# A comparison of two models of choice behaviour for Participatory Value Evaluation

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## Introduction

Worldwide, governments and public institutions make policy decisions involving the allocation of scarce resources. An increasing desire in society to justify policy decisions on scientifically grounded evidence has directed attention towards the development of rigorous assessment methods (Nilsson et al., 2008). One of the most widely used assessment methods is Cost-Benefit Analysis (CBA). Policy recommendations of CBA are based on the Kaldor-Hicks (KH) efficiency criterion (Persky, 2001), which postulates that the summed monetary gains of a policy should outweigh the summed monetary losses, such that winners can potentially compensate the losers (e.g. Boadway & Bruce, 1984). In a CBA, the positive and negative social impacts of government policies are quantified and monetized where possible. For example, impacts of the policy on non-market goods, such as noise pollution, or loss of nature, are converted into monetary units using willingness to pay (WTP) estimates.

Despite its widespread use, CBA as an assessment tool for government policies have been questioned in at least two ways. First, CBA relies on the assumption that individuals' private WTP derived in a consumer context is a proper reflection of their preferences towards government policies. A branch of scholars argue that an individual can have different preferences as a consumer of goods, and as a citizen in public-interest matters (Sagoff, 2007; Sunstein, 2005), posing a challenge with respect to how WTP values under both sets of preferences can be aggregated to be a proxy of aggregate benefits or costs (Nyborg, 2000). This phenomenon is known as the consumer-citizen duality and has been tested largely in methods to elicit individuals' WTP (see, for example Blamey, Common, & Quiggin, 1995; Curtis & McConnell, 2002; Mouter, Van Cranenburgh, & Van Wee, 2017; Ovaskainen & Kniivila, 2005). Second, even if it is possible to compute comparable individual WTP estimates, the aggregation of those values has controversial implications on how preferences of society are considered when income inequalities are present. Aggregate benefits and costs in CBA follow a principle of one-euro-one-vote. Under this principle, preferences of individuals with a higher ability to pay will have more impact on the aggregate benefits or costs. Therefore, it also implies that in CBA, the preferences of the wealthiest in society weight more heavily than those of the less well off (Nyborg, 2014; Persky, 2001).

A recently developed tool that aspires to overcome the issues posed above is Participatory Value Evaluation (PVE), a policy assessment framework that elicits citizens' preferences for government funded policies (Mouter, Koster, & Dekker, 2019a) and uses these to assess those policies. In a PVE experiment, individuals are asked to state which portfolio (a combination) of projects they prefer to be conducted by the local government or public authority, subject to a public budget constraint. Hence, PVE is not rooted in the assumption that individuals need to trade part of their private income to obtain public benefits (as the case in classical WTP studies underpinning CBA), since they directly allocate a public budget in public policies[1]. In contrast, PVE resembles the so-called Willingness to Assign Public Budget (WTAPB) experiments, where individuals are asked to choose between public-funded policies (see, for example Costa-Font & Rovira, 2005; Costa -Font, Forns, & Sato, 2015). However, conventional WTAPB experiments do not consider the preferences of those who prefer to select no policy at all (or opt-out). PVE solves this issue by offering respondents this possibility. This "no-choice" alternative is assumed to be a transfer of the public budget for the next period. In this way, PVE is able to capture citizens' intertemporal preferences of public budget (i.e. the preferences for expending public budget in this period, rather than transferring it).

So far, two PVE modelling approaches have been proposed in the literature, both being based on the assumption that individual choices are directed towards the portfolio of policies that maximizes individuals' utility. The first PVE model is proposed by Dekker, Koster, and Mouter (2019) and is rooted in the MDCEV model (Bhat, 2008, 2018). Under this framework, it is assumed that individuals maximize the utility derived from their chosen policies, from the non-expended budget that is transferred to the next period, and from the level of their private income . In turn, the utility associated with each individual policy is a function of the expected positive/negative impacts derived from implementing it. The second model (Bahamonde-Birke & Mouter, 2019) adopts a so-called portfolio choice modelling approach (henceforth we define this model as the portfolio PVE model). In this approach, it is assumed that decision makers consider all feasible portfolios of policies when making choices, selecting the portfolio they like best. Thereby, the need for a more complex MDCEV model is circumvented, and, making the standard assumptions for the error terms, this portfolio model approach results in an easily estimable model whose choice probabilities take the a closed-form logit formula.

Both frameworks propose different approaches for modelling PVE and each of them has their own strengths and pitfalls. The MDCEV-based framework of Dekker et al. (2019) includes a method to derive the aggregate utility that society perceives from a given portfolio, allowing to construct policy recommendations based on PVE, in the form of rankings of portfolios according to their maximum aggregate utility. However, this framework is computationally burdensome, and does not consider the (positive or negative) synergies associated with including two (or more) policies in the same portfolio. Incorporating these synergies is the main strength of the portfolio PVE model proposed by Bahamonde-Birke and Mouter (2019). However, this latter framework has not developed yet a corresponding method to derive the aggregate utility of a given portfolio, in the same rigorous fashion of the MDCEV-based PVE model, and hence, there is as yet no procedure to derive policy recommendations from this

[1] In fact, PVE can give even more flexibility to respondents by allowing them to choose a change of taxes to increase/decrease the available public budget. This is known as a "flexible-budget PVE". In this study, we instead use the so-called "fixed-budget PVE" for simplicity purposes.

framework. Therefore, results of the portfolio PVE model are still limited to parameter interpretations and predicted portfolio choice probabilities.

In light of this, the further development of PVE as an alternative policy assessment framework can be benefited by the provision of a method to derive the aggregate utility of portfolios from a portfolio PVE model, considering the advantages of this latter approach. In addition, it is particularly interesting to understand to what extent the MDCEV- and portfolio PVE model lead to similar, or different empirical results, in terms of parameter interpretations and portfolio predictions. This paper aims to solve these gaps by proposing a method to derive the aggregate utility of a given portfolio PVE model, and analysing the data from a real PVE experiment conducted to analyse citizen's preferences for transport projects, using both approaches. Section 2 briefly revises the two modelling approaches; Section 3 details how aggregate utility is derived in both approaches, Section 4 presents the data and preliminary results, and Section 5 provide a discussion and further research directions.

**Models of Choice Behaviour for PVE**

*The MDCEV-based PVE model*

First, we proceed to describe the MDCEV-based PVE model used in this study, as a special case of Dekker et al. (2019), described as the "fixed-budget" PVE. Let $n \in \{1, \dots, N\}$ denote individuals and $j \in \{1, \dots, J\}$ denotes a certain policy proposed by the government. Then, the utility perceived by individual $n$ from the public budget translated to the next period, his/her chosen policies, and private income is given by:

$$U_n = \frac{\gamma_0}{\alpha_0}\left[\left(\frac{y_{n0}}{\gamma_0}+1\right)^{\alpha_0}-1\right]\Psi_0 + \sum_{j=1}^{J} y_{nj}\Psi_{nj} + \frac{1}{\alpha_{J+1}} y_{n,J+1}^{\alpha_{J+1}}\Psi_{n,J+1},$$

where $y_{n0}$ is the public budget translated to the next period, $y_{nj}$ is a binary indicator equal to one if the policy is chosen by the individual and zero otherwise, $y_{n,J+1}$ is the individuals' private income, $\Psi_0, \Psi_{nj}$ and $\Psi_{n,J+1}$ represents the marginal utility of consuming the first unit of $y_{n0}$, $y_{nj}$, and $y_{n,J+1}$ respectively, and $\gamma_0$, $\alpha_0$ and $\alpha_{J+1}$ are estimable parameters that govern satiation effects. In turn, $\Psi_{nj}$ depends of project attributes of policy $j$, such that $\Psi_{nj} = \exp\left(\beta_j + \sum_{k=1}^{K}\beta_{jk}x_{njk} - \varepsilon_{nj}\right)$, where $x_{njk}$ represents an attribute $k$ of policy $j$, $\beta_j$ is a policy constant and $\varepsilon_{nj}$ is a stochastic error term. Since $\Psi_0$ and $\Psi_{n,J+1}$ are not associated with attributes, they only depend of a constant term and the stochastic error.

Following Bhat (2008), the individual's utility maximization problem is given by maximizing $U_n$, subject to:

$$B = y_0 + \sum_{j=1}^{J} c_j y_{nj},$$

where $B$ is the available public budget and $c_j$ is the cost of policy $j$. This model is solved by the use of Kuhn-Tucker conditions, and the assumption of stochastic marginal utilities allows to derive choice probabilities in line with the MDCEV framework, and estimate $\gamma_0$, $\alpha_0$, $\alpha_{J+1}$ and the parameters that govern $\Psi_0$, $\Psi_{nj}$ and $\Psi_{n,J+1}$.

*The portfolio PVE model*

Now we describe the portfolio PVE model from Bahamonde-Birke and Mouter (2019). For comparison purposes we assume that synergies between projects have no impact on individual's utility and we keep the notation of the MDCEV-based PVE model. Under this framework, the utility that an individual $n$ perceives from portfolio $p$ is given by:

$$U_{np} = \sum_{j=1}^{J} y_{nj}\, U_{nj} + \alpha_B \left( B - \sum_{j}^{J} y_{nj} c_j \right) + \varepsilon_{np},$$

where $U_{nj}$ is the utility derived from policy $j$, $\alpha_B$ is and estimable parameter that captures the marginal utility of not expending public budget, and $\varepsilon_{np}$ is a stochastic error. In turn, the utility of each individual portfolio is given by:

$$U_{nj} = \beta_j + \beta_C c_j + \sum_{k=1}^{K} \beta_{jk} x_{njk} + \eta_{nj},$$

where $\beta_C$ is the marginal utility of individual policy cost, $\beta_{jk}$ is the marginal effect of attribute $k$ on the utility of policy $j$, and $\eta_{nj}$ is a stochastic error. For this study, we assume that $\beta_C$ and $\eta_{nj}$ are equal to zero.

Following a Random Utility Model (RUM) strategy (see McFadden, 1974), an individual $n$ chooses portfolio $p$ if their utility is greater than any other possible portfolio. Therefore, the probability that individual $n$ chooses portfolio $p$ is given by:

$$P_{np} = P\left(U_{np} > U_{nq}\right), \forall q \in Q,$$

where $Q$ is the set that contains all possible portfolios of policies (i.e. the portfolios that satisfies the public budget constraint). Assuming that $\varepsilon_{np}$ follows an extreme value (EV1) distribution, $P_{np}$ collapses to a MNL probability where all portfolios contained in $Q$ are part of individual's choice set.

## Aggregate Utility and Policy Recommendations in PVE

Following Dekker et al. (2019), the aggregate utility of a given portfolio is given by the expected value of the utility obtained from this portfolio:

$$\mathbb{E}[U_n] = \frac{\gamma_0}{\alpha_0}\left[\left(\frac{y_{n0}}{\gamma_0} + 1\right)^{\alpha_0} - 1\right]\mathbb{E}[\Psi_0] + \sum_{j=1}^{J} y_{nj}\mathbb{E}\left[\Psi_{nj}\right] + \frac{1}{\alpha_{J+1}} y_{n,J+1}^{\alpha_{J+1}}\mathbb{E}\left[\Psi_{n,J+1}\right],$$

since $\Psi_0, \Psi_{nj}$ and $\Psi_{n,J+1}$ are assumed to be stochastic. Assuming that portfolio costs are equal among individuals, in addition to the MDCEV distributional assumptions regarding $\Psi_{nj}$ (see Bhat, 2008), then:

$$E\left[\Psi_{nj}\right] = \Gamma[1+\sigma]\exp(\beta' X_j), \forall j = 0,1,\dots,J+1,$$

where $X_j$ is a matrix of variables that governs $\Psi_{nj}$, $\beta$ is a vector of parameters to estimate, and σ is a scale parameter. By computing the aggregate utility for each feasible portfolio, PVE can provide either the optimal portfolio that maximizes society's utility, or portfolio rankings.

We use a similar approach in this paper to derive the aggregate utility of the portfolio PVE model. In this case, the assumptions made regarding the error terms for the utility of individual policies ($\eta_{nj} = 0$), and the additive-nature of the portfolio utilities makes the computation of the aggregate utility of a given portfolio straightforward:

$$E\left[U_{np}\right] = \sum_{j=1}^{J} y_{nj} U_{nj} + \alpha_B \left( B - \sum_{j}^{J} y_{nj} c_j \right) + \gamma,$$

where $\gamma$ is the Euler-Mascheroni constant. This constant in particular does not have any impact on the differences between portfolio's aggregate utility, therefore can be ignored for the purpose of providing policy recommendations.

To determine if optimal portfolio predictions of both PVE models are similar, we will compare the extent they lead to similar predictions in terms of the inclusion/exclusion of individual policies. Regarding policy impact effects, although in both MDCEV and MNL paradigms the interpretation of impact parameters is similar, they have different mechanisms of action. To explain this point, while in the former approach these parameters reflect an impact in the marginal (non-linear) utility of the inclusion of a project, in the latter it reflects a (linear) marginal impact on the utility of a given portfolio. Therefore, in this dimension we will limit to compare the extent that both models lead to similar impact effects in terms of direction (parameter sign), rather than magnitudes.

## Data and Results

We use a subsample of 1,043 respondents from a real PVE experiment conducted in 2018 to evaluate citizens' preferences towards infrastructure transport projects in the Metropolitan Area of Amsterdam, the Netherlands (see Mouter, Koster, & Dekker, 2019b for more details). Respondents faced a total budget of 100 million euros, and they have to choose from a pool of 16 projects aimed to improve active transport modes experience, safety, or travel time reductions.

Table 1 summarizes main estimation results for both PVE modelling approaches. We decided not to include estimated project constants since it is not the main focus of the paper. Regarding policy impact parameters, all coefficients have the same sign in both modelling approaches, except for the interaction between travel time savings and number of affected people, but this impact is not statistically significant in the portfolio PVE model. In terms of marginal utility of public budget, we have a negative and significant effect for the portfolio PVE model, while in the MDCEV-based model this effect is positive and non-significant. It is relevant to consider that, while both parameters are related to the effect of transferring public budget to the next period on individuals' utility function, their mechanisms of action vary among modelling approaches. In the portfolio PVE model, this effect ($\alpha_B$) is a linear impact on the portfolio utility, thus a negative value of this parameter is expected since it reflects individual's distaste for translating budget to the next period. In the MDCEV-based PVE model, the effect ($\delta_0$) is non-linear, acting indirectly through $\Psi_0 = \exp(\delta_0)$.

Table 1: Estimation results

| | Portfolio PVE Model | | MDCEV-based Model | |
|---|---|---|---|---|
| | **Coefficient** | **Std. Err.** | **Coefficient** | **Std. Err** |
| **Policy impacts** | | | | |
| Additional traffic deaths | -1.8406 | (1.0758) | $-1.6254^{***}$ | (0.8247) |
| Additional traffic injuries | $-0.3486^{*}$ | (0.1583) | $-0.2126^{**}$ | (0.6944) |
| TT savings*Affected people | -0.6716 | (0.8026) | $0.5103^{*}$ | (0.0995) |
| Noise pollution | $-0.3324^{*}$ | (0.1502) | -0.1223 | (0.5314) |
| Trees chopped | -0.2100 | (0.1804) | -0.0991 | (0.0895) |
| **MU of Public Budget** | | | | |
| $\alpha_B$ (Portfolio PVE model) | $-80.0772^{***}$ | (4.8579) | | |
| $\delta_0$ (MDCEV-based PVE) | | | 4.2770 | (0.0976) |

Significance levels: $^{***}$ p<0.001, $^{**}$ p<0.01, $^{*}$ p<0.05

Figure 1 presents a scatter plot of the predicted aggregate utility for each possible portfolio under both PVE modelling approaches. Each point corresponds to the same portfolio and their respective aggregate utility under the portfolio PVE model (vertical axis) and the MDCEV-based model (horizontal axis). When the full aggregate utility is considered (left side), a series of unexpected clusters are observed. These clusters disappear when only the portfolio utility is considered (without the budget shifting utility part), but an expected linear relationship is apparently missing.

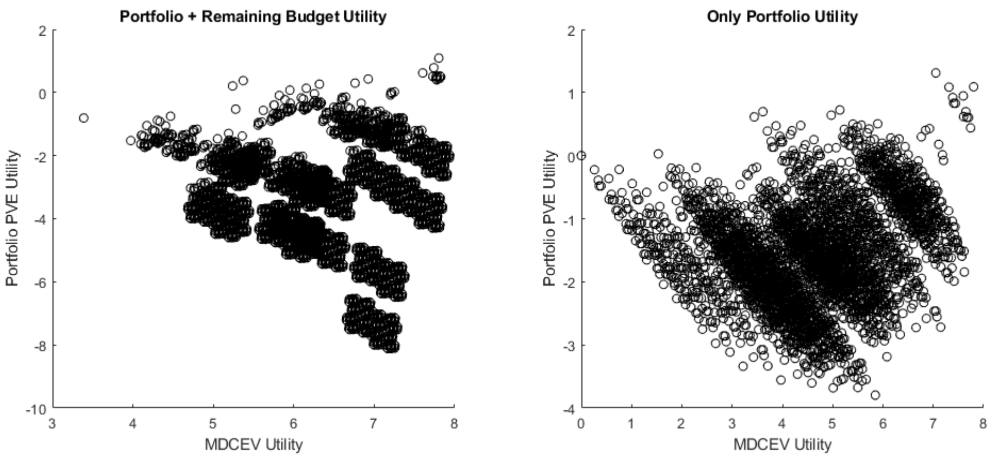


Figure 1: Comparison of predicted portfolio aggregate utility values

In order to investigate further, we analyse the top predicted portfolios under each approach, and additional rank correlation statistics to measure the similarity level of the ranking of all feasible portfolios between both approaches. Table 2 summarizes these results. We obtained a difference of 6 out of 16 (37.5%) included policies on each portfolio. In addition, the portfolio PVE model was less conservative in terms of exhausting the total public budget (100 million euros), in comparison of the MDCEV-based model (78 million euros). In terms of rank statistics, both the Kendall's tau and Spearman's rho coefficients are not statistically different from zero, suggesting a potential high dissimilarity between portfolio rankings in terms of aggregate utility.

Table 2: Top portfolio prediction. Portfolio and MDCEV-based PVE model

| **Projects** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **Cost** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 100 |
| MDCEV | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 78 |
| **Difference** | | **X** | | **X** | | | | | | | **X** | | | **X** | **X** | **X** | |
| **Rank Statistics (over all feasible portfolio combinations)** | | | | | | | | | | | | | | | | | |
| Kendall's tau | | | | | | | | | | -0.0198 | | | | | | | |
| | | | | | | | | | | (0.0583) | | | | | | | |
| Spearman's rho | | | | | | | | | | -0.0301 | | | | | | | |
| | | | | | | | | | | (0.0550) | | | | | | | |
| No. feasible portfolios | | | | | | | | | | 4057 | | | | | | | |

P-values in parenthesis. PM: Portfolio PVE model / MDCEV: MDCEV-based PVE

Considering this, we repeated the procedure to compute portfolio rankings but only considering only the utility that depends of individual policies, ignoring the budget shifting utility part. Results of the top-portfolio predictions and rank statistics are summarized in Table 3. Using this criterion, top portfolio predictions only vary by the inclusion/exclusion of project 4, and rank statistics suggest a small but different from zero similarity level between portfolio rankings.

Table 3: Top portfolio prediction. Portfolio and MDCEV-based PVE model (Only portfolio-dependent utility)

| **Projects** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **Cost** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 90 |
| MDCEV | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 100 |
| **Difference** | | | | **X** | | | | | | | | | | | | | |
| **Rank Statistics (over all feasible portfolio combinations)** | | | | | | | | | | | | | | | | | |
| Kendall's tau | | | | | | | | | | 0.0238 | | | | | | | |
| | | | | | | | | | | (0.0232) | | | | | | | |
| Spearman's rho | | | | | | | | | | 0.0353 | | | | | | | |
| | | | | | | | | | | (0.0245) | | | | | | | |
| No. feasible portfolios | | | | | | | | | | 4057 | | | | | | | |

P-values in parenthesis. PM: Portfolio PVE model / MDCEV: MDCEV-based PVE

## Discussion and Further Directions

In this study we compared two models of choice behaviour for PVE in terms of individuals' taste for policy impacts and portfolio predictions using collected data from a real experiment.

Both approaches deliver similar conclusions with respect to how individuals perceive policy impacts. However, we found a high level of dissimilarity between portfolio rankings of both modelling approaches. This dissimilarity slightly decreases when only the portfolio component of aggregate utility is considered, ignoring the (dis)utility of budget shifting. However, a high difference level still persists between predictions of each modelling approach.

Our results motivate further research on how each model captures preferences for portfolios and, more importantly, how preferences for keeping/expending public budget are treated. The evidence of dissimilarity between both approaches may imply a revision of aggregate utility as the metric to construct portfolio rankings, leading to consider refinements of the proposed utility functions and/or alternative criteria, such as using choice probabilities instead of aggregate utility. This latter proposal also opens a new research direction since it also allows to compare our proposed modelling approaches with data-driven methods that are not rooted on behavioural assumptions and decision rules.

## References


Bahamonde-Birke, F., & Mouter, N. (2019). *About positive and negative synergies of social projects: treating correlation in participatory value evaluation*.

Bhat, C. R. (2008). The multiple discrete-continuous extreme value (MDCEV) model: Role of utility function parameters, identification considerations, and model extensions. *Transportation Research Part B-Methodological, 42*(3), 274-303. doi:10.1016/j.trb.2007.06.002

Bhat, C. R. (2018). A new flexible multiple discrete-continuous extreme value (MDCEV) choice model. *Transportation Research Part B-Methodological, 110*, 261-279. doi:10.1016/j.trb.2018.02.011

Blamey, R., Common, M., & Quiggin, J. (1995). Respondents to contingent valuation surveys: Consumers or citizens? *Australian Journal of Agricultural Economics, 39*(3), 263-288. doi:10.1111/j.1467-8489.1995.tb00554.x

Boadway, R., & Bruce, N. (1984). *Welfare economics*. Oxford: Basil Blackwell

Costa-Font, J., & Rovira, J. (2005). Eliciting preferences for collectively financed health programmes: the ‘willingness to assign’ approach. *Applied Economics, 37*(14), 1571-1583. doi:10.1080/00036840500181695

Costa -Font, J., Forns, J. R., & Sato, A. (2015). Participatory health system priority setting: Evidence from a budget experiment. *Social Science & Medicine, 146*, 182-190. doi:10.1016/j.socscimed.2015.10.042

Curtis, J. A., & McConnell, K. E. (2002). The citizen versus consumer hypothesis: Evidence from a contingent valuation survey. *Australian Journal of Agricultural and Resource Economics, 46*(1), 69-83. doi:10.1111/1467-8489.00167

Dekker, T., Koster, P., & Mouter, N. (2019). The Economics of Participatory Value Evaluation. *SSRN Electronic Journal*. doi:10.2139/ssrn.3323645

McFadden, D. (1974). Conditional logit analysis of qualitative choice behavior.

Mouter, N., Koster, P., & Dekker, T. (2019a). An Introduction to Participatory Value Evaluation. *SSRN Electronic Journal*. doi:10.2139/ssrn.3358814

Mouter, N., Koster, P., & Dekker, T. (2019b). Participatory Value Evaluation: a novel method to evaluate future urban mobility investments.

Mouter, N., Van Cranenburgh, S., & Van Wee, B. (2017). Do individuals have different preferences as consumer and citizen? The trade-off between travel time and safety. *Transportation Research Part A: Policy and Practice, 106*, 333-349.

Nilsson, M., Jordan, A., Turnpenny, J., Hertin, J., Nykvist, B., & Russel, D. (2008). The use and non-use of policy appraisal tools in public policy making: an analysis of three European countries and the European Union. *Policy Sciences, 41*(4), 335-355. doi:10.1007/s11077-008-9071-1

Nyborg, K. (2000). Homo Economicus and Homo Politicus: interpretation and aggregation of environmental values. *Journal of Economic Behavior & Organization, 42*(3), 305-322. doi:10.1016/S0167-2681(00)00091-3

Nyborg, K. (2014). Project evaluation with democratic decision-making: What does cost–benefit analysis really measure? *Ecological Economics, 106*, 124-131. doi:10.1016/j.ecolecon.2014.07.009

Ovaskainen, V., & Kniivila, M. (2005). Consumer versus citizen preferences in contingent valuation: evidence on the role of question framing. *Australian Journal of Agricultural and Resource Economics, 49*(4), 379-394. doi:10.1111/j.1467-8489.2005.00309.x

Persky, J. (2001). Retrospectives: Cost-Benefit Analysis and the Classical Creed. *Journal of Economic Perspectives, 15*(4), 199-208. doi:10.1257/jep.15.4.199

Sagoff, M. (2007). *The economy of the earth: philosophy, law, and the environment*: Cambridge University Press.

Sunstein, C. R. (2005). Cost-Benefit Analysis and the Environment. *Ethics, 115*(2), 351-385.