

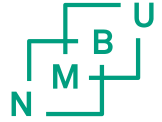
Neighborhood characteristics and active travel

Travel behavior and planning of the Reykjavik capital region
SEMINAR IN THE NORDIC HOUSE 3. JUNE 2019

The potential to stimulate walking/biking for utilitarian purposes

- Car use is dominating transport mode in the Reykjavik capital area in spite of relatively short distances
- **Travel distance** most often leads to increased travel time and effort used, when traveled by bike or on foot.
- Numerous studies on the choice of walking and cycling as modes of travel have found that distance is one of the most important factor of influence (e.g. Heinen et al., 2010; Næss et al., 2017).
- Inner-city residents are therefore more likely to walk or bicycle for daily purpose because their trip destinations are more often located within acceptable walking and biking distance. (Scheiner, 2010; Næss et al., 2017).
- **In neighborhoods where people tend to drive short distances there might exist great potential to switch mode to walking or bicycling.**

Distance and destination, what is reasonable to expect ?



- What distance and destination can people be expected to walk to (bicycle to) from their home?

It takes about 12 minutes to walk 1 km

A cyclist can be expected to bike 4 times faster than a pedestrian, thus can cover a considerably large area

Grocery stores and basic services are located in most neighborhoods



Perception is influenced by travel speed too!

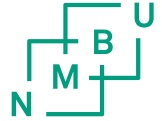
- Travel speed influences perception of the surroundings – the readability of detail
- The rhythm of visual change occurs faster as travelling speed becomes higher – slow speed, curiosity needs to be stimulated more often

the notion of distance

- The “visual landscape” at distance and the “participatory landscape” in close proximity are two distinct modes of experience ([Berleant 1988](#))
- Perception is shaped by learning and expectations, cultural and individual motives, the background to the person ([Stefansdottir 2014](#))



Perception- aspects



- **Instrumental** – functional aspects, infrastructure
Aesthetic –how the surrounding provoke feeling of pleasure

- **Symbolic meaning**

how the environment can express an associational meaning (Lang 1988)

For example how the surroundings symbolize the priority of certain mode, how they express that the needs of this mode is emphasized in the design of the infrastructure and the surrounding environment.



New cycling route at Brattøra in Trondheim

Symbolic characteristics and travel modes

- **Car-oriented public spaces**

are characterized by easy access of private cars, and emphasis on infrastructure for their flow and speed



- **Pedestrian/cycling oriented public spaces**

are characterised by features that meet the needs of pedestrian/cyclists (instrumental as well as aesthetic needs)

This has to do with proportions between space received for the different travel modes, the scale of buildings and infrastructure, and what stimulates pleasure while travelling with each mode



Aim and approach of this study

Aim:

This study explores how car-oriented surroundings are perceived and whether and how this influences walking/ cycling for utilitarian purposes.

How:

- Identify car travellers for short trips (less than 1 km) – to grocery store and services – among survey respondents
- Analyze the overall characteristics of their origin (residential location) / route / destination (grocery store) in terms of car-oriented / pedestrian-cycling oriented – by using google street view
- Identify possible influences of car-oriented surroundings on travel behavior (and choice of destination) – from qualitative interviews

Car travelers for short trips

Number of respondents using facilities **closer than 1 km from home** and who are still **always traveling by car** when visiting these facilities. (Percentages of all respondents who visit facilities of the respective kinds closer than 1 km from home in parentheses)

Civic or religious building:	47 (19.7%)
Service provider:	39 (22.1%)
Grocery store:	108 (25.2%)
Restaurants or cafes:	36 (16.6%)
Places for entertainment or culture:	23 (17.8%)
Places to exercise	44 (16.6%)
Places to pick up or drop off someone	44 (23.2%)

Trips to grocery store less then 1 km away - always by car

Analyzes of origin / route / destination

Car oriented – pedestrian/ cycling oriented

	Car-home	Ped -home	Car-route	Ped-route	Car-dest	Ped-dest
108 respondents	65	40	75	29	94	9

Car oriented destinations, examples

The Smáralind shopping mall (above) or Smáratorg (below) the most likely destination to 7 respondents.



Krónan Vallakór (the most likely destination to 17 respondents)



Kringlan shopping mall, the most likely destination to 4 respondents.

Examples



How might people react to the car-oriented environment?

Possibilities identified from the qualitative interviews:

1. **Drive the car always –A to B thinking** (also in spite of short distance)
2. **Decide anyway to walk/bicycle - car-oriented characteristics ignored or accepted** of the following reasons:
 - might not be used to anything more pedestrian/cycling friendly (related to background)
 - intention to walk/bicycle is strong (eg. bicycling/walking is a combination of fitness or family caretaking).
 - critical to route environment (cultural preferences, prefer certain urban atmosphere – related to background), but this does not prevent the person to walk/bicycle
3. **Choose destinations with positive urban atmosphere although at further distance (centrally living)**

Examples from the interviews

1. Driving the car to all or most destinations can be interpreted as related to A to B thinking, getting fast from origin to destination, and because the design and planning expects people to drive by car

For ID16211 – living in Smárinn “short” is a reference to direct access with the car to fast roads. The actual distances are not so important, because the A-B distances are very short.

ID 10459 living in Gardabær states that **driving is convenient and simple compared to other possibilities**. She is not mentioning what is going on during travel – only talks about the destinations (A-B thinking).

For ID 12948, who recently moved to Salir in Kópavogur, to get fast to destination and be able to park easily is very important. For him all locations must be accessible easily by car.

Similar is the case for ID 20343 – living in Vatnsendi who drives at any occasion. She **wants travel to happen fast and direct**. She says they are “**car-people**” – which is a reference to an existing discourse about transport behavior.

Examples from the interviews

3. Choose destinations with positive urban atmosphere although at further distance (centrally living)

ID 20076 walks to the close by Supermarket at Skipholt (top photo) – However, she chooses the pharmacy located in Laugavegur before the closest one in Skipholt because of the pleasure of walking and the more positive urban atmosphere in Laugavegur

ID 10657 living in Vesturbær says he avoids the big grocery store at Grandi although it is very close to his dwelling. He prefers to go to Melabúdin (photo in middle) because he **seeks social atmosphere and a small scale places.**



Results and implications for urban planning

- The results from this study indicate that car-oriented surroundings (at residents, destinations and the route between) have **negative influence** on walking/ cycling for utilitarian purposes
- Results from our qualitative interviews show that the negative influence has most likely **direct effect on the travel mode choice to only some people** – stimulating car driving, while **others accept the car-oriented surroundings** of several reasons or avoid it.
- It should be born in mind, that accepting the car-oriented surroundings is a dynamic phenomenon, influenced by the background to individuals.
- To stimulate walking/ bicycling for utilitarian purposes **design should reflect prioritatisation of pedestrians and cyclists before cars** – be pedestrian/ cycling oriented. This applies to the surroundings around buildings at residents, utilitarian destinations as well as the route between.