Proximity Planning

International Congress

How to combat mobility injustices for older people?

Helena Gartmeier, M. Sc. [1] ;
David Duran, Dr. [2] ; María Teresa Baquero Larriva, Dr. [3, 2] ; Allister Loder, Prof. Dr. [1]

[1] Professorship of Mobility Policy, [2] Chair of Urban Structure and Transport Planning; Technical University of Munich

[3] Universidad Politécnica de Madrid

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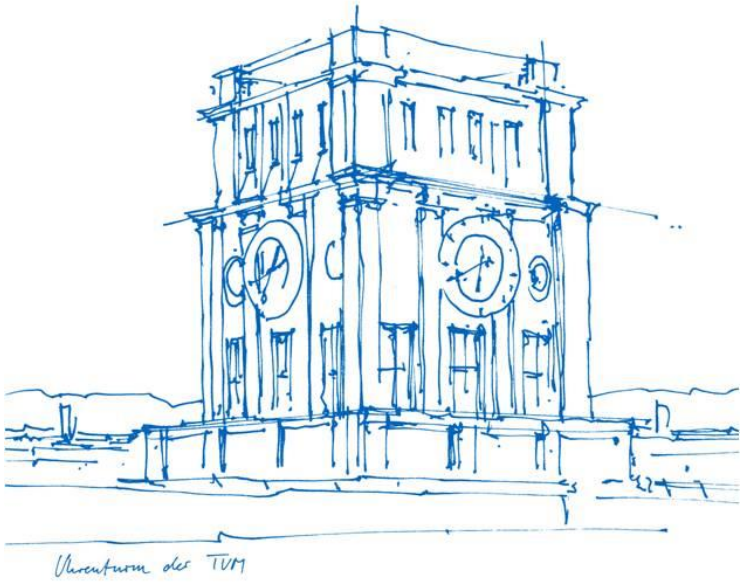
How to combat mobility injustices for older people?

A qualitative approach to understanding needs and perceptions

in Munich, Germany.

28.06.2024

Session D - Frameworks



Motivation and background knowledge

Global megatrends


Urbanization


Climate change


Demographic change

Concept of “Mobility justice”

- Recognizes the uneven distribution of mobility resources and burdens
- Built up on accessibility, availability, and exposure

Objectives

- Creating a high-quality, barrier-free environment
- Preventing social exclusion

Mobility behaviour of older people

- Decreasing rate of mobility
- Fewer and shorter trips

→ Consequences for daily routines:

“As people age, their living space shrinks”


Perceptions of older people towards mobility injustices

Research questions and methodology

Research question

How to combat mobility injustices for older people?

Sub-Question 1: Perceived injustices in mobility routines	**Sub-Question 2:** Coping strategies	**Sub-Question 3:** Potential measures for mobility justice

Methodology

Method a) Qualitative interviews with residents

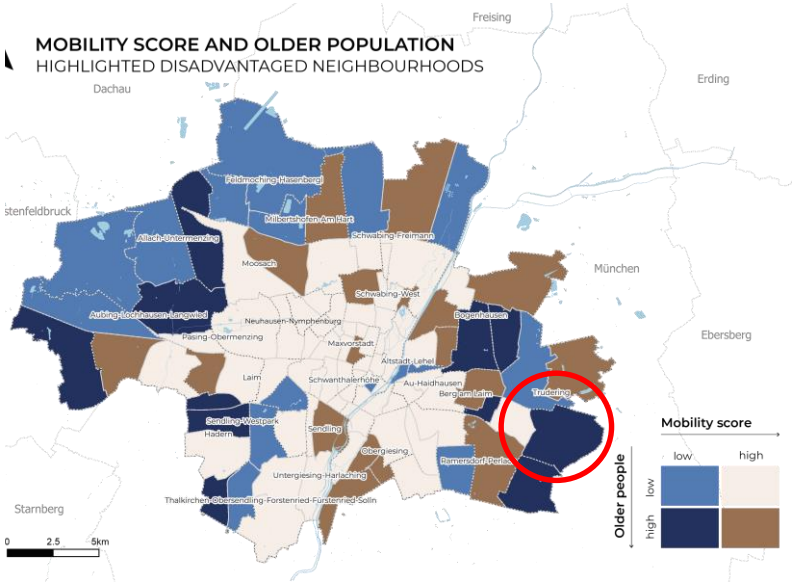
+ **Method b)**: Comparison with spatial framework	+ **Method c)**: Qualitative interviews with experts

Research design and study area

Study area: Waldtrudering

- Mainly residential area, high share of older people
- Low score in dimensions of mobility justice

→ At-risk neighbourhood for older people



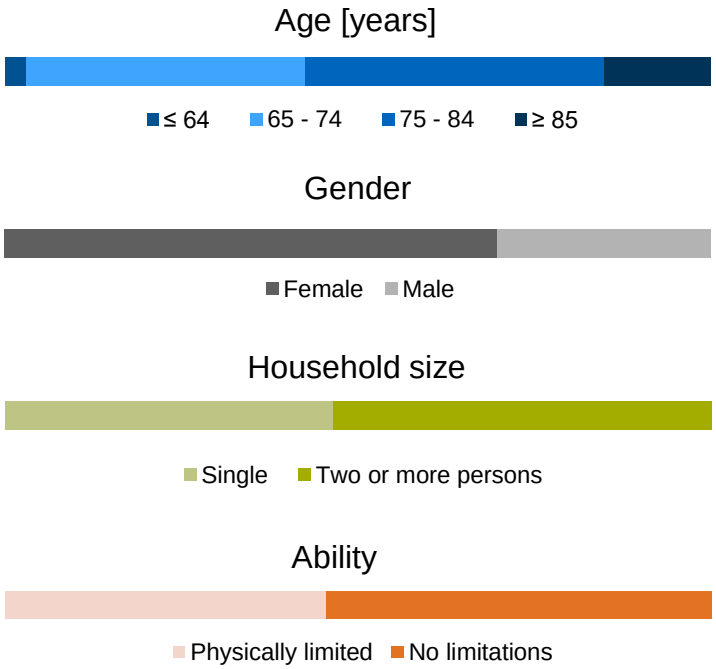
Method a): Residents interviews

- Semi-structured
- Oct. – Nov. 2023; *N = 33*
- Public places, senior community centres

Method c): Expert interviews

- Guideline-based
- Mobility Department, City of Munich; Local District council; *N = 3*

Sample composition and evaluation



Development of personas

- Based on age, gender, and ability
- Including vehicle ownership and PT * usage

Anne – active and multimodal

Bill – relying on private transport

Caroline – impaired and PT-reliant

* Public Transport

Mobility patterns

Every trip I can take walking, I walk. Every trip I can do by bicycle, I cycle. Every trip I can do by public transport, I use public transport for, and for some trips I use the car. *(IP 34)*

I live so far from the nearest stores that it is not reasonable to walk there. […] Yes, if one is still very mobile, so one has the possibility to either take the bike or the car, then it's alright. *(IP 38)*

That is all here. The way across the street and then in that direction to [the supermarket], there is also the bakery […]. Because [the city centre] is the [other] way, and that is often too far for me. *(IP 4)*

POIs *, **trip purposes**

- Groceries, stores
- Healthcare
- Leisure
- Social interactions

General **influencing factors**

- Benefits associated with "being mobile"
- Safety concerns, individual perceptions
- Costs
- Urban design

* Points of Interest

Q1: Perception of mobility (in-) justice

	Exposure	Availability	Accessibility
 **Anne** active and multimodal	Main road noise Risk of accidents	Cycling infrastructure	☑
 **Bill** relying on private transport	Costs	☑	Proximity of POIs
 **Caroline** impaired and PT-reliant	☑	PT: Spatially and temporally	Proximity of POIs Diversity of POIs

Q2: Coping strategies

Perceiving a trip as **less enjoyable**	
Changes in mobility **behaviour**	• Route adjustment • Times of travelling: Avoiding travels during peak hours and evenings • Selection of destinations based on accessibility
Investing **additional effort**	• Longer travel times • Additional expenses • Walking uncomfortable distances • Paying increased attention to traffic and surroundings
Receiving **support**	• Social network • Senior-specific institutions
Not taking a trip	

Q3: Measures for mobility justice

Residents‘ suggestions

Walkability
- Sidewalk quality
- Main road crossings
- Quality of stay

PT
- First and last mile solutions
- Temporal availability
- Barrier-free PT stops

Other
- Cycling infrastructure
- High-quality POIs, mixed land use
- Costs

Experts‘ strategies

- “Mobility” as public provision of daily services → Design strategies and priorities can differ from residents’ perspectives
- Barrier-free infrastructure: pedestrians and PT
- Age-friendly innovations → Heterogeneity of social group of “older people”

Mobility (in-) justices for older people

Ability to fulfil mobility needs with suitable effort

Value of routines

- Deliberate choice of mobility behaviour
- Perceived safety and confidence

Reasons to **alter mobility behaviour**

- External factors (e.g. costs)
- Personal factors (e.g. health impairments)

Alternative options

- Design and suitability of alternatives
- Experiences in earlier stages of life
- Personal capability to adjust behaviour

Consideration for specific needs of older people

Summary

Comparison of residents' perceptions to **spatial framework** (Method b)

- Affirmation of spatial concentration of services
- Varying consequences for different personas
- Effect on route choice and quality of stay

Residents: Older people with limitations more likely to report disadvantages and injustices

→ Smaller scope to adjust mobility behaviour

Experts prioritize inclusive, barrier-free infrastructure

→ Strategies primarily addressing older people with physical limitations

Current barriers and challenges

- Wide range of needs amongst "older people"
- Executing transformative actions, especially in car-centric neighbourhoods

→ **Pro-active planning**: prevent potential disadvantages and injustices

Conclusion

- Qualitative research extends spatial insights
  → Understanding different perceptions of the identified personas
- Holistic approach to “mobility justice” for older people
  - Additional benefits and challenges considered when being mobile
  - Impact of routines and experiences in earlier stages of life
- “Mobility justice” as an interdisciplinary and trans-municipal task

Follow-up research

→ Measures for mobility justice: Effects on neighbourhood and other social groups

→ Comparison between neighbourhoods in various spatial contexts

→ Interactions between mobility justice and sustainability

Thank you for your attention!

How to combat mobility injustices for older people?

Contact:

Helena Gartmeier

helena.gartmeier@tum.de

Thank you for your attention!

Feedback and discussion

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Images

Slide 5: (In)Justice Atlas Munich – Older people and mobility score. Duran-Rodas, D., Haxhija, S., & Baquero Larriva, M. T. (2023). Mobility (In)Justice Atlas: Where does injustice happen in Munich? MCube Munich Cluster for the Future Mobility.

Literature on mobility (in-) justice

	Accessibility	Availability				Exposure			Other				
		PT	Walking	Cycling	Car	Safety	Health	Costs	Urban design	Comfort / Quality of stay	Information	Technology	Participation
Aguilar and Macário (2017)	✓	✓	✓	✓	✓	✓			✓	✓	✓		
Alves et al. (2020)	✓		✓			✓	✓		✓	✓			✓
Buffel et al. (2012)							✓	✓	✓	(✓)			✓
Harada et al. (2023)		✓				✓	✓			✓			
Iancu and Iancu (2020)												✓	
Martínez et al. (2022)		✓	(✓)	✓		✓					(✓)	✓	
Noon and Ayalon (2018)			✓						✓				
Nordbakke and Schwanen (2015)	✓	✓	✓				✓	✓		✓	✓		
Ryan at al. (2015)	✓	✓	✓						(✓)				
Shrestha et al. (2017)	✓	✓	✓			✓		✓	✓	✓	✓	✓	

Mobility (in-) justice in Waldtrudering – Spatial framework

Accessibility

Types of POIs: Stores, services, healthcare and restaurants
Walking speed: 4 km/h
Catchment areas: 10 min walking

Availability

Sustainable modes

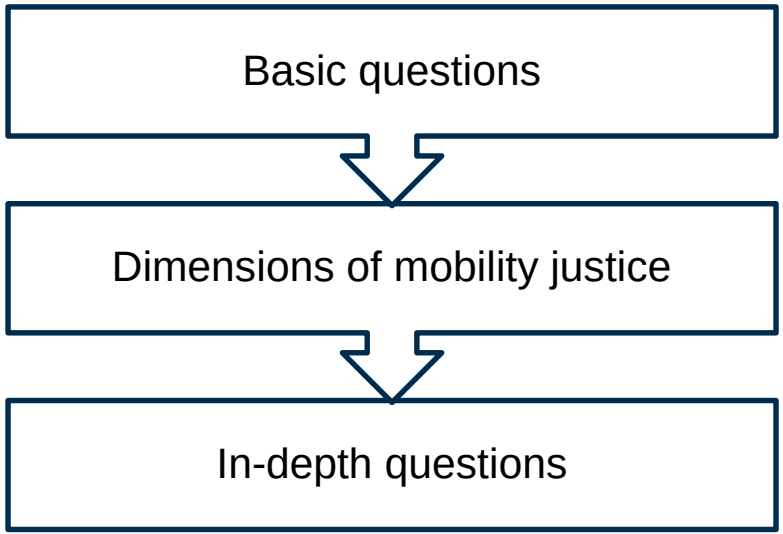
- PT
- Cycling lanes
- Shared services

Exposure

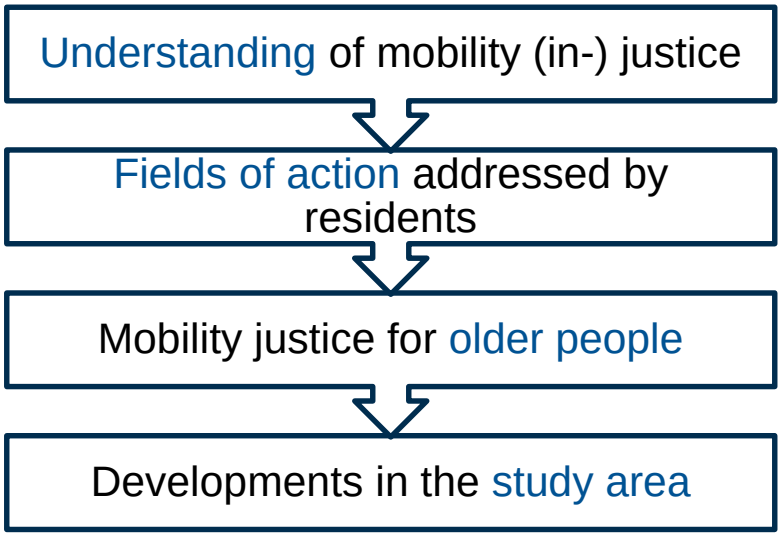
Road noise
Road accidents involving pedestrians and cyclists

Interview structure

Residents



Experts



Codes and topics

Coding **strategy**

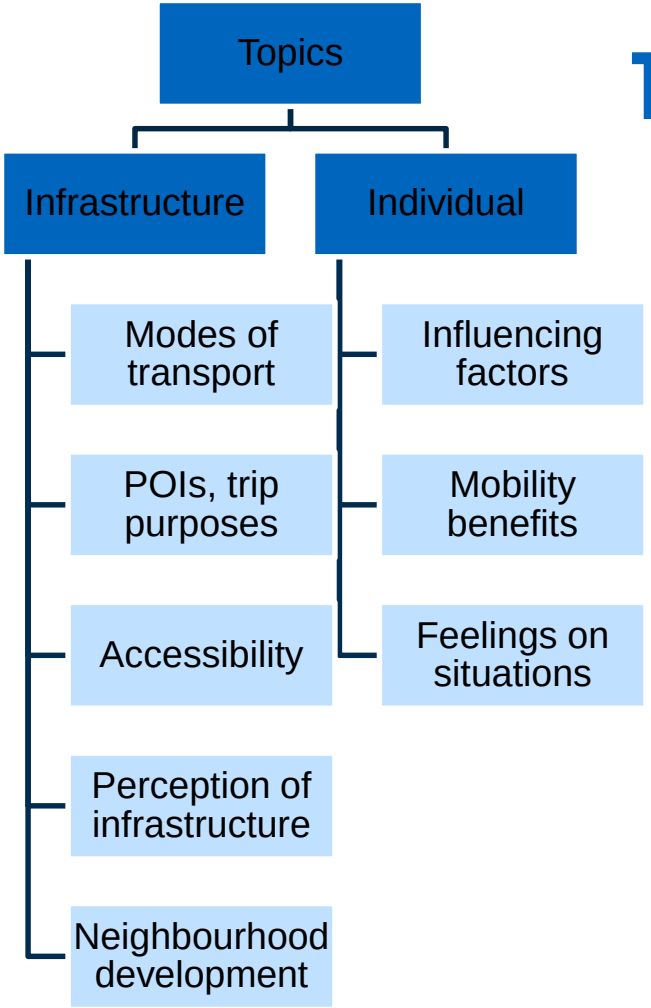
- Inductive codes based on interview structure
- Deductive codes as additional “layers of information“ addressed by interviewees

Coded information → **Topics**

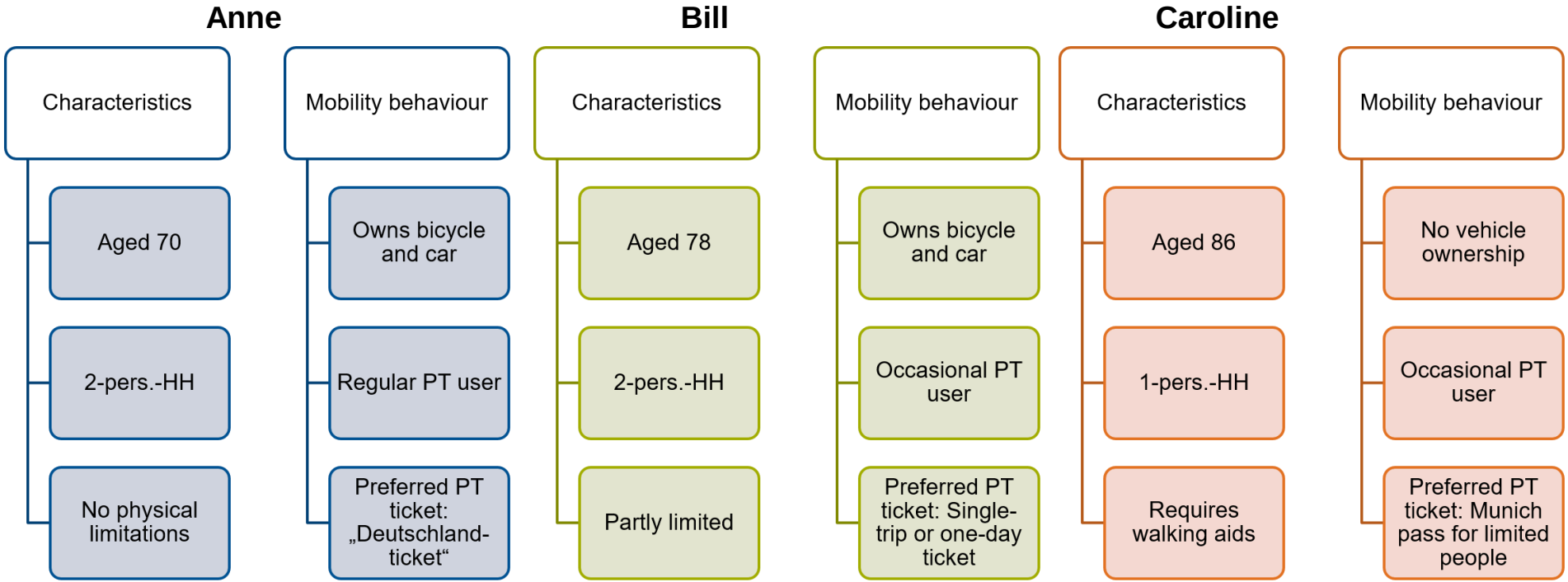
- (In-) Justice and suggested improvements
- Infrastructure
- Individual

➢ Additional, personal codes

- Mobility routines
- Personally affected
- Satisfaction



Personas profiles



Experts – Involved interview partners

Mobility Department, City of Munich

- **E1**: Expert on the district Trudering-Riem
- **E2**: Expert on pedestrian infrastructure in Munich-East

District Council Trudering-Riem

- **E3**: Expert on local mobility and building; Member of city-wide council for disabled people