

# Sustainable Consumption and Prosocial Actions

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## ACADEMIC THESIS

Which has been duly authorized for defense in pursuit of the PhD degree  
at the School of Business, Economics and Law, University of Gothenburg,  
to be presented for public examination  
Thursday the 17<sup>th</sup> of August, at 1:15, pm, in lecture hall E44. Department  
of Economics, Vasagatan 1

Göteborg 2023

## Abstracts

### **Do carbon labels cause consumers to reduce their emissions? Evidence from a large-scale natural experiment**

In this paper, I use consumer transaction data from two supermarkets to study if carbon labels cause consumers to reduce their grocery carbon emissions. I exploit a difference-in-difference setting where one supermarket unexpectedly, from one day to the next, introduced labels on around 3000 products with their carbon footprint, while another similar supermarket did not. My sample includes more than 30,000 consumers making 400,000 orders, and I follow them up to one year post-treatment. I find an average reduction in total emissions of around 2.5 percent from informing consumers about the products' carbon emissions, which corresponds to about 1.4 kg CO<sub>2</sub> less per order. This effect size is smaller than found in most other studies based on lab or field experiments, but still economically meaningful. It corresponds to estimates in the literature of a carbon tax on meat and dairy products of about 20\$ per tonne CO<sub>2</sub>. The main driver was that customers in the treated store reduced their beef consumption by 8-16 percent and increased their consumption of products with a lower carbon footprint, such as pork, poultry, and vegetarian products.

**Keywords:** Consumer Economics, Empirical Analysis, Environment, Climate

**JEL codes:** D12, F64, Q54

### **Combining monetary incentives and nudges to promote green consumption: Evidence from a large-scale natural experiment**

In this paper, I study a large-scale natural experiment where a supermarket, without prior announcement, increased the bonus points on fruit and vegetables and labeled them as "good deeds." The additional bonus points function as an equivalent price reduction of 0.6-2%, and the labeling provides a normative nudge on fruit and vegetables as environmentally friendly products. I use panel data that cover more than 40,000 consumers who place over 800,000 orders several months prior to the implementation of the bonus, throughout the entire year when the bonus is in place, and for several months after the bonus has been removed. The results indicate a larger consumer response than expected solely on the basis of the monetary incentive. The bonus program increased overall fruit and vegetable consumption by, on average, 6-9% per order. I further find no evidence that increasing the monetary incentive from an equivalent price reduction of 0.6% to 2% had any additional impact on consumption.

**Keywords:** Consumer Economics, Empirical Analysis, Environment, Climate

**JEL codes:** D12, F64, Q54

### **Are women more generous than men? A meta-analysis**

We perform a meta analysis of gender differences in the standard windfall gains dictator game (DG) by collecting raw data from 53 studies with 117 conditions, giving us 15,016 unique individual observations. We find that women on average give 4 percentage points more than men (Cohen's  $d=0.16$ ), and that this difference decreases to 3.1% points (Cohen's  $d=0.13$ ) if we exclude studies where dictators can only give all or nothing. The gender difference is larger if the recipient in the DG is a charity, compared to the standard DG with an anonymous individual as the recipient (a 10.9 versus a 2.3% points gender difference). These effect sizes imply that many individual studies on gender differences are underpowered; the median power in our sample of standard DG studies is only 9% to detect the meta-analytic gender difference at the 5% significance level. Moving forward on this topic, sample sizes should thus be substantially larger than what has been the norm in the past.

**Keywords:** Dictator game, Altruism, Gender difference, Meta-analysis

**JEL codes:** C91, J16, D64

**ISBN:** 978-91-88199-71-3 (tryckt), 978-91-88199-72-0 (PDF)

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