

Analysis Plan: Language and PEB – Within-Language Study

Main model specifications

We will use the following OLS regression model to analyze the effect of strong vs. weak-FTR in German (future tense marking vs. present tense marking) on pro-environmental behavior measured by the number of planted trees.

The model takes the following form: $Y = (FTR, X)$,

where Y is our main outcome of interest: the number of planted trees by study participants. FTR is the treatment dummy variable that takes value 1 if weak-FTR markers are used and 0 if strong-FTR markers are used. X is a vector of control variables. In all model specifications, causal inference is based on heteroscedasticity robust standard errors clustered on individual level. In addition, we will use survey-based pro-environmental intentions as a secondary outcome variable.

We will exclude subjects that:

- do not complete the task within 60 minutes of starting;
- exit and then re-enter the task as a new subject (as these individuals might see multiple treatments);
- are not approved for any other reason (e.g. not having a valid ID);
- fail crucial attention checks
- do not answer the control question correctly
- do not believe in climate change
- do not believe in the positive impact of planting trees as climate change mitigation measure
- those who do not have German as a mother tongue

Furthermore, we will analyze the data once with and once without participants who have weak pro-environmental attitudes. Environmental attitudes are measured with 6 items on a numerical 5-point Likert scale. Weak pro-environmental attitudes are present if the mean of these 6 items is less than 3.

Robustness checks

We investigate sensitivity of our main results by running multiple regression models. We examine whether the estimates change when we control for gender, age, income, education, culture, and political attitudes.

In addition, we investigate sensitivity of our main results to the German language and culture. Thus, we control for several language dummies (mother tongue, bilingual), self-assessed German language skills and frequency of the use of German, country of residence, country of birth and the corresponding information about years of living in the respective country. As a robustness check, we will also do an analysis with the formerly excluded data of those who do not believe in climate change and those who do not believe in the positive impact of planting trees. The same approach will be followed for those who indicated another mother tongue than German.

In the case of an unbalanced sample with respect to any of the control variables, we will control for those variables where the treatment groups differ significantly even in our main specifications.