swiss mobility conference

7th edition

September 12-13, 2024

EPFL Campus, Lausanne

LaSUR
laboratoire
de sociologie
urbaine

UNIL | Université de Lausanne
Institut de géographie
et durabilité

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Verband Geographie Schweiz
Association Suisse de Géographie
Associazione Svizzera di Geografia

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Scope

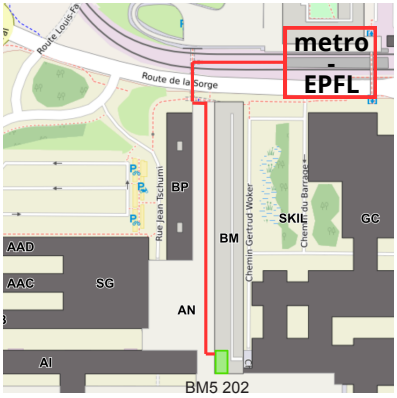
The Swiss Mobility Conference (SMC) is the result of a collaboration between the chairs of urban sociology (EPFL) and geography of mobilities (UNIL). The objective of SMC is to provide a place for discussion and debate for researchers in humanities and social sciences working on various forms of mobility.

Presentations will address the mobilities in their diversity (housing choices, modal practices, multi-local dwelling, tourism, etc.). They can register in the following research areas:

- theoretical debates (and in particular the contributions of social theories to the study of mobilities);
- methodological innovations (using mobile methods);
- public policy and decision making in mobility;
- regulation of mobility and its tools;
- the actors and their logics of action;
- the norms and values underlying mobility and social inequality;
- temporality and spatiality of mobility;
- mobility prospective.

Location

The conference will take place on the campus of EPFL (at **Auditorium BM5 202**) on both days. The map and location of the room are visible on the right.
Free wifi is avaible on the campus.



Organisers

Vincent Kaufmann, Laboratoire de Sociologie Urbaine, EPFL
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Andreia Dinis Pinto, Institut de Géographie et Durabilité, UNIL
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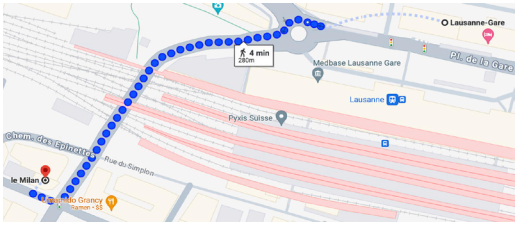
Giulio Mattioli, TU Dortmund University
Timo Ohnmacht, Hochschule Luzern
Mathis Stock, Université de Lausanne
Stéphanie Vincent, Université de Lyon 2

Restaurant - Le Milan

Meeting point at **7pm** at the restaurant, **Bd de Grancy 54, 1006 Lausanne.**

From EPFL : Metro M2, direction Lausanne-Flon, station Flon, then Metro M1, direction Ouchy, station Lausanne-Gare, then 3 minutes walking



Conference schedule
12.09.2024 - EPFL - Auditoire BM5 202

Welcome & Coffee **08.45 - 09.15 am**
Introduction by Vincent Kaufmann and Patrick Rérat **09.15 - 09.30 am**

01 - Life course [ENG/FR] **09.30 - 11.00 am**

- **Aurélie Schmassmann [Université de Lausanne] -** Four key factors for understanding the cycling trajectories of young people.
- **Jacopo Targa, Paolo Giardullo [University of Padua]** - Unveiling constraints and cracks in the automobility system: exploring escorting practices across school, work, and family life in an Italian mid-sized city.
- **Julia-Pearl Aveline [Université Bourgogne Franche-Comté]** - Does the event really stimulate behavioral change? Recontextualize and redefine the events of constantly evolving life courses to better understand their impact on daily travel practices.

Coffee break **11.00 - 11.15 am**

02 - Mobility and migration [ENG] **11.15 - 12.45 pm**

- **Maxine Both [European University Institute]** - Border Encounters: How Citizens React to Immigration Detention in Italy.
- **Olena Holubowska, Ate Poorthuis [KU Leuven]** - Spaces of Diversity: The Relation Between Amenities and Mixing Among Residents with Varied Income and Migration Backgrounds in Auckland.
- **Alessandra Polidori [Université de Neuchâtel ; EHESS] -** The Nexus Between Mobility and Migration in Youth Studies Field.

Lunch break - L'Ornithorynque **12.45 - 01.45 pm**

03 - Infrastructure and policies dynamic [ENG] **01.45 - 03.45 pm**

- **Thibault Carcano [Sorbonne Université]** - Norms of (im)mobility as an indicator for places' publicness – an ethnographic study of the everyday life in French and Italian railway stations.
- **Ondřej Špetik, Zdněk Tomes, Vilém Paril [Masaryk University]** - Rail competition and price dynamics in Austria and the Czech Republic
- **Francesca Lacqua [University of Milano Bicocca]** - Moving in intermediate areas. Emerging challenges and railway infrastructures transformations.
- **Cinzia Zanetti, Dimitri Marincek, Christian Kaiser, Patrick Rérat [Université de Lausanne]** - The obduracy of road infrastructure: an analysis of cycling at intersections.

Coffee break **03.45 - 04.00 pm**

Keynote - prof. Greg Marsden [ENG] **04.00 - 05.30 pm**

Prof. of transport Governance, University of Leeds
Radical Change and Institutional Inertia in the Climate Crisis: Is re-norming mobility necessary? Is it possible?

Dinner - Restaurant Le Milan **07.00 pm**

Conference schedule
13.09.2024 - EPFL - Auditoire BM5 202

Welcome & Coffee **09.00 - 09.15 am**

04 - User practices and public acceptance [ENG] **09.15 - 10.45 am**

- **Michael Wicki [ETHZ]** - Exploring Public Acceptance of Urban Road Space Reallocation: A Vignette-Based Survey Experiment.
- **Jules Grandvillemin [EPFL] -** Revisiting the controversy surrounding travel time status in mobility: theoretical work as a basis for future empirical work.
- **Marion Albertelli [Université Gustave Eiffel]** - From rail service to interchange: an analysis of how French stations fit into mobility policies and user practices.
- *Annina Thaller [University of Graz] - Designing an effective and fair phase-out of fossil fueled cars .*

Coffee break **10.45 - 11.00 am**

05 - Social inequality [ENG] **11.00 - 12.30 pm**

- **Giulio Mattioli [TU Dortmund]** - Trends in long-distance travel, air travel, and related inequalities in Germany (2002-2017).
- **Maya El Khawand [Université Gustave Eiffel]** - Mobility dependency in peri-urban region: The case of Creil and La Roche-sur-Foron.
- **Eloi Bernier [EPFL]** - Geographical proximity of reasonable job offers: towards a criterion tailored to the mobility of french jobseekers

Lunch break - L'Ornithorynque **12.30 - 01.30 pm**

Keynote - Sylvie Landriève [FR] **01.30 - 02.30 pm**

Co-directrice du Forum Vies Mobiles
Voiture électrique : ça va disjoncter ?

Coffee break **02.30 - 02.45 pm**

06 - Mobile methods [FR/ENG] **02.45 - 04.45 pm**

- **Carole Adam, Benoit Gaudou [Université Grenoble-Alpes et Toulouse]** - An agent-based model of modal choice with perception biases and habits.
- **Davide Ceccato [Université de Lausanne]** - Quantifying (Over)tourism and mobility in Venice, Italy: a critical perspective.
- **Suzanne Peyrard [EHESS]** - From Screen to Street: How Smartphones Shape Smart City Mobility.
- (P*ierrine Didier, Pascal Pochet [Université Lumière Lyon 2] - Understanding the mobility and homecare activities of healthcare practitioners in France: the contribution of mobile survey methods.*)

FOUR KEY FACTORS FOR UNDERSTANDING THE CYCLING TRAJECTORIES OF YOUNG PEOPLE

Aurélie Schmassmann[1]

[1] Academic Observatory for Cycling and Active Mobilities (OUVEMA) and Institute of Geography and Sustainability, University of Lausanne

Keywords:

Sustainable Mobility, Cycling, Young People, Cycling trajectory, Socialisation.

Abstract:

In most European and North American countries, two trends are observed in cycling among children and adolescents: a constant decline over the generations, and a decline as young people get older (McDonald et al., 2021). Switzerland, the country on which our research focuses, is no exception to these observations. Since mobility experiences during youth are important factors in continuing these practices into adulthood, this situation is a cause for concern. This paper therefore aims to identify and explain the different cycling trajectories of young people, using the approaches of *Mobility Biographies and Travel Socialization Studies*.

Since cycling trajectories cannot be analysed without considering the entire system that revolves around cycling, we base our research on the concept of *velomobility* (Rérat, 2020). This concept is even more important when it comes to studying young people's mobility practices, as these depend on a multitude of factors. Firstly, mobility capital (combining an individual's skills, access and appropriation of a means of transport) evolves as young people acquire new skills and new mobility practices (Kaufmann & Widmer, 2005).

Secondly, in addition to the various milestones in the life of an adolescent, his or her mobility capital is strongly influenced by the various socialisation agents around him or her: family, peers, school, and media. Young people's mobility capital and practices are strongly dictated by their parents; their skills and mobility access depend on their parents' willingness and skills. Over the years, parental influence may clash with the se-

condary socialisation experienced from the formation of the first groups of friends, which will also determine mobility behaviour (Baslington, 2008).

Thirdly, the hosting potential of the territory, in terms of both infrastructure and standards and rules, influences the experience and the feeling of safety, both perceived by parents and experienced by children. The latter encourages parents to monitor their children's daily movements and practices more closely, whether traffic-related or not (Mitra & Manaugh, 2020).

Finally, we observe a gender difference in cycling, with more girls stopping or even giving up cycling altogether (Schmassmann et al., 2023). McDonald (2021) points out that in countries without a cycling culture, boys are more likely to cycle than girls, for which support from parents and peers plays a more decisive role.

These elements are analysed using a qualitative approach based on individual biographical interviews with around forty young people aged between 12 and 20, attending various schools in the municipality of Yverdon-les-Bains (CH), and around ten parents, to identify potential influences in terms of mobility practices.

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UNVEILING CONSTRAINTS AND CRACKS IN THE AUTOMOBILITY SYSTEM: EXPLORING ESCORTING PRACTICES ACROSS SCHOOL, WORK, AND FAMILY LIFE IN AN ITALIAN MID-SIZED CITY

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Keywords:
Practices, Mobility, Schools, Car dependency, Families

Abstract:

Within the research in mobility studies that inquire the issues connected with car dependency, our contribution unpacks mobility choices and the use of the automobile through the lenses of practices theory. Starting from an analysis of the nexus between different practices, it discusses and critically reviews the limits and the added value of different approaches. Based on the context of Padua (Italy), it focuses on daily school escorting practices within the family context.

In the literature of automobility studies, two main tendencies can be identified: cultural and structural approaches. The first, as stated in the term, focuses on the cultural dimensions of automobility. The car, once overlooked by social sciences (Sheller and Urry 2000), is now a major focus for mobility scholars who highlight how it became a symbol of freedom, independence, adulthood, masculinity, and nationalism (Walker, Butland, and Connell 2000; Edensor 2004; Aljets 2021). Daggett (2018) summarizes this phenomenon as 'petro-masculinity'. Furthermore, the concept of *motonormativity* refers to the perception of the 'carscape' as an unchangeable and unavoidable aspect of society, highlighting how some of the car related negative outcomes are accepted (Walker, Tapp, and Davis 2022). The structural approach, instead, illustrates how the dominant role of the car is the result of significant investments in automobile infrastructure, accompanied by planning choices that marginalized other forms of mobility (Koglin and Rye 2014; Brezina, Leth, and Lemmerer 2020).

Conversely, a more insightful approach is derived from social practice theory (Shove, Pantzar, and Watson 2012). Focusing on 'everyday mobility' and the connection between the car and the practices enacted by individuals, it highlights how the automobile constitutes a more-than-human assemblage that plays a central role in the formation of everyday life (Thrift 2004). For instance, it became a central mean of transportation to the organization of family life, influencing many practices and, often limiting, other mobility options (Rau and Sattlegger, 2018). This perspective should not be considered an alternative to others, but rather as a means of observing the multifaceted nature of the car as an assemblage.

On our ongoing work, we build on this last approach, observing family practices related to escorting pupils to school in Padua, a mid-sized city in the North-East of Italy. Through qualitative interviews, we aim to investigate the connection between car use (or 'non-use') and this daily practice, exploring the factors that limit a shift towards other forms of mobility.

The presented preliminary results constitute insights on the diffusion and reproduction of automobile technology within the family context and its needs. Additionally, following McLaren's (2018) approach, this inquiry identifies potential flaws in the automobile system, uncovering unforeseen opportunities for change.

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DOES THE EVENT REALLY STIMULATE BEHAVIORAL CHANGE? RECONTEXTUALIZE AND REDEFINE THE EVENTS OF CONSTANTLY EVOLVING LIFE COURSES TO BETTER UNDERSTAND THEIR IMPACT ON DAILY TRAVEL PRACTICES

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Keywords:
Life course, Daily mobility, Behavior change, Longitudinal survey, Trajectories

Abstract:

For over twenty years, the theoretical framework of 'mobility biographies' (Lanzendorf, 2003) has sought to understand the biographical evolution of mobility behaviour. The aim is to understand travel practices by analysing the major breaks and continuities that can be observed in life courses. All these interruptions, bifurcations, crises and transitions are encompassed under the term 'event' in the life course (Zhang, 2014), interrupting an 'initial biographical linearity' (Bessin and al., 2010).

These events can take different forms, with repercussions for daily mobility. Numerous

authors have studied these events, which have many names, sometimes attempting to define a typology. These events may be foreseeable and programmed, in connection with the institutional framework of education for example (starting school, legal majority, etc.), unforeseeable (accidents, death, etc.) or predetermined (Cavagnoud and al., 2020). Key events (Borgers, 2000; Lanzendorf, 2003, 2010; Scheiner, 2007), life course events (Carola de Groot, and al., 2011; Klöckner, 2005; Schäfer and al.2012), disruptive event (Marsden & Docherty, 2013), turning point or decisive moment (Beige & Axhausen, 2012), life cycle event (Sharmeen and al., 2013) or simply event (Beige & Axhausen, 2008), it is sometimes difficult to make sense of them all.

For example, Van der Waerden and al. (2003, p.2) defines key events as «major event[s] in a personal life that will trigger a process of reconsideration of current behaviours» which they distinguish from «critical incidents» defined as «an event that has a major impact on a person's attitude such as involvement in an accident» (in

Müggenburg and al., 2015, p. 152). These events can be differentiated according to their possible consequences (Bessin and al., 2009). If the event imposes a drastic change of direction on the life course, it is referred to as a «fork in the road», an «accident» or a «turning point». A bifurcation appears as «the appearance of a crisis opening up an unpredictable biographical crossroads whose paths are initially unforeseen - even if they are quickly limited to a few alternatives, within which an outcome is chosen that induces a major change of direction» (Bessin and al., 2009). Others prefer the term 'biographical break' (Cavagnoud and al., 2020), since these events are unforeseen and imposed on individuals who, in most cases, find it difficult to cope with these events, which can have serious repercussions on the rest of the pathway initially envisaged. As a matter of fact, if the consequences of one event lead to a cascade of other events, we talk of a «domino effect». Others prefer to speak of a 'crisis' in that these elements may appear to be suffered and imposed, the consequences of which are unexpected and require considerable effort to adapt (Hareven & Masaoka, 1988). Finally, there are also 'biographical transitions', which correspond to time-bound sequences that impose a global change in the context around and concerning the individual. These transitions are predictable and may be simultaneous (household cohabitation and entry into the labour market, for example). According to Hareven and Masaoka, a transition corresponds to a change that 'conforms to a socially constructed life calendar', which may therefore correspond to commonly accepted social norms and biographical calendars.

Therefore, from the multiple definitions we will retain two main types of events grouped together in Figure 1: bifurcations on the one hand and transitions on the other. The first is a change that follows a direction previously initiated by socialisation or other events, and the second is a more gradual and long-term change in terms of transition.

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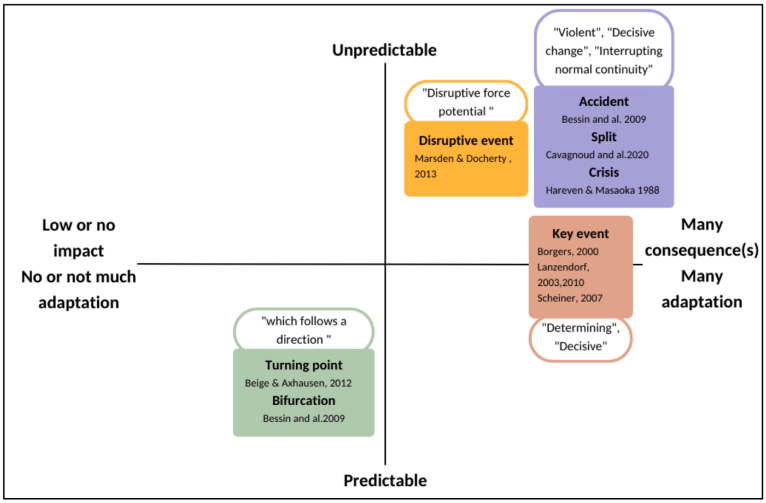
Figure 1: Proposal for a new typology of events, AVELINE 2024.



These events, whether predetermined, unforeseeable, or predictable and programmed, modify one or more elements of one's individual daily life: family, professional or residential contexts of individuals are identified as having an impact on their daily mobility (frequency and number of journeys, mode of travel used, activity schedule, etc.).

A longitudinal panel approach: essential for understanding new behaviours and events, despite its methodological challenges

Analysing the links between events, considered to be rather rare in lives that are rather linear and routine, and changes in mobility practices is methodologically complex. For example, this type of analysis requires panel data that is sufficiently old, and over a sufficiently long period, to track changes, which has long been rare in mobility research (De Groot and al., 2011; Clark and al., 2014; Schoenduwe and al., 2015). Added to this are the difficulties associated with the emergence of new forms of social organisation marked by greater lability and new rhythms and lifestyles, far removed from traditional, more stable, and hierarchical social patterns (Sapin and al., 2007). As a result, there is a tendency for events to multiply at an individual level, whether there are changes in

family, professional or personal circumstances. Among other things, the metaphor of ‘liquid life’ underlines the increasingly ephemeral and adaptable nature of the structures that govern our lives (Bauman, 2006). It offers a perspective for understanding today’s society, where events and living conditions are constantly evolving, contributing to the complexity and instability of individual life courses.

More specifically, within a representative panel of the French population (ELIPSS) on which we conducted our analyses, the percentage of individuals affected by at least two events in the same year has risen from 26.5% in 2018 to over 39% in 2023. This is due to an increase in the complexity and number of events in each sphere of life. Furstenberg and Spanier (1987, in Sapin and al., 2007)), for example, even speak of «recycling the family». Let’s take the example of the «divorce» event: this is not simply a repetition of the initial family cycle, but can involve up to 20 new stages (Aldous, 1996, in Sapin and al., 2007)), including the transition to divorce, a single-parent stage, remarriage, then a new cohabitation with the new partner’s child, then the arrival of a new child within the new couple... All this leads to an increase in the diversity of family trajectories in recent cohorts (Sapin and al.2007). The most remarkable growth can be seen in the number of respondents affected by three annual events, which has tripled. As a result, the number of respondents who could be described as ‘stable’, i.e. those who experienced no change in their family, professional, residential or financial life, is gradually decreasing. In 2018, only four out of ten respondents escaped life-course events, compared with three out of ten today. This increase in the number of events makes it more difficult to understand the relationship between life events and mobility practices. With this new preponderance of events, the term ‘biographical linearity’ can be called into question, as can the term ‘event’. This raises the question of the extent to which the paradigm of a ‘linear life punctuated by rare events’ is still relevant in the case of the French population today.

Finally, we also should question the addition of elements relating to motility (Kaufmann and al. 2004). Should skills and the appropriation of mobility tools be part of life-course events, or are they merely a transitional stage towards or following these events? Isn’t getting a driving licence most often seen as a prerequisite for buying a car? What role do travel skills or ability play in actual mobility behaviour? Does a change in ability constitute a life-course event?

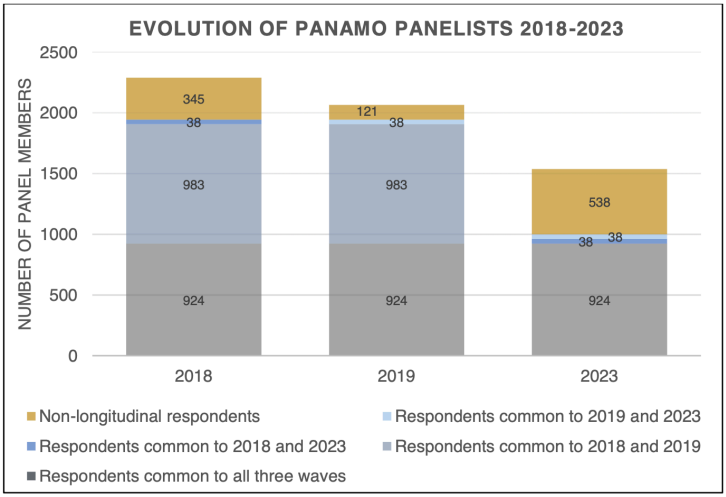
The overall aim of this research is to measure the impact of determinants linked to family, professional and residential transitions on commuting practices, using survey data and multivariate statistical models (structural equation models, exploratory factorial analyses). Tracking travel behaviour and identifying life-course events using panel data with Panamo.

In 2018, the longitudinal survey of the PaNaMo (Panel National Mobilité) project surveyed 2300 participants representative of the French population and spread across mainland France (ELIPSS). Through four waves of surveys (2018, 2019, 2023 and 2024), the survey observes daily mobility practices, modal habits, mobility intentions, travel abilities, perceived norms of those around them and various learning experiences linked to mobility.

In addition to this study, we have several complementary data from, among others, the annual survey carried out by ELIPSS every year since 2013 and have the possibility of matching some of this information with our own. To fill in a number of gaps, we have also aggregated other more precise information on income, residential characteristics, and household composition. These elements make it possible to diversify the different types of events we wish to analyse and to check the consistency of other declarative elements. Among other things, these matches put into perspective an initial methodological challenge in terms of time synchronisation, due to the time lag between the PaNaMo questionnaire and the annual survey.

Other methodological challenges are intrinsically linked to the study of longitudinal data, as is the case for the phenomenon of attrition (more or less natural loss of our surveys) over time. A time span of six years necessarily implies a reduction in the number of panelists, either through death or fatigue. In this case, the PaNaMo panel was initially made up of 2,290 respondents in 2018, but there will only be 1,538 in 2023, indicating a loss of 752 respondents (fig 2). Nevertheless, more than 900 respondents completed all three waves, enabling statistical analyses to be carried out on the relationship between life-course events and changes in behaviour with sufficient numbers.

Figure 1: Bar chart illustrating the Panamo panel headcounts from 2018 to 2023, AVELINE 2023.



Also, understanding and analysing the causal/temporal links between events and their possible repercussions on mobility behaviour involves its share of constraints. How can we know whether the purchase of a vehicle in 2018 was in anticipation of the arrival of a child in 2019, or was it simply the consequence of entering the job market? Unfortunately, with annual quantitative data, we currently have no solution to this problem.

A final challenge lies in spatialising the respondents for whom, for reasons of statistical confidentiality, we do not know their precise residential location. To reconstruct their place of residence, we have no choice but to propose a typology of territories based, among other things, on INSEE's CATégories d'Aires Urbaines (CATAU)[1], the Nomenclatures des Unites Territoriales Statistiques (NUTS)[2] and on declarative data from the survey concerning the perceived residential environment (presence of shops, types of urban form in the neighbourhood, presence/absence of public transport, etc.).

[1] Institut national de la statistique et des études économiques (INSEE) 2010 classification of urban areas by size and demographic influence.

[2] «The Nomenclature of Territorial Units for Statistics (NUTS) is a 3-level hierarchical system for dividing up the economic territory of the EU. It serves as a reference for the collection of regional statistics, for socio-economic analyses of the regions, and for the definition of EU regional policies.» INSEE 2024

To analyse changes in daily mobility behaviour, several groupings are proposed. Firstly, events in the professional sphere, including the transition from inactivity to employment and vice versa, changes in working hours or the frequency of teleworking, for example. Then, there are events in the private sphere, grouped around the occupation of the household, the number of children and new births. Afterwards come events in the spatial sphere, such as moves. A final group focuses on other long-term events, such as socialisation factors in and through mobility. Among other things, we examine how children were accompanied from nursery school to secondary school, looking at the mode of transport used, the person accompanying them and their declared residential environment. The aim is to determine whether the mode of transport used at different stages of childhood, as well as the degree of autonomy in mobility, have an impact on the modes of transport used in adulthood. This involves analysing the travel practices of children and then adolescents to assess their influence on their modal habits and practices in adulthood.

These choices of groupings are inspired by the earlier work of Moeckel and Ahmed (2023), who analysed these events and their repercussions by means of changes in the average number of journeys per motive, themselves derived from previous classifications of events established by Daniel Courgeau (1981), Martin Lanzendorf (2003) and Hannah Müggenburg (2015). Analysing the event-behaviour change pairing at the center of many other factors?

Understanding daily mobility behavior: Identifying and untangling explanatory factors despite an ever-increasing number of events, understanding changes in behavior without an apparent event, and analyzing the stability of post-event behavior.

According to the initial analyses of the 2018, 2019 and 2023 waves, there does not appear to be a statistically significant link between life-course events and changes in daily mobility practices. In the context of this paper, the aim will be more specifically to understand what are the elements that explain the stability of mobility behaviour despite multiple events, or why these behaviours change without any apparent event? To do this, several approaches will be explored, in particular the location of the respondents,

to determine firstly whether there are areas that seem to generate more frequent life events or, on the contrary, events that generate fewer events, in connection with a lifestyle of its own (more rhythmic life in the Île-de- France) or with its demographic data (more/less population). Secondly, we will be looking at areas that offer more alternative modes of transport, in order to gain a better understanding of their links with events and possible changes in behaviour, such as moving away from the car. Among other things, this would make it possible to identify areas that are less suited to car use, which would encourage people to give up the car, as is the case in the Île-de-France region, where the modal share of the car for home-work journeys was 41.1% in 2014, compared with 78. 2% in Occitanie (Part des déplacements domicile-travail en voiture | L'Observatoire des Territoires, s. d.) or in the major metropolises, with the example of the Strasbourg Eurometropole, where the modal share by car was 55.7%, and the Lyon metropolis, 53.2%. In other areas, on the other hand, the trend is towards greater use of the car, because these areas are better suited to it, and there are areas that are more favourable to events than others. In addition, the strength of habit and elements of socialisation linked to mobility during childhood and adolescence will be examined as potential explanatory factors for these attitudes in terms of daily mobility.

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BORDER ENCOUNTERS: HOW CITIZENS REACT TO IMMIGRATION DETENTION IN ITALY

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Keywords:
Migration, Citizenship, Border studies, Identity, Intersectionality, Spatiality

Abstract:

Experiences of borders are commonly studied from the perspective of the 'non-citizen.' Individuals without legal status must navigate increasingly complex systems of border control, including visa regimes, pushbacks, asylum, policing, administrative detention, and/or deportation. Citizens, however, are naturally assumed to be unaffected by these developments. Yet, as borders expand into unexpected spaces, the everyday citizen begins to confront borders through work, daily life, and/or politics. Studies show how some citizens may begin to enact the border as immigration officers or humanitarian workers, while others try to contest the border in solidarity with people on the move. Less explored is how these practices renegotiate notions of borders and belonging for citizens themselves. I approach this question through participant observation and 27 semi- structured interviews collected over five months of qualitative field research with lawyers, activists, politicians, government officials, immigration detention center workers, healthcare professionals, and families orbiting around a Centro di Permanenza per il Rimpatrio (CPR) in Italy. I show how encounters with the 'borders' of an immigration detention center expose 'cracks' in understandings of what it means to belong. Drawing from Floya Anthias' idea of 'translocational positionality', I illustrate how actors' spatial position generates deeper reflections on identity, privilege, and power in relation to the border. By revealing moments of rupture for those already entitled to the rights and benefits of the state, I encourage migration studies to move beyond a static notion of positionality and consider the far-reaching effects of borders and diverse experiences of belonging.

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SPACES OF DIVERSITY: THE RELATION BETWEEN AMENITIES AND MIXING AMONG RESIDENTS WITH VARIED INCOME AND MIGRATION BACKGROUNDS IN AUCKLAND

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Keywords:
Migration, Mobility Pattern, Segregation, Public Spaces

Abstract:

The portrayal of diversity in urban contexts often reflects two contrasting narratives. On one hand, there exists a celebration of diversity and cosmopolitanism, wherein interactions between residents from varied backgrounds are viewed as a potential source of hybrid cultures and creative enrichment (1). In contrast, a common media portrayal underscores socio-spatial separation among diverse groups within cities, resulting in reduced community cohesion (2). Nevertheless, both narratives underscore the significance of group coexistence and interactions in the pursuit of social cohesion. The link between interaction and cohesion can be traced back to Allport's foundational 1954 work, in which he postulated that inter-group contact could mitigate prejudice, foster positive attitudes among individuals, and subsequently reduce inter-group conflicts (3). The ostensible simplicity of this theory has resonated with policymakers and urban planners, prompting efforts to design spaces that promote inter-group encounters.

A group's coexistence can be evaluated in both the residential domain and beyond it. There is already a longer tradition and substantial body of work examining the reasons why residential segregation emerges and what aspects of neighborhoods attract specific groups to live there (4), including the effect of specific housing types (5). Measuring segregation beyond residential areas is becoming more commonplace in the literature but is often still restricted to the workplace or study places (6–8). However, this excludes an important arena of our daily lives: public spaces and what often is referred to as third places (any place beyond the home and work place).

Not every public space is equal. Beyond its actual location, a range of factors change the 'character' of a public space and, by extension, the backgrounds and interests of the people it attracts. If we aim to enhance voluntary mixing in public areas through policy – or simply to understand what attracts diverse groups, we need to understand better which characteristics of spaces might engender a diversity in its visitors. In this paper, we focus on one particular aspect of these spaces: the specific amenities that they offer. Different amenities (from transportation hubs and cafes, to libraries and schools) are likely to attract different (configurations of) groups. Existing evidence suggests that areas with higher density or diversity of amenities tend to attract a more varied audience (11,12), and research has explored the potential of specific amenities to facilitate interactions. (13,14). However, we lack comprehensive insight into which specific amenities effectively attract diverse visitors.

When we think about exposure to different groups of people, it also becomes apparent that groups, just as people's identities, are not mono-dimensional. A resident can be connected to many different groups based factors such as race, ethnicity, religion, or income level – and they may experience varying degrees of segregation across these dimensions. Therefore, this study looks at two dimensions simultaneously. We will analyze not only where individuals with different *income* levels interact, but also where intergroup mixing based on *migration background* occurs. As such, this study aims to shed light on the types of public spaces (as operationalized through their amenities) that encourage or discourage social mixing across both income and migration background dimensions. To do this, we will leverage a mobile app data set that allows us to construct the activity spaces of ~88k residents of Auckland, New Zealand We choose Auckland as a case study as it has a high proportion of residents with migratory backgrounds (40%) and many of these residents earn wages comparable to those born in New Zealand, indicating that income segregation might not necessarily align with segregation based on migratory background.

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THE NEXUS BETWEEN MOBILITY AND MIGRATION IN YOUTH STUDIES FIELD

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Keywords:
Youth Studies, Mobility, Migration

Abstract:

Introduction: presentation and objectives

This contribution proposes a reflection on the nexus between mobility and migration within youth studies starting from a qualitative research presented as a doctoral thesis on students in Erasmus mobility. The aim is to reflect, using Bourdieusian categories of habitus and capital, on the possibility of looking at youth mobility with a broader view that goes beyond the opposition mobility/migration but finds in the link between the two a greater understanding of this pervasive phenomenon of contemporary societies.

Theoretical-methodological approach

The topic of youth mobility [Cairns 2015, 2018, 2022 (eds.); Cuzzocrea 2020; Cuzzocrea, Krzaklewska 2022; Grüning, Camozzi, Gambardella 2022] serves as a catalyst for comprehensive reflections on the transition paths of young people and the characteristics of the new generations. However, the reasons for choosing to leave and the means for doing so result in diverse forms of mobility and migration that should be examined from multiple perspectives. Therefore, in Youth Studies there is a need to reflect on the categorisation between mobility and migration [Cairns 2022]: If the concept of migration is often associated with forms of renunciation and suffering, mobility is framed in a way that emphasizes the undeniable aspects of discovery and learning but it also runs the risk of overlooking the difficulties that influence the decision to leave.

Between 2020 and 2022, I conducted sixty interviews among mobile students of various nationalities in the cities of Paris and Perugia (Italy), completing the study with a participatory analysis of the structures that allowed this mobility (universities, associations) The structured interviews considered the reasons for leaving, the means required to leave and how this experience fitted into the biographical path more generally, also addressing the planning of the future. By subsequently analysing the interviews through the Bourdieusian lens of habitus and capital an attempt was made to understand how young people renegotiate and integrate spaces and life choices into their biographical path. At the same time, the analysis of the means required to undertake this experience made it possible to highlight the agency capacity of young people for whom departure coincided with the chance of an improvement in living conditions.

Results: main contributions, results and conclusions

The result is a heterogeneous panorama where the choice of short-term mobility does not necessarily coincide with an experience limited in time. For many students (especially Italian and Spanish) undertaking this experience is a «safe way» to become familiar in an easier way (thanks to the scholarship and the institutional framework of the European program) with an alternative foreign context in order to be able to decide at a later time to stay having acquired social, cultural (mainly linguistic) and in some cases even economic capital. For the young people interviewed, this experience is therefore part of a complex biographical planning where desires and aspirations must often be renegotiated in relation to the geographical location of origin.

With this contribution I do not want to draw an easy parallel with those who escape contexts of strong crisis and precariousness by putting their lives in danger, but to take distances from the opposition between a study on migration that tends to victimize and depersonalize stories of migrant lives on the one hand and studies that look at youth mobility only in terms of positive acquisitions and moments of freedom to be experienced before adulthood. Therefore, drawing a connection between mobility and migration can serve to integrate the two currents and understand the needs of young students who cross borders, the reasons why they do so and consequently facilitate and broaden their access to a greater number of people and at the same time reflect on a narrative more

focused on the agency of those who leave to escape a crisis situation, not considering them simply as a victim of immutable social structures but as someone endowed with agency and understanding how this agency can be enhanced.

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NORMS OF (IM)MOBILITY AS AN INDICATOR FOR PLACES' PUBLICNESS – AN ETHNOGRAPHIC STUDY OF THE EVERYDAY LIFE IN FRENCH AND ITALIAN RAILWAY STATIONS

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Keywords:
Mobility, Norm, Railway stations, Public space, Citizenship, Accessibility

Abstract:

In France and Italy, railway stations – which are dedicated to passenger transport – are mobility hubs. As such, they are places where many different entities meet and converge. However, despite their vocation to welcome the masses, external visitors are only welcomed on condition that they comply with the normative regime established by the owning companies (Shearing et Stenning, 1983 ; Pellegrino, Lambert et Jacot, 1990) – in France, the SNCF group; in Italy, Ferrovie dello Stato Italiane S.p.A..

As such, they are not strictly public spaces, but rather simili-public spaces in which 'citizenship' is a conditioned construct (Neveu, 2013). In exchange for respecting the civic norms and obligations imposed by the place, user-citizens are authorised to access, circulate, reside in and benefit from the 'virtualities' offered by the railway station (Lévy, 2015), as well as to participate directly or indirectly in the political life of the place (Rudler, 2018 ; Jørgensen, 2022).

The research behind this presentation examines the regimes of norms that condition (im)mobility in railway stations. At the same time, it reveals the public nature of these spaces, and their gradient of publicity (Fleury et Frétigny, 2023).

The norm is studied as a relative and subjective situation. It is defined by the judgement (1) made on the encounter of a specific state or behaviour (2) and a spatio-temporal context (3).

To say that the norm depends on a spatio-temporal context (3) is to recognise that the norm varies according to the place and temporality of the event, but also according to

the coinciding events and the characters involved (Lee and Watson, 1992). Furthermore, it is obviously difficult to be exhaustive about all the states and behaviours that are subject to normalisation (2). Nevertheless, I will use four approaches that I believe are sufficiently complementary to express the complexity of (im)mobility in railway stations: the perceived identity of the 'vehicular unit' (Goffman, 1996 [1956]), the purpose of its (in) activity, and the rhythm and polysensoriality associated with it. Finally, I consider that the referees of normality (3) can take several forms: the rules laid down by the authorities; the 'affordances' provided by the built and mobile elements (Gibson, 2014 [1979]); the social pressure operated by the attention of the spectators (Goffman, 1996[1956] ; Quéré et Brezger, 1992); the statistical processing that erases individual asperities (Cresswell et al., 2015).

This research is based on mixed methods: participant observation within AREP; a review of transdisciplinary literature (academic and grey); interviews with elites from the transport world; a series of ethnographic and literary inspired observations (Fassler et al., 2022 ; Perec et al., 2022) carried out at Paris Saint-Lazare and Turin Porta Nuova railway stations.

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RAIL COMPETITION AND PRICE DYNAMICS IN AUSTRIA AND THE CZECH REPUBLIC

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Keywords:
Railway competition, Price dynamics, Open access

Abstract:

Rail competition influences price dynamics, as recent evidence from competed rail routes in Italy, France, and Spain demonstrates. This paper focuses on the impact of competition on price dynamics in Austria and the Czech Republic from 2019 to 2022. It contributes to the existing literature because the evidence for Austria is scarce, and for the Czech Republic, it is outdated. This paper aims to investigate the impact of rail competition on price and price dynamics in both countries during the specified period.

This paper utilizes an exploratory analysis of fares to examine the effects of competition on rail pricing in Austria and the Czech Republic. Data collection was carried out both manually and semi-automatically from 2019 to 2022, focusing on two distinct 14-day periods annually, one in May/June and another in November. This segmentation enabled an examination of pricing strategies across different seasons. Data sources included official rail service websites. This approach facilitated an analysis of price levels, price volatility, and operator-specific pricing strategies within and between the two countries.

The main results of the analysis are as follows:

- A notable divergence emerges when comparing similar rail lines with and without competition in Austria and the Czech Republic. In Austria, open access lines have higher prices than non-competed ones, whereas in the Czech Republic, the situation is reversed. This is attributed to private operators entering both markets and

decreasing average prices on competing lines. However, the incumbent's retaliatory pricing forced fares below non-competed routes in the Czech Republic. In Austria, the incumbent did not retaliate, resulting in lower prices than before competition but higher than non-competed routes.

- In Austria, ÖBB's prices are significantly higher than Westbahn's. In the Czech Republic, the situation is different: on average, the cheapest carrier is RegioJet, and the most expensive is Leo Express. The state-owned incumbent is in between.
- Despite geographical proximity and similar economic levels, significant differences in average fares per kilometre exist between the two countries. Fares in Austria are three times higher than in the Czech Republic, potentially due to higher economic levels in Austria, more generous discount policies in the Czech Republic, and higher rail speeds in Austria.
- Price dispersion is slightly higher in Austria.
- Operators in Austria have similar price variability (ÖBB has even higher variability). Operators in the Czech Republic differ significantly in price variability: Leo Express has a dynamic tariff with high price variability. Czech Railways, on the other hand, has very low price variability.

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MOVING IN INTERMEDIATE AREAS. EMERGING CHALLENGES AND RAILWAY INFRASTRUCTURES TRANSFORMATIONS

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Keywords:
Railway infrastructure, Mobility demand, Urbanization process

Abstract:

This paper focuses on the specific role that mid-sized cities, within the broader framework of intermediate areas, have in the processes of territorial transformation and urbanization through the perspective of railway mobility infrastructure.

Some results of the research project I am conducting within the Doctorate in Urban Studies at the University of Milan Bicocca will be presented here. It focuses on highlighting the effects of railway transformation specifically towards medium-sized cities and so-called «intermediate areas» in terms of practices, demands and needs of those who live, commute and travel there.

Intermediate areas - difficult to be ascribed within a clear definition and seldom the focus of Urban Studies inquiry – are undergoing nowadays a changing geography of functions and belongings combined with emerging challenges such as the risks of demographic contraction and territorial fragmentation.

The issue of territorial inequalities is addressed in systemic terms in which mobility infrastructures are deeply related to the material, social and environmental ones that together guarantee (or not) the full exercise of citizenship rights.

In this sense, the issue is investigated through a specific gaze on the long-term transformations of possibilities, desires, needs and demand for mobility at this scale, where expectations around the train journeys are dramatically redrawing a precarious balance of services differently suitable for metropolitan centers, provincial hubs, medium-sized cities and low dense areas.

Indeed, over the past decades, rail infrastructure has experienced decisive changes (privatization and regionalization of public transport, HS, new management systems, cultural transformation of the company) a profound paradigm shift whose territorial impact at different scales is still underestimated in the literature, at least from a sociological point of view.

Investigating mobility flows, practices and demand also allows for a specific look not only at the commuting dynamics taking place in the area but also at the processes of territorial transformation in terms of urbanization, metropolitanization, regionalization and shifting barycenters of functions.

Considering this framework, I propose a multi-method approach that can be useful in addressing the research questions. The qualitative and ethnographic approach allows to deepen the perspective of users investigating the needs and demand for rail mobility. Quantitative tools are used to map the socioeconomic variation of the areas and understand their connective potential.

The context of Northwest Italy (especially along the Biella - Vercelli - Asti - Alessandria axis) has been selected as case study for multiple reasons: i.e. the potential processes of territorial marginalization of an area undergoing profound transformation also (but not only) in light of the post- Fordist transition; but also the presence of an historical widespread rail network progressively disused built during the first processes of national industrialization witness a long term polycentric character of the area.

The results, by describing the ongoing macro dynamics and the actual micro mobility practices and meanings of various mobile populations, contribute to renewing the gaze and the lexicon on urban transformation starting from the ‘intermediate’ scenario typical of the Italian urbanisation context subject to important challenges also in terms of sustainable transition.

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THE OBDURACY OF ROAD INFRASTRUCTURE: AN ANALYSIS OF CYCLING AT INTERSECTIONS

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Keywords:
Infrastructure, obduracy, cycling, intersection, roundabout

Abstract:

This paper focuses on the relationship between individuals and (road) infrastructure and the need to adapt the latter to active mobilities (e.g., Latham and Wood, 2015; Spotswood et al., 2015; Ihlström et al., 2021; Poudel and Singleton 2021; Friel et al., 2023; Nurse and Dunning, 2023). The concept of "obduracy" (e.g., Gössling et al., 2016) refers to the resistance to change of an infrastructure originally conceived for a particular function (here, motorized traffic) when adapting it to new demands (in this case, cycling) which were originally not considered (Hommels, 2005). Within this theoretical framework, this project focuses on intersections, which are particularly accident-prone for cyclists. Moreover, intersections may lead to the emergence of behaviours considered as inappropriate or transgressive (e.g., cycling on the pavements or running a red light), in response to an inadequate conception of space for cyclists' actual needs or due to a sense of insecurity and ambiguity of the infrastructure (e.g., Ihlström et al., 2021; Spinney, 2008).

This paper focuses on two types of intersections and the measures taken to reduce their obduracy. The first type is the roundabout, for which a behaviour recommendation is issued: cyclists are encouraged to position themselves in the middle of the carriageway to be more visible and to avoid overtaking. The second type is signalized intersections equipped with a sign authorizing cyclists to turn right during a red light if there is no oncoming traffic, a new rule introduced in 2021.

To understand how these measures (in the form of a recommendations or a new rule) affect cyclists' behaviour and experiences, we have combined two methods: direct observations and intercept surveys at 10 crossroads in Lausanne, Switzerland. Our

research is structured into four dimensions: 1) the frequency of cyclists' behaviour in intersections (use or non-use of the recommendation or rule), 2) the characteristics that explain differences in behaviour, 3) the motivations and barriers or why some cyclists apply certain behaviours and others do not, and finally, 4) the role of infrastructure, namely differences depending on intersection configurations (which elements seem to promote or inhibit the adoption of certain behaviour). This presentation will discuss the results of this project (data collection is planned in May/June, the analysis between June and September) and the limits of measures that do not directly address the materiality of intersections.

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RADICAL CHANGE AND INSTITUTIONAL INERTIA IN THE CLIMATE CRISIS: IS RE-NORMING MOBILITY NECESSARY? IS IT POSSIBLE?

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Abstract:

The scale of travel behaviour adaptation which is now required in developed economies to stay on track with the Paris Agreement and 1.5C is now so substantial that it falls beyond anything which has ever been delivered. Calculations suggest that this equates to at least 10 years worth of pandemic level behaviour change – a time during which people were instructed not to travel and large parts of the economy were closed or operating at reduced capacity. This talk asks whether there is any realistic prospect of a new mobility paradigm appearing in the face of 30 years of inertia since climate change first came on the agenda?

Using data from a longitudinal panel of surveys with practitioners during the pandemic the talk will discuss how transport policy making can both simultaneously recognise radical change whilst refusing to acknowledge and adapt to its potential. The prospects for radical change in the climate crisis might therefore seem limited. The talk argues that there are opportunities to move forward but that these require a reframing of how policy makers think about transport policy. Rather than rejecting change, or only recognising change in the current framing of what constitutes 'good mobility', it would mean a shift to recognising change as part of the on-going flow of social life. This implies recognising a multiplicity of norms across society and an understanding of how important institutions and policies can be in supporting and developing or shutting down future pathways. If there is not a recognition of the need to reframe the problem then, in time, this will be forced upon policy as the impacts of warming in any case unfold. The question is whether there can be an anticipatory grasping of the nettle?

EXPLORING PUBLIC ACCEPTANCE OF URBAN ROAD SPACE REALLOCATION: A VIGNETTE-BASED SURVEY EXPERIMENT

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Keywords:
Urban Mobility, Public Acceptance, Road Space Reallocation, Sustainable Urban Planning, Vignette Survey

Abstract:

This study examines public attitudes towards the 'E-Bike City' urban strategy, which proposes reallocating substantial road space to support active mobility, public transportation, and public spaces. Our research utilizes a vignette-based survey experiment conducted with approximately 6,500 participants from a Swiss national panel survey, aiming to assess public receptiveness to hypothetical implementations of this urban strategy.

Our methodology involved presenting participants with two different scenarios of the E-Bike City concept, varying in terms of funding sources (municipal, federal, or combined), e-bike purchase subsidies (targeting specific demographic groups), and enhanced accessibility options for suburban and rural areas. Respondents rated these scenarios on several dimensions: support, perceived fairness, anticipated effectiveness in promoting active mobility, and intrusiveness in daily life. Following this, respondents were asked to indicate their preference between the two proposals in a hypothetical popular vote, allowing us to discern more favored attributes of the strategy among different demographic groups.

Preliminary results reveal nuanced patterns in public acceptance, showing significant differences in opinion between urban and rural residents. Urban dwellers were generally more supportive of reallocating road space for active mobility, reflecting greater perceived direct benefits. In contrast, rural respondents exhibited more concerns about

the feasibility and applicability of such strategies in their contexts. These findings are instrumental in understanding the sociodemographic variables influencing public opinion (see Wicki & Kaufmann 2023 for the preregistration).

The study's insights are pivotal for urban planners and policymakers aiming to foster sustainable urban mobility. By highlighting the elements that enhance public support and acceptance, this research contributes to the discourse on sustainable urban planning and strategies towards car-free urban environments. It also informs strategies for effectively communicating and implementing urban mobility policies to ensure broad-based community support and successful policy adoption.

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Revisiting the controversy surrounding travel time status in mobility: theoretical work as a basis for future empirical work.

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Abstract :

This research aims to analyze the controversy surrounding the conceptual links between mobility and time.

In recent years, new aspects of mobility have been highlighted, especially its relationship with transport time: this time, which is often perceived as wasted and unproductive by transport engineers and decision-makers (instrumental rationality), whereas it can be seen as productive or relaxing if it is comfortable (Kaufmann, 2002; Lyons et al., 2005; 2016). In 1970, Hägerstand advocated for decision-makers to consider the temporal framework at an individual level to improve quality of life through Time Geography. The lived and thought experience of time on an individual scale was addressed in 1992 by Lefebvre: he highlights the important struggle around time and social space, particularly in its use. Rosa (2013, 2014) theorizes that acceleration is the driving force behind modern societies, resulting in stress and temporal scarcity at the individual level. To overcome this, Rosa (2021) proposes the concept of resonance, which allows individuals to be transformed by the world rather than having an instrumental relationship with it.

To analyze the controversy, this work considers the interdependency between two levels of actors: at first, the individual, which includes all mobile people in a geographical space, and secondly, governance, from the perspective of operators and politicians in the transport field. Precisely, It will focus on: the duality between the lived experience of time and the desire for quality of time at the level of the individual and the temporal optimization advocated at the level of governance; the discrepancy between the notion of resonance and the rhythms socialized by the former, which are favored by the social norms thought out and promoted by the latter; and finally, the overall imbalance between the temporal supply of activities on a given territory and demand.

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FROM RAIL SERVICE TO INTERCHANGE: AN ANALYSIS OF HOW FRENCH STATIONS FIT INTO MOBILITY POLICIES AND USER PRACTICES

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Keywords:
Railway stations, Regional strategies, Uses, New mobility practices, Interchange, Accessibility

Abstract:

The railway station is now at the centre of new challenges, with public policies geared towards developing the use of rail transport, such as metropolitan rapid transit systems (Kaufmann 2021; Rizk 2021; Rousseau and Guihéry 2023), and the growth of active, shared and connected mobility practices (Amar, 2016; Debrie, 2021; Lundmark and Devun, 2022; Reigner, Brenac, and Hernandez, 2013; Stránský, 2017). These forms of mobility are widely emphasised in the strategies of the various layers of political players, who structure their planning policies around the role of the railway station, as a hub, but also as a support tool for the development of MaaS. Regions and metropolitan areas are therefore including stations in their territorial strategies to make their territories accessible and visible from this mode, and to organise mobility on a metropolitan and regional scale. This paper, which presents the results of my Cifre thesis at SNCF Gares & Connexions between 2018 and 2024, proposes three levels of analysis in order to question the insertion of French railway stations into urban strategies dedicated to mobility and their adaptation to passenger travel practices:

- The role of railway stations in the territorial strategies of metropolitan areas and regions, by analysing the urban development plans and regional development plans (SRADDET) of 15 French metropolitan areas.
- The accessibility and level of services in terms of mobility of thirty French metropolitan stations, by surveying the mobility services and infrastructures present

in the interchange areas of thirty railway stations (shared mobility services, public transport, car parks, mountain bikes, etc.).

- The match between regional policies, the services available in the station and its interchange, and passengers' modal practices, by analysing a survey of 2,071 passengers at 6 French railway stations (Lille Europe, Lille Flandres, Paris Bercy, Paris Est, Paris Lyon and Rouen Rive Droite), to be carried out in 2021.

While the metropolises see the station and its interchange as a tool for metropolisation and territorial expansion, and the regions see it as a facility for inter-territorial cooperation and the organisation of mobility, there is no denying that there is a discrepancy between the visions of the players and the reality of passenger usage, which is not very multimodal and connected to mobile urban travel applications. On the other hand, outside the major cities, shared mobility services, seen as alternatives to the car, are still underdeveloped in the interchanges and are not promoted by SNCF Gares & Connexions. Above all, they are still very poorly managed by urban and mobility operators, making it difficult for users to find them and for the interchange to function properly. The question that arises here is to what extent the use of the term «interchange» does not create confusion in the very management of mobility within metropolises. From the point of view of SNCF Gares & Connexions, seeing the station as a hub is essential to guide the developments and services needed to sell its rail service. From the point of view of the local players, this is perhaps a way of transferring the management of these forms of mobility to a player who, apart from rail transport, does not have the remit or the land to act directly. This lack of clarity contributes to the existence and presence of unmanaged mobility, which puts pressure on the interchange.

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CANCELED : DESIGNING AN EFFECTIVE AND FAIR PHASE-OUT OF FOSSIL FUELED CARS

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Keywords:

Quantitative vignette study, Passenger transport, Regulation, Public policy, Fairness

Abstract:

Restrictive or so-called «push» measures are indispensable for successful climate protection (Hössinger et al., 2023), but at the same time they often lack public acceptance (Huber et al., 2021). Phasing out the use of fossil-fueled cars is one of several measures being discussed in the fight to drastically reduce emissions in passenger transport. At EU level, such a phase-out is planned for 2035. As the debates in the media show, the proposal has not been without public opposition, leading to an exemption for vehicles using synthetic fuels (EU Regulation 2023/851). As shown in the meta-study by Bergquist et al. (2022) and also specifically for restrictive transport policies by Thaller et al. (2023), perceived fairness and effectiveness are particularly important determinants of public policy support. To shed more light on this highly relevant topic, this pre-registered (https://osf.io/zhr2y) quantitative study focuses on answering the following main research questions: How can the phase-out of fossil fueled cars be designed to foster public acceptance? Which design aspects are most relevant for increasing perceived fairness and effectiveness of such a phase-out?

To this end, we used a quota-representative sample of the Austrian population (N = 987) and employed a choice experiment, more specifically a vignette study design: Respondents were asked to rate five different text-based phase-out designs comprising seven different attributes, each with two possible levels using a complete randomization approach, resulting in a grand total of 4,935 observations used for the analysis. Marginal mean effects (MM) and average marginal component effects are calculated for the effect

of individual attributes on the overall acceptance of phasing out. Initial results show that support is generally rather low (M = 2.87 and SD = 1.84 on a 7-point acceptance scale). The specific design of the phase-out still leads to differences in the assessment, with an additional ban on the use of fossil-fueled cars leading to a further loss, while improving the public transport infrastructure leads to a gain in public acceptance. Initial descriptive results for both the fairness and effectiveness estimates also point to the important role of additional public transport infrastructure. This is in line with the findings of the scientific literature that the provision of infrastructure that enables people to switch to sustainable alternatives is of central importance (Thaller et al., 2021).

To assess the detailed effects of perceived effectiveness, fairness and their interaction for the different policy attributes on overall acceptance, additional linear mixed-effects regression models will be calculated. The results of the study add to the literature dealing with the design and determinants of public acceptance of regulatory transport policy and will therefore have important implications for public policy.

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TRENDS IN LONG-DISTANCE TRAVEL, AIR TRAVEL, AND RELATED INEQUALITIES IN GERMANY (2002-2017)

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Keywords:
Long-distance travel, Air travel, Social inequality

Abstract:

Long-distance travel and air travel account for a large and growing share of passenger travel distance and climate emissions. In order to reduce the climate impact of this segment, demand management measures will be required. As such, it is important to better understand how long-distance travel behaviour changes over time. Studies from Europe show that, while inter-urban travel activity is increasing, social inequality in the participation in long-distance travel and air travel is still high, and has decreased little over time (Büchs & Mattioli, 2021; Demoli & Subtil, 2019). The use of other long-distance travel modes such as high-speed rail is unequally distributed as well (Dobruszkes et al., 2022). Income plays a key role here, as people with higher incomes are responsible for a large and disproportionate share of long-distance travel and emissions, and for much of the growth over time. This raises questions of social justice, both about the equity of current trends and the distributional impact of possible climate policy measures (Büchs & Mattioli, 2024; Mattioli et al., 2023). To date, however, there is relatively little empirical evidence on these aspects for Germany.

In this presentation, we investigate trends in long-distance travel and air travel in Germany, both in terms of travel volumes and patterns of socio-economic inequality. The analysis is based on three cross-sectional waves of the German national travel survey (Mobilität in Deutschland 2002, 2008 and 2017) and includes trend analysis, multivariate regression and inequality metrics (e.g. Lorenz curves and Gini coefficients). With regard to air travel, we focus notably on the extremes of the distribution, i.e., fre-

quent flyers and those who 'never' fly, and how the size of these groups has changed over time. This is instructive with regard to future trends in air travel activity (Graham & Metz, 2017). Among others, we investigate the hypothesis that the magnitude of the association between long-distance travel and urban residence has decreased over time (as found by Demoli & Subtil, 2019 for France). We conclude by discussing implications for future trends in long-distance travel, and for sustainable transport and climate policy.

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MOBILITY DEPENDENCY IN PERI-URBAN REGION: THE CASE OF CREIL AND LA ROCHE-SUR-FORON

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Keywords:

Mobility dependency, Accessibility, Peri-urban regions, Social inequalities, Women

Abstract:

Over the past few decades, improvements in travel conditions have led to socio-spatial transformations, especially urban sprawl and increasing distances between housing and workplaces. These changes have favored the migration of new populations to rural and peri urban areas, including low-income households seeking affordable housing and households seeking a more natural environment. Moreover, these spatial changes have led to significant social inequalities, such as limited access to fast travel modes, which highly depends on personal characteristics (Preston, Rajé, 2007) or to residential locations with good amenities or efficient public transport services. Both of these spatial transformations of urbanized areas and the social valuing of mobility have led to the increase need to travel more frequently, sometimes further, and faster (Kaufmann, 2008). This process of "mobility dependency" results in two forms of prejudice for precarious social groups: lack of accessibility for those who do not have access to mobility, or significant financial costs, difficult and longer travelling time for mobile people but severely constrained in their movements (Fol, Gallez, 2017; Chevalier, 2020).

In the face of the climate emergency and foreseeable rises in energy prices, access to local amenities and services is becoming increasingly difficult. This is especially true for less-advantaged population in rural and peri-urban areas, which are less well served by public transport and often have fewer local services and shops. Consequently, these areas, characterized by significant distances between various activities, tend to be stigmatized as fragile territories marked by unsustainable lifestyles and mobility habits predominantly reliant on cars (Fourny, Cailly, 2012). Given this scenario, reducing private car usage has become a central topic in political discourse. National and regional

authorities leverage railway services as a tool for improved transportation and urban planning coordination, with the goal of reducing car dependency. Models like Transit Oriented Development are being implemented, though typically applied to densely populated urban areas.

We hypothesize that in these areas characterized by diffuse urbanization, the application of urban-centric planning principles (such as densification, polarization, and massification of flows, etc.) may exacerbate mobility dependency. This is particularly true for less advantaged individuals, resulting in paradoxical effects on their access to services, amenities, and housing. In these areas, the railway service promotes the territory with good regional accessibility and sometimes a micro-local accessibility restricted to a limited perimeter around the station. However, this approach tends to overlook the daily accessibility needs of the local population, especially the less-advantaged groups, including women.

Based on a qualitative methodology such as semi-directive interviews, walk-alongs, focus groups, etc., this research draws on the disparities between the vision of local actors (potential accessibility) and the needs and practices of the population, especially women (effective accessibility). Based on the comparison of two communes in the peripheries of Paris and Geneva we will be presenting the gaps between planning principles and the needs of the population. The first case study is Creil, a commune located outside the administrative region of Ile de France, but at its fringes. The second case study is the small town of «La Roche-sur-Foron,» located in the French peripheries of Geneva and served by the new Léman Express railway.

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GEOGRAPHICAL PROXIMITY OF REASONABLE JOB OFFERS: TOWARDS A CRITERION TAILORED TO THE MOBILITY OF FRENCH JOBSEEKERS

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Keywords:
Motility, Capabilities approach, Unemployment insurance, Mobility justice, Suitable employment, Mobility

Abstract:

In many countries, the payment of unemployment benefit is conditional on recipients actively seeking work and accepting «reasonable» job offers (Dalloz 2008). In France, this notion of Reasonable Job Offer (ORE) has recently been redefined (Fretel et al. 2018), sparking a strong public debate, particularly polarised around the issues of commuter mobility.

The single criteria that appeared in the law (place of work less than 30 km or less than one hour from home by public transport) have been abolished in favour of a case-by-case definition, resulting from negotiation between the jobseeker and his or her adviser during the 1st interview after the registration, in order to take account of the inequalities encountered by the person in terms of mobility. However, the abolition of the thresholds established by law is seen by some as undermining equal treatment of the unemployed, in the absence of a common basis for determining these mobility criteria during the negotiation.

This doctoral work proposes a methodology for calculating «reasonable» criteria in terms of mobility, based on the individual's motility (his own ability to move, according to Kaufmann 2002) and his range of mobility options (in particular the quality of existing transport services). To link the notion of motility with the issue of individual responsibility, we use the capability approach proposed by Amartya Sen (2009).

We develop multi-criteria level curves (isochrones and generalized costs of travel) with a new specific calculator in order to compare several criteria and determine what could be a reasonnable criterion. Our new calculator of isochrones is based on real data

of public transportation (GTFS) and road networks (OSM). We then use this calculator by studying a sample of french unemployed people supported by job mobility advisors: these job seekers with mobility difficulties to access employment are specifically impacted by the policy of the reasonnable job offer regarding mandatory commuting.

This database was collected by us in partnership with sixty mobility assistance organizations, who conducted face-to-face interviews with over 7,000 job seekers since 2021. These data enable us to link jobseekers' mobility to their career plans in an unprecedented way. This enables us to include in the calculation of isochrones (and iso-costs) some elements related to the jobseeker's situation (location, available vehicles, speed with active modes). The isochrones obtained enable us to measure jobseekers' level of mobility in terms of spatial coverage of the territory.

We then use the API of the public employment service to locate, in real time, offers that are reasonably accessible according to the mobility and current career plans of jobseekers. We can then deduce jobseekers' level of mobility in terms of access to available offers, whether or not they are defined as reasonable. We also go into greater depth by estimating the impact of having a driving license and the possibility of working non-standard hours on jobseekers' employability, by exploiting the characteristics detailed on job offers and supplementing this with qualitative interviews with recruiters and employers.

Our results show that a generalised cost criterion reflecting effort would be more relevant for the policy of the reasonnable job offer in terms of equity and efficiency. Moreover, we show a reduction in commuting times acceptable to the job seekers with low mobility. In this context, we developp an individual mobility index which suggests that the main gains in mobility for employment come from specific support for mobility, rather than from the control and injunction to mobility imposed to job seekers within the framework of the reasonnable job offer.

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VOITURE ÉLECTRIQUE : ÇA VA DISJONCTER ?

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Abstract [FR]

À l'instar de la taxe carbone sur l'essence avant le mouvement des Gilets jaunes en France, la voiture électrique semble faire consensus chez les politiques et chez les experts. Risque-t-elle de connaître le même sort ? Si elle est plébiscitée, bien sûr, par le monde de l'automobile, qui entrevoit, grâce à elle, un avenir écologique à des véhicules responsables de la moitié des émissions de CO2 du transport, elle est aussi soutenue réglementairement (interdiction de la vente de voitures thermiques en 2035, zones à faible émission) et financièrement (primes aux consommateurs, aides aux constructeurs, relocalisations) par les politiques nationales et européennes, tandis que le Groupe d'experts intergouvernemental sur l'évolution du climat (GIEC) mise sur l'électrification pour lutter contre le réchauffement de la planète. Faut-il s'en réjouir ?

Abstract [ENG]

Just as the carbon tax on petrol faced backlash before the Gilets Jaunes movement in France, the electric car currently enjoys widespread support among politicians and experts. But could it encounter a similar resistance? While it is naturally favoured by the car industry, which sees in it an eco-friendly future for vehicles that are responsible for half of transport-related CO2 emissions, it is also strongly supported by regulatory measures (such as the ban on the sale of combustion engine vehicles by 2035 and the establishment of low-emission zones) and financially (consumer incentives, subsidies for manufacturers, relocations) by both national and European policies. Additionally, the Intergovernmental Panel on Climate Change (IPCC) is relying on electrification as a key strategy in the fight against global warming. But is this cause for celebration?

AN AGENT-BASED MODEL OF MODAL CHOICE WITH PERCEPTION BIASES AND HABITS

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Keywords:
Agent-based modelling and simulation, Modal choice, Cognitive biases, User survey

Abstract:

Introduction

To adapt cities to the issues of climate change and public health, urban policies are trying to encourage soft mobility [14] in order to reduce traffic and pollution, via financial incentives or new infrastructure. However, mobility evolves very slowly, and the share of the car remains significant (74% in France [9]), despite increased public awareness of global warming, and increased concern for ecology. The pandemic offered an opportunity to explore the impact of reduced car mobility and new urban planning policies, for instance with temporary cycle paths [19]. But these public policies normally take longer to implement and are not always well accepted by the car-loving population; many of these temporary cycle paths were gradually returned to cars after the end of the lockdowns [6]. Many explaining factors of this inertia of mobility and reluctance to shift from the car are already known, both contextual, such as a lack of alternatives (limited public transportation options), individual constraints (transporting children or tools), or higher costs of newer or electric vehicles...); and psychological, such as the difficulty to change habits [8, 17], individualism [12], or influence of cognitive biases [15, 13].

The SWITCH project[1] aims at developing prospective tools to reflect on scenarios for transition of cities towards more sustainable mobility [2, 1, 5]. In this context, we wish here to study the factors and obstacles, particularly psychological, of a modal shift for urban commutes. We developed an agent-based modal choice model integrating the influence

[1] Simulating the transition of transport Infrastructures Toward smart and sustainable Cities: https://www6.inrae.fr/switch

of perceptual biases and habits, implemented in a Netlogo simulator. We conducted an online survey and collected 650 answers, which provided realistic values to initialise this simulator. We report here several scenarios run in this simulator to illustrate the impact of biases on the efficacy of public policies.

Background

Modal choice has been studied in sociology under several axes: definition of user profiles, and analysis of modal choice criteria. The Mobil'Air study [10] presents 4 car user profiles with percentages of the population in each category but does not consider other modes of mobility. It also notes the importance of constraints, of the reason for travel (transporting children for example), and the strength of routines. Rocci [20] proposes a more detailed classification with 6 profiles including other modes than car, but without population distribution statistics. Similarly to Mobil'Air, her study also reports constrained or on the contrary passionate use of the car. Rocci also shows inter-individual differences in perception of modes: for example, convinced car drivers tend to underestimate its price and overestimate that of public transport. She defines the notion of 'mobility capital' as individual constraints for using a mode (owning a bicycle, having a driving license, being fit to cycle or walk, living close to a bus stop...). Beyond these constraints, everyone will evaluate different aspects, such as price, safety, or travel time. The choice must also minimise mental load (*e.g.* number of connections). Finally, we retained 6 decision factors [4]: cost, time, practicality, safety, comfort, and ecology.

Habits are essential in mobility decisions [8]: individuals tend to reproduce habitual decisions when in the same context. This process can save decision time, but also lead to misadapted decisions in an evolving environment. Habits can also modify perceptions: usual car drivers can overestimate travel time by public transport and under-estimate travel time by car [20, 7]. Life cycle changes that disrupt habits (job change, moving, birth, etc.) are favorable moments for breaking old habits and creating new ones [21]. Thus, the COVID-19 pandemic has shown an unusual reset of habits that encouraged bicycle travel, at least temporarily [6].

Cognitive biases are heuristics used by our cognitive system to facilitate decision-making [22], enabling fast reasoning during stressful or complex situations, despite

incomplete or uncertain information. Although essential to our proper functioning, they can sometimes lead to irrational decision-making or errors. Innocenti et *al.* innocenti2013car show that people tend to 'stick' to the car, even when more expensive than public transport, and explain this irrationality by the influence of cognitive biases. They conclude that mobility policies must try to modify the perception of different modes of mobility. Another study [13] looks at the reasons why drivers are generally reluctant to switch from their personal car to new more efficient modes of mobility (carpooling or free-floating bikes and scooters). They find that mobility decisions are influenced by various emotions and cognitive biases not considered by mobility operators. The halo bias pushes motorists to amplify benefits of driving and ignore its disadvantages. The ambiguity bias pushes them to prefer known to unknown risks, thus avoiding uncontrollable risks posed by public transport. The anchoring bias pushes to retain a negative first impression and prevent future reuse of a new mode. The status quo bias induces a preference to keep things as they are to save cognitive load, similarly to habits.

Agent-based model

Our approach is agent-based modelling: autonomous entities called agents represent individuals; the model describes their behaviour at the microscopic level; the behaviour of the society (macroscopic level) then emerges from the agents' interactions. Concretely, we will model individual modal choice decisions, and observe the resulting modal distribution in the global population. Our objective is to integrate psychological factors in these individual decisions, in order to illustrate their impact on the effectiveness of urban development policies. The model user will be able to modify the urban environment and observe how the modal distribution evolves in response, depending on whether the agent decisions are biased or not.

In our model, we consider 4 modes of mobility: car, bicycle, bus, or walking. They are evaluated according to the 6 criteria established above: ecology, comfort, price, time, practicality, and safety. The environment contains the objective values of the 4 modes with respect to the 6 criteria, representing the current urban infrastructure, and accessible to all agents.

The agents are endowed with individual priorities for the 6 criteria. They also have a filter which biases their perceptions; this filter contains a multiplying factor for each

criterion of each mode (so 24 factors), modifying the objective value perceived in the environment. This filter is dynamic, computed as an average of the prototype filter for the usual mode and a neutral filter, weighed by the strength of habit: the more an agent is used to a mode, the more it biases its perception. Each agent therefore has its own subjective evaluation of the modes on all criteria (24 values), differing more or less from the objective values. The agent can then calculate the scores of the 4 modes following a multi-criteria evaluation formula [16]. Concretely, agent *i* uses its priorities for each criterion c, denoted *prio*(i,*c*), and its values of mode m over each criterion *c*, denoted *val*(*m,c*), to compute its score for mode *m* as follows:

$score(i,m)=\sum_{c \in rits} val(m,c)* prio(i,c)$.

The rational mobility choice for the agent is the mode receiving the maximal score. Each agent also has a home-work distance constraining its choices (walking available below 7km and cycling below 15km) and they may or may not have access to the bus and the car. In addition, the agent maintains a list of the modes used for its last journeys and uses it to deduce habits of each mode as their past frequency. This habit is then used as a probability to reuse the same mode without evaluation [1]; if no habit is triggered, modes are re-evaluated and the best one selected.

Mobility survey

To realistically initialise the population of our model, we conducted a survey via an online form, sent to various university mailing lists (students, laboratories, research groups, etc.) or via our personal networks [11]. The questionnaire consists of three main parts. The first part concerns the responders profile (gender, home-work distance, number of weekly journeys, accessible modes) and their mobility habits (usual mode), without any identifying data. In a second part, participants are asked to report their priorities for the 6 decision criteria. The third part concerns their perceptions of the values of the mobility modes over these 6 criteria (24 scores). All ratings (priorities and values) are given on a Likert scale from 0 to 10. We collected 650 responses to this survey, between March and July 2023, available in open data [3].

The question about usual commuting mode allows us to deduce the following modal distribution in our sample: bicycle 31.38% (n=204), car 20.62% (n=134), bus 35.08% (n=228), walk 12.92% (n=84). In comparison, the national statistics for France [18]

provide a very different distribution: bicycle 2%, car 74%, bus 16%, walk 6%. Our sample is therefore not representative at all, in particular because of the diffusion biases of the survey (academia), and geographical biases (diffusion from Grenoble, where the share of cycling is much greater than the national average[1]). However, the good coverage of each of the mobility modes studied will allow us to deduce interesting statistics.

The question about home-work distance provides distance statistics per usual mode. After removing aberrant responses (*e.g.* walking 550km, driving 2000km, etc.) and zero distances, we obtain the following statistics: cyclists travel an average of 6.43 km (median 5km), pedestrians walk in average 1.8 km (median 1.5km), motorists drive in average 21.29km (median 15km), and bus trips are in average 11.16 km long (median 5.55km). Beyond the distance, not all modes are accessible to all users. We calculated the number of respondents using each mode and having expressed inaccessibility not due to distance. It is important to note that these are purely declarative and can be subjective. To simplify, we consider walking and cycling as accessible unless limited by distance. For the other 2 modes, we have found the following statistics: 57.46% of bus users, 29.9% of cyclists, and 50% of pedestrians cannot use a car; 61.19% of car drivers, 10.29% of cyclists, and 8.33% of pedestrians do not have access to public transport.

We have also computed the average priorities for the 6 criteria, in the total sample (n=650) and per usual mode. We observe marked differences between users of different modes, for example a very low priority of motorists for ecology (5.65 out of 10, compared to 7.08 in average) and price (5.63 out of 10, compared to 6.97 in average), of cyclists for safety (5.37 out of 10, compared to 6.2 in average), or of pedestrians for time (6.7 out of 10, compared to 7.47 in average). We then computed average evaluations of modes on criteria, in the total sample, and in users vs non-users of each mode. We noticed marked differences again, with users generally over-evaluating their mode compared to the rest of the population. Furthermore, these evaluation deviations are aligned with priority deviations: cycling is evaluated as very unsafe (4.62 in average, and even 4.28 over non-users), walking as very slow (2.98 in average, 2.69 over non-users), and driving as very expensive (2.68 in average, 2.38 over non-users, compared to 6.87 in average for the bus, which is the closest in terms of comfort) and not ecological (1.81 in average,

[2]https://www.grenoble.fr/uploads/Externe/73/215_984_Grenoble-2e-ville-cyclable-de-France-pour-les-actif.pdf (press release) and https://www.insee.fr/fr/statistiques/2557426 (INSEE statistics)

1.63 over non-users; compared to 9.81 in average for walking). From there, we calculated the average deviations between the value of each mode on each criterion, for its users, compared to the 'objective' value taken as the median over all responses (24 deviation factors); this constitutes the perception filter prototype specific to users of this mode.

Modal choice simulator

We implemented a Netlogo [23] simulator of modal choices. The environment is extremely simplified, it contains neither buildings nor roads, but only the abstract numerical evaluation of the 4 modes over the 6 criteria, considered as the objective values. These are initialised from the survey: we calculated the median evaluation of all modes on all criteria, per usual mode; we then averaged these 4 different visions, weighed by the proportion of each mode in the French population [18] to adjust the average values in our non- representative sample. We created a population of 200 agents with this same distribution: 2% cyclists, 74% motorists, 16% bus users, and 6% pedestrians. Each agent is initialised with its usual mode, and corresponding attributes. Average priorities are computed over users of this mode, with an empirical random variation between -20 and +20% to obtain heterogeneous profiles. Its trip list initially contains only the usual mode, and its perception filter is the prototype for this mode. Its home-work distance is initialised by a random draw with a Gaussian distribution parameterised by the mean and standard deviation calculated for this mode, and determines its access to walking and bike. Its access to car and bus is drawn randomly according to the probability per mode. The number of agents created allows to smooth out the effect of randomness to observe macroscopic level effects.

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Figure 1: Netlogo simulator interface

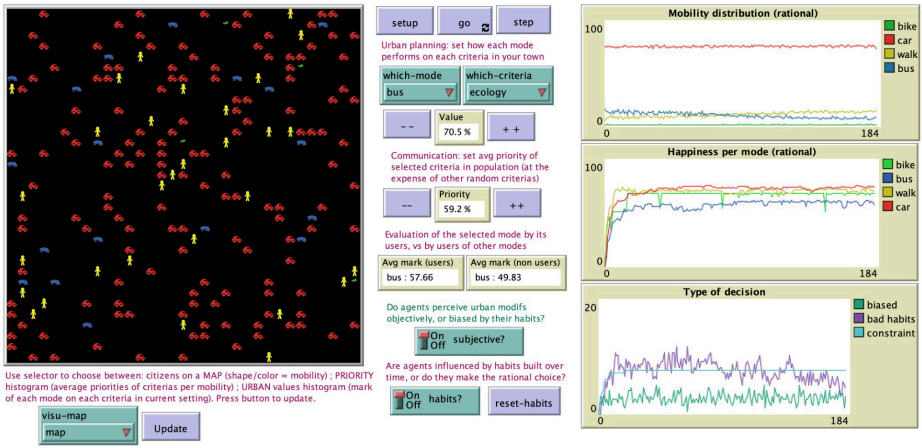

Figure 1 shows the Netlogo simulator interface. It firstly allows the user to modify the urban layout, in an abstract way, by directly controlling the objective values of each mode on each criterion. These abstract modifications have the advantage of capturing all concrete urban policies (increasing cycling safety can correspond to building cycling lanes; decreasing car comfort can capture a reduction in parking spots), but have the disadvantage of also allowing modifications with no concrete meaning (one cannot really reduce the ecology of walking or make driving free). In the future, the simulator should provide the player with concrete actions choices, then translated into criteria values; but to explore the effect of biases, these abstract actions allow greater control. Along the same lines, the user can also modify the average priority of criteria (simulating communication campaigns, *e.g.* promote ecology or road safety); this is also a simplification to give more control and visualise the influence of these on macroscopic indicators. Finally, with the idea of exploring the impact of individuals' biases and habits, these two aspects of reasoning can be activated or deactivated by the user.

Once the population is initialised, each agent is represented with a shape and color corresponding to its current mobility. They do not move, we only model their decisions. At each time step, all agents perform a random draw to find out if they activate their habit or if they re-evaluate the 4 modes; in addition, random events (probability 1%)

can prevent an agent from taking its usual mode, to simulate possible breaks in habits (car broken down, bus strike...). The user can also reset the habits of all the agents, to simulate a global crisis (*e.g.* pandemic): past journeys are deleted, and the frequencies reset to 0, forcing all agents to reevaluate the available modes rationally until they build up new habits. Urban layout (objective mode values) and priorities can be changed while the simulation runs. Several graphs allow the user to visualise the evolution of macroscopic indicators: modal distribution (percentage of agents using each mode), satisfaction (average score of each mode for its users); and decision counts (number of routine decisions, biased decisions, and constrained decisions).

Experiments

In a first scenario, we want to illustrate the modal transfer when the environment evolves, and its obstacles, notably habit. We launch a simulation then gradually increase the safety of the bike. Initially the modal distribution remains stable, however the number of biased decisions increases (agents subjectively under-evaluating bicycle), as well as the number of constrained decisions (agents who would prefer bicycle but cannot access it due to distance). Gradually, some bus users convert to cycling but progress is very slow. If habits are reset during this evolution, some agents immediately shift from the 3 other modes to cycling; the reset forced them to re-evaluate modes and allowed them to realise whether cycling had become best. The number of routine decisions drops to 0, while the number of biased decisions increases (perception biases modify the evaluation) and then falls again (when new habits take over).

In a second scenario, we want to show the impact of constraints and habits on the modal shift. We launch the simulation without perceptual bias but with only habits to isolate their effect. We gradually reduce the comfort of the car to simulate the increase in difficulties (traffic jams, less parking spots, etc.). We observe a gradual shift of motorists with the shortest home-to-work distances towards walking. We notice that the number of forced choices increases, because motorists living further away are forced to continue using the car while its score decreases. If comfort is further reduced, motorists living further away then gradually switch to the bus, less well rated than walking but the only option. If habits are reset, the shift happens instantly. Ultimately, only constrained motorists remain, who continue to use the car because they cannot access the bus.

In a third scenario we want to show the impact of the perception filter. With the initial layout and filters enabled, the proportions of users of each mode remain stable, corresponding to the survey results. By disabling filters, we observe that the proportion of bus users decreases gradually (or even instantly if we also disable habits). Indeed, the initial layout is not very favorable to the bus (the plot shows bus users have the lowest satisfaction), often chosen by default because of distance or access constraints. The perception bias allows bus users to rationalise their choice a posteriori to improve satisfaction.

Conclusion

In this article, we presented a modal choice model, based on a multi-criteria evaluation, with individual priorities and biased evaluations, and integrating habits. We have described the results of a survey to calculate the parameter values of this model, these responses being published as open data [3]. We finally introduced a Netlogo modal choice simulator implementing this model, and presented some use case scenarios. This simulator is extremely simplified but allows the visualisation of the impact of perception biases and habits, and therefore shows the importance of considering them in the development of urban development policies. Future work will enrich the simulator with other decision factors, such as social pressure.

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QUANTIFYING (OVER)TOURISM AND MOBILITY IN VENICE, ITALY: A CRITICAL PERSPECTIVE

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Keywords:
Tourism Mobility, Overtourism, Tourism Statistics, Quantification

Abstract:

Overtourism, commonly referred to as an excessive number of tourists in a specific destination (Dodds and Butler, 2019) has been widely discussed during the last decade and remains a subject of debate within and beyond academia. In the case of Venice, the 'ever-growing swell of visitors' (Nolan and Séraphin, 2019:139) has resulted in the historical city centre of Venice to became considered an '*overtourism* icon' (Visentin and Bertocchi, 2019) or the city with the 'highest degree of *overtourism*' (Amore et al. 2020:126).

In the city centre, attempts to manage, predict, and control tourist mobility, the implementation of taxes to access the city, and of tools such as the Smart Control Room show the magnitude of the problems posed by *overtourism* in this destination. The quantitative framing of the negative aspects caused by perceived excessive tourism flows in Venice has a long tradition and the creation of a plethora of quantitative tools reflects in part the social quantification frenzy permeating contemporary society at large (Mau, 2019), from which tourist mobility is not excluded.

Tourism mobility statistics, traditionally expressed by numbers on arrivals and overnight stays, and more recently by the analysis of mobile positioning data, are considered the most effective representation of tourist mobility patterns and are often uncritically mobilised in public discourse and management or administrative practice, as it might be in the case of *overtourism*. The research aims to depict the system of production of tourism mobility statistics for the city of Venice, inquire about the actors participating in it, and provide a critical perspective on the numbers they create and use.

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FROM SCREEN TO STREET: HOW SMARTPHONES SHAPE SMART CITY MOBILITY

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Keywords:
Smart city, smartphone, urban practices, route planning, South Korea

Abstract:

Built on an artificial island, Songdo is a South Korean city described by its developers as a paragon of the smart city (G. Halegoua, 2011). Based on an ethnographic survey of urban practices in Songdo (2018-2022), this research aims to analyze the ways in which smart urbanism transform the user's mobility. Mobility is defined here as the movement of individuals within urban spaces, encompassing various modes of transportation and including the interplay inhabitants have with their built environment.

First, the research shows that despite the presence of innovative public transportation systems in Songdo, the automobile stays as the predominant mode of circulation to the point that it defines the urban development (C. Yang, 2016). All inhabitant's circulation seems to depend on cars facilities. Second, in the respondents' speech, the only smart element they mention to go around the city, is their smartphone. With a penetration rate of the smartphone at 95% in South Korea in 2020 (compared to 75% in France for the same period)[1], the smartphone is an ordinary object for route planning in South Korea. The smart city appears then as an ordinary city where mobility depend on cars and the route planning is made through on smartphone apps.

Yet, given its status as a smart city, is using a smartphone different to navigate in Songdo? To what extent does the smartphone transform mobility in urban space? What

[1] Laura Silver, « Smartphone Ownership Is Growing Rapidly Around the World, but Not Always equally », *Pew Research Center*, 2019, https://www.pewresearch.org/global/2019/02/05/smart-phone-ownership-is- growing-rapidly-around-the-world-but-not-always-equally/, access on April, 22nd 2024.

are the factors that influence the adoption of smart tools in urban practices?

In South Korea, apps such as Kakaomap and Naver Map (similar to Google Map) have become essential digital guides for all South Koreans. However, these national applications turn out to be different when users circulate in Songdo. For instance, through Kakaomap, smartphone users in Songdo are able to know the exact location of the bus they want to take, allowing them to adjust their route planning. In Siheung (the city next to Songdo), this information is no longer available. Through specific examples of the extension of web-mapping applications, the objective is to analyze the role of “testers” that Songdo users take.

At the end, in the smart city, the integration of information and communication technologies appears exacerbated while remaining unnoticed in users’ daily lives. It is therefore surreptitiously that the inhabitants’ spatial perceptions and urban habits are influenced by these applications. By considering the importance of the cultural and economic context, this study reflectq on the practice of the smartphone in urban space. It offers a perspective, even a redefinition, of the modes of appropriation and circulation in urban environment.

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CANCELED : UNDERSTANDING THE MOBILITY AND HOMECARE ACTIVITIES OF HEALTHCARE PRACTITIONERS IN FRANCE: THE CONTRIBUTION OF MOBILE SURVEY METHODS

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Keywords:
Health professionals, Daily mobility mobile methods, Working conditions, Domiciliation of care

Abstract:

Key element of the «outpatient shift» in healthcare policies (Lucas-Gabrielli and Mangeney, 2022), home-based care and the mobility it entails remain little studied. A multidisciplinary and exploratory research project investigated spatial mobilities and working conditions of healthcare professionals practicing home visits in AURA region, France (Didier et al., 2022). While some studies focus on mobile professions in their professional travel, particularly related to road risk (Bahoken et al., 2018; Gressel, Mundutéguy, 2008), the regular spatial mobilities of liberal healthcare professionals are seldom studied.

This paper presents the mixed method (Guével and Pommier, 2012; Tariq et Woodman, 2013; Anadón, 2019) we used, in which the first phase of qualitative surveys (in the Lyon urban area) feeds the quantitative survey phase (online questionnaire, 1516 responses) completed by a second qualitative fieldwork focused on rural territories.

The qualitative research phases involved conducting 47 interviews with caregivers from five professions (nursing assistants, nurses, physiotherapists, general practitioners, midwives) and 30 observations of "daily rounds" for home visits. We conducted mobile methods using the «go along» method (Kusenbach, 2003; Pink, 2007; Carpiano, 2009). Preceded by preliminary semi-structured interviews (on professional habits, working conditions, home visits), these observations articulated discourses and «socio-spatial practices in action» (Marcoux-Gendron, 2017). Experimenting the daily travels of

healthcare professionals simultaneously with them, through the use of their transport mode (car, e-scooter, bicycle, walking), contributes to a better understanding of daily lived experiences. Several measures were collected: timing and qualification of different activities (travel, care, breaks, administrative work), recording GPS data of the route, and photographs. Observation was enriched by semi-structured interviews in motion: the respondent commented on their actions, strategies deployed to manage constraints related to the sequence of care, mental workload, physical fatigue, and their feeling in terms of work hardship. Finally, GPS trace collection via a mobile application (MobAccess) over a longer period was carried out by some caregivers.

We present some contributions and limits of this methodology to the understanding of professional practices and mobility, professional and family constraints, risks involved and adaptations needed to cope with them. We analyse the accumulation of working time when the car (or the walk) journey has to accommodate the caregivers' "mobile office work" (Laurier, 2004), the choice of itineraries, the ways of managing contingencies (vehicle breakdown, illness) in order to continue to provide care. This methodological approach also offers carers a reflexive feedback on their own practices, the way they internalise the constraints and how they juggle to manage them.

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