Pre-analysis plan for study “Observability in food choices”

June 2022

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1. Introduction

Meat production constitutes one of the drivers of global greenhouse gas emissions that are causing climate change. Although financial instruments such as taxes have been identified as potentially effective in reducing the greenhouse gas impact of diets, their political acceptance may be limited. Food choice has been recognized as a complex behavior influenced by a multitude of factors such as taste, habit, norms, and many more. In this project, we focus our attention on an element that has been investigated little so far, but which potentially has a significant effect on consumption choices: the social observability of individual consumption choices and the related potential to present oneself as a responsible consumer concerned with environmental protection and animal welfare. We investigate the impact of observability on food choices of participants of a conference in a field experimental setup and analyze potential heterogeneity in the intervention effects.

We run a randomized controlled trial based on the information about observability of the food choices at the Annual Conference of the European Association of Environmental and Resource Economists 2022 in Rimini. During the registration phase for the conference, participants randomly receive the information that their choice of food consumption will be more salient at the conference venue through colour-coding on their badges. The experiment aims to verify whether treated participants consistently choose more sustainable food options than the ones in the control group.

The European Association of Environmental and Resource Economists is a collaborator for the randomization and the collection of data once made available through consent forms by the participants.

The structure of the document is as follows. Section 2 describes the design in detail. Section 3 clarifies the data sources and the collection technique through randomization. Section 4 explains the outcome variables and how the group variables are generated. In Section 5 we present the hypotheses and the statistical tests and in Section 6, we report results from some preliminary power analyses.

2. Experimental design

The project is composed of the collection of registrations at the Annual Conference of the EAERE and then the conference takes place. The registration for the conference started on March 15th and lasts until the day of the conference. People filling out the registration form have to decide which food they want to eat during the three lunches of the conference. Their choice can be threefold for each lunch: they can eat a fish or meat dish, a vegetarian dish or a vegan dish. No other specification is given about the food (i.e. allergies). As discussed later in section 3, participants are randomly sorted into a control group and a treatment group.

The control participant 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.".*

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."*

The text displayed is visible in Appendix A.

At the conference, each participant receives a badge to enter the venue that shows the colour for each lunch at the three-day conference.

At the end of the conference, The EAERE traditionally sends a survey to all the attendees to ask for feedback regarding the course of the event. For the 2022 Conference, we included a few questions included in Appendix B to enrich the analysis. The answers cannot be matched with the registration data, but still, they will provide useful insights into the behavior of participants at the conference. For instance, it will be possible to ask what type of diet they have or whether they noticed the label on their own and others' badges.

3. Data sources and randomization methodology

Data is collected by the EAERE website for the Annual Conference. The registrants fill out the form and can tick the informed consent to give their data for research purposes. As a matter of fact not all the participants at the Conference might give their consent and it is not possible to use their data as established by the GDPR provisions.

Data is collected at the individual level and there is no stratification in the randomization process. The randomization takes place automatically through the registration platform. We expect to have half of the participants belonging to the control group and the other half in the treatment group.

4. Data preparation

a. Variable construction

From the multinomial 'food choice' variable, a binary variable named 'meatless food choice' will be derived. This variable takes the value 1 if participants choose a vegan or vegetarian meal and 0 if they choose the meat/fish option. This captures the fact that a meal including meat or fish is seen as the norm in many cultures and allows for an investigation of whether participants do or do not deviate from this option.

An additional derived outcome variable serves to account for the fact that the three choices made by one and the same subject are likely not independent of one another, but reflect some common unobservable preferences. This variable, termed *personal food score*, is derived by assigning 1 point for a meat/fish choice, 0.5 points for a vegetarian choice and 0 points for a vegan choice. This way, each subject's personal food score will represent a value between 0 and 3 that captures the 'animal intensity' of their choices, with higher values representing higher animal intensity. 3.

While the score makes the three choices of each participant comparable, it necessarily involves some weighting of the different options against one another. Therefore, three additional count variables are derived for each subject that capture the amount of vegan, vegetarian and meat/fish choices an individual makes (and therefore also range between 0 and 3). This way, both the interdependence of choices made by a single person as well as the difficulty of comparing different options to one another (e.g., are two vegetarian choices more animal-intensive than one vegan and one meat choice?) are accounted for.

Deriving these different variables allows us to analyze the robustness of identified effects to different specifications of the outcome variable and enables a more fine-grained analysis of the effects that may drive whether and how often a specific option is chosen by each subject.

Summary:

Variable name	Variable type	Level	Admitted values	Composition
food choice	Multinomial / ordinal	observation	meat/fish; vegetarian; vegan	
meatless food choice	binary	observation	0 and 1	Pooling of vegan and vegetarian to 1, while meat/fish constitutes 0
personal food score	Ordinal / continuous	subject	0 to 3 in 0.5 increments	Sum of points for three food choices; 1 for meat, 0.5 for vegetarian and 0 for vegan
vegan count	count	subject	Integers ranging from 0 to 3	Amount of vegan food choices
vegetarian count	count	subject	Integers ranging from 0 to 3	Amount of vegetarian food choices
meat count	count	subject	Integers ranging from 0 to 3	Amount of meat food choices

Table 1. Summary of variables constructed

b. Control variables

We elicit a number of control variables to include in our regression analyses in order to identify potential heterogeneous treatment effects. These control variables include a number

of variables relating to the participating subject itself, such as gender, year of birth, country of residence, topic of the scientific presentation (if the attendant is a presenter), and academic title as a measure of seniority. In addition, we derive a variable identifying the number of participants to the conference that come from the same institution as the subject as a proxy for the number of close social contacts the subject has, as this may raise the social pressure to choose environmentally friendly lunch options. Also, we plan to match data on country-level average meat consumption from the Food and Agriculture Organization of the United Nations' (FAO) database to our dataset. This serves as a proxy for the social descriptive norms that a subject is usually exposed to, which may guide their assessment of which lunch option is considered socially appropriate by other conference attendants.
Table 2 provides an overview of the elicited and added control variables, their description and origin:

Variable	Description	Origin
Gender	Gender of subject	Dataset
Affiliation category	Affiliation category of subject (University, Research Institution, Company, Government, or Other)	Dataset
Affiliation	Institution with which the subject is affiliated	Dataset
Year of birth	Year of birth of subject	Dataset
Title	Indicated title of subject (Prof., Dr., or Mr./Ms.)	Dataset
Country	Country of residence of subject	Dataset
Topics of work	Topics on which subject is generally working, self-indicated	Dataset
Presenter	Indicates whether subject presents own work at the conference (Yes or No)	Dataset
Presentation topic / keyword	Topics of presented work at the conference	Dataset
Registration date	Date of registration according to timestamp	Dataset
Age	Age or subjects, based on year of birth	Dataset, derived

Number of attendants from the same institution	Number of observations with the same value for Affiliation as the subject themselves	Dataset, derived
Country-level average meat consumption	Mean amount of food supply quantity of meat products in the last available year	FAO Food Balances database

Table 2. Control variables

5. Hypotheses and data analysis

In this part, we define our hypotheses and the statistical analyses we will employ to test them. We preregister 2 hypotheses based on the theoretical and empirical literature, with Hypothesis 1 concerning the full sample and Hypothesis 2 relating to interaction effects with gender, which may moderate how subjects react to the visibility of their choices. In addition, we preregister several exploratory analyses concerning interaction effects for which the literature does not provide a sufficient basis to make clear predictions.

a) Preregistered Hypotheses

Hypothesis 1: Main treatment effects

We hypothesize that subjects in the treatment group (i.e., subjects who were informed that their lunch choices would be displayed on their conference badge) will make more meatless food choices than subjects in the control group. Specifically, we predict that:

1a) $p_T(Y = Vegan) > p_C(Y = Vegan)$

1b) $p_T(Y = Vegetarian) > p_C(Y = Vegetarian)$

1c) $p_T(Y = Meat) > p_C(Y = Meat)$

where *p* denotes probability, the index *T* denotes the Treatment group, index *C* denotes the Control group and Y denotes the outcome variable *food choice*. We will derive some first evidence on these hypotheses based on nonparametric X^2-tests. We acknowledge the fact that the resulting p-value may be inflated if the three choices each subject makes are not independent from one another, which seems likely. We will further analyze the food choice in logistic regressions and account for potential interdependence by clustering standard errors at the subject level. As an additional robustness check, we perform analyses on our derived subject-level variables as described below. As our dependent variable *food choice* is categorical, but with a natural ordering concerning the sustainability of each choice option, both a multinomial logistic regression model and an ordinal logistic regression model seem applicable. We will conduct both but likely focus on the multinomial model as it allows for more fine-grained analysis.

The application of our hypothesis to the derived alternative outcome variables is straightforward based on their coding and summarized in Table 3, along with the statistical analyses we will perform to test them:

Variable	Hypothesis	Statistical analysis
meatless food choice	$p_T(Y = 1) > p_C(Y = 1)$	X^2-test Binary logistic regression
personal food score	$Y_T < Y_C$	Mann-Whitney-U test Bootstrap technique Tobit regression
vegan count	$Y_T > Y_C$	Mann-Whitney U test Poisson regression Negative binomial regression
vegetarian count	$Y_T > Y_C$	Mann-Whitney U test Poisson regression Negative binomial regression
meat count	$Y_T < Y_C$	Mann-Whitney U test Poisson regression Negative binomial regression

Table 3. Hypothesis 1 declinations and statistical tests

All regression analyses will be performed with standard errors clustered at the subject level, specified once with interaction effects as described in the part below and once without interaction effects.

Hypothesis 2: Treatment effects and gender

We additionally hypothesize that female subjects will react more strongly to the intervention, i.e. that the increase in meatless lunch choices in the treatment group (relative to the control group) will be larger for females than for males. This hypothesis is based on research showing that traditionally, gender norms favour meat-eating among males stronger than they do among females (e.g. Ruby and Heine 2011) and experimental evidence from a recent working paper on observability and food choice among students (Dannenberg and Weingärtner 2022). Specifically, we predict that:

2a) $p_{T,F}(Y = Vegan) - p_{C,F}(Y = Vegan) > p_{T,M}(Y = Vegan) - p_{C,M}(Y = Vegan)$

2b)
$p_{T,F}(Y = Vegetarian) - p_{C,F}(Y = Vegetarian) > p_{T,M}(Y = Vegetarian) - p_{C,M}(Y = Vegetarian)$
2c) $p_{T,F}(Y = Meat) - p_{C,F}(Y = Meat) < p_{T,M}(Y = Meat) - p_{C,M}(Y = Meat)$

Where *p* denotes probability, the index *T* denotes the Treatment group, index *C* denotes the Control group, index *F* denotes female participants, index *M* denotes male participants and Y denotes the outcome variable *food choice.* We will test these predictions by including an interaction term between the treatment variable and gender as a control variable. As the interpretation of interaction terms in nonlinear models is not straightforward (Mize 2019), we will test our hypothesis based on second differences in predicted probabilities with the *mlincom*-command in Stata (Long & Freese 2014).

For the derived alternative outcome variables, it follows:

Variable	Hypothesis
meatless food choice	$p_{T,F}(Y = 1) - p_{C,F}(Y = 1) > p_{T,M}(Y = 1) - p_{C,M}(Y = 1)$
personal food score	$Y_{T,F} - Y_{C,F} < Y_{T,M} - Y_{C,M}$
vegan count	$Y_{T,F} - Y_{C,F} > Y_{T,M} - Y_{C,M}$
vegetarian count	$Y_{T,F} - Y_{C,F} > Y_{T,M} - Y_{C,M}$
meat count	$Y_{T,F} - Y_{C,F} > Y_{T,M} - Y_{C,M}$

Table 4. Hypothesis 2 declinations

Analogous to the *food choice* analysis, the hypotheses will be tested for these derived outcome variables by including interaction terms in the regression models as specified in Table 4 and post estimation calculations of second differences between treatment and gender. It should be noted that female and male participants at the conference may also differ in other respects, so potential interaction effects could partly reflect the impact of other, partly unobservable factors that cannot be controlled for in the regression. Analyzing whether male and female subjects in our sample are similar in terms of our observed control variables will likely give us a first indication of whether this is an issue, and we will discuss our findings keeping this limitation in mind.

b) Exploratory analyses

We plan to conduct some additional exploratory analyses to test for possible heterogeneous treatment effects and interaction effects. Here, we describe which variables will be analyzed with regard to such potential effects and present some brief ideas on how and why treatment effects could differ across different levels of these variables. As is the case for gender, these variables are not randomized and subjects who differ with respect to one variable may also differ in other (partly unobservable and therefore non-controllable) respects. Nevertheless, we believe that these exploratory analyses may offer some first indications of which factors moderate the relationship between social image concerns and food choice.

Treatment effect and Age

We aim to explore whether the participants' age (derived from subjects' birth year) moderates the effect that the treatment has on the outcome variables. Previous research has shown that young people are more likely to follow a vegan or vegetarian diet, which suggests that they will also be more likely to choose meatless lunches at the conference. In addition, being exposed to peers who eat relatively less meat may affect young people's norms in that they perceive it as less socially appropriate to eat meat than older people do. Therefore, we expect that the treatment will increase meatless choices among younger subjects more than they do among older subjects.This will be analyzed both with age as a continuous variable and by creating a binary variable that assigns the value 1 to subjects aged less than 40 and 0 otherwise. Additionally, we also split the population at the median age creating a binary variable for younger and older participants.

Treatment effect and title of the participants

By considering the multinomial variable *title* we aim to explore whether having a different title affects the decision under treatment. Established researchers (i.e. Professors and Doctors) may feel less of a need to present themselves favourably as they potentially already have high social status in the group. At the same time, it is more likely for these advanced researchers to remain in environmental economics than for PhD students who might choose jobs outside of academia. If other conference participants are relatively more important as a social group to advanced researchers than to those without an academic title, these advanced researchers may actually have a higher incentive to improve their social image by choosing environmentally friendly lunch options.

Treatment effect, topics of work and presentation topic

Another interesting analysis may present itself by studying the relationship between the topics a subject works on and treatment effects. As some conference participants work on food choice and agriculture, they likely have a higher knowledge of the environmental impact different diets have, which may translate into more sustainable choices. In addition, this may affect the extent to which subjects respond to the intervention, especially for the presentation topic: Someone who presents a paper related to food and agriculture at the conference may be perceived as hypocritical when doing so by wearing a badge that shows they chose three lunches including meat/fish, leading to an increased motivation to choose meatless options when receiving the intervention.

Treatment effect and being a presenter

Since the colour-coding is visible on the badge, each presentation is a clou event in which the attendees have the opportunity to look consistently at the presenter. Therefore, being a presenter at the conference makes the badge more visible to large crowds. We can hypothesize that observability in this context is higher and, therefore, presenters will register a stronger treatment effect than non-presenters.

Treatment effect and registration date
This analysis allows us to verify whether the treatment effects change over time. For example, the date of registration might affect the decision since the early registrees make a decision far in time about their diet, while others, closer to the conference, take a decision that is quite imminent. Previous research on food choice shows that the further away from the consequence of a decision, the easier it is to choose healthily (Read and Van Leeuwen, 1998). This may also translate to choosing sustainably.

Treatment effect and number of attendants from the same institution
The more the participants from the same institution and the more prominent is the observability of each one's decision. Additionally, the commitment to a vegetarian and vegan diet can also arise by group discussion during normal work activities. As a consequence, this can translate into a stronger treatment effect when the number of attendants from the same institution is higher.

Treatment effect and country-level average meat consumption
Although the participants of the conference are not a representative sample of their respective nations, the average amount of meat that people from their country consume may predict the food choices they make. Also, 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. We, therefore, assume that the treatment increases veggie choices less for people from countries with high average meat consumption.

Analysis of post-conference questionnaire

In addition to the variables that are elicited during participants' registration to the EAERE conference, we are able to include some questions in a survey that the EAERE sends out after the conference. While it is not possible for us to match subjects' answers in this questionnaire to their data from the registration in line with data protection, it enables us to derive some information about the conference participants and their perception of the intervention.

The first objective of this analysis is to check whether the participants noticed that an experiment was delivered during the registration phase (Q1).
Secondly, we aim to verify whether participants knew about the visibility of their choices during the registration (Q6). This shows us whether registrees actually noticed the intervention and therefore whether it was successful. This value can imperfectly show what is the % replying informed (treated) and if this is distributed equally between participants belonging to control and treatment groups. This value still lacks of certainty because responses might be affected by wrongful memories during the registration process.
Answers to question 7 represent a proxy for the treatment effect. This value will be compared qualitatively with the results of Hypothesis 1. Similarly, Hypothesis 2 can be analysed qualitatively given the responses to Q7 and the gender stated in the post-conference questionnaire.

In more exploratory terms, answers are then analysed by crossing them to establish evidence of how much the experiment and the colour-coded badges affected participants' attitudes towards the topic ‘food’. For instance, it will be possible to verify whether the prior knowledge about the colour-coding of badges (Q1, Q6 and Q7) is correlated with how much participants talked about food choices (Q4) and dietary preferences (Q5) at the conference. Talking about food choices and dietary preferences are verified against how much participants liked/disliked having the choices printed on the conference badge. Additionally, it will be examined whether gender influenced the attitudes toward the badge and topics of discussion at the conference. These data can provide us with some qualitative insights into how the subjects perceived the intervention and what drives potential effects that we find.

6. Power calculation

In order to assess how likely it is that our analyses will identify an effect as statistically significant if it exists, we report results from several power analyses. As we cannot influence the number of participants to the conference and therefore the number of subjects (and observations), we choose to report minimum detectable effects sizes as a measure of power, based on an upper and lower estimate of the likely number of observations. These estimates are based on the number of attendants who registered for participation in person as of one week before the registration deadline (702). Assuming that this number will not grow considerably over the last two weeks of registration and that about 70% of attendants consent for their data to be used for research purposes, we take 500 subjects (1.500 observations) as a lower bound estimate. Assuming that 100 more attendants will register within the last two weeks and a consent rate of 80% yields an upper bound estimate of 640 subjects (1.920 observations) for our experiment.

We start by reporting minimum detectable effect sizes for a chi-squared test of independence between our ‘natural’ outcome variable *food choice* and our treatment variable. The assessment of power is somewhat complicated by the fact that each subject makes three choices which are likely not independent from one another. In fact, we assume that a high share of subjects will make consistent choices (i.e. three identical lunch choices), but some may also choose different lunch options for different days.

As we are not aware of a power analysis method specifically suited to our design, we report results from two different, simplified analyses: in the first one, we treat each food choice as a single observation and disregard the fact that three choices are made by one and the same subject. In the second one, we assume that all subjects make perfectly consistent choices and that their food choices can therefore be represented as one single categorical observation. This will likely give us a more conservative estimate of the minimum effect size we can detect if we account for non-independence of the three choices of a single subject.

Below, we report the results of the first (left columns) and the second (right columns) analysis. As our outcome variable *food choice* is a categorical variable, the minimum detectable effect size of the treatment can be expressed as the smallest difference in proportions of either choice option (vegan, vegetarian, or meat/fish) between the treatment and control group that can be expected. This smallest detectable difference in proportions depends on the base proportion in the control group, which is why we report results for a number of potential base proportions. Instead of the smallest detectable difference, we directly report the maximum choice proportion in the experimental group we can identify as significant (with α = 0.05) with 80% power if there is a negative treatment effect and the minimum choice proportion we can identify as significant if there is a positive effect. Blue numbers are the results of a calculation with our lower estimate of sample size, while orange numbers are the results for our upper estimate of sample size.

Power Analysis for three observations per subject assumed to be independent n=1.500 n=1.920			Power Analysis for three consistent choices per subject collapsed to one observation n=500 n=640		
Base proportion of choice option in control group	Highest identifiable proportion in experimental group (negative effect)	Lowest identifiable proportion in experimental group (positive effect)	Base proportion of choice option in control group	Highest identifiable proportion in experimental group (negative effect)	Lowest identifiable proportion in experimental group (positive effect)
0.01		0.030 / 0.027	0.01		0.054 / 0.047
0.05	0.023 / 0.026	0.086 / 0.082	0.05	0.008 / 0.012	0.120 / 0.110
0.10	0.061 / 0.065	0.148 / 0.142	0.10	0.037 / 0.043	0.188 / 0.176
0.15	0.102 / 0.107	0.205 / 0.199	0.15	0.072 / 0.080	0.250 / 0.237
0.20	0.145 / 0.151	0.261 / 0.254	0.20	0.110 / 0.119	0.309 / 0.295
0.25	0.190 / 0.197	0.315 / 0.307	0.25	0.150 / 0.161	0.365 / 0.351
0.30	0.236 / 0.243	0.368 / 0.360	0.30	0.192 / 0.204	0.420 / 0.406
0.35	0.283 / 0.290	0.420 / 0.412	0.35	0.236 / 0.249	0.473 / 0.459
0.40	0.330 / 0.338	0.472 / 0.463	0.40	0.282 / 0.295	0.525 / 0.510
0.45	0.379 / 0.387	0.522 / 0.514	0.45	0.328 / 0.342	0.575 / 0.561
0.50	0.428 / 0.436	0.572 / 0.564	0.50	0.376 / 0.390	0.624 / 0.610
0.55	0.478 / 0.486	0.621 / 0.613	0.55	0.425 / 0.440	0.672 / 0.658
0.60	0.528 / 0.537	0.670 / 0.662	0.60	0.475 / 0.490	0.719 / 0.705
0.65	0.580 / 0.588	0.717 / 0.710	0.65	0.527 / 0.542	0.764 / 0.751
0.70	0.632 / 0.640	0.764 / 0.757	0.70	0.580 / 0.594	0.808 / 0.796
0.75	0.685 / 0.693	0.810 / 0.803	0.75	0.635 / 0.649	0.850 / 0.839
0.80	0.739 / 0.747	0.855 / 0.849	0.80	0.691 / 0.705	0.890 / 0.881

0.85	0.795 / 0.802	0.898 / 0.893	0.85	0.750 / 0.763	0.929 / 0.921
0.90	0.852 / 0.858	0.939 / 0.935	0.90	0.812 / 0.824	0.963 / 0.957
0.95	0.914 / 0.918	0.977 / 0.974	0.95	0.880 / 0.890	0.992 / 0.988
0.99	0.970 / 0.973		0.99	0.946 / 0.953	

Table 5. Power calculation per each base proportion in the control group.

Table 5 shows that even rather small differences in choice proportions between control and treatment group can be detected as significant with 80% power when assuming that subjects' choices are independent from one another. Applying the more conservative estimates in the right column shows that when accounting for interdependence, larger differences become necessary in order to be identifiable with 80% power, but these larger differences still seem realistic. For example, if 30% of participants in the control group choose vegetarian three vegetarian lunches, we would be able to detect a significant difference with 80% power if participants in the treatment group have a 12 percentage point higher likelihood of choosing vegetarian lunches, assuming the lower estimate for our sample size.

Regarding the derived variables on the subject level that circumvent the problem of interdependence of three choices, we can compute minimum detectable effect sizes for Mann-Whitney-U tests comparing the treatment group mean to the control group mean. We report minimum detectable effect sizes based on 80% power and a 5% significance level as Cohen's *d* from one-sided and two-sided calculations with G*Power 3 (Faul et al. 2007, 2009) in Table 6. While it is not possible to convert values of Cohen's *d* to detectable differences in means without knowledge of standard deviations, the conventional categorization of values of *d* into small, medium and large effects gives us a first indication of the rough size of the difference we are able to detect.

Assumed n	One-sided	Two-sided
	Minimum detectable effect size (Cohen's) *d*	
500	0.228	0.257
640	0.201	0.227

Table 6. Minimum detectable effect size for Mann-Whitney-U test

Table X shows that the minimum detectable effect size ranges from 0.201 to 0.257, depending on the assumed sample size and whether we employ one-sided or two-sided tests. A value of d = 0.20 is generally defined as a small effect size, while a value of 0.50 is defined as a medium effect size (Cohen, 1992). This implies that we are able to detect small to medium differences in means between the treatment and control group when employing Mann-Whitney-U tests for the variables *personal food score*, *vegan score*, *vegetarian score*, and *meat score*.

7. References

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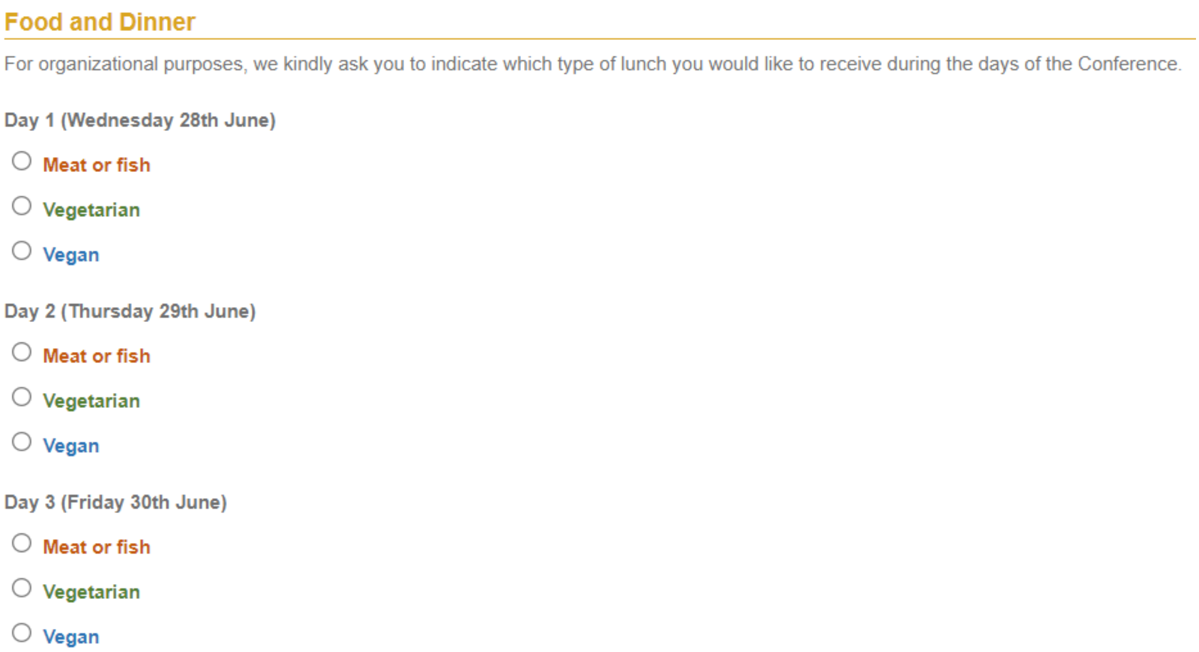
8. Appendix

a. Text displayed in the registration phase to the control group



Food and Dinner

For organizational purposes, we kindly ask you to indicate which type of lunch you would like to receive during the days of the Conference.

Day 1 (Wednesday 28th June)

- ○ Meat or fish
- ○ Vegetarian
- ○ Vegan

Day 2 (Thursday 29th June)

- ○ Meat or fish
- ○ Vegetarian
- ○ Vegan

Day 3 (Friday 30th June)

- ○ Meat or fish
- ○ Vegetarian
- ○ Vegan

b. Post-intervention survey

1. Did you notice that an experiment on lunch choices was included in the registration to the conference?

2. How much did you like/dislike having your lunch choices printed onto the conference badge, from 1 (Disliked a lot) to 5 (Liked a lot)?

   1 ▢ 2 ▢ 3 ▢ 4 ▢ 5 ▢

3. How much did you notice others' food preferences as signalled on their badge, from 1 (not at all) to 5 (a lot)?

   1 ▢ 2 ▢ 3 ▢ 4 ▢ 5 ▢

4. How frequently did you talk about the food choices indicated on your badge and others' badges, from 1 (not at all) to 5 (a lot)?

   1 ▢ 2 ▢ 3 ▢ 4 ▢ 5 ▢

5. How frequently did you talk about food choices and dietary preferences in general with other conference participants, from 1 (not at all) to 5 (a lot)?

   1 ▢ 2 ▢ 3 ▢ 4 ▢ 5 ▢

6. Did you know when you chose your lunch meals during the registration that your choices would be visible on your conference badge?
   a. Yes
   b. No
   c. I am not sure

7. [If 6=Yes] Did this knowledge impact your choice of lunch?
   a. Yes
   b. No