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# CONSTRUCTING ACCESSIBILITY IN DUTCH PUBLIC SPACES

A qualitative research into design, policy and experience of a wheelchair user

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## Abstract

To fully participate in society, it is important to have access to society. Persons with disabilities experience barriers in the public space. Moving towards an accessible and inclusive society, the Netherlands ratified the Convention on the Rights of Persons with Disabilities. Reports, however, indicate the position of persons with disabilities did not improve. There is a disparity among Dutch municipalities in how accessibility is constructed. For this thesis, three qualitative research methods were employed to research how two Dutch cities construct accessibility. (National) political factors determine how much attention is attributed to accessibility. A multitude of actors and factors weigh in on how the public space should look like and how it is ought to be used, accessibility competes with different interests in this weighing. The Dutch approach of constructing accessibility in the public space concords to the medical model of disability, in which consequences of inaccessibility are attributed to the individual. Design of the public space inherently prescribes how one should use it. Design influences safety, independence, social inclusion and freedom of choice of a wheelchair user's use of the public space.

**Keywords:** accessibility, public space, urban accessibility, wheelchair user, disability

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## Introduction

Imagine that today is your day off. You need to commute to a city you have never visited before for a lunch date with your friend. As a wheelchair user, you have two transportation options. The first option is commuting by public transportation, which requires planning for assistance at least an hour in advance, if your stop is accessible. You do not have the time nor the energy for this option and choose your second: your wheelchair adapted vehicle. It makes you independent, but it is not the easiest option either. Multiple municipalities avert cars from the city center. A great development for the climate and a way to ‘give back’ the streets to pedestrians. This is not so convenient for you. The suitable and available parking spaces that remain are scarce and impractical. Some wheelchair parking spaces result in unsafe traffic situations, lacking overview of the motorized traffic around you. Some are too far away from your destination and lead you through parkour-like thoroughfares, with many height differences and obstacles. Inconvenient, but not a challenge from which you would skew.

You reach your destination and head over to a bank where employees can help you to withdraw cash from your account. At the bank, you discover the office is permanently closed. Two yellow ATMs are installed instead, at an unreachable height. Once again, you find yourself weighing options: asking a stranger for help now or asking your friend to pay for you at the restaurant. Choosing the second option over trusting strangers with your PIN, you make your way to the restaurant. Google Maps’ directions take you through a park – until you arrive at a gravel path. Experience taught you that your wheelchair will get stuck, so you turn around to find your own way to the restaurant.

Arriving at the restaurant, you see your friend is already seated on the terrace by the water. You cannot reach that table on your own, it is on an elevated platform with no ramp to bridge the height. The waitress sees you and tells your friend she will get a portable ramp they

store at the back of the restaurant. When the waitress returns, she lays out the ramp for you to ascend the platform from the street. Doing so blocks traffic, and there you are, finding yourself to be an obstacle to others. A nice lunch and many ice teas later, you ask the waitress about the accessible public toilet that was supposed to be in the area according to the municipality's website. She flatly tells your friend there is no accessible toilet, but that he could help you use their restroom if he assists you up the stairs. You want to tell her that you can speak and think for yourself and that you do not want your friend's help with the private act of toileting. Instead, you calmly tell the waitress you would like to leave. She retrieves the ramp and you ask your friend to pay. Cutting the date short, you hurry back home to use the restroom. You do not need another urinary infection. On your way home, you reflect on the day. Why did you need to plan for details other people take for granted? You wondered whether people like you were considered, included in, or part of the decisions that lead to how one can use the public space. The above-described situation, which is partly based on autoethnographic fieldwork conducted for this thesis, may sound like fiction to some. However, it describes everyday realities of others.

### **1.1. The Netherlands and its quest for an accessible society**

In 2050, 60% of our world population is expected to dwell in cities and one out of seven people will have a disability (United Nations, 2014). In the Netherlands, the Central Bureau of Statistics (CBS) estimated that 13,4% of the Dutch population has a physical disability (CBS, 2020). A significant share of the population has or will have a disability, whether it will be attributable to ageing populations, acquired disabilities later on in life due to accidents or disabilities with which people were born.

Having a disability, however, should not infringe on your human right "to live independently and fully participate in all aspects of life" (UN, 2006, P.9). According to the United Nations' Convention on the Rights of Persons with Disabilities (CRPD) governments

are responsible for ensuring “access, on an equal basis with others, to the physical environment, to transportation, to information and communications ... and to other facilities and services open or provided to the public, both in urban and in rural areas” (UN, 2006, P.9).

The Dutch government ratified the CRPD in 2016, as one of the last 182 countries that signed it, nine years after the UN introduced the Convention in its current form (UN, 2021). The Dutch Ministry of Health, Welfare and Sport is responsible for implementing the CRPD. The responsibility of working towards an accessible and inclusive society is transferred from the national government to the municipalities (VWS, 2018).

Are Dutch municipalities succeeding at implementing the CRPD? In 2020, 60.5% of Dutch municipalities started developing or developed a policy document, in which they describe how their municipality works towards being an accessible and inclusive city (VWS, 2020, P.10). However, according to the Netherlands Institute for Social Research (NISR) persons with disabilities (still) experience severe barriers to participating in Dutch society. Besides the significant number of inaccessible places, the public space is relatively unusable to persons with disabilities. Remarkable, since access to the public space is considered to be an essential condition to live independently (Vermeij & Hamelink, 2021, P.86-88). Without an accessible society, persons with disabilities are infringed on their citizenship rights, are socially excluded and are unable to participate in society (Gaete-Reyes, 2015). The mismatch between what the body can do and what the built environment requires it to do, creates the disability and makes it a problem of societies, not of the individual (Hendren, 2020, P.15).

Why are persons with disabilities in the Netherlands still encountering inaccessible places after the Netherlands vowed to improve its accessibility five years ago? How do municipalities embed the right to access and equally use a space for persons with disabilities? And how do they construct accessibility in the public space?

## 1.2. Research context

For this thesis, I dissected the complex interplay between actors and factors that constitute a public space and influence its accessibility. The conducted research for this thesis serves the purpose of understanding where the ambition of implementing an accessible society holds its merit or starts to dilute. By uncovering how these mechanisms work and how they lead to accessible spaces, it is my aim to provide involved actors with perspective on how to take their own responsibility in contributing to an accessible society, whether that actor is a minister, mayor, policy maker, designer or a plumber that installs an accessible toilet. An accessible and equally usable society is everyone's human right, whether you move around on your feet or on your wheels. Access to society should be the norm and not an exception.

In the Netherlands municipalities are provided with tools to write adequate accessibility enhancing policies by the Association for Dutch Municipalities<sup>1</sup>. Accessibility of urban areas in general, and public space in particular, has not been a part of the hitherto developed tools (Briels, Personal communication, 2021). The research conducted into the accessibility of Dutch municipalities, has been measured with the implementation of the CRPD, and was mostly framed from the perspective of experiences of persons with disabilities. What has not been researched, however, is how accessibility is constructed in the public space by municipalities. What municipalities do to become more accessible, which actors and factors are essential and what is understood to pertain accessibility, can tell us more about how a municipality is contributing to Dutch accessibility.

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<sup>1</sup> Vereniging Nederlandse Gemeenten (VNG). This association provides municipalities with knowledge, tools and other types of support, across different domains a municipality works on. The CRPD is one of them and is part of the project 'Everyone participates'. Movisie – national knowledge institution for societal themes conducts research for the VNG



## Research questions

I researched how accessibility is constructed in the public space by zooming in on how wheelchair users' rights to access and equally use a space, are part of the processes and mechanisms that lead to a space. The main research question of this thesis is: **“How is physical accessibility for wheelchair users constructed in Dutch public spaces?”**

To unpack this research question, I distinguish three dimensions that need to be examined. First, I turn to involved actors and factors that influence how a public space comes about and how accessibility is constructed in it. Second, I zoom in on how the discourse in urban policies, which lay out the framework of a public space, reflects how accessibility is conceived to be part of urban planning. Third, I use autoethnographic fieldwork to contextualize how it is to use a public space as a wheelchair user. Experiencing accessibility disparity indicates how inclusive the public space is (Vale et. al, 2017, P.60).

These dimensions are reflected in the following **sub-questions**:

- Which actors and factors are instrumental for physical accessibility in the public space?
- How is physical accessibility integrated in urban policies?
- How does the design of the public space influence a wheelchair user's accessibility experience?

## Methodology

From mid-March 2021 until June 2021, I conducted qualitative research to answer the research questions as formulated in the introduction. Qualitative research enabled me to dig deeper into the researched context and to identify causing underlying mechanisms. I employed three complementary qualitative research methods to compare two case studies.

By comparing two case studies, I could learn from how different accessibility approaches lead to different accessibility results in the public space. Studying the case studies had the simple objective of learning how accessibility was constructed in the public space.

Therefore, I consider it irrelevant to name the cities that formed my case studies. Naming them would distract from the lessons they generously and patiently taught me. That is why I refer to them as Case Study 1 (CS1) and Case Study 2 (CS2). Both cities rank in the top ten of the Netherlands' biggest cities and recently underwent a redevelopment of their city centers or are in the process of redeveloping.

I employed three qualitative research methods, each method was applied to each case study. I started with autoethnographic fieldwork to experience two case studies' accessibility of the public space. Next, I interviewed policy makers, designers, and other involved actors that influence how accessibility is constructed in the public space. Additionally, I reviewed several policy documents to understand how accessibility was part of how the public space was envisioned.

## 2. Theoretical framework

The city produces opportunities to generate attention for minorities. The presence of a diverse population illuminates a variety of struggles (Sassen, 2010, P.8). In the Netherlands persons with physical disabilities form a minority (CBS, 2020). In this theoretical framework, I attribute attention to what is understood to entail access to public space, which theoretical models of disability can be used to approach accessibility and how design influences accessibility of the public space.

### 2.1. Access to public space

What is an accessible space? According to Whyte (2009), a commonsense interpretation would be that the public space is useable by the public in the same manner as any public space, with the same freedoms and the same constraints (P.163). Accessibility as a concept changes meaning across contexts and with people's preconceived notions about what accessibility is. Concepts do not merely exist as fixed ideas, they are laden with meaning (Sorensen, 2020, P.80).

For persons with disabilities, accessibility relates to the degree in which a space can be used with the same rights, privileges, and services as persons without disabilities (Pineda, 2020). In the physical world, cities provide barriers to persons with disabilities. Eliminating these barriers, requires extended time and efforts (Frias-López & Queipo-de-Llano, 2020, P.17). Producing an accessible society is one of the important tasks of local authorities to ensure the quality of the public environment (Stauskis, 2018, P.104). Access, however, does not merely exist, it should be fought for, legally secured, physically measured and politically protected (Titchkosky, 2011, P.3-4).

When it comes to accessibility of the public space for persons with disabilities, planning, design and planning documents turn a blind eye to including what persons with

disabilities actually need and how they use the space (Hall & Wilton, 2017, P.739). The result of this neglect is not intended, but results from a path depended process (Winner, 1980). Continuing on a path depended manner of planning, will not improve accessibility and inclusivity. Bates (2018) argues that societal awareness and acceptance of people with disabilities emerge when seeing persons with disabilities use the public space.

The lack of perceiving persons with disabilities as users of a space, relates to Schinkel's (2013) notion of the inside and outside society. Groups who are seen as a minority, are compared to the 'normal', rather than being part of the normal. The consequence is that social problems that affect this perceived minority, are not socially acknowledged and a sense of responsibility remains absent (P.1156).

## **2.2. Perceiving disability in society**

A person's disability emerges when there is a negotiation between what the body can do and what the spatial norms that are adhered in planning, require it to do (Jazeel, 2009, P.168; Hall & Wilton, P.739; Titchkosky, 2011). The two most used theoretical models in disability studies are the medical and social model. The medical model of disability treats a disability as a medical condition that requires health care to 'fix'. The disability, and the consequences that emerge, are attributed to the individual. Inaccessibility, then, is the problem of the disabled body and not of society. The person with a disability is considered to be divergent and is not considered as part of the 'normal'. Inaccessible cities cohere with the medical model, as they are not inclusive to bodies that are not considered to be 'typical' (Bromley et al. 2007. p230).

In contrast to the medical model, the social model states the opposite. It is not the body that is inherently disabled, but society that is disabling persons with disabilities. In the social model, a disability is not something that is abnormal and does not need to be fixed. It is

society that is considered to exclude persons with disabilities, because it is structured to fit a typical understanding of what a body is supposed to do (Symeonidou, 2009). The social model of disability seeks to explain the root of inaccessibility as being produced in society, therefore, making it society's problem and requiring societal responsibility (Hendren, 2020, P15).

Although the social and medical model are widely used to situate disability studies, there is a need to look beyond these models. Approaching disability and accessibility from these perspectives, ignores the intersectionality of a person's identity that, too, influences how accessibility is experienced (Imrie, 2007, P.634). How are multilayered accessibility needs represented in policy that contributes to accessibility in the public space?

### **2.3. Policy influence**

Accessibility can be seen as a wicked problem that does not belong to one type of actor, but to multiple. Who these actors are, is often hard to distinguish and only becomes apparent when a problem becomes poignant (De Lange & De Waal, 2013, P.3). When wicked problems are at play, society is expected to claim public means and influence policy to ignite the urban change they would like to see (Cole, 2010).

However, even when accessibility is incorporated in policy and regulatory initiatives, it is no guarantee that accessibility will improve. Gleeson (2001) argues that their poor implementation and unevaluated performance, contribute to holding up the inaccessible status quo in policy and in the city. The municipality is not the only actor that can initiate an approach to solving social problems. Determining which problems get prioritized over others, occurs by influence of both internal and external actors (Kingdon, 2011, P.45-49). One significant actor that has a say in what gets prioritized in the city, is represented as the marketplace (Sassen, 2010).

Policy making is a factor that upholds the status quo of a city, which excludes persons with disabilities (Gleeson, 2001). The ‘average citizen’ is treated as the status quo (Baiocchi & Ganuza, 2017, P.41). Hendren (2020) explains this as the aggregative fallacy (P.11), as it erroneously assumes that what is characteristically true for a group is true for every individual in that group. This aggregative fallacy becomes a problem in the physical sense, when it is applied to design in the public space.

## **2.4. Designing the public space**

The representations of what a space should look like, embody enduring assumptions about who is supposed to use a space and how this body should function in the public space. This kind of design that forms the public space, too, sustains the status quo through which disability is created (Hall & Wilton, 2017, P.739).

Vale et al. (2017) describe how several studies illuminate that the built environment, often designed by non-disabled persons, creates more barriers for people with mobility impairments than people without them (P.45). The mismatch between how persons with disabilities use the environment, and how the environment is shaped in a rigid way that scripts how it is ought to be used, results in the disability (Hendren, 2020, P.14-15).

Scripts that are incorporated in the design of objects, prescribe who can or cannot use the design as intended by the designer. These prescriptions play an important role in who can use the designed object, how the objects can influence the social experience and who cannot be part of this. Yaneva (2009) explains how the ones who can use the objects, feel bounded by their collective use (p.275-276). Extending this understanding of design to accessibility, persons with disability who cannot use the public space, are excluded from collective social bonds derived from sharing the same experience.

According to Blaszczyk et. al (2020) persons with disabilities mainly experience exclusion in the public space due to used materialities in design. Gravel and grass, for example, render inaccessible spaces to wheelchair users. The consequence of disabling environmental design is that disabled persons become stigmatized as outsiders (Bromley et. al., 2007, P.230; Gleeson, 2001).

Accessibility needs to be designed in a way that public space is usable by persons with disabilities, rather than being thought of as “a series of individual objects that can be constructed and checked off a list of minimum requirements” (Hartblay, 2017, P.10). Rebernik et. al (2020) emphasize the importance of urban designers’ understanding of disability as “a complex, diverse, and dynamic phenomenon, one that depends on various individual, socio-cultural, environmental, and other contextual factors (P.20)”

### 3. Constructing accessibility in the public space

In this chapter I draw from theoretical perspectives on (constructing) accessibility and empirical data gathered with qualitative research in two Dutch cities, to describe how accessibility is constructed in public spaces. I start with describing which actors and factors are influential in constructing accessibility. Next, I describe how accessibility is understood and which meaning is given to accessibility for persons with disabilities. Finally, I shed light on how accessibility influences the use of public spaces by wheelchair users.

#### 3.1. The actors and factors

The first, and probably most obvious, influence on accessibility comes from a political framework. National and local politics are influential for how much priority is given to integrating accessibility in the public space. The respondents of the empirical research appointed the national government as a key actor. The Ministry of Health, Welfare and Sport is responsible for implementing the Convention on the Rights of Persons with Disabilities (CRPD). The respondents agreed that the lack of legislation from a national framework, resulted in soft guidelines in the municipality. One national obstacle for municipalities to push for accessibility is the Building Code (Bouwbesluit)<sup>2</sup>. This Building Code attributes a paragraph to accessibility, which does not concord to accessibility as stated in the CRPD (Laan, 2019). An accessibility expert in CS1 explained that the CRPD is not used as a legal tool and this causes disparities in accessibility across municipalities:

“[The CRPD] is butter soft because there are no criteria or what so ever demanded. It says that accessibility of buildings, public space and development processes should be plussed – in my words – according to reasonable accommodation. ... In reality, some municipalities

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<sup>2</sup> The Building Code is the national law that regards what regulations are required for the built environment and belongs to the jurisdiction of the Ministry of Interior and Kingdom Relations.



are frontrunners [in accessibility] and some municipalities just do what they have done for years.”

As is shown in the quote of the accessibility expert, the concept of ‘reasonable accommodation ... not imposing a disproportionate and or undue burden’ (UN, 2006, p4) is an obstacle to accessibility. The concept of reasonable accommodation provides private parties a shield to hide behind, instead of stimulating them to incorporate accessibility. In response, Frias-Lopez & Queipo-de-Llano (2020) call for a “greater coordination and policy planning for more effective implementation” (P17).

Scaling down from national politics, local politics are considered to influence the accessibility course of a municipality. The municipality’s city council is regarded to hold the keys to an accessible city, because the national guidelines and accessibility frameworks are not demanding enough. According to an area manager of CS1: “this determines which budget is given to accessibility and the budget allocation signals to other departments within the municipality whether accessibility is important.”

### **Policy makers**

Policy makers form the next category of actors. A municipality, especially if the city counts a few hundred thousand people, has many policy domains. Which policy makers are concerned with accessibility determines how accessibility is constructed in the public space.

In CS1, accessibility is mostly expected to be promoted by one policy maker that is concerned with the social domain, and is responsible for everything encompassing diversity in a city. In CS2, accessibility is part of the policy makers’ work which solely concerns the public space. Within the team, one policy maker is specifically concerned with accessibility. During the interview he explained that the fact that their municipality attributes such rooted

attention to accessibility is because it is engrossed in their DNA. Why this was the case, he did not know.

The policy makers and project leaders decide who gets a seat at the table when the public space is (re)developed. The earlier accessibility is represented, the better it is grounded in constructing it in the public space. However, it is no guarantee that it will be executed in the right way. There are many disciplines represented in producing a public space, each discipline has its own interests and priorities. Accessibility competes in both case studies with different domains, instead of being integral to them. One accessibility expert in CS1 elaborated on this:

“It very well may be that it is viewed differently from political interests. Or because business owners or other interests I have no overview on, are at play. If you have to make a choice that is not popular with another group, which you need on a different front, then I understand the game of deciding who will benefit.”

Furthermore, the respondents identified a fine balance between coercive legislation and stimulating intrinsic motivation as an important factor on accessibility. Simply acknowledging that accessibility should be a subject in the public space is not enough. As a public servant of CS1, elaborated: “Then it will always be up to a person, a project leader, a team, to see how they will implement it. I can only imagine, as a suggestion, as far as we do not have that. To have a specialist you can rely on who really knows what he or she is doing.”

### **Public space designers**

When it comes to accessibility for persons with disabilities, design is an important determinant of how someone can use the public space. In each case study the public space designers incorporated accessibility from a different point of view. In CS1 the designers constructed accessibility in the design by drawing on the outline of the project brief and from

the experience of a wheelchair user that was part of the project group. In CS2 the designer drew from experience gathered during awareness events organized by the municipality to provide its employees with opportunities to understand how the public space is experienced by persons with disabilities, and from a handbook for accessibility in the public space, developed by the municipality.

Accessibility does not stop in the sketch designs at the beginning of a project. A project, after all, is just “abstracted out of the ordinary city” (Jacobs, 1961, P.392). The technical design aspect is as influential as the sketch. In terms of accessibility, universal design is sought out in designing the public space. In the technical phase, accessibility can be influenced by the natural world. In CS1 there turned out to be a natural height difference that had to be incorporated in the design. To incorporate accessibility, ramps were installed. Universal design ensures that something can be used by all people in equal ways, without adjustments (UN, 2006, p4).

Next, accessibility can be incorporated in future design processes if designers incorporate a feedback mechanism in their work in which gathered feedback returns to them when a space is being used. This feedback is used to improve the situation and to avoid repetitions in further projects.

The public space designer in CS2 illustrated how something can be designed that was thought to be accessible, but was not in practice:

“One time I designed a parking lot with inaccessible grass concrete tiles. I thought it would not interfere with accessibility, but afterwards I heard it did. Now we keep that into account when we design parking spaces for wheelchair accessible vehicles.”

## **Accessibility experts**

Accessibility is a concept that is best executed, if it is detailed enough (Frias-López & Queipo-de-Llano, 2020). Technical experts, such as architects and engineers, are expected to hold the knowledge of what accessibility is.

Simultaneously, accessibility expertise is expected to come from the marketplace. However, even when accessibility experts are involved in constructing accessibility in the public space, it is no guarantee that the detailed accessibility notions they provide, and the policy that is constituted, will get implemented, and even if they are, there is no guarantee it will be implemented in the right way. As Whyte (2009) notes, formulating guidelines is an art of itself. There are different believes in regard to how extensive guidelines should be formulated and by whom (P.235).

In CS1 a civil servant concerned with accessibility explains how projects are often outsourced and that it is up to the municipality to say “they want attention for accessibility and then you leave it up to the nature of the project, the involved actors, project team and the developer ... to fill it in”.

A policy maker in CS1, endorses the idea of accessibility knowledge coming from the marketplace. In fact, she ascribes a little of the lack of accessibility in cities to the lack of accessibility expertise in the marketplace. “I think [accessibility knowledge] is lacking. That is something that belongs to the marketplace and not to the municipality, because you do not want to test your own product. That is something that should be developed in the marketplace, there have to be more specialists who can test a design on accessibility.”

It is questionable, though, if accessibility should be trusted to thrive in the hands of the marketplace. “Mixture is too vital to leave up to the developer, or to the presumably objective marketplace” (Whyte, 2009, P.90).

The quest for accessibility to derive from the marketplace, transfers to signaling problems and solutions as well. In CS2 the public space designer explained that it was not up to the municipality to do research into how the public space can be made more accessible, but that innovations should come from the marketplace, reach the policy makers or other actors and then be incorporated in the public space.

Expecting accessibility initiatives and knowledge to come from the marketplace, is a stark contrast of the active government seeking to be an example to the private domain in a society (UN, 2006).

### **Executioners**

When it comes to physical accessibility being physically part of the public space, executioners of the plans are equally important. Developers, plumbers and construction workers do not always execute the plans in accordance to the designed accessibility features. During the interviews, respondents shared multiple examples of situations in which accessibility was part of the design processes and of ways in which was invested to make sure all actors who were involved in developing the public space, understood the importance of accessibility. Then, spaces turned out to be inaccessible due to a change during construction. A municipality can actively check on whether public spaces, used by private parties are accessible to ensure equal terms of inclusion, but often choose to take on a neutral position (Chiodelli & Moroni, 2014, P.176).

In CS1 and CS2, accessibility and experience experts, are structurally involved in assessing accessibility when a project in the public space is finished. An accessibility expert in CS1 explained how the municipality built in a control mechanism, to minimize these risks: “When [the project] is realized, we visit it with the project leader and check if it is indeed

constructed as planned. It happens that this is not the case when you have a stubborn road worker, who thinks ‘this makes more sense’, while it is not for someone with a disability.”

### **Public space users**

Other actors who influence the accessibility are public space users. Within this category, a division was made during the interviews and in policy documents. Persons with disabilities and persons without disabilities, are mostly mentioned as mutually exclusive public space users.

Even though persons with disabilities are part of the community, according to the respondents, the community did not reflect the voice of persons with disabilities as such.

Persons with disabilities were often talked about as the beneficiaries or the people getting negatively affected by inaccessibility. Persons with disabilities are also expected to raise their hand, tell the municipality what is inaccessible and to keep advocating for their rights. As will become apparent in the next section, this is a contrast with how they are talked about in policy, as a passive group that needs advocating and needs to be taken care of.

Persons without disabilities are considered to create obstacles in the public space, such as parking their bike or taking out trash. The case studies try to limit this behavior with different approaches. In CS2 a public approach is chosen (figure 1) to create awareness among the public about ‘why’, they should do ‘what’. The municipality placed a sign with the text ‘please keep passage free due to access disabled toilet’ and an arrow indicating the passage. Below this sign, there is another sign that tells cyclists to store their bicycles in racks. The municipality could have dubbed the second sign as sufficient. It instructs people what to do with their bicycle and that is the goal. However, with the first sign, cyclists are made aware

of why they should do so. They are made aware of the consequences of their behavior: block access for other people, who are just as entitled to use the public space.



*Figure 1 – Accessible public toilet with sign to keep passage free. Name and logo blurred for anonymity*

In CS1, a different approach is employed. One of the area managers I spoke to explains that the municipality sends general letters to its citizens in which is explained why they are asked not to park their bicycles in the middle of the sidewalk. “The letter starts with an explanation of why we [sent the letter], that disabled people also use the sidewalk. That first responders need free passage. That people with strollers also need to pass on the sidewalks.

Parked bicycles restrain a wheelchair user’s use of the public space in more ways. In figure 2 a parked bicycle in CS2 blocks the only sloped part of the sidewalk to reach a restaurant. The owner of the bicycle was viewing the menu of the restaurant a few meters to the left. Her (unconscious) behavior lead to incapacitating someone else’s independence. Her not knowing or not being aware of it, provided an example of how unconscious behavior can contribute to the (in)accessibility of a place.





*Figure 2 – In CS2, Woman parks bike on only sloped part of sidewalk, blocking access to wheelchair users*

The next example is placing trash containers in the middle of sidewalks. The image in figure 3 displays a trash container that is placed in the middle of the sidewalk. A wheelchair user has two options when an obstacle like this occurs. The first choice is to ask someone to remove it, which forces a wheelchair user to be interdependent on the aid of other public space users. The second is to make a detour and/or use the road instead of the sidewalk. The latter results into unsafe traffic situations and requires the wheelchair user to put in more effort than a non-wheelchair user (Vale et. al, 2017).



*Figure 3 – Trash container on sidewalk hinders accessibility*

### **Restaurant and store owners and other private parties**

Private parties emerged earlier in this chapter as influential on how accessibility is constructed in the public space. Private parties tie into weighing in on accessibility because of their contractual relationship with the municipality. A public servant of CS1 elaborates on this relationship: “We talked about public space where we, as a municipality, have everything to say about. Then, there is public space we construct together with other parties. ... Then you have to decide together, because the budget is shared. You have to come to agreements early



on in the process, in the contract between municipality and developer, to incorporate inclusivity.”

The dynamics between private and public space influence how accessibility is experienced in the public space, as well. During the autoethnographic fieldwork, a contrast emerged between accessibility in the public space without private influences and with private influence.

In CS1 the popular terrace square of the city, which was located on an elevated platform, illuminated a distinction between who was and who was not expected to be there. The platform was divided in half. There were two wheelchair accessible ramps integrated in the design of the platform, but both platforms lead to the same half of the platform. Most of the tables on this accessible half were too high to be used by a wheelchair user (figure 4). There were a few low tables, but they were hard to reach, not without having to navigate around the high tables and grass. I examined possibilities to get to the other half of the platform, where all the tables were low and with more restaurant choices. After walking around the entire platform I had to conclude that the only way to do this as a wheelchair user, was to enter the platform from the side of the ramp, make my way to where the platform was divided with fences, catch the attention from someone that worked there and kindly ask if it is possible to move one of the fences so I can enter the area (figure 5). I noticed there were concrete plant boxes placed in front of the fences at one side (figure 6), which indicated to me that the fences were not to be removed.



*Figure 4 – Ramp to ascend platform, leads to high tables and grass strips*



*Figure 5 – Fences dividing platform with terraces*



*Figure 6 – Steps onto the platform and concrete plant boxes in front of the fences*

The way the restaurants used the platform for their terraces communicated a message to the public. The terraces had steps, the fences were inviting people to ‘be there’, and other attributes communicated to the visitors what was expected from them. They knew which directions to follow, where to enter, where to leave, where to disinfect their hands, and most of all, they knew they were welcome (figure 7). As a wheelchair user, however, there

was no sign of being expected to be part of the visiting crowd. There was no communication telling you what you had to do if you wanted to be seated. Afterwards, it struck me that as I was walking around the platform, it was clear that I was looking for a possibility to enter it, yet no one of the staff walking around asked me if I wanted to sit there. In retrospect, this made me feel unwelcome.



*Figure 7 - Compilation of terrace entrances with steps*

During one of the interviews with an accessibility advocate in CS1, I learned that there is an active debate about installing an accessible public toilet on the platform. The debate is a two year long ‘conversation’ between the municipality, restaurant owners that are located around the platform and disability advocates. Restaurant owners resist the installment because it would interfere with the aesthetics of the platform. The proposed alternative is that if wheelchair users want to use an accessible toilet, they could go to a hotel across the platform where the doorman would let them use the bathroom. The required extra steps that need to be

taken by wheelchair users, signals that wheelchair users are expected to perform more actions than the common ritual of toilet use (Bichard, 2008).

The situation above illustrates how private parties influence how accessibility of the public space is constituted. Wheelchair users are required to ask permission to use the toilet, put in more effort to do so, depend on others and using an accessible toilet out of sight. This situation clashes with the concept of equal use of the public space. Wheelchair users are experienced with ‘inconvenience’ as part of their routine (Bromley, 2007, P.240) as they have less choice of using facilities in the public space than non-wheelchair users (Vale et al., 2017, P54). Omitting visible use of the public space by wheelchair users is a missed opportunity to stimulate positive social attitudes, foster awareness and acceptance of disability (Bates, 2018, P.994).

### **Flows and directions**

Summarizing the force of actors and factors in relation to accessibility of the public space, three ‘flows’ are distinguishable. The first one being top down, from the administrators to the policy makers, to the actors involved in producing a public space, to the people using a space and being benefitted by accessibility. The second one is bottom up. From the beneficiaries and advocates who signal issues to the municipality, that reacts to it. The feedback loop is an important part of this factor. And if done correctly, a durable component that filters out errors in future development processes. The third direction is a horizontal practice in which involved actors influence each other.

### **3.2. How accessibility is understood and what meaning is given to it**

What is understood to pertain accessibility varies widely among respondents. The variety of their understanding of accessibility and the meaning that is attributed to it, equally cause a variety of accessibility outcomes.

The first aspect where accessibility as a concept is constructed, is in policy documents. What is written about accessibility is the starting point of different actors that eventually contribute to constructing accessibility in the public space.

Starting at the national level, two elements stand out in the progress report, produced by the Ministry of Health, on implementing the CRPD. The title of the program developed to implement the CRPD is ‘Onbeperkt meedoen’, which translates to ‘participate with’. This phrasing indicates that persons with disabilities participate *besides* persons without disabilities, who are treated as the status quo. Next, the report indicates that accessibility of the public space will be improved by providing municipalities with research into stimulating health in the public space (VWS, 2021, P.44). This approach, too, coincides with the medical model of disability, in which disability is seen as a deficient of the human body that needs to be fixed and not as a construct produced by the disabling society.

Scaling down to the local level, the coalition agreements of the case studies mention accessibility as a concept, without defining what is understood to be accessibility or what its purpose is supposed to be. CS1 describes that “Accessibility for everyone is equally important, just like creating challenging green spaces.” (P.18). In CS1 accessibility is described as a general concept, without elaborating on what accessibility is. A general description is not conducive to the realization of accessibility (Frias-López & Queipo-de-Llano, 2020). “Ambiguity as to what the developer must provide is an invitation to provide little” (Whyte, 2009, P.114).

In CS2 the accessibility is described “so that people who need care, can find accessible facilities.” (P.8). This description situates accessibility within the medical model of disability by coupling accessibility to the individual’s health, instead of a societal responsibility. This description in the coalition agreement is vague, but is not representative for how actors on a policy level construct accessibility in the public space. CS2 developed a detailed handbook

for accessibility in the public space. During the interviews it became clear that the internal actors who were concerned with producing the public space, knew this handbook and followed it every step.

In CS1 a development of detailed accessibility guidelines is in the making. This was not the case at the time of the research for this thesis and could not be included in the data gathering. Policy documents that were in place, however, indicate how accessibility is currently presented.

CS1 developed a policy that lays out a plan to give back the city to pedestrians. Accessibility is repeated in multiple sections. In one section: ‘Especially for vulnerable groups, we increase their life world and facilitate their participation in society’ (2020. P13). This sentence explains the goal to make walking more attractive and accessible around hubs in the city. The chosen wording ‘vulnerable groups’, ‘we increase ... and facilitate their participation in society’, bears the connotation that persons with disabilities need protection and need to be enabled and facilitated to live their life. A distinction between the active ‘us’ and the passive ‘them’ emerges. Creating a division between an inside and outside group, capacitates social awareness and a sense of collective responsibility for the social problems of a group (Schinkel, 2013).

Another example of how language can give meaning to the understanding of accessibility, can be found in the destination plan of the city center of Case Study 2. ‘We improve the walkability and decrease barriers. ... We keep an eye out for invalids’ (2016. P45). The used Dutch word in this document is ‘mindervalide’, which translates to ‘less valid’. This brief mentioning was the only mentioning of people with disabilities being part of the envisioned end user. The choice of the word ‘mindervalide’ is unfortunate, because of the literal meaning of the word. The use of language in policy documents is exemplar of how persons with disabilities are viewed, how accessibility is seen as something that is done by



‘us’ for ‘them’, and what rights and freedoms that accessibility ‘gives’ ‘them’. One could argue that this is irrelevant to how a place is designed, but if a designer reads about the envisioned end user of a public space, and that description portrays persons with disabilities as ‘others’, for whom accessibility should be added, there is no guarantee that equal use will be thought of.

### **Accessible ‘for all’**

The next common meaning that is attributed to accessibility, is that it is something that benefits ‘all’. If a space is planned with accessibility for persons with disabilities in mind, it is expected to function better for all public space users (Whyte, 2009, P116). One of the policy makers in CS1 elaborates on this idea, “An advantage of designing for people in a wheelchair, walking cane or stroller – they need more space in general. ... So it will not disadvantage others. It reinforces each other. That makes it an easier message to proclaim, then when it would [disadvantage others].”

However, claiming that a space accessible for persons with disabilities is accessible for all people, contains a few fallacies. First, it portrays that all persons with disabilities are homogenous. However, depending on the type of disability, and even within a type of disability, accessibility of the public space is experienced differently (Błaszczyc et. al, 2020). Furthermore, the right to accessibility is compared to the question whether it would infringe on ‘other people’s’ experience. This comparison holds the experience of non-wheelchair users as the status quo, instead of holding the goal of a shareable public space as the constant.

### **3.3. The influence of public space design on accessibility experience**

The experience of accessibility in the public space as a wheelchair user provides perspective on how policy and design amount to the experience of physical accessibility.

During my autoethnographic fieldwork, I encountered exemplar situations in which design influenced my accessibility experience.

Arriving at the case studies, the parking space was the first design element I encountered. In CS2 the closest parking space (figure 8) was not apt to be safely used. It was too short for a straight ascending or descending of the ramp as a wheelchair user and it forced me to use the car road. In comparison, in CS1 I encountered a different design of the parking space (figure 9). With this design, there was ample room to maneuver with the wheelchair, I was not experiencing traffic safety issues and it was easy to find my way to the sidewalk, as I did not have to make a detour.



*Figure 8 – Parking Space in CS2*



*Figure 9 – Parking Space in CS1*



In CS1 I encountered the same design of public trash containers throughout the city center. The trash container stated explicitly how it is ought to be used: by using your foot (figure 10). Not being able to use trash amenities is something I am used to, being confronted by it so explicitly, was new for me. This message created a clash between my body's ability and what its abilities are supposed to be according to the status quo, as envisioned in the design of the trash container. It was not an emotional confrontation I was experiencing, rather a frustration resulting from another situation in which I was not expected to do something independently.



*Figure 10 – Trash container with foot pedal*

The last example I turn to, is the use of public information. In CS2 I encountered a tall terminal I understood to be some kind of tool for visitors to gather information or to do something (figure 11). What kind of information it provided or what one could do with the terminal, was knowledge I could not gather as I could not reach it and I could not see the screen (figure 12). Maybe it was broadcasting news, sales or warnings – I could only speculate. After encountering a few other similar terminals, I noticed it had an extra screen at the top with information. I could see the screen was communicating something from a distance, but coming closer it was too high to see what it was (figure 11). The design of this screen created a situation in which I had to depend on others. If I wanted or needed to know what was visible on the screen, someone else had to tell me. Using digital communication tools in the public space, requires an additional implementation of how it ties into accessibility. The use of digital information provides different accessibility experience than in the context of physical material (Rebernik et. al, 2020, P.20)



*Figure 11 – Information terminal in CS2*

*Figure 12 – Screen and button unreachable*

Next, I noticed how a manual signpost helped public space users navigate their surroundings (figure 13). I noticed how one of the signs pointed towards an accessible toilet by using the universal wheelchair icon. The presence of the wheelchair icon is, of course, very convenient for wheelchair users. Looking for an accessible toilet becomes less of a quest and more a matter of following directions. Another function of this icon is that it normalizes the presence of accessible toilets.



*Figure 13 – Signpost with wheelchair accessible bathroom*

## 4. Conclusion and discussion

The lack of accessibility in Dutch public spaces creates societal barriers to persons with disabilities (Vermeij & Hamelink, 2021). In The Netherlands municipalities approach implementing the United Nations' Convention on the Rights of Persons with Disabilities (CRPD) in different ways.

This thesis focused on the question “How is accessibility constructed in the public space?” The purpose of the research was to uncover which actors and factors contribute to the construction of accessibility in the public space, how policy frames accessibility discourse and how policy and design amount to the accessibility experience of a wheelchair user.

Accessibility of the public space depends on a multitude of actors and factors, that are often intertwined with each other. In constructing accessibility in the public space, a municipality works with both internal and external actors (Kingdon, ). These actors vary from national to local politics, from policy makers and experts in a certain discipline to general key figures between the municipality and the public. Next to the actors that officially have a seat at the table to construct the public space, public space users, who are often unaware of their accessibility influence, are as instrumental.

The interviewed respondents agreed on the influence political attention for accessibility has on agenda setting of the municipality and policy makers. The current Dutch policy frames accessibility in concordance to the medical model of disability. According to the medical model, a disability is the individual's problem and is seen as a health issue that needs to be improved. It frames people with disabilities as ‘others’ and places their social problems ‘outside’ the ‘normal’ society. As political attention for accessibility influences prioritization of accessibility by other actors, the framing of accessibility can be expected to influence *how* these actors implement accessibility.

Next, accessibility holds different understandings among involved actors. The common thread is that accessibility should be done for ‘all’. There is no consensus on how this is supposed to be achieved. The accessibility experts of both case studies believe a detailed explication is the best way to ensure all parties understand what accessibility is. As Frias-López & Queipo-de-Llano (2020) demonstrate, detailed accessibility presence in policy, leads to better accessibility in physical spaces. General policy makers, however, believe defining accessibility should be left to the marketplace and technical parties that constitute the public space.

Accessibility has a fragile position in the chain of producing a public space. There are many actors involved and interests at play. When accessibility is not integral to every phase and not part of the collective awareness, there is no guarantee that whatever is designed with the intention of being accessible, will be constituted as such.

Subsequently, design of the public space creates a narrative of who is supposed to be in and use the public space, and how the public space is ought to be used (Yaneva, 2009). Designing features that are attuned to one type of body, creates social and physical barriers to persons with disabilities.

In conclusion, how accessibility is defined, what meaning is given to it by those who construct it and the way it is claimed as a societal responsibility, influences how accessibility is constructed in the public space. As Jane Jacobs (1961) wisely noted “Cities have the capability of providing something for everybody, only because, and only when, they are created by everybody (P.238).”

## Discussion

How accessibility is constructed is an extremely complex topic that is intricated with different societal domains and influenced by forces that could not be comprehended in the scope of this thesis. For example, although I described a national context, I did not consider the perspectives of national respondents. By extension, this applies to the perspectives of politicians, public space users and other actors, such as store owners and constructors.

In developing the framework for this thesis, I encountered a lack of academic research into Dutch accessibility. Research into Dutch accessibility was only present in the form of policy reviews and research into the lived experience of persons with disabilities. Design of the public space was not considered as a factor. Although I did discuss all three aspects, my research focused on *how* the interplay of these dimensions resulted in the problem. To me, the problem was not the lived experience of inaccessibility, but how this experience was caused.

To truly understand how accessibility is constructed in the public space, it is my understanding that further research should be conducted in more case studies and by simultaneously zooming in on the dynamics between involved actors and how they incorporate accessibility from beginning to end.

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