Bordeaux 2016 Abstract Submission

**Title**

Sour grapes? - Characterizing consumers' tastes for table grapes in a choice experiment

**I want to submit an abstract for:**

Conference Presentation

**Corresponding Author**

Michael Ahlheim

**E-Mail**

ahlheim@uni-hohenheim.de

**Affiliation**

University of Hohenheim, Stuttgart

**Co-Author/s**

<table>
<thead>
<tr>
<th>Name</th>
<th>E-Mail</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neidhardt</td>
<td><a href="mailto:jan.neidhardt@uni-hohenheim.de">jan.neidhardt@uni-hohenheim.de</a></td>
<td>University of Hohenheim</td>
</tr>
</tbody>
</table>

**Keywords**

Table grapes, choice experiments, non-trading bias

**Research Question**

Characteristics of grape consumers? Which attributes of grapes do they prefer? How much are they willing to pay for them? How to eliminate non-trading behavior in CE to improve validity?

**Methods**

Choice experiments - regression analysis - online survey

**Results**

Grape consumers: financially better off, better educated, older, more satisfied with life. Preferred grapes: seedless, thin skin, positive reveratrol, little pesticides Non-traders: young, male, low education, protest beliefs, contradictory answering

**Abstract**

Why do people buy table grapes? Which characteristics of table grapes do they appreciate most? Which of them are decisive for consumers' purchasing decisions? Questions like this are analysed in this paper which is based on an online choice experiment with 1,000 participants. Besides these grape-related questions this paper also addresses a methodological problem of choice experiments, namely the problem that respondents sometimes avoid the intellectual effort of thoroughly considering the trade-offs between different alternatives that are the essence of every choice experiment, and tick instead the next best alternative without the necessary deliberation. This kind of behaviour which is called "non-trading" in the respective literature calls into question the validity of choice experiments. Summing up, we pursue two objectives in this study, an empirical objective
and a methodological objective.

Under the empirical aspect we are interested in the personal characteristics of rare as well as frequent consumers of table grapes on the one hand and in the attributes of table grapes that are decisive for the buying decision of consumers and for their willingness to pay for table grapes. In our survey we find that table grapes are bought more often by people who are financially better off, better educated, older and all-in-all more satisfied with their lives than the average participant of the survey.

In order to learn more about consumers' preferences with respect to the different properties of grapes we set up a choice experiment where consumers had the choice between different sorts of grapes which showed different degrees or levels of several attributes characterizing these grape sorts. The grape attributes of the choice experiment were selected after discussions with consumers, oenologists and other experts. We decided then to characterize the different versions of table grapes in our choice cards by the attributes “thickness of skin”, “grape size”, “number of seeds”, “level of resveratrol”, “number of treatments with pesticides per year” and “price per kilo”. For each of these attributes different levels were defined. Resveratrol is a stilbenoid naturally contained in grapes which is said to have a positive effect on human health. The attribute “number of treatments with pesticides” was included to assess the nonuse value of a reduced use of pesticides. The pesticides used in viticulture are typically not hazardous to consumers' health but they do harm to the ecosystems in areas adjacent to vineyards. Participants were informed on these negative effects of pesticide use on biodiversity prior to the choice experiment. The attribute “price per kilo” was included with the levels 1.99€, 2.99€, 3.99€, 4.99€, 5.99€ and 6.99€. We had conducted market research before starting the survey and had found that these price levels are realistic for the German grape market.

Based on this choice experiment we found that consumers like bigger or medium-sized grapes better than smaller ones and that they appreciate seedless grapes with a thin skin and with a positive resveratrol content which were treated with pesticides less frequently than a standard grape. These results were also confirmed by our analysis of the determinants of willingness to pay for whole grapes as well as for their single attributes. Regarding the methodological objective of our study we identify and characterize respondents who do not take the pain of carefully considering and comparing each alternative offered in the choice experiment, but instead always choose the same alternative across different choice cards. In our choice experiment each respondent was confronted with altogether six choice cards where each choice card consisted of two alternative versions of grapes and one no-buy option, i.e. of three choice options. We define as a "strong non-trader" a respondent who in all six choice cards always chooses the same option, e.g. the first one.

Besides the case of strong non-traders who chose the same grape option in all six choice cards we define also a weak category of non-trading where respondents chose the same option over either six or five choice cards. This weakening of our definition increases the total number of non-traders and makes our analysis richer, since we now have two different degrees of non-trading which make it possible to define for one of our regression models the "intensity" of non-trading as a dependent variable.

We formulate three different hypotheses regarding the motivation of non-trading behaviour: Our first hypothesis is that respondents were not interested in the questionnaire but only participated for extrinsic reasons, e.g. to earn a reward, and therefore hurry through the questionnaire without deeper consideration. Our second hypothesis is that respondents might have found the hypothetical situation they were confronted with not worthwhile considering, because they think that such surveys are of no consequence, anyway. Our third hypothesis is that respondents might find the many different versions of the same commodity they are confronted with, unrealistic. We test all three hypothesis in our study.

We run regression models with a number of sociodemographic and attitudinal characteristics as independent variables and strong and weak non-trading behaviour as dependent variables in order to detect certain indicators for the identification of non-traders in choice experiments. It is desirable to identify such non-traders and to eliminate them from the sample of a choice experiment because their answers do not reflect their true preferences. Since there is a certain probability that a respondent's true preferences lead her or him to always tick the same option in a series of choice cards, it is useful to have additional indicators for non-trading behaviour. In our study we found that non-trading behaviour is more likely to occur among younger males with a low education level who show protest beliefs regarding the impact of surveys and who give contradictory answers also to questions outside the choice experiment. It also showed that they take less time to answer the questionnaire than the average respondent. These indications might be helpful to identify non-traders and
eliminate them from the survey sample in order to improve the validity of choice experiments.