addressed in the next section.

4. Value Transfer in Cultural Heritage Assessment

Knowledge acquisition in the social sciences, and hence also in economics, is usually based on a reductionist approach, which eliminates many person-specific, object-specific or site-specific characteristics of a phenomenon, but the major advantage is that it allows for generalization through a common standardized approach that is applicable to a larger population. This methodology lies also at the heart of meta-analysis, which seeks to synthesize research findings from different case studies (van den Bergh et al. 1997, van den Bergh and Button 1997, 1999). Through the use of common relevant descriptors (behavioural,

methodological, contextual) it is possible to draw inferences from a large sample of cases. When such cases are designed from a joint conceptual and experimental background, the degree of controllability is obviously higher, so that more solid conclusions may be drawn (see also Yin 1994). But also in the case of semi-controlled (or even non-controlled) experimentation meta-analysis allows us to account for commonality and specificity.

In the same vein, we may consider the use of value (or benefit) transfer, mainly in the field of environmental economics (Johnson and Button 1997). By assuming uniformity in behaviour response of economic actors regarding environmental goods, it is in principle possible to assess relevant shadow prices for such goods which may be transferred to other case studies. Such transferability operations require a series of hypotheses on the phenomenon under investigation, such as commonality in preference structure, similarity in sites and so on. Such common hypotheses impose a focused context for transferability issues, as they act as a filter for studying common phenomena.

For value transfer (also commonly named 'benefit transfer') the possibility of using meta-analysis is of major importance (Bal and Nijkamp 1998a). The basic idea of value transfer is that knowledge accumulated over time may be subjected to a transfer to a new, similar type of study. Examples of this type of scientific research can be found in site (area) valuation studies. Especially in site valuation research, an intensive use is made of value transfer studies; see, for example, Bateman et al. (1995), Loomis (1992) and Parsons and Kealy (1994). A more theoretical study concerning the size of a market area in relation to area valuation and the validity of results in the light of value transfer can be found in Bal and Nijkamp (1998b), according to whom value transfer is a scientific research method which aims to use accumulated knowledge generated via previously undertaken similar types of research endeavour in order to draw inferences on hitherto unexplored cases. It serves to meet the ex ante formulated study objectives of a repeated study against the least possible research cost. Besides meta-analysis, other techniques useful for deriving knowledge for value transfer are average point values and parameter values of benefit functions. The degree of dependency of these results on the particular research process is, for a significant part, affected by the methodological framework and its appropriate techniques of case research. When such a framework exists, some level of scientific confirmation is to be expected. However, confirmation of the validity of a framework based on common sense does not necessarily imply that this framework is correct, simply while it is partly based on previously derived (and thus study-specific) results.

For the use of knowledge on a new similar study, it would be ideal if almost identical site characteristics could be transferred without any manipulation and if, at the same time, typical site-unique characteristics could be taken into account: that is, if it were possible to adapt derived variables for these site-unique characteristics. At first glance, this means that the common site variables which measure the presence of identical site characteristics may be accounted for in the ceteris paribus clause. These common site variables are equal among the collection of previously undertaken in-dept (case) studies. However, the implication of the ceteris paribus clause is that it will affect moderator variables which must remain equal. It is clear that common site variables are not part of the black boxes, but explicitly studied moderator variables. These common site variable values can be seen as value transfer constants. The site-specific (characteristic) variables which require an adaptation may be treated as value transfer parameters.

In research reality, we may under variational conditions try to correct site-specific or study-dependent knowledge. For example, Smith and Osborne (1996) consider a test to judge the internal consistency of contingent valuation (CV) estimates. By means of the application of meta-analysis, they were able to take into account a distinct valuation of air pollution by inhabitants from the east and west side of the USA for an improvement in the visibility of national parks. It is noteworthy that such methods are approximations for incorporating real-life changes into the model concerned. Such changes can certainly be observed, approximated and brought into an analytical framework, but the causes of change are then normally largely neglected. However, changes in real-life context often contain specific information that may be useable for comparative studies, such as meta-analysis and value transfer.

Value transfer studies in cultural heritage economics are rather rare. We will offer a concise – and certainly not exhausting – review of some recent value transfer studies in this area, with a particular view to spatial variability and transferability.

Eade and Moran (1996) use Geographical Information Systems (GIS) to represent simultaneously the varying social and physical information relevant in a given assessment context, so as to include also site-specific environmental patterns. They apply their approach to environmental resource benefits estimates in the Rio Bravo Conservation and Management Area. They make a distinction into direct use assets, indirect use assets, and option and existence values. GIS is then deployed to map out spatial variability, while the economic values are derived from market prices, damage cost methods and surrogate market techniques. Next, estimated values were transferred to other areas than the original sites.

A related study on benefit function transfer analysis can be found in Lovett et al. (1997),

who also used GIS Techniques for estimating natural resource recreation benefits. They deployed regression methods to assess stepwise the site-specific impacts on the number of visitors to a recreational woodland in eastern England.

The robustness of the benefit (value) function transfer approach was tested by Downing and Ozuna (1996) who designed an experiment for analyzing the reliability of this approach using continent valuation approaches. In their US study they found that the benefit function transport approach tends to over-estimate the actual benefits, so that his approach should be applied with some care.

By using meta-analysis techniques, Shrestha and Loomis (2001) estimated the economic values of outdoor recreation by applying a benefit transport method in which existing consumer surplus values are used to value the resources at another site. Their study demonstrated that this exercise has to be applied with quite some caution. Another, more recent application of a benefit transport approach – using a simulation experiment – to outdoor recreation (in particular, mountain biking) can be found in Morey et al. (2002).

5. Taxonomy of cultural goods and clustering economic values

This section aims to discuss possible alternative approaches to benefit transfer. We refer to a selected literature on the topic that seems to suggest novel research effort focused on the potential of spatial economic value mapping (Eade and Moran, 1996) and ecological classification (Rujgrok, 2001). We also attempt the use of taxonomy of cultural goods (Riganti, 2000) referring to a possible clustering of economic values. We believe that more research effort is needed in this direction, which might show to be useful to overcome the major criticisms and obstacles identified against cultural values transfer.

As discussed in a previous section, many economists are reluctant to transfer values measured at one site to another site, since the two goods object of the valuation exercise are never exactly the same at the two locations. As Pearce pointed out:

> "Benefit transfer […] is often unreliable. Environmental values and cultural heritage values are naturally highly site- and good-specific. We do not anticipate that there will ever be a catalogue of values from which decision makers can select an appropriate number for the new policy issue they face." (Pearce et al, 2002).

Nonetheless, it is quite common practise to attempt forms of benefit transfer of different resources in order to minimise the costs involved in first hand valuation. Some literature

reports successful experiments, even in the case of international benefit transfer. For instance, Alberini and Krupnick (1997) tested the potential of benefit transfer to estimate consumer surplus from avoiding a restricted activity au due to head cold in Taiwan. They used estimates from studies done in USA with an adjustment for median income and they found encouraging results.

Downing and Ozuna (1996) tested benefit function transferability for bay regions using CV estimates and concluded that was unreliable, but found that this conclusion did not hold in the case of point estimates.

Undoubtedly, one of the major obstacles to benefit transfer of cultural values is given by the fact itself that there are very few applications of non-market techniques to cultural goods, especially when compared to environmental goods' applications. Not many applications of CV to cultural heritage can be found, and very few studies are policy oriented. At the time of writing, one published Meta-analysis of CV applications to cultural goods (Noonan, 2003) can be found in the cultural economics literature. However, we do not believe the issue of cultural values transfer to be premature, since far more applications to cultural values are expected in the next few years, and should researchers pose attention also to the potential transferability of their results, this could substantially increase the impact that such studies will have on decision making.

Eade and Moran (1996) applied geographical information systems (GIS) to undertake benefit transfer in the Rio Bravo Conservation area. They stress how GIS are seldom used for environmental valuation, and how they could be potentially very useful for "transferring site specific benefit estimates". Interestingly, the authors divide geographic areas into homogenous ones, assessing their economic strengths in terms of market and non market values and derive "economic value maps" showing the spatial distribution of natural capital. Though their results are sensitive to the definition of homogenous areas and the dataset input, the researchers seem to point towards a very interesting development of GIS for economic valuation. In their opinion, these value maps could help the production of more accurate estimates, and constitute the basis to develop repositories for benefit estimates.

Ruijgrok (2001) transfers economic values on the basis of an ecological classification of nature. As he points out: "Virtually no attempts have been made to use a classification of nature for benefit transfers. Economists have failed to classify ecological systems into homogeneous spatial units that are similar at different locations". On the other hand, ecologists have developed classifications of different units. Ruijgrok starts from this concept to explore the possibility to transfer values attached to the elements of an ecological

classification. Interestingly, he highlights how no effort has been made so far to study the "similarities of sites by decomposing ecosystems into ecologically homogenous spatial units".

The above-mentioned studies seem both to point towards new, alternative ways of approaching the benefit transfer issues, accounting for site-specific characteristics. We believe that one should build on these two important concepts, to develop a way of transferring cultural values that would be both reliable and valid. The idea of combining GIS, to investigate the potential of spatial mapping of economic values, and the classification of values and spatial units, seems to fit the needs arising from the cultural heritage context. Research efforts need to focus on testing the feasibility of different classifications of cultural goods and their respective values, possibly broken into components. Here the development of taxonomy of cultural goods and associated values might help. It is also important to investigate how people rank those values, and how this is related to their spatial characteristics. Cluster analysis may be useful to that extent.

Towards a taxonomy of cultural values

Here we present a suggested taxonomy of cultural values that relates the spatial dimension with the category of values and users. For clarity, we refer to a more general discussion about Total Economic Value and its components, both in the case of environmental and cultural goods (Riganti, 2000).

The total economic value of a (public/non-market) good (TEV) is given by use values plus non-use values. It represents the true willingness to pay for an improvement in the provision of a good (or the willingness to accept (WTA) in order to avoid a loss). An agreed expression for Total Economic Value is as follows:

$$TEV = \text{use value} + \text{non - use value} + \text{option value} + \text{existence value} \quad (1)$$

When considering cultural goods it is possible to distinguish other components of values so that the expression (1) can be written:

$$TEV = \text{current use value} + \text{option value} + \text{anticipatory value} + \text{existence value} + \text{bequest value} + \text{intrinsic value} + \text{glue value}. \quad (2)$$

Given the fact that definitions of the different use and now use values are generally well know, here we dwell only on the concept of *intrinsic* and *glue value* and how they relate to the total economic value of a cultural good. Building on the existing definitions, intrinsic

value, in this framework, represents the right of existing for future generations that the individual feels peculiar to cultural heritage in itself, for its symbolic/artistic/historic value. It could be expressed as the willingness to pay to avoid an action, which may constitute a threat to the existence of the original cultural good, which is considered irreplaceable, therefore unethical to loose. This concept of value is bound to the cultural structure of a society, hence should be identified at a more local level.

The concept of glue value is borrowed from ecological economics (Turner, 1999), and in the case of cultural goods, it could be thought as an expression of the synergy among the elements. In other words, it represents the value attached to the context, rather than that of the single monument, and to the interrelations that the latter establishes with the former. It is directly related to use value in the sense that the higher the glue value, the more utility an individual can gain from using the good.

Within the above framework, we attempt a provisional classification of the relationships among different categories of cultural goods and economic values.

Table 1 represents an illustrative example of the relationships between typologies of cultural goods and economic values. We distinguish different categories of consumers: direct, indirect, potential and future .We assume to be in the case of common property rights (unclear). Adopting a top-down approach, it is possible to identify four main categories of man-made capital: historic landscapes, historic cities, urban neighborhood of historic relevance and outstanding buildings. The above categories can be analyzed with respect to the different economic values as previously described.

In the case of **historic landscapes**, Table 1 shows the various kinds of benefits with respect to the pre-definied categories of consumers. When direct consumers are considered, the main benefit linked with an historic landscape is related to use value. Option and anticipatory values fall to zero when the visit takes place. Non use values (glue value can be regarded as trivial at this territorial dimension) are all present as shown in the table. In the case of indirect consumers, neither current nor anticipatory values differ from zero. Again, non use values should not vary compared to the previously analyzed pattern (direct consumers). When potential consumers are considered, by definition there are no benefits associated to current use, but only those linked with option and anticipatory values. The pattern of non use values holds in this situation as well. However, the picture changes substantially when we consider future consumers belonging to future generations,. In this case the only certain benefit is the one associated with intrinsic value. In the case of Historic

Cities, a similar relationship (as described above) between consumer categories and economic values holds true as well..

A very similar situation maintains when one considers cultural goods at a smaller scale, such as urban neighborhoods and outstanding buildings, namely monuments and historic parts of the city. In this case the main difference is given by the constant presence of benefits associated to glue value, regardless of consumers' categories.

In conclusion, the above attempt to create a taxonomy of values in the case of cultural goods highlights the relevance of economic valuation of such non market goods. The different features of a cultural good help to identify different benefits, respectively linked with different categories of consumers. When using a top down approach, for instance moving form a landscape to an individual monument, the associated economic values differ, as well as their relationship. We can see, for example, that glue values are relevant at an intermediate scale, such as urban neighborhoods or monuments, but not at a wider territorial dimension.

Table 1

Taxonomy of Cultural Values

	Historic Landscapes				Historic Towns				Urban Blocks				Individual Monuments			
	Consumers				*Consumers*				*Consumers*				*Consumers*			
	D	I	P	F	D	I	P	F	D	I	P	F	D	I	P	F
Use values																
Current	*				*				*				*			
Option		*	*			*	*			*	*			*	*	
Anticipatory			*				*				*				*	
Non Use Values																
Existence	*	*	*		*	*	*		*	*	*		*	*	*	
Bequest	*	*	*		*	*	*		*	*	*		*	*	*	
Intrinsic	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Glue									*	*	*	*	*	*	*	*

6. Concluding remarks

The major aim of this paper is to raise awareness and spur debate around the topic of cultural value transfer that we believe will become more relevant in the near future. As discussed, Benefit Transfer is a controversial approach even for environmental goods. Many economists feels uncomfortable with the concept itself, since there is the risk of data manipulation and of producing unreliable results. Nonetheless, benefit transfers are to certain extent already practiced by decision makers, and the policy need for benefit transfer it is likely to be more impingent in the future. Therefore, research efforts should be directed to target this need, aiming to overcome the current obstacles. We regard the problem of transfer of cultural values not substantially different from that of transfer of environmental values; therefore we suggest that, despite the recent criticisms, the feasibility of cultural values transfer should not be dismissed without further research. Adding a spatial dimension to economic valuation, in conjunction with appropriate classification attempts, may help reduce sources of biases. We have referred to literature precedents that seem to support this view, though at the time of writing they constitute a very restricted experimental area.

In sum, value transfer studies in cultural heritage economics are rather rare, and the idea itself is quite controversial. In this paper we offer a concise – and certainly not exhausting – review of some recent value transfer studies in cognate areas with a particular view to spatial variability and transferability. We discuss limits and potentialities of benefit transfer approach for cultural values, aiming to raise debate on the topic. We acknowledge the local nature of cultural values and the strict relationship with the population to which the specific heritage belongs, but we focus on the more universally shared values that are embedded in cultural heritage and on possible ways of expressing them in terms of priorities and clusters. More research is needed in this direction before dismissing the possibility to apply benefit transfer in the case of cultural values estimates.

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