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### The motivational impact of incentives

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# The motivational impact of incentives

## Encouraging public transport use in Groningen



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### Background and Aim

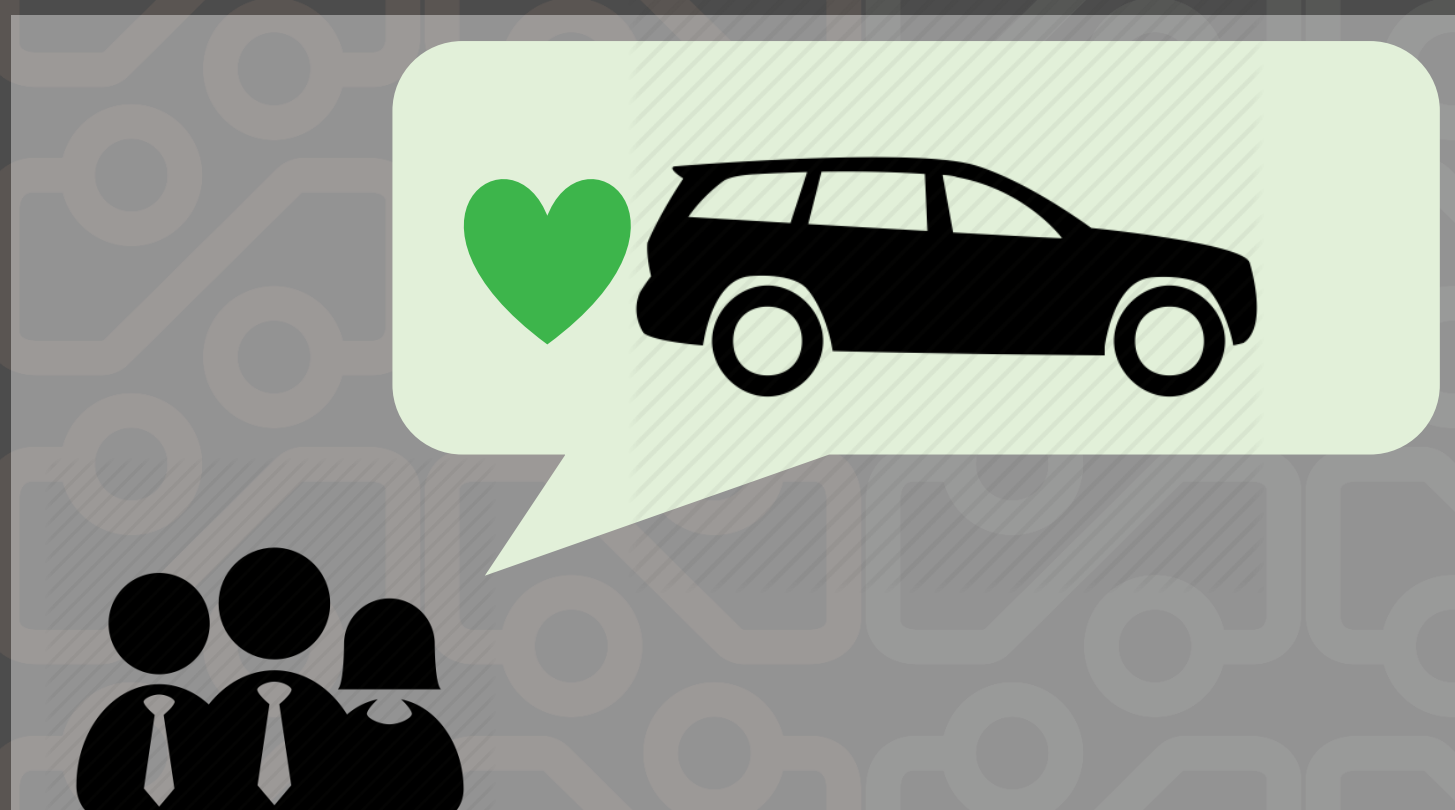
To motivate people to act sustainably, current policies often implement incentives that target people's extrinsic motivation to engage in a behaviour by providing additional desired outcomes. A prominent example is providing monetary rewards. Monetary rewards can be effective to change behaviour, but mostly only as long as they are in place. It has been suggested that monetary incentives may have negative side effects, notably the crowding out of intrinsic motivation, which may reduce their effectiveness and inhibit long-term behaviour change (Bolderdijk & Steg, 2015). However, to the best of our knowledge, this crowding out effect on intrinsic motivation has not been explicitly tested.

The aim of the current research is to test the effects of a three-week free public-transport card on motivation and public transport use for commuting in the short and long term.

### Design

#### T1 Pre-measure

(n=188).



Participants were people living in and around Groningen who commute to work by car.

Once signed up, participants filled out a questionnaire measuring:

- Intrinsic motivation to commute by public transport
- Intention to commute by public transport during the three-week trial
- Intention to commute by public transport after the three-week trial

#### T2 Post measure

(n=96)



For three weeks, participants could travel by public transport for free.; we recorded their actual public transport use during the three week trial.

After the three-week trial, participants filled out a similar questionnaire, including their intrinsic motivation to commute by public transport and their intentions to commute by public transport in the future.

#### T3 Follow-up measure

(n=43)



Three months after participants took part in the free trial, participants were asked to complete a short follow-up questionnaire measuring their intrinsic motivation to commute by public transport and their intentions by public transport in the near future.

### Results

#### Effectiveness of incentive:

- The three-week incentive was effective while in place.
- This was also reflected in participants' actual travel behaviour: on average, participants commuted by public transport 3 days a week
- However, no long-term behaviour change was found.
- Participants already had weak intentions to commute by public transport when incentive would be removed before the trial.

#### Crowding out of intrinsic motivation:

- Intrinsic motivation to commute to work by public transport was moderate.
- No evidence for a crowding out effect of motivation, as intrinsic motivation did not change significantly over time.

Figure 1 - Intention to commute to work using public transport

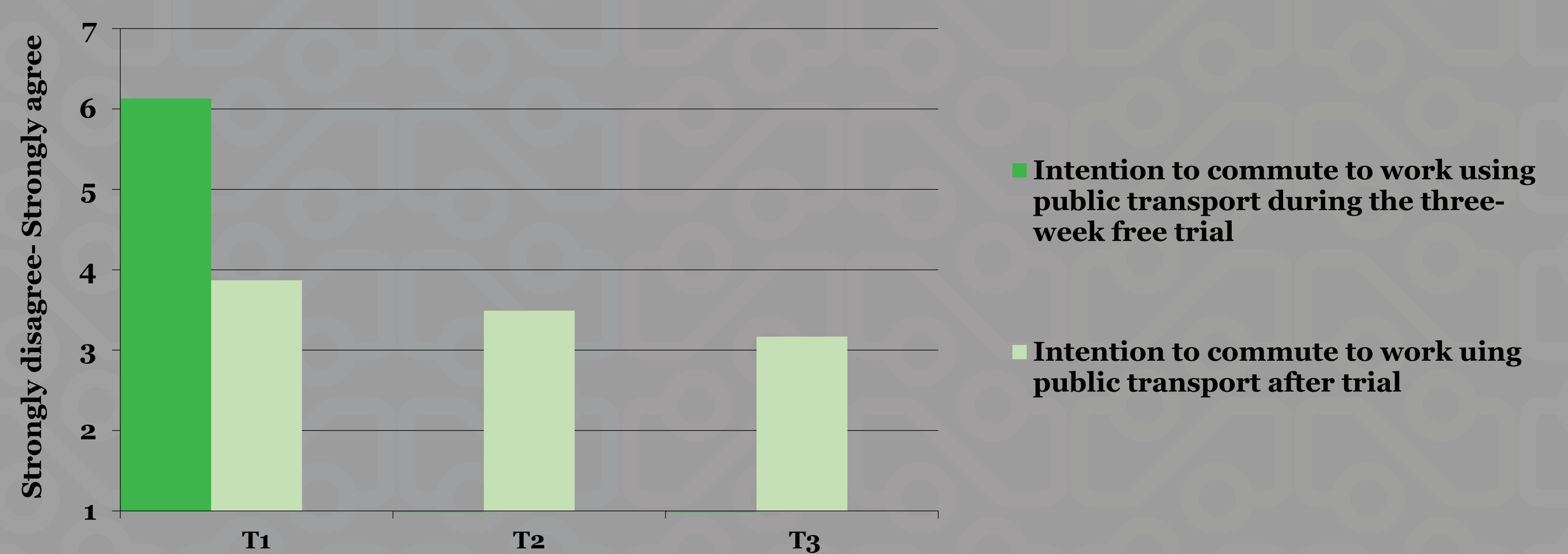
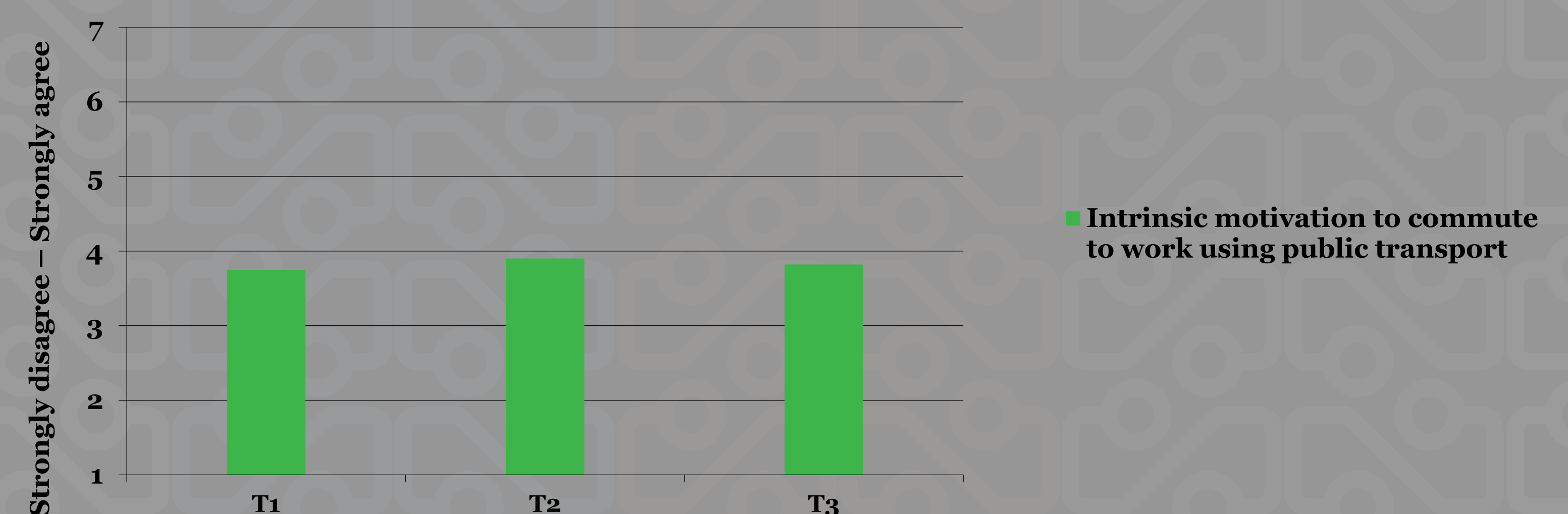


Figure 2 - Intrinsic motivation to use public transport



### Summary

- We aimed to test the effects of a three-week free public-transport card on motivation and public transport use for commuting in the short and long term.
- Participants intended to commute and actually commuted more often by public transport when they could do so for free.
- Weak intention to continue to commute by public transport after the incentives was removed.
- We did not find a crowding out effect of intrinsic motivation to use public transport.