



## Article

# Public Transport in the Disabling City: A Narrative Ethnography of Dilemmas and Strategies of People with Mobility Disabilities

Juan Camilo Mansilla <sup>1,2,\*</sup>, Normand Boucher <sup>2,3,\*</sup> and François Routhier <sup>1,2</sup>

<sup>1</sup> School of Rehabilitation Sciences, Université Laval, Quebec City, QC G1V 0A6, Canada; francois.routhier@rea.ulaval.ca

<sup>2</sup> Center for Interdisciplinary Research in Rehabilitation and Social Integration, CIUSSS de la Capitale-Nationale, Quebec City, QC G1M 2S8, Canada

<sup>3</sup> Department of Management, Université Laval, Quebec City, QC G1V 0A6, Canada

\* Correspondence: juan.mansilla.1@ulaval.ca (J.C.M.); normand.boucher@cirris.ulaval.ca (N.B.)

**Abstract:** Access to transport is key to people's movement in cities, their social participation, and personal development. People with mobility disabilities (PMDs) face additional barriers when using public transport. The objective of this study is to identify the dilemmas that PMDs face in their daily mobility practices and their coping strategies, in particular the ways in which these dilemmas and strategies are influenced by both personal and environmental characteristics. We conducted ethnographic research, utilizing narrative interviews, life stories, focus groups, and participant observations. Our aim was to analyse multiple experiences of mobility in situations of disability in Quebec City, Canada. This study engages the following research question: how do PMDs navigate their social environment, considering the impact of personal, social, and physical landscape factors on their mobility strategies? Depending on the accessibility of fixed-route public buses and the availability of public paratransit services, what are the dilemmas that PMDs face and how do they shape their mobility strategies? Using the three-dimensional model of narrative analysis, we present a narrative ethnography of participants' dilemmas and strategies about their experiences on public transport. Five dilemmas are examined. Through this methodology, we propose to extend the study of "constellations of mobility" by including the notion of strategies as an experiential outcome between personal and physical landscape factors, practices, and meanings of mobility. This offers new research perspectives both in disability and mobility studies and in the understanding of urban accessibility experiences in situations of disability.

**Keywords:** Canada; experience-based research; narrative ethnography; paratransit; people with mobility disabilities; physical barriers; public transport; fixed-route public bus; social attitudes; mobility strategies



**Citation:** Mansilla, J.C.; Boucher, N.; Routhier, F. Public Transport in the Disabling City: A Narrative Ethnography of Dilemmas and Strategies of People with Mobility Disabilities. *Disabilities* **2024**, *4*, 228–261. <https://doi.org/10.3390/disabilities4010015>

Academic Editor: Nathan Wilson

Received: 22 December 2023

Revised: 1 March 2024

Accepted: 4 March 2024

Published: 18 March 2024



**Copyright:** © 2024 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

## 1. Introduction

How can we effectively encourage people with mobility disabilities (PMDs) to choose fixed-route public transport? By increasing frequency, improving comfort, and providing a fast and safe service at an attractive price? These factors seem sufficient in a perspective where the population experiences the same mobility situations [1]. However, this is not the case for PMDs. In Quebec City, the accessibility of certain bus routes managed by the city public transport provider, Réseau de Transport de la Capitale (RTC), has not led to an increase in the use of fixed-route public transport by PMDs [2]. This situation is not specific to Quebec City [3] and raises several questions: how do the experiences and perceptions of PMDs impact their mobility choices and public transport practices [4]? How do we create more inclusive mobility pathways in contemporary cities [5] considering the mobility dilemmas that PMDs face in their daily lives?

The objective of this study is to identify the dilemmas that PMDs face in their daily mobility practices and their coping strategies, in particular the ways in which these dilemmas

and strategies are influenced by both personal and environmental characteristics. These strategies—as a thread running through the participants’ narratives—emerge as a response to their mobility dilemmas, i.e., personal and social contradictions of perception that lead to internal conflicts centred on mobility choice. We propose the concept of strategy as the common trait that PMDs have in dealing with the different dilemmas they face in their experiences on public transport. Mobility dilemmas thus refer to the necessary trade-offs that people must make in their mobility decisions and practices: limiting one setting in order to access another. We are interested in understanding how PMDs’ experiences with public transport, as well as their mobility practices, have an impact on their social participation, their perceptions of disability, and their mobility choices (e.g., between the fixed-route public buses and paratransit services). Our main conclusion reveals that the singularities of PMDs’ experiences with public transport are based on a common behaviour of continuous adaptation between flexibility to gain freedom and safety to avoid difficulties.

The term PMDs is inspired by on the United Nations’ Disability-Inclusive Language Guidelines [6]. The profiles of people with mobility disabilities are varied—it can be a person in a wheelchair, a person using a white cane, or a person with neurodiversity experiencing challenges travelling and participating in civic life. However, even if the personal characteristics are different, all PMDs face situations of exclusion due to mobility barriers [7], which diminish their social participation and the effective exercise of their human rights, in particular “mobility justice” [8]. We have created a broad category (PMDs) where mobility goes beyond a particular physical disability but encompasses situations where a person’s “mobility justice” is compromised. In our study, the participants belong to a subcategory of PMDs: a person using a mobility aid. This perspective is based on the interactionist systemic model of Human Development and Disability Production Process, in which “a person’s social participation corresponds to the realization of his or her life habits, and results from the interaction between his or her personal characteristics and the physical and social environment in which he or she lives (his or her living environment)” [9] (p. 6). This approach transfers to cities—their built environment and their social system values—and their inability to include the diversity of rhythms and movements of people living in them in a dignified and effective way. As Prince [10] (p. 174) notes, “all cities are disabling cities; that for people with disabilities, city life is marked by much exclusion and some inclusion”.

### *1.1. Quebec City, a Path under Construction towards Inclusion*

#### *1.1.1. Context of Accessibility and Portrait of People with Mobility Disabilities*

In the summer of 2022, the RTC announced that it would make 1000 bus stops accessible to wheelchair users by 2028 [11]. Currently, the RTC has made 430 bus stops accessible (out of a total of 4435), as well as 13 accessible routes (out of a total of 170) [11,12]. In other words, approximately 10% of bus stops and 8% of routes are accessible to wheelchair users. Among all RTC vehicles, 77.9% are accessible for wheelchair users [12]. In addition to this, Flexibus, the RTC’s on-demand transportation service available in peripheral areas of the city, is accessible to people who use wheelchairs and three- or four-wheeled scooters. Flexibus allows people to travel within a single-service area or connect to the existing RTC bus network. Considering the physical ecosystem of the public transport network (vehicles, bus stops, and routes), today, accessibility to fixed-route public transport is very limited for a wheelchair user in Quebec City.

Statistics need to be put in context: how many people in wheelchairs move around Quebec City on a regular basis? The answer would allow us to evaluate (in numbers) the coverage of accessibility but not to explain how such environmental barriers (e.g., steep streets, non-functional bus access ramps, or barriers related to behaviours, misconceptions, or assumptions) marginalise and limit the activities of PMDs [7]. There are no data on how many people live with mobility disabilities in Quebec City. However, it is useful to contextualise the phenomenon in the Province of Quebec. According to the Office des personnes handicapées du Québec (based on data from the 2017 Canadian Survey on

Disability (CDS) [13]), in 2017, the most common disabilities among the population over the age of 15 in the Province of Quebec were pain disability (9.8%), flexibility disability (6.6%), and mobility disability (6.4%)—the latter referring to “people who have difficulty moving around, either walking on level ground for 15 min without resting, or going up or down stairs”; “among people with motor-related disabilities, 7% use a non-motorised wheelchair”. Although all these categories fit our definition of PMDs, since the situations encountered by these people in their daily lives are a threat to their mobility, the category of “mobility disability”, from CDS data, is the one that most closely matches the situations faced by the participants in this study.

In terms of the general profile of the population with disabilities in the Province of Quebec, people with disabilities aged 15 and over have a “less favourable socio-demographic and economic profile than people without disabilities”, and proportionally, “people with disabilities are more likely than those without disabilities to live alone, to have less than a secondary education and to be unemployed” [13]. We might therefore expect a similar trend in the proportions and profiles of PMDs in Quebec City—although such a statement should only be taken as a contextual reference.

#### 1.1.2. RTC, the Public Transport Service Provider

The RTC is responsible for public transport services in Quebec City. The RTC offers paratransit services through the Service de transport adapté de la Capitale (STAC). The objective of paratransit, according to The Gouvernement du Québec, “is to favour the social, school and workplace integration of handicapped persons. It allows them to travel to access activities in their community” [14]. Only persons with disabilities “that greatly compromise their mobility are eligible for paratransit”. In general, to be accepted, a person must be in a permanent situation of “inability to make an entire trip using fixed-route public transport” [14]. An admissibility committee accredits the person’s disability status, considering the person’s degree of mobility and environmental factors such as winter.

In terms of affordability of public transport services, in Quebec City, low-income households pay less. Fares for fixed-route public RTC bus services and STAC paratransit services are the same: CAD 3.75 a ride. Since May 2023, the local government (Ville de Québec) has implemented the ÉquiMobilité programme to facilitate access to public transport for those who qualify based on their income. This financial assistance offers a 33% discount on the general monthly pass fare and on single tickets (a similar discount is available for the monthly pass for students and seniors). All STAC customers benefit from ÉquiMobilité, with no need to prove their eligibility.

#### 1.2. Barriers to Public Transport Accessibility for People with Disabilities

Public transport is recognised as an enabler of people’s development and autonomy [15–18]. However, around the world, PMDs face environmental and social barriers to accessing and using public transport [19–22]. Accessibility of public transport for PMDs has been mainly documented from three mobility events: arriving at a bus station [4,23–25], boarding and disembarking the bus [26,27], and moving inside the bus [28]. The literature agrees on the influence of physical and attitudinal barriers. Physical barriers may be in the last mile to reach the bus station [29], street conditions [24], design of bus stops [30], ramps [31,32], and bus floors [33]. And attitudinal barriers may include driver behaviours [4,34] and conflict with other passengers, as with buggy wars [35], wheelchair users, and people with children in pushchairs competing for priority space.

Barriers can also arise in the use of paratransit services. In Quebec City, past research points to a lack of flexibility and spontaneity as an obstacle for people using STAC paratransit services, “as the reservation must be made before 6.00 p.m. on the day before the trip” [3]. The issue of flexibility has been identified in other countries, such as Switzerland, where PMDs would also prefer to have more flexibility, spontaneity, self-determination, and autonomy in using paratransit services [36]. Questions such as perceptions of freedom, spontaneity, safety, and stigmatisation need to be integrated into the study of PMDs’ expe-

periences with public transport. For example, in London (UK), inaccessibility of transport has been linked to feelings of anxiety, anger, and frustration; these feelings impact the lives of people with disabilities [16,35]; and in Quebec City, the sense of safety of people with visual disabilities increases when there are audible pedestrian signals along their mobility paths [37]. However, we need to conduct more research to understand how individual and collective perceptions and values shape these physical and attitudinal barriers to public transport and mobility practices, and what impact they have on people's social participation and well-being [5,38].

Restrictions in social participation are mainly due to accessibility problems [39,40]. Improving accessibility creates a sense of inclusion that promotes the full participation of people with disabilities in their communities [41]. Therefore, it is necessary to explore the following: how do PMDs, in different daily mobility events, perceive the places and relationships with others? How do they decide which type of public transport to use? And what strategies underlie their mobility strategies and (im)mobility practices?

### 1.3. *Experiencing Mobility: Meanings, Practices, Relationships*

The study of the daily mobility practices of PMDs and their collective and individual meanings allows us to understand how their identities evolve and how these have an impact on their social participation. The notion of “constellations of mobility” [42–44] provides a framework for the study of the dynamics between movements, practices, meanings, and social interactions. These dynamics evolve within “phygital spaces” [45,46] (created from physical and no-presential interactions) and “places of mobility”, where accessibility and social inclusion are constantly being redefined [47,48]—in terms of Morin's complexity paradigm [49], spaces and places would not be containers but both the cause and effect of such dynamics in a constant feedback loop. As Creswell argues, if places are the social embodiment of spaces [50–52], mobility is the social embodiment of movement, because “mobility practices animate and co-produce spaces, places and landscapes” [43] (p. 7). Thus, constellations of mobility “as historically and geographically specific formations of movements, narratives about mobility and mobile practices” [42] (p. 17) are “movement patterns, representations of movement and ways of practicing movement that make sense together” [42] (p. 18).

Following K. Mannheim's *The Problem of Generations*, any situation of physical or psychological change experienced by people (be it a situation of mobility disability or even the usual ageing process) must be contextualised in both a “historical trend” and a “social space” [53], which shape their personal values, interpersonal relationships, and “life trajectories” [54]. In this sense, mobility disabilities are not only a question of bodily condition but also a question of place and social relations. The places in which people live affect their identity, values, behaviours, and relationships [55]. Physical and social barriers to mobility and movement in the built environment are a constant reminder of the bodily identity of people with disabilities [56]. This approach is based on the Human Development and Disability Production Process Model, which postulates that disability is caused by the interaction of environmental barriers (physical landscape conditions, social attitudes and interactions) and personal factors (feelings of health and illness, identity values) [57,58]. These factors are perceived as facilitators or barriers to the achievement of lifestyle habits, consisting of everyday activities and social roles [9]. The mobility experiences of PMDs are shaped by the physical and social aspects of the city. How they experience and interact with these elements in their daily lives, considering their personal factors, determines whether they perceive them as barriers or facilitators [59]. These experiences of mobility are part of an environment, made up of physical conditions, in which people's behaviour evolves in a context of space and time [60] (p. 94). However, the meanings of a space are not the same for everyone, “as this varies according to the way in which each person uses it, the experiences they have in it or the routines they develop and establish in it” [3] (p. 145).

#### 1.4. This Study

The path towards the inclusion of mobility and accessibility in public transport is built on several interdependent levels. The physical conditions of fixed-route public buses and the landscape must be barrier-free [61]. But this is not enough to allow PMDs to opt for fixed-route public transport. Mobility is more than moving from one point to another. It needs to be approached from a perspective that includes physical and social factors that determine mobility decisions and strategies. Our research goes in this direction. We will study how PMDs decide on their (im)mobility practices in the disabling contemporary city, and how the landscape configuration, the transport infrastructure, their identity values, memories, and expectations, as well as social representations, inform these decisions and reconfigure their constellations of mobility.

In this study, we have (re)constructed and organised a collective story of different people experiencing disabling situations on public transport, their personal and social interactions, as well as the narratives of stakeholders working on inclusive mobility, and the mutual perceptions that drive the dynamics between the two, all in a common place: Quebec City. We aim to produce—from interviews, focus groups, observations, shared experiences, field notes, audio-visual documents, and newspapers—a narrative ethnography [62] that reflects participants' experiences, practices, and meanings about their mobilities in the city, in particular their dilemmas and strategies on public transport experiences.

With this article, we demonstrate the relevance of narrative ethnography paired with the experiential analysis approach [63] to study inclusive mobility in public transport, an issue of growing interest in many countries, due to the current correlation between urbanisation, ageing, and disability [64,65], but which is rare in the literature [66]. More importantly, with this study, we facilitate the (re)introduction of real voices and bodies into social research [67,68], a necessary condition to account for our human essence—considering narrative as the organising principle for human action [69].

#### Research Questions

We have identified three main groups of questions:

- **Social and Physical Factors:** What role do public transport and social and physical factors play in the (im)mobility practices of PMDs?
- **Practices and Strategies:** What are the personal, social, and landscape physical conditions that influence these practices? How do these conditions interact in their mobility decision-making ecosystem?
- **Meanings of Disability:** What are the social representations of fixed-route public transport and paratransit services that fuel PMDs' decisions and strategies to use one or the other service? How do these representations feed into PMDs' identities, their meanings of disability, and their perceptions of social inclusion?

## 2. Materials and Methods

By employing an ethnographic approach [70–74], we have been able to study the physical landscape conditions, movements, and social meanings of mobility and disability of PMDs in Quebec City. Understanding the relationship between society and people with disabilities requires the development of a research approach based on their participation and the use of methodological tools to capture their individual and collective experiences [57]. As Cass et al. [75] (p. 7) argue, “it is only through an interpretative ethnographic study that the nuances of everyday mobility practices are revealed”.

### 2.1. Narrative Ethnography and Mobility Research in Disability Situations

Narrative inquiry, as described by Clandinin [62], is a qualitative research approach that aligns with the current emphasis on narratives to explore people's experiences. It recognizes and values lived experiences as a valuable source of knowledge and understanding. The principle of the narrative approach is that through storytelling it is possible to make sense of the world in which people live, as they construct their identity on the basis of

such meanings [76]. The outcome of narrative research is to “tell a story” based on the life experiences of participants, which reveals the meanings that give sense to their interactions and practices [77]. The structure of the narrative research story follows much the same principles as the story in the literature. In this respect, Bruner [78] places special emphasis on difficulties—and we transpose them in this article as mobility dilemmas—which he considers to be the main element that allows the narrator to develop his identity and his understanding of the world. The role of the researcher is thus to unravel the mechanisms underlying the dilemmas narrated by the participants.

Experience-centred narrative studies “involve movement, succession, progress or sequence—usually, temporal sequences—and the articulation or development of meaning” [63] (p. 3). In this way, the investigation of PMDs’ mobility experiences is articulated in a succession of events (movements) that occur over time, drawing on personal memories and expectations, social representations, and interactions. Experienced events occur before, during, and after interacting with the physical and social infrastructure of public transport, and the meanings that emerge ripple through people’s lives in complex dynamics. Related approaches, such as interpretative phenomenological analysis [79,80], focus on the events and realities of everyday life, emphasising the subjectivity of experience [79]. Narrative research aims to collect diverse stories and data from participants to develop a holistic understanding of their individual experiences [81] (p. 60). Polkinghorne defines this technique as “narrative analysis” [82], as the researcher aims to produce stories (case studies) from actions, events, and happenings. In this article, therefore, it is not only a question of generating typologies or paradigmatic categories but of elucidating how the participants produce their identities and values that define their life habits and social roles within their constellations of mobility. As Tamboukou argues, “rather than being considered as representing reality /ies, narratives should be seen as productive: narratives do things, they constitute realities, shaping the social rather than being determined by it” [63] (p. 17).

## 2.2. Data Gathering

For our study, we built 17 “narrative interviews (NI)” [83], i.e., in-depth and in-person semi-structured interviews, 12 of which involved PMDs (4 identified as women and 8 as men), and the remaining 5 involved stakeholders (3 identified as women and 2 as men). In the NIs, participants narrated their perceptions, attitudes, and experiences of mobility in the city (public transport, mobility aids, social relations, built environment, fears, and hopes). The NIs provided valuable insights into participants’ experiences and perspectives on their mobilities:

The objective of NI is the reconstruction of the interviewee’s experience, according to his/her subjective system of values. The interviewee builds a story, a narrative, of her/his experience; these stories reconstruct the time and space of the interviewee’s everyday life, his/her orientations and his/her projects and strategies [70].

In addition, we conducted 2 in-person focus groups as part of our research (120 min average duration each). Participants were grouped into 4–5 people to allow for meaningful participation and a diverse range of perspectives [84]. The first focus group involved both PMDs and people without mobility disabilities: 4 PMDs (3 wheelchair users identified as men; 1 with visual disabilities identified as a woman) and 2 persons without mobility disabilities (1 identified as a woman, 1 identified as a man). The second focus group involved 5 PMDs, all wheelchair users (1 identified as a woman and 4 identified as men). During the focus groups, participants shared their experiences of mobility in the city and their perceptions of the accessibility of public transport and public spaces. We screened short video sequences to participants to stimulate collective dialogue (i.e., video elicitation)—with the aim of identifying deep, even unconscious, conceptual connections in participants’ narratives [85]. To do this, we created a “trigger tape” [85] from various excerpts of videos posted on YouTube and created a precise montage (6 min and 19 s), separated by intertitles that echoed the research categories (accessibility in transport and streets,

disabling situations in public spaces, local government announcements on the inclusion of people with disabilities). At each intertitle on the screen, participants took the floor, and on several occasions, we even paused the moving images to listen to the participants' comments and allow for dialogue.

We conducted 560 h of "participant observation" [86] focusing on PMDs' mobility practices in public spaces: fixed-route public buses, libraries, parks, supermarkets, summer music festivals, university campuses, shopping streets, and urban beaches. Participant observation also took place in privileged locations (as sometimes access required membership of the group organising the event). Participant observation allowed us to generate a dialogue with the participants in everyday spaces, in real conditions, immersed in social life, where their experiences of mobility are constructed. For example, the first author J.C.M. participated as a member of Capvish—a grassroots organisation defending the human rights of PMDs and promoting their independent living—in several activities in the city: annual general assemblies bringing together some twenty PMDs, meetings on the issue of accessible housing in Quebec, fun events in shopping centres to raise the visibility of PMDs, and press releases recorded live for local television, where PMDs raised public awareness on the respect of priority parking spaces in the city. Observations were carried out every day of the week, at different times (morning, afternoon, evening). We gave a few considerations regarding the researcher positionality of the lead author, who conducted the data collection (focus group interviews). With the lead author being of Latino origin, the participants were quite interested in sharing, in detail, factors of their lives in Quebec City that they might have taken for granted with a researcher of their own cultural background. The cultural difference between the participants and the principal investigator, in our case coming from a southern country, is, in most cases, a gateway to the field and contact with the participants. The participants do not perceive the researcher as an unapproachable expert but as a person who may have new stories that go beyond their everyday life.

The data for this study consisted of field notes, verbatim transcripts, and audio recordings, which were analysed according to constellations of mobility perspectives [42,43] and experience-centred narrative approaches [62,63,77]. This enabled us to consider the places and spaces, the practices and experiences, and the subjective constructions and identity processes of all participants involved in the mobility decision-making ecosystem: PMDs, transport providers, rehabilitation services, civic organisations, neighbours, family, and government entities.

### 2.3. Research Design

We summarised all interview and focus group transcripts and generated an individual narrative for each interview (identifying recurring themes, i.e., emerging from the data), which were then reviewed by a second member of the research team and transferred to NVivo for coding and qualitative data analysis. Another member of the research team, D.A.R. (cf., Acknowledgments), verified and commented on this first coding. Following a tendency towards complexity, we created an extensive list of codes that could account for the richness of the participants' narratives, organised into seven themes: biography, identifications, practices, mobility, relationships, imaginaries, and transversal. The codebook was guided by the research questions. It was anchored primarily in the Human Development and Disability Production Process Model [58], bringing out resonances across participants' narratives about personal and environmental factors influencing their social participation. Using retroduction reasoning [87] the codes reflected our research interest in the themes of mobility and disability, as well as the recurring themes we identified during the interview phase with participants.

After this first coding and data analysis, we conducted a literature review in search of a narrative analysis approach capable of elucidating participants' experiences, values, and social (re)meanings around mobility and inclusion in the city. In narrative analysis, researchers should avoid using models and theories that overshadow participants' experiences. For the analysis and restoration of mobility experience data, we decided to use both

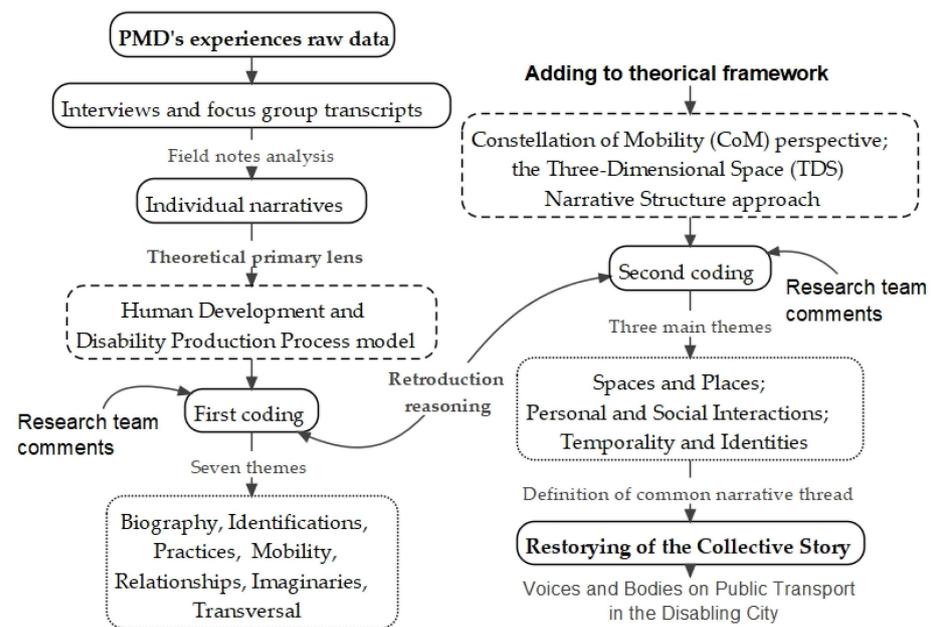
the constellation of mobility (CoM) [42] framework and the three-dimensional spatial (TDS) narrative approach [88]—based on Dewey’s philosophy of experience [89] and on Connelly and Clandinin’s narrative inquiry approach [90]. The TDS narrative approach and the CoM framework were identified after constructing individual narratives, but before restoring the collective story. These two theoretical lenses were added because they reflected dynamics already noted in individual narratives, particularly the interplay between personal, social, and physical landscape factors. The analytical instances of the TDS narrative approach are as follows: situation, interactions, and continuity (or temporality) [88]. TDS instances became a primary means of analysing the dimensions constellations of mobility: representations of mobility, mobility practices, and movements (or time-located events). Table 1 shows the concordance between the TDS analysis instances and the theoretical dimensions of the CoMs. Both the analytical lenses of the TDS and the CoM framework are consistent with our general approach to narrative research focusing on the experience of mobilities of PMDs.

**Table 1.** The three-dimensional space (TDS) narrative structure \* linked to the theoretical dimensions of the constellations of mobility (CoM) framework.

Situation * (Place/Space CoM)	Continuity * (Movement CoM)			Interaction *	
	Past *	Present *	Future *	Personal * (Practice CoM)	Social * (Representation CoM)
Look at context, time, and place situated in a physical landscape or setting with topological and spatial boundaries with characters’ intentions, purposes, and different points of view (TDS).	Look back to remembered experiences, feelings, and stories from earlier times (TDS).	Look at current experiences, feelings, and stories relating to actions of an event (TDS).	Look forward to implied and possible experiences and plot lines (TDS).	Look inward to internal conditions, feelings, hopes, aesthetic reactions, and moral dispositions (TDS).	Look outward to existential conditions in the environment with other people and their intentions, purposes, assumptions, and points of view (TDS).
Boundaries of a physical landscape. Movement needs infrastructural context (spaces) in which mobility is enacted. Our mobilities create spaces and stories—spatial stories. Space, place, and landscape are ‘verbs’ rather than ‘nouns’ (CoM).	Patterns of movement that are embedded in time and informed by memories, events, and expectations (CoM).  Research on human experiences of mobility is concerned with the evolution of events (movements) that occur over time, and with the way in which personal memories and expectations, social representations, infrastructural context, and interactions are articulated in narratives that generate spaces and places of human action (TDS linked to CoM).			Ways of practicing movement that make sense for each person. Practices are associated with different spaces, scales, ranges of embodied engagements, technologies, and infrastructure (CoM).	Social representations of the movement and people’s identities, and the conflicts between peripheral (resistance) and central (hegemonic) narratives (CoM).

Source: Adapted from Clandinin and Connelly [88,91] for the TDS narrative structure, and Cresswell [42,43] for the CoM framework.

From the extracts organised in the first coding, we carried out a second one focusing on narratives related to public transport, with a new codebook, organised into three main themes: spaces and places; personal and social interactions; and temporality and identity. These categories allowed us to reconstruct and study the different experiences narrated by the participants according to the theoretical pieces added. Figure 1 shows a summary of the analysis and retelling process.



**Figure 1.** In the search for the scientific narrative: analytic process used to construct the collective story of experiences of people with mobility disabilities (PMDs) on public transport.

### 3. Results

This article presents a collective history of the experiences of people with mobility disabilities (PMDs) with public transport in Quebec City, focusing on their experiences on public transport. It illustrates and explains how personal and environmental factors influence their mobility dilemmas and coping strategies. We explore how these dilemmas and coping strategies shape their “constellations of mobility” [42] and mobility practices. Our main result indicates that their mobility practices and strategies are framed in a decisional continuum between flexibility and safety. As mentioned, we propose the concept of strategy as the common trait that participants have in dealing with the different dilemmas they face in their public transport experiences.

#### 3.1. Participants and Design

Between 2022 and 2023, our research focused on conducting an ethnographic study in Quebec City. The research methods used were participant observation, documented in field diaries, focus groups, and interviews conducted with two distinct groups: people with mobility disabilities (PMDs) ( $n = 12$ ) and stakeholders involved in inclusive mobility in Quebec City (STKs) ( $n = 4$ ). Table 2 summarises PMDs’ socio-demographic data and type of disabling situation, as well as STK organisations’ names, according to pseudonyms (chosen at random to protect participants’ anonymity). Because of their individual conditions, and after approval by the Quebec local government admissibility committee, all study participants qualify to use paratransit services. Our results show that the decisions regarding the type of public transportation used by the participants (fixed route or paratransit) vary according to a set of individual and environmental factors that interact in a way that is unique to each person.

Participants in the PMD group ranged in age from 27 to 67—their ages are reported as ranges to further protect their identity. The duration of the interviews lasted between 75 and 151 min. Some participants were interviewed several times (indicated with the \* symbol in Table 2). The criteria for including PMDs and STKs were broad (non-categorical) and focused on people who had disability-related experiences in their mobility trajectories in the city, rather than specific demographic criteria (such as a particular diagnosis or type of transport vehicle or mobility technology aid). Regarding the exclusion criteria, minors and people under guardianship or curatorship, as well as people using communication

devices or alternative methods of communication, did not take part in this study. Our phenomenological anchor was PMDs living in Quebec City. We did not study a particular neighbourhood or a specific socio-demographic typology. We decided rather to use a relational ethnographic approach [92]. This approach emphasizes the study of fields rather than places, boundaries rather than bounded groups, processes rather than processed people, and cultural conflicts rather than group culture.

**Table 2.** Socio-demographic information of participants.

People with Mobility Disabilities (PMD)					Stakeholders Involved in Inclusive Mobility (STKs)			
Pseudonym	Age	Gender <sup>1</sup>	Impairment	Aids	Pseudonym	Age	Gender <sup>1</sup>	Organisation (Field of Action)
Amber *	30s	Woman	Visual	White Cane	Ellen	30s	Woman	Adaptavie (rehabilitation services)
Tom *	40s	Man	Motor	Manual Wheelchair				
Gregory *	50s	Man	Motor	Orthopaedic Shoes	Rachel	50s	Woman	RTC (fixed-route and paratransit transport provider)
Philbert *	60s	Man	Motor	Electric Wheelchair				
Kenneth *	50s	Man	Motor	Rollator	Gina	40s	Woman	Ville de Québec (Transport Mobility Government Section)
Lizzie *	60s	Woman	Motor	Electric Wheelchair				
Camelia *	50s	Woman	Motor	Electric Wheelchair	Basil	50s	Man	Capvish (civil society organisation for PMD)
Rowan	30s	Man	Motor	Electric Wheelchair				
Ernest *	50s	Man	Motor	Manual Wheelchair				
Wilbur	50s	Man	Visual	Guide Dog				
Henry	70s	Man	Motor	Electric Wheelchair				
Sarah *	60s	Woman	Motor	Rollator				

Note: <sup>1</sup> Participants responded to the following: do you identify yourself as female, male, non-binary, or other?  
\* Participant interviewed two or more times and participated in at least one focus group.

We used several techniques to recruit participants. First, chain-referral sampling. This allowed us to find PMDs and STKs who were members of organisations working on inclusive mobility in Quebec City. Next, we recruited participants (PMDs) through posters placed in rehabilitation services for PMDs in the city. Finally, the first author J.C.M. directly recruited participants (PMDs) in different places and during different activities in the city (cafés, painting classes, university workshops, and general assemblies of organisations promoting independent living for PMDs). All the participants in the PMD group were born in the Province of Quebec, except for one woman who was born in Casablanca (Morocco) and has been living in Quebec for 25 years. All PMDs and STKs resided in Quebec City, Canada. Prior to data collection, the study was approved by the Comité d'éthique de la recherche sectoriel en Réadaptation et intégration sociale du CIUSSS de la Capitale-Nationale. Voluntary participation, privacy, and anonymity protocols were discussed with participants—all participants signed a consent form to be part of this research.

### 3.2. Analysis and Restorying Process of Mobility Experiences Data

Narrative analysis does not have an agreed protocol [77]. Even discussions about its validity are challenging [93]. However, the literature has shown that the quality of narrative analysis depends on the transparency of the process of restoring narrative data [94]. Our research gives the reader a sense of confidence from (1) the large number of data (and their multiple sources) produced during the ethnographic field; and (2) the transparency and detail of the analytical and “restorying process” [88]. The aim of the restorying process in the TDS narrative approach—retelling phase [90]—is to highlight the experiences and interactions of the participants, drawing on personal and contextual elements. Its validity lies in its ability to provide a robust account of the experiences of the study population.

### 3.3. Considerations Reading the Restorying Collective Story

We decided to restory the collective story in two formats. A schematic summary in Table 3, to not disrupt the flow of the text, and a detailed narrative account in Appendix A. Table 3 is a subset of the full collective history in Appendix A. The full narrative presentation in Appendix A remains crucial for the understanding and transferability of the research results. Below, in Table 3, quotes from the transcripts of the participants (PMDs and STKs) are followed by the participants’ pseudonyms—the first two statements in the left-hand column are not quotes from participants, but contextual information about the situation in which the story unfolds. We have highlighted (in italics) key phrases and words from the citations in Table 3 that highlight the dilemmas faced by participants in their mobilities on public transport, which, in summary, can be characterised as follows: opposing values with other people; frustration, uncertainty, but also autonomy, emancipation, freedom; negative memories, restrictions; individualistic behaviour, but also community initiatives; conflicts, but also cooperation; positive and negative perceptions of drivers; no choices, infantilisation, hesitation due to specific trauma, but also personal confidence. Participants’ sociodemographic information, pseudonyms, and personal factors in relation to mobility disabilities are listed in Table 2. When talking about participants, we refer to PMDs.

We structured the collective story into four main events (chapters) that reflect the dilemmas and mobility strategies of the participants. The first two chapters narrate experiences with the fixed-route public bus. Before Boarding (Appendix A.1) collects experiences about preparing for a journey in the city, arriving at a bus stop, the obstacles encountered on the streets, and the memories that condition the dilemma of choosing whether to ride a fixed-route public bus. Inside the Bus (Appendix A.2) collects experiences of participants’ interactions with drivers and other passengers, as well as their perceptions and memories of navigating the physical space of the bus. The last two chapters narrate experiences with paratransit services. Reasons, Rules, and Possibilities (Appendix A.3) compiles experiences of being a paratransit user, the social meanings of a parallel and minority mobility network, and the dilemmas between flexibility and safety that participants face. Paratransit Populations (Appendix A.4) collects experiences where participants discuss ageing and disability and their impact on paratransit.

**Table 3.** Collective story of PMDs’ experiences on public transport—schematic restorying.

Situation (Place/Space)	Continuity (Movement)			Interaction	
	Past	Present	Future	Personal (Practice)	Social (Representation)
People with mobility disabilities in Quebec City experiencing public transport.		“There are no more than 100 wheelchair users using fixed-route public buses, this is nothing” (Ernest).	“I hope the tramway in Quebec City won’t be like that, because they talk about universal accessibility, <i>but who knows</i> what universal accessibility is?” (Wilbur).		“In Quebec City people think that public transport is for the poor, and soon they’ll be saying that it’s for disabled people” (Rachel).
The accessibility of Quebec City’s physical landscape depends on an intricate network of public governance.		“The closer you are to the city centre, the easier it is to get moving. Because fixed-route transit or even paratransit <i>can’t take you outside the city</i> ” (Ellen).			“There’s another group representing seniors, who have accessibility needs as they get older. I don’t want to say anything, but they’re all former public service retirees with large pension funds. <i>They don’t want</i> better bus access, they want parking” (Wilbur).

Table 3. Cont.

Situation (Place/Space)	Continuity (Movement)			Interaction	
	Past	Present	Future	Personal (Practice)	Social (Representation)
<p><b>BEFORE BOARDING THE FIXED-ROUTE PUBLIC BUS</b></p> <p>With RTC’s integrated mobility support service—SAMI program, “customers” can test the accessibility of the buses (Rachel)</p>	<p>“When I fell out of the wheelchair on a snowy street, I fractured my wrist twice, I was left with a <i>trauma</i>” (Camelia).</p> <p>For wheelchair users, rainy days <i>pose challenges</i> for “finding shelter and use an umbrella while waiting for a bus” (Camelia).</p>	<p>“Is the weather nice? <i>Is the pavement not slippery?</i>” (Camelia).</p> <p>“In winter, the pavements are in more or less good condition. <i>We can’t get to the bus station, and we get discouraged</i>” (Philbert).</p> <p>“In summer, I don’t need transport, just my walker” (Sarah).</p>		<p>“Is there a chance that I’ll find the empty space and be able to board? <i>Will I be able to board and then get off at an accessible stop?</i>” (Camelia).</p> <p>“I’m one of the most dependent users, <i>I won’t be able to give the driver a ticket</i>” (Henry).</p>	<p>“Having accessible fixed-route public buses allows people with disabilities to <i>develop their autonomy</i>” (Henry).</p> <p>“<i>The fixed-route public bus is freedom</i>” (Amber).</p> <p>“I’m surrounded by friends whom I can ask for favors, but <i>you always have to ask, ask, ask</i>” (Sarah).</p> <p>“I don’t have much balance, so when the bus pulls away, <i>it’s often violent</i>. I need time to sit down and position my walker” (Sarah).</p>
<p><b>INSIDE THE FIXED-ROUTE PUBLIC BUS</b></p> <p>RTC bus <i>drivers meet contradictory demands</i>. They ask them, on the one hand, not to delay bus journeys and, on the other, to give the time needed to ensure the safety of users in different disability situations: “That creates tension” (Rachel).</p>	<p>“I enter the bus in my wheelchair ‘Please, please, please, can you push yourself’. <i>It’s horrible</i>, because you have to keep smiling, you’re going to say to: ‘Can you move?’ and then they’re going to look at you like: “Bloody hell, <i>you’re disturbing me, you can see it</i>” (Camelia).</p> <p>“For me, finding a seat has been quite easy, the driver says, ‘release the seat’ or <i>people do it of their own free will</i>” (Robert).</p>	<p>“The ramp is not even deployed, and the other <i>passengers do not wait</i> and practically jump over it” (Rachel).</p> <p>“You press the bell to say, ‘I’m going to stop at this address’, the <i>bus driver goes straight off and pretends not to hear you</i>” (Amber).</p>	<p>It is not certain that people who are used to STAC, even if they can, will switch to the fixed-route public bus: “<i>It’s a challenge, people are used to paratransit</i>, because it’s an accessible door-to-door service” (Rachel).</p> <p>“The driver will answer in a <i>disturbing way</i>, as if I’m disturbing his day” (Amber).</p>	<p>“I’m courteous, always smiling and in a <i>good mood</i>” (Philbert).</p> <p>“Suppose I look at the person in the wheelchair with my bad mood eyes, but because I’m in a <i>bad mood for other things</i>. I think people sometimes project, that it’s not always a look from someone who’s upset that the person is disabled” (Rachel)</p>	<p>Conflicts arise between different kinds of populations and mobility needs: “<i>I’m the priority!</i> Even when it comes to holding the bus handlebar! Then the pushchairs, <i>we’re the first priority, aren’t we?</i>” (Ernest).</p> <p>“There are <i>people who seem upset with a disabled person on the bus</i>. . . That’s the price of disability” (Camelia).</p> <p>“Even if you made the fixed-route public bus 100% accessible, there are still many who prefer paratransit. It’s door-to-door, <i>some people don’t have a choice</i>, but there are also a lot of people who feel that this is part of their social life” (Wilbur).</p>

Table 3. Cont.

Situation (Place/Space)	Continuity (Movement)			Interaction	
	Past	Present	Future	Personal (Practice)	Social (Representation)
<p><b>USING PARATRANSIT SERVICES</b></p> <p>“During the taxi industry crisis, the first demands they meet are for healthcare, work and study. Then leisure, then shopping, that’s going to come later, there are choices to be made” (Rachel).</p> <p>Paratransit <b>forbids</b> passengers from “bringing along large shopping bags” (A).</p> <p>“Paratransit is very expensive. A STAC trip costs 24.75 Canadian dollars. A fixed-route public bus journey costs 4 Canadian dollars” (Rachel).</p> <p>“Drivers helps them out and takes them to their door. That’s what STAC does; fixed-route transport doesn’t do that” (Rachel).</p>	<p>“You must call a day in advance to get a vehicle. <i>There’s no spontaneity</i>” (Gina).</p> <p>“You have to know what you’re going to do before 6.00 p.m. to book for the day after” (Camelia).</p> <p>“You always have to plan a day or two in advance, arrival time, departure time, all that. <i>It’s hard to remember all these appointments</i> and what time I have to be at what place. Whereas with the bus, you get out of your house, you know it’s coming every 15 min” (Wilbur).</p> <p>“Drivers give excellent service: ‘Are you okay? Okay, how are you? <i>Are you wearing your seat belt properly?</i>’ I don’t have a problem with that” (Philbert).</p>	<p>“The vast majority of STAC services are provided by outsourced taxis, and “at the moment, the taxi industry isn’t pulling its weight” (Rachel).</p> <p>Some individuals are bimodal, using STAC mainly in winter and fixed-route public bus otherwise: “In winter they’re in a wheelchair, and they’re on <b>door-to-door STAC service</b>” (Rachel).</p> <p>“I used to lend my adapted car and I never got paid, but it could be a possibility for people who have adapted cars to help other disabled people, like a <i>breakdown assistance community</i>. Even among us, disabled people, some have the means, we can help others” (Camelia).</p>	<p>“The hidden aim, which is admitted but never talked about, is to allow older people to take public transport for longer so as not to overburden the paratransit system” (Henry).</p> <p>“You have to plan too much, I’m trying more and more to familiarise myself with fixed-route public transport, so I don’t have to take paratransit” (Wilbur).</p>	<p>“My independence also comes from transport. Paratransit services was a blow to me because it was my independence” (Sarah).</p> <p>“Paratransit is very infantilizing. When you call the paratransit service to book it, the question they ask you is: “Is it for home? Is it for work? Is it for leisure? What are you going to do there?” (Amber).</p> <p>“Some people are confident on their motor skills in a wheelchair, others do not, and they are the ones who will use paratransit” (Ellen).</p>	<p>“Paratransit has enabled people to become more autonomous, and there are people who also have a life because of it” (Henry).</p> <p>“We’re lucky to have access to paratransit services, like STAC. <i>If that didn’t exist, we’d be in a lot more trouble</i>” (Wilbur).</p> <p>Different people with similar transport needs compete for limited resources: “We’re stuck with other people, either elderly or retired, but we all have the same transport problem” (Camelia).</p> <p>“He says he’s an employee who works here, even though he’s a volunteer, you understand, and the STAC makes it a priority, but <i>someone who calls the STAC and says it’s for leisure, that’s not a priority</i>” (Tom).</p> <p>“You lose out on a lot of spontaneous opportunities. Someone calls you up and says, “Hey, Will, are you coming over to our place today? You would have had to know the day before, to plan your transport, to be able to go” (Wilbur).</p> <p>“Paratransit takes so long and is so restrictive, because they are picking up other users” (Ellen).</p>

Note: We have highlighted (in italics) key phrases and words from the citations that highlight the dilemmas faced by participants in their mobilities on public transport.

### 3.4. Schematic Restorying of Collective Story

#### Voices and Bodies on Public Transport in the Disabled City

The aim of this restorying narrative analysis is twofold. On the one hand, it aims to understand what type of transport PMDs choose in Quebec City, based on what factors are

involved, how often they use it, and under what circumstances. On the other hand, and this is perhaps the most important contribution of our research, we study the representations and meanings of mobility in situations of disability at both personal and societal levels. For this purpose, narrative ethnography is essential, as we were able to place real bodies and voices on the agenda of disability studies and mobility research [95–97]. Table 3 contains PMD and STK quotes from the full collective story (Appendix A), juxtaposed to both the analytical instances of the TDS narrative approach and the theoretical dimensions of the CoM framework.

#### 4. Discussion

The objective of this study was to identify the dilemmas that PMDs face in their daily mobility practices and their coping strategies, in particular the ways in which their dilemmas and strategies are influenced by both personal and environmental characteristics. We explored their decision-making processes regarding the use of fixed-route public bus services and/or paratransit services. We examined how these strategies shape their overall mobility, social participation, and perceptions of disability. Our objectives were (1) to construct individual narratives for each participant about their experiences of mobility on public transport, and then (2) to synthesise these individual narratives into a collective story to illustrate the personal and environmental factors that influence their mobility practices and strategies.

Our main findings show that the common thread of PMDs' experiences in public transport is marked by dilemmas (and strategies to resolve them) that generate tension between meanings of freedom and anxiety, autonomy, and uncertainty. Social attitudes, as well as the physical barriers of the landscape, influence the mobility decisions and strategies that PMDs adopt, the way they move (or not) around the city, and the personal and social meanings attached to these (im)mobilities. No participants declared themselves to be non-binary. We do not consider the absence of self-identified non-binary participants to be a limitation of this study. Being an ethnographic study, we have tried to include, as far as the realities of the field have allowed, the voices of various genders. However, our results show no gender-related differences in perceptions of mobility. That said, there is a need for future studies to address the gender variable and its impact on the mobility perceptions of PMDs.

The following discussion will (1) situate our findings in the perspective of a theoretical dialogue between narrative ethnography, the social model of disability, and the mobility research framework of practices, representations and movements; (2) through the lens of mobility dilemmas and strategies of flexibility and safety, propose an analytic restorying of the collective story of participants' experiences on fixed-route public bus and paratransit; and (3) highlight the main limitations and future directions of this research.

##### 4.1. Theoretical Dialogue: Narrating Disability in Constellations of Mobility

Our main finding supports the interactionist systemic model of the Human Development and Disability Production Process [9,58], as we found that the participants' decision-making process regarding the use (or not) of fixed-route public bus and/or paratransit services is determined by multiple personal and environmental factors, which result in them facing mobility dilemmas (and generating coping strategies) on a continuum between their senses of flexibility and safety. Our findings also support perspectives in experience-based research [63], such as phenomenology studies [80,98] and narrative ethnography [90,99], as we discovered that participants had conceptual associations between uses and perceptions of the physical landscape, bus design, mobility practices, social interactions, social representations of mobility rhythms (slowness and speed), and disability-related identities. With our methodological approach, we advance the theoretical dialogue between the social model of disability [3,100] and mobility research [8,15], specifically with the experiential approach of the notion of "constellations of mobility" [42,43], where movement is not only

an existential event but also a personal practice and a social representation embodied in identities and values.

#### 4.2. Dilemmas and Mobility Strategies of PMDs on Public Transport

Participants' experiences of mobility are influenced by a constant adaptation between the desire for flexibility—representing values of spontaneity, freedom, and autonomy—and the need for a sense of safety. This sense of safety provides protection against the uncertainties of the physical landscape and the behaviour of others. Flexibility and safety are not two mutually exclusive strategies but rather a continuum of back and forth where both strategies emerge at the same time to a greater or lesser degree each. A question then arises: What factors determine whether a person with mobility disabilities chooses a flexible or safety-oriented strategy? To answer this question, we decided to study the mobility experiences of PMDs through the analytical instances of the Three-Dimensional Space Narrative Approach (i.e., situation, interactions, and continuity or temporality) [88]. This approach allowed us to highlight the relationships between mobility events (e.g., obtaining information about a bus route, moving to a bus stop, negotiating a priority seat on a fixed-route public bus, or planning a paratransit service reservation), interactions with others in public transport experiences, and the impact of personal values on the construction of mobility over time (memories, expectations).

We identified five types of dilemmas and mobility strategies of PMDs on public transport. First, *The Necessary Choice*. Here, participants decide between fixed-route public bus and paratransit, even if social and personal factors (do not) give them room for manoeuvre. Second, *Uncertainty and Freedom in The Fixed-Route Public Bus*. Here, the level of anxiety generated by unpredictability (and how to adapt) structures the mobility experience. Third, *Spontaneity and Reliability in Paratransit*. Here, participants assess the constraints imposed by a safe mobility experience. Fourth, *Ask, ask, ask, "I don't want to bother anyone"*. Here, there is a fear that one's own disability will be a burden to others, those others who nurture a sense of social connectedness and well-being. Fifth, *The Rhythms on The Fixed-Route Public Bus: Between Reliability and Inclusion*. Here, the perception of time structures the mobility experience between the hegemony of fast and efficient movement and the right to inclusive mobility on public transport.

##### 4.2.1. Dilemma No. 1. A Necessary Choice: Fixed-Route Public Bus or Paratransit

Participants have had different experiences with public transport, often with opposing views on which transport option would be the most appropriate (fixed-route public or paratransit); in practice, their mobility strategies combine, to a greater or lesser extent, both transport networks. They are faced with multiple dilemmas. Some of them perceive paratransit as a service that is neither spontaneous nor flexible and is even "infantilising": subject to availability, within which they must fit (timetables, routes, reservation rules, luggage restrictions)—recent research describes similar perceptions of paratransit users in Switzerland [36]. In using paratransit, some participants have concerns about their privacy, decision making on their behalf, and the undermining of their sense of self and competence. However, participants unanimously recognise that paratransit is an indispensable element for the emancipation and autonomy of people with disabilities—which is in line with numerous studies on the issue of inclusion and social participation of PMDs [5,16,17]. For others, the fixed-route public bus is a reliable service, which could give them more freedom and privacy in their mobility practices. All participants point out the excellent door-to-door service provided by paratransit, with drivers ensuring the safety of passengers: an added value for PMDs, especially in winter and on rainy days. Figure 2 presents a paratransit minibus of the STAC company—the RTC subsidiary responsible for providing year-round paratransit service in Quebec City.

In several studies, driver attitudes play an important role in the perceived comfort and safety of wheelchair passengers in both fixed-route and paratransit buses [4,34]. Some participants have traumatic memories of accidents in snowy conditions, leading them to

perceive paratransit as the only safe option during winter. Participants point out that the fixed-route public bus is more reliable than the paratransit bus in terms of the arrival of the transport and the duration of the journey. Many of them use geolocation software applications that indicate the status of the buses in real time. Frequently, participants often opt for paratransit, even if this means accepting longer transport journeys, as they consider it an affordable compromise to the safety of a door-to-door journey. However, the perception of safety during the journey is different for everyone [101]. Some participants report that they feel safer in fixed-route public buses, as the wheelchair anchorage is more stable than in paratransit.



**Figure 2.** Paratransit minibus mostly financed by the government in Quebec City, of the company STAC. The first author J.C.M. took the photo.

#### 4.2.2. Dilemma No. 2. Uncertainty or Freedom on the Fixed-Route Public Bus

Compared to paratransit, fixed-route public bus travel is uncertain, as there may be unpredictable physical barriers on the two additional journeys needed to complete the itinerary: between point A and the initial stop, and between the final stop and point B (excluding any intermediate transfers)—the last-mile problems experienced by PMDs to reach the bus station [29]. They face a dilemma. Some participants associate the fixed-route public bus with freedom (as it has predictable travel times and frequencies). However, the travel experience in fixed-route public buses can also cause them anxiety: will the disembarkation stop be accessible? Will the transfer between routes work and will I be able to board and alight again? Will the driver attend to my stop call correctly or will it be missed? The unpredictability of travel and not knowing whether streets and bus stops are actually accessible (despite being classified as accessible on RTC applications) can cause anxiety [16,17,35,102]. Figure 3 presents a wheelchair user travelling inside the fixed-route public bus, in the priority zone; at rush hour, manoeuvring a wheelchair can be a negative experience that many PMDs avoid.



**Figure 3.** A person in a wheelchair travelling inside the fixed-route public bus, in the priority zone, during rush hour. The first author J.C.M. took the photo.

Environmental barriers within fixed-route public buses contribute to limited accessibility for wheelchair users [103]. The lack of priority seats (one or a maximum of two by bus) and inaccessible payment methods (hold out your hand to show a paper or telephone ticket) create social and landscape barriers for participants. These bus design barriers of fixed-route public buses become social barriers. For example, conflicts can arise between wheelchair users and pushchairs for limited priority seats—buggy wars, in which wheelchair users and people with children in pushchairs compete for priority space on the bus [35]. Figure 4 presents the current priority seating signage on fixed-route RTC buses; it specifies that priority is given to wheelchair users.



**Figure 4.** Priority seating signage on fixed-route RTC buses; it specifies that priority is given to wheelchair users. The first author J.C.M. took the photo.

Some participants doubt their ability to quickly board the bus ramp and find a safe place inside, fearing that they may inconvenience other passengers. Some of them believe that their presence on the bus may disturb others because of the need for ample space to manoeuvre the wheelchair, leading them to prefer paratransit.

Other participants, who wish to use the fixed-route public bus, even in dry seasons and moderate temperatures, do not have an accessible route to the nearest bus stop, so paratransit is the safest solution. Others manage to reach the bus stop, but the complex understanding of the multiple layers of (in)accessibility of fixed-route public transport network in Quebec City (a station may be accessible, but the bus route to it is not) discourages them, and they prefer to use paratransit. As a transport provider, the RTC aims to ensure that its services are accessible to all users. In this regard, the RTC has developed the SAMI programme, a training programme for PMDs, under real conditions in a controlled environment, to break down anxiety patterns in the use of fixed-route public buses— this training showed a positive impact for PMDs on their use of RTC fixed-route public buses [104], a step forward in promoting accessibility. However, a controlled environment excludes social interaction (which is responsible for attitudinal barriers often pointed out by PMDs). Establishing specific bus routes, at certain times and days of the week, in real environments, would be one path of exploration in this trend of accessibility training.

Rachel, a participant working on the RTC (cf., Section 3.1. Participants and Design), explains that it would be more accurate to calculate accessibility to services using data on ridership and boarding and alighting on routes and stops, “because the RTC gives priority to the busiest routes and stops, taking into account the fact that households with people with mobility disabilities live in the same areas as the rest of the population, and want to frequent the same places”. And even if there are no specific data on PMD bus travel frequency, Rachel gives us data on all RTC users:

50% of the RTC network’s total ridership is registered on the 13 accessible routes at the 430 accessible stops. 64% of all passenger boardings are made on the

13 accessible routes. Almost 80% of boardings and alightings on the 13 accessible routes are made at their accessible stops, again for all customers.

This accessibility perspective focused on the busiest routes does not account for social factors linked to the choice of public transport, such as the fact that 59.3% of RTC fixed-route public bus users are under 35 years of age [105] (p. 164). It is worth asking whether the lack of accessibility of public transport infrastructure in Quebec City, particularly in areas where there are no universally accessible routes and buses, or the perception of insecurity for older people with mobility disabilities, is not precisely a factor that discourages residents of these areas from choosing RTC buses.

#### 4.2.3. Dilemma No. 3. Spontaneity and Reliability in Paratransit

Participants rely mainly on paratransit. They appreciate the accessibility and year-round availability of the door-to-door STAC paratransit service. However, the vast majority agree that paratransit lacks spontaneity, as users must book their trips a day in advance and sometimes justify the travel reason—the current economic situation makes it necessary for STAC reservations to give a priority reason (related to health, work, and studies). Some participants find it burdensome to plan each journey in advance and wish to use paratransit services less frequently. In other studies, paratransit users agree on the lack of spontaneity as an annoying factor [3]. They are facing a dilemma. Landscape physical barriers are a key factor influencing their preference for paratransit services over fixed-route public buses. Some of them switch from fixed-route public buses to paratransit during winter and low-temperature and rainy days, and some even restrict their mobility practices in winter, depending on weather conditions and accessibility—another study in Canada also noted that wheelchair users decrease their community participation in cold weather because of multiple environmental barriers [106]. Figure 5 presents snow as a constant obstacle on the pavements in Quebec City during the winter, a major challenge for pedestrian movement, especially for PMDs and older people.



**Figure 5.** Truck clears pavements to facilitate pedestrian circulation. The first author J.C.M. took the photo.

#### 4.2.4. Dilemma No. 4. Ask, Ask, Ask, “I Don’t Want to Bother Anyone!”

PMDs may depend on others for certain aspects of their mobility. For example, some people need a companion to help them manoeuvre inside buses or to make sure they do not lose their balance. They face a dilemma. They hesitate to ask for help from friends and family so as not to frequently disrupt the life habits of those who choose to accompany them. However, friends and family are often willing and able to support them in their daily mobility activities, and these relationships enable some participants to avoid social exclusion and maintain their social ties—as people with disabilities experience more problems using public transportation for community participation [18]. Faced with this

dilemma, participants' strategies are diverse. Some only use private cars all year round. And few others avoid using paratransit, using instead walkers or wheelchairs on the streets. Figure 6 presents a shared lane that various types of active mobility, including people using electric wheelchairs, use to move around.



**Figure 6.** People using electric wheelchairs in a shared lane reserved for bikes and other types of micromobility. The first author J.C.M. took the photo.

Such micro-scale mobility breaks with the lack of spontaneity and lack of privacy of paratransit, as well as with the limits of accessibility and anxiety that fixed-route public buses can generate. Figure 7 illustrates a pedestrian-only street—different generations and types of mobility meet.



**Figure 7.** Spaces and mobility practices change with the introduction in summer of reserved streets for pedestrian use only. The first author J.C.M. took the photo.

#### 4.2.5. Dilemma No. 5. Rhythms on the Fixed-Route Public Bus: Between Reliability and Inclusion

When using fixed-route public buses, participants face a dilemma between the bus rhythm and the wheelchair accessibility rhythm. The need to adhere to timetables and maintain the reliability of the entire bus system clashes with the additional time required for deploying the bus ramp for wheelchair users. Although this process only takes a few seconds, it is often perceived as an awkward situation, deviating from the hegemonic bus rhythm. Figure 8 illustrates the rhythm of a wheelchair user, the ramp to be deployed, and the rhythm of the bus, with multiple rhythms and representations of people's movement travelling together.



**Figure 8.** A wheelchair user waits for the ramp to be deployed to alight from the fixed-route public bus. The first author J.C.M. took the photo.

As Boucher et al. [3] (p. 161) state in recent research on universal accessibility on fixed-route public buses in Quebec City, “the notion of time becomes a structuring factor in the social experience of travel, forging habits of use of the fixed-route transport network that differ from those of paratransit”. This brings us to a central issue in the experience of mobility in situations of disability: the perception of time. Thus, time cannot be dissociated from the spatial dimension that sustains it. And it is precisely the configuration of space that determines the time needed to access it. Thinking about a spatial and technological change in the bus boarding and alighting system for wheelchair users could be a first clue to improve its accessibility. However, as an STK participant, Rachel, says, “this is also an organisational problem” that requires further study, and today, the value of speed and reliability in transport is more important than inclusion.

#### 4.3. Limitations

Critics may argue that this narrative ethnography lacks triangulation with quantitative methods, as this would provide more detail about participants’ frequencies of interactions and uses of public transport. However, rather than impose a lens of quantifiable objectivity, this article has deliberately chosen to explore the narrated (re)construction of participants’ mobilities to gain insight into the complexity of their subjective representations and construction of their everyday realities of public transport use. This includes a highly detailed experiential analysis of the semantic content and narrative dynamics during the process of data co-production with the participants. We contend that the aim of this article is not to generalise the results to all PMDs using fixed-route or paratransit buses. Instead, the aim of this study is to help us understand the complexity of mobility events in disability situations from a multiplicity of “real voices and bodies” [67,68,95,96], which, through their singularities, “reveal the universal in the particular” [107]. Furthermore, with this article, we emphasise the detail of our methodological proposition, which is transferable to other socio-cultural contexts, and which places the study of disability experiences at the intersection between mobility research and narrative ethnography.

#### 4.4. Future Directions

Studies in experiential narrative research in disabling situations can explore the impact of the perception of time on constellations of mobility, in particular the social construction of mobility disabilities in relation to representations of fast and slow mobilities [44], resistance and “dominant rhythms” [108] (p. 81), and the notion of repetitions (social habits) proposed in Lefebvre’s “rhythmanalysis” [109]. It would be important to look more closely at the tension that can exist between what is conceived as urban space, including transport networks and travel infrastructures, and what is experienced by citizens. Another practical

area for future research to prioritise is the study of self-determination [5,110] and well-being in the use of both fixed-route transport and paratransit services. Next, future research can explore the physical and social environment that facilitates and obstructs PMDs' micro-scale mobility practices (active mobility) vs. public transport. One way could be to start from the compact city paradigm [111] and its urban and social challenges in relation to mobility based on social justice and inclusive communities [112]. Gentrification and its effect on accessibility and mobility is also a major challenge in contemporary cities. Rising rents in central districts with good public transport services increasingly reduce accessibility and mobility for PMDs and low-income populations.

## 5. Conclusions

Our main finding reveals that the singularities of PMDs' experiences with public transport are based on a common behaviour of continuous adaptation between flexibility to gain freedom and safety to avoid difficulties. We identified five common mobility dilemmas and their different coping strategies. These strategies—as a thread running through the participants' narratives—emerge as a response to their mobility dilemmas: personal and social contradictions of perception that lead to internal conflicts centred on mobility choice. We propose the concept of strategy as the common trait that PMDs have in dealing with the different dilemmas they face in their experiences on public transport. With our methodological approach, we advance the theoretical dialogue between the social model of disability [3,100] and mobility research [8,15], specifically with the experiential approach of the notion of constellations of mobility [42,43], where disabling situations are not only existential events but also personal practices and social representations embodying people's identities and values interacting in the disabling city. More importantly, with this narrative ethnography and collective (re)story(ing), we claim the reintroduction of real voices and bodies in social research [67,68], a necessary condition to account for our human essence.

**Author Contributions:** First author: J.C.M.; Coauthors: N.B. and F.R.; conceptualisation: J.C.M.; methodology: J.C.M.; validation: N.B. and F.R.; formal analysis: J.C.M.; investigation: J.C.M.; resources: F.R.; data curation: J.C.M.; writing—original draft preparation: J.C.M.; review and editing: J.C.M., N.B. and F.R.; visualization: J.C.M.; supervision: J.C.M., N.B. and F.R.; project administration: J.C.M.; funding acquisition: F.R. All authors have read and agreed to the published version of the manuscript.

**Funding:** This research was funded by the Social Sciences and Humanities Research Council (SSSRC) of Canada, Grant # 895-2020-1001, and the Fonds de recherche du Québec—Société et Culture FRQ-SC), Grant # 2023-SE7-310780). F Routhier is a Senior Research Scholar of the Fonds de recherche du Québec—Santé (Grant # 296761).

**Institutional Review Board Statement:** This study was conducted in accordance with the Declaration of Helsinki and approved by the Comité d'éthique de la recherche sectoriel en Réadaptation et intégration sociale du CIUSSS de la Capitale-Nationale (protocol code 2022-2497 approved 14 January 2022).

**Informed Consent Statement:** Informed consent was obtained from all subjects involved in this study.

**Data Availability Statement:** The data are not publicly available because the data contain information that could compromise the privacy of research participants.

**Acknowledgments:** The research team would like to thank Delphine Auclair-Rochon for her help in the first stage of verification and coding of the transcripts. A special thank you goes to our research participants in Quebec City, who generously contributed their time and personal experiences to the project.

**Conflicts of Interest:** The authors declare no conflicts of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript; or in the decision to publish the results.

## Appendix A.

*Voices and Bodies on Public Transport in the Disabled City*  
~ Full Collective Story ~

### Appendix A.1. The Fixed-Route Public Bus: Before Boarding

**Philbert** believes that one of the problems for people with disabilities not using buses has to do with the design of the buses: “Maybe with one or two more adapted seats, we would be more. . .”. Even **Tom** believes that they themselves would gain safety by using fixed-route public buses:

The fixed-route public bus is safer than paratransit services, because we have our backs to the traffic, and behind us there is a cushion, which is *this* thick and bolted to the floor-ceiling. So, if there is an impact, we are pressed against the cushion. Yes, you can get hurt, but there is no danger of flying off again. Unlike the paratransit bus, where you’re facing traffic, and if there’s an impact and you’re badly strapped in, you’re pushed into the entrance.

However, for the participants, it is not just a matter of spontaneously getting on the fixed-route public buses. Even if they are willing to do so, they must check many travel conditions in advance (issues that a person without disabilities who travels on a bus is not confronted with), as **Camelia** says:

For me, there are always questions before I go out. It’s always an adventure. It’s not saying, “Ah, I’m going to take the bus”, but “Can I take the bus?”. It’s not: “Do I want to?”, it’s: “Can I? Is the weather nice? Is the pavement not slippery? Is there a chance that I’ll find the empty space and be able to board? Will I be able to board and then get off at an accessible stop? So, there are many, many things I need to think about before getting out or considering taking the fixed-route public bus.

For some participants, their personal situations also prevent them from safely taking the fixed-route public bus. **Sarah** must be accompanied to take the bus and, despite being able to ask for help, this dependence bothers her: “I’m surrounded by friends whom I can ask for favors, but you always have to ask, ask, ask”. She is also worried about her safety on the bus, as she does not have time to sit down and is afraid of losing her balance and falling:

I’ve tried the bus, but it’s difficult because I have to be with someone all the time. I don’t have much balance, so when the bus pulls away, they’re in a hurry and then I understand, there’s another bus behind, another exchange somewhere. They start off and it’s often violent when they do. I need time to sit down and position myself as a walker.

**Rachel**, coordinator of the RTC’s inclusion programmes, talks about the challenges faced by people with disabilities on public transport. She mentions the integrated mobility support service (SAMI) programme, where people with physical disabilities test out, in a safe space, boarding and alighting from fixed-route public buses. She explains that the stress of using public transport can be a barrier for some people:

For someone with physical disabilities, testing the fixed-route public bus in everyday life, when there are people at the stop, there are people on the bus, you know, the driver is in a hurry, it’s stressful. You say: “I don’t want to slow down the service. Maybe I won’t be able to”.

For **Amber**, “the fixed-route public bus is freedom”. She appreciates the predictability and flexibility of the bus routes, allowing her to choose her preferred departure time. For **Henry**, “having accessible fixed-route public buses allows people with disabilities to develop their autonomy, if they’re young, for example, maybe it can help them get a job

and buy a car later on". However, for him, not taking the fixed-route public bus has to do with his personal situation and with the design of the method of payment for the bus ride:

I've almost lost my physical capacity. It's hard for me to go round the corner in my wheelchair. I already have a head control and a micro-joystick to drive my wheelchair. So, I'm really one of the most dependent users, if you like. I won't be able to give the driver a ticket.

In Quebec City, winter poses significant challenges for people with mobility disabilities. For **Philbert**, the condition of pavements and the presence of snow can make transportation inaccessible and discouraging:

In winter, the pavements are in more or less good condition and people don't like being frozen either, especially people with reduced mobility. So winter is the biggest factor. But there's the snow clearance factor. It's not just the cold, it's the snow clearance. Often, you get to a resort and there are mountains of snow this high and all that. We can't get to the bus station, and we get discouraged.

For **Camelia**, winter makes it difficult to go outside and move around the streets safely: "The problem is the pavements, which are not cleared of snow. So, when I go out of my house, at certain times, there's so much snow that I sink. That's when I have no choice but to have the paratransit service come and get me at the door". She shares a traumatic experience of her wheelchair sliding sideways on a snowy pavement: "When I fell out of the wheelchair on a snowy street, I fractured my wrist twice, and after that I was no longer able to go to the toilet or do anything. I was left with a trauma". For wheelchair users, rainy days pose challenges for finding shelter and using an umbrella while waiting for a bus, as **Camelia** explains:

I have to take the climate into account. I can go out if it's sunny. Then, when I'm stuck in the rain, well, where do I hide? I have to wait somewhere to catch a bus. And when you're in a wheelchair, or with reduced mobility, an umbrella in the wind, when you don't have enough muscles and all that, it's the umbrella that's in charge, not you. And when you're in a wheelchair, like me, an umbrella is impossible. I can't take an umbrella with the wind and all. And if I hold it low enough to be able to control it, I can't see the road. So, it's downright impossible.

For **Sarah**, summer brings joy with the vibrant activities in the nearby park, while winter poses challenges that limit her mobility: "In summer, it's more fun, because if I'm on my own, there's always something going on, here in the park next to my house. I get out of my house; I don't need transport, just my walker. But when winter comes, it's difficult".

**Rachel** highlights the importance of considering the entire ecosystem when addressing transportation accessibility: "We're responsible for ensuring that the bus stop area is accessible. To put up the little accessible bus stop pictogram, not only must the bus stop be accessible, but the pedestrian walkway leading to it must also be accessible, And that's up to the city government". For wheelchair users, this accessibility means meeting physical criteria, as **Rachel** explains: "You have to be able to deploy the ramp safely and allow wheelchair users to move around, not just on the ramp. So, you have to think about the surface, the slopes and the height of the pavement". The difficulties in achieving inclusive mobility in fixed-route transport arise also from the multiple layers of accessibility required for an obstacle-free journey, as Rachel points out:

At the same stop, sometimes a driver will deploy the bus's access ramp. But the bus following, with another non-accessible route, will not deploy the access ramp, even if there is one. So, the disabled person will not be able to get on the bus, even if it is at an accessible stop and the entire bus is accessible, because it is not an accessible route.

### *Appendix A.2. Inside the Fixed-Route Public Bus*

The behaviour of some drivers or passengers may make people with disabilities uncomfortable, creating an unpleasant memory of their bus travel experience. **Rachel** emphasises that the attitudes of both the bus driver and other passengers play a crucial role in making people with disabilities feel welcome on the bus. She points out the importance of addressing the attitudes of both staff and passengers to create an inclusive mobility environment for all. However, according to **Rachel**, people are not always tolerant and patient in transport:

What I've observed is that, at the bus stop, the driver normally deploys the wheelchair access ramp, then the wheelchair user gets on, and then it's the turn of the others, who have two legs. But often people pull over to get in front of the wheelchair user. The ramp isn't even deployed and they practically jump over it.

**Ernest** mentions that there are no more than 100 wheelchair users using fixed-route public buses in Quebec City: "this is nothing, compared to all the passengers they transport daily. So, when I arrive and I'm at a stop and there's already someone (in a wheelchair) on the bus, I'm really happy". **Camelia** describes the difficulties she faces when using an electric wheelchair on public transport. She explains how some people hesitate to move so that their wheelchair can enter the priority space on the bus.

People don't realise. They think that with the wheelchair you move and then it will position itself, because there's a sort of beam for safety, but you can't go straight in, you need to position yourself first. And you're like, "please, please, please, can you push yourself". Then some of them push themselves, but just a little, and then you start to explain. That means you have to go forward, sideways, then backwards, so you need a good square of space.

This negotiation process for a seat can be difficult for someone, for example, with communication difficulties. **Camelia** goes on to recount her experience:

Sometimes you have to ask the people who are already sitting in front to stand up, to fold their seats, to leave room so that we can get in, move back, and then tell them: "Okay, you can now lower the seats in front so that you can sit down", but in a stop, you have to ask them to stand up.

**Camelia** admits that these obstacles can make catching the bus a "horrible" experience, as she encounters people who are reluctant to move or are annoyed when asked to make room:

It's horrible, because you have to keep smiling, you know, there are people you're going to say to: "Can you move?" and then they're going to look at you like: "Bloody hell, I wasn't expecting that, I'm reading, or I'm talking on the phone, you're disturbing me, you can see it". Then you say, "No, that's not it, you'll have to move again". So, these are the things that stop you from taking the bus.

Sometimes, **Camelia** chooses to wait for the next bus rather than face these problems, especially at rush hour: "but in winter it's a different matter, you can't do that in Quebec!". Every mobility experience is unique. For **Rowan**, for example, travelling on fixed-route public buses is not so bad: "For me, travelling on the fixed-route public bus has always been easy, and finding a seat has been quite easy, because either the driver says, "release the seat" or people do it of their own free will".

**Philbert** recounts an incident where he politely approached someone occupying the priority seat on the bus with a pushchair: "some people find it annoying because they're not patient". After explaining the situation, the person graciously made room for him: "I asked, 'Excuse me, this is our only seat' and she said, 'Yes sir, no problem'. It's all in the attitude and the way you ask". He believes that the attitude and manner of asking can make a difference in such situations. When asked about bus drivers, he expressed satisfaction with their service. **Philbert** attributes any potential problems to differences in

personalities rather than the actions of the drivers: “I’m courteous, always smiling and in a good mood”. This highlights how the way people perceive and react to situations can be influenced by their own personal attitudes.

**Amber** expresses frustration with bus drivers who, despite seeing her white cane, seem to neglect her needs. She often relies on asking drivers for help to make sure she gets on the right bus, as she may not know the route: “But when I do, the driver will answer in a disturbing way, as if I’m disturbing his day”. **Amber** also mentions that she gets nervous when travelling on fixed-route public buses because she might miss her stop: “One of the things I don’t like about taking fixed-route transport is that when you press the bell to say, ‘I’m going to stop at this address’, the bus driver goes straight off and pretends not to hear you”.

**Rachel**, coordinator of the *Réseau de transport de la Capitale* (RTC)’s inclusion programmes, thinks that RTC bus drivers meet contradictory demands. They ask them, on the one hand, not to delay bus journeys and, on the other, to give the time needed to ensure the safety of users in different disability situations:

This has created tension among the drivers. I call it contradictory injunctions. On the one hand, customers want a fast, reliable service. They need to be able to make their connections. Then, at the same time, we tell them: “Take the time to deploy the ramp. Take the time to talk to someone who needs directions, to answer the question of someone with an intellectual limitation. But don’t start too quickly so that an elderly person has time to sit down”. But that creates tension. What’s more, as there aren’t that many wheelchair users on our buses, the drivers forget how to deploy the ramp, because they don’t deploy it very often.

“Obviously, it’s an organisational problem” admits **Rachel**, who explains that with new technologies, they can adjust transport times and offer a better service, as long as all drivers “respect road safety, respect what we ask of them in terms of accessibility”. **Ernest** tells of an incident on the bus where he got caught on the handlebars while boarding the bus, but the driver left without waiting for him to board safely. He held on until he had enough room to manoeuvre with his legs and his wheelchair: “I travelled all the way in the bus holding on to the handlebar, because there was a big pushchair!”. Ernest insists that their priority must always be recognized: “The priority here: I’m the priority! even when it comes to holding the bus handlebar! Then the pushchairs, we’re the first priority, aren’t we?”. This highlights a situation where conflicts could arise in the fixed-route public bus between different kinds of populations and mobility needs. **Camelia** also reasoned about passenger behaviour in fixed-route public buses:

Already with the negative perception that we have of disability, there are people who seem upset with a disabled person on the bus. . . That’s the price of disability. That’s what they make me do to find a seat with my wheelchair: beg, plead, ask, when it should be automatic that people see a wheelchair, they settle down, but no.

**Rachel** notes that attitudes can be a “major barrier to visibility and inclusion”. However, she cautions against assuming that every negative glance from anyone is directed at the person with a disability, as it may be influenced by factors outside the person with a disability:

Let’s say I’m sitting on the bus and I’m in a bad mood for some reason, and then someone in a wheelchair asks for the ramp to be deployed, and then they get on the bus and slow down the bus journey. You know, I then look at the person in the wheelchair with my bad mood eyes, but because I’m in a bad mood for other things. I think people sometimes project, that it’s not always a look from someone who’s upset that the person is disabled.

**Rachel** mentions running campaigns about travelling together to raise awareness among users (e.g., *Voyager ensemble*). She shares findings of a focus group with “cus-

tomers”, in which one wheelchair user said she had returned to paratransit services because of problems with the looks and attitudes of other passengers:

We did a focus group with customers, people with intellectual disabilities, and they said they were being harassed on the bus. Then one person in a wheelchair said, “I’ve already used fixed-route public transport. I went back to STAC (paratransit services) because my life is complicated. My life is more difficult. I don’t want to get on the bus and have to face other people’s stares and attitudes, it’s too much. It’s just too much. That’s why I went back to STAC”.

### *Appendix A.3. Paratransit Services: Reasons, Rules, Possibilities*

**Henry** recognises the vital role of adapted transport in promoting autonomy and enabling people to lead a full life:

Paratransit has enabled people to become more autonomous, and there are people who also have a life because of it. There are people who started out with paratransit, then worked all their lives that way, thanks to paratransit. They couldn’t get a car, and you can’t just work for a few months in the summer, because in the winter you can’t go anywhere. Climate issues in Quebec mean that we really need a quality transport service, which is currently deteriorating.

**Sarah** values her freedom, especially when it comes to transport. Paratransit improved her autonomy: “My independence also comes from transport. Paratransit services was a blow to me because it was my independence”. **Wilbur** appreciates the availability of paratransit services: “we’re lucky to have access to paratransit services, like STAC. If that didn’t exist, we’d be in a lot more trouble”. He recognises that it plays a crucial role in supporting people with disabilities. He acknowledges that occasional reductions in service can lead to complaints: “That’s understandable up to a point, but people forget that it’s a public service, and people tend to take things for granted”. **Wilbur** believes it is important to remember that this is a public service and reduction in service is not a deliberate attempt to inconvenience people with disabilities:

Then, when it comes down to it, people say: “Yeah, that’s my right, ta ta ta”. Yes, but labour shortages, there are a whole bunch of factors that are uncontrollable, that will lead to a certain deterioration in the service, but it’s not necessarily because of the evil Government that planned everything. There’s no conspiracy to annoy the disabled.

**Gregory** points out that a limitation of the STAC system is its inability to be spontaneous: “You have to call a day in advance to get a vehicle. There’s no spontaneity. For example, you could decide, now, I’m going to take the bus and I’m going to get there, and I’ll come back. But with STAC, that kind of spontaneity isn’t possible”. **Rachel** also asserts that STAC paratransit services lack flexibility for users; they must book a day in advance and justify their journey, and, with the crisis in the taxi industry, priority is given to trips related to health, work, and studies:

STAC try to meet all the demand. But it’s not always possible, and then, as I said, they have taxi problems. So, they’re not able to meet all the demand. So, the first demands they meet are for healthcare, work and study. Then leisure, then shopping, that’s going to come later, there are choices to be made.

**Tom** recalls that Philbert has always managed to book paratransit services by citing a work-related reason: “He says he’s an employee who works here, even though he’s a volunteer, you understand, and the STAC makes it a priority, but someone who calls the STAC and says it’s for leisure, that’s not a priority”. Philbert’s strategy ensures him reliable mobility by identifying himself as an employee. **Ellen** agrees that paratransit constraints restrict mobility and limit departures due to long travel times and advance booking requirements:

If people had their own vehicle, it would be a 15 or 20 min trip, but because they use paratransit, it's an hour or an hour and a quarter trip, because they are picking up other users. Paratransit takes so long and is so restrictive that they just get off. We'd like to think about using active transport. If you have to go 2 kilometres, it's conceivable, but if you're 60 kilometres, no.

However, for **Rachel**, paratransit journeys can be lengthy due to shared rides and optimized routes: "It's still public transport, which means that it's the others who optimise their routes, but they can pick you up, then at some point pick someone else up, drop someone off, and this adds time to the public transport journey". She also mentions that some people are bimodal, using STAC mainly in winter and fixed-route public buses otherwise: "in winter they're in a wheelchair, and they're on STAC because it's an accessible door-to-door service".

**Camelia** appreciates that the STAC provides door-to-door pickup and operates throughout the day for various purposes: "You can use it for work, for health, you can use it for study, you can use it for pleasure, you can use it to go to a restaurant". However, she points out a negative aspect, the need to plan a day in advance: "You have to know what you're going to do before 6.00 p.m. to book for the day after".

For **Amber**, "paratransit is very infantilizing. When you call the paratransit service to book it, the question they ask you is: "Is it for home? Is it for work? Is it for leisure? What are you going to do there?". She points out two negative points of paratransit in her opinion. When she contacts the paratransit service, they ask for the specific time she needs to get to her destination and pick her up at least 30 min earlier than she would be picked up by a fixed-route public bus: "What time do you have to be there, ma'am?", "I have to be at work at 8.00", "OK, we'll pick you up at 6.45". Well [laughs], I'm a bit lazy, but I like being able to leave at 7:15".

Another negative point pointed out by participants about paratransit is certain travel rules. According to **Amber**, the regulations imposed on STAC services forbid passengers from bringing along large shopping bags (something that does not happen on buses). However, as **Amber** continues reasoning, this poses a significant problem for individuals with disabilities: "you know, people with disabilities don't earn a lot, let's face it, a lot of them rely on social assistance, and a lot of them are on their own". Amber finds it absurd that they are left with the only option of taking a taxi, "which can cost a considerable amount of money—around \$30— which in social assistance is a lot of money".

**Wilbur** prefers to minimise the use of paratransit because of the extensive planning required, and to rely on the fixed-route public bus instead: "You have to plan too much, especially now, with the delays in making reservations and the problems with transportation. I'm trying more and more to familiarise myself with fixed-route public transport, so I don't have to take paratransit". Wilbur finds it difficult to remember all the appointments and times associated with paratransit, whereas taking the bus offers more flexibility with frequent arrivals:

In the organisation of my life, in general, I alternate with teleworking, face-to-face work; there are days when I have to pick up my children from daycare, things like that. So, I have to do a lot of planning. And when you take paratransit, you always have to plan a day or two in advance, arrival time, departure time, all that. It's hard to remember all these appointments and what time I have to be at what place. Whereas with the bus, you get out of your house, you know it's coming every 15 min, you get out of your house, you take the bus when it comes, then you get off, then you don't know what time your activity finishes.

However, for **Wilbur**, relying on paratransit means missing out on spontaneous opportunities and the chance to visit friends without pre-arranged transport:

Say a friend says: "Will you come to my house?", I say: "OK. What time does it end?" Well, it ends when you've had enough. I can't say that [laughs]. I have to leave at such and such a time, because I have transport. So, you have to plan

ahead. And then, if you plan it like that, you come back at 9.00, and then, at 9.00, everybody's gone, it's over, and then you feel that your host would really like to go to bed, but now he's waiting with you for half an hour, for you to take your transport to go home, or you yourself, you're fed up, you'd like to go, but you can't, your transport arrives in an hour. That's what I find difficult about having a significant disability like that, is that you lose out on a lot of spontaneous opportunities. You know, someone calls you up and says, "Hey, Will, are you coming over to our place today? If they don't give you a lift, and you don't know the way by bus, you can't go, because you would have had to know the day before, to plan your transport, to be able to go."

From another point of view, **Philbert** appreciates paratransit services for the autonomy they provide: "It allows us to achieve levels of autonomy. When I say, 'Yes, there's someone to pick me up, to take me from point A to point B. Wow! Wow, thank you, life!'. He uses mainly paratransit services: "I've had paratransit since 1988, and I've also tried fixed-route public bus RTC about fifteen times, so when I travel in Quebec City, it's usually by STAC".

**Ellen** highlights people's desire for autonomy, especially for those with disabilities. Although some Adaptavie members have the knowledge and skills to be very autonomous, they represent a small fraction of the population: "The majority of our members can't even think about driving". Some members use their wheelchairs as active transportation, while others rely on paratransit: "some people are confident in their abilities, they will develop their fundamental motor skills in a wheelchair. But there are other people who aren't comfortable doing that. So, they'll use paratransit". **Ellen** believes that improving accessibility in transportation can increase the autonomy of people with disabilities, allowing more individuals to use fixed-route public transportation and increasing independence within their city: "If we guide them towards fixed-route public transportation, there is a section of the population with disabilities that could become more autonomous".

**Philbert** praises the courteous and excellent service provided by STAC paratransit drivers: "They give excellent service: 'Are you okay? Okay, how are you? Are you wearing your seat belt properly?' I don't have a problem with that". However, he acknowledges that there are difficulties due to drivers' working conditions and understaffing problems. **Philbert** believes that resolving these problems would greatly improve the service. He also mentions uncontrollable factors such as traffic and unforeseen events that can cause delays. When asked about improvements, **Philbert** suggests the provision of rapid transport for medical emergencies to ensure timely access to necessary care. **Camelia** agrees with the potential challenges faced by subcontracted drivers, who may be inexperienced and receive lower pay: "I think they're paid less than government employees. So, they may be inexperienced. I wouldn't say carelessness, but I would say inexperience".

About drivers, **Rachel** explains the difference between the STAC driver's behaviour and that of fixed-route public buses: "The minibus or taxi driver picks the person up at their door, helps them into the vehicle, helps them out when necessary and then takes them to their door. That's what STAC does; fixed-route public transport doesn't do that". The economic cost of both services also makes a big difference, according to **Rachel**: "STAC is very, very expensive. A trip on STAC, in a minibus, costs 24.75 Canadian dollars a trip. A fixed-route public bus journey costs 4 Canadian dollars". **Wilbur** believes that governments understand the value of paratransit despite its costs, as the social impact of not having this service would be far more detrimental: "Otherwise, we'd have people in much more difficult situations". In the same light, **Henry** advocates for inclusive mobility and equal opportunities, rather than seeking special privileges or free services:

There are disabled people who want everything for free. But not me. I want a normal life. If I have the means to survive, then to pay for my things. I'm happy with that. To have a better income as a disabled person, to have the poverty line, let's say, or the minimum guaranteed income. That's a battle. But having privileges isn't my battle either. If I want to be privileged because of my disability,

I can make a face about it, if they want to give me privileges. That's not what I want.

**Camelia** tells us about an individual initiative of community paratransit. She lends her car to friends and acquaintances who need it for various purposes, including helping people with mobility disabilities with their transportation needs. She believes in creating a supportive community where those with adapted cars can assist others who may not have access to reliable transportation:

I used to take my car with someone who drove it, as a passenger. It was for grocery shopping, for pleasure parties, restaurants, outings. Then for work, it was paratransit. I don't drive. I depend on friends. But I've started lending my car. For example, a friend will say to me: "You know what, there's a disabled person who needs to go to the shopping centre and she needs to go to the restaurant. I'm going to invite her to go with me. Can I take your car?" Okay. So, I started lending her my car. My car was doing community work. [laughs]. One time, an attendant came and told me: there's a lady who'd like to go to the Basilica of Sainte-Anne-de Beauré, but the paratransit service won't take her. But she'd like to go and say her prayers there. Can we take your car? Okay, go ahead. I've never seen this person before. I used to lend my car and I never got paid, but it could be a possibility for people who have adapted cars to help other disabled people, like a breakdown assistance community, carpooling between people. Because I say to myself: "My car is here". It doesn't move any more, it rots. I pay a lot more in repairs when it doesn't move than I'm going to lose when people use it, you understand, even if they don't pay me. And I think there are things that even among us, disabled people, some have the means, or that they can help others who don't have the means, or to help them out. For example, someone who is caught in the middle of the night, then has something to do, then someone lends him the car, because there is something urgent to do, but the paratransit services is closed.

**Wilbur** points out that it is not only accessibility on buses that will make people use them more; factors such as door-to-door service and the socialisation habits within the paratransit play a role as well:

Even if you made the fixed-route public bus 100% accessible, there are still many who prefer paratransit. It's door-to-door, some people don't have a choice, but there are also a lot of people who feel that part of their social life, in any case, is the interaction they have on paratransit, whether it's with a driver or with other customers.

Although paratransit is a special measure, says **Rachel**, it is in line with the philosophy of disability: "be able to live as much as possible like everyone else, without any special measures". She assures us that accessible fixed-route public bus services are not intended to replace paratransit; however, she is not convinced that people who are used to STAC, even if they can, would switch to the fixed-route public bus:

We would never question paratransit. What we're doing for accessible transport for fixed-route public buses isn't about doing away with paratransit. That's just not possible. But it's very difficult, it's a challenge, because people are used to paratransit, because it's an accessible door-to-door service.

#### *Appendix A.4. "We're Stuck with Other People"—Paratransit Populations*

**Camelia** notes that government budget constraints pose challenges for paratransit services, as the demand for adapted transport services extends beyond people with disabilities to include seniors: "We're stuck with other people, who also have similar activities, either studying or working, but with the constraint that there are people who are either elderly or retired, but we all have the same transport problem". **Camelia** points to a situation

where different people with similar transport needs compete for limited resources. **Henry** notes a growing tension between mobility for an ageing population in Quebec City and the saturation of paratransit services:

I think the hidden aim, which is admitted but never talked about, is to allow older people to take public transport for longer so as not to overburden the paratransit system. To use paratransit, you have to have a medical diagnosis of permanent disability that prevents you from taking fixed-route public transport.

**Henry** also discusses the challenges of access to paratransit, including problems with medical diagnostic forms and the need for accurate documentation: “Doctors don’t fill in the diagnosis correctly. They write: elderly person, paratransit. We’re not talking about “old age”, we need a diagnosis. Just because someone is 80 years old doesn’t mean they’re entitled to paratransit”. **Rachel** explains that paratransit is exclusively for qualified individuals with permanent limitations: “Paratransit meets the needs of people who can’t get around any other way. People have to pass through an admissions committee, and then the main characteristic is that they have to have a permanent limitation that prevents them from taking fixed-route public transport”.

## References

- Denault, M.; Varin, M.-A. La relance et l’électrification du transport en commun. *Transp. Regards Mobilité Québec Sabl.* **2023**, *30*, 55–57.
- Réseau de Transport de la Capitale (RTC). Améliorer l’Accessibilité du Transport en Commun Régulier à Québec, Bilan du Plan de Développement 2012–2016. 2012. Available online: [https://cdn.rtcquebec.ca/sites/default/files/2019-07//Bilan\\_PlanDev%202012-2016\\_accessible.pdf](https://cdn.rtcquebec.ca/sites/default/files/2019-07//Bilan_PlanDev%202012-2016_accessible.pdf) (accessed on 7 October 2023).
- Boucher, N.; Dumont, I.; Fougeyrollas, P.; Beauregard, L.; Lachapelle, Y.; Gascon, H.; Caillouette, J. De manière singulière et d’usage inclusif. Représentations sociales, Transport collectif et interrelations entre handicap, territoire et environnement. *Rech. Sociographiques* **2019**, *60*, 139–168. [CrossRef]
- Park, J.; Chowdhury, S. Investigating the barriers in a typical journey by public transport users with disabilities. *J. Transp. Health* **2018**, *10*, 361–368. [CrossRef]
- Murray, J. Self-Determination in Transportation: The Route to Social Inclusion for People with Disabilities. Ph.D. Thesis, City University of New York, New York, NY, USA, 2020.
- United Nations Office at Geneva. *Disability Inclusive Language Guidelines. United Nations Disability Inclusion Strategy*; United Nations: Geneva, Switzerland, 2019.
- Cass, N.; Shove, E.; Urry, J. Social Exclusion, Mobility and Access. *Sociol. Rev.* **2005**, *53*, 539–555. [CrossRef]
- Cook, N.; Butz, D. Moving toward mobility justice. In *Mobilities, Mobility Justice and Social Justice*; Nancy, C., David, B., Eds.; Routledge: London, UK, 2018; ISBN 978-0-429-43458-7.
- Fougeyrollas, P.; Boucher, N.; Fiset, D.; Grenier, Y.; Noreau, L.; Philibert, M.; Gascon, H.; Morales, E.; Charrier, F. Handicap, environnement, participation sociale et droits humains: Du concept d’accès à sa mesure. *Dév. Hum. Handicap. Chang. Soc./Hum. Dev. Disabil. Soc. Chang.* **2015**, 5–28. [CrossRef]
- Prince, M.J. Disabling Cities and Repositioning Social Work. In *Social Work and the City: Urban Themes in 21st-Century Social Work*; Williams, C., Ed.; Palgrave Macmillan: London, UK, 2016; pp. 173–192; ISBN 978-1-137-51623-7.
- RTC Media. Le RTC s’Engage à Rendre 1000 Arrêts Accessibles d’Ici 2028. Communiqués 2022. Available online: <https://www.rtcquebec.ca/medias/communiqués/le-rtc-sengage-rendre-1-000-arrets-accessibles-dici-2028> (accessed on 7 October 2023).
- Réseau de Transport de la Capitale (RTC). Rapport d’Activité 2021. 2022. Available online: [https://cdn.rtcquebec.ca/sites/default/files/2022-05/RTC\\_Rapport%20activite%202021.pdf](https://cdn.rtcquebec.ca/sites/default/files/2022-05/RTC_Rapport%20activite%202021.pdf) (accessed on 7 October 2023).
- Statistics Canada. Canadian Survey on Disability, 2017: Concepts and Methods Guide. 2017. Available online: <https://www150.statcan.gc.ca/n1/pub/89-654-x/89-654-x2018001-eng.htm> (accessed on 7 October 2023).
- Ministère des Transports, Gouvernement du Québec. Paratransit Eligibility Policy. 1998. Available online: [https://cdn-contenu.quebec.ca/cdn-contenu/adm/min/transports/transports/transport\\_adapte/paratransit-eligibility-policy.pdf](https://cdn-contenu.quebec.ca/cdn-contenu/adm/min/transports/transports/transport_adapte/paratransit-eligibility-policy.pdf) (accessed on 7 October 2023).
- Langan, C. Mobility Disability. *Public. Cult.* **2001**, *13*, 459–484. [CrossRef]
- Velho, R.; Holloway, C.; Symonds, A.; Balmer, B. The Effect of Transport Accessibility on the Social Inclusion of Wheelchair Users: A Mixed Method Analysis. *Soc. Incl.* **2016**, *4*, 24–35. [CrossRef]
- Aarhaug, J.; Elvebakk, B. The impact of Universally accessible public transport—a before and after study. *Transp. Policy* **2015**, *44*, 143–150. [CrossRef]
- Bezyak, J.L.; Sabella, S.; Hammel, J.; McDonald, K.; Jones, R.A.; Barton, D. Community participation and public transportation barriers experienced by people with disabilities. *Disabil. Rehabil.* **2020**, *42*, 3275–3283. [CrossRef]

19. Park, K.; Esfahani, H.N.; Novack, V.L.; Sheen, J.; Hadayeghi, H.; Song, Z.; Christensen, K. Impacts of disability on daily travel behaviour: A systematic review. *Transp. Rev.* **2022**, *43*, 178–203. [CrossRef]
20. Kett, M.; Cole, E.; Turner, J. Disability, Mobility and Transport in Low- and Middle-Income Countries: A Thematic Review. *Sustainability* **2020**, *12*, 589. [CrossRef]
21. Larrouy, M. Invention of Accessibility: French Urban Public Transportation Accessibility from 1975 to 2006. *Rev. Disabil. Stud. Int. J.* **2006**, *2*, 2.
22. Levine, J.; Grengs, J.; Merlin, L.A. The Special Case of Public-Transport Accessibility. In *From Mobility to Accessibility: Transforming Urban Transportation and Land-Use Planning*; Cornell University Press: New York, NY, USA, 2019; ISBN 978-1-5017-1610-2.
23. Carlsson, G. Travelling by urban public transport: Exploration of usability problems in a travel chain perspective. *Scand. J. Occup. Ther.* **2004**, *11*, 78–89. [CrossRef]
24. Lavery, I.; Davey, S.; Woodside, A.; Ewart, K. The vital role of street design and management in reducing barriers to older peoples' mobility. *Landsc. Urban. Plan.* **1996**, *35*, 181–192. [CrossRef]
25. Petzäll, J. Traversing step obstacles with manual wheelchairs. *Appl. Erg.* **1996**, *27*, 327–341. [CrossRef] [PubMed]
26. Bertocci, G.; Smalley, C.; Page, A.; Digiovine, C. Manual wheelchair propulsion on ramp slopes encountered when boarding public transit buses. *Disabil. Rehabil. Assist. Technol.* **2019**, *14*, 561–565. [CrossRef] [PubMed]
27. Almada, J.F.; Renner, J.S. Public transport accessibility for wheelchair users: A perspective from macro-ergonomic design. *Work* **2015**, *50*, 531–541. [CrossRef]
28. D'Souza, C.; Steinfeld, E.; Paquet, V.; Feathers, D. Space Requirements for Wheeled Mobility Devices in Public Transportation: An Analysis of Clear Floor Space Requirements: (Investing in Accessible Transportation and Mobility ABE60). *Transp. Res. Rec.* **2010**, *2145*, 66. [CrossRef]
29. Cazares, R.A. Disability Inclusive Transportation: Assessing First Mile Last Mile Conditions in the Richmond Region. Master of Urban and Regional Planning Capstone Projects. 2021. Available online: [https://scholarscompass.vcu.edu/cgi/viewcontent.cgi?article=1047&context=murp\\_capstone](https://scholarscompass.vcu.edu/cgi/viewcontent.cgi?article=1047&context=murp_capstone) (accessed on 7 October 2023).
30. D'Souza, C.; Paquet, V.; Lenker, J.A.; Steinfeld, E. Effects of transit bus interior configuration on performance of wheeled mobility users during simulated boarding and disembarking. *Appl. Erg.* **2017**, *62*, 94–106. [CrossRef]
31. Frost, K.L.; Bertocci, G.; Smalley, C. Ramp-related incidents involving wheeled mobility device users during transit bus boarding/alighting. *Arch. Phys. Med. Rehabil.* **2015**, *96*, 928–933. [CrossRef]
32. Lenker, J.; Damle, U.; D'Souza, C.; Paquet, V.; Mashtare, T.; Steinfeld, E. Usability Evaluation of Access Ramps in Transit Buses: Preliminary Findings. *J. Public. Transp.* **2016**, *19*, 109–127. [CrossRef]
33. Hwangbo, H.; Kim, J.; Kim, S.; Ji, Y.G. Toward Universal Design in Public Transportation Systems: An Analysis of Low-Floor Bus Passenger Behavior with Video Observations. *Hum. Factors Ergon. Manuf. Serv. Ind.* **2015**, *25*, 183–197. [CrossRef]
34. Wretstrand, A.; Petzäll, J.; Ståhl, A. Safety as perceived by wheelchair-seated passengers in special transportation services. *Accid. Anal. Prev.* **2004**, *36*, 3–11. [CrossRef] [PubMed]
35. Velho, R. Transport accessibility for wheelchair users: A qualitative analysis of inclusion and health. *Int. J. Transp. Sci. Technol.* **2019**, *8*, 103–115. [CrossRef]
36. Egger, S.M.; Gemperli, A.; Filippo, M.; Liechti, R.; Gantschnig, B.E. The experiences and needs of persons with disabilities in using paratransit services. *Disabil. Health J.* **2022**, *15*, 101365. [CrossRef] [PubMed]
37. Routhier, F.; Lettre, J.; Pigeon, C.; Fiset, D.; Martel, V.; Binet, R.; Vézina, V.; Collomb d'Eyrames, O.; Waygood, E.O.; Mostafavi, M.A.; et al. Evaluation of three pedestrian phasing with audible pedestrian signals configurations in Quebec City (Canada): An exploratory study of blind or visually impaired persons' sense of safety, preferences, and expectations. *Disabil. Rehabil.* **2023**, 1–13. [CrossRef] [PubMed]
38. Martin Ginis, K.A.; Sinden, A.R.; Bonaccio, S.; Labbé, D.; Guertin, C.; Gellatly, I.R.; Koch, L.; Ben Mortenson, W.; Routhier, F.; Basham, C.A.; et al. Experiential Aspects of Participation in Employment and Mobility for Adults with Physical Disabilities: Testing Cross-Sectional Models of Contextual Influences and Well-Being Outcomes. *Arch. Phys. Med. Rehabil.* **2023**, *105*, 303–313. [CrossRef]
39. Mahmood, A.; O'Dea, E.; Bigonnesse, C.; Labbe, D.; Mahal, T.; Qureshi, M.; Mortenson, W.B. Stakeholders Walkability/Wheelability Audit in Neighbourhoods (SWAN): User-led audit and photographic documentation in Canada. *Disabil. Soc.* **2020**, *35*, 902–925. [CrossRef]
40. Best, K.L.; Noreau, L.; Gagnon, M.-A.; Barthod, C.; Hitzig, S.L.; Routhier, F. Housing, Transportation and Quality of Life among People with Mobility Limitations: A Critical Review of Relationships and Issues Related to Access to Home- and Community-Based Services. *Disabilities* **2022**, *2*, 204–218. [CrossRef]
41. The Conference Board of Canada. *The Business Case to Build Physically Accessible Environments*; The Conference Board of Canada: Ottawa, ON, Canada, 2018.
42. Cresswell, T. Towards a Politics of Mobility. *Environ. Plan. D* **2010**, *28*, 17–31. [CrossRef]
43. Cresswell, T. *Geographies of Mobilities: Practices, Spaces, Subjects*; Routledge: London, UK, 2016; ISBN 978-1-315-58439-3.
44. Pelgrims, C. Tension between Fast and Slow Mobilities: Examining the Infrastructuring Processes in Brussels (1950–2019) through the Lens of Social Imaginaries. *Transfers* **2019**, *9*, 20–40. [CrossRef]
45. Mansilla, J.C.; Mejía Betancur, L.; Queiroz Lambach, C. Transmedial Worlds with Social Impact: Exploring Intergenerational Learning in Collaborative Video Game Design. *J. Child. Stud.* **2019**, *44*, 103–110. [CrossRef]

46. Mansilla, J.C. Thinking society and cultural practices in the (digital) hybrid age: Notes and queries on Media Ecology Research. *New Explor. Stud. Cult. Commun.* **2021**, *2*, 93–108. Available online: <https://jps.library.utoronto.ca/index.php/nexj/article/view/37373> (accessed on 7 October 2023).
47. Sylvestre, G. Aging and sustainability: Creating a discourse on places of inclusive mobility for the promotion of longevity. In *Diverse Perspectives on Aging in a Changing World*; Routledge: London, UK, 2016; ISBN 978-1-315-63838-6.
48. Mansilla, J.C.; Schwartz, G. Youth Culture and Digital Resistance: Paris, Medellín and São Paulo. In *Survey on the Use of Information and Communication Technologies in Brazilian Cultural Facilities: ICT in Culture 2016*; Regional Center for Studies on the Development of the Information Society—Cetic.br: São Paulo, Brazil, 2017; pp. 171–180; ISBN 978-85-5559-043-6.
49. Morin, E. *Introduction à la Pensée Complexe*; ESF éditeur: Paris, France, 1990; ISBN 978-2-7101-0800-9.
50. Comunian, R. Location, location, location: Exploring the complex relationship between creative industries and place. *Creat. Ind. J.* **2010**, *3*, 5–10. [[CrossRef](#)] [[PubMed](#)]
51. Castells, M. Space of Flows, Space of Places: Materials for a Theory of Urbanism in the information age. In *The Cybercities Reader*; Graham, S., Ed.; The Routledge urban reader series; Routledge: London, UK; New York, NY, USA, 2004; pp. 82–93; ISBN 978-0-415-27955-0.
52. Appadurai, A. Global Ethnoscapes: Notes and Queries for a Transnational Anthropology. In *Interventions: Anthropologies of the Present*; School of American Research: Santa Fe, NM, USA, 1989; pp. 48–65. Available online: [https://web.mit.edu/uricchio/Public/Documents/Appadurai-Modernity\\_at\\_Large-Ch3.pdf](https://web.mit.edu/uricchio/Public/Documents/Appadurai-Modernity_at_Large-Ch3.pdf) (accessed on 7 October 2023).
53. Mannheim, K. The Problem of Generations. In *Essays on the Sociology of Knowledge*; Kecskemeti, P., Ed.; Routledge: London, UK, 1952; pp. 276–322.
54. Schatzki, T.R. The Trajectories of a Life. In *Doing Transitions in the Life Course: Processes and Practices*; Stauber, B., Walther, A., Settersten, R.A., Jr., Eds.; Life Course Research and Social Policies; Springer International Publishing: Cham, The Netherlands, 2022; pp. 19–34; ISBN 978-3-031-13512-5.
55. Manzo, L.C.; Perkins, D.D. Finding Common Ground: The Importance of Place Attachment to Community Participation and Planning. *J. Plan. Lit.* **2006**, *20*, 335–350. [[CrossRef](#)]
56. Imrie, R. Disability and Discourses of Mobility and Movement. *Environ. Plan. A* **2000**, *32*, 1641–1656. [[CrossRef](#)]
57. Boucher, N. Handicap, recherche et changement social. L'émergence du paradigme émancipatoire dans l'étude de l'exclusion sociale des personnes handicapées. *Lien Soc. Polit.* **2003**, *50*, 147–164. [[CrossRef](#)]
58. Fougeyrollas, P.; Boucher, N.; Edwards, G.; Grenier, Y.; Noreau, L. The Disability Creation Process Model: A Comprehensive Explanation of Disabling Situations as a Guide to Developing Policy and Service Programs. *Scand. J. Disabil. Res.* **2019**, *21*, 25–37. [[CrossRef](#)]
59. Gharebaghi, A.; Mostafavi, M.-A.; Chavoshi, S.H.; Edwards, G.; Fougeyrollas, P. The Role of Social Factors in the Accessibility of Urban Areas for People with Motor Disabilities. *ISPRS Int. J. Geo Inf.* **2018**, *7*, 131. [[CrossRef](#)]
60. Raffestin, C. Territorialité: Concept ou paradigme de la géographie sociale? *Geogr. Helv.* **1986**, *41*, 91–96. [[CrossRef](#)]
61. Stafford, L.; Vanik, L.; Bates, L.K. Disability Justice and Urban Planning. *Plan. Theory Pract.* **2022**, *23*, 101–142. [[CrossRef](#)]
62. Clandinin, D.J. *Engaging in Narrative Inquiry*; Routledge: New York, NY, USA, 2016; ISBN 978-1-315-42961-8.
63. Squire, C. From Experience-Centred to Socioculturally-Oriented Approaches to Narrative. In *Doing Narrative Research*; SAGE Publications, Ltd.: New York, NY, USA, 2013; ISBN 978-1-5264-0227-1.
64. Lamb, E.G. Age and/as Disability: A Call for Conversation. *Age Cult. Humanit. Interdiscip. J.* **2015**, *2*, 315–324. [[CrossRef](#)]
65. Putnam, M.; Bigby, C. (Eds.) *Handbook on Ageing with Disability*; Routledge: New York, NY, USA, 2021; ISBN 978-0-429-46535-2.
66. Raymond, É.; Grenier, A.; Hanley, J. Community Participation of Older Adults with Disabilities. *Community Appl. Soc. Psychol.* **2014**, *24*, 50–62. [[CrossRef](#)]
67. Edwards, R. Participant pseudonyms in qualitative family research: A sociological and temporal note. *Fam. Relatsh. Soc.* **2020**, *9*, 383–397. [[CrossRef](#)]
68. Guenther, K.M. The politics of names: Rethinking the methodological and ethical significance of naming people, organizations, and places. *Qual. Res.* **2009**, *9*, 411–421. [[CrossRef](#)]
69. Sarbin, T.R. *Narrative Psychology: The Storied Nature of Human Conduct*; Bloomsbury Academic: New York, NY, USA, 1986; ISBN 978-0-275-92103-3.
70. Feixa, C.; Sánchez-García, J.; Soler-i-Martí, R.; Ballesté, E.; Hansen, N. *Methodology Handbook: Ethnography and Data Analysis*; TRANSGANG Working Papers 4.1; Universitat Pompeu Fabra & European Research Council: Barcelona, Spain, 2020.
71. Russo, J. Anthropology in the Meantime: Experimental Ethnography, Theory, and Method for the Twenty-First Century by Michael, M. J. Fischer (review). *Anthropol. Q.* **2020**, *93*, 1655–1658. [[CrossRef](#)]
72. Mansilla, J.C.; Grassi, P.; Palmas, L.Q. Contemporary Youth Culture at the Margins of Marseille and Milan: Gangs, Music, and Global Imaginaries. *Youth Glob.* **2022**, *3*, 359–385. [[CrossRef](#)]
73. Sánchez García, J.; Oliver, M.; Mansilla, J.C.; Hansen, N.; Feixa, C. Between cyberspace and the street: Conducting ethnography with youth street groups in times of physical distancing. *Hipertext.net* **2020**, *21*, 93–104. [[CrossRef](#)]
74. Ballesté, E.; Grassi, P.; Mansilla, J.C.; Oliver, M. *Youth Street Groups and Mediation in Southern Europe: Ethnographic Findings*; TRANSGANG Final Reports 01; Universitat Pompeu Fabra & European Research Council: Barcelona, Spain, 2023; p. 289. [[CrossRef](#)]

75. Cass, N.; Doughty, K.; Faulconbridge, J.; Murray, L. *Ethnographies of Mobilities and Disruption*; Research Report; Research Councils UK Energy Programme: Brighton, UK, 2015; p. 52. [CrossRef]
76. Grard, J. Approche(s) narrative(s) et récit à la première personne. *Généalogie et politiques de l'enquête. Vie Soc.* **2017**, *20*, 85–98. [CrossRef]
77. Creswell, J.W. *Qualitative Inquiry and Research Design: Choosing among Five Approaches*, 3rd ed.; SAGE Publications: Los Angeles, CA, USA, 2013; ISBN 978-1-4129-9531-3.
78. Bruner, J. Life as Narrative. *Soc. Res.* **1987**, *54*, 11–32. [CrossRef]
79. Guillen, F.; Elida, D. Investigación cualitativa: Método fenomenológico hermenéutico. *Propósitos Represent.* **2019**, *7*, 201–229. [CrossRef]
80. Smith, J.A.; Flowers, P.; Larkin, M. *Interpretative Phenomenological Analysis: Theory, Method and Research*, 2nd ed.; SAGE: London, UK, 2022; ISBN 978-1-5297-5380-6.
81. Parks, P. Story Circles: A New Method of Narrative Research. *AM J. Qual. Res.* **2023**, *7*, 58–72.
82. Polkinghorne, D.E. Validity Issues in Narrative Research. *Qual. Inq.* **2007**, *13*, 471–486. [CrossRef]
83. Jovchelovitch, S.; Bauer, M.W. Narrative Interviewing. In *Qualitative Researching with Text, Image and Sound: A Practical Handbook*; Bauer, M.W., Gaskell, G., Eds.; Sage: London, UK, 2000; pp. 57–74; ISBN 978-0-7619-6481-0.
84. Morgan, D.L. *Focus Groups as Qualitative Research*; SAGE Publications, Inc.: Thousand Oaks, CA, USA, 1997; ISBN 978-1-4129-8428-7.
85. Haw, K.; Hadfield, M. *Video in Social Science Research Functions and Forms*; Routledge: New York, NY, USA, 2011; ISBN 978-0-203-83911-9.
86. Tedlock, B. From Participant Observation to the Observation of Participation: The Emergence of Narrative Ethnography. *J. Anthropol. Res.* **1991**, *47*, 69–94. [CrossRef]
87. Ragin, C.C. *Constructing Social Research: The Unity and Diversity of Method*; Pine Forge Press: Newbury Park, CA, USA, 1994; ISBN 978-0-8039-9021-0.
88. Ollerenshaw, J.A.; Creswell, J.W. Narrative Research: A Comparison of Two Restorying Data Analysis Approaches. *Qual. Inq.* **2002**, *8*, 329–347. [CrossRef]
89. Dewey, J. *Experience and Education*, Reprint ed.; Free Press: New York, NY, USA, 1997; ISBN 978-0-684-83828-1.
90. Connelly, F.M.; Clandinin, D.J. *Narrative Inquiry*; Routledge Handbooks Online: New York, NY, USA, 2006; ISBN 978-0-8058-5932-4.
91. Clandinin, D.J.; Connelly, F.M. *Narrative Inquiry: Experience and Story in Qualitative Research*; Jossey-Bass Publishers: San Francisco, CA, USA, 2000.
92. Desmond, M. Relational ethnography. *Theor. Soc.* **2014**, *43*, 547–579. [CrossRef]
93. Andrews, M. Quality indicators in narrative research. *Qual. Res. Psychol.* **2021**, *18*, 353–368. [CrossRef]
94. Bailey, P.H. Assuring Quality in Narrative Analysis. *West. J. Nurs. Res.* **1996**, *18*, 186–194. [CrossRef]
95. Engel, D.; Munger, F. Narrative, Disability, and Identity. *Narrative* **2007**, *15*, 85–94. [CrossRef]
96. Sait, C. "This Journey Has Definitely Changed Me": An Ethnographic Narrative Exploring Disabled Peoples' Lives through Embodied Experiences and Identity Negotiation. Master's Thesis, Te Herenga Waka-Victoria University of Wellington, Wellington, New Zealand, 2015.
97. Smith, B.; Sparkes, A.C. Narrative and its potential contribution to disability studies. *Disabil. Soc.* **2008**, *23*, 17–28. [CrossRef]
98. Tindall, L.; Smith, J.A.; Flower, P.; Larkin Interpretative, M. Phenomenological Analysis: Theory, Method and Research. *Qual. Res. Psychol.* **2009**, *6*, 346–347. [CrossRef]
99. Andersen, D. Narrative ethnography: How to study stories in the context of their telling. In *Handbook of Ethnography in Healthcare Research*; Routledge: New York, NY, USA, 2020; ISBN 978-0-429-32092-7.
100. Shakespeare, T. The Social Model of Disability. In *The Disability Studies Reader*; Davis, L.J., Ed.; Psychology Press: London, UK, 2006; pp. 2–197.
101. Chaves, E.S.; Cooper, R.A.; Collins, D.M.; Karmarkar, A.; Cooper, R. Review of the use of physical restraints and lap belts with wheelchair users. *Assist. Technol.* **2007**, *19*, 94–107. [CrossRef] [PubMed]
102. Pyer, M.; Tucker, F. 'With us, we, like, physically can't': Transport, mobility and the leisure experiences of teenage wheelchair users. *Mobilities* **2014**, *12*, 36–52. [CrossRef]
103. D'Souza, C.; Paquet, V.L.; Lenker, J.A.; Steinfeld, E. Self-Reported Difficulty and Preferences of Wheeled Mobility Device Users for Simulated Low-Floor Bus Boarding, Interior Circulation, and Disembarking. *Disabil. Rehabil. Assist. Technol.* **2019**, *14*, 109–121. [CrossRef] [PubMed]
104. Best, K.; Kiki, M.; Lamontagne, M.E.; Routhier, F. Public transportation training: A low-tech approach to facilitate using the bus for people with disabilities. In Proceedings of the 17th International Conference of the Association for the Advancement of Assistive Technology in Europe (AAATE), Paris, France, 30 August–1 September 2023; pp. 209–211.
105. Ministère des Transports du Québec; Réseau de Transport de la Capitale; Société de Transport de Lévis; Communauté Métropolitaine de Québec; Ville de Québec; Ville de Lévis. EOD2017, Enquête Origine-Destination, Région Québec-Lévis: La Mobilité des Personnes dans la Région de Québec-Lévis. Volet Enquête-Ménages. Sommaire des Résultats. 2019. Available online: [https://www.transports.gouv.qc.ca/fr/ministere/Planification-transports/enquetes-origine-destination/quebec/2017/Documents/EOD17\\_faits\\_saillants\\_VF.pdf](https://www.transports.gouv.qc.ca/fr/ministere/Planification-transports/enquetes-origine-destination/quebec/2017/Documents/EOD17_faits_saillants_VF.pdf) (accessed on 7 October 2023).

106. Ripat, J.D.; Brown, C.L.; Ethans, K.D. Barriers to wheelchair use in the winter. *Arch. Phys. Med. Rehabil.* **2015**, *96*, 1117–1122. [[CrossRef](#)]
107. Abma, T.A.; Stake, R.E. Science of the Particular: An Advocacy of Naturalistic Case Study in Health Research. *Qual. Health Res.* **2014**, *24*, 1150–1161. [[CrossRef](#)]
108. Murray, L.; Doughty, K. Interdependent, imagined, and embodied mobilities in mobile social space: Disruptions in ‘normality’, ‘habit’ and ‘routine’. *J. Transp. Geogr.* **2016**, *55*, 72–82. [[CrossRef](#)]
109. Lefebvre, H. *Rhythmanalysis: Space, Time and Everyday Life*; Bloomsbury Publishing: London, UK, 2013; ISBN 978-1-4725-2886-5.
110. Ryan, R.M.; Deci, E.L. *Self-Determination Theory: Basic Psychological Needs in Motivation, Development, and Wellness*; Guilford Publications: New York, NY, USA, 2016; ISBN 978-1-4625-2880-6.
111. Bibri, S.E.; Krogstie, J.; Kärrholm, M. Compact city planning and development: Emerging practices and strategies for achieving the goals of sustainability. *Dev. Built Environ.* **2020**, *4*, 100021. [[CrossRef](#)]
112. De Duren, N.R.L.; Salazar, J.P.; Duryea, S.; Mastellaro, C.; Freeman, L.; Pedraza, L.; Porcel, M.R.; Sandoval, D.; Aguerre, J.A.; Angius, C.; et al. *Cities as Spaces for Opportunities for All: Building Public Spaces for People with Disabilities, Children and Elders*; Inter-American Development Bank (IDB): Washington DC, USA, 2021. [[CrossRef](#)]

**Disclaimer/Publisher’s Note:** The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.