

A field experiment on norms and information about food choice visibility

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1 Long Abstract

1.1 Introduction

One of the largest factors among the many determining climate change is agriculture and especially the livestock sector accounts for 9% of global CO₂ emissions. The total consumption of meat has steadily increased in the last decade despite the surge of vegetarian and vegan diets, especially in the Western World¹.

The “social cost of meat” (Funke, 2022) has often been neglected by regulators who focus their attention to other sectors. Despite that, the externalities generated by the sector are many and have a large extent: carbon emissions, biodiversity losses and health issues are the three major external effects not internalized by the livestock sector.

¹Global meat production: <https://ourworldindata.org/meat-production>

Production-side intervention is often neglected for three reasons: concern about food security (Reisch, 2013), potential alteration of the competition equilibria and difficult measurability of externalities at the source (Wirsenius et al., 2011). Different farms, with different technologies (intensive or extensive farming) determine different and difficult-to-estimate externalities, especially in terms of CO₂ emissions and biodiversity losses. Despite the difficulties, some policies push the production system to be more sustainable (such as the Farm to Fork EU strategy). However, the potential for improvement is scarce and a reduction of the externalities can be quite small. As a consequence, the attention of the policymakers shifts to the demand-side: curbing the demand for CO₂-intensive meat and incentivize alternative nutrient-equivalent solutions.

Different approaches to curb meat consumption have been studied in the literature and others are in place worldwide. Meat taxes have been studied thoroughly, especially after the case of Denmark in 2011², (among the many, Wirsenius et al. 2010) and nowadays the United Kingdom started considering such approach to tackle the issue. Even though studies and discussion begun, the social acceptability of carbon taxes is very low, needless to say what could be the reaction of countries where meat consumption is culturally entrenched with daily routine and traditions. Bans are also highly considered in literature but this come to work only in specific circumstantial situations such as in public canteens.

Information instruments bring mixed outcomes: acknowledging individuals of the adverse impact of the meat production system increases consciousness but to drive a consistent behaviour change is necessary to consider and study the effect of information alongside the social norms in place. In the context of meat consumption, they are fostered by tradition, habits, reputation.

The neoclassical approach has often neglected the importance of sociality and how people in the market atmosphere behaves. Especially in the context of food consumption the role of social norms is capital. Within these boundaries the social image and reputation play a key role.

This work enters in the literature of behavioural law and economics aiming to address

²Denmark adopted in 2011 for the first time a tax that was aimed at reducing the consumption of meat and dairy products.

the role of social norms and information about the observability of food choices. We investigated the impact of observability on food choices of participants of the EAERE 2022 Conference held in Rimini in a field experimental setup and analyse potential heterogeneity in the intervention effects. Making visibility of individual's actions more salient provides an interesting test field both from a positive and normative perspective.

1.2 The experiment

The experiment is a Randomized Controlled Trial (RCT), based on the registration form for the conference. Each participant filling the registration form of the conference had to decide which type of lunch they would want at the conference among three options: meat/fish, vegetarian or vegan dishes. There were three lunches during the whole conference time. Registrants were randomly allocated in two groups, a control and a treatment group. On the one hand, the treatment group registrants received the information that their choice of food consumption will be more salient at the conference venue through colour-coding on their badges. On the other hand, the control group did not receive peculiar information about the visibility of their choices. Each participant from the control group sees the following text appearing before they have to make a decision: "For organizational purposes, we kindly ask you to indicate which type of lunch you would like to receive during the days of the Conference.". While the treated participant sees the following text instead: "For organizational purposes, we kindly ask you to indicate which type of lunch you would like to receive during the days of the Conference. Please note that we will show the selected colors on your conference name tag and the meal boxes to facilitate meal delivery." No other information or elements were added during the registration process other than the request to approve the use of personal data in accordance with GDPR rules. The decisions taken were then implemented at the conference: each participant received a badge to enter the venue and each badge displayed three rounded stamps representing the meal selected during the registration phase. One coloured-stamp for each lunch at the three-day conference. The colours were reddish for meat/fish, blue for vegetarian and green for vegan. Lastly, following the end of the conference, a survey was sent from the EAERE to all the attendees and some specific questions were included

to support the validity of the experiment.

1.3 Hypotheses

Several hypotheses were pre-registered on the American Economic Association's registry for randomized controlled trials³. All the hypotheses are supported by theoretical and empirical literature. The first hypothesis is about the main treatment effect. We hypothesize that:

HP1: *Treated participants consistently choose more sustainable food options than the ones in the control group.*

The secondary level hypotheses are interactions between the treatment effect and control variables. In brief, we expect that:

HP2: *Women react more to the treatment than men;*

HP3: *Young participants react more than old participants;*

HP4: *Ph.D. students react more than professors;*

HP5: *The social norm in the country of origin affects treated participants: the higher the average level of meat consumption in their respective country, the more normal and socially appropriate the participants are likely to perceive meat-eating to be.*

1.4 Summary of the main results

We found that the main hypothesis is rejected since the food choices of the do not largely diverge between treated and non-treated participants. Overall, women do not react more than men, in a significant manner. However, women receiving the information about observability are more likely to choose three times vegan choice than non treated women. Ph.D. students have a smaller environmental footprint than senior academics but the treatment does not generate a statistical effect. Finally, the social norms affect treated participants: registrants from countries with higher average meat consumption are more prone to choose three times meat lunches than non treated and the opposite holds statistically for registrants from countries with lower level of meat consumption.

³The pre-registered hypotheses at: <https://www.socialscienceregistry.org/trials/9461>

References

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