

## Perceived safety of transport environment and its association with SWB (Working title)



### Problem statement:

In the transport environment, the term “perceived safety” denotes the feeling or the perception of being safe. Such perception is reflected in individuals’ travel choices. For instance, the perceived (social) safety on the neighbourhood could either impact (positively or negatively) respondent’s travel by public transport. The perceived safety has been recognized as an important health indicator in determining wellbeing and QoL: Empirical evidence shows that the lack of perceived safety is associated with poorer personal wellbeing and higher levels of anxiety (Thormar et al., 2013; Goulia et al., 2010; Murphy et al., 2004). In travel behaviour research, it is still not clear how perceived safety (of the transport environment) and wellbeing are interconnected. In this master thesis, the primary aim is to explore how the various travel and health constraints and perceived safety (social) of transport are connected.

### Task:

Main objective of this work is to examine the association between perceived safety, transportation choices (mainly mode choice) and subjective wellbeing among adults along following research questions:

- How does the perceived travel/transport safety differ across various groups?
- How is perceived travel/transport safety associated with subjective wellbeing?
- (Further: How is perceived travel/transport safety reflected in travel behaviour? How is subjective wellbeing associated with travel behaviour?)

### Type of work:

Applied groundwork in transportation

### Prerequisites:

Advanced knowledge in transportation, mobility research, willingness to conduct interviews, statistics skills (data analysis, SPSS; R), working language: English (survey: German)

### Work steps:

1. Literature research
2. Preparation of a detailed work program with time reference including working hypotheses (what are the cause-effect relationships?)
3. First draft of a table of contents of the report
4. Development of indicators for the survey, preparation of questionnaires, conduction of interviews (online / telephone survey)
5. Data processing and analysis
6. Interpretation of the results
7. Writing the report of the master thesis

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### Literature (excerpt):

- Aliyas, Z., 2019. Does social environment mediate the association between perceived safety and physical activity among adults living in low socioeconomic neighborhoods? *Journal of Transport & Health* 14, 100578.
- Choi, Y.J., Matz-Costa, C., 2018. Perceived Neighborhood Safety, Social Cohesion, and Psychological Health of Older Adults. *The Gerontologist* 58, 196–206.
- Ferenchak, N.N., Marshall, W.E., 2020. Validation of bicycle level of traffic stress and perceived safety for children. *Transportation research record* 2674, 397–406.
- Hollander, J.B., Nikolaishvili, G., Adu-Bredu, A.A., Situ, M., Bista, S., 2020. Using deep learning to examine the correlation between transportation planning and perceived safety of the built environment. *Environment and Planning B: Urban Analytics and City Science* 2399808320959079.
- Karl, M; Bauer, A.; Ritchie, WB, Passauer, M 2020. The impact of travel constraints on travel decision-making: A comparative approach of travel frequencies and intended travel participation, *Journal of Destination Marketing & Management*, Volume 18, 2020, <https://doi.org/10.1016/j.jdmm.2020.100471>.
- Kerr, Z., Evenson, K.R., Moore, K., Block, R., Roux, A.V.D., 2015. Changes in walking associated with perceived neighborhood safety and police-recorded crime: The multi-ethnic study of atherosclerosis. *Preventive medicine* 73, 88–93.
- Montoro, L., Useche, S.A., Alonso, F., Lijarcio, I., Bosó-Seguí, P., Martí-Belda, A., 2019. Perceived safety and attributed value as predictors of the intention to use autonomous vehicles: A national study with Spanish drivers. *Safety Science* 120, 865–876.
- Whitfield, G.P., Carlson, S.A., Ussery, E.N., Watson, K.B., Brown, D.R., Berrigan, D., Fulton, J.E., 2018. Racial and ethnic differences in perceived safety barriers to walking, United States National Health Interview Survey–2015. *Preventive medicine* 114, 57–63.