

Value from Environmental and Cultural Perspectives or Two Sides of the Same Coin

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Abstract—This paper discusses the value theory in cultural heritage and the value theory in environmental economics. Two economic views of the value theory are compared, within the field of cultural heritage maintenance and within the field of the environment. The main aims are to find common features in these two differently structured theories under the layer of differently defined terms as well as really differing features of these two approaches; to clear the confusion which stems from different terminology as in fact these terms capture the same aspects of reality; and to show possible inspiration these two perspectives can offer one another. Another aim is to present these two value systems in one value framework. First, important moments of the value theory from the economic perspective are presented, leading to the marginal revolution of (not only) the Austrian School. Then the theory of value within cultural heritage and environmental economics are explored. Finally, individual approaches are compared and their potential mutual inspiration searched for.

Keywords—Cultural heritage, environmental economics, existence value, value theory.

I. INTRODUCTION

VALUE theory has been explored by many researchers since the times of first pioneers of economy as well as philosophy. It is necessary to realize that the scope of knowledge of these first intellectuals extended into many fields and their personalities, due to a lower degree of scientific specialization, or rather specialization of learning, were of a polyhistoric character. In modern times, the process of specialization led to distinguishing and origination of many new fields, which have often moved away or are moving away from those they originated from. This paper attempts to reveal the possibility or rather the reality of overlapping of two fields that may seem quite distant at the first sight – environmental economy and cultural heritage management. This intention will be fulfilled by analysing the views of these two fields on the theory of value, in which one can be a critique and inspiration for the other.

Probably the first researcher who dealt with the theory of price and the theory of value was Aristotle, a Greek polymath who formulated the principle of equivalent exchange, through which the utility of entities participating in the transaction increases [3], i.e. as soon as that there was the assumption that an exchange is advantageous for both sides [47]. This principle then became the outcome of objective, or cost,

concept of the value theory and the concept of just price [13]. The just price (*justum pretium*) was further developed by a Christian thinker following Aristotle's learning, Thomas Aquinas [4]. Historically next concept of value, or wealth, was the direction of economic learning referred to as mercantilism, which saw value in wealth and its basis was a large amount of precious metals [37], [43]. An opposing direction of opinion was physiocracy, which saw the basis of value in work and land, or in agriculture [13]. Another important ideological breakthrough for economy as well as for the theory of value was the classical school led by Adam Smith; they differentiated exchange value and utility value [42] and formulated the labour theory of value, further elaborated by David Ricardo [35]. The key moment there was the rejection of the value dependence on the degree of utility of a good or service [42]. This aspect determined the main ideological discourse of value from economic point of view until Carl Menger's times, although this concept also had opponents, e.g. the cost theory of value, which besides labour justifies other factors as well as a degree of profitability [24]. Another significant concept, which then had immense consequences reaching till our present times, was Marx's theory of surplus value [22], which is similar to Ricardo's labour theory, see e.g. the analogy of the value of workforce and the subsistence minimum, or the definitions of terms surplus value and surplus product [13], but thanks to its manipulative emphasis on worker exploitation this theory became one of the main forces causing many social changes.

II. AUSTRIAN SCHOOL AND THE MARGINAL REVOLUTION

The turning point for the current economy came with the criticism of the "classical" concept of value by the founder of the Austrian School, Carl Menger, and his subjective theory of value (based on methodological subjectivism), further developed by younger representatives of the Austrian School [25], [26], [11], which was the first to take account of increments to individual quantities, i.e. marginal values [23]¹. This theory developed the value in a relative concept where the last change of a subject in the given situation and under given conditions is of key importance; this change is determined by the urgency of meeting the subject's, or the consumer's, needs. Only this contribution enabled the neoclassical school to replace the concept of exchange value with the equilibrium price, created at markets by the supply/demand mechanism. The Austrian School of subjective

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¹ It is necessary to say that the same ideas, i.e. the concept of marginal values, were concurrently developed by William S. Jevons in his *The Theory of Political Economy* [14] and Leon Walras [49].

theory of value was the determining ideological direction affecting the theory of value in cultural heritage management [44]. An interesting detail is that Carl Menger, as the predecessor of the Austrian liberal school, published his work only twelve years after the first publication of Karl Marx's Capital.

In his theory of natural subjective value, Carl Menger says that "a value is not intrinsic or contained in the item, not even an entity independent of the item, but it is an economizing judgement of a person on the importance of the item or good for maintenance of his life and well-being. Therefore, a value as such does not exist without a human consciousness" [23]. Menger also distinguished items necessary for life, where he put clothes, food and accommodation, and items increasing one's well-being, such as a chess table [23], which among others proves that needs "over standard" are met by different items at different times [45].

Carl Menger's follower, Eugen von Böhm-Bawerk, one of other representatives of the Austrian School, which had a significant effect on the formation of institutionalized cultural heritage management, mainly in Central European Countries, defined the subjective value as "the significance the item or a complex of items has for the subject's well-being" [7], [12]. However, besides the subjective value, Böhm-Bawerk did not abandon the possible evaluation of an item in an objective way. The objective value of an item was its price [7]. Importantly for cultural monuments or cultural heritage goods, whose consumption is of a very long-term and varied character (from several generations to several civilizations using the item in "their own" way), Böhm-Bawerk's stated that when evaluating a durable item that can be used repeatedly and purposefully the related level of needs comprises a large list of needs or a complex of specific needs. He illustrated this fact on an example of a piano on which hundreds of musical experiences depend or an example of ten wine barrels providing hundreds of taste experiences – their significance also needs to be taken account of when evaluating these items [7], [44]. Another representative of the Austrian School who addressed the issue of value was Friedrich von Wieser, whose theory contains the statement important for the two fields of this paper: the value of a commodity fully depends on its utility but the utility of a commodity cannot be fully transferred into value [52].

III. THEORY OF VALUE FROM THE PERSPECTIVE OF CULTURAL HERITAGE

The pioneer of the theory of value within the field of cultural heritage was Böhm-Bawerk's contemporary and a representative of the Vienna School of Art History Alois Riegl, who together with Böhm-Bawerk accepted the following principles of consumer behaviour and the possible ways to reveal their subjective utility [7],[45]:

- needs and utility are comparable and the common aspect of comparison is the intensity of delight or aversion;
- the consumer has an ability to estimate the level of delight the items provide and the consumer uses this ability;
- the establishment of the size of the delight or aversion is a

basis for the behaviour towards items (cultural monuments or nature goods), both for the intellectual estimation of importance the items have for our well-being and for real economic acts (behaviour);

- for these reasons, science must not neglect subjective needs and the subjective value; it needs to seek roots for explanation of economic activities in them.

Alois Riegl started his work by defining the term monument, whose meaning is similar to the current more general term cultural heritage. He distinguished intentional and unintentional monuments. Intentional monuments are defined as work of a human hand created with the aim to keep single human deeds or events alive in the minds of future generations. Unintentional monuments are also works of a human hand but they were created with the purpose of meeting practical needs of one or several generations but the clients did not intend them as cultural monuments or proofs of artistic and cultural life of the time for following generations [45]. Further, Riegl discussed whether some monuments can be distinguished as historical or artistic, as was usual at his times, and he concluded that each artistic site is historical and each historical site is artistic at the same time [44].

Riegl distinguished two basic categories of values: the memory value and the present-day value. The memory value has three subcategories: the age value (appreciation of the non-current appearance of the monument, contrast to the present demonstrated by imperfections as disruptions of integrity, form and colour disintegrating tendencies), the historical value (the monument represents a specific stage of human evolution; this value increases with the degree of the state preserved and the original integrity), and the intentional commemorative value (starting from its origination, the monument serves as a permanent memory of an event or a person). Even here we can see a discrepancy between the age value and the historical value. The other category of the present-day value comprises the use value (which can be both positive and negative – e.g. if the monument endangers human health) and the art value, which is further divided into two subclasses – the newness value and the relative art value. While newness values appreciates the pristine state of form and colour and is only restored if traces of age are removed and the monument regains an air of something new, the relative art value is difficult to grasp because there is no generally valid measure that would give the monuments absolute value [36], [44]. In this context, we can mention that Plato understood art as copy of a copy [32], which is confirmed by the disputable character of this value subclass. Here again we see discrepancies between some categories, e.g. the age value in contrast to the use value or the newness value [44]. From the perspective of the history of art, Riegl adheres to aesthetic dualism, i.e. he ascribes some significance to aesthetic values as well as historical values of a monument [20].

Another author of the theory of value of cultural heritage, Françoise Benhamou, distinguished several independent values of a monument. Besides the market value, which is related to ownership of the monument and a possible property

rent, he established the scientific value of a monument as an object of research, and the communication value, reflecting the social significance of heritage, its aesthetical and commercial value. The last category is the existence value - when individuals gain utility from the mere existence of cultural goods without directly consuming them [5]. In contrast to Riegl's theory, with which some of the above mentioned categories correspond at least at some aspects (e.g. the market value correlates with the use value, the communication value overlaps with the historical, the intentional commemorative or the art value), Benhamou newly emphasized the concept of the intrinsic value of an item; here we can see the influence of the theory of value development within environmental economics. This influence is further obvious in David Throsby's concept. Within the economic category of value, Throsby distinguishes the direct use value (meaning estimable by market) and the non-market value (in the sense of indirect use value in environmental economics). Another of his categories within the theory of value is the cultural value, which is the term for the aspects or features of goods that are outside financial measures [46]. Another value theory within the field of cultural heritage is the one by Arjo Klamer, who distinguished the economic concept of a value – e.g. return on investments in the field of artefacts, economic issues of cultural heritage; the value in social and cultural sense (e.g. the value of national identity, education, aesthetic, or spiritual values); and anthropological concept of a value, where he referred to common social values, common past and efforts; finally, he established the fourth aspect of value which is a compilation of the preceding categories [18].

IV. THEORY OF VALUE FROM THE ENVIRONMENTAL PERSPECTIVE

The issue of the value theory within the field of the environment can be approached from three different theoretical standpoints: the neoclassical environmental economics approach [41], the institutional ecological economics approach and market approaches based on the Austrian School [15]. These basic theoretical approaches are then differently reflected in the creation of the value theory within the environment, especially as regards its most problematic component, which is the existence value in a narrow sense, in other words its intrinsic value. Some reject this concept as inconsistent with the economic theory; others defend it as a necessary part of economic calculations; still others stand in between these two extremes. However, the question is not whether include the existence value in the economic calculations, but the very definition of this term and its particular categories [31]. The approaches of neoclassical environmental economics and institutional ecological economics lead to basic ways of evaluating or expressing the category of existence value; these are:

- a narrower benefit-cost approach, based on the normative statement that only revenues and costs related to consumption of goods and services can be taken into account when economic apparatus is used for social decision making [38] or [51];

- a contingent valuation approach, which argues in favour of all society members' interests being considered in the process of social decision making by means of financial evaluation and its incorporation in the benefit-cost analysis (both the society members who use the goods and those who will never use them) [19] or [1];
- a citizens' choice approach, based on the statement that people can be interested in environmental goods for both economic and non-economic reasons; the economic ones can be expressed in money, the non-economic ones cannot be expressed to a satisfying degree by the category of benefits and costs [34]. This distinction is the most obvious concerning the example of the difference between the consumer and citizen approaches [40], where the consumer approach is determined by personal preferences and can thus be evaluated in monetary terms, while the citizen approach is based on individual judgements and what is the best for society as a whole [6].

First of all, let us discuss Robert Nelson's "theological economics". According to Nelson, the contact with the environmental way of thinking, developing since the 1960s, means for economists either a rejection of their view of the world, or a disagreement with the new social phenomenon. For those who accepted that environmental values can be hardly expressed using the commonly available economic instruments, this means either limit their own commentaries considering the very importance of the environment or reject the economic way of thinking in a very important field of their lives [30]. In contrast to others, Nelson did not base his arguments on the consistence of the existence value prerequisites with the economic theory, but he entered an area he called "economic theology". He assumed that there are mundane religions (e.g. Marxism), which affect the value system of people as well as classical religions. In his opinion, environmentalism and the concept of the existence value are from this category as they stand on religious bases. It is mistaken to use economic methods to answer religious questions. To illustrate this, he asked how valuable God's existence is [29]. He stated that the concept of the existence value from the environmental perspective is based on preservation of nature, which is an image of the Creator and where we can see demonstration of His deity. Thus it is an ethical obligation to protect it and recognize its existence value independent of human deeds. Moreover, from this point of view, nature is a connection with God and were it destroyed, the future generations would lose their contact with God. The pioneer of this perception of the world was John Muir who Nelson called the prophet. Muir came from conservative Christian conditions and he introduced the idea that to experience the loving God it is necessary to enjoy nature, the countryside. This led many people from similar Christian-Judaist cultural conditions towards environmentalism. Nelson also stated that the current environmentalists really refer to religious ideas, which are often expressed explicitly and sometimes implicitly by more sophisticated authors [28]. Some puritan environmentalists went even further by claiming that people were a disease or

malignant cancer of nature [21]. Nelson reached the conclusion that according to environmentalism advocates nature is the God's temple and as in the past huge sacrifices (in other words, financial amounts) used to be made for building of cathedrals, nowadays the same or even larger sacrifices should be made to protect these "natural temples". He further concluded that these efforts of environmentalists to assign financial values to nature end up decreasing its real value [30]. Mark Sagoff rejected the calculation of the existence value as a tool that uselessly attempts to replace the role of public discussion on the values within the field of environmental policy formation [40]. He further stated that also a negative existence value is possible because the same thing can be viewed from different culture-value environments differently.

Raymond J. Kopp argued with Rosenthal and Nelson's opinions rejecting the concept of the existence value and especially their assertion that the use or at least measuring of the existence value is not well-founded. He defended the view that if the existence value was excluded from the benefit-cost analysis, all public goods would have to be excluded as well. The non-use or existence value is the value allotted to net public goods (which meet these criteria strictly). There is an assumption that net public goods are of non-consumption character of provided services, which however is in agreement with the character of natural goods. It follows that if environmental goods are understood as providers of net public goods or services, Rosenthal and Nelson's arguments do not hold. Moreover, this fact is an argument in favour of the concept of the existence value within conventional economic theory. However, activities valued in the benefit-cost analysis (either the proposed program or damage of natural resources) are measured by non-market measuring methods. Their use to support the process of social decision-making is very different from their use within the area of natural damage valuation. According to Kopp, the valuation of environmental damage has a very important role in this aspect: damage to the environment reduces the value of provided services of environmental goods (consumption or non-consumption ones, or similarly use or non-use ones). This reduced value would be a strong price signal in the case of consumption services and although the value reduction is not so obvious in non-consumption goods, they cannot be rejected from the economic way of thinking [19].

The above mentioned theory was challenged by Hans-Peter Weikard, who tried to controvert the general acceptance of the possible measuring and establishment of the existence value, both within the environment and within artistic and cultural objects. He mainly considered two categories: the bequest value and the existence value. The bequest value was defined as a value an individual gives to some goods because the individual considers these goods valuable for some reason (which corresponds with altruism generally, according to him). The existence value was a value an individual gives some goods independent of the value related to their current, future or potential use and at the same time he considered the bequest value impossible. The bequest value was seen as an

act of altruistic behaviour and that is why he related it with this usually independent category. The determination of the existence value is logically inconsistent with the principles of economic methodology and economics generally and he considered its measuring useless or even misleading. He stated that literature usually divides the total value into use and non-use value. The non-use value components are the option value, the existence value and the bequest value. However, some of these values, e.g. the option value, are in fact contained within the use value because they are based on the potential use. For this classification, it is necessary to define the use value of goods and that is expressed as a value related to the current, future or potential use of the goods. The use value can be direct (e.g. when considering consumption of apples) or indirect (e.g. when considering oxygen production in forest stands). The non-use value is defined as a value related to goods independent of their use, and according to Weikard it falls within two wider categories: the existence value and the bequest value (or heritage value). Weikard highlighted the ambiguity in usage of the term existence value and its subcategories but he summarized his reflection by stating that the existence value can be viewed in two different ways. The first way assumes that all categories of the existence value are based on altruistic behaviour, with respect to both the present and the future, or with respect to a human being or another animal. The second view can be the one that recognizes the existence of a value without any altruistic motives [50]. In the context with the mentioned structure of the total value, we can mention the methodology of complex valuation of natural resources, which reflects this structure with minor differences and which is based on the concept of complex value. The complex value (e.g. of a forest) contains the direct use value (value of timber), the indirect use value (water management, soil protective and recreation functions of the forest), the potential use value (e.g. for pharmaceutical industry) and the intrinsic value. With each new category, the possibilities to measure the specific component of a value decrease [48].

Another theoretician of the existence value is John Quiggin, advocate of the citizens' choice approach, who tried to offer a critique of the issue of existence value from the position of the three above mentioned approaches. The contingent valuation approach is dependent upon the idea of existence value, sometimes referred to as passive use value or non-use value. The term existence value includes the assumption that people allot usefulness to the existence of things (e.g. intact countryside) and the determining moment is that this usefulness can be expressed in monetary terms through the measurement of their willingness to pay. This assumption is more obvious when the term passive use value is used as this shows the fact that people allot usefulness to intact countryside. This is in stark contrast to the term non-use value, which induces the difference with the use value, e.g. visiting a tourist area for leisure and the value derived from people's willingness to pay for protection of areas they will never visit. The supporters of the contingent valuation approach have the tendency to use the term passive use value, while their opponents and sceptics tend to use the term existence value

and non-use value. The contingent valuation approach is further based on the idea that individual usefulness is a sum of usefulness derived from the consumption of private goods and services and usefulness connected with existence value. The trade-off between private goods and existence value can thus be used to create the monetary value for protection of the environment [34]. On the other hand, the criticism of the contingent valuation approach by supporters of narrower benefit-cost approach is based on the assertion that a financial sum devoted to the protection of environmental goods can be measured precisely by monitoring market behaviour with an adequate correction of price distortions, externalities and other specific problems. Supporters of narrower benefit-cost approach argue that high estimates of the aggregate willingness to pay of all “non-users” arise because the values derived from the contingent valuation method are only hypothetical [9] or [10].

Supporters of the citizens’ choice approach argue that the assertion about the willingness to pay for the environment protection should not be interpreted from the perspective of use maximization system but should be above it [39]. Moreover, citizens are indifferent to income distribution and therefore the assertion that positive aggregate net willingness to pay equals Pareto improvement is not valid [33]. They presented the idea to supplement the environmental goods with reasons for their use, or motives for the willingness to pay for their protection [16]. Based on these, Quiggin derived the subcategories of existence value used more or less in the present, and these are the psychic or vicarious consumption (the value of contemplation over an entity, where the value of an extinct dinosaur will substantially exceed the value of e.g. a living blue whale), option value (the value expressing a possible choice made in the future), altruism (based on the assumption that an individual’s welfare grows with an increasing consumption of the people around), bequest value (significance for future generations) and stewardship, or a person’s responsibility for environmental entities; but this is also considered a legitimate aspect by supporters of the citizens’ choice approach [27]. The last subcategory is the intrinsic value, i.e. the value in and of itself [34].

Another approach, which in a way follows the term of intrinsic value, is Attfield’s polemic on existence and mainly intrinsic values based on the concept of these values as presented by Jonathan Aldred, who defined the existence value as a value related to individuals and their expected change in welfare that can come if the specific entity or goods continue existing [1]. By contrast, the intrinsic value is defined based on the willingness to give up a specific source only for its preservation. Attfield claimed that provided something has an intrinsic value itself, this is not a mere existence or mere life but an expression of a quality of life, i.e. a qualitative characteristic. He followed with a polemic against Aldred’s concept claiming that in Aldred’s concept it would not be possible to accept the intrinsic value as a category of the existence value. If the existence value includes the continuing existence of various things or environmental goods or species and at the same time we can assume their intrinsic value in

and of itself, there is a large number of examples that meet the criterion of intrinsic value but not the criterion of existence value because some species will never be discovered as they will be extinct before an individual can discover them (regardless of the individual’s ability to use them or only awareness of their existence). According to Attfield, these species are a proof of logical inconsistency of Aldred’s redefinition of the term existence value [2].

The above presented concepts show that the issue of existence value is still being lively discussed with many contradictions. The list of the presented opinions and argument is not complete as there are many authors who express their opinions and their opinions differ. Sometimes e.g. the option value is defended as a separate category somewhere between the use value and the non-use (or existence) value. The variety of opinions is a proof of the importance and urgency of the issue of existence value and environmental economics as such. None of the above discussed concepts doubts the existence of use value although some understand it as a part of the total value and for some these two terms are synonymic. They all agree when dividing it into direct and indirect use but within indirect use economists get into trouble because they differ as regards the meaning of this term. The meaning of indirect use (or indirect consumption) is e.g. the oxygen production by a forest stand for some, while others add categories as psychic or vicarious consumption, option value, bequest value, altruism or stewardship to it; however, these are usually presented as parts of non-use value (or existence value). Even the concept of use value contains problems with meanings of some basic terms. It is necessary to establish a clear terminology for the specific categories of the total value. We recommend differentiating the indirect use component, and thus a category of use value, in a narrower sense and in a broader sense. The broader sense includes the above mentioned categories classified as subcategories of non-use value (psychic or vicarious consumption, option value, bequest value, altruism or stewardship). In the same way, the term existence value has to be viewed from narrower and broader perspectives. The broader perspective represents this term as a synonym of non-use value or sometimes passive use value. The subcategories contained within are all the above mentioned (psychic or vicarious consumption, option value, bequest value, altruism or stewardship) and the category of intrinsic value, which is often confused with the existence value but in its narrower sense. Moreover, e.g. Attfield uses the intrinsic value as equal to existence value and not only its component (however, everything depends on the initial definition). Also the option value, as has been discussed, is not always seen as a component of the existence value, but is sometimes considered equal to use and non-use values, i.e. a component of the total value. Another contradiction appears in the concepts of the bequest value, which is understood as a component of the non-use value in a narrower sense (along with altruism, stewardship, psychic consumption and option value) but in a broader sense as a component of non-use value that is above those, i.e. option value, altruism and stewardship. The last

trouble arising from the above mentioned concepts is the term altruism, which is seen as an independent component of the non-use value by some, while others see it as a motive that is closely related to the bequest value in its broader sense. Fig. 1 attempts to show the contradictory terminology more clearly [31]. A summarization of the value categorization from the environmental point of view is presented there.

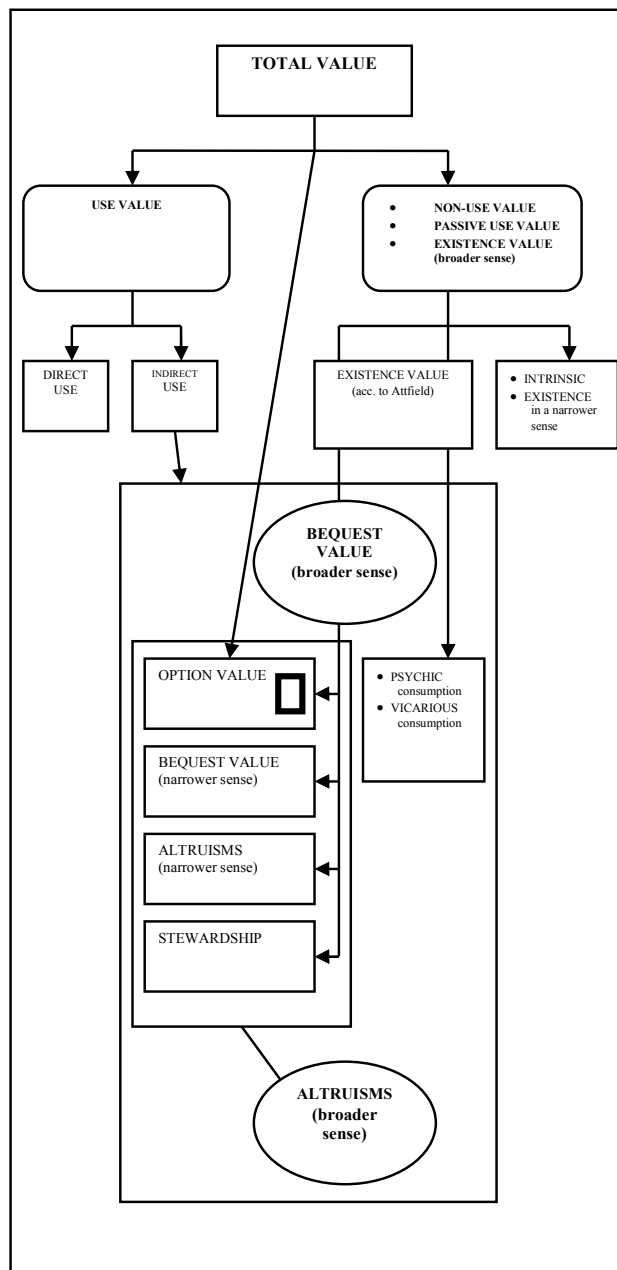


Fig. 1 The total value in environmental perspective [31]

V. TWO DIFFERENT PERSPECTIVES: TWO SIDES OF THE SAME COIN?

Although at first sight the environmental perspective may appear completely different from the perspective of cultural

heritage, these two have a lot of common aspects and moments, usually those problematic. A basic aspect that enables us to make these two structured value systems more comprehensible is the time, the temporal aspect, as this is reflected in both the systems in a way; either by the timing of the moment of goods consumption or the moment of creating or forming the goods. Based on the temporal classification, we can distinguish three basic categories of the total value: the present-day value, the memory value (or the value of the past) and the future generation value.

The first, most topical and probably less problematic, is the present-day value, which can be seen as very close to the use value because it involves the current or contemporary possible uses, valued either directly through market mechanisms or as a value of indirect use. Considering the direct market mechanism valuation, we do not face any more significant troubles from either environmental or cultural perspective – this is e.g. the value of real estates etc. However, also the aesthetic value of goods is already demonstrated within the market value, i.e. it includes the consideration of newness or relative aesthetic (or artistic) value (from a cultural perspective). We should also note that the theory of cultural heritage respects the fact that the direct (market) use value can be both positive and negative, while the environmental theory does not take this fact into account. However, it is totally relevant as appearance of protected wolves in a specific territory can cause significant damage to e.g. agricultural entities, or even loss of human lives. The other component of the present-day value, the indirect use value, includes e.g. a measurable performance of a function that is quantifiable (e.g. a self-cleaning function of water in marshes and potential costs of a wastewater treatment plant construction for the same volume of water in case the marsh disappears or is damaged, etc.). This component can also include the psychic (vicarious) consumption in both perspectives (environmental and cultural). However, a financial expression of this consumption often involves significant distortions. For example, as has been mentioned, if only the value of sold documentaries on extinct dinosaurs would be considered, this amount would be significantly higher than in the case of documentaries on the blue whale. This is relevant also in the theory of cultural entities, e.g. when we compare documentaries on still existing pyramids and legendary Tower of Babel. Another component of the present-day value (or rather one of its causes) is altruism, which reflects gaining welfare of the society as a whole which is then beneficial to individuals.

The future generation value, or the future value, is developed mainly within the value system of environmental economics, where the reference to future generations forms categories (or causes of value origination) such as option value (or bequest value) and stewardship value, or the altruism cause of value can be demonstrated here, even though it rather has a present-day character. However, there is the intentional commemorative value within cultural heritage value theories, especially Riegl, which is again oriented to future and future generations. Also goods of environmental character can gain this intentional commemorative value as e.g. their legislative

protection can be motivated by an effort to keep a specific state of countryside for future generations. In this context, we can remember the recognized concept of sustainable development whose definition was first presented by Brundtland: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" [8].

The last basic category following from the temporal aspect is the memory value (or the value of the past), which is an integral part of the cultural heritage management theory. In spite of this, it has its substantiation for the environmental perspective. We can distinguish the subcategory of age value, which reflects the period when the natural development of goods or areas is not disturbed and it gradually degrades, changes or evolves (depending on the view). Another subcategory is the historical value, or the value of integrity. This category as developed by the cultural heritage theory involves the ability to give testimony to a specific historical era (which is relevant for cultural heritage monuments as well as protected natural areas), further the category reflects the features of integrity (state of preservation). This aspect again comes from the theory of cultural heritage values but we can see its place in environmental economics and its recommendations for the environment policy as an integrity of a system can have significant impacts on its performance or its synergic effects that would not be achieved under different conditions. Although not explicitly stated within the environmental theory, this aspect is presently applied in the environment policy, e.g. when creating territorial systems of ecological stability. The subcategory of memory or integrity value also includes a scientific value in the sense of Francois Benhamou's theory (for a scientist, a preserved state of goods can be a form of record or archiving of some historical or evolution facts).

Another category of value that is discussed within the environmental economics mainly but appears in the field of cultural heritage as well is the existence value, understood in the narrowest possible sense, i.e. as intrinsic value or a value in and of itself ("an sich"). The theoretical concepts that viewed this category from various standpoints within the environmental perspective (Nelson, Kopp, Weikard, Quiggin, Attfield) have been discussed above. However, this category also appears within the value theory of cultural heritage, either directly (Benhamou) or indirectly within categories such as spiritual value, symbol of value of accepted social value framework, etc. (Klamer), although this way can also be understood in a wider sense. This category of value determines the formation of the other value categories and at the same time is affected by them in the long term. Let us return to Carl Menger's statement from the beginning of this text that "a value is not intrinsic or contained in the item, not even an entity independent of the item, but it is an economizing judgement of a person on the importance of the item or good for maintenance of his life and well-being. Therefore, a value as such does not exist without a human consciousness." [23] We can add Immanuel Kant's statement: "What is related to general human tendencies and needs, has a

market price; what exists without our assumption of any need, adequate to some taste or pleasure of playing purposeless games with our spiritual powers, has an emotional value; but what makes the condition under which something can be a purpose of itself, has not a relative value or some value, it has an intrinsic value, i.e. dignity [17]." Kant, nearly a hundred years before Carl Menger, identifies the term intrinsic value with the term dignity, which cannot be measured by monetary units according to both above mentioned quotations. Despite this, there are still discussions of economists on possible measuring or quantification of the term intrinsic value (dignity) even today (over two centuries after Kant's *Groundwork of the Metaphysics of Morals*). Fig. 2 captures the overlapping or rather revealing of the structure of value theory from both the explored perspectives.

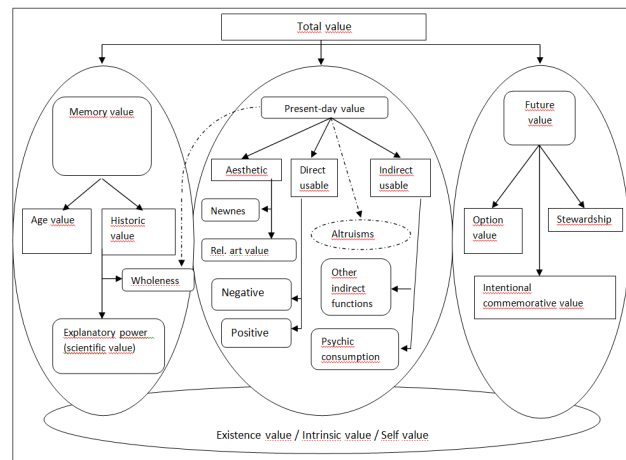


Fig. 2 Value concept respecting the temporal aspect

VI. CONCLUSION

In conclusion, we can see many agreements of meaning in both of the analysed perspectives of the value theory, especially when the temporal aspect is taken into account. Their mutual overlapping points include e.g. the use value (in both direct and indirect senses as well as the possible intentional commemorative value within cultural heritage maintenance and option value or bequest value within environmental economics). Although there are places where no overlapping occurs, we can often see that a view developed by one of these approaches is sufficiently relevant for the other (e.g. historical value reflecting the information capacity or integrity of a cultural monument); naturally, not in all cases (e.g. a relative artistic value cannot be applied to a value of environmental goods). Both theories have a concept of existence value or intrinsic value, which the author considers significant for responsible acceptance of a decision of each individual or the society, but which should not be measured and in agreement with Immanuel Kant it should be called dignity, not a value.

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