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# Every-day mobility anecdotes: Addressing the blind spot of goal- and expertoriented mobility research



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### ABSTRACT

Every-day mobility anecdotes provide in-depth insights into, and a deeper connection with, the complex reality of how mobility practices are conceived and perceived in a way that more aggregated research approaches overlook in their quest for the summary of travel patterns. Drawing on a study conducted between 2017 and 2019, this article proposes the use of a research method that adds rich insights into understanding travel mode choice from the users' perspective in a way that primarily expert-oriented perceptions of sustainable mobility may not. Furthermore, this method encourages an inter- or post-disciplinary understanding of reality, which researchers have indicated may also contribute to a more sustainable future.

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### 1. Introduction

The sustainable mobility debate has been focused on (i) strategies for how to increase walking or the use of bicycles, public transport, or electric vehicles, looking especially for how to change behaviour and mindsets in car-dominated societies; (ii) barriers to the implementation of non-motorized mobility; and (iii) movements in opposite directions (such as increased private car use or controversial use of automated vehicles) (Banister, 2008; Papa and Ferreira, 2018). Input for these approaches tends to focus on an abstracted problem-solution axiom and value mainly expert-knowledge. What such an approach lacks, however, is taking individual traveller's every-day-knowledge seriously as an additional source to inform research, decision-making and planning. This article proposes complementing the more common and valuable expert-centred approach by drawing from every-day-knowledge, collected through a method of continuous anecdotal observations. This can be an impactful source of insights for mobility planning research and practice. At the same time, this method unites insights from and for planning, geography, and ethnography, and integrates qualitative and quantitative methodological elements, therefore encouraging an inter- or post-disciplinary understanding of reality.

This method's approach offers detailed insight into the complex worlds of mobility decision-making among individual travellers. As planners and researchers increasingly become experts in the field of mobility, their

To understand how this method could inform mobility planning and other disciplines, the following research questions are posed: what kind of information emerges from anecdotal data sourced from every-day mobility experiences; and, to what extent can this be a useful addition to expert knowledge and existing other methods of informing research and practice in mobility planning? We also ask: to what extent does this method uncover 'desire lines' for sustainable mobility? The article's main purpose is to demonstrate the potential use of anecdotes as a research method. In order to test this method, the results of that data are analysed in relation to their policy implications – this is simply to test the approach; for a robust set of policy implications the triangulation of data combining several research methods in addition to the anecdotes is suggested (see MacCallum et al., 2019).

This article now turns to discuss the motivation for, and the methodology of, the study conducted for this article. This is followed by a presentation of the results, reflections and a conclusion.

view on the subject tends to become more sophisticated and nuanced, but also focused on the more well-trodden paths. Akin to a 'desire line', i.e. the path created by pedestrians or cyclists as the shortest crossing regardless of the present infrastructure, the proposed method alerts researchers and practitioners to such varied and changing uses of the built and envisioned mobility systems, including uses and desires that do not visually manifest.

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### 2. The gap between expert- and every-day-knowledge

Continuous learning and experience at work creates patterns of thinking that steadily become harder to break away from (Hasson et al., 2015). People are more prone to see what they expect, than to see what they do not expect (Epley et al., 2009; Ralph and Delbosc, 2017). The more expert and aware people become of a particular subject, the more they struggle to see other perspectives. This is especially marked in subjects where people become experts, but is also already influenced by the brief reflections that occur in response to questions directed specifically at uncovering information about a certain topic (Zajonc, 1968; van de Mortel, 2008; Nelson et al., 1997; Morewedge and Kahneman, 2010). Collecting anecdotes can remedy this to some extent: while their un-directionality can be seen as a limitation for directed research, they can provide important complements, by allowing unexpected information to emerge – or making the confirmation of existing knowledge especially strong due to its appearance without prompting.

The methods through which information is collected, and which are considered valid, are also susceptible to such (in)abilities to see what is not expected. Transport and mobility research historically relied heavily on quantitative methods, while only recently adopting more qualitative ones (Clifton and Handy, 2003; Büscher et al., 2010). Surveys and questionnaires, while having considerable value, can be biased in terms of their ability to uncover unexpected results compared to (non-) participant observations of spontaneous actions, reactions, phrases and conversations occurring by chance as a reaction to a delay or a travel incident, and so on. One of the primary problems with gathering data directly from individuals through interviews or questionnaire surveys about why they make the travel choices they do is that they rely on memory retrieval, rarely reveal the real motivations, attitudes and beliefs, or rather say what they think is 'politically correct' (van de Mortel, 2008; Bertrand and Mullainathan, 2001). Focus groups, charrettes, explanatory interviews and surveys also suffer self-reporting biases, obscuring the purpose of gathering spontaneous and unconscious reflections on mobility practices (Birenboim and Shoval, 2016; Næss, 2018). Anecdote collection can be a helpful way to check these biases with what others experience - while remaining conscious of what a researcher might hear or not hear in their surroundings. Anecdotes provide a space for reflection where it is otherwise more difficult to break through such biases. This is especially the case when larger groups of (less expert) students and multiple collaborating and multi-disciplinary researchers take on this task.

Research and education equip students with content and process knowledge that are usually chosen through thorough reflection and understanding of what the students will need in their professional lives, be it as researchers or practitioners in planning (Healey, 2008). Part and parcel of such an education - for mobility planning as well as other areas - is to differentiate important from trivial or misleading knowledge and sources. Too often, though, this differentiation has been meant - or been interpreted - as a bias in favour of quantifiable and statistically meaningful data, or in favour of that which comes from thorough analysis rather than, for example, from observation or personal experience. It can lead to the dismissal of certain forms and sources of knowledge, including that of so-called 'lay' people - as criticized heavily within planning in the communicative planning literature for example (Healey, 2008; Wynne, 1996) - or of one's own reflective experience (Tewdwr-Jones, 2002; Schön, 1982). This creates a situation in which students, researchers and practitioners in mobility planning can easily lose touch with an often rapidly changing reality around them. It creates and reinforces a gap between expert-knowledge and every-day-knowledge.

Ethnographic and auto-ethnographic studies have addressed these gaps in significant ways, also in the field of (sustainable) mobility specifically (Büscher et al., 2010; Larsen, 2014; Spinney, 2011; DeLyser and Sui, 2013; D'Andrea et al., 2011; Novoa, 2015; Merriman, 2014). Traveljournals, photography, video, walking and recording experiences are some common examples (Büscher et al., 2010; Novoa, 2015). More classic ethnographies of course also exist. The above-mentioned existing qualitative mobility research also makes some contribution to a more qualitative

and lay-knowledge-engaging approach to researching mobility patterns (Birenboim and Shoval, 2016; Büscher et al., 2010; Næss, 2018). The method proposed in this article can be seen as an addition to ethnographic and qualitative methods. However, such studies are also used to inform expert-knowledge, rather than highlighting how we may value and access every-day-knowledge in daily practice. We argue that the value of continuous observation of the environment and one's own and others' experiences for an additional, anecdotal awareness of mobility-developments remains undervalued and invisible to many experts and researchers generally. Furthermore, the proposed method contributes to ethnographic research as well as non-ethnographic studies and practices. This bridges the disciplinary divide between much ethnographic and other, often more quantitative and expert-oriented methodologies.

### 3. Methods

Two key sources for bridging the gap between expert- and every-day-knowledge are proposed. First, anecdotal information about others' experiences during or about mobility. Second, anecdotal or auto-ethnographic information about one's own experiences during or about mobility. Both can be collected by anyone in their daily lives, and can be freely interpreted in terms of what does or does not count. However, for the purpose of the research presented here, the authors conducted data collection with two particular groups, and narrowed down the range of what would be looked for. This allowed for reflections on the challenges and opportunities this method provides for access to every-day-knowledge for mobility planning.

The first group taking part in the data collection is made up of fourteen mobility researchers working in seven different countries (The Netherlands, Portugal, Germany, Sweden, Norway, Spain, Finland, England and Australia). This group conducted research in two different formats. First, researchers independently conducted anecdotal research in their every-day lives in the period from February 2017 until January 2019. The anecdotes could include observations about other people's conversations, activities or attitudes while engaging in some form of mobility activity (ethnographic), as well as reflections on their own experiences of mobility in every-day life (auto-ethnographic). The anecdotes about other people were explicitly asked to exclude the researcher themselves (non-participant observations). Second, one specific 'Travel Day' was organized in September 2018. On this day, ten of the researchers contributed with anecdotes from every moment of their travels, making each participant especially aware of the activity and their surroundings. The method of collection varied, from note-taking on paper or a mobile device, or even hands-free audiorecordings while driving. However, participants were asked to capture the anecdotes as closely as possible to the event, so as not to allow the time between the recorded event and the noting down of the anecdote to change the anecdote too much. This resulted in the collection of 90 anecdotes.

The second group taking part in the data collection were students at Wageningen University, The Netherlands, taking transport and mobility courses. They were asked to collect the anecdotes as part of a compulsory assignment. They were asked to collect at least two anecdotes that were ethnographic, that is, about their surroundings and not including themselves (non-participant), and at least one auto-ethnographic anecdote, which would be about their own experience. They collected these in the first week of the course to avoid cross-contamination as the students gained more knowledge on transport and mobility issues in the next weeks. They were also allowed to provide anecdotes they remembered from before the period of the assignment. They were asked to provide a reflection on the collected material, its value for transport and mobility research, and the ethical considerations necessary when using such material. Students gave consent to accept or reject the use of the material they collected for this publication.

The third group participating in the data collection are students in Sustainable Urban Planning at the University of Gothenburg, Sweden. They were asked to contribute anecdotes on a voluntary basis for their course, which resulted in one student participating. Their data was analysed together with that of the second group.

The data is analysed based on *participants* (those who collected anecdotes), about whom data on gender, age range and highest educational position is provided, and *anecdotes/subjects* about which data on type, connotation, estimated subject gender/grouping, estimated subject age group, mode, geographical location (Country, City/Specific location) and topics is provided.

This method requires ethical consideration due to the 'intrusive' nature of ethnographic methods and the potentially sensitive nature of data that is collected and how it is stored. This was handled by seeking the data collectors' informed consent and through joint, transparent decision making (Iphofen, 2015). Prior to the data collection, the purpose and steps to be taken were discussed with all three participating groups. Students were provided with consent forms which delineated their rights regarding participation and how the data would be utilized for research and publication.<sup>1</sup> They could refuse to participate. The type of data collected here could potentially be sensitive (e.g. in terms of vulnerable persons and mobility choices). Therefore, the contributions were submitted via an online form directly to the researchers when possible and transcribed into a database without personal or identifiable information. Here, anonymisation and pseudonymisation were applied without damaging the nature of the statements. A priori, it was also made clear that no unauthorised identifiable material (e.g. photographs, audio-recordings or clearly identifiable details for the story) could be used for the anecdotes (Büscher et al., 2010; Bryman, 2012; Iphofen, 2015). Care was taken when the data was (also) shared on public social media platforms. The platforms were used to enable the internationally located contributors to share their information with us, if and when they explicitly chose to, as indicated to the researchers. No screen captures were stored. Instead, the texts were transcribed for use without an identification key (Hagen et al., 2019).

# 4. Results

This section presents an overview of results from all three groups, the mobility researchers and the two student groups. Tables 1 and 2 (Table 2 is presented in Annex 1) include mostly the quantifiable data, as overall the data set is too extensive to present as a whole. The quantitative results are presented through a brief categorization below, and by providing a large sample of collected anecdotes by theme in Annex 2. The results are interpreted in the discussion and reflection section that follows, including the citation of several of the anecdotes that have provided interesting insights.

# 4.1. Participants

A total of 57 participants (23 females, 34 males) collected 232 anecdotes. Female participants collected 4.74 anecdotes per person, while male participants collected 3.59 anecdotes per person. The female mobility researchers on both occasions collected more anecdotes (6–8 per person) than the male researchers (1.25–2.25 per person). However, when looking only at the student population, the male students were more productive (4.15 per person versus 2.75 per person from female students). The 18–25 age range was the largest population of participants (60.9%) overall, although this is due to the contrast between the mobility researchers group and the student group.

### 4.1.1. Anecdotes

Table 2, provided in Annex 1, presents the quantifiable results from the collected anecdotes. The results are presented here in relation to one another.

Ethnographic anecdotes were the most frequent (67.2%) overall. However, during the Travel Day, auto-ethnographic anecdotes were more frequent than ethnographic ones. Most anecdotes had negative connotations (45.2%) with a distribution between positive (23.7%) and neutral (20.6%).

Table 1
Results overview from mobility researchers and students: participants.<sup>a</sup>

Participants		Mobility researchers	Travel Day (mobility researchers)	Students
Number count		9	10	38
Gender	Female	5	6	11
	Male	4	4	27
Anecdotes ratio provided	Female	40	36	33
per gender	Male	5	9	108
Age range (years) per anecdote	18-25	-	-	142
	26-35	27	21	-
	36-45	11	23	-
	46-55	7	2	-
Educational levels	Students	-	_	32
	(undergrad.) Students (postgrad.)	-	-	6
	PhDs	3	3	_
	Researchers	3	2	-
	Lecturers	1	4	_
	Professors	2	1	-

<sup>&</sup>lt;sup>a</sup> Please note that the data presented here is based on the intent to reflect the pure presentation of the quantifiable aspects of the analysis for easier identification of potentially interesting results – it is not intended as a measure of statistical significance.

There is a marked difference between the anecdotes from students – mostly negative connotations, and that of the mobility researchers, which were mostly positive overall, and almost never negative on Travel Day. On Travel Day, neutral anecdotes were most common. Most anecdotes, furthermore, centred around mixed groups (23.3%), and around male (23.3%) and female (19.8%) subjects alone. The largest subject age group is 19–35 years old.

The Netherlands was the most frequently mentioned country with various major cities and ports as locations in the anecdotes, likely due to the much larger number of participants based in this country. However, the range of the anecdotes extends to various European countries such as Portugal, Spain, Norway, England, Sweden, Germany and non-European locations such as Japan, Australia and Canada.

The most common mode of mobility in use is the train (36.2%), followed by bus (18.1%) and combined modes (14.9%). This is similar to the modes described in the captured conversations of observations with the subjects of train (26.4%), and bus (12.4%) leading. The only difference is that in terms of mode as a topic, bike (11.7%), car (11.3%) and public transport in general (10.4%) were frequently featured. The differences between mobility researchers and students did not vary much.

Push and pull factors<sup>2</sup> were distributed differently between groups and collection types. The students captured many more push than pull factors, while the researchers had more balance on this in the non-Travel-Day collection, and named almost only pull anecdotes or anecdotes combined with pull factors.

In more qualitative terms, the anecdotes have been sorted into nine emerging themes (see Annex 2 for sample anecdotes per theme):

- 1. Philosophizing about mobility: reflections on how the users perceive and conceptualize mobility for themselves and others.
- Observations/criticisms about mobility planning: concrete (specific) suggestions for improvements for current infrastructure and environment and what planners should have done about them.
- Motivations to like/take sustainable modes: anecdotes that reveal preferences for non-polluting modes of transport (e.g. bicycle or mass public transport).
- Motivations to like/take non-sustainable modes: anecdotes that reveal preferences for polluting modes of transport (e.g. private cars).

 $<sup>^{\</sup>rm 1}\,$  The formats used for the assignment and for the consent forms are provided as supplementary material to the article.

<sup>&</sup>lt;sup>2</sup> Push factors focus on aspects that keep someone from doing something, while pull factors focus on incentives to encourage certain behaviour. For example, a push factor would be road tolls or higher parking fees, while a pull factor would be an incentive to use a particular mode such as by offering free bus passes.

- Children and mobility: anecdotes concerning children and their perceptions of transport.
- 6. Complaints about transport and mobility: anecdotes that highlight the negative aspects of a particular mode or aspect of mobility.
- Accessibility: anecdotes that discuss (lack of) globalized access (e.g. for less mobile persons).
- Coping with mobility disruptions and discomforts: anecdotes describing reactions to disruptions or discomforts.
- General observations of experiences while traveling: anecdotes specifically about the *experience* of traveling in a way that is not covered by the above.

The anecdotes are organized (in Annex 2 and in the discussion below) according to groups. Group 1 (G1) refers to the mobility researchers, Group 2 (G2) represents the student contributors. The themes "philosophizing about mobility" and "observations/criticisms about mobility planning" contain only contributions from Group 1, while "complaints about transport and mobility", "accessibility" and "coping with mobility disruptions and discomforts" manifest only within G2. The results are discussed further in the next section.

#### 5. Discussion

The results are discussed so as to demonstrate how anecdotes could be utilized to inform (i) the topic of sustainable mobility specifically, (ii) the comparison between anecdotally collected every-day-knowledge and expert-knowledge, and (iii) some interesting differences between the groups informing this data collection. Following this, the inter-disciplinarity of the results is reflected on. The observations and discussion can be seen as a means to inform research design of more traditional research methods. The value of the method of anecdote collection is demonstrated, albeit as a complementary rather than single, method for mobility and transport research and education. Triangulation with other methods – ideally both quantitative and qualitative – would be necessary to be able to make any generalizable claims or to complete a student's education for transport and mobility research and planning.

# 5.1. Sustainable mobility: Is it a 'topic' and if so, how?

Sustainability is not explicitly named in the anecdotes. Despite many sustainability discussions in the news, the link to personal mobility experiences doesn't seem to be made often. However, if sustainable mobility is identified by the discussion of non-motorized mobility or mass public transport, versus motorized, small-vehicle mobility, then a number of observations can be made. When sustainable mobility in the form of cycling or trains especially is discussed, the student groups found many complaints, mainly along the lines of delays, bike-traffic-jams, and physical discomfort:

"I'm not a morning person. I like taking the bus to school because it gives me time to wake up and I enjoy watching the world go by."

[-G1]

"The road was closed for construction. This is a road that I take all the time when I am on my way to work. Cars couldn't use this route for a while (2–3 months) but I always bike to work. The road could still be used most of the construction time by bikers and otherwise bikers could (legally) go via the sidewalk. I always felt very satisfied to be able to use the road as I would like. It felt good to be able to use the whole road and didn't have to worry about cars"

[-G2]

However, complaints about non – /less-sustainable modes are very similar, often referring to road works and traffic causing delays, as exemplified by the following anecdotes:

"Two girls walking out of train station Ede-Wageningen, age around 20. One says to the other in Dutch: 'I really want a red car!' Laughing, sounding like that would be a symbol of coolness."

[-G1]

"Two women on the train from Ede-Wageningen to Amersfoort (age ca. 30). One says to the other that she wishes to have a car and be able to use it, because the journey by public transport took her 1,5 h and by car only 45 min."

[-G2]

Indeed, in some cases there is an inherent assumption that these delays can only be resolved by building more roads, thus demonstrating that other mobility choices are not considered, as shown for example in the following anecdote:

"Middle aged couple on entering a veterinary practice in Perth, WA: 'We are so sorry that we are late – the freeway was jammed. Why didn't those planners add another lane on the freeway when they built our housing estate?'"

[- G1]

The mobility researchers tended to find more positive reports about sustainable modes, though cycling was also described as stressful (see the reflection on the difference between the students' and the mobility researchers' anecdotes below). Some examples include:

"Chose my work and leisure activities today all within walking distance of the metro stop at which I arrived this morning. Benefits of closely clustered activities close to public transport!"

[-G1]

"A group of 6-8 older women discussing that one of them got an electric bike, that she does prefer it, only needed to charge it once, she usually uses it for grocery shopping, but also went to the train station... etc. Positive about cycling and electric bikes, but saying she's not cycling more because of it. Does sound like they all cycle regularly. Prefer going slowly but know they can go faster... Nicer to cycle and see the scenery! Does sound like they also regularly do cycling tours for day trips..."

[– G1]

One mobility researcher did frequently highlight stress and discomfort during cycling in the Netherlands:

"Moving to the Netherlands completely changed my perspective on what is "traffic". The volume of bikes vs cars still causes delays & queueing. With 70% of JTW trips made by bike it can be very stressful on the road, even if the air quality is good!"

[-G1]

What is striking is that for all modes, irrespective of how sustainable they are, creative arrangements are often discussed and found when a problem arises (such as a strike in public transport, road maintenance, etc.). Sometimes these perceived problems are considered annoying, but often the positive sides of such disruptions are also found among the anecdotes, for example describing people connecting with each other or finding ways to amuse themselves while waiting for a delayed train:

"I pick up my bike at the parking at Amstel. A young man who picked up his bike before me, gets on the bike even before leaving the parking garage - and the young guy working at the parking gives him a tip, in a very friendly, warm manner (which is embarrassingly shocking for me after interacting with all the commuters who are mostly lifeless in the evening) that there's a fine for this, so it's better to walk next to a bike.

The cyclist, also warmly, thanks him and, smiling, walks next to his bike. I'm following the guy and following the advice...Outside, the guy in front of me jumps on the bike and ...opens a beer while on the bike. People keep surprising me with their skills."

[-G1]

'Comfort', 'journey time' (especially whether delays are likely to occur) and 'flexibility' are mentioned frequently as motivators for a certain mode choice. However, a nice scenery or the possibility for unexpected interactions also feature prominently. For example in the following anecdote:

"Speaking about one's teenage daughter: used not to want to drive, but once she got used to it she felt it was so nice—she started to take the car rather than bus for regular trips" [note: this conversation was heard on a train]

[-G1]

People are more often overheard discussing mobility if they are enthusiastic about a type of transport/mobility, or are enjoying a scenery – they reflect on which mode(s) enable them to enjoy this, rather than only focusing on complaints, as exemplified here:

"I was sitting with two older co-workers at a table during our lunchbreak. They were both between 45-55 years old. They were discussing if they like driving in a car. One of them said she does, especially in a certain situation. She likes driving to her best friend in Munsterland, Germany. When she was young, her father used to drive her there since he did not want her to go on a train alone, because it was too dangerous. But now, since she is older, she loves to drive there herself. She leaves very early, when the roads are almost empty, so she can get on the straight highways that you need to drive on to get to Munsterland. She loves getting on the fast lane, going a steady 170 km/h, with some nice music on, a cigarette in her hand and an ashtray by her side. 'It's like having mobile me-time, where I can do what I want and look forward to the destination, instead of travelling to work all the time'."

[-G2]

However, the anecdotes don't reveal a particular link between the level of sustainability of a mode and whether this mode is discussed more or less positively. People appear less extremely inclined to hold on to non-sustainable modes, especially the private car, than mobility researchers sometimes seem to expect. Nevertheless, it also doesn't show any clear inclination toward more sustainable modes.

'Journey time' requires a deeper discussion. Expert-driven mobility planning favours travel time saving as one of the major drivers in transport system planning (for road and public transport systems predominantly). Yet, a close examination of these anecdotes shows that several people value the journey time itself, especially the mobility researchers group.

"I have a partner in Paris who I see once or twice per month. I prefer to travel there by train (6 1/2 hours). Flying might be faster, but the air journey disrupts the day just as much. What is more, I can work on the train. I work as a freelancer for an international IT company and what I can achieve during the train trip counts as a 'billable day'. This wouldn't be possible if I was flying."

[- G1]

"A while ago on February 16 I went to a Bizzey concert with some friends, we had to travel with one bus and one train and it took about an hour and fifteen minutes. I noticed that everyone didn't find traveling boring or annoying at all, while they normally did. Everyone was already in the party mood for the concert and it felt like the trip was over

in no time. So when you are going somewhere you are really excited for traveling is more fun."

[- G2]

Another notable finding is that children seem to learn from their peers and parents what to think of mobility, while their intuition seems at first to indicate curiosity for the mechanics of whichever mode is currently available.

"Daddy will go get the car. Our own car!' says father to a small boy (3?). 'Yes, but where is the train?' the boy responds, with no interest whatsoever in the car."

[- G1]

"A child (age 5) and his father (age around 34) are in the train. They are talking about the way the train is steered. 'A train doesn't have a steering wheel' says the little boy. The father agrees, but tells the boy there are other ways to steer a vehicle. 'Where is the road?' asks the boy only a few minutes later. The father responses with 'There is no road, there are rails and those are only meant for the train."

[-G2]

The anecdote collection discussed here does not allow for enough information on this aspect. However, as literature demonstrates, there is room for self-determination and independent mobility and transport behavioural changes in youth and adolescence (particularly between the ages of 10–18) (Mitra, 2013; Panter et al., 2008). This indicates a possibility for influence by highlighting the curiosities of sustainable mobility and by describing one's own experiences in sustainable mobility more, and more positively, than that in less sustainable modes. From a child development and psychology perspective this should not be surprising, but in sustainable mobility research and planning the importance of children's experiences is limited to self-reporting (surveys and travel diaries) sometimes in conjunction with a parental response section which is subject to biases or existing norms (Mitra and Buliung, 2015).

# 5.2. Every-day-knowledge and expert-knowledge: Comparing and contrasting

While the anecdotes do not provide generalizable information, they do provide starting points from which policy makers or planners could be inspired toward direct action in a way that expert-driven conventional methods do not. For example, a travel diary (often used as a quantitative method for collecting information on travel patterns (Richardson et al., 1995)) or a stated preference survey (another quantitative method used for surveying travellers on the most important variable for travel choice (Smith and Olaru, 2015)). Anecdote collections can highlight the significance of factors other than shortest or cheapest journey for travel mode choice - for example by advertising the use of public transport as an easy form of mobility when 'you're just not a morning person' (G1, cited above); or to better inform new residents of an area on their range of possibilities for transportation (see quote of complaint from Perth about roadspace availability for a newly built estate); or to facilitate and encourage bringing pets or moving boxes on public transport (this might be cheaper than building new lanes on highways?) ("Colleague moved house by loading 24 boxes; a few per day on passenger train from Oslo and her friend would pick it up in Trondheim." -G1). In some cases, further research might be necessary to confirm if such measures would be effective, but the anecdotes can provide the necessary inspiration to think of such research - a valuable role.

There are also insights from the above anecdotes that challenge conventional mobility and transport planning assumptions and theoretical frameworks such as the focus on general accessibility versus that of individual needs and preferences (van Wee et al., 2013). The anecdotes show that what is considered is a complex combination of personal norms and beliefs (red cars seen as cool) and even external and temporal factors (scenery,

weather conditions etc.). These factors are usually unquantifiable in traditional econometrics and transportation models. The challenge to expert knowledge, then, is to not rely on modelling and abstraction but to include mobility experiences in policies and implementation.

### 5.3. Mobility researchers and students: Comparing and contrasting

In terms of contributions in general, there was significantly more enthusiasm from women than men among the mobility researchers, while this was more spread out among the students. However, in terms of participation and the amount of material collected, the compulsory nature of the assignment for the students of course has a very big impact. The comparison in those terms is therefore not considered meaningful.

The mobility researchers, as opposed to the students, were more prone to see or highlight or come across pull-factors and positive descriptions of anecdotes, while this was the opposite for the students. We hypothesise that this might be because the more experienced mobility researchers were looking for 'surprises' when looking for anecdotes, or were describing their own experiences, which for the most part are inclined toward sustainable mobility. They may also have been listening more for specific keywords or subjects. The students, on the other hand, may have been looking for more 'representative' anecdotes, or may have been listening for anything, including perhaps a broader range of conversations. The time-span (years and one specific highlighted day for the mobility researchers, versus one specific week for the students) per group may have played a significant role in what could be witnessed, and the mindset with which the anecdotecollectors went to work. The fact that both students and mobility researchers were able to provide anecdotes from previous experience may have been significant, especially since these anecdotes were apparently especially memorable, but in fact very few such anecdotes were collected, and they did not differ meaningfully in content from the other anecdotes.

It is possible, then, that the results also indicate a certain contradiction between the work and experiences of mobility researchers, who tend to highlight the more complaint-based nature of mobility experiences in their work (based on surveys, traditional data collection and expert-knowledge), while in their daily experience they and the people they hear around them seem to have much more positive associations with different modes. This should at least provide food for thought in perhaps revising how surveys or interviews are set up, or which information is sought out. The fact that the students did hear many more complaints than the mobility researchers, might indicate that existing mobility research does indeed probably capture a good part of how mobility is experienced. However, it remains intriguing that the perceptions of the mobility researchers appear so different, and different in these particular ways, from those of the students.

Another curiosity is that mobility inside buildings is very rarely discussed in both groups, and never among the mobility researchers using social media. The only mentions of mobility inside buildings from the mobility researchers concerned the last bit of walking of their commute. By contrast, a student reflected on the accessibility of aisles in a supermarket for disabled, but this was also an unusual anecdote as compared to the others. It seems, then, that when asked to collect mobility anecdotes, all groups tended to consider this as mobility from one location in a city or town to another, usually with a specific purpose (only few anecdotes were about leisure-based mobility).

# 5.4. Interdisciplinarity: Opportunities and challenges

The interdisciplinary background of those contributing anecdotes (from planning, sociology, philosophy, ethnography, architecture, journalism studies, marketing and other disciplines) may have contributed to the variety of themes brought up in the anecdotes, and the creativity with which they were carried out (especially on the Travel Day). More importantly, however, the method of anecdote collection is shown to be, in a way, post-disciplinary. First of all because it values input that cannot itself be categorised as disciplinary, except perhaps as being somewhat ethnographic in nature. The data can

be and was analysed both quantitatively and qualitatively, though the qualitative analysis was given more emphasis due to the statistically insufficient amount of data for more thorough quantitative analysis. Every discipline can contribute to the anecdote collection through its own lens, and may thus contribute different but complementary insights. The interdisciplinary background of writing and analysing the data for this article (urban, spatial and mobility planning, architecture, urban design, geography, psychology), was in that sense similarly important. Of course, such an interdisciplinary approach necessitates a certain level of mutual respect from the participating disciplines. A further challenge is the negotiation of interpretations and what is considered a relevant or significant finding. As an exploratory method, however, the anecdote collection and evaluation seem to offer great opportunities for uncovering starting points for further research and practice for any discipline.

Anecdote collection is exploratory in its substance and process. The use of this method in education fulfilled two purposes. The first was the familiarisation of students to be aware and observe how others and themselves thought (or not) about mobility practices. Some commented on how it made them think about things from different people's perspectives in a way they had not thought about before. The second goal was to provide a platform to discuss the social and ethical dilemmas of mobility choices and practices. Prior to this iteration, students were asked to study news articles regarding mobility. After the introduction of the anecdote exercise, students have reflected that they feel more 'involved' and 'interested' in the topics and the exercise. Mobility no longer stayed as an 'abstract' concept or topic. This is evident in a majority of their reflection essays expressing surprise that they never 'thought' about their own mobility practices and their current interest in it. In fact, we have seen an uptake of students continuing to pursue this subject for their individual thesis topic in the later part of the program.

The anecdote collection method can also assist to understand and better connect the worlds of research, planning/decision-making practice and every-day reality by increasing awareness of which topics reach people using various mobility systems, how they speak of them and how well this seems to match the academic debates, for example. There is a "central role of users of scientific knowledge in seeking, accessing and interpreting information, the skills required to do so, and potential changes in how non-scientific audiences view and engage with science" (Rau et al., 2018, p. 268). Collecting anecdotes in the way experienced here, can provide an awareness among researchers of their own position as part of every-day experience, as well as remaining (more) rooted in the experience of (often quickly changing) circumstances around them from the perspective of 'non-experts'.

### 6. Conclusion

By introducing the method of every-day anecdote collection, this article shows both a way of accessing and presenting, as well as a means of bringing, every-day-knowledge into research and practice on sustainable mobility as a complement to expert-knowledge. The methods' strength lies in allowing explorative insights to emerge. This can inspire follow-up, directed research. There are limitations to the use of this method as a means to generalize results - this would require a very extensive and high-quality data collection. Instead, the article demonstrates a contribution to a reflexive and grounded research approach for researchers and practitioners.

A key insight this article provides is found at the interface of sustainable mobility goals and expert- and goal-oriented research. It hints that the more expert one becomes, the more one sees and experiences (sustainable) mobility in its pleasant forms. Yet, the research and practice of expert researchers does not reflect these experiences. This sheds a different light on research results that highlight complaints and negative aspects of travel: they make logical sense and resonate with many, but they don't seem to reflect every-day mobility experiences. A strange gap is uncovered here, which warrants further research through anecdotes. It suggests that keys may be found for different approaches to implementing and encouraging

more sustainable mobility in some personal experiences and those of surrounding people, if more attentiveness is given to them.

Future research and applications of the anecdote-collection offers four potential directions. First, into the value of anecdote collection as a student assignment in mobility courses. Second, devising a much larger-scale collection and more rigorous exploration of every-day mobility anecdotes. Third, a deeper exploration of the consequences for the potential of finding starting points for reaching goals of sustainability. And fourth, conducting an even more varied research project in terms of disciplines and groups involved, focusing more on geographical or linguistic variations as well, and reflecting on similarities and differences in those terms – considering the possibility to look for mobility anecdotes or also for anecdotes on other subjects, depending on the objective of the research.

### CRediT authorship contribution statement

Kim Carlotta von Schönfeld: Conceptualization, Methodology, Validation, Formal analysis, Investigation, Resources, Data curation, Writing - original draft, Writing - review & editing, Visualization, Supervision, Project administration. Wendy Tan: Conceptualization, Methodology, Validation, Formal analysis, Investigation, Resources,

Writing - review & editing, Visualization, Project administration. Carey Curtis: Conceptualization, Methodology, Validation, Investigation, Resources, Writing - review & editing, Project administration. Jurrian Frank Visser: Methodology, Formal analysis, Investigation, Resources, Data curation, Writing - review & editing, Visualization.

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Annex 1. Table 2

**Table 2**Results overview from mobility researchers and students: anecdotes. <sup>a</sup>

Anecdotes		Mobility researchers	Travel day (mobility researchers)	Students
Number count		45	45	142
Туре	Ethnographic	42	12	102
	Auto-ethnographic	3	33	40
Connotation	Positive	18	15	21
	Negative	14	2	87
	Negative and positive	2	_	15
	Negative and neutral	_	-	3
	Neutral	8	27	12
	Other	3	1	0
Estimate subject gender/grouping	Alone (female)	3	20	23
	Alone (male)	6	8	40
	Pair (female)	8	_	22
	Pair (male)	4	2	17
	Three or more (female)	7	_	_
	Three or more (male)	1	_	_
	Mixed	12 (8 M & F, one each)	14	28 (18 M & F, one each)
	Unclear	4	1	7
	Other	_	_	5
Estimated age range (subjects) (years)	0–5	1	-	5
<b>Q</b> 44 49	6–10	4	_	
	11–18	3	_	
	19–25	5	_	94
	26-35	10	9	20
	36-45	5	17	
	46-55	8	2	6
	56-65	2	_	
	Above 65	5	1	11
	Unknown	5	_	7
	Mixed age	_	16	8
Modes	Walking	3	2	5
	Bike	2	_	22, 1 Mountain bike, 1 Scooter, 1 Motorcycle
	Bus	8	10	16
	Metro	2	1	1
	Train	10	6	52
	Car	1	1	13, 1 Electric car, 1 Taxi
	Combined	-	-	28
Geographical locations				
	Netherlands	25	20	-
	General (NL)	7	4	_
	Amsterdam (NL)	8	4	-
	Utrecht (NL)	6	6	-
	Schiphol Airport (NL)	1	_	_

(continued on next page)

Table 2 (continued)

Anecdotes		Mobility researchers	Travel day (mobility researchers)	Students
	Groningen (NL)	2	5	-
	Ede (NL)	_	1	14
	Wageningen (NL)	3	_	
	Spain	2 [Barcelona (1), Granada	_	-
	•	(1)]		
	Norway	1 [Bergen]	7 [Oslo (7), Bergen (6)]	_
	Sweden	1 [Gothenburg]	=	_
	Portugal	1 [Porto]	10 [Porto-Braga]	_
	England	3 [Oxford (2), London (1)]	-	_
	Germany	2 [Essen (1), Bonn (1)]	_	_
	Belgium	1 [Liege]	_	_
	Austria	1 [Vienna]	_	_
	Italy	2 [Venice]	_	
	Australia	2 [Perth]	_	_
		Z [Pertii]	- F FITalaialail	-
	Finland		5 [Helsinki]	- 1 FD 1
	Czech Republic	_	_	1 [Prague]
	Japan	_	-	1 [Tokyo]
	Canada	-	-	1 [General Public Transport]
	Unknown	1	-	9
Topics (modes)	Airplane	3	_	
	Car	17	5	9
Car & Bike Car & Public Trans Electric Car Train Train & Bus Bus Tram/light rail Metro Public Transport ( Taxi Transit-oriented Development Cycling Bike Electric bike Scooter/motorbike	Automated vehicles	1	_	-
	Car & Bike	_	_	2
	Car & Public Transport	_	_	3
	Electric Car	_	_	1
	Train	11	12	50
	Train & Bus	_	_	1
	Bus	6	12	16
	Tram/light rail	3	3	2
		2	7	1
	Public Transport (general)	3	_	26
	1 0	_	1	1
		_	2	_
			_	
		12	_	_
		3	8	21
		1	8	_
		1	_	2
		4	12	6
	Walking/running		12	
Im	Non-motorized (general)	2	-	-
	Immobile	_	1	1
Topics (push/pull)	Push	10	1	92
	Pull	13	12	28
	Push & pull	13	4	14
	None	9	28	6
Day of anecdote	Weekday (Mo-Su)	Too little information	All on Wed. due to date of Travel Day	Tue. (quickly followed by Fri. and Mo.), Wed. least frequent.

<sup>&</sup>lt;sup>a</sup> Please note, as with the data about the participants, that the data presented here is based on the intent to reflect the pure presentation of the quantifiable aspects of the analysis for easier identification of potentially interesting results – it is not intended as a measure of statistical significance.

## Annex 2. Anecdotes by theme

Several of these anecdotes are also used in the text above to discuss the overall results in terms of content. However, here all anecdotes are provided by theme to show the variation of comments made by theme and to facilitate an overview of the results for the reader. G1 refers to Group 1, i.e. the mobility researchers, G2 refers to Group 2, i.e. the student contributors.

## 1. Philosophizing about mobility:

"Two young men (likely university students) on train between Ede and Utrecht [The Netherlands], discussing programming and then pros and cons of automated vehicles (AVs), saying how the technology is amazing but there are problems of hacking possibilities, or use by terrorists, or how to decide on who is to blame for example if someone dies - is it the software developer or...? Need to make sure to have each car/brand have a different setting so they can't all be hacked simultaneously...mainly focusing on scary sides of it (they are into programming and making software, so seem to speak from some experience)"

[-G1]

# 2. Observations/criticisms about mobility planning:

"Middle aged couple on entering a veterinary practice in Perth, WA: 'We are so sorry that we are late – the freeway was jammed. Why didn't those planners add another lane on the freeway when they built our housing estate?"

[-G1]

"Context - discussing a school girl who was killed on her bike in Oxford - said there wasn't enough road space ... "They should ban cars - if you had free reliable [public transport] from all the villages – it's simple really - trouble is people don't want to pay. What they really need to do is just ban traffic from the city centre - should be for people - no parking at all - free mini buses"

[-G1]

"'Almost-to-door service. I have paid for my trip so my taxi should be able to stop on the pedestrian walkway, right?"

[- G1]

3. Motivations to like/take a sustainable mode:

"I'm not a morning person. I like taking the bus to school because it gives me time to wake up and I enjoy watching the world go by."

[-G1]

"[In Amsterdam] Three young women (end 20s) talking about cycling in UK and The Netherlands (NL), mentioning the dislike for cycling there but liking cycling in NL. But clear that motivation for cycling is about mobility, not sustainability (e.g. one mentions she might soon substitute her bike for a scooter) and one mentioned she prefers cycling though she likes people-watching better in public transport/misses that with cycling. But otherwise cycling all the way. (Those two were Romanian). The third, Dutch girl mentioned wherever she goes she would always try to cycle, but exceptions are if it's really unsafe, like in London."

[- G1]

"A group of 6-8 older women discussing that one of them got an electric bike, that she does prefer it, only needed to charge it once, she usually uses it for grocery shopping, but also went to the train station... etc. Positive about cycling and electric bikes, but saying she's not cycling more because of it. Does sound like they all cycle regularly. Prefer going slowly but know they can go faster... Nicer to cycle and see the scenery! Does sound like they also regularly do cycling tours for day trips..."

[-G1]

"I have a partner in Paris who I see once or twice per month. I prefer to travel there by train (6 1/2 hours). Flying might be faster, but the air journey disrupts the day just as much. What is more, I can work on the train. I work as a freelancer for an international IT company and what I can achieve during the train trip counts as a 'billable day'. This wouldn't be possible if I was flying."

[- G1]

"Having the university near a light rail stop is a boon! Our students mostly come by the light rail ... helps when inspiring them to design a car-free urban transformation zone."

[-G1]

"Chose my work and leisure activities today all within walking distance of the metro stop at which I arrived this morning. Benefits of closely clustered activities close to public transport!"

[-G1]

"Colleague moved house by loading 24 boxes; a few per day on passenger train from Oslo and her friend would pick it up in Trondheim."

"I'm leaving after peak hour. The Netherlands has a country-wide train subscription that's quite cheap outside peak hours. As a PhD-student I can usually afford to travel after peak hour in both morning and evening - it feels like luxury in the morning! :)"

[-G1]

"The road was closed for construction. This is a road that I take all the time when I am on my way to work. Cars couldn't use this route for a while (2-3 months) but I always bike to work. The road could still be used most of the construction time by bikers and otherwise bikers could (legally) go via the sidewalk. I always felt very satisfied to be able to use the road as I would like. It felt good to be able to use the whole road and didn't have to worry about cars"

[-G2]

4. Motivations to like/take a non-sustainable mode:

"Speaking about one's teenage daughter: used not to want to drive, but once she got used to it she felt it was so nice—she started to take the car rather than bus for regular trips" [note: this conversation was heard on a train] - G1

"Two girls walking out of train station Ede-Wageningen, age around 20. One says to the other in Dutch: 'I really want a red car!' Laughing, sounding like that would be a symbol of coolness."

[-G1]

"Two women waiting for a train at a metro station in Bonn: One said 'I like [public transport] but once you start a family you just have to move further out of the city. Children need a garden, you cannot stay in an apartment with them. And then you also must have a car."

[-G1]

"Moving to the Netherlands completely changed my perspective on what is "traffic". The volume of bikes vs cars still causes delays & queueing. With 70% of JTW trips made by bike it can be very stressful on the road, even if the air quality is good!"

"[Normally, while driving] I am just listening to my audio-book and I just get carried away and forget about the time. But if you're just stuck in traffic and looking at the watch, it gets very stressful. I remember before I started listening to audio-books."

[-G1]

"Two women on the train from Ede-Wageningen to Amersfoort (age ca. 30). One says to the other that she wishes to have a car and be able to use it, because the journey by public transport took her 1,5 h and by car only 45 min."

[-G2]

"I was sitting with two older co-workers at a table during our lunch-break. They were both between 45-55 years old. They were discussing if they like driving in a car. One of them said she does, especially in a certain situation. She likes driving to her best friend in Munsterland, Germany. When she was young, her father used to drive her there since he did not want her to go on a train alone, because it was too dangerous. But now, since she is older, she loves to drive there herself. She leaves very early, when the roads are almost empty, so she can get on the straight highways that you need to drive on to get to Munsterland. She loves getting on the fast lane, going a steady 170 km/h, with some nice music on, a cigarette in her hand and an ashtray by her side. 'It's like having mobile me-time, where I can do what I want and look forward to the destination, instead of travelling to work all the time'."

[-G2]

"17 March 2019; Dutch speaking father (approximately 40/50) and son (approximately 20/30) discuss the public transport at Utrecht Central Station. Son: 'Ideal, such an automatic recharge card, so fast! Father: 'Yes? Do you declare often?' Son: 'No, I mainly travel by car'. Father: 'Okay, otherwise it might also be a lot of paperwork, right? Son: 'Yes, you have to fill in a lot of forms then'."

[-G2]

### 5. Children and mobility:

"Daddy will go get the car. Our own car!' says father to a small boy (3?). 'Yes, but where is the train?' the boy responds, with no interest whatsoever in the car."

[-G1]

"Little girl tells mother, while traveling on bus, how she finds it so boring to go by train (seems like peer pressure, because she emphasises how much her friend also found it boring), but relates how they went anyway, but found it sooo boring."

[-G1]

"A child (age 5) and his father (age around 34) are in the train. They are talking about the way the train is steered. 'A train doesn't have a steering wheel' says the little boy. The father agrees, but tells the boy there are other ways to steer a vehicle. 'Where is the road?' asks the boy only a few minutes later.

The father responses with 'There is no road, there are rails and those are only meant for the train.'"

[-G2]

### 6. Complaints about transport and mobility:

"I took the bike to the university campus from my house in Wageningen. Normally this would be a 10-minute bike ride, as the distance is not that big, but I got stuck in traffic due to a very annoying traffic light. This specific traffic light is situated near the university campus and has very long waiting times. While I was waiting at the traffic light I could feel the mood of the cyclists around me, and they were also not amused by the delay they got from the traffic light."

[-G2]

"It is very crowded in the train. I have to stand in the aisle of the coupé. One woman in approximately her 30s sits in a two-seater with one bag on the chair next to her. Next to the bag on the seat, she has another suitcase and a handbag. She doesn't seem to be very comfortable in her seat partly by the fact that she is enclosed by her bags. I suspect that she isn't very comfortable by the fact that she has taken two seats instead of one but she doesn't have the space to relocate her bags nor is there any space to store the bags elsewhere. I'm standing in between two people who stand closer than you would normally do with strangers which makes me slightly uncomfortable. However, it is too crowded to increase the distance between us so it is understandable that they stand so close. They also seem to feel slightly uncomfortable by the close proximity of strangers which I can tell by the way they divert their eyes. The reason I think this is because I myself do this as well. I'm a little annoyed by the fact that the woman takes in more place than is necessary but I can also see that she regrets the situation so my annoyance is present but a little misplaced."

T– G21

"I was on my way to Zwolle, with my motorcycle, and after a good ride over the dikes alongside the river 'IJssel', I planned on taking the highway to cover the last part of the journey. But when I reached the access road to the junction of the highway, it was closed off due to road works. I had to look for another access point, but that turned out to be kilometres away in the wrong direction, this dampened my mood because it took me extra time to get to my destination, and the occlusion of the junction was not well indicated."

[-G2]

"Last Tuesday I was waiting at the 'amazing' traffic lights near Bornsesteeg waiting for the lights to go green with about 200 other students. I'm at the back of the bicycle traffic jam when I overheard two girls talking about the situation. Two things they said were very interesting: 'The person who designed this is an absolute idiot!' and 'Even if you're on time, when you get to this intersection you'll still be late!'"

[-G2]

"A friend of mine (ca. 19) was complaining about the construction works between Amersfoort and Amsterdam, which lead to having to travel much longer to get to the destination. It was a journey by public transport that now included 1 bus, 2 metros, 2 trains and then a walk."

[-G2]

"Girl, around 18, travelling to Zwolle to stay the night with a friend. She had to travel in the weekend due to the NS strike this morning, otherwise she could not get to school on time."

[-G2]

### 7. Accessibility:

"In the supermarket in Wageningen, an elderly lady, around the age of 80, had difficulties with her scoot mobile. She was stuck in between two racks in the supermarket. Later on, I saw her stuck in another spot. She did get help from people around her, but the accessibility for less mobile persons was obviously insufficient in the supermarket."

[-G2]

8. Coping with mobility disruptions and discomforts: "Group member of previous course, 25 years old, telling about her plan the night before (Monday), to go to a fencing training. But her plan could not succeed because of the cancelled trains between the Arnhem and Ede-Wageningen station due to heavy weather conditions, so she had to turn around and go home."

[-G2]

"My mom: what time will you be back home? My dad: I was planning somewhere before 4:30 in the afternoon. My mom reacted surprised. 'That's early! Didn't you have a lot of clients?' My dad responded. 'Yes, but I must be home before 4:30. Otherwise I will be in traffic till 6 in the afternoon."

[- G2]

"In the train from Ede-Wageningen to Schiphol Airport, two Dutch girls (students I assume by their topic of conversation) aged around 18 or 20 years, were discussing the clumsiness of travelling by public transport with a large bag. One of the girls was travelling home with all her laundry put in a large bag. She was puffing and grumbling; 'Pffff, I hate to travel with this huge bag!'. She didn't feel very comfortable about it. I realised how easy it is to have a washing machine in my house!"

[-G2]

9. Observations of experience while traveling (neutral, positive or negative):

"Ride in Helsinki metro is one that involves little vocal noise when compared to many other metropoles. However, talking on the phone in this low noise environment, sometimes even about very personal details, is perfectly fine."

[-G1]

"People show wonders of multi-tasking on trains and buses: they listen to music and edit texts, talk on the phone while simultaneously checking out social media feeds on the same phone, paint their nails"

[-G1]

"Getting off the bus: choosing between stairs and escalator to enter Utrecht CS. Can't stand being immobile and wait anymore, so I take the stairs, then make another lazy run for the train, probably won't catch it, but I just feel like moving after the uneventful bus ride. The doors close, I could have made a very quick desperate sprint as I was hearing the whistle and make it, but extra 10 min on the station is fine. As usual, I'm going to Etos or Hema to buy something I always forget to buy - this time paracetamol. I like this feature of Dutch train stations. Ever since I commute via Utrecht, I hardly ever need to go to stores like Etos in Amsterdam, I can always get anything before the train."

[-G1]

"I pick up my bike at the parking at Amstel. A young man who picked up his bike before me, gets on the bike even before leaving the parking garage - and the young guy working at the parking gives him a tip, in a very friendly, warm manner (which is embarrassingly shocking for me after interacting with all the commuters who are mostly lifeless in the evening) that there's a fine for this, so it's better to walk next to a bike. The cyclist, also warmly, thanks him and, smiling, walks next to his bike. I'm following the guy and following the advice...Outside, the guy in front of me jumps on the bike and ...opens a beer while on the bike. People keep surprising me with their skills."

[-G1]

"This is not exactly an experience where I encounter a lot of people, because I'm sitting in my car. I can only see them from my window. It's still, I would say, a stressful experience because I have a lot of traffic to go through."

[-G1]

"During the train journey a woman, around 20-30 years old, was on the phone telling about the old intercity used as 'sprinter', she called it a 'Boemelding' because it is so old, noisy and slow. But she was happy about the good sunny weather."

[-G2]

"Today I meet another conductor who is out of the ordinary. He comes from the province Brabant, and since it's almost Carnival he comes singing Carnival songs into the seating compartment where I am seated. Another passenger starts a conversation with him. He tells her that he's looking forward to Carnival and that he is going to enjoy it. He also mentions that it's unfortunate that he must work on Monday. On top of this, he is wearing a batch saying, 'Happy Carnival!'. Well, he really is having fun already."

[\_ G2]

"At my changing station, Utrecht Central station, the train was 5 minutes late. I was annoyed by it, as it was 8 degrees outside, and I had to be early at home in the evening. But I knew that the train would probably gain time when travelling to Amsterdam and further, and thus would lose the delay. When the train arrived, the front of the train had no lights on. Around me, people looked confused about this. Some young people (ranging from 15-25

probably) were wearing colourful, eccentric outfits, because of a Comic Con that was held in Utrecht. A guy, who was dressed in a steampunkcoat army outfit (probably in his twenties), started a conversation with a girl (also around 20) about the darkened part of the train. Later we heard that the front part would disconnect from the rest of the train, and that we should enter the rear part. The guy and girl started talking about Comic Con. 'I wish I could wear this every day. I feel comfortable wearing this, but it's not really accepted' the guy said. The girl said: 'yeah I understand that you would wear this, I really enjoy all these people in costumes walking around. It's nice to see a change and variety in outfits around Utrecht Central Station once a year. That's a nice feature of a station where people meet for conventions like these, it's fun to see."

I - G21

"On Saturday [...] I observed at the bus from Busstation Wageningen to Arnhem Central Station. When it comes to boarding and leaving the bus, the people who enter the bus do this at the front set of doors and the people who leave the bus do this at the back set of doors. This creates a well-functioning system of people getting in and out of the bus. Once I took a seat on the bus, it seemed the bus driver (male, 40-50 years old) planned on delaying the take-off of our trip by another 5 minutes by smoking his second cigarette. He did this in front of the bus's front window so every passenger could see him make them come late. This immediately led to some irritated passengers of different age groups. One elderly man (around 60 years old) started to sigh in a very obvious way and shake his head. Although most of them probably don't approve the behaviour of the bus-driver, they would never say something about it to him. They would be a voice for almost everyone on the bus, but would be held personally responsible for complaining to the driver."

[-G2]

"A while ago on February 16 I went to a Bizzey concert with some friends, we had to travel with one bus and one train and it took about an hour and fifteen minutes. I noticed that everyone didn't find traveling boring or annoying at all, while they normally did. Everyone was already in the party mood for the concert and it felt like the trip was over in no time. So when you are going somewhere you are really excited for traveling is more fun."

# Annex 3. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.trip.2020.100169.

### References

- Banister, D., 2008. The sustainable transport paradigm. Transp. Policy 15 (2), 73–80. https://doi.org/10.1016/j.tranpol.2007.10.005.
- Bertrand, M., Mullainathan, S., 2001. Do people mean what they say? Implications for subjective survey data. Am. Econ. Rev. 91 (2), 67–72.
- Birenboim, A., Shoval, N., 2016. Mobility research in the age of the smartphone. Ann. Am. Assoc. Geogr. 106 (2), 283–291. https://doi.org/10.1080/00045608.2015.1100058.
- Bryman, A., 2012. Social Research Methods. edition 4. Oxford University Press Inc, New York. Büscher, M., Urry, J., Witchger, K. (Eds.), 2010. Mobile Methods. Routledge, Oxon.
- Clifton, K.J., Handy, S.L., 2003. Qualitative methods in travel behaviour research. In: Jones, P., Stopher, P. (Eds.), Transport Survey Quality and Innovation. Publication of: Elsevier,
- pp. 283–302 Emerald Group Publishing Limited, 2003.
  D'Andrea, A., Ciolfi, L., Gray, B., 2011. Methodological challenges and innovations in mobilities research. Mobilities 6 (2), 149–160. https://doi.org/10.1080/17450101.2011.552769.
- DeLyser, D., Sui, D., 2013. Crossing the qualitative-quantitative divide II: inventive approaches to big data, mobile methods, and rhythm analysis. Prog. Hum. Geogr. 37 (2), 293–305. https://doi.org/10.1177/0309132512444063.
- Epley, N., Converse, B.A., Delbosc, A., Monteleone, G.A., Cacioppo, J.T., 2009. Believers' estimates of God's beliefs are more egocentric than estimates of other people's beliefs. Proc. Natl. Acad. Sci. 106 (51), 21533–21538.
- Hagen, S., Straume, Ø., Bishop, E., Vavra, M., Koščík, M., Štebe, J., Ryan, L., Rød, L.M., Payne, E., Somby, A., L'Hours, H., Emery, T., Cizek, T., Krejci, J., Høgetveit Myhren, M., Jessop, C., 2019. Guidelines on the use of social media data in survey research. Deliverable 6.2 of the SERISS project funded under the European Union's horizon 2020 research and innovation programme GA no: 654221. Available at:. www.seriss.eu/resources/deliverables [accessed: 27 April 2020].
- Hasson, U., Chen, J., Honey, C.J., 2015. Hierarchical process memory: memory as an integral component of information processing. Trends Cogn. Sci. 19 (6), 304–313. https://doi. org/10.1016/j.tics.2015.04.006.
- Healey, P., 2008. Knowledge flows, spatial strategy making, and the roles of academics. Environ. Plan. C Gov. Policy 26 (5), 861–881. https://doi.org/10.1068/c0668.
- Iphofen, R., 2015. Research Ethics in Ethnography/Anthropology. DC Research and Innovation, The European Commission.
- Larsen, J., 2014. (auto)ethnography and cycling. Int. J. Soc. Res. Methodol. 17 (1), 59–71. https://doi.org/10.1080/13645579.2014.854015.
- MacCallum, D., Babb, C., Curtis, C., 2019. Doing Research in Urban and Regional Planning: Lessons in Practical Methods. CRC Press Taylor Francis Group.
- Merriman, P., 2014. Rethinking mobile methods. Mobilities 9 (2), 167–187. https://doi.org/ 10.1080/17450101.2013.784540.
- Mitra, R., 2013. Independent mobility and mode choice for school transportation: a review and framework for future research. Transp. Rev. 33 (1), 21–43. https://doi.org/ 10.1080/01441647.2012.743490.
- Mitra, R., Buliung, R.N., 2015. Exploring differences in school travel mode choice behaviour between children and youth. Transp. Policy 42, 4–11. https://doi.org/10.1016/j. transpl.2015.04.005.

- Morewedge, C.K., Kahneman, D., 2010. Associative processes in intuitive judgment. Trends Cogn. Sci. 14 (10), 435–440. https://doi.org/10.1016/j.tics.2010.07.004.
- Næss, P., 2018. Validating explanatory qualitative research: enhancing the interpretation of interviews in urban planning and transportation research. Appl. Mobilities https://doi. org/10.1080/23800127.2018.1464814.
- Nelson, T.E., Oxley, Z.M., Clawson, R.A., 1997. Toward a psychology of framing effects. Polit. Behav. 19 (3), 221–246.
- Novoa, A., 2015. Mobile ethnography: emergence, techniques and its importance to geography. Hum. Geogr. J. Stud. Res. Hum. Geogr. 9 (1).
- Panter, J.R., Jones, A.P., Van Sluijs, E.M., 2006. Environmental determinants of active travel in youth: a review and framework for future research. Int. J. Behav. Nutr. Phys. Act. 5 (1), 34. https://doi.org/10.1186/1479-5868-5-34.
- Papa, E., Ferreira, A., 2018. Sustainable accessibility and the implementation of automated vehicles: identifying critical decisions. Urban Sci. 2 (1), 5. https://doi.org/10.3390/ urbansci2010005.
- Ralph, K., Delbosc, A., 2017. I'm multimodal, aren't you? How ego-centric anchoring biases experts' perceptions of travel patterns. Transp. Res. A Policy Pract. 100, 283–293. https://doi.org/10.1016/j.tra.2017.04.027.
- Rau, H., Goggins, G., Fahy, F., 2018. From invisibility to impact: recognising the scientific and societal relevance of interdisciplinary sustainability research. Res. Policy 47 (1), 266–276. https://doi.org/10.1016/j.respol.2017.11.005.
- Richardson, A.J., Ampt, E.S., Meyburg, A.H., 1995. Survey Methods for Transport Planning (P. 314). Eucalyptus Press, Melbourne.
- Schön, D., 1982. The reflective practitioner. How Professionals Think in Action. Ashgate Publishing Limited, Surrey.
- Smith, B., Olaru, D., 2015. Combining stated and revealed preference surveys in strategic transport models. Australasian Transport Research Forum (ATRF), 37th, 2015, Sydney, New South Wales, Australia, pp. 1–14.
- Spinney, J., 2011. A chance to catch a breath: using mobile video ethnography in cycling research. Mobilities 6 (2), 161–182. https://doi.org/10.1080/17450101.2011.552771.
- Tewdwr-Jones, M., 2002. Personal dynamics, distinctive frames and communicative planning. In: Allmendiger, P., Tewdwr-Jones, M. (Eds.), Planning Futures: New Directions for Planning Theory. vol. 2002. Routledge, London, pp. 65–92.
- Van de Mortel, T.F., 2008. Faking it: social desirability response bias in self-report research. Austr. J. Adv. Nurs. 25 (4), 40–48.
- van Wee, B., Annema, J.A., Banister, D. (Eds.), 2013. The Transport System and Transport Policy: An Introduction. Edward Elgar Publishing.
- Wynne, B., 1996. In: Lash, S., Szerszynski, B., Wynne, B. (Eds.), A Reflexive View of the Expert-Lay Knowledge Divide. Risk, Environment and Modernity: Towards a New Ecology. SAGE Publications Ltd, London, pp. 40–44.
- Zajonc, R.B., 1968. Attitudinal effects of mere exposure. J. Pers. Soc. Psychol. 9 (2p2), 1–27. https://doi.org/10.1037/h0025848.