Valuing cultural heritage – lessons learned

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Abstract

Cultural heritage typically concerns public goods, and therefore non-market valuation techniques need to be applied to estimate the social benefits of these goods. While there have been several thousands of applications of these techniques to value changes in environmental quality and natural resources, empirical applications of these techniques to cultural heritage are still scarce. The main lessons from a review of 27 valuation studies suggest that we experience the same problems and challenges as in the environmental valuation studies. Some of the studies were conducted to inform policy decisions, and have proved useful in cost-benefit analyses of restoration and preservation programs for cultural heritage, as well as infrastructure projects and air pollution policies with impacts on cultural heritage. The information generated by such studies can be a valuable complement to expert judgement. We would like to see new valuation studies designed to address specific policy problems, rather than provide general values for the goods.
Keywords: cultural heritage, non-market valuation, contingent valuation, benefit transfer, cost-benefit analysis.

1   Introduction

What is the economic value of preserving our cultural heritage? Do the social benefits of preserving cultural heritage like e.g. historical cities outweigh the costs of restoration and preservation? Should we allocate more resources to restore and preserve cultural heritage due to the large social benefits observed in the few existing studies that try to value these goods? These are some of the questions that can be answered by applying techniques originally developed to value environmental goods to value cultural goods.

Cultural heritage goods are, like environmental goods, typically public goods, meaning they have two precisely defined characteristics. First, the benefits (values) generated by cultural heritage goods are typically non-rival, that is the benefit enjoyed by one individual does not come at the expense of the next individual's enjoyment. This is in contrast to market goods, where only one individual can consume a given unit of the good. Second, it is often difficult to force people to pay a price before they can enjoy the benefits from the cultural heritage good. Even where an entrance fee can regulate entrance to a building, the non-user benefits accrue regardless of whether they have been paid for. We say that the good, or that enjoyment of the good, is non-excludable. These two conditions lead to a situation where markets cannot be trusted to provide an adequate supply of cultural heritage goods. It is for this reason that such goods are usually provided collectively, either by governments or by groups of people working cooperatively.

2 Methods for economic valuation of public goods

The absence of a price means that we cannot observe values for cultural heritage goods directly. Instead, we must, like detectives, look for clues that tell us something about value indirectly. Non-market valuation is a term used to describe a variety of techniques for looking for and interpreting these clues about value for goods that are not traded in markets. There are two broad categories of non-market techniques: *revealed preference* techniques and *stated preference* techniques (Table 1). As the name implies, revealed preference techniques involve searching for those clues by examining an individual's past behaviour. One type of behaviour that can be examined is purchases of market goods that are closely tied to the non-market good of interest. The hedonic pricing method uses this approach. A second type of behaviour that might be examined is decisions made on where to go to spend one's free time (e.g. visiting cultural heritage sites). The travel cost method utilises this type of information. Whereas revealed preference techniques make use of past behaviour to calculate how individuals value public goods, stated preference techniques like Contingent Valuation (CV) describe a future change in the quality and quantity of the public good, a program that would provide the change and a method of payment, and ask for the individual's own guess about their behaviour in terms of willingness-to-pay (WTP) to get the change.

3 Main lessons from valuation studies

The literature on these techniques is vast and quickly growing, but there are still few applications of the environmental valuation techniques to cultural heritage. Navrud and Ready [1] review 27 studies valuing different types of cultural heritage, ranging from rock carvings and cathedrals to historical cities, from local to global goods like the UNESCO´s World Heritage site of Stonehenge, and in both developing and developed countries as well as transition economies. All of them used Stated Preference methods and mainly Contingent Valuation (CV).

Table 1: Non-market valuation techniques.

	Indirect	Direct
Revealed Preferences **(RP)**	Household Production Function (HPF) Approaches: - Travel Cost (TC) method - Averting Costs (AC) Hedonic Price (HP) analysis	Simulated markets Replacement Costs (RC)
Stated Preferences **(SP)**	Choice Experiments (CE)	Contingent Valuation (CV)

While the conclusions of each study are different, some consistent findings emerge from the studies:

(a)   Few economic valuation studies have been undertaken in the area of cultural heritage (either built or movable heritage). All studies reviewed here use stated preference methods, mainly contingent valuation, and there exist very few applications of revealed preference methods (and these are travel cost studies of performing arts).

(b)   The existing studies vary widely both in terms of the type of good or activity being analysed and the type of benefit being evaluated. There are some instances where similar goods were evaluated. However, the type of benefit estimated is usually different as is the sample frame used, making it difficult to make meaningful comparisons among studies.

(c)   Generally, the findings suggest that people attribute a significantly positive value to the conservation or restoration of cultural assets. The implication is that damages to cultural goods are undesirable and that the public would be willing to pay positive amounts to avoid them or to slow the rate at which they occur.

(d)   Several of the studies show a relatively large proportion of respondents stating a zero WTP (up to 89%). Some of these responses can be considered protests against some aspect of the survey instrument (i.e. a dislike of paying taxes or a rejection of the contingent scenario) and thus are not a reflection of people's true preferences. Others, however, are 'genuine' zero values arising from budget constraints, lack of interest in cultural issues and from the fact that cultural heritage preservation is typically ranked low amongst competing public issues, as is shown consistently by attitudinal questions. Hence, the welfare of a significant

proportion of the population seems to be unaffected by changes in cultural goods/activities. In some instances, the positive estimated values are driven by a minority of the population, typically, the users of the cultural good and the richer and more educated segments of the population. This finding has important implications for the funding of cultural heritage goods. For example, in instances where more than two thirds of the population express a zero WTP, the imposition of a tax may be infeasible; targeted voluntary donations or entry fees may provide more appropriate means of extracting existing values (although the former invites free-riding behaviour); or, if a tax mechanism is used care must be taken to ensure that the distributional effects are taken into account with off-setting expenditures;

(e)   Values for users (visitors or residents) are invariably higher than for non-users. This indicates that there can be significant values from recreation and education visits. A number of issues should be taken into account when designing pricing mechanisms: the implications of the current focus on making heritage available to the general public; and the possible trade-off between access and conservation that suggests the importance of calculating congestion costs and tourist 'carrying capacity' of a site. However, user values alone may not be enough to deliver sustainability for the large majority of cultural goods and services;

(f)   Non-visitor benefits are positive. In cases where the relevant population benefiting from improvement or maintenance of the cultural good is thought to be very large, possibly crossing national borders, the total aggregated benefit can be very large. This is the case when unique and charismatic cultural heritage goods are at stake. However, the available evidence also suggests that the proportion of those stating zero WTP is largest amongst non-users;

(g)   The issue of competing cultural goods and of part-whole bias (when the value of a group of cultural goods is not significantly different from a smaller subset of those goods) has been insufficiently addressed by the existing studies. This issue may be less of a problem for flagship cultural goods with no substitutes (e.g. the Pyramids in Egypt), but may be very severe when cultural goods perceived as being non-unique are being evaluated (e.g. historical buildings, castles, churches and cathedrals). If this bias exists, the estimated values for a particular cultural good may reflect a desire to preserve all similar goods, and thus overstate the value of the good;

(h)   Little attention has been given to the periodicity of the elicited WTP values. While it is difficult to compare values across studies of different goods, there appears to be a pattern where less periodic payments result in lower WTP amounts. This could be an indication of temporal embedding, where respondents may give lump-sum amounts that are lower than the present value of periodic WTP values using market discount rates. Tests for this kind of bias should be incorporated in studies using one-off or very periodic payments.

(i)   Finally, we see authors dedicating a great deal of attention to presenting an accurate description of the good to be valued, presented in a form that meaningful to the respondent. This has two components. First, it is of critical importance that the level of provision of the good match expert assessments of the with-project situation. For example, when valuing impacts from air pollution, it is necessary to match up the valuation scenarios with projections made by atmospheric and materials scientists. Second, these differing levels of quality must be presented in a way that respondents can understand. Several of the studies included photographs and maps to help in this regard.

It is striking to note that all of these conclusions apply equally to studies that value environmental goods. There, we have an equally diverse set of goods that can have values that are highly site-specific, though far more environmental valuation studies have been conducted to date than cultural heritage valuation studies; see e.g. Carson et al [2]. There too we often see a combination of large use values per person held by a few visitors and small non-use values per household held by a large population of non-visitors. Likewise, in environmental valuation, we face part-whole and embedding issues requiring careful construction and pre-testing of the survey instrument. Finally, presenting an accurate and meaningful description of the good to be valued is equally important when valuing environmental goods, and we see many of the same types of visual aids in use.

While the valuation of cultural heritage goods is certainly challenging, it is no more challenging, or fundamentally different from, the valuation of an environmental good that has a significant non-use component. We expect non-market valuation techniques to perform equally well for cultural heritage goods as they have for environmental goods, where literally thousands of studies of have been conducted. (see e.g. Carson et al 1996).

4   Policy use and conclusions

More studies are needed on the diverse array of cultural heritage goods. Still, we are not hopeful that we will ever reach a point where "enough" studies have been conducted. One lesson we can take from the environmental valuation literature is that benefit transfer, that is the application of values estimated at one site to policy issues at a geographically different but similar type of site, 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.

It may turn out that groups of cultural heritage goods have similar values. To date, there are too few studies to judge the extent to which values for cultural heritage vary. Whether value estimates will vary much from site to site and good to good is still an open empirical question. We can state, however, that for benefit transfer to work at all, it must be between sites that are very similar, both

in the physical good being valued, the change in the good and the population holding the values.

We would like to see new valuation studies designed to address specific policy problems, rather than provide general values for the goods. Knowing the amount that a visitor is willing to pay to gain entry into a cathedral does not help us decide whether to restore damaged portions. Similarly, we would like to see more emphasis on research into tradeoffs among competing objectives, for example tradeoffs between access and deterioration due to that access. Non-market valuation techniques are uniquely well suited for considering issues that involve tradeoffs between use values and non-use values.

Some of the studies were conducted to inform policy decisions, and have proved useful in cost-benefit analyses of restoration and preservation programs for cultural heritage, as well as infrastructure projects and air pollution policies with impacts on cultural heritage. The information generated by such studies can be a valuable complement to expert judgement. We expect to see an increased use of these non-market valuation techniques to help inform policies regarding cultural heritage in the future, in much the same way as these techniques are now contributing to formulating environmental policy.

References

[1] Navrud, S. and R. Ready (eds.) 2002: Valuing Cultural Heritage. Applying environmental valuation techniques to historical buildings and monuments. Edward Elgar Publishing, UK.
[2] Carson, R.T., N.E. Flores, K.M. Martin and J.L. Wright 1996: Contingent Valuation and Revealed Preference Methodologies: Comparing the Estimates for Quasi-Public Goods. *Land Economics*, 72, 80-99.