



CIPTEC

COLLECTIVE INNOVATION FOR PUBLIC TRANSPORT

Nudging people towards public transport an experimentally tested intervention to increase public transport use

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Problem

- ✓ How to encourage bus users in Rotterdam to take the bus more often?
- ✓ Without changing prices



Photo: Rick Keus

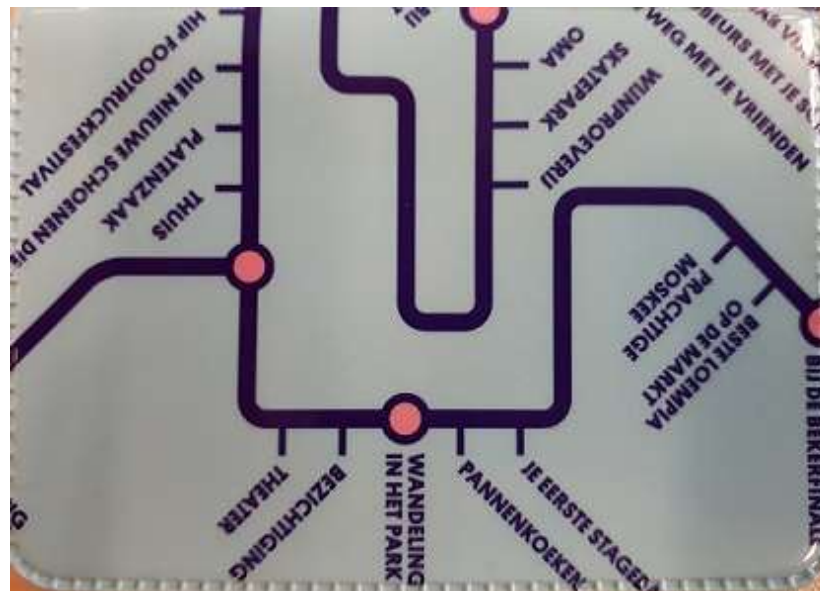
- ✓ Nudge: intervention that alters people's behavior in a predictable way
 - (Based on insights from behavioral science.)
 - Without forbidding any options or significantly changing their economic incentives.
 - It should be easy & cheap for consumers to avoid the intervention.

- ✓ Problem: how to encourage bus users to take the bus more often?

- ✓ Nudge = ‘social labelling’
 - making a statement about an individual's identity, with the aim of eliciting from the individual, behavior that is congruent with that identity
 - E.g., “taking the bus shows that you are an environmentally conscious citizen”

Field experiment in Rotterdam

- ✓ Intervention: label people as environmentally friendly individuals on free travel card holders
- ✓ On six bus lines in Rotterdam
 - Three bus lines: **standard** card holder



Field experiment in Rotterdam

- ✓ Intervention: label people as environmentally friendly individuals on free travel card holders
- ✓ On six bus lines in Rotterdam
 - Three other bus lines: **'experimental'** card holder



Field experiment in Rotterdam

- ✓ ‘experimental’ card holder:
 - we distributed about 4000 of these
 - designed by RET marketing team:
 - “Natúúrlijk ga ik met het OV. Doordeweeks of in het weekend, jij reist natuurlijk duurzaam”
 - *“Naturally, I take public transport. During the week or during the weekend, you travel quite sustainably”*
 - pre-test: message enhanced people’s perception of themselves as environmentally friendly



Field experiment in Rotterdam



- ✓ Evaluation: intervention effective at increasing PT use?
- ✓ Measure: bus payment records
 - # passengers per hour, per bus line
 - 21 months before and 1 month after the intervention
 - = 13000 observations per bus line
- ✓ Post-intervention bus use – pre-intervention bus use larger on ‘experimental’ than on standard lines?

- ✓ Result:
 - Post - pre-intervention bus use **0.89% larger** on experimental vs. standard lines
 - = **120 - 340 rides**

- ✓ Small or large effect?
 - Intervention reached only 4000 or 6% of all passengers
 - ‘Minimal’ intervention: a simple message

- ✓ Cost of intervention?

- ✓ Establishing the problem:
 - Encourage commuters to take bus for other purposes
- ✓ Designing the experiment:
 - Working with lab results to design message
 - Important to avoid 'contamination' between control and experimental group
 - Travel card holders instead of flyers
 - Also for control group, to rule out the influence of merely receiving a gift
 - Choosing bus lines with the same demographics

Conclusion

- ✓ Social labelling = cost-effective intervention to increase public transport use



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Photo: R. Utrecht