BEHAVIOURAL DIFFERENCES AMONG CYCLISTS IN CHOOSING THE SPACE TO RIDE

QUESTIONS

1) Which motives are important for cyclists' choice of space?
2) How do demographic groups differ in choice of space?
3) How far can the motives explain cyclists' choice of space?

SURVEY DESIGN

Online questionnaire,
spread via social media, mailing-lists, newsletters, newspapers, etc.

Sample:
- 5575 cyclists from Germany, mostly living in towns
- 32 % female, 68 % male
- 16 to 85 years old (M= 43.02; SD= 14.01)
- Mostly frequent cyclists
  (80.8 % cycle on at least 4 days per week in summer)

1) MOTIVES FOR CHOICE OF SPACE

In a literature review of German and international research on how cyclists choose the space to ride, 20 motives of which space to choose for cycling were identified. Participants were asked to rate the personal importance of each motive on a five-point rating scale in the first part of the questionnaire. Fig. 1 shows the results.
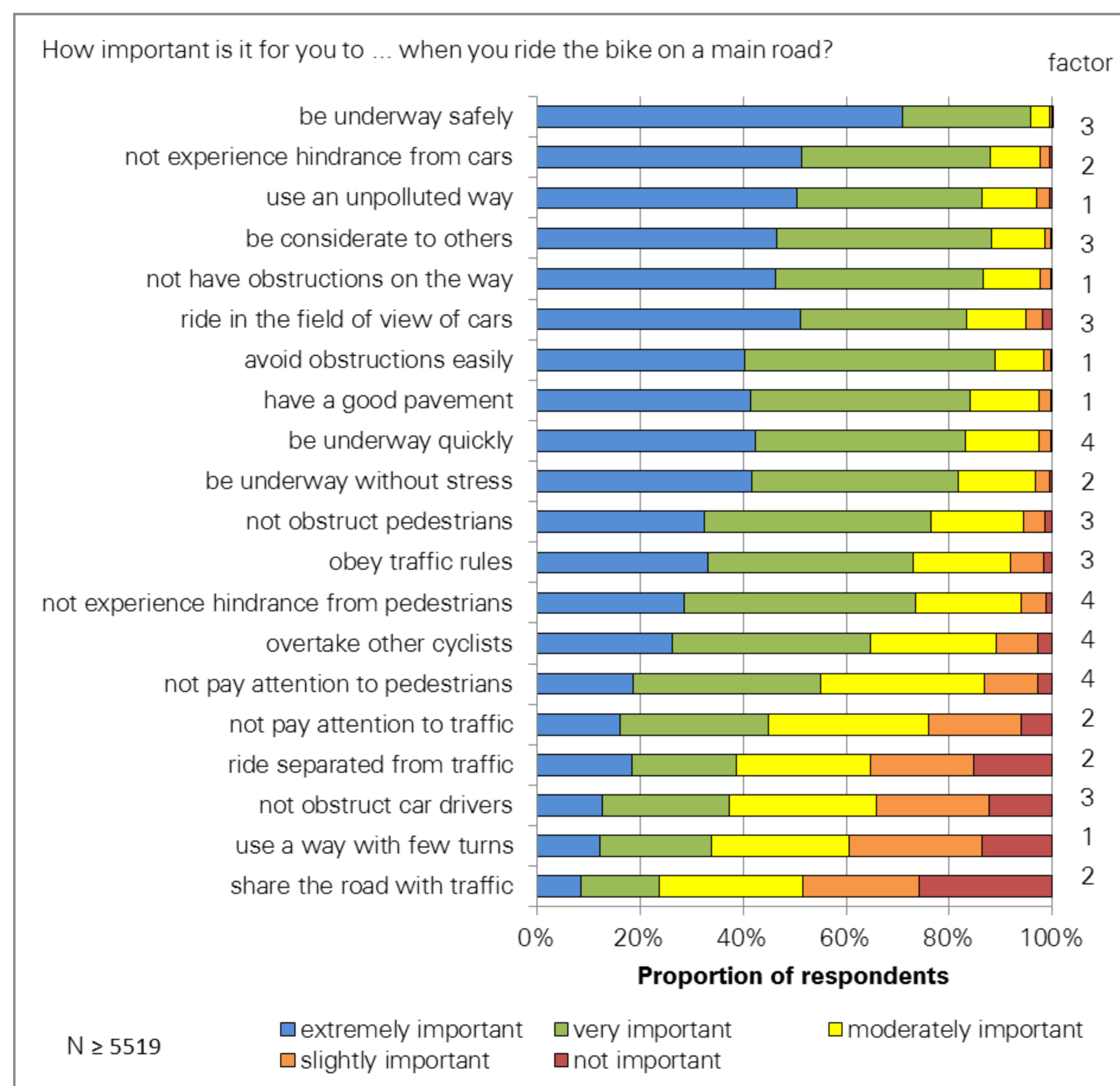

Fig. 1: Importance of motives for choice of space

Factor analysis

A factor analysis of the 20 motives led to **four factors**:

1) avoid contact with motor traffic,
2) obey rules and show consideration,
3) ride fast
4) avoid obstructions

The right column in Fig. 1 visualises which motive belongs to which factor.

Differences in motives for choice of space with regard to gender, age and cycling frequency are very small.

## 2) CHOICE OF SPACE AND DEMOGRAPHY (stated behaviour)

Five photos showing different infrastructures for cycling were presented to the participants. They were asked to choose the part of the street (carriageway, cycle lane, cycle track or pavement) on which they cycle most often in a similar situation. Whilst cycle lanes are used by over 95 % of the respondents, in the following three situations a variety of preferences could be observed:

cycle track

mixed traffic

cycling on the pavement allowed

Question: Where do you cycle most often in such a situation?

In the situation where cycling is allowed on the carriageway and on the pavement, **large differences with regard to gender, age and cycling frequency were found**. The other situations show smaller effects in the same direction.

Differences with regard to gender
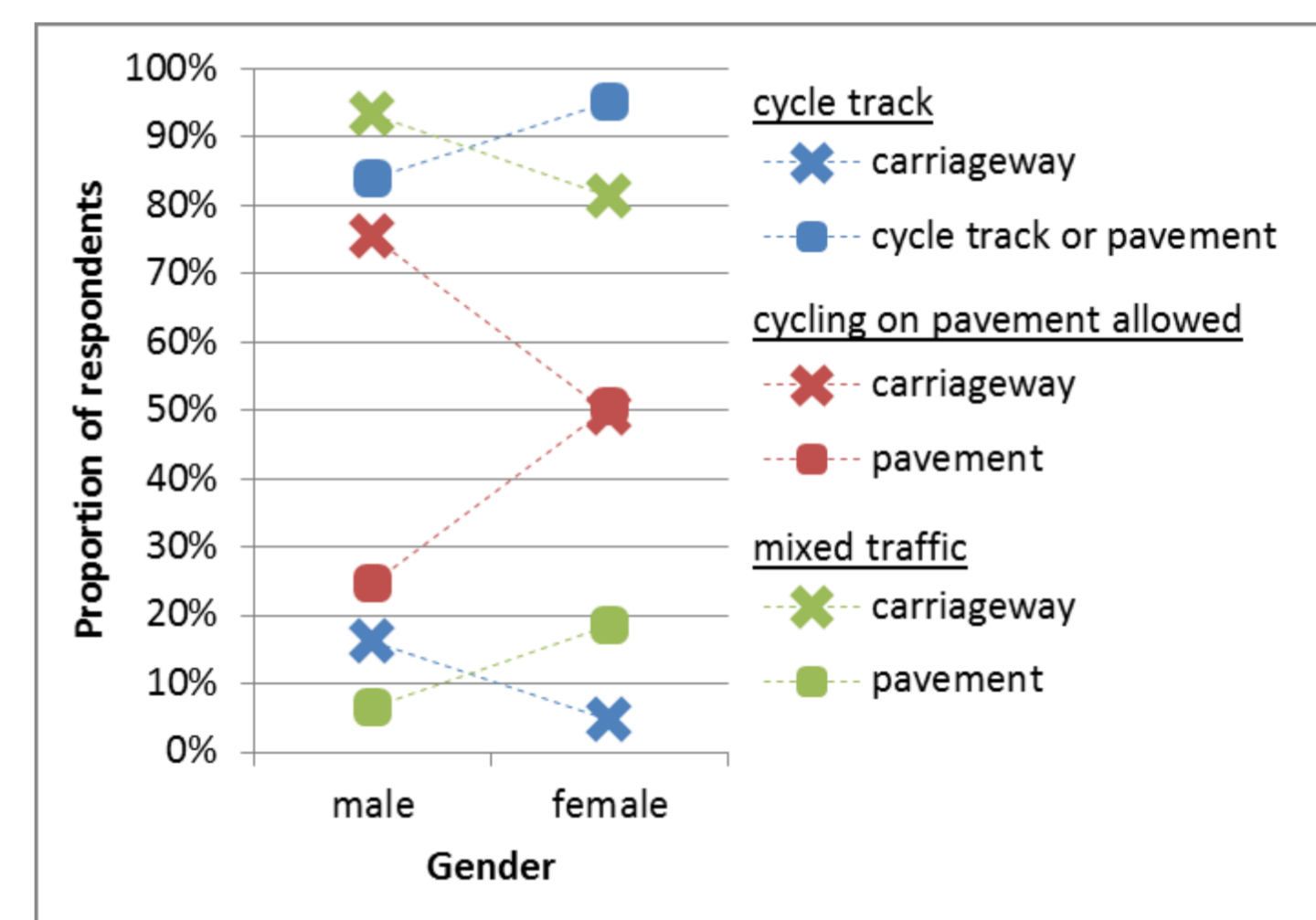
Differences with regard to age and cycling frequency
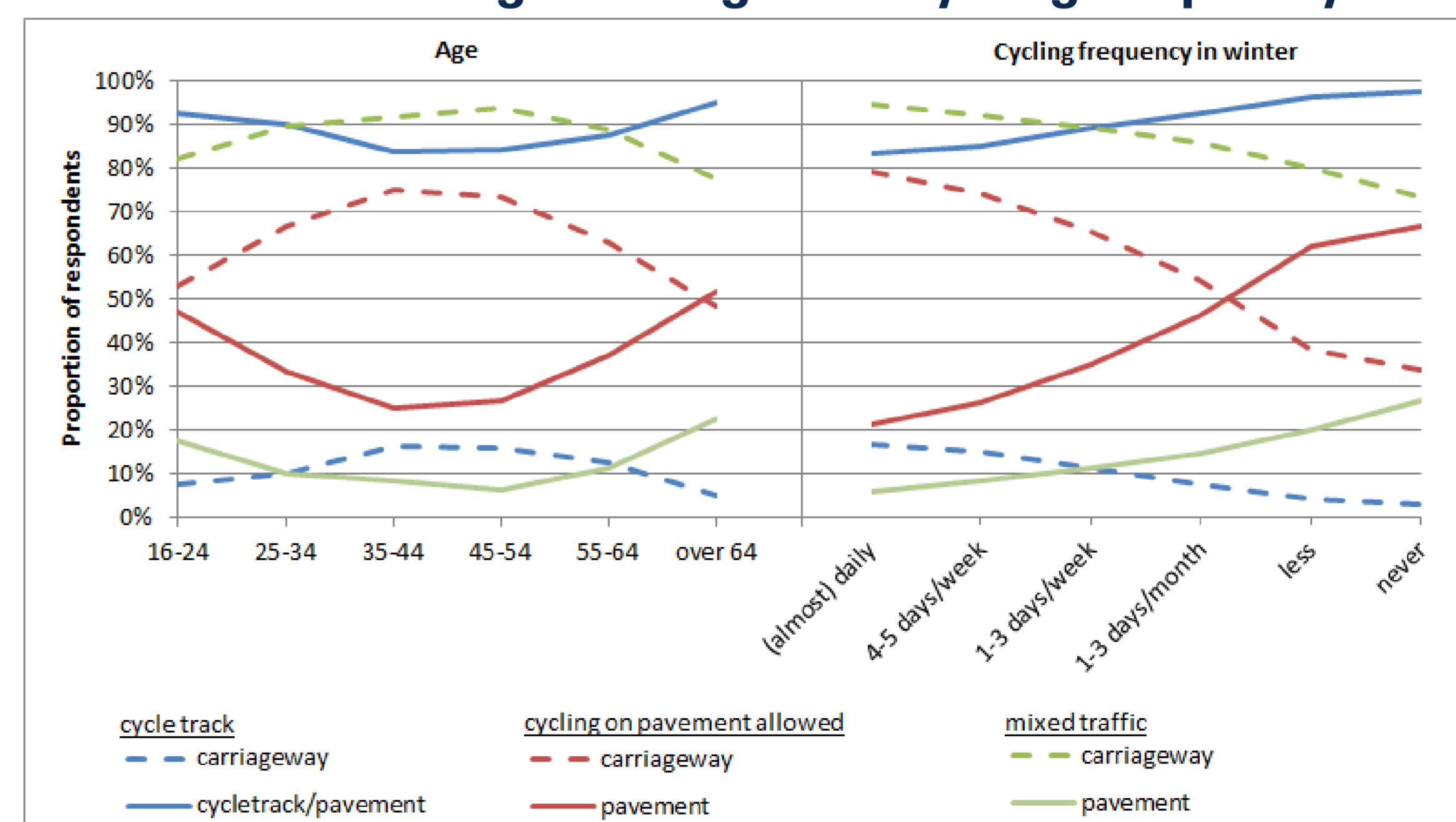
3) RELATION BETWEEN MOTIVES AND STATED BEHAVIOUR

While there are big differences in behaviour with regard to gender, age and cycling frequency, only very small differences between the groups can be found in the studied motives.

Two linear regression models were calculated to explain the stated behaviour: one using the motives from Fig. 1 and one using the four factors from the factor analysis as independent variables.

We were able to explain 35 % of the variance with the motives and 32 % of the variance with the four factors. This shows that the relation between cyclists and motorised traffic and the individual importance of separated infrastructure is important to explain cyclists' choice for the space to ride.

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