

Acceptability of Mobility Pricing Strategies: Public Opinion, Dissonance Reduction & Risk Aversion

Transport Futures – Mobility Pricing Stakeholder Forum

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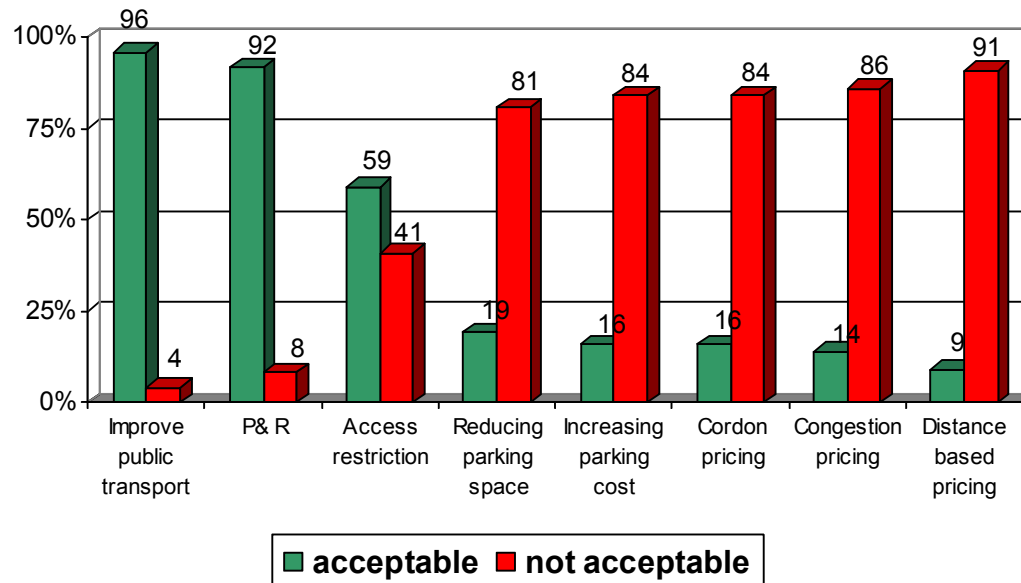
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Outline

1. Why we should act?
2. Why people generally object “reforms”
3. How people react if they have to change?
4. Recommendations

1. Why we should act?

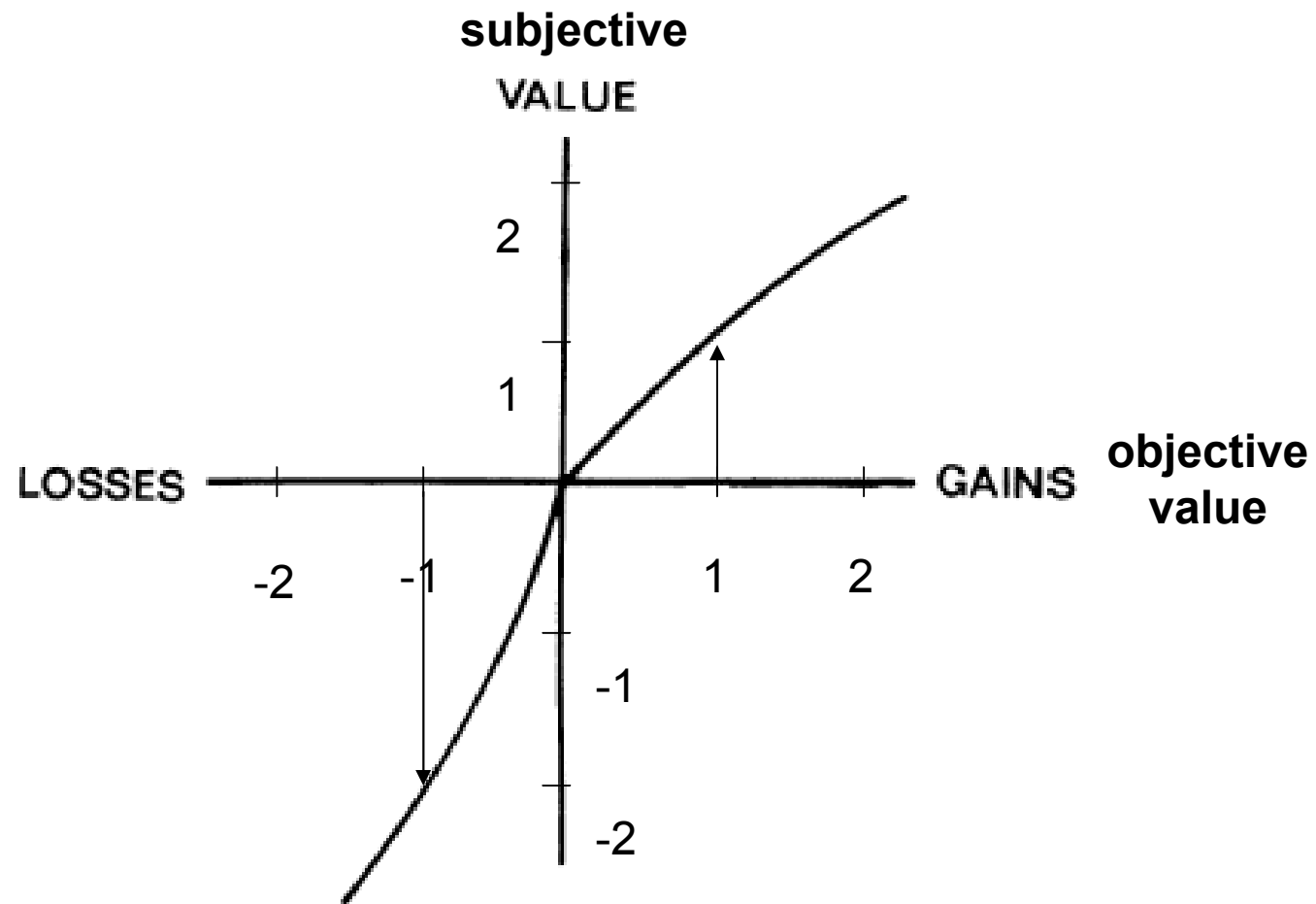


Generally, pricing is the **least accepted** TDM measure (with varying degrees).

It seems evident that in most cases pricing schemes have to be implemented against the initial majority of voters and car drivers.

2. Why people generally object “reforms”

- Because... people like things to stay relatively the same, i.e. they favour the status quo (this is called the „status quo-bias“)
- Why?
 - a) People do not value objects in absolute terms. They value it *relative to a (neutral) reference point*. This is (normally) the status quo (can be also expectations, experiences etc.).
 - b) And, losses are experienced more intensely than gains of similar objective magnitude
- This leads to the following *value function* ...



Kahneman, D., Tversky, A. (1979). Prospect theory: Analysis of decision under risk. *Econometrica* 47: 263-291.

Loss Aversion

- Loss aversion refers to the tendency for people to *strongly prefer avoiding losses* than acquiring gains. Many studies suggest that **losses are as much as twice (or even more) as psychologically powerful as gains**
- The aversion to loss means that people are willing to take more risk to avoid losses than to make gains.
- losses or disadvantages have a greater impact on people's preferences than equal gains or advantages.
- When the status quo situation functions as reference point for evaluating different options, the disadvantages of leaving the status quo situation are weighted more heavily than its advantages, resulting in a *bias in favour of the status quo*

A simple application of loss aversion ..

- is **penalty aversion**.
- People do not like “penalties,” they do like “bonuses.”
- But in standard economics, these are simply two sides of the same coin:
 - a bonus is the absence of a penalty, a penalty the absence of a bonus. The problem abounds in tax. A child bonus is a childless penalty, a marriage bonus is a singles penalty, and so on.
- People will act to avoid penalties but not necessarily to obtain bonuses, in rhetorically different presentations of the same underlying facts.
- Thaler found in a real-world experiment, when a gas station charged a “*penalty*” for using credit cards (\$2 versus \$1.90, say), people paid cash; when a gas station across the street gave a “*bonus*” for using cash (\$1.90 versus \$2.00), people used credit cards.

Thaler, R. H. (1980). Toward a positive theory of consumer choice. *Journal of Economic Behavior and Organization*, 1, 39–60.

Some relevant biases in evaluating mobility pricing measures

- Status quo bias
- Loss aversion
- Framing (people react to the *form* of a choice or decision problem, even where the substance is held constant) “*Pricing*”
- Hidden Tax Bias (people prefer hidden over visible taxes because this leads to less “hedonic pain”) → no TDM, preference for gasoline tax

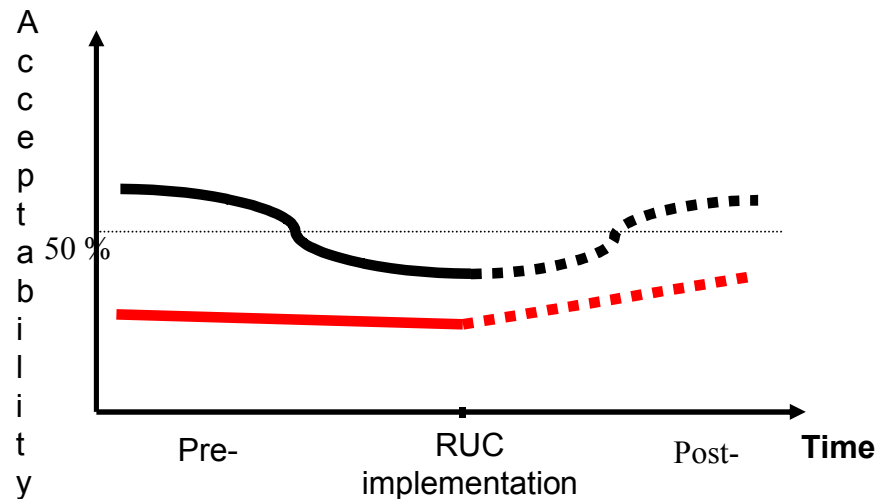
Preliminary Message ...

- Biases can lead to disturbing anomalies in one's acceptance of public tax systems
- Losses are experienced more intensely than gains of similar objective magnitude (as much as twice or even more as psychologically powerful as gains)

It seems evident that in most cases pricing schemes have to be implemented against the initial majority of voters and car drivers.

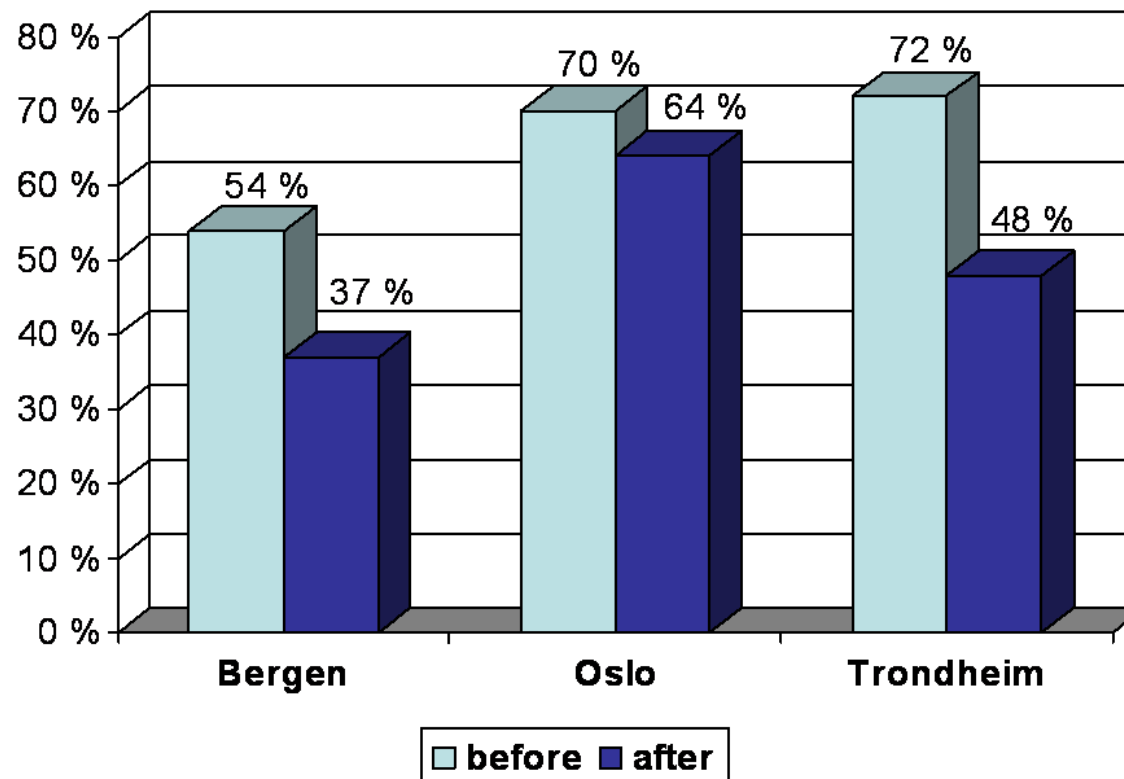
3. How people react if they have to change?

- The “**familiarity breeds acceptability**” hypothesis (cf. Eliasson & Jonsson, 2011).



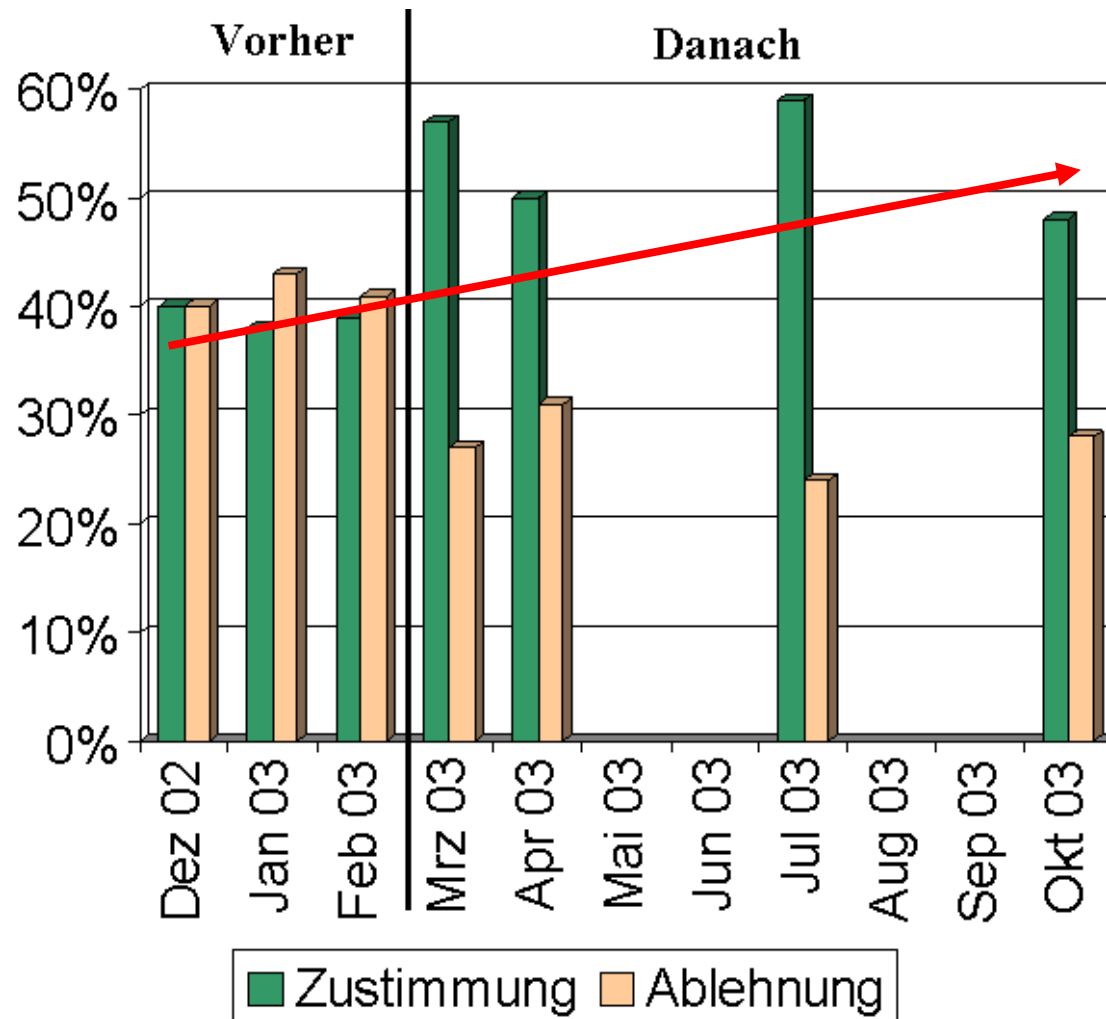
Acceptability is not static but may be highly dynamical throughout the *pre-*, *decision* and *post* implementation phase.

Negative attitudes before and after (one year of) opening of urban tolls in Norway.



Schade & Baum (2007)

Acceptability of London Congestion Charge

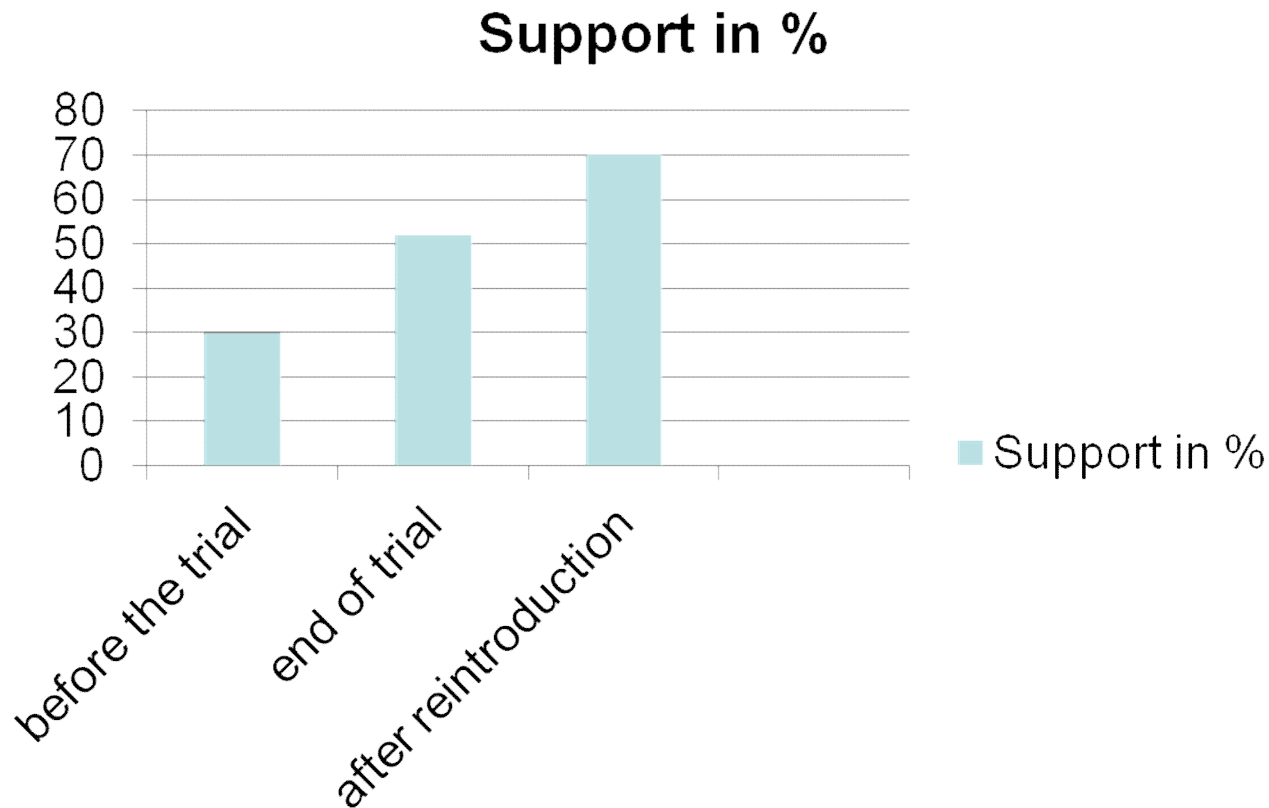


TfL (2004)

N ~ 1.000

Stockholm

Support for the charges increased from less than 30 % before the trial to just over 50 % towards the end of the trial. After the reintroduction in 2007, support increased even more to nearly 70 % at the end of 2007.



Eliasson, J., Jonsson, L., The unexpected “yes”: Explanatory factors behind the positive attitudes to congestion charges in Stockholm. Transport Policy (2011)

Impact of perceived probability of RUC implementation on acceptability

J. Schade, M. Baum / Transportation Research Part A 41 (2007) 41–48

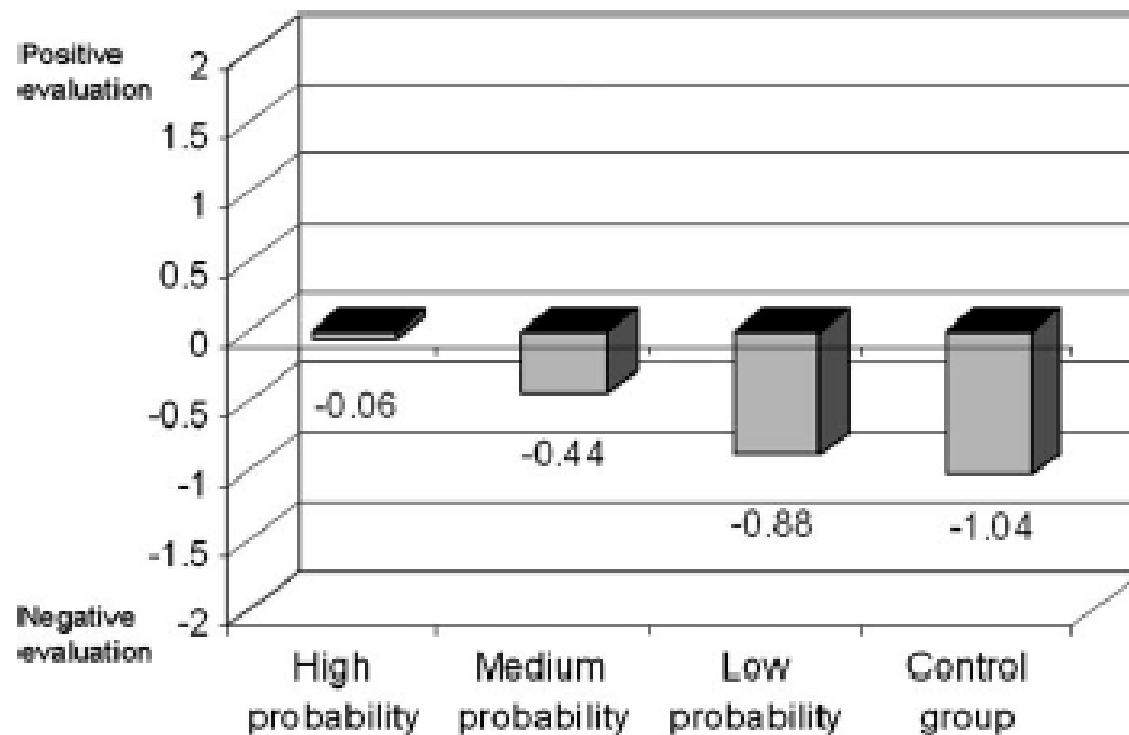
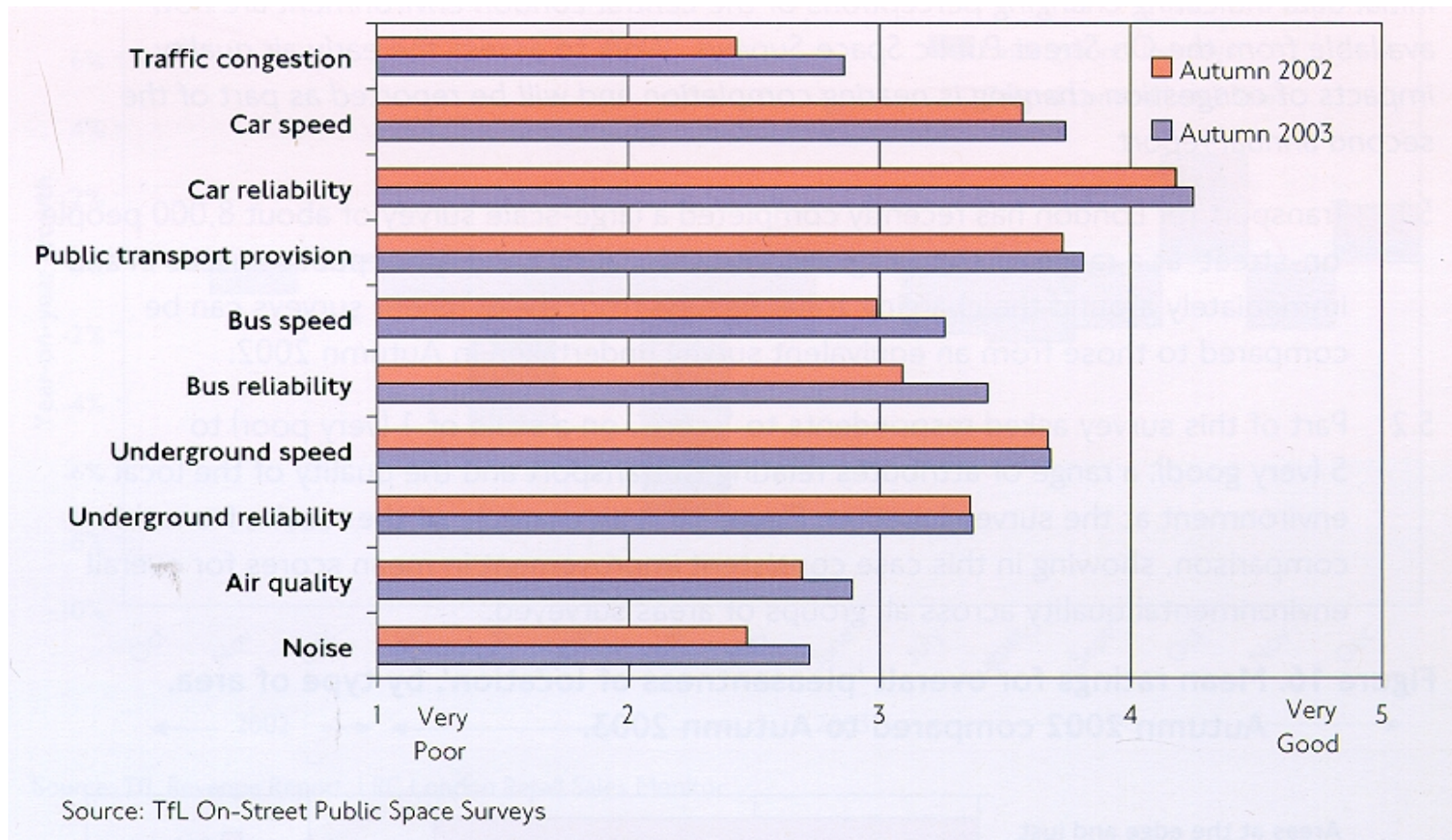


Fig. 2. Differences in the evaluation of the toll depending on the experimental condition (mean values).

Additional evaluations of road pricing

- Persons who got convinced that the introduction of road pricing is almost inescapable report
 - weaker social norms against the toll
 - less negative emotions like anger
 - a lower importance of toll free use of infrastructure
 - a weaker infringement of freedom
 - weaker motivations (intentions) to defend or restore personal freedom e.g. by taking action against the toll or by evading the toll

How the London charge is perceived?



N = 8.000

Jens Schade

Perceptions about the Stockholm charge

- High level of environmental concern, which is strongly associated with more positive attitudes to the charges together with substantial objective effects, was instrumental for the support for the Stockholm charges.
- The more positive a respondent is, the stronger is the belief in the beneficial effects of the charges.
- Many believed that the charges have decreased noise levels in the Stockholm inner city. In fact, there is no evidence at all of any such effects

Reasons for acceptability to increase with pricing familiarity

1. Benefits (often larger than expected)
2. Disadvantages smaller than expected

plus

3. Dissonance elimination/reduction – Attitude adaptation

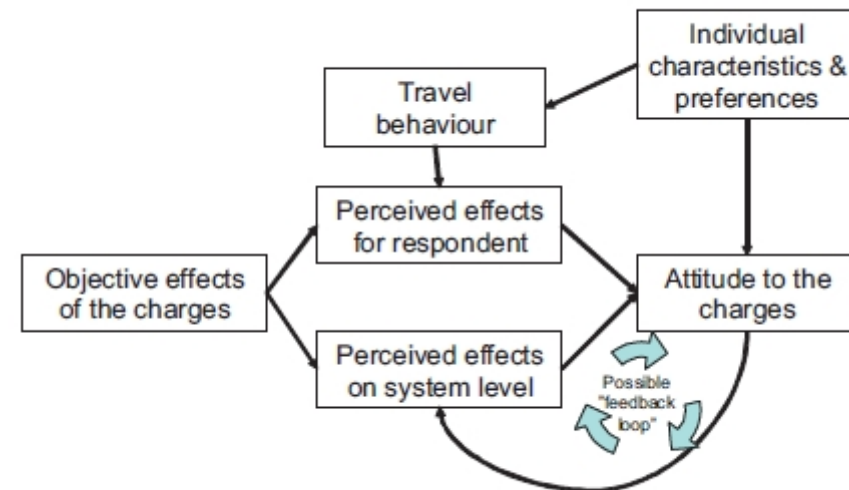


Fig. 2. Factors affecting attitudes to the charges.

Eliasson & Jonsson, 2011

4. Recommendations I

- **Acceptability is the key!** Before, during and even after implementation.
- The **objectives** of road pricing have to meet main public concerns
 - *time gains* are too abstract
 - do not focus on pricing but on traffic problems and solutions people perceive as helpful.
 - Package approach
 - Combine with additional issues e.g. climate change, health issues, justice ... etc.
- Transport pricing measures have to be perceived as very **effective** solutions for perceived traffic problems.
- **Revenues** must be redistributed and alternatives have to be provided.

Recommendations II

- Fairness needs have to be considered very carefully (distributional as well as procedural, which means forms of public participation).
- Problems which are not an issue in the pre-implementation phase may become more critical the closer the introduction gets (e.g. privacy which relates to technology, reliability, trust)
- Consider to implement RUC for a limited time or as a trial / experiment. May change the preference for the status quo!
- keep messages short and simple, and tell stories about real people, how they benefit.

