



ELSEVIER

Contents lists available at ScienceDirect

Journal of Forest Economics

journal homepage: www.elsevier.com/locate/jfe



Testing the single opt-out reminder in choice experiments: An application to fuel break management in Spain

Elsa Varela^{a,b,*}, Pierre-Alexandre Mahieu^c,
Marek Giergiczny^d, Pere Riera^e, Mario Soliño^{f,a}

^a Sustainable Forest Management Research Institute, INIA-CIFOR & School of Agricultural Engineering of the University of Valladolid, Avda. Madrid s/n, 34004 Palencia, Spain

^b European Forest Institute, Mediterranean Regional Office, EFIMED, Recinte Històric de Sant Pau, Pavelló de Sant Leopold, St. Antoni M. Claret, 167, 08025 Barcelona, Spain

^c LEMNA, University of Nantes, 44 322 Nantes Cedex, France

^d Department of Economic Sciences, University of Warsaw, 00241 Warsaw, Poland

^e Autonomous University of Barcelona, Institut de Ciència i Tecnologia Ambientals, 08193 Bellaterra, Spain

^f National Institute for Agriculture and Food Research and Technology (INIA), Forest Research Centre (CIFOR), Ctra. de la Coruña, km. 7.5, 28040 Madrid, Spain

ARTICLE INFO

Article history:

Received 4 November 2013

Accepted 8 May 2014

Keywords:

Cheap talk

Discrete choice experiment

Random parameters models

Scale parameters

Wildfires

Willingness to pay

ABSTRACT

Cheap talk (CT) scripts have been broadly tested in contingent valuation studies to mitigate the effects of hypothetical bias. However, this approach may not fully be adequate when the individual is faced with several choices such as in discrete choice experiments (DCE) because the respondent may tend to forget about the CT script. This paper tests the effects of a single opt-out reminder (SOOR) to lower the hypothetical bias in a DCE dealing with the valuation of social preferences for forest fire prevention programs in Southern Spain. Results show that the inclusion of a SOOR does not contribute sufficiently to improve the CT effect on the DCE data.

© 2014 Department of Forest Economics, Swedish University of Agricultural Sciences, Umeå. Published by Elsevier GmbH. All rights reserved.

* Corresponding author at: European Forest Institute, Mediterranean Regional Office, EFIMED, Recinte Històric de Sant Pau, Pavelló de Sant Leopold, St. Antoni M. Claret, 167, 08025 Barcelona, Spain. Tel.: +34 677651616.

E-mail addresses: elsa.varela.r@gmail.com, elsa.varela@efi.int (E. Varela).

<http://dx.doi.org/10.1016/j.jfe.2014.05.001>

1104-6899/© 2014 Department of Forest Economics, Swedish University of Agricultural Sciences, Umeå. Published by Elsevier GmbH. All rights reserved.

Please cite this article in press as: Varela, E., et al., Testing the single opt-out reminder in choice experiments: An application to fuel break management in Spain. *J. Forest Econ.* (2014), <http://dx.doi.org/10.1016/j.jfe.2014.05.001>

Introduction

One major weakness of stated preference applications is the hypothetical bias (List and Gallet, 2001; Little and Berrens, 2004; Murphy et al., 2005), which corresponds to the discrepancy between hypothetical and real preferences. Cummings and Taylor (1999) proposed the cheap talk (CT) approach to mitigate this bias in contingent valuation (CV) studies. Just before the valuation question, a script describes the hypothetical bias to respondents who are expected to revise downward their willingness to pay (WTP). The use of this approach has some shortcomings. Among them, CT is not always effective at mitigating the hypothetical bias (Samnaliev et al., 2003; Nayga et al., 2006; Blumenschein et al., 2008). Furthermore, CT augments the length of the questionnaire, which can increase the cost of the survey and contribute to a fatigue effect.

Several studies have shown that hypothetical bias also seems to be present in discrete choice experiment (DCE) studies (List et al., 2006; Lusk and Schroeder, 2004; Broadbent et al., 2010; Ready et al., 2010) although there are relatively few discrete DCE studies that applied CT scripts compared to CV studies. The presence of the CT scripts can effectively reduce the hypothetical bias but it may also reduce the value respondents allocate to the different attributes (Carlsson et al., 2005). Moser et al. (2013) found that a neutral CT contributed to reduce, but not totally eliminate the bias. A possible explanation is that, due to the repeated choice nature of DCE, the respondents may forget about the CT script along the choices. To overcome this drawback, Ladenburg and Olsen (2010) included a CT reminder before each of the choices, which was called “opt-out reminder”.¹ They found that adding the opt-out reminder significantly reduced WTP for the proposed change and that this effect was significant over the entire price range. However, this approach can drastically increase the length of the questionnaire, especially when the number of choices is large. A possible variant of the “multiple opt-out reminder” (MOOR) by Ladenburg and Olsen (2010) consists of using a “single opt-out reminder” (SOOR). This may prevent the respondents forgetting about the main CT script, while avoiding a drastic increase of the questionnaire’s length.

In this paper, we test the effect of SOOR on responses in a DCE dealing with forest fires in Spain. Each respondent is faced with 16 choice sets, and the SOOR is placed just after the 8th choice. Unlike Ladenburg and Olsen (2010), we used a baseline subsample, which enabled us to test the effect of the CT and SOOR separately. Ladenburg and Olsen (2010) used two subsamples, both of them containing a CT script but differing in the presence/absence of the MOOR.

The remainder of the paper is structured as follows: the next section describes the econometric model, as well as the study area, the DCE attributes and the sampling strategy; in the results section, the different test performed and the models fitted with the results obtained from the DCE are presented; and the final section is devoted to discussion and conclusions.

Materials and methods

Discrete choice experiments

In DCEs individuals are asked to identify their preferred choice i among a given set of J alternatives. The data analysis follows a standard random utility maximization (RUM) model (McFadden, 1974), where the observed choice i from an individual n is the one she expects to provide her with the highest utility. Her utility function U_{ni} can be broken down into a systematic part, V_{ni} , and a stochastic part, ε_{ni} , such that:

$$U_{ni} = V_{ni} + \varepsilon_{ni} \tag{1}$$

The probability P_{ni} that a respondent chooses alternative i is

$$P_{ni} = \Pr(V_{ni} + \varepsilon_{ni} > V_{nj} + \varepsilon_{nj} \forall j \neq i) \tag{2}$$

¹ The opt-out reminder script was: “If both prices are higher than what you think your household would pay, you should choose the present situation”.

Download English Version:

<https://daneshyari.com/en/article/10251390>

Download Persian Version:

<https://daneshyari.com/article/10251390>

[Daneshyari.com](https://daneshyari.com)