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Moral Foundations and Willingness to Pay for Non-Wood Forest Products: A Study in Three European Countries

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Abstract: Non-Wood Forest Products (NWFPs) provide social and cultural services related to e.g., the tradition and social role of collecting berries, mushrooms and herbs. These services can be ranked among intangible outputs as a part of the recreational function of forests. However, their social value is only partially captured in non-forest activities. We used a Choice Experiment to explore individuals' preferences towards NWFPs and associated services in Italy, Sweden, and Czechia. We estimated the individual marginal willingness to pay for the supply and maintenance of NWFPs. In addition, we analysed the determinants of people's choices using the framework of the Moral Foundations Theory (MFT). The results show that people collect NWFPs mostly for self-consumption and recreation, rather than for livelihood or to sell them on the market. Despite this, they are willing to pay for sustainable forest management practices that favour NWFPs supply, as well as for forest conservation. Additionally, Care and Fairness traits in the MFT determine people's willingness to pay for NWFPs. The results from this study highlight the value of the social component of non-wood forests products and the expenses related to picking. This is a first step towards a value chain analysis of the NWFPs.

Keywords: non-wood forest products; choice experiment; moral foundations; ecosystem services

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1. Introduction

Non-Wood Forest Products (NWFPs) are "goods derived from forests that are tangible and physical objects of biological origin other than wood" [1]. Some NWFP species also act as keystones in ecological and cultural systems [2]; for example, they can provide food, facilitate pollination and seed dispersal, protect animal health, contribute to the nutrient cycle, offer shelter and protection, or contribute to cultural symbolism. They contribute to wealth of the populations worldwide, accounting for approximately a quarter of rural household income in developing countries [2]. They have been an important source of food, medicine, and income for their users for thousands of years [3]. Finally yet importantly, they play an important recreational role, since people are used to going to the forest, often with family and friends, to collect these products and use them for their own consumption or as a gift to friends and relatives. Nevertheless, most of these roles are still not recognized and valued by the society and the economy.

In Europe, NWFPs are gaining attention thanks to new market opportunities whose development was supported by research and innovation projects such as INCREDIBLE, a Horizon 2020 project on Innovation Networks for Cork, Resins and Edibles [4]. In addition, in the new EU Forest Strategy post-2020, the European Commission commits to promoting the sustainable production of NWFPs and ecotourism [5]. Lastly, the European bioeconomy strategy acknowledges the multifunctional role of forests and their services as a source of innovation and resilience [6].

Despite the political interest, the information and statistics currently available refer mainly to formally marketed NWFPs [7]. The international System of National Accounts (SNA) partially accounts for the activities related to the collection of non-wood products, when these products are marketed or when their collection and consumption goes along with other registered economic activities such as transport or restaurants. However, NWFPs often have a much lower profile compared to timber production, as in many cases they are part of the informal economy and thus their economic value often goes unnoticed in official statistics [1,8,9]. In addition, the social component is not visible and their services are partially captured in non-forest activities.

With this perspective in mind, it is important to recognize the dual component of this forest ecosystem service. On the one hand, the market component refers to products that are currently marketed—at least partially—and thus have a market price. On the other hand, NWFPs also have a social component that can be associated with the social and cultural services they provide. An example is the collection of products such as berries, mushrooms and herbs that can be classified both as a market product and as an intangible output as a part of the recreational function of the forests [10].

The social component of NWFPs has been so far the least investigated. Although several studies assessed the share of households collecting NWFPs in Europe, the quantity collected, and the corresponding market value, the final goal has been to recognize the importance of co-production of wood and NWFPs in the forestry sector [7]; thus, the value people attach to NWFPs as a cultural service is only partially known.

The aim of this study is to estimate the value of the social component of NWFPs from a socioeconomic perspective, in order to understand its contribution to the wellbeing of citizens as well as to infer the economic activity that is indirectly generated.

Different valuation techniques can be used when data are not already available and when it is not possible to estimate a market price [11]. In this study, we use a choice experiment [12–14] to explore individuals' preferences towards NWFPs and associated services in three European countries, namely Italy, Sweden and Czechia. Choice experiment is a common approach for the estimation of non-market values and its use is particularly indicated for the economic valuation of multifunctional resources (such as forest), as it allows to investigate preferences (and estimate monetary values) towards each characteristic of a given good/service [15]. We estimate the individual marginal willingness to pay (WTP) [11,13,15,16] for the supply and maintenance of NWFPs. Going further, we add the moral dimension to the choice model with the aim to better understand the different determinants driving people's choices and thus improve the behavioural realism of the model. We investigate whether there is a relationship between moral motivation, public policy and private contributions to forest conservation and management under the framework of the Moral Foundations Theory [17].

This paper is organised into five sections. After the introductory section, the Section 2 explains the conceptual and empirical frameworks; the Sections 3 and 4 present and discuss the results; finally, the Section 5 includes conclusions, research gaps as well as future research needs, and implications for policy-making.

2. Materials and Methods

2.1. Conceptual Background

2.1.1. Discrete Choice Experiment

The field of environmental economics has been utilizing Choice Experiment (CE) already for more than twenty years [18–20]. CE views complex goods, such as environmental resources, as made up of single attributes, each of which represents unique characteristics of the good. Therefore, CE can be used to determine which attributes are significant determinants of the values people place on (non)-market goods, as well as the implied ranking of these attributes among population, and finally the value of changing more than one of the attributes at once. A monetary indicator, the Willingness to Pay (WTP), represents this value [11,13,15,16]. Within a choice scenario, normally composed of different policy alter-

natives, plus the status quo (SQ), respondents will compare and select one their favourite alternatives [18].

CE data are usually analysed using discrete choice models, which are rooted on the random utility maximization (RUM) theory, based on the assumption that individuals, when facing a set of alternatives, choose the one that maximize their utility [15]. According to the RUM theory, the utility of choosing the alternative i for an individual n facing a set of J alternatives, denoted by $j = 1, \ldots, J$, is a function of the K characteristics of the alternative i. Two parts compose the utility function (Equation (1)): a systematic part V_{ni}, and a random part ε_i standing for all unobserved variables. Therefore, the utility function is expressed as

$$U_{ni} = V_{ni} + \varepsilon_i \; \forall \; i \; in \; 1, \ldots, J \tag{1}$$

The systematic part of the utility function of individual n associated with the selected alternative i is modelled as a linear function of the vector of the attributes x_i and associated parameters n. The Multinomial Logit Model (MNL) can define the probability of individual n choosing alternative i out of J alternatives:

$$\pi_{ni} = \frac{\exp(\beta_n x_i)}{\sum_{j=1}^{J} \exp(\beta_n x_j)} \tag{2}$$

where β_n is a vector of coefficients. The main limitation of MNL is that assumes homogeneous preferences, i.e., β_n is the same for all members of the target population.

To overcome this limitation and account for heterogeneity of preferences towards services provided by forests, we estimated a Mixed Logit Model (MXL) specified in WTP space [21,22]. In the MXL model, preferences within a population are assumed to follow a continuous distribution (specified by the practitioner), so instead of estimating only the mean coefficient (as in MNL model), the MXL allows to estimate the moments of the distribution of utility coefficients (e.g., mean μ and standard deviation σ). As such, the β_n coefficient in Equation (2) is expressed as shown in Equation (3)

$$\beta_n = \mu_n + \sigma_n \tag{3}$$

with both μ_n and σ_n to be estimated.

The main advantage of the specification in WTP space is that the estimated coefficients are a direct measure of WTP values (compared to standard specifications in preference space, in which WTP values are computed a posteriori from the model coefficients). This allows retrieving WTP values that are more accurate, as highlighted by the related literature (see [15]). In such model, the utility function for alternative i is specified as

$$U_{ni} = \lambda_n^* (\omega_n' x_i - p_i) + \varepsilon_{ni} \tag{4}$$

where p is the cost attribute and ω_n' is a vector of marginal WTP values for each non-monetary attribute, following a continuous distribution. λ_n^* is defined as $\lambda_n \delta_n$, where λ_n is the scale of the i.i.d Gumbel error ε_{ni} and δ_n is the coefficient of the cost attribute for respondent n.

The model was estimated by simulated maximum likelihood with the R package Apollo [23]. Choice probabilities were simulated in the sample log-likelihood with 500 Modified Latin Hypercube Sampling draws. All the coefficients for the non-monetary attributes were assumed to follow a normal distribution, whereas a log-normal one was assumed for the cost coefficient.

2.1.2. Moral Foundations Theory and the Link with Discrete Choice Analysis

The aim of the Moral Foundations Theory (MFT) [24] is to define "the universal cognitive modules upon which cultures create moral matrices" [17,25]. The MFT was developed by defining the adaptive challenges of social life as identified by evolutionary psychologists and linking those challenges to virtues found across cultures. Care, Fairness,

Loyalty, Authority, and Sanctity are the Moral Foundations (MFs) that correspond to those adaptive challenges; the endorsement of the MFs is assessed in psychological studies using a specially developed Moral Foundations Questionnaire (MFQ) (It is important to note that the scale used in this study goes from 1 to 5, which is different from the scale used in the original MFQ that goes from 1 to 6.) (see Appendix A) [26].

Even though many of the choices people make have a moral component, very few discrete choice modelling studies explicitly acknowledge and explore the moral dimensions of choice behaviours [27].

In this study, we investigate whether the MFs, in addition to standard explanatory variables, improve the explanation of the decision-making process regarding the endorsement of voluntary contributions to forest conservation and management [17,28], specifically the presence of NWFPs. The general moral choice context would be the one for which people are willing to pay (e.g., higher taxes) not only for a personal service use, but also in favour of forest conservation for others and future generations. Following the considerations made by Chorus (2015) [27], we try to infer which of the MFs apply when and for what.

To investigate whether MFs affect the value people attach to NWFPs conservation, we incorporated the scores retrieved from the questions reported in Appendix A in the Mixed Logit Model. Firstly, we computed the average score for the five MFs traits for each respondent. Then, to avoid using ordinal scores as continuous variables, we transformed the average scores in dummy variables, taking the value of 1 when the average trait score for a respondent is higher than the average score over the sample. Finally, we included the dummy variables in the utility function via interaction terms with the ω_n coefficients of the three NWFPs attributes. As such, ω_n in Equation (4) becomes:

$$\omega_n = \varphi_n + \gamma_{Care} * Care + \gamma_{Fairness} * Fairness + \gamma_{Loyalty} * Loyalty + \gamma_{Authority} * Authority + \gamma_{Sanctity} * Sanctity + \sigma_n \quad (5)$$

where φ_n is the main effect, the γ parameters measure the interaction effect and σ_n is the standard deviation parameter. Such specification was adopted in all the sampled countries, to enable a comparison of MFs effects.

2.2. Empirical Framework

2.2.1. Study Area

The study area focuses on three European countries, namely Sweden, Czechia, and Italy. These three countries are located in different parts of Europe (north, centre, and Mediterranean area, respectively), have different ecosystems as well as socio-economic characteristics such as purchasing power (Eurostat), which makes them suitable to cover contrasted contexts in Europe.

In Czechia, forests cover 34.6% of the country (0.31 ha per capita). Apart from timber production, forests provide many other non-market goods and services including NWFPs for the society, not yet included into official statistics. After the end of the socialist regime, the share of state-owned forest has decreased from almost 100% of the forestland to 60% between 1990 and 2013. These changes have not substantially influenced neither NWFPs production nor collection by forest visitors, partly because NWFPs can be freely picked by forest visitors for their own use, irrespective of forest ownership [10]. According to recent literature [7], the most collected products in the country are wild mushrooms and wild berries; the median collected weight is 19 kg/household; and the share of households for which NWFPs represent income contribution is 7.2%.

In Sweden, forestlands cover more than 68% of the total area (2.16 ha per capita). In Swedish society, timber and pulpwood production is an important source of income, but nonetheless the Swedish Forest Act from 1993 (currently in effect) establishes that forests shall be managed in such a way as to provide a valuable yield and at the same time preserve biodiversity [29]. Although Swedish forests are mainly private (77% in 2015), almost all forests are accessible to the public who can also freely pick up berries, mushrooms and wild flowers. Once again, the most collected non-wood products are wild mushrooms and

wild berries; the median collected weight is lower compared to Czechia (11 kg/household); the same goes for the share of households for which NWFPs represent income contribution (5.3%). Finally, the share of collected weight sold by household is less than 3% [7].

In Italy, forests cover 31.8% of the total area (0.27 ha per capita). Nonetheless, only 15.7% of the Italian forests (1.3 million ha) are under a multi-year management plan, an essential tool for ensuring the provision of non-market ecosystem services in balance with that of commercial products (mainly timber for industrial use and firewood). NWFPs' property rights are well regulated. Both professional and non-professional pickers should have a licence and pay for a daily fee to collect products like mushrooms, truffles, medicinal and aromatic herbs. In such a way, products are from a fiscal and heath regulation regularly entering the market and their traceability is assured. Regardless the Italian law on NWFPs, it is still common to find households collecting them in small quantities for self-consumption and recreational purposes, without any specific permission. Differently from Czechia and Sweden, the collection of forest nuts is also very popular in the country, together with mushrooms and berries.

Finally, in countries like Czechia and Sweden that are under the "every person's right" system, NWFPs collection can affect the forestry sector as forest externalities, both in the context of a non-market (recreational) forest service and in the context of a market (production) forest service.

2.2.2. Selection of the Attributes for the Choice Experiment

To understand which attributes to select for the CE, we carried out a literature review based on articles published in Scopus. We first focused on studies using non-market valuation techniques to estimate the value of NWFPs. The search returned 70 articles. The most frequent methodologies utilized were travel cost [30–32], contingent valuation [33–35], and choice experiment [36–38].

After narrowing the search, we proceeded with an in-depth analysis of the studies using only CE as methodology and dealing specifically with NWFPs and/or forest protection and recreation. We gather information from 25 studies about the attributes and their levels, the sample size, the scale of the survey and the study area, the experimental design, and the data analysis. The models most frequently used in the literature are the mixed logit model [36,39,40], the latent class model [12,41,42] and the conditional logit model [43,44].

The literature review helped us understand that NWFPs are often included in studies dealing with recreation, biodiversity, and environmental conservation. In these studies, the collection of mushrooms, berries and other NWFPs is usually only represented by one single attribute when present. Moreover, only the presence or absence of NWFPs in the forest is considered, and not the quantity [45]. As far as we know, with game meat being the only exception, no study has focused more deeply on NWFPs within a choice experiment. For this reason, we decided to have three out of the six attributes specifically dealing with the presence of NWFPs into the forest, using a quantitative level scale. We decided to study people's attitude towards the presence in the forest of berries, mushrooms, and wild herbs. We chose these products because they are the most frequent wild food products collected by households in Europe [7]. Regarding berries and mushrooms, we used the yield per hectare as a unit of measure, which we found to be very easy to understand for pickers; while for wild herbs we used the percentage of forest area suitable for picking which was acknowledged as most intuitive to pickers (Enrico Vidale, personal communication).

The three other attributes were related to the conditions of picking. First, different levels of payment are proposed. We chose to have a national tax as the payment vehicle in order to estimate WTP values that also include the social component of NFWPs, given that a tax is not solely linked to the picking activity. The second corresponds to the experience within the forest in terms of facilities, since we found this feature to be common in the literature [43,46,47]. This is in line with the purpose of the study that wanted to test also people's general experience within the forest. Finally, because biodiversity conservation is a heavily debated topic, and it is well understood by the general public, we include

one attribute on protected forest areas, following the literature [36,48–50] and the new EU Biodiversity Strategy for 2030 [51].

The total number of six attributes is in line with studies in the literature and with the CE theory [15].

Finally, to reflect the different features in the three countries, at least one expert per country was contacted to provide insights on the realistic levels for each attribute (Enrico Vidale; Ragnar Jonsson; Marcel Riedl; personal communication). Attributes and levels for each country are reported in Table 1.

Table 1. Attributes and levels in the choice experiment.

Attribute	Description to Respondents	Country	Levels
Presence of berries	The production of berries can be increased thanks to specific forest practices such as extensive weed removal.	Italy	0.8–26–55 kg/hectare/year
		Czechia	1–35–70 kg/hectare/year
		Sweden	2–40–80 kg/hectare/year
Presence of wild herbs	Herbs growing spontaneously in natural or semi-natural ecosystems and can exist independently of direct human action. The production of wild herbs can be increased by more extensive weed removal in the forest area suitable for wild herbs picking	Italy	1.6–4–8% of forest area suitable for wild herbs picking
		Czechia	3–8–15% of forest area suitable for wild herbs picking
		Sweden	1.6–4–8% of forest area suitable for wild herbs picking
Presence of mushrooms	The production of mushrooms can be increased by practices such as lighter forest thinning	Italy	0.8–3–6 kg/hectare/year
		Czechia	1–5–10 kg/hectare/year
		Sweden	1–5–10 kg/hectare/year
Biodiversity protection	The EU Biodiversity Strategy for 2030 intends to protect and restore EU's biodiversity, and in particular (but not only) the remaining primary and old-growth forests	Italy	3–10–20% of protected forest area
		Czechia	
		Sweden	
Access points	The government wants to equip forests with more access points, with parking areas.	Italy	0–1–3 additional access points
		Czechia	
		Sweden	
Cost	To implement programmes aimed at maintaining and/or improving the provision of environmental services, citizens will have to contribute through an annual tax for 5 years specifically earmarked for this purpose	Italy	5–10–25–50–100–150 EUR
		Czechia	100–200–500–1000–2000–3000 Kč
		Sweden	60–120–300–600–1200–1800 SEK

2.2.3. Survey Design and Data Collection

The questionnaire reported in this study is divided into four sections. The first section aims to understand people's experience with forests and the collection of NWFPs. Respondents indicated: their motivation to go to the forest; whether or not they collected NWFPs and if so, which products they collected; as well as the influence that the pandemic of COVID-19 had on their frequency to go to the forest and collect NWFPs. The second section is the choice experiment. In this section, the respondents were first provided with the description of the attributes; then, they faced ten different scenarios, each of which had two different alternatives plus the status quo; finally, there was a question to detect whether or not the respondents chose randomly. The third section includes the Moral Foundations Questionnaire (Appendix A), plus a question to account for the variable "Nature caring", where the respondents rated the importance for them to care for nature and the environment. Finally, the fourth section provides socioeconomic information

including gender, age, level of education, employment status, number of family members, household income, and place of residence.

A d-efficient design [52] was used to create the choice scenarios, with priors obtained from the pilot study. The design consisted in 40 choice scenarios, divided in four blocks.

The draft questionnaire was pre-tested twice, firstly with an international group of 14 experts on forest economics and forest biomass, and secondly with a pilot survey of 100 respondents from each country (300 in total), using the on-line layout of the questionnaire. The purpose of the pre-testing [15] was to account for shared understanding and credibility of the questionnaires, respondent fatigue, and missing categories of possible answers.

For each country, a sample size of 1000 respondents was selected, 3000 sample units in total. Samples are representative within the population according to gender, age, and regional origin. Data were collected between June and July 2021.

3. Results

3.1. The Experience with Forests and Collection of NWFPs

The descriptive statistics of our sample along with information about recreational habits are presented in Tables 2 and 3. Significance of differences among countries were tested using ANOVA for continuous variables and chi-square tests for categorical ones.

Table 2. Main qualitative variables.

Variable	Frequency (%)			Chi-Square Test
	Czechia	Italy	Sweden	
Respondents who visited forests in the last three years	95.1	65.8	94.0	<0.001
Respondents who collected NWFPs (out of those who visited forests in the last three years)	87.2	50.2	78.3	<0.001
Increase in NWFPs collection during COVID-19 (out of those who collected NWFPs)	7.29	−51.04	13.75	<0.001
Female	49.4	48.5	51.3	0.006
Employed, full time	51.6	47.7	45.7	<0.001
Level of education, university degree or higher	31.73	35.32	41.16	<0.001

Table 3. Main quantitative variables.

Variable	Mean (Sd)			Anova Test
	Italy	Sweden	Czechia	
Number of forests visited	2.7 (1.7)	4.2 (2.8)	4.6 (3.0)	<0.001
Age (>17)	48 (13.6)	46 (17.7)	45 (16.8)	<0.001
Number of household members (other than yourself)	3 (1.3)	2 (1.5)	2 (1.4)	<0.001

The percentage of people who visited a forest in the last three years is high in all three countries, especially in Czechia and Sweden (95% and 94% respectively). This suggests that a strong connection between people and forests exists, regardless of their place of living (urban cities or rural areas). Respondents from Sweden and Czechia visited on average almost twice as many different forests as those from Italy.

Considering only those visiting forests, the percentage of respondents collecting NWFPs is also substantial. This practice seems to be more diffused among residents of

Sweden and Czechia compared to Italy, for which only half of those who visited forests collect NWFPs. Concerning the change in NWFPs collection habits before and after the breakout of COVID-19, the table shows how in all the three countries there was an increase in the fraction of residents collecting NWFPs. This could be explained by the fact that some people during the pandemic felt the need to reconnect with nature. On the other hand, in countries where severe mobility restrictions against COVID-19 were implemented, there was a very little increase of people collecting NWFPs (e.g., in Italy less than 10% of the sample experienced an increasing in the collection rates, while 60% of the sample experienced a decrease).

We also investigated people's motivation to visit forests (Figure 1). The most important motivations are 'contact with nature' and 'relax' in all countries. In Sweden, right afterwards we find 'collection of NWFPs', along with 'spending time with family' and 'physical activity', whereas 'acquiring skills' and 'knowledge of the territory' have the lowest scores. In Czechia and Italy, the only motivation having a lower score is the acquisition of skills.

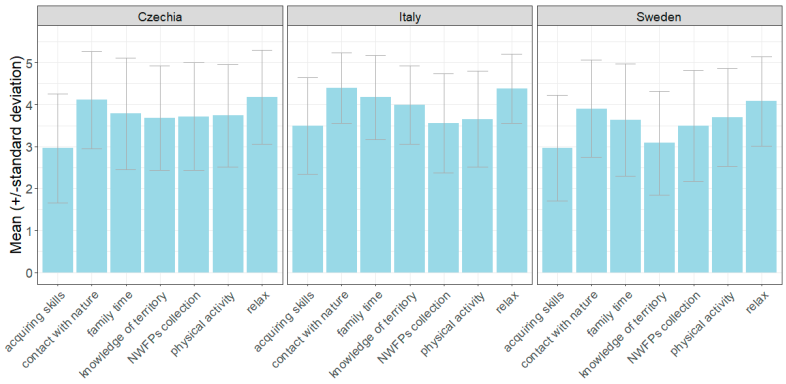

Figure 1. Reasons for visiting forests.

Knowing people's motivation for visiting forests is critical to better understand the cultural services forests provide and their importance for European citizens.

The motivations driving people to collect NWFPs are investigated further. We analysed the motivation and the objectives of NWFP pickers (Figures 2 and 3, respectively). The main finding is the importance of the social component regarding NWFPs collection in all countries. Respondents mostly pick NWFPs when they are with family or friends. The majority of them are occasional pickers or collect NWFPs as a hobby. Moreover, the most important reasons for picking NWFPs are self-consumption and recreation.

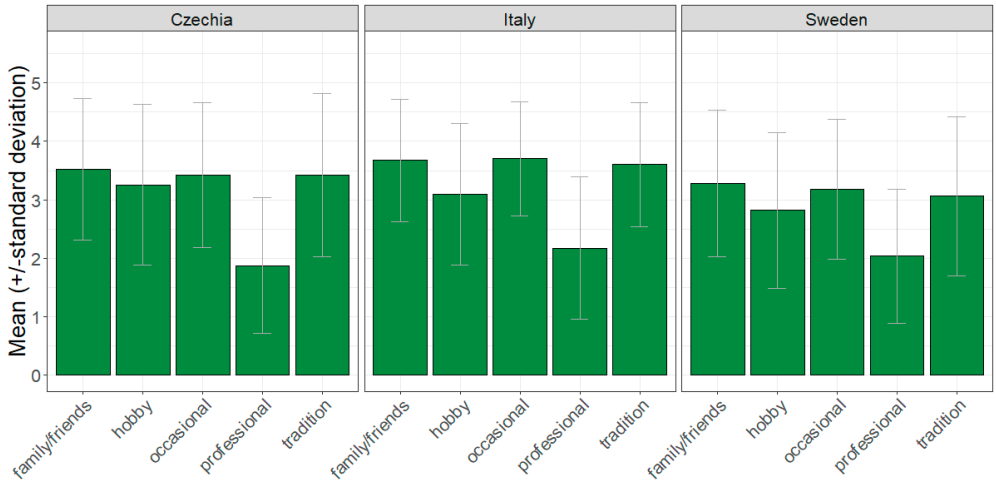

Figure 2. Motivation to pick NWFPs on a scale of 1 to 5.

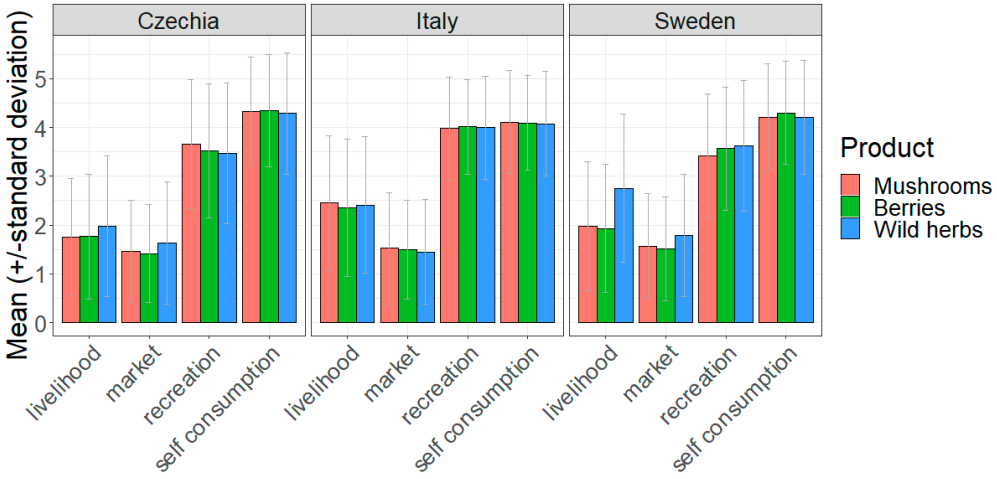

Figure 3. Reasons to pick NWFPs on a scale of 1 to 5.

Finally, we found some differences in Moral Foundations by country, although not significantly different (Table 4). Overall, Care and Fairness have the highest scores in all countries, with Italy having higher scores compared to Sweden and Czechia. This can be explained by the different cultural context that can shape people's morality. In particular, Care and Fairness are individual-focused MFs, which apply to all individuals regardless of their membership to one's group, while Loyalty, Authority, and Sanctity are group-focused foundations; also, the former are endorsed more in Western than in other societies [25].

Table 4. Moral Foundations Score by countries.

Moral Foundation	**Mean (Sd)**		
	Czechia	**Italy**	**Sweden**
Care	3.64 (0.76)	4.01 (0.70)	3.52 (0.73)
Fairness	3.64 (0.77)	3.92 (0.65)	3.48 (0.72)
Loyalty	3.29 (0.69)	3.63 (0.70)	3.12 (0.69)
Authority	3.33 (0.71)	3.43 (0.66)	3.12 (0.70)
Sanctity	3.29 (0.70)	3.36 (0.75)	2.92 (0.75)

3.2. Willingness to Pay and the Interaction with Moral Foundations

Responses to the survey were used to estimate the parameters of the Mixed Logit Model presented in Section 2.1 for the three countries (Table 5). Before analysing the results, it is worth noting that WTP values for different attributes are not comparable, since different measurement units were used (e.g., kg/hectare for herbs and berries, share of forest area suitable for wild herbs picking, and share of protected area for biodiversity). In addition, the WTP values for Sweden and Czechia were converted to Euros using the OECD exchange rates. All the attributes were coded as continuous, which implies that the estimated marginal WTP values represent the amount of money that people are willing to pay for an increase by one unit of each attribute.

Table 5. Estimated parameters of the Mixed Logit Model for the three countries.

	Czechia	**Italy**	**Sweden**
Mean parameters ϕ			
Berries	0.291 ***	0.051 ***	0.178 ***
Herbs	0.020 ***	0.144 *	0.727 *
Mushrooms	0.896 ***	0.088 **	0.620 ***
Biodiversity	0.397 ***	0.102 ***	0.182 **
Access points	5.072 ***	5.293 ***	4.196 ***
Price/scale	−1.794 ***	−3.742 ***	−0.259 *
Status quo	−1.778 ***	−2.058 ***	−2.209 ***
Standard deviation parameters σ			
Berries	0.136 ***	0.001	0.167 ***
Herbs	0.034 ***	0.078 ***	0.542 **
Mushrooms	0.373 ***	0.004	0.265 ***
Biodiversity	0.205 ***	0.013 ***	0.181 ***
Access points	4.461 ***	1.153 ***	4.465 ***
Price/scale	3.587 ***	2.780 ***	3.912 ***
Interaction terms γ			
Berries × Care	0.149 ***	0.022	0.040 ***
Berries × Fairness	0.265 ***	0.029 ***	0.020 ***
Berries × Loyalty	−0.044 *	−0.032 ***	−0.092
Berries × Authority	0.099 ***	0.045	0.017
Berries × Sanctity	−0.064 ***	−0.037 ***	0.011
Herbs × Care	−0.015	0.021 ***	0.082 ***
Herbs × Fairness	0.063 ***	0.013 ***	0.047 ***
Herbs × Loyalty	−0.021	0.002	−0.324
Herbs × Authority	−0.004	0.012	−0.815
Herbs × Sanctity	−0.101 ***	−0.051	−0.492 *
Mushrooms × Care	0.130	0.023 ***	0.049 ***
Mushrooms × Fairness	0.475 ***	0.005	0.210 ***
Mushrooms × Loyalty	0.195	0.021	−0.345 ***
Mushrooms × Authority	0.063 ***	0.044	−0.382 ***
Mushrooms × Sanctity	−0.235	−0.022 ***	−0.345 ***

Note: ***, **, * = 99%, 95%, 90% significance.

The first result of interest concerns the status quo option coefficients: in all countries, these are statistically significant (at 99% level) and negative. This suggests that citizens, on average, prefer the improvement alternatives to the status quo option, thus indicating an interest in supporting policies aimed at improving the current supply of forest ecosystem services. Moving to the mean parameters ϕ, which are a direct measure of marginal WTP values, we note that all the estimated coefficients are statistically significant at 90% level or higher. This suggests that in all the three countries, every attribute is a determinant of the choice of forest management programs. Moreover, all the coefficients for the non-monetary attributes are positive, which suggests that citizens are willing to pay to support forest management practices aimed at increasing the level of forest services. Moving to examine the WTP values in detail, starting from berries, the highest WTP value was estimated for Czechia (€0.291/kg/hectare), followed by Sweden (€0.178/kg/hectare) and Italy (€0.051/kg/hectare). In the case of wild herbs, instead, the value estimated for Sweden (€0.727 for 1% more forest area suitable for wild herbs picking) is substantially higher compared to Italy (€0.144) and especially Czechia, in which we have a value rather close to zero (€0.020). Concerning mushrooms, Czechia is again the country associated with the highest WTP value (€0.896/kg/hectare), followed by Sweden (€0.620/kg/hectare) and Italy (€0.088/kg/hectare). When comparing the WTP values between berries and mushrooms (which share the same measurement unit), it can be seen how—on average—in all the three countries citizens value 1 kg of mushrooms more than 1 kg of berries. This is particularly evident in Sweden and Czechia, while the two values are closer in the case of Italy.

Moving to the attributes not directly related to NWFPs, we note how—on average—citizens of all countries are willing to pay for both an improvement of biodiversity protection and additional access points. For the former, the estimated marginal WTP values for an additional 1% of protected forest area are €0.397 for Czechia, €0.182 for Sweden and €0.102 for Italy. In Italy, instead, we have the highest WTP value for an additional access point (€5.293), followed by Czechia (€5.072) and Sweden (€4.196).

As it concerns the standard deviation parameters σ, we note that in almost all cases the estimated coefficients are statistically significant at least at 90%, thus suggesting the existence of unobserved preference heterogeneity towards forest services and variation of sensitivity to the tax. The only exceptions are berries and mushrooms in Italy.

Finally, we turn to the interaction terms γ measuring the effect of MFs on WTP values for the three NWFPs. Starting from berries, we note that Fairness consistently has a significant and positive effect in the three countries. More in detail, citizens with a strong sense of Fairness are willing to pay €0.265/kg/hectare (Czechia), €0.029/kg/hectare (Italy) and €0.020/kg/hectare (Sweden) more those who do not. Then, Care has a significant effect in Czechia and Sweden (positive in both cases) and Loyalty in Czechia and Italy. In this case, the effect is negative, which suggests that citizens with this trait are willing to pay €0.044/kg/hectare and €0.032/kg/hectare less, respectively. A similar result was obtained from Sanctity (significant in Czechia and Italy). Finally, Authority only affects (positively) preferences in Czechia. Moving to wild herbs, Fairness is again the only trait to affect WTP values in all countries (€0.063 for Czechia, €0.047 for Sweden and €0.013 for Italy). Care has a significant effect in Sweden and Italy, again positive in both cases. Sanctity, instead, has a significant effect in Sweden and Czechia, negative in both cases. Finally, in the case of mushrooms, Care and Fairness have again a consistently positive effect and Sanctity a negative one. In the case of Authority, instead, we have a positive effect in Czechia (€0.063/kg/hectare) and a negative one in Sweden (€−0.382/kg/hectare). Finally, Loyalty significantly affects WTP values only in Sweden (€−0.345/kg/hectare).

4. Discussion

The results of this study indicate that people visiting forests for recreational purposes are mostly motivated by seeking relax and connect with nature. In addition, collecting NWFPs, when available, is a key activity during the visit. Most people collect NWFPs for self-consumption and recreation, often with friends and family, rather than selling them on the market or for livelihood. This confirms the importance of the recreational and cultural role this service provides, in line with previous studies [7].

It is worth mentioning also that the current pandemic of COVID-19 changed the relationship between people and the collection of NWFPs. In countries were hard measures against COVID-19 were implemented, with extended periods of mobility restriction, there was a net decrease in the frequency of people going to the forest and collecting those products (e.g., Italy). For countries experiencing softer lockdowns, with minor or no mobility restrictions, the frequency of people collecting NWFPs increased. This might be explained by the fact that people were seeking alternative ways of recreation when it was not possible (or at least not advisable) to undertake indoor activities.

Our analysis on the WTP of people to increase forests conservation and sustainable management reports significant and positive values for all attributes in the three countries under evaluation. The emphasis on NWFPs, specifically targeting berries, mushrooms and wild herbs, suggests that people are willing to contribute for this service even in countries where picking NWFPs for free is traditionally a right of every person, like Czechia and Sweden. It is not easy to compare this study with previous literature, because so far studies have focused more on whether or not it was possible to pick those products, without looking at their availability in quantitative terms. Besides that, we can find in the literature a similar positive attitude of people with regard to NWFPs [35,45]. On the other hand, if we look at the attribute addressing biodiversity conservation, our study is in line with the literature, confirming the positive attitude of people towards this service [36,49,50].

Concerning the moral dimension of choice behaviours, results highlight that overall the most significant MFs driving people to contribute actively to NWFPs management are Care and Fairness. This is in line with literature seeing these two Foundations as strong moral predictors of climate-friendly behaviours [17], individual-focused, and endorsed more in Western than other societies [25]. Moreover, the triggers for these foundations are the need for cooperation in the case of Fairness, and distress and neediness in the case of Care [17]. This would explain why people having these traits are willing to pay for NWFPs as a cultural service, given that the different policy alternatives were inserted in the framework of the relationship between humans and nature for present and future generations, and justified by the need to take action against climate change. Adding the sociological component to our analysis helped us to gain a better understanding of the variety of factors influencing people's decisions and so to increase the behavioural realism of the model.

The fact that the questionnaire was filled online may have induced biased results. However, the bias is likely limited since the age, gender, and regional balances were respected and the study was run in countries where almost everyone has internet access. Although we selected three European countries with contrasted contexts, our study provides partial coverage of the socio-economic and environmental conditions of NWFP picking in Europe. This is due to a limited number of questionnaires that were filled in in three EU countries only. For these reasons, results cannot be upscaled to the entire European Union. It would be worth to develop a systematic data collection at European level, since data regarding the social component of NWFPs are rather scarce, although, according to our results, this service is valuable.

Finally, we see some links between the moral foundations and the preferences and level of willingness to pay to pick up NWFPs. In the same way, a further investigation concerning the moral dimensions of choice behaviours would be needed to improve the explanation of the decision-making process.

5. Conclusions

NWFPs are important forest ecosystem services that are supplied by multi-functional forest management. Thanks to their dual component, both market and social, NWFPs can not only provide new market opportunities for the European bioeconomy, but also cultural services that benefit people and enhance their recreational activities. Our study shows that there is a demand for both the products and the experience. The nature of the demand and the characteristics of the pickers are pieces of information that can be used to understand the conflicts between forest owners and NWFP pickers in countries with free right to pick up NWFPs even on private land [53] and look for solutions.

Having a complete picture of the value people attach to this service could provide information to develop future policies and support decision-making towards the design of forest management plans that properly account for the benefits of wild forest products. This study underlines that both the social and the market dimensions of NWFPs must be accounted for when designing sustainable land management plans. Moreover, if a system of payment can be developed, NWFPs could provide a complementary source of income, in particular in areas where timber value is low, such as in the Mediterranean region. Moreover, enhancing the forest area managed with NWFPs as a co-product can offer opportunities to finance the maintenance of forests with high levels of biodiversity and of habitat types of European interest [54]. Thanks to this study, we contributed to a better understanding of the current and potential economic value of NWFPs that often escapes statistics and foresight.

The results of this paper will be used as input for future analysis on forest-based value chains within the European bioeconomy, using an extended Social Accounting Matrix approach.

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Appendix A. Moral Foundations Questionnaire

The Moral Foundations Questionnaire (MFQ) was developed by Graham et al. (2011) [26] to measure the full range of moral concerns, on the basis of the five universally available sets of moral intuitions: Harm/Care, Fairness/Reciprocity, Ingroup/Loyalty, Authority/Respect, and Purity/Sanctity.

In this study, we used the MFQ to explore the moral dimensions of choice behaviours.

Appendix A.1. Moral Relevance

When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking? Please rate each statement using this scale:

1 = Not relevant at all (This consideration has nothing to do with my judgments of right and wrong)
2 = Slightly relevant
3 = Somewhat relevant
4 = Very relevant
5 = Extremely relevant (This is one of the most important factors when I judge right and wrong)

	1	2	3	4	5
Whether or not someone suffered emotionally	◯	◯	◯	◯	◯
Whether or not some people were treated differently than others	◯	◯	◯	◯	◯
Whether or not someone's action showed love for his or her country	◯	◯	◯	◯	◯
Whether or not someone showed a lack of respect for authority	◯	◯	◯	◯	◯
Whether or not someone violated standards of purity and decency	◯	◯	◯	◯	◯
Whether or not someone was good at math	◯	◯	◯	◯	◯
Whether or not someone cared for someone weak or vulnerable	◯	◯	◯	◯	◯
Whether or not someone acted unfairly	◯	◯	◯	◯	◯
Whether or not someone did something to betray his or her group	◯	◯	◯	◯	◯
Whether or not someone conformed to the traditions of society	◯	◯	◯	◯	◯

	1	2	3	4	5
Whether or not someone did something disgusting	◯	◯	◯	◯	◯
Whether or not someone was cruel	◯	◯	◯	◯	◯
Whether or not someone was denied his or her rights	◯	◯	◯	◯	◯
Whether or not someone showed a lack of loyalty	◯	◯	◯	◯	◯
Whether or not an action caused chaos or disorder	◯	◯	◯	◯	◯
Whether or not someone acted in a way that God would approve of	◯	◯	◯	◯	◯

Appendix A.2. Moral Judgments

Please read the following sentences and indicate your agreement or disagreement:

[1]	[2]	[3]	[4]	[5]
Strongly disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

	1	2	3	4	5
Compassion for those who are suffering is the most crucial virtue.	◯	◯	◯	◯	◯
When the government makes laws, the number one principle should be ensuring that everyone is treated fairly.	◯	◯	◯	◯	◯
I am proud of my country's history.	◯	◯	◯	◯	◯
Respect for authority is something all children need to learn.	◯	◯	◯	◯	◯
People should not do things that are disgusting, even if no one is harmed.	◯	◯	◯	◯	◯
It is better to do good than to do bad.	◯	◯	◯	◯	◯
One of the worst things a person could do is hurt a defenceless animal.	◯	◯	◯	◯	◯
Justice is the most important requirement for a society.	◯	◯	◯	◯	◯
People should be loyal to their family members, even when they have done something wrong.	◯	◯	◯	◯	◯
Men and women each have different roles to play in society.	◯	◯	◯	◯	◯
I would call some acts wrong on the grounds that they are unnatural	◯	◯	◯	◯	◯
It can never be right to kill a human being.	◯	◯	◯	◯	◯
I think it's morally wrong that rich children inherit a lot of money while poor children inherit nothing.	◯	◯	◯	◯	◯
It is more important to be a team player than to express oneself.	◯	◯	◯	◯	◯
If I were a soldier and disagreed with my commanding officer's orders, I would obey anyway because that is my duty.	◯	◯	◯	◯	◯
Chastity is an important and valuable virtue.	◯	◯	◯	◯	◯

References

1. FAO. *Global Forest Resources Assessment 2020: Main Report*; FAO: Rome, Italy, 2020. [CrossRef]
2. Shackleton, C.M.; Ticktin, T.; Cunningham, A.B. Nontimber forest products as ecological and biocultural keystone species. *Ecol. Soc.* **2018**, *23*, 22. [CrossRef]
3. Sardeshpande, M.; Shackleton, C. Wild edible fruits: A systematic review of an under-researched multifunctional NTFP (Non-Timber Forest Product). *Forests* **2019**, *10*, 467. [CrossRef]
4. Brenko, A.; Buršić, D.; Zgrablić, Z.; Martínez de Arano, I. A Road Map for Innovating NWFPs Value Chains, Deliverable D1.3. H2020 Project No.774632 RUR-10-2016-2017 European Commission, 2018, 1–44. Available online: https://incredibleforest.net/sites/default/files/deliverable/files/d_1.3_v2_1.pdf (accessed on 30 April 2021).
5. European Commission. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. New EU Forest Strategy for 2030. COM/2021/572 Final 2021. 2021. Available online: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021DC0572 (accessed on 30 April 2021).

6. European Commission. A Sustainable Bioeconomy for Europe: Strengthening the Connection between Economy, Society and the Environment: Updated Bioeconomy Strategy; Luxembourg: Publications Office of the European Union 2018. Available online: https://knowledge4policy.ec.europa.eu/publication/sustainable-bioeconomy-europe-strengthening-connection-between-economy-society_en (accessed on 30 April 2021).
7. Lovrić, M.; Da Re, R.; Vidale, E.; Prokofieva, I.; Wong, J.; Pettenella, D.; Verkerk, P.J.; Mavsar, R. Non-wood forest products in Europe—A quantitative overview. *For. Policy Econ.* **2020**, *116*, 102175. [CrossRef]
8. Sorrenti, S. *Non-Wood Forest Products in International Statistical Systems. Non-Wood Forest Products Series No. 22*; FAO: Rome, Italy, 2017.
9. The World Bank. *Forest Accounting Sourcebook Policy. Applications and Basic Compilation*, 7th ed.; The World Bank: Washington, DC, USA, 2017.
10. Sisak, L.; Riedl, M.; Dudik, R. Non-market non-timber forest products in the Czech Republic—Their socio-economic effects and trends in forest land use. *Land Use Policy* **2016**, *50*, 390–398. [CrossRef]
11. Masiero, M.; Pettenella, D.; Boscolo, M.; Barua, S.; Animon, I.; Matta, J.R. *Valuing Forest Ecosystem Services. A Training Manual for Planners and Project Developers*; Forestry Working Paper No. 11. Rome, FAO; Licence: CC BY-NC-SA 3.0 IGO; FAO: Rome, Italy, 2019; p. 216. ISBN 9789251312155.
12. Masiero, M.; Franceschinis, C.; Mattea, S.; Thiene, M.; Pettenella, D.; Scarpa, R. Ecosystem services' values and improved revenue collection for regional protected areas. *Ecosyst. Serv.* **2018**, *34*, 136–153. [CrossRef]
13. Morey, E.; Thiene, M. Can personality traits explain where and with whom you recreate? A latent-class site-choice model informed by estimates from mixed-mode LC Cluster Models with latent-personality traits. *Ecol. Econ.* **2017**, *138*, 223–237. [CrossRef]
14. Swait, J.; Franceschinis, C.; Thiene, M. Antecedent volition and spatial effects: Can multiple goal pursuit mitigate distance decay? *Environ. Resour. Econ.* **2020**, *75*, 243–270. [CrossRef]
15. Mariel, P.; Hoyos, D.; Meyerhoff, J.; Czajkowski, M.; Dekker, T.; Glenk, K.; Jacobsen, J.B.; Liebe, U.; Olsen, S.B.; Sagebiel, J.; et al. *Environmental Valuation with Discrete Choice Experiments*; Springer International Publishing: Cham, Switzerland, 2021; ISBN 978-3-030-62668-6.
16. Pascual, U.; Muradian, R.; Brander, L.; Christie, M.; Cornelissen, H.; Eppink, F.; Farley, J.; Loomis, J.; Pearson, L.; Perrings, C.; et al. The economics of valuing ecosystem services and biodiversity. In *The Economics of Ecosystems and Biodiversity: The Ecological and Economic Foundations*; Simpson, R.D., Ed.; Earthscan: London, UK; Washington, DC, USA, 2010; pp. 183–255. [CrossRef]
17. Welsch, H. Moral foundations and voluntary public good provision: The case of climate change. *Ecol. Econ.* **2020**, *175*, 106696. [CrossRef]
18. Louviere, J.J. Experimental choice analysis: Introduction and overview. *J. Bus. Res.* **1992**, *24*, 89–95. [CrossRef]
19. Boxall, P.C.; Adamowicz, W.L.; Swait, J.; Williams, M.; Louviere, J. A comparison of stated preference methods for environmental valuation. *Ecol. Econ.* **1996**, *18*, 243–253. [CrossRef]
20. Hanley, N.; Wright, R.E.; Adamowicz, V. Using choice experiments to value the environment: Design issues, current experience and future prospects. *Environ. Resour. Econ.* **1998**, *11*, 413–428. [CrossRef]
21. Train, K.E.; Weeks, M. Discrete choice models in preference space and willingness-to-pay space. In *Application of Simulation Methods in Environmental and Resource Economics*; Scarpa, R., Alberini, A., Eds.; Springer: Dordrecht, The Netherlands, 2005; pp. 1–16.
22. Scarpa, R.; Thiene, M.; Train, K. Utility in willingness to pay space: A tool to address confounding random scale effects in destination choice to the Alps. *Am. J. Agric. Econ.* **2008**, *90*, 994–1010. [CrossRef]
23. Hess, S.; Palma, D. Apollo: A flexible, powerful and customisable freeware package for choice model estimation and application. *J. Choice Model.* **2019**, *32*, 100170. [CrossRef]
24. Haidt, J.; Joseph, C. The moral mind: How five sets of innate intuitions guide the development of many culture-specific virtues, and perhaps even modules. In *The Innate Mind*; Oxford University Press: Oxford, UK, 2008; Volume 3, ISBN 9780199868117.
25. Haidt, J. *The Righteous Mind: Why Good People Are Divided by Politics and Religion*; Vintage Books: New York, NY, USA, 2012.
26. Graham, J.; Nosek, B.A.; Haidt, J.; Iyer, R.; Koleva, S.; Ditto, P.H. Mapping the moral domain. *J. Pers. Soc. Psychol.* **2011**, *101*, 366–385. [CrossRef]
27. Chorus, C.G. Models of moral decision making: Literature review and research agenda for discrete choice analysis. *J. Choice Model.* **2015**, *16*, 69–85. [CrossRef]
28. Dickinson, J.L.; McLeod, P.; Bloomfield, R.; Allred, S. Which moral foundations predict willingness to make lifestyle changes to avert climate change in the USA? *PLoS ONE* **2016**, *11*, e0163852. [CrossRef]
29. Nordén, A.; Coria, J.; Jönsson, A.M.; Lagergren, F.; Lehsten, V. Divergence in stakeholders' preferences: Evidence from a choice experiment on forest landscapes preferences in Sweden. *Ecol. Econ.* **2017**, *132*, 179–195. [CrossRef]
30. De Frutos, P.; Rodríguez-Prado, B.; Latorre, J.; Martínez-Peña, F. Environmental valuation and management of wild edible mushroom picking in Spain. *For. Policy Econ.* **2018**, *100*, 177–187. [CrossRef]
31. Marini Govigli, V.; Górriz-Mifsud, E.; Varela, E. Zonal travel cost approaches to assess recreational wild mushroom picking value: Trade-offs between online and onsite data collection strategies. *For. Policy Econ.* **2019**, *102*, 51–65. [CrossRef]
32. Martínez de Aragón, J.; Riera, P.; Giergiczny, M.; Colinas, C. Value of wild mushroom picking as an environmental service. *For. Policy Econ.* **2011**, *13*, 419–424. [CrossRef]

33. Wu, C.S.; Liu, C.P.; Chen, Y.H.; Chen, L.C.; Lin, J.C.; Jeng, M.R.; Hsu, C.Y. Evaluating the economic benefits of forest ecosystem management in the LiuKuei experimental forest. *Taiwan J. For. Sci.* **2006**, *21*, 191–203.
34. Vieira, I.R.; de Oliveira, J.S.; Santos, K.P.P.; Silva, G.O.; Vieira, F.J.; Barros, R.F.M. A contingent valuation study of buriti (*Mauritia flexuosa L.f.*) in the main region of production in Brazil: Is environmental conservation a collective responsibility? *Acta Bot. Bras.* **2016**, *30*, 532–539. [CrossRef]
35. De Frutos, P.; Martinez-Peña, F.; Aldea, J.; Campos, P. A Model to estimate willingness to pay for harvest permits for wild edible mushrooms: Application to Andalusian forests. *Forests* **2016**, *7*, 292. [CrossRef]
36. Soliño, M.; Yu, T.; Alía, R.; Auñón, F.; Bravo-Oviedo, A.; Chambel, M.R.; de Miguel, J.; del Río, M.; Justes, A.; Martínez-Jauregui, M.; et al. Resin-tapped pine forests in Spain: Ecological diversity and economic valuation. *Sci. Total Environ.* **2018**, *625*, 1146–1155. [CrossRef] [PubMed]
37. Bocci, C.; Sohngen, B.; Lupi, F.; Milian, B. Timber or carbon? Evaluating forest conservation strategies through a discrete choice experiment. *Ecol. Econ.* **2020**, *171*, 106601. [CrossRef]
38. Giergiczny, M.; Riera, P.; Mogas, J.; Mahieu, P.-A. The importance of second-order interactions in a forest choice experiment. A partial log-likelihood analysis. *Environ. Econ.* **2011**, *2*, 63–72.
39. Engelman, M.; Lagerkvist, C.J.; Gren, I.M. Hunters' trade-off in valuation of different game animals in Sweden. *For. Policy Econ.* **2018**, *92*, 73–81. [CrossRef]
40. Yao, R.T.; Scarpa, R.; Turner, J.A.; Barnard, T.D.; Rose, J.M.; Palma, J.H.N.; Harrison, D.R. Valuing biodiversity enhancement in New Zealand's planted forests: Socioeconomic and spatial determinants of willingness-to-pay. *Ecol. Econ.* **2014**, *98*, 90–101. [CrossRef]
41. Brahic, E.; Rambonilaza, T. The impact of information on public preferences for forest biodiversity preservation: A split-sample test with choice experiment method. *Rev. Econ. Polit.* **2015**, *125*, 253–275. [CrossRef]
42. Mieno, T.; Shoji, Y.; Aikoh, T.; Arnberger, A.; Eder, R. Heterogeneous preferences for social trail use in the urban forest: A latent class model. *Urban For. Urban Green.* **2016**, *19*, 20–28. [CrossRef]
43. Carson, R.T.; DeShazo, J.R.; Schwabe, K.A.; Vincent, J.R.; Ahmad, I. Incorporating local visitor valuation information into the design of new recreation sites in tropical forests. *Ecol. Econ.* **2015**, *120*, 338–349. [CrossRef]
44. Kang, N.; Wang, E.; Yu, Y. Valuing forest park attributes by giving consideration to the tourist satisfaction. *Tour. Econ.* **2019**, *25*, 711–733. [CrossRef]
45. Brey, R.; Riera, P.; Mogas, J. Estimation of forest values using choice modeling: An application to Spanish forests. *Ecol. Econ.* **2007**, *64*, 305–312. [CrossRef]
46. Christie, M.; Hanley, N.; Hynes, S. Valuing enhancements to forest recreation using choice experiment and contingent behaviour methods. *J. For. Econ.* **2007**, *13*, 75–102. [CrossRef]
47. Bartczak, A. The role of social and environmental attitudes in non-market valuation. An application to the Białowieża Forest. *For. Policy Econ.* **2015**, *50*, 357–365. [CrossRef]
48. Rambonilaza, T.; Brahic, E. Non-market values of forest biodiversity and the impact of informing the general public: Insights from generalized multinomial logit estimations. *Environ. Sci. Policy* **2016**, *64*, 93–100. [CrossRef]
49. Górriz-Mifsud, E.; Varela, E.; Piqué, M.; Prokofieva, I. Demand and supply of ecosystem services in a Mediterranean forest: Computing payment boundaries. *Ecosyst. Serv.* **2016**, *17*, 53–63. [CrossRef]
50. Hoyos, D.; Mariel, P.; Pascual, U.; Etxano, I. Valuing a Natura 2000 network site to inform land use options using a discrete choice experiment: An illustration from the Basque Country. *J. For. Econ.* **2012**, *18*, 329–344. [CrossRef]
51. European Commission. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. EU Biodiversity Strategy for 2030. Bringing Nature Back into Our Lives. COM(2020) 380 Final. 2020. Available online: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52020DC0380 (accessed on 30 April 2021).
52. Scarpa, R.; Rose, J.M. Design efficiency for non-market valuation with choice modelling: How to measure it, what to report and why. *Aust. J. Agric. Resour. Econ.* **2008**, *52*, 253–282. [CrossRef]
53. Sténs, A.; Sandström, C. Divergent interests and ideas around property rights: The case of berry harvesting in Sweden. *For. Policy Econ.* **2013**, *33*, 56–62. [CrossRef]
54. Martínez de Arano, I.; Maltoni, S.; Picardo, A.; Mutke, S. *Non-Wood Forest Products for People, Nature and the Green Economy. Recommendations for Policy Priorities in Europe. A White Paper Based on Lessons Learned from Around the Mediterranean*; EFI and FAO: Barcelona, Spain, 2021. [CrossRef]