

Women's
cycling groups,
mobility,
and women's
empowerment

Cycling in the *Freedom* Yard

A case study
with the
Sudanese
Female Cycling
Initiative



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I think [the bicycle] has done more to emancipate women than any one thing in the world. I rejoice every time I see a woman ride by on a bike. It gives her a feeling of self-reliance and independence the moment she takes her seat; and away she goes, the picture of untrammelled womanhood.

Susan B. Anthony, American civil rights leader, 1896

The cycling is a way to show, we're here, we're strong. We're strong, we can do everything, we are capable of doing everything, we have a mind, we can think, we can do everything. Women can do everything.

Sham*, Sudanese cyclist, 2022

Summary

This thesis shows (i) how cycling carries a wide range of meanings beyond movement, sports, or political activism, and suggests that mobility, and cycling in particular, should be approached as a process of joy and widening what people deem themselves capable of, (ii) how approaching mobility in relation to women's empowerment as a process that happens at the individual level is limited and a more relational or communal approach appears to be more fitting and (iii) the strengths and limitations of analysing this conjunction of women's empowerment and motility based on the five forms of power (*power over, power to, power with, power within, power through*).

By combining women's empowerment and motility in a conceptual framework, this research provides a better understanding of how distinct aspects of motility (access, competences, appropriation) interact with different aspects of women's empowerment (resources, agency, achievements). Through participatory observation with a women's cycling group in Khartoum, Sudan, I examine how cycling and being a member of an all-women cycling group is experienced in the context of gendered motility and women's empowerment.

For resources and access, practical obstacles to mobility such as infrastructure and availability of reliable materials restrict access to cycling for women, as well as concerns about a family's reputation in the community. Factors that increase access are found in work, travel, and upbringing. The cycling group plays a significant role in this regard as a facilitator of material resources, including a safe space to cycle in.

For agency and competences, important competences to develop aside from practical competences such as learning how to ride a bike and navigate in the city relate mostly to learning about one's own capabilities and developing the confidence to move through the city as a cyclist. For this, the cycling group serves as a network of teachers. Moreover, it is important to learn how to manage reactions, both verbally and non-verbally. The group serves as a teacher and buffer in this regard, and additionally builds solidarity and legitimacy through communal rides.

For achievements and appropriation, the integration of cycling into women's lives not only increases their actualised mobility in the form of changed cycling behaviour and localities to access, but moreover installs a sense of confidence in one's own abilities because cycling represents having time for oneself, a sense of control and the freedom to move where you want in a self-powered way. There are also changes in the way women relate to social norms about what women in general, and they themselves, are capable of. In this context, the group serves as a catalyst, a network of inspiration and examples of achievements.

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1 Introduction

Sometime in early 2017, as I was preparing for traveling through Sudan, I stumbled upon a short news article online: Dutch bicycles had been donated to a women's cycling group in Khartoum, Sudan. The bikes, the article said, would be used to empower the women in the group. This piqued my interest – who were these women? How would the bike empower them? Where did they cycle? Were there cycling paths in Sudan? How did people react to them?

I remembered all women travellers that I had connected with over the years, many of whom were traveling by bicycle. I remembered a book that I had heard about, on the historical connection between women's cycling and Western feminism. Would these women see themselves fitting into that tradition? That one short article on donated bicycles planted the seed of something that ultimately grew into this research.

I tried to find out more about the group of women that had received the bikes. They turned out to be called the Sudanese Female Cycling Initiative. The founder, a Sudanese woman, had worked in The Netherlands before, which is how she had connected to the organisation that had donated the bicycles. She had founded the cycling group a couple of months prior and had already found a dedicated core of members around her. A group of women that gathered every week to learn how to cycle, together.

They were cycling in a place called the Freedom Yard.

Mobility is a heavily gendered process: public space is not a gender-neutral place. This means that women often face obstacles regarding their mobility, in the sense that they are limited in where they can go and how they can move around, facing physical impediments, disapproval or restrictive social norms, sometimes legal restrictions on what places they see as accessible or appropriate for them to be in. It also has more invisible limitations, in the sense that it limits women from imagining themselves in certain places and, by extent, in certain parts of public life.

In recent years, attention for this topic in research, urban planning and policy making has increased. There seems to be a growing attention for women's mobility initiatives – as activists for climate, alternatives to car-centred infrastructure and in the context of sustainable city narratives, women's sports clubs, a political statement, or an explicit way to women's empowerment (see, for example: Free to Run, 2019; K.C, 2019; Sakkaf, al, 2015; World Bicycle Relief, 2018).

The empowerment of women in relation to mobility is often framed in a linear way: more mobility and movement in public space is considered an indicator of a free empowered woman (see for example: Mahmud et al., 2012; Nazier & Ramadan, 2018; van der Kloof et al., 2014). This reduces mobility to an indicator that is only impactful or relevant if it is observable as movement in the public space. Doing

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so disregards whether that mobility is the result of a choice: having the option to be mobile or not. Movement in public space might be an involuntary act, in the same way not moving through public space can be (Hanson, 2010). It also disregards the significance of mobility beyond the act of moving. In other words, this approach oversimplifies the intricate interactions between mobility and women's empowerment.

This approach also disregards the way in which this mobility and empowerment are interrelated. It does not capture the way mobility, like empowerment, is shaped by surroundings, norms, and context (Cresswell & Uteng, 2012). The way context shapes what women are allowed to do and what it means when they do something that goes against prevailing norms – like cycling.

1.1 Research questions

I aim to contribute to this research gap and to shed light on how this process works. The objective of this research is therefore to understand the relationship between women's empowerment and mobility, and the role of cycling and women's cycling groups in that interaction.

This thesis contributes to (i) understanding the significance of cycling and mobility in the context of women's empowerment, (ii) exploring the impact of a women's cycling group on the mobility of women and the empowerment of women, and (iii) conceptualising how mobility and women's empowerment interact and how to approach their interaction on a theoretical level.

For the specific case of the Sudanese Female Cycling Initiative, this leads to the following research question:

How do the members of the Sudanese Female Cycling Initiative experience cycling as a form of women's empowerment?

This research question is divided into the following sub-questions:

1. How do resources shape access to cycling for the members of the Sudanese Female Cycling Initiative?
2. How do competences develop agency for the members of the Sudanese Female Cycling Initiative?
3. How does appropriation of cycling lead to empowerment achievements for the members of the Sudanese Female Cycling Initiative?

To answer these questions, I study the Sudanese Female Cycling Initiative in Khartoum, Sudan. I conducted fieldwork over the course of three months and used participatory observation methods to examine how they experienced the process of becoming mobile from their access to cycling, learning

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all related competences, how they adopt and integrate cycling into their lives, to how they see the impacts of this process.

1.2 Structure

This thesis is structured as follows. First, a theoretical framework introduces and contextualises the concepts central to the analysis of the experiences of women cyclists in Khartoum: women's empowerment and motility. These concepts are combined into a conceptual framework that merges the two concepts and allows the analysis of the results of this research. This framework explains the link between resources-access, competences-agency and achievements-appropriation

Second, the chapter on methodology and methods describes my approach to this research, and the considerations I navigated while entering the field and conducting the research. Third, the contextual chapter gives an overview of Khartoum as a research field, the relevant context on cycling as a Sudanese woman, and introduces the Sudanese Female Cycling Initiatives and the respondents of this research.

Fourth comes the first of three chapters that present the findings of this research. This chapter examines the resources that the women of the group have obtained and how those shape their access to mobility. It also explores the role that the group has played in creating access to cycling for more women in Khartoum. Fifth, the second results chapter explores how those resources are utilised to build competences and agency around mobility behaviour, and the role of the cycling group in teaching those behaviours. Sixth, the final results chapter explores the meaning and impact of cycling on the current and future lives of the members of the cycling initiative, which move beyond the scope of cycling and mobility alone and the options they see for themselves.

Seventh, the concluding chapter of this thesis discusses why the many meanings of cycling require a shift in the approach of mobility in relation to women's empowerment, and why the conjunction of women's empowerment and mobility would benefit from a more relational approach, and how distinguishing forms of power can (or cannot) be useful in this endeavour.¹

¹ A short note on language for this entire document: exact intricacies and experiences of womanhood and gender expression are not in the scope of this thesis, but it should be noted here that gender is not binary. Based on how the cyclists of the group talked about their experiences, often juxtaposing their experiences with men's, I have sometimes adopted a binary distinction in this thesis. This is not meant to imply a binary classification of gender, and I would applaud additional research into the impact of gender identity on mobility and empowerment. Additionally, the words 'women' and 'men' encompass anyone who identifies as such, regardless of the sex they were assigned at birth.

2 Theoretical framework

In order to study the way cycling relates to women's empowerment, it is important to connect the concept of mobility to women's empowerment in a way that accounts for the way in which mobility is shaped by gender norms, the way it is connected to the gendered nature of public space and the significance of not just actualised movement but also potential mobility.

The first part of this chapter examines a conceptualisation of women's empowerment, then looks at how this has been connected to mobility in the past and how this conceptualisation could be expanded upon. It then proposes a different conceptualisation of mobility as motility ('potential mobility') and examines the ways in which this concept is compatible with the earlier conceptualisation women's empowerment. The second part of this chapter combines the concepts women's empowerment and motility to create a new conceptual framework that allows for an analysis of women's cycling and accounts for the various ways in which motility and women's empowerment are connected.

2.1 Women's empowerment as a process of change

In an influential and often-cited conceptualisation of women's empowerment (see, for example: Bishop & Bowman, 2014; Bonilla et al., 2017; Carter et al., 2014; Peterman et al., 2015), Kabeer defines women's empowerment as 'the process by which those who have been denied the ability to make strategic life choices acquire such an ability' (1999, p. 437). Cornwall and Rivas (2015) describe how discourse in research and publications by international organisations such as the World Bank and UN agencies in subsequent years limited the scope of this definition mainly to women's economic empowerment, the accumulation of 'assets' and individual autonomy. This largely omitted relational and social aspects, the aspect of temporal change in empowerment and the acquisition of the ability to make choices for oneself (see, for example: Alsop & Heinsohn, 2005).

In a reaction to this tendency, others expanded Kabeer's definition with a notion that I call the 'achievable realm'. Eyben et al. argue that '[e]mpowerment happens when individuals and organised groups are able *to imagine their world differently* and to realise that vision by changing the relations of power that have been keeping them in poverty (2008, p. 6, emphasis added). This introduces the notion that an important part of empowerment is the process of being able to *imagine* certain scenarios for oneself. Mosedale emphasised a spatial aspect of this process when she defined women's empowerment as 'the process by which women *redefine and extend what is possible for them to be and do* in situations where they have been restricted, compared to men, from being and doing' (2005, p. 252, emphasis added).

2.1.1 Forms of (em)power(ment)

This reframing of women's empowerment as a process that is broader than economic empowerment and individual autonomy is further emphasised when examining empowerment in the context of different forms of power. Since women's empowerment is fundamentally considered to be a process that occurs within and aims to change existing power relations (Cornwall & Rivas, 2015), it is relevant to explore how power is conceptualised from a gender studies perspective. Five forms of power are distinguished to conceptualise what empowerment and disempowerment constitute, what it entails for individuals or groups and how it is enacted within and between individuals (Boudet et al., 2012; Galiè & Farnworth, 2019).

- *Power over* refers to visible and direct power relations between individuals, in contexts of social domination or subordination (Dahl, 1957; Pansardi, 2012). In the case of women's empowerment, this might refer to direct oppression of women through, for example, physical, psychological, social, or legal subordination.
- *Power to* refers to power that extends the boundaries of what is considered achievable for a person, or the potential of every person to shape his or her world and life (VeneKlasen & Miller, 2002). This relates to, for example, decision-making and problem-solving abilities of women (Nikkhah et al., 2012).
- *Power with* refers to transforming or reducing social conflict through collective action and collaboration (VeneKlasen & Miller, 2002). This includes a recognition that more can be achieved with a group than by individual actors working towards a common goal (Galiè & Farnworth, 2019; Mosedale, 2005). In the case of women's empowerment, this might refer to women organising to collectively work towards change of gender relations.
- *Power within* refers to how individuals influence their lives and make changes through self-analysis and internal power, meaning self-esteem, self-confidence, identity and assertiveness (Mosedale, 2005; Nikkhah et al., 2012; Rowlands, 1997). 'Power within is the capacity to imagine and have hope' (VeneKlasen & Miller, 2002, p. 45). This relates strongly to the notions of 'achievable realm' and agency of women's empowerment.
- *Power through* refers to the relational component of empowerment, emphasising the ways in which people are involuntarily (dis)empowered through others around them or their relations to others. Examples of this include the empowerment status of immediate family members or close friends, or judgment of prominent community members (Galiè & Farnworth, 2019). For women's empowerment, an example is having direct family members that provide support due to their social or economic status.

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Analysing these forms of power enables the analysis of how the empowerment process manifests and what forms it takes and relates it to the social context and power relations that influence it. This shows the need for a broader definition of empowerment that takes into account agency and the achievable realm (*power within* and *power to*), as well as the context in which empowerment and disempowerment takes place (*power over, power with, power through*). Therefore, for the purpose of this research, I combine the different additions to Kabeer's definition and define women's empowerment as the process of acquiring the ability to redefine and extend what is possible to be and do, and to realise this vision.

2.1.2 Three dimensions of women's empowerment

According to Kabeer, the empowerment process consists of the three interrelated dimensions resources, agency, and achievements (see Figure 1):

- *Resources* can be seen as the pre-conditions for empowerment, referring to actual allocations, expectations and future claims (Kabeer, 1999).
- *Agency* refers to 'the ability to define one's goals and act upon them' (Kabeer, 1999, p. 438). This does not only refer to observable action, but also to the sense of agency that individuals possess, referring to the meaning, motivation and purpose of an activity (Kabeer, 1999). While resources can be seen as pre-conditions, agency can be seen as the main 'process' of the ability to exercise a choice.
- *Achievements* refer to the outcomes of the interplay between resources and agency, and in a way to the outcome of the empowerment process as a whole.² The notion of achievements refers to the strategic life choices that a woman makes as the result of the resources and degree of agency that are available to her (Kabeer, 1999).

Combined, these categories allow for an understanding of the empowerment process. I will use all three of them in my own conceptual framework which is discussed in section 2.4.

² Kabeer draws a parallel to the capabilities approach by Nussbaum and Sen (1993), where the potential relates to capabilities and the actualised to functionings.

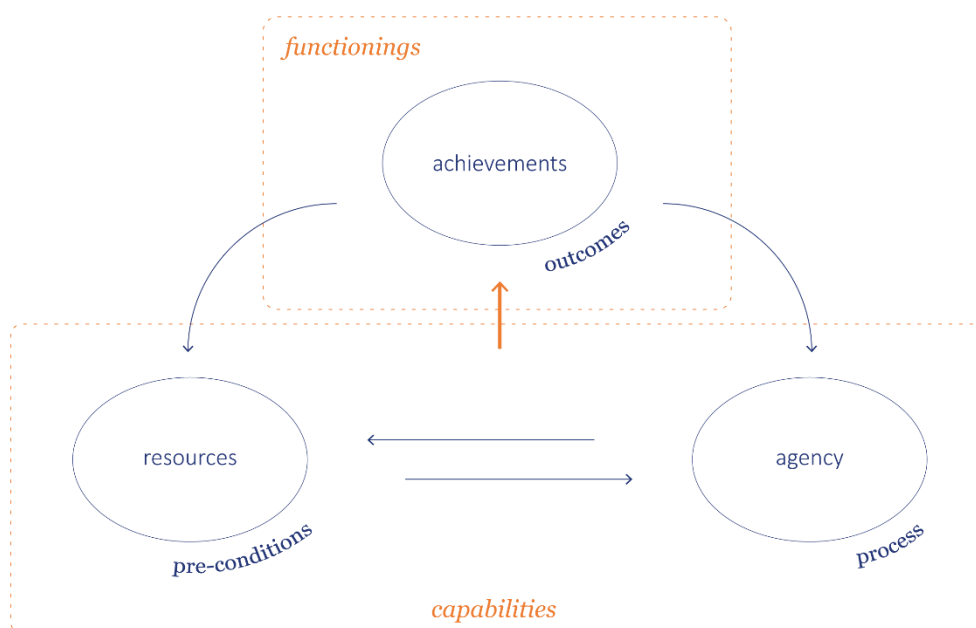


Figure 1: women's empowerment based on Kabeer (1999)

Distinguishing the three dimensions of women's empowerment (resources, agency, achievement) allows the identification of various aspects of the empowerment process, showing *where* in the empowerment process changes take place. Distinguishing the five forms of power allows the identification of *how* empowerment takes place.

2.2 Women's empowerment and mobility

How, then, to connect this conceptualisation of women's empowerment to women's mobility? First, I explore how this is often done from a gender studies perspective. Kabeer et al. (2011) relate mobility to women's empowerment by using mobility – which they define as 'movement in public space' – as an indicator of agency, the second component of the empowerment process. This is done more often in literature that connects mobility and women's empowerment (see for example: Mahmud et al., 2012; Nazier & Ramadan, 2018; van der Kloof et al., 2014). However, this is problematic because it equates an increase in movement to an increase in empowerment, while this is not necessarily the case. Hanson (2010) describes how, for example, spending a long time in the public space in order to travel to work can be a result of a lack of options or choice, and can therefore not be seen as the result of empowerment per se. Similarly, a lack of presence in the public space can be the result of a strategic choice and is therefore not necessarily a result of lack of empowerment.

This definition of mobility is therefore not sufficient: it is necessary to account for the way mobility impacts the empowerment process as a whole and to differentiate different aspects of mobility and

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empowerment and how they interact. For that purpose, an exploration of the gendered nature of mobility is required.

2.2.1 Gendered mobility

Hannam et al. provide a definition of mobility: '[t]he concept of mobilities encompasses both the large-scale movements of people, objects, capital and information across the world, as well as the more local processes of daily transportation, movement through public space and the travel of material things within everyday life' (2006, p. 1). This conceptualisation of mobility moves beyond mobility as movement and an indicator of agency. Rather, it recognises how mobility as a whole is shaped by structures of power and as such reflects, perpetuates and amplifies social norms (Cresswell & Uteng, 2012; Hannam et al., 2006). Therefore, studying the effects of cycling on women's empowerment requires studying social norms. In relation to women's empowerment, the most relevant norms to study are the gender norms that surround and shape mobilities.

The public space, for example, is governed by gender norms that dictate which spaces are deemed appropriate for men and women to be in (Bondi, 2005; Heim LaFrombois, 2019). Public space, for the purpose of this research, refers to space that is generally open to public use (Mitchell & Staeheli, 2009). Being open to public use does not mean that access to public space is equal for all. In fact, public space is often seen as highly contested, and as a sphere in which social and spatial relations 'serve to constitute and regulate identity' of its users (Duffy, 2020). This is also the case for gender norms, and it is also the case in Sudan. According to Bashari et al. (2015) Khartoum's public space is differently used and inhabited by men and women, and this difference is most pronounced with regard to 'dynamic activities', i.e. activities that require a higher degree of mobility such as practicing sports or using play grounds. They explain that it is deemed socially inappropriate or unsafe for women to practice this type of activities, and that those who do can face harassment by the public. As such, gender norms influence both the location and type of activity that is deemed appropriate for women.

Design of public space is also gendered; the design of infrastructure is often primarily conducted by and geared towards men. This influences who is able to access infrastructure and public space, even if spaces are designed as 'publicly accessible' (Aldred et al., 2017; Siemiatycki et al., 2020). In Khartoum, more extensive infrastructural provisions such as asphalt roads, streetlights and separate walkways tend to be concentrated around places that receive a higher number of male visitors such as office buildings, and not around places that receive a lot of women visitors such as markets. Many public spaces also lack sufficient women's prayer areas, women's toilets or areas that are safe for children, for whom women are predominant caregivers (Bashari et al., 2015).

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Another aspect of mobility that is gendered is technology. This can refer to connectivity networks, but also to the design of vehicles such as bicycles. This design, like that of infrastructure, is not neutral; it reflects the norms and interests of those actors that have the most influence on the design process (Pinch & Bijker, 1984). In the case of bicycles, gender norms are reflected in the 'standard' frame size, which is often too large for women in many countries, the width of 'standard' saddles, which are often too narrow, and the prevalence of crossbars on many frames, which used to be necessary for frame stability, but nowadays mostly limit the accessibility of bicycles for people who have to or prefer to wear skirts or dresses.

These examples show how mobility is a gendered practice. In this light, moving and being in public space and using parts of infrastructure, facilities, or vehicles, becomes an act that either conforms to or challenges existing gender norms. Hoodfar (2012, 2015) describes how this is also applicable to societies largely governed by political Islamism, during which many Muslim majority states introduced restrictions on women's sports programmes, freedom of movement, and access to the public sphere, and imposed restrictive dress codes and gender roles. When restrictive norms are so strongly present, sometimes even codified into law, moving through public space as a Muslim woman becomes an almost inherent political act. This means that women's mobility cannot be framed as a simple indicator of increased empowerment, and that studying it needs to account for the broader context – public space – in which it takes place, and the gender norms and power relations that shape it.

2.2.2 Cycling and empowerment

Women's cycling is a particular example of a gendered spatial practice that challenges existing gender norms. With cycling commonly framed as unfeminine, women cyclists encounter unsafety, harassment and sexualisation when performing an activity that their societies deem inappropriate for them (Bonham et al., 2015; Heim LaFrombois, 2019). Cycling as a woman in public space, not conforming to prevalent gender norms, then becomes an act that inherently challenges these norms, merely by being present and visible (Bondi, 2005). Challenging these norms happens because cycling in certain contexts is more than a mere mode of transportation, but a statement. Hoodfar (2015) explains that, by being visible in public spaces, Muslim women are introducing gender politics to public spaces that are normally considered to be out of politics, explicitly and implicitly. In addition, sports groups (including women's cycling groups) for many Muslim women serve as a place where likeminded individuals can meet and share ideas and ideals outside of the sports activity itself (Hoodfar, 2015, pp. 44–45). Heim LaFrombois (2019) also notes how cyclist groups can create a sense of community, as well as serve as an entry into cycling and bike culture, and promote (women) cyclist presence in public space (Heim LaFrombois, 2019, p. 674). This is an example of *power with* as described above. Another way cycling

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relates to women's empowerment is through *power to*: Hanson (2010) emphasises that mobility, outside of accessibility or competence, also often entails 'having somewhere to go', or in other words, having a purpose (2010, p. 10). Therefore, women's cycling should not solely be analysed as a form of transport or movement, but rather as a form of mobility that can carry a variety of meanings, statements, and effects. This emphasises the need for a conceptualisation of mobility that connects not only to the agency component of women's empowerment. In the light of gendered design and gender norms it is also important to evaluate the way mobility interacts with the resources component of women's empowerment, and the social and political meanings ascribed to mobility and cycling underline how achievements should be taken into account.

2.3 Motility: potential mobility

In order to connect mobility to all three dimensions of the women's empowerment process, I use a different conceptualisation than those discussed above. Kaufmann et al. (2004) propose the notion of motility: the combination of realised mobility and potential mobility. This definition emphasises the importance of 'potential mobility' in a way that mirrors what potentiality of the 'achievable realm' does for women's empowerment: having the option to go somewhere and the power to act on it or not. This conceptualisation also allows for the evaluation of changes in motility over time, by describing motility as 'the way in which entities access and appropriate the capacity for socio-spatial mobility according to their circumstances' (2004, p. 750).

2.3.1 Three dimensions of motility

Kaufmann et al. distinguish three dimensions of motility: access, competence, and appropriation (see Figure 2):

- *Access* refers to 'the range of possible mobilities according to place, time and other contextual constraints,' or in other words how one's potential mobility is shaped (Kaufmann et al., 2004, p. 750).
- *Competence* refers to the ability to 'recognise and make use of access,' or the skills and abilities that are necessary for the selection of potential mobility options, and that influence how they are experienced and practiced (Kaufmann et al., 2004, p. 750).

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- *Appropriation*³ refers to how specific mobility options are considered and selected, and how the options that are accessible and deemed within one's competence are acted upon, based on needs, aspirations, strategies and values (Kaufmann et al., 2004, p. 750).

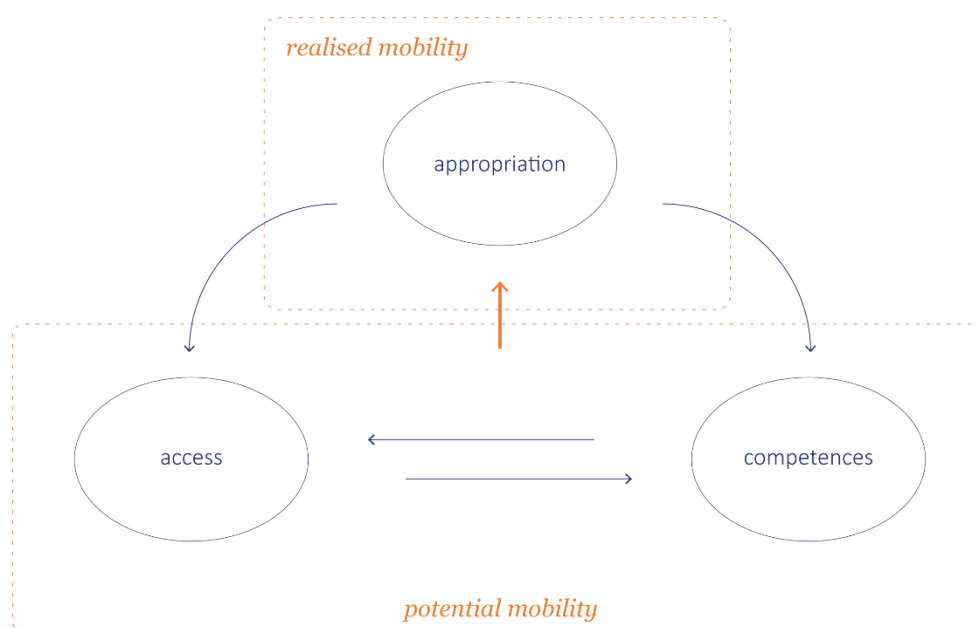


Figure 2: motility based on Kaufmann et al. (2004)

These three categories combined give a clearer understanding of mobility as a process and allow for the analysis of this process in relation to the process of women's empowerment. A framework for this is proposed in section 2.4.

2.4 Conceptual framework

My framework of motility and women's empowerment is a tool for the analysis of the effects of cycling, as a form of mobility and on women's empowerment. It takes different dimensions that are interrelated in shaping this process, that I combined into the following three pairs: *resources-access*, *agency-competence*, and *achievements-appropriation* (see Figure 3). This framework forms the basis for my data collection, analysis, and structure of the results. As can be seen in Figure 3, I included sub-categories under the three pairs, which I define and demarcate after I explain the commonalities between the conceptualisations of women's empowerment and motility.

³ In recent years the term 'appropriation' has gotten quite a bad connotation through discussions on cultural appropriation. In this context, however, it refers to the degree to which a certain form of mobility is appropriated, acquired, adopted, integrated into the life of its user.

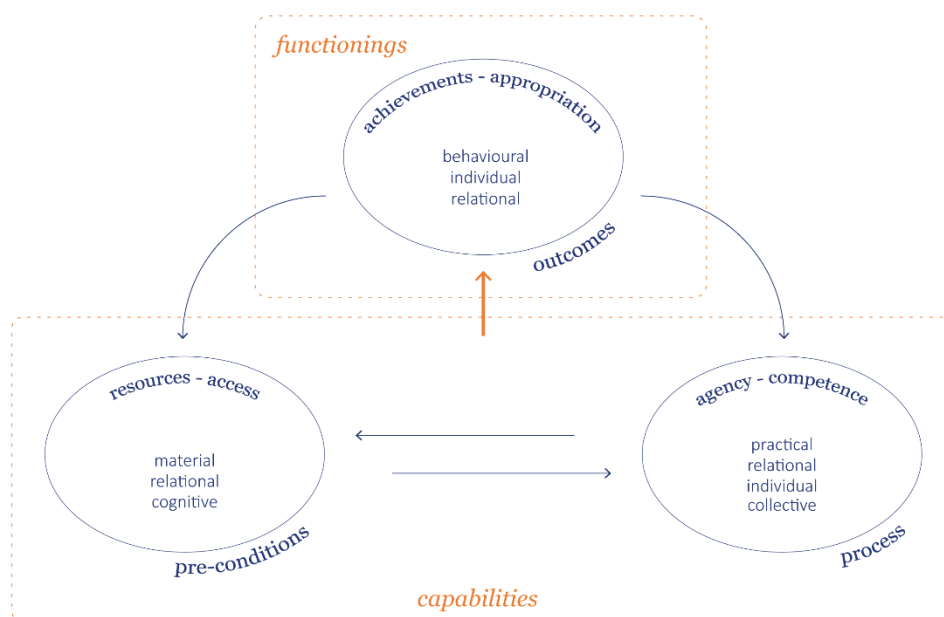


Figure 3: combined framework of women's empowerment and motility

2.4.1 Connecting motility and empowerment

The concepts women's empowerment and motility allow for the analysis of how the two concepts interact because they are conceptualised in compatible ways.

First, both concepts are based around a process of change *over time*. By defining empowerment as the *acquisition* of the ability to make strategic choices, Kabeer emphasises the 'process of change' (1999, p. 437). Similarly, Kaufmann et al. emphasise how investigations of motility should focus on 'temporal changes in the extent, reasons and manner of motility' (2004, p. 750).

Second, both concepts' dimensions have similar functions: Kabeer describes how *resources* are 'pre-conditions', *agency* relates to the 'process', and *achievements* are the 'outcomes' of empowerment (1999, p. 437). The same distinction can be made for motility: *access* to mobility options as pre-conditions, *competence* as the mobility process and *appropriation* as the outcome of the process.

Third, both conceptualisations differentiate between the potential and the actualised. For motility, *access* and *competence* together form the potential mobility options that are accessible and available to an individual, while *appropriation* refers to the part of the potential options that is actualised, or the actual mobility behaviour (Kaufmann et al., 2004, pp. 749–750). Similarly, *resources* and *agency*

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together refer to the potential empowerment options of an individual, while *achievements* refer to the options that are realised by individuals (Kabeer, 1999, p. 438).⁴

Fourth, the dimensions of both concepts that form ‘the potential’ - *resources* and *agency*, and *access* and *competence* – both mirror the distinction between structure and agency. *Resources* and *access* both relate to how context and social structure shape pre-conditions for empowerment and motility, respectively. *Agency* and *competence* both relate to the process of taking action and making choices. Based on these compatibilities and the way these concepts complement each other, I combine these concepts into one conceptual framework. This framework is then used to study the case of the Sudanese Female Cycling Initiative in Khartoum.

2.4.2 Resources-access

The pair *resources-access* of my framework combines Kabeer’s resources (preconditions for the process of women’s empowerment in the form of ‘actual allocations, expectations and future claims’) with Kaufmann et al.’s access (‘the range of possible mobilities according to place, time and other contextual constraints’) in order to evaluate how design and social norms about public space, infrastructure, technology and mobility shape resources for women’s empowerment. The sub-categories of this pairing are material, cognitive and relational resources.

My sub-categories are primarily based on the sub-categories that Kabeer defines in relation to resources: she poses resources can be material⁵, cognitive or relational. Material resources include the allocation of money or land. Cognitive resources can refer to a woman’s conduct, sense of control over her life or expectations about the future. Relational resources refer to a woman’s friends and family, but also social structure and norms, and how they enable or disable action (Kabeer, 2011). I merge Kabeer’s sub-categories of resources with Kaufmann et al.’s sub-categories of access: options and conditions. Options refer to the full range of transportation and equipment that is available, and conditions to the ways that the accessibility of options is influenced by constraints such as costs or logistics (Kaufmann et al., 2004). In combining these sub-categories, I merge options and conditions of

⁴ Kabeer draws a parallel to the capabilities approach by Nussbaum and Sen (1993), where the potential relates to capabilities and the actualised to functionings.

⁵ When using the word ‘material’ to refer to this type of resources there might be a tendency to relate this to ‘immaterial’ resources. This might be a false dichotomy and opens up many interesting debates about materialism, consumer culture, ontology and anthropocentrism (e.g. Nicholls, 2019). However, for the purpose and scope of this research, and to relate it to other discussions of Kabeer’s framework and women’s empowerment, the word ‘material’ is used to refer to resources or ‘constraints to action’ for empowerment and is used to separate ‘material’ or practical resources from ‘cognitive’, and ‘relational’ resources. A material resource could thus be a bicycle, or existing infrastructure, or a public space.

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motility with the material resources of empowerment, and I maintain Kabeer's distinction between cognitive and relational resources. This means that the *resources-access* pair has the sub-categories material, cognitive and relational resources, and the material resources also encompass options and conditions that shape access to mobility.

In the case of cycling, material resources can refer to being able to obtain a bicycle. Cognitive resources might include having a sense of control over one's mobility behaviour, future prospects or achievable realm, such as being able to imagine oneself riding a bicycle or being able to learn how to ride a bike. Relational resources refer to receiving support or opposition from friends and family, or more indirectly to the social norms that shape the sense of having permission to cycle.

The most prominent ways in which forms of power relate to this pair are the following.⁶ *Power over*, *power to* and *power through* relate to the material aspect, for example in economic status and societal standing. *Power to*, *power within* and *power through* relate to the cognitive aspect, mostly regarding self-esteem and 'achievable realm'. *Power over* and *power with* relate to the relational aspect, regarding friends and family that disable or enable cycling behaviour.

2.4.3 Agency-competence

The pair *agency-competence* of my framework combines Kabeer's agency ('the ability to define one's goals and act upon them') with Kaufmann et al.'s competence ('the ability to recognise and make use of access') in order to assess which competences influence which aspects of agency, in terms of utilising resources and acting on choices. The sub-categories of this pairing are practical competences, individual competences, relational competences and collective competences.

These subcategories are based on the following considerations. Both Kaufmann et al. and Kabeer allude to practical⁷ competences: Kabeer discusses having control over resources and mobility in the public space as crucial parts of agency, and Kaufmann et al. distinguish physical skills and acquired skills as competences to be developed in the process of expanding motility. I merge these into the sub-category practical competences. The next sub-category, individual competences, is based on Kabeer's discussion of decision-making and self-esteem (Kabeer, 1999; Mahmud et al., 2012), combined with Kaufmann et al.'s discussion of organisational skills ('planning and synchronising activities including

⁶ Since the five forms of power are inherently interrelated, each pairing in the framework can be related to all of them, if desired. I however chose to focus on the forms of power that seem most directly related to each sub-category.

⁷ Practical here alludes to observable, visible, tangible.

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the acquisition of information, abilities and skills'). The relational and collective sub-categories are alluded to by Kabeer in her discussion of agency, and more explicitly suggested by Galiè and Farnworth (2019)'s discussion of agency. Based on these works, I suggest the sub-category relational competences, referring to the process of learning to relate to others while being mobile, and the sub-category collective competences, referring to processes of group organisation, collective action, and solidarity. This means that the pair *agency-competence* has the sub-categories of practical, individual, relational, and collective competences.

In the case of cycling, the practical aspect includes the ability to ride a bike and the ability to navigate a certain area. The individual aspect refers to self-organisation (such as arranging cycling lessons), self-esteem, confidence and what a woman considers the achievable realm. The relational aspect refers to how a woman relates to, navigates, and negotiates reactions of others and social norms about women's cycling. The collective aspect refers to group organisation and collective action, such as collective bike rides or making collective statements.

Notable ways in which the different forms of power relate to this pair are the following. *Power to* relates to the practical aspect, referring to the possession of skills needed to act on decisions. *Power to* and *power within* relate to the individual aspect, regarding decision-making, self-esteem and the achievable realm. *Power over*, *power with* and *power through* relate to the relational aspect, regarding how a woman reacts to other's opinions. *Power with* and *power through* relate to the collective aspect, regarding uniting in a cycling group to work towards a common goal.

2.4.4 Achievements-appropriation

The pair *achievements-appropriation* of my framework combines Kabeer's achievements ('the strategic life choices that a woman makes as the result of the resources and degree of agency that are available to her') with Kaufmann et al.'s appropriation of mobility options ('all behaviour that is involved in actually becoming mobile'), to evaluate how appropriation of mobility influences the outcomes of women's empowerment. The subcategories of this pairing are behavioural appropriation, individual appropriation and relational appropriation.

These sub-categories are based on the following: the behavioural appropriation is based on the work of Kaufmann et al., who suggest evaluating how specific mobility options are considered and selected to examine all behaviour that is involved in actually becoming mobile, or realised mobility. The second sub-category is individual appropriation. This category is about changes in potential mobility and the achievable realm: a combination of Kaufmann et al. suggestion to evaluate changes in aspirations and plans, Kabeer's emphasis on ability to make strategic life choices, and the work of Mosedale (2005),

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who proposes investigating if women see expanded options for themselves in the future. The last sub-category of this pair is relational appropriation. This, based on Kabeer's and Mosedale's work, encompasses evaluating changes in how women perceive social norms and how they relate to the reactions of others. This means that the pair *achievements-appropriation* has the sub-categories behavioural, individual, and relational appropriation.

In the case of cycling, the behavioural aspect refers to a change in the frequency, location or length of bike rides, or the degree to which a woman integrates the bicycle into her daily life. The individual aspect refers to changed beliefs about her own abilities or women's cycling in general, or a change in confidence level or achievable realm, including what she deems herself capable of in the future. The relational aspect refers to a change in how a woman relates or reacts to social norms about women's cycling, or to reactions that she encounters in her daily life.

The most notable ways the different forms of power relate to this pair is as follows. *Power to* relates to the behavioural aspect, regarding having the skills to cycle. *Power to* and *power within* relate to the individual aspect, regarding self-esteem, organising abilities and the achievable realm. *Power over*, *power with* and *power through* relate to the relational aspect, particularly in how a woman acts as part of a group or reacts to direct social relations and their beliefs about cycling.

2.5 Conclusion

This framework connects cycling, through motility, to women's empowerment. Combining the two concepts allows for the evaluation of their interaction in a way that separate analysis could not, accounting for the social context in which cycling takes place and the meanings that it can take on. Separating the process of empowerment through mobility into three pairs gives different phases to evaluate (pre-conditions, process and outcomes), taking into account the different considerations that motility requires at each stage. It also embeds the process of motility into the social and relational context of women's empowerment. My framework allows the analysis of how different dimensions of motility influence different dimensions of the empowerment process and which different forms of power are involved in this process, while accounting for the context of gendered mobilities.

In the next chapters, this framework will be used to analyse data from my fieldwork to examine how cycling, as movement but also beyond movement, relates to empowerment for cycling women in Khartoum.

3 Methodology and methods

This chapter contains an overview of my methodological choices and methods, and how they influenced data collection and analysis. I discuss my methodological approach, access to the field, my position in the field, the methods that I used to gather data, how I analysed the data and the ethical considerations that I navigated during the fieldwork.

3.1 Methodological approach

The gathering and analysis of data during this research were influenced by certain my views on suitable methodologies and my beliefs about research as a whole. My aim during this research was to understand processes of motility and women's empowerment, and to map the experiences the cyclists – to explore themes relevant to them and their realities, to identify the way cycling influenced their lives and to identify the motility-empowerment interactions relevant in their lives. With this aim in mind, an ethnographic approach to this research was suitable.

An ethnography allows a researcher to understand everyday lives, to gain an in-depth understanding of behaviour and an understanding of the context in which it takes place. It is a way for the researcher to gather data on informal, unconscious behaviour that would be lost in more formal research settings. It is an approach that centres data and lets it lead the research (Bernard, 2011). As such, this research required a relatively unstructured, inductive approach based on tentative questions and a loose theoretical framework, and revisiting research objectives and theory throughout the research process, as patterns or themes emerged.

With regard to mobility and movement through public space, an ethnographic approach is particularly useful to understand how and why choices regarding mobility are made and what barriers people face when moving through public space (Büscher et al., 2010). Especially when studying these choices in the light of gendered differences, an ethnographic approach and experiencing mobility 'shadowing' works to provide an insight into the process of mobility and how it is experienced (Jirón et al., 2020).

Additionally, ethnography and 'deep hanging out' (Geertz, 1998) provides the opportunity to understand how people experience cultural norms and social conditions. Ethnographic observation allows to move beyond universalistic and homogenous understandings of a culture and to gain insights into the meanings of everyday behaviour. This is particularly relevant when engaging with new or unfamiliar field sites that have certain connotations or stereotypes attached, such as the status of women in Muslim societies (Shah & Khurshid, 2019). For this research, as an ethnographic approach allowed me as a relative outsider to Sudanese culture to get a detailed look in how Sudanese women live their lives, how they experience their mobility, and what it means for them to be(come) mobile.

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As such, I used this approach to focus on the experiences of one group of women cyclists, and to explore mechanisms and processes of women's empowerment.

3.2 Access to the field

I had met the women of the Sudanese Female Cycling Initiative just over two years prior to the start of the fieldwork, in November 2017, when I was cycling from Cairo to Cape Town with a friend. Then, we had met each other as women that cycled: my friend and I on a cross-continental journey, the Sudanese Female Cycling Initiative promoting women's cycling in Khartoum. We shared meals and cycled in the city together. On the day my friend and I left Khartoum several women from the cycling group accompanied us to the border of the adjacent state, forty kilometres away. What lingered with me after this meeting was a sense of mutual respect and admiration. While we were on vastly different journeys, we inspired each other because we were doing something that impressed the other party: for them, a cross-continental cycling journey to Cape Town seemed incredibly difficult, while for my friend and I it seemed incredibly difficult to cycle in Khartoum as a Sudanese woman.

After deciding to devote this thesis to the topic of cycling and women's empowerment, I reconnected with the founder of the Sudanese Female Cycling Initiative to see if it would be possible to collaborate with the group for the research. It was, and in January 2020 I returned to Khartoum, this time as a researcher as well as a cyclist. The fact that I had met part of the group on a previous visit eased my access to the field, because older members of the group remembered me and I had an existing degree of rapport and familiarity with them. They were also able to facilitate connections to newer members of the group, which helped me to contact them and build rapport with them.

Because of this, my introduction to the field was rather smooth. There were of course challenges and considerations, especially when it came to conducting research after the first introductory phase. One of them was the fact that my command of Sudanese Arabic did not extend beyond basic pleasantries and negotiating the price of vegetables and rickshaw rides. Some members of the group spoke English: a few of them had studied it in school and had an almost-fluent level, others had not but knew basic pleasantries. Some could follow a conversation but not speak a word, and still others hadn't learnt English at all, limiting our exchanges to my Arabic phrases and a lot of friendly non-verbal communication.

Of course, I wanted to be able to speak with a variety of the group's members and I wanted my interviewees to be able to express themselves well, without losing relevant data to the limitations of speaking in a second language. Therefore, I looked for a translator who would be able to conduct interviews with me. The search for a translator was conducted in true Sudanese fashion: after calling,

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texting, and tea-drinking my way through a chain of at least five people that I had not met before, I was introduced to Nihal⁸, and discovered that we had multiple contacts in common who could have connected us directly. She had worked as a research translator before and worked in the field of gender development. This meant Nihal was familiar with both the role of translator and the topics of this research. Her gender, age and background were also similar to the women of the group. This meant that she would be able to understand their background and experiences rather well. Because of this, she would be able to both convey my questions in a way that would connect to the participants' frame of reference, and contextualise their answers to me (Bernard, 2011).

In that process of contextualisation and translation, Nihal inevitably changed the meaning of my questions and the answers – as a mediator between actors, she added and filtered the information she transmitted (Latour, 2005). In this sense, Nihal also served as a cultural guide to me, explaining backgrounds to answers given by respondents, or customs when visiting private homes, and sometimes even as a literal guide when we navigated the city's busiest bus stations. During some interviews, she was able to obtain more in-depth answers than I would have gotten alone, because she was able to identify interesting lines of thinking in the answers. Still, translation also has its pitfalls – some data inevitably got misinterpreted or lost in translation. I tried to minimise this by making sure Nihal understood the objectives of the research and the rationale behind the interview structure, by asking her to stay as close as possible to the original answers given, by asking for clarification when I was not sure about the answer or her translation, and by repeating my understanding of an answer to check if my interpretation was correct. Arranging a translator for interviews also automatically made them more formal and less spontaneous, since time and place of the conversation depended on the availability of three people instead of two. This made spontaneous interviews or short clarifying conversations difficult, so sometimes I used women of the group as ad-hoc translators for other members.⁹ These ad-hoc translators were often women that I had already interviewed in earlier stages of the fieldwork, so they were familiar with my line of questioning and the topics of the questions, and since I had interviewed them already their own answers were not affected by pre-existing knowledge about my line of questioning.

⁸ This name, like all names of those I met in the field, is a pseudonym. This is discussed in more detail in section 3.6.

⁹ See section 3.3 on why I chose to increasingly use informal interviews towards end of fieldwork.

3.3 Gathering data: methods

I employed several data collection methods during the fieldwork. The first method I used is participant observation. I used this method to observe the members of the cycling group, their interactions, and their behaviour at the group's activities. I attended the group's weekly trainings and the rides or events that were organised outside of the trainings. I observed conversations in the group's chat group¹⁰ to get an idea of the group's digital interactions and the topics of conversation that would come up there. I also spent time with some members of the group separately or during other parts of their social life, to get an idea of how they would spend their time on a daily basis. I also used this method to gather contextual data on women's motility in Khartoum, both by observing users of public spaces and their behaviour, and by traveling around Khartoum in various modes of transport myself. This latter method was very much influenced by my appearance as a *khawajja*¹¹, since my interactions and the norms that apply to me were different from those of a Sudanese woman, but it allowed me to get an idea of the different forms of mobility available to Sudanese women in Khartoum and the practicalities of those options (availability, travel time, costs, etc). In addition, I observed how usage of public space and mobility options differed in different areas of the city, by visiting different neighbourhoods and spending time in the cycling group's training area outside of cycling hours.

The second method I used is interviews, primarily semi-structured interviews. This method was mostly used with the women of the group, to get an in-depth understanding of their experiences with cycling and their level of empowerment before and after taking up cycling. The form of the interviews was semi-structured, to ensure that important topics were covered, and the same style of questions was asked every time. Interviews were at times conducted in quiet public spaces such as cafes and quiet corners of the group's training area, and sometimes at the cyclist's home. Visiting the home provided extra background information and context, in most cases extra comfort for the respondent,¹² but it

¹⁰ Since the chat conversation would hardly be natural if I would continually ask for translations or clarifications, I tried to refrain from doing this and instead regularly copied parts of the conversation into an online translator to get an idea of the topic of conversation. If needed, I would then message one of two members separately to, for example, confirm a meeting time or place. Most of the time, however, conversation did not require immediate action on my part and concerned, for example, news, past events of the group, prayers, job opportunities, or general social conversation.

¹¹ In Sudanese Arabic the term *khawajja* (خواجه) is used to refer to white women or women foreigners in general.

¹² One exception was a situation where the home setting did not provide extra comfort: I had been invited to the home of one of the cyclists. About twenty minutes into the interview she told me that her father, who was in the next room, did not know that she cycled and probably did not approve. Her mother and siblings did and supported her. When I disconcertedly asked her if she was comfortable with me being there and talking about it while he was there, she assured me it was all right, but nonetheless she visibly relaxed when her father left the

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also solidified my role as a 'guest' (see section 3.5), whereas speaking in public places allowed me to take on a more equal position as a cyclist with a research interest in gender. On several occasions I interviewed the same respondent twice (or thrice), to go more in-depth on topics that emerged since our first interview, or to reflect on events or themes that had emerged since the first time we spoke.

My approach to these interviews changed slightly during the fieldwork: sometimes it proved to be difficult to schedule appointments, and interviews were often postponed or cancelled last-minute due to unforeseen circumstances. For this reason, I decided to adopt a more unstructured approach to interviews, often conducting them on a short notice, for example during or after weekly training. This made it more difficult to control the environment in which they took place, but it did allow me to conduct more interviews. This primarily worked well for shorter chats or follow-ups to earlier interviews because they required less introduction to the topic or (in case of the latter) building of rapport and trust. It was also mostly useful with group members that spoke English. For first interviews or those that required the translator to be present, this approach was less useful.

I also used interviews to gather (contextual) data about gender norms in Khartoum and women's motility. These interviews were held with different Sudanese development professionals that worked in urban planning, activism, or gender equality. These interviews concerned Sudanese gender norms and societal changes that they had seen since Sudan's 2019 revolution. By triangulating these conversations with each other, I was able to get an idea of issues women in Khartoum face regarding their motility and how norms had or had not changed since the revolution, as well as the gender issues that these respondents found most pressing or important at that point in time.

In addition, I used short conversations and interviews to gather data from actors that were involved with the cycling group, such as the Dutch embassy or people from another cycling group in the city. I also used them to speak to people who were not involved with the group but that saw them or had heard of them, such as people who worked near their usual training area, taxi and rickshaw drivers or tea sellers in the area. This helped me understand their perception of the group. These conversations were often more ad-hoc in nature.

The third method I used to gather data was the use of group discussions. I had originally planned to conduct formalised focus groups with a moderator, but for practical reasons I carried out more informal group discussions in practice. The first kind of focus groups I planned to conduct were aimed

house ten minutes later and talked more freely after that. In the case of another cyclist, she told me that her father did not know nor approve of her cycling, and therefore we met in cafes to do interviews.

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at discussing perceptions of the group with parties surrounding them (e.g., guards and frequent visitors to the Freedom Yard, store owners and street sellers in the areas that they frequent) as I got a clearer idea of relevant actors. To prepare for these, I had several group discussions that I conducted while conducting observations and moving through the city, for example talking to people that had gathered during public rides of the cycling group, or at the weekly training. In these sessions, I usually found one or more of the people present spoke English and was able to translate for the others as well. This did mean I was able to prepare less and was more dependent on external circumstances, but I was able to gather data on reactions to the group and how they perceived cycling in Khartoum as a Sudanese woman. Even though mapping external reactions wasn't the focus of my research, I wanted to arrange a more formal focus group as well, with a moderator and prepared questions. I was in the process of arranging a male research assistant who would be able to moderate focus groups with mostly male respondents, because I became aware that my appearance influenced their reactions considerably – as a young white woman, I was often assumed to uphold European feminist values.¹³ I had noticed in earlier conversations that this influenced male respondent's answers to me, when Sudanese women told me that those same men would share different opinions to others. Therefore, I wanted to conduct a focus group in a slightly more formal setting, led by a man. However, before we were able to finalise any plans and conduct focus groups, I had to prematurely end the fieldwork because of the travel restrictions that were emerging as a reaction to the COVID-19 pandemic.

A similar situation happened regarding moderated focus groups I planned to carry out with the cyclists of the group. These focus groups would be aimed at discovering more of the group dynamic, and to collectively discuss changes and goals that they saw for themselves (together). I wanted to conduct these groups (moderated by Nihal and myself) towards the end of my fieldwork as a supplement to individual interviews, as to not influence the responses in the individual interviews too much with answers from other group members. As I was in the process of arranging these more formal focus group meetings – a process that also took more time than I had accounted for – my fieldwork was cut short. However, even more so than with the other focus groups I wanted to conduct, with this group I was able to conduct a lot more ad-hoc informal group discussions in earlier stages of the fieldwork: every group conversation that we had during the group's activities provided information on the dynamics, aspirations, and achievements of the cyclists.

Having to leave the field earlier than expected thus impacted my data gathering, but I believe its effects were limited. First, the fieldwork was only cut short by two or three weeks, and fortunately I had

¹³ I reflect more on my position as a white woman further in this chapter.

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gathered most of my data already at that point. As for reactions of external actors, additional information about reactions and norms would have been insightful but always merely contextual to the experiences of the women that cycle with the group. I therefore believe that the effects of this are limited. With regards to more a collective discussion with members of the cycling group, I believe that such a discussion might have been relevant and beneficial to further explore themes that had arisen during the fieldwork.¹⁴ Unfortunately, I was not able to arrange this in time, so this remains something that could be explored in further research.

3.4 Analysing data

During the fieldwork, I used voice recording and note-taking to keep track of my observations and findings. I recorded interviews and ad-hoc focus groups and took additional notes during their conduction. This was always done with the participant's prior consent, and as my fieldwork progressed the members of the group did no longer raise their eyebrows if they saw me talking to my phone during or after a training. I then transcribed the audio files of the interviews and coded the gathered data, digitally for the transcriptions and analogically for the notes I took. While coding, I used a combination of a deductive and inductive approach. I used deductive coding to create a priori codes based on the main pairs of the theoretical framework (see 2.4). I used inductive coding for the 'sub-pair' codes based on themes that emerged from the data. This resulted in a form of hybrid codes, which required me to alternatively move between theory and data. In line with this, I conducted two rounds of coding. The first round took place directly after the transcription phase, when I used open coding based on themes emerging from the data. After revisiting the theoretical framework, another round of coding took place, where connections were made explicit (Charmaz & Belgrave, 2012). Approaching coding like this makes explicit what is applicable to – I think – all coding: a researcher always has existing theoretical knowledge and research knowledge. By combining inductive and deductive coding this existing knowledge is employed explicitly and effectively while allowing data to guide next steps of coding.

3.5 Reflections on my position in the field

During fieldwork, both a researcher and research participants have their own frames of reference and ways to make sense of the world. This sense-making is inherently subjective and contextual, and as such influences both data collection and interpretation. This lack of neutrality is not inherently

¹⁴ I also address this in the final chapter of this thesis.

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problematic, however, as long as the researcher is aware of the subjective nature of sense-making and explicit about their position in the field (van der Haar et al., 2013).

Thus, as a researcher I had to be aware of how I represented myself and how that representation influenced how people perceived me. Some of these I could mostly influence, such as adopting a more formal or informal way of interaction with people that I met, while others were largely out of my control, such as the expectations that were attached to my appearance as a young white woman. In any case, I always had to position myself as an insider or outsider to the field I was researching. Below, I reflect on some of the positions that I navigated while in the field.

With the Sudanese Female Cycling Initiative, a relevant role to take was that of a woman cyclist. This role had the most commonalities with the women of the group, since we had the same gender and were close in age and had common interests in cycling and feminism. My education level was also close to most of theirs. This allowed me to position myself – somewhat - as an equal and a friend, and this gave me an advantage regarding access to the group and building rapport. My gender was an advantage because I was able to see interaction in the group from a close perspective and to address topics with the cyclists that would be harder to address or understand from the perspective of a male researcher – especially since I had had the experience of cycling in the country. These commonalities allowed me to gain access to the group and, to a small extent, to bridge some of the differences that were more difficult to overcome: differences relating to historical, colonial exploitation, contemporary global power relations, skin colour and economic security. These differences remained, of course, and they influenced the data I was able to gather. I tried to minimise the effect of these differences by adopting a daily routine that was close to the one I observed from some of the members in the group – both for my own understanding of Sudanese life and to show the commonalities between me and them – but to a significant degree I remained an outsider to their life, which had drawbacks for data gathering but also allowed me to observe things that were invisible to them.

When meeting Sudanese gender experts or development workers, I emphasised another role: that of a (gender) researcher. This allowed me to ask more explicitly about societal phenomena, trends, or the significance of social or political events. These people often had strong opinions on gender inequality and the best or most pressing development interventions, due to their professional experience. I spoke to one woman on how gender norms in Khartoum had been influenced by the revolution of the prior year. She was able to provide some interesting information on this, but also kept prioritising legal changes and political action – both important, but not the focus of this research. I tried to navigate this by emphasising the limited scope and impact of this research prior to any interviews, and by making sure that I knew their profession and the aims of the organisation they

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worked for while gathering and analysing the data so that I could steer the conversation back to the relevant topics when needed.

With all research participants, and most poignantly those interviewees that I visited at home, another role I found myself taking was that of a guest or visitor to Sudan. Sudanese are proud of their culture and long history and take pride in being good hosts. This expressed itself in people stopping me in the street to welcome me to their country even two months after my arrival or taking out the ornate tea set in the designated visitors' room when I would visit them at home. With the people I visited taking on a role as host, my position as a guest, and as such an outsider to the culture, solidified. Sometimes I used this role as it allowed me to ask questions that an insider would not be socially permitted to ask, and to have people explain things that they would not explain to an insider. However, it also served as a barrier to 'natural' interaction and observation. For example, home visits were often less informal than I had hoped, but nonetheless I was able to observe homes, neighbourhoods and practices that allowed me insight into daily life and behaviour. To reduce the effect of my outsider status on interaction, I would often adopt a slight 'fly on the wall' approach to observation, hoping that people would forget I was there. However, this came with the linguistic challenge of being able to understand conversations, so I tried to balance with speaking English with members or ask people to translate.

Related to this position as a guest was my fourth and most involuntary role: that of a *khawajia*, a foreign woman. As a woman, as a cyclist, as a gender expert and as a guest, I was always *khawajia*. The people I met often made assumptions about my background, ideals, economic status, profession, and intentions before I could establish them. This was often a challenge, especially since this role was omnipresent in all my interactions and always the first presentation of myself that people observed. To compensate for this somewhat, I tried to 'do as the Sudanese do', by eating and drinking with Sudanese at Sudanese cafés, travelling by rickshaw and public transport, and spending time at leisure places where Sudanese of my age would hang out. This would sometimes work, as people would see similarities in our lifestyles. Sometimes, it had an adverse effect, where my presence as a foreigner in these places only cemented my position as an outsider.

My position as *khawajia* was not only a foreigner, but also prominently a foreign woman. This brought along expectations and assumptions specific to being a white woman in Sudan: I experienced near constant looks or stares when I was outside of the house, as well as frequent catcalling and regular marriage proposals from men that I did not know. This influenced my conduct in general, decisions I made regarding my own safety, and my data collection because it presented obstacles to having conversations with strangers – especially men – and my ability to move around freely and spontaneously (which in itself gave me an interesting look of limited mobility in public space, of

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course). I tried to mitigate this by assimilating to Sudanese culture in ways that I could influence, adjusting my clothing, covering my hair in appropriate situations, and adjusting my interactions, especially with men. The norms that apply to *khawajia* women are different to those that apply to Sudanese women, more lenient in some ways and more restrictive in others. This allowed me to compare daily life; the way that women's behaviour, freedom of movement and motility differs becomes more apparent when seen side to side.

3.6 Ethical considerations

There were several ethical considerations that guided my fieldwork. To avoid deception and increase transparency about the research, I tried to inform the participants to the best of my ability about its objectives, impact, and progress. I did this by sending a message in the group's chat group before and after my arrival in Sudan and repeated the contents of this message during the first events that I attended with the group. When new people would join, I would also ensure that they knew why I was there. I also talked with the group's members about next steps in my research and how it was going as the fieldwork progressed. Throughout this, I was explicit about my position and what I could and could not achieve. For example, I emphasised that my research was not affiliated with an organisation besides the university and that I was independent from the Dutch embassy, which works closely together with the cycling group. Relating to this, I always obtained verbal informed consent before engaging in interactions that I would use for my research, and I emphasised that this consent could be withdrawn at any time and without providing me with a reason.

I also made sure that participants knew the aim of my research before participating in interviews or conversations, and that they knew they could always stop interviews or interactions if they felt uncomfortable at any point, again without giving a reason. I also trusted my and my translator's social instinct to gauge whether an interviewee felt uncomfortable, and on several occasions, we moved on from certain interview topics after sensing that an interviewee became too tense or emotional during the interview. To ensure reliability of the results, I tried to triangulate data to the best of my abilities, checking data from certain interviews with data from other interviews or written sources, or revisiting topics with the same person over time.

A last topic I had to decide upon was the topic of privacy and whether to use the participants' real names. This was a decision in which I weighed the safety of the research participants against the activism of the group members and the message that they convey. On the one hand, some of the group members are activists and don't mind any name recognition. Some are already quite well-known in relation to this group. However, the research deals with topics that can be sensitive and as described in a footnote earlier in this chapter, some family members of the cyclists do not know about or approve

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of it. In addition, it is a small and notable group that is already quite traceable. In addition, I have observed how the message that the cyclists advocate is larger than the individual members of the group. Therefore, I have decided to use pseudonyms to refer to the research participants.

3.7 Conclusion

In this chapter, I have outlined the methods that I used to answer my research questions. I have used an ethnographic approach and gathered data through interviews and observations, which I coded and analysed using a combination of deductive and inductive approaches. During the gathering and analysis of data, my interactions and interpretations were influenced by several ethical considerations and positions I navigated as a researcher. I have outlined these explicitly in order to provide transparency about this sense-making. In the next chapters, I explain the research context and then turn to the findings yielded by the research methods outlined above.

4 Khartoum, Sudanese women, and the Freedom Yard: context

This chapter describes what gender norms govern Khartoum's public space and how those norms and Khartoum's layout, recent history and geography influence Sudanese women's motility, lives and cycling behaviour specifically. Subsequently, I describe the Sudanese Female Cycling Initiative and introduce the participants of this research.

4.1 Khartoum

Khartoum is the capital of Sudan, a country in the north-east of the African continent. It lies at the point where the Blue Nile, originating from the Ethiopian highlands, and the White Nile, which according to some sources stems all the way from Lake Victoria, converge. From there, the river flows northward through the Sahara Desert, through Egypt and into the Mediterranean Sea.

The confluence of the two Niles in fact is home to not one but three cities, each on a different side of the rivers' meeting point: Omdurman, Bahri and Khartoum. Omdurman, the biggest of the three, lies west of the confluence and is the country's historical capital. It is home to a number of archaeological, historical, and religious sites, as well as various large markets. It was once home to Sudan's successful uprising to Anglo-Egyptian rule. Bahri lies north of the confluence. It was Sudan's industrial centre during and after British colonial rule and as such became a home to many migrants from across the country that were looking for work and maintains that diverse demographic make-up today. It is also home to a large agricultural sector. Khartoum proper lies south of the rivers' confluence. It was established as an administrative centre under Egyptian rule in the 1820s and served the same purpose under Anglo-Egyptian until 1956, when it was established as Sudan's capital. To this day, it houses most government buildings, embassies, and international organisations, as well as service-related industries.

Together, these cities form Greater Khartoum, or Khartoum Metropolitan Area, which houses an estimated fourteen million people and sprawls out in all directions from the rivers' meeting point. Although the area is sometimes seen as one city, its three components are quite distinct and have their own characteristics and history. Simultaneously, they are intertwined. Traveling between the three cities for work, errands, recreation, or social life is very common, for many even a daily occurrence.

Moving around in the Greater Khartoum area can take up quite a large amount of time. This is partially due to the distances that need to be covered, and partially due to the infrastructural set-up of the city. Someone living in a residential neighbourhood in the south of Khartoum proper might take an hour and a half on public transport to reach the business district on Nile Street, twenty kilometres away. A

car drive from Bahri to the centre of Omdurman only spans about fifteen kilometres but might take an hour or more depending on traffic. Roads that connect the east and west of Khartoum curve around the airport, which used to be at the edge of the city but has since been surrounded by it. Traffic between the three cities must cross one of eight bridges that span the river, and during the day traffic congestions are more a rule than an exception, as small pick-up trucks, crammed minivans, old yellow taxis and cars in all shapes and sizes slowly crawl their way across.

4.2 Women in Khartoum's public space

For women in particular, moving through the city presents another, invisible obstacle: the existence of social norms on their appearance, motility, and behaviour in public space. These norms are sometimes codified into laws. A notable example of these were the so-called 'public order laws' that were instigated under former president Omar al Bashir's thirty-year rule. These were legal provisions on 'general appearance, dress code as well as the individual and social behaviour of citizens' (Sudan Democracy First Group, 2018). This included, for women, a prohibition of behaviour such as dancing, vending on the streets, or mixing with male non-relatives. They were used frequently to restrict women's clothing, including preventing women from wearing trousers in public spaces, or behaviour, such as women's or students' activism.

Violation of this law could be – and was often – punished by public lashings, fines, and for graver offences, stoning, and execution. These provisions were generally viewed as a vaguely worded, repressive power tool of the government that could be applied seemingly at random by public order officials, allowing for discrimination based on class, gender, religion or ethnicity (Malik, 2012; Sturcke & Weaver, 2009; 'Sudan Crisis', 2019; Sudan Democracy First Group, 2018). Punishments were very influenced by class and economic status: public order officials would often target women from vulnerable groups, and not harass or punish women in wealthier neighbourhoods because they would fear repercussions. Indeed, public order law applications and punishments concentrated in poorer neighbourhoods, while establishments in rich residential neighbourhoods were not regulated nearly as much ('Sudan Crisis', 2019). The way these laws were applied differently across class and place limited the motility and public presence of women in Sudan, in many aspects of their daily lives. A report on the Public Order Law by the Strategic Initiative for Women in the Horn of Africa (SIHA & REDRESS, 2017, p. 41) from that time notes:

The application of the public order regime affects various aspects of women's lives and has alienated women from the authorities who should ordinarily protect them. The relationship between women and law enforcement officials, in particular public order police in Khartoum is fraught

with suspicion. The public order regime limits women's participation in public and social life as its aggressive implementation has led many women to take the decision not to walk on the street at all in Khartoum, insisting on driving even very short distances, or being accompanied.

This, of course, also largely affected women's cycling behaviour – the laws governed both the action of cycling itself, and the clothing required to do it. Since the 2019 Sudanese revolution, during which large-scale civil protests led to the ousting of al Bashir and installation of a transitional government in 2019, the Public Order Laws and many others have been revoked, although they are still frequently enforced by members of the police ('Sudan Public Order Law Is Still Intact', 2021). The 2019 revolution in Sudan saw a large role for women (as did earlier Sudanese protests) and showed all involved citizens what women are capable of – exploring spaces that were previously not accessible for them. Indeed, at the time of my fieldwork, I often observed a sense of hope and potential for change with many people I spoke to, and there seemed to be a general sense of change and anticipation for future change, also regarding norms that govern women's behaviour and public space. However, as political events¹⁵ since my fieldwork have shown, the situation regarding political leadership – and by effect which laws are implemented - is very precarious and can change rapidly.

4.3 Cycling women in Khartoum: Sudanese Female Cycling Initiative

It is in this context that the cycling group, the Sudanese Female Cycling Initiative, operates. The group was founded in 2016 by Rawaa, a development practitioner from Khartoum. She spent some time in The Netherlands for her work and studies and was inspired to introduce cycling to women in Khartoum when she got used to cycling as a mode of transport while living in Utrecht.

Shortly upon her return to Khartoum in late 2016, she started the cycling group in a park located in one of the more affluent neighbourhoods of Khartoum: the Freedom Yard. The Freedom Yard is a combination of a recreational and athletic area: it has grass lawns and food stalls, but there is also an athletic track and small football courts. It lies just south of the city's international airport, in an area that is unfit for the construction of buildings due to the planes that fly low overhead. Its location, in one of the cities less traditional neighbourhoods, warrants a relative protection from Public Order

¹⁵ On the 25th of October 2021, the transitional civil-military government that was installed after the revolution was overthrown in a military coup d'état. A military leader is now in charge. Protests to his leadership continue to this day. Official numbers count 93 protestors killed, many more wounded, and over 200 detained by the regime since October ('Protester Killed as Sudanese Rally against Coup', 2022).

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police, as well as a more tolerant stance from onlookers, especially within the park itself. As stated by an urban planning researcher I spoke to during my fieldwork:

[In] the more upmarket neighbourhoods in the centre, [such as] Amarat and Rhiyad [close to where the Freedom Yard is located, JvdL] there is no long residence history; people are moving in and out, and all come from very different backgrounds. Because of this, the social norms there are less traditional and less strict.

Rawaa's goals for the group are to stimulate cycling for women in order to promote their visibility and participation in public life, and to provide women with an affordable and independent means of transport. Her goal is to make women's cycling in Sudan as normalised as she experienced in The Netherlands: 'I feel I achieved what I want to do, the day when we cycle and it's normal.' Under the al-Bashir regime, the group was able to cycle,¹⁶ but not as a group that promoted empowerment explicitly. Instead, they posed as a group that promoted the use of the bicycle as an environmental goal for some time.

The group holds weekly trainings in the Freedom Yard, on Wednesday afternoons, typically attended by about ten people. The members also organise rides outside of the Freedom Yard, sometimes with just two or three women together, sometimes with more group members, and go for rides through the city in the weekend or after work on weekdays. In addition, the group organises bigger public rides every couple of months, where a larger number of members attends and the group rides through the city together to make a statement to as many people as possible. Those events are sometimes organised in collaboration with the Dutch embassy, who Rawaa contacted shortly after starting the group in 2016. Since the goals of the group align closely with the values of Dutch foreign policy in Sudan, the embassy provides support, both financially and practically. About thirty members typically attend these rides – sometimes as many as seventy, including small children, male cyclists that show solidarity and friends and family of the group members.

Since the group's founding its membership steadily increased – Rawaa started out with her sisters and some family friends, but soon attracted more members through a number of events that were promoted by word of mouth and on social media. At the time of my fieldwork, the group had fifteen to twenty active core members that regularly attended trainings, and approximately seventy active members in its WhatsApp group, in addition to 15,000 followers on its Facebook page. Rawaa stated

¹⁶ Even though women's public behaviour was heavily restricted, the group was tolerated during this time – perhaps a combination of the fact that they operated in a more affluent neighbourhood and enjoyed the support of foreign embassies.

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that she saw an increase in interest and membership since the change in leadership in 2019, which she attributed to a change in mentality for young women since the revolution.

The women that frequent the group show similarities in age, most are between 20 and 35. They are also typically, but not exclusively, highly educated, and unmarried. There is however also a large heterogeneity when it comes to their origins, occupation, economical status, religious practice, and motivation for cycling. For my interviews, I focused on regular visitors to the group, since they had a more extensive experience of the cycling process. This includes Rawaa, the founder of the group and a development and gender practitioner from Khartoum, as well as three of the group's long-time members. Mary, a finance specialist from South Sudan, joined the group in the very beginning when she heard about Rawaa's initiative through a colleague of her mother. Fatma, a cyclist and member of Sudan's national women's football team, was introduced to the group by her football coach. Sham, an HR administrator who also runs a small fashion business, attended the group's very first official training event in the Freedom Yard. The rest of the interviewees were newer to the group. Souad, an engineer who is divorced and has a young son, joined right before the revolution began in late 2018, and then had to wait quite a while until the Freedom Yard re-opened in the fall of 2019. Yasmine, a lawyer with an interest in international trade, joined the group in late 2019, and was introduced by a friend. Haya, a teacher of handicrafts and teacher for students with hearing impediments, encountered the group online and joined in February of 2020, during my fieldwork. Rana, who works in the field of public health, was introduced to the group by a friend in January of 2020.¹⁷ The next chapters examine and present the findings based on their experiences as members of the Sudanese Female Cycling Initiative in Khartoum.

¹⁷ In the interest of privacy, all names are pseudonyms.

5 Cycling to the Freedom Yard: resources and access

It's the end of the afternoon on a Wednesday, time for the group's weekly training. I'm borrowing a bicycle from Rawaa's family for the time I am here, and today is the first time I will ride it out on the streets, as I attend the group's training for the second time. I carry the bicycle downstairs from my apartment to the street and try to prepare myself mentally. My neighbours are already quite curious about me living there and how I spend my time 'doing research' – what will they think of the strange khawajia now riding a bike? The kids playing under the tree on the square next to my building stop what they are doing and look at me and my bicycle, mouths open. I wave and greet them with a 'tamam?',¹⁸ get on the bike, riding in the opposite direction to the four-lane paved road at the end of the street.

It's the end of the working day and there is a lot of traffic. I join it as I turn right on the shoulder of the road. Cars pass by fast; drivers honk at me or yell questions while they pass me. There are packed minivans and noisy rickshaws that sometimes suddenly cut me off to pick up or drop off passengers. The shoulder of the road is sometimes blocked by piles of rubbish, or covered in sand, or suddenly disappears in places where the asphalt has chipped off over time. There are a lot of people on the streets, walking, talking, waiting for a bus, or getting a cup of tea by the side of the road. As I pass by, some of them call out to me, or nudge their neighbours and point. The fumes of the traffic suddenly seem nauseating, the heat is suddenly pressing. I feel like everyone on the road is looking at me. The distance from my house to the Freedom Yard is only a little over two kilometres, but it seems like much more than that now.

I reach the second set of traffic lights, which is where I need to turn left. I don't feel safe crossing the intersection diagonally with the other traffic, as traffic light times are short and drivers seem impatient, so I cross the right-hand road first and join the rickshaws and motorbikes waiting to get across. I look straight ahead and avoid making eye contact with the people around me. After the traffic lights, it is a couple of minutes straight on a road that is a bit quieter. After that, I reach the other big road on my route: four sets of three-lane roads, divided by high, narrow curbs where people that cross the road can find refuge from the continuous flow of traffic. The Freedom Yard lies on the other side of it.

I get off my bike and wait for a gap in the near-constant flow of vehicles. When it is possible, I jog across, dragging my bicycle by my side and parking it vertically on the curb so that no wheels are sticking out into traffic. I feel like I'm in one of those 'cross the road'-computer games. Three more times and I'm on the other side of the road. The park's security guards see my bike and wave me through the gate – members of the cycling group don't have to pay the entrance fee of five Sudanese pounds¹⁹ – and before me lies the Freedom Yard, which now seems like an oasis of peace and quiet. Little kids attend a football training on a small fenced off football field. On the other side of the park there

¹⁸ 'Tamam' means 'good' and is often used as an informal greeting.

¹⁹ At the time I was there, five Sudanese pounds was equivalent to approximately five eurocents.

are food stalls and people spending time together with family or friends, sitting on the grass, or running or walking on the park's athletic track. But here, on this side, there are not many onlookers. There's only a car-free, well-lit, sheltered, four hundred metre stretch of smooth asphalt.

The scene above describes my experience of cycling in Khartoum, taking part in traffic and crossing the city's public space. It gives an idea of how the city's infrastructure and Sudanese norms in public space shape the experience of cycling in it. This chapter explores the first pair of the motility-empowerment conjunction: resources-access, or how resources shape one's access to mobility options. This entails material, cognitive, and relational resources. This chapter explores what resources the women have at their disposal for each of those interrelated aspects, how they shape their access, and how the group plays a role in this, in order to establish how resources shape the women's access to cycling.

5.1 Material resources

Material resources for cycling include materials needed for cycling, but also having a safe infrastructure system to move around in, or indirect costs of transportation alternatives such as the price of a bus ticket. This section first explores obstacles that women encounter around this theme, discussing bicycles and accessories, durability, infrastructure, the gendered experience of cycling in traffic, the role of the group and the importance of having a safe space.

5.1.1 A bicycle and accessories for cycling

From a material point of view, women's access to cycling in Khartoum is shaped by several factors. As the women would incredulously tell me as I kept asking them about the things they needed for cycling, the most obvious material resource needed for cycling is a bicycle. A theme that arises here is the affordability of bikes. According to the women, bicycles that are available in Khartoum are generally either very expensive, low quality or used. Finding a reliable, affordable bike therefore requires knowing the right people and finding a good deal. Yasmine was able to find a bicycle through a colleague, who knew a bike dealer, and Rana also received help from a friend of a friend. Used bikes are cheaper, but are generally seen as more unreliable, and there is also an element of ownership. Sham preferred to be the first to own a bike: 'the problem is whenever you find [a] bike in Sudan, especially the sport bikes, they're normally used ones. I don't like it used, I don't like things used. (...) I want it to be my own, a new one.' This sentiment was echoed by others in the group, although they also agreed that sometimes, a used bike was the best option due to its lower price. In any case, buying a bicycle requires having a relatively large sum of money to spend, and the ability to spend it freely on a personal expense. This means that buying a bicycle is not an option for all members. Rawaa, the founder of the group, receives a lot of messages from women that are interested in joining the group.

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She says that this is an issue for about ninety percent of potential group members. She tries to invite them anyway, reassuring them that there is always an opportunity to share bikes during training sessions.

And whenever there are bikes available, that does not mean that they automatically suit the specific needs and preferences of the cyclists. Sham, who has been part of the group since its first year, preferred a racing bike over other types because she likes to ride fast. She had a racing bike in her possession: bought during a visit to Saudi-Arabia, with her family's financial support. Buying it there was cheaper than buying or importing a bike of similar quality in Sudan. Fatma, who works as a deliverer, was looking for a bike with a cargo rack or basket to transport her goods to replace the mountain bike-style model she owned at the time. Rana, a relatively new member of the group, was considering to buy her own bicycle when I first met her. She liked the idea of a foldable bicycle, which she would be able to store in her car for easy transport, and to keep it hidden from her father.²⁰

For some, the bicycle is the only thing they need to obtain before setting off. For others, however, cycling accessories are also important. This can be a matter of appearance, consolidating the image of a cyclist. According to Rana, having accessories makes you look more put-together and makes other people take you more seriously as a cyclist. 'And maybe it's kinda stylish, you know.'

Accessories also provide safety. Especially the women that sometimes cycle outside of the Freedom Yard, where the weekly training takes place, emphasise the importance of helmets and bike lights. Quality and reliability are big considerations again. Mary explained: 'All the accesories for the bike, it has really always been a challenge regarding that, because if you get them they are all used, they are not brand new and sometimes not in a good condition, so you just have to take it the way it is.' In general, the availability of accessories is similar to the availability of bikes: if you know where to look and who to contact, a lot of them can be found, but there are similar considerations around ownership, affordability, reliability and durability. This means that access to high-quality bicycles and accessories is reserved for the women who have the financial, temporal and social means to look for the materials that suit their needs.

5.1.2 Durability

Once a bike and any desired accessories are obtained, there is the matter of maintenance. Due to the quality of available goods and a demanding infrastructure, bikes break regularly. Most times, these are

²⁰ This is explored further below when discussing relational resources (section 5.2), and in the second results chapter (section 6).

small defects that are relatively easy to fix: punctures, cables that are stuck or chains that need to be lubricated. Some of the women feel comfortable to perform those repairs themselves, sometimes using online videos for instructions. Sometimes, however, these repairs require specialised knowledge, skills, or tools. In these cases, and for more severe issues such as broken pedals, worn-out chains or outer tires that have lost profile, the women can go to the local *souq*²¹ or ask around in their network for someone who is able to repair the defect, but this requires knowing where to go and who to ask, which is sometimes a problem. Mary told me about a longer cycling trip she took out of the city with a friend, during which her bike broke and local shops were unable to repair the defect. They had to take their bikes back to the city on public transport, and ever since she checks the state of her bike before every ride, so that this does not happen again.

5.1.3 Infrastructure

Another aspect of material resources is the accessibility of the infrastructure of the city. The women do not always feel like the streets are made for them, as women, and especially not as women cyclists. Rana described the city's roads as 'not bike friendly, not even for the people to walk on.' Looking at the busy traffic, high curbs, non-existent road-shoulders, and holes in the roads, I could only agree with her. I was surprised to find an actual designated cycling lane during my fieldwork, marked out on the pavement on the Nile road in Omdurman: the 1,5 meter wide lane would have been a nice place to cycle, had it not been for the thirty centimetres wide, twenty centimetres deep grooves that interrupted it every fifty meters or so – intended for draining water from the road into the river. For now, it was mostly used by food stalls and their customers. Only the main roads in the city are paved and often not in good quality. Traffic is busy and colourful, in varied forms, swerving around potholes, pedestrians, each other. After sunset (around 6:00 pm, so around the time people get of work), only the main roads of the city are lit, neighbourhoods often not. Most roads through neighbourhoods are unpaved, and all of them have an abundance of bumps, cracks, sudden speed ribs, no shoulder at all, or a shoulder that is permanently covered in sand and litter. The weather is hot and dry, and especially the main paved roads often lack shadow.

When driving in the road, it is common to see rickshaws, cars and busses suddenly swerving around potholes or braking so that they can slowly cross them. For cyclists, this is particularly dangerous, especially after dusk. There is also a gendered consideration to safety for women cyclists in particular,

²¹ This is a bazaar or market. It can be small and limited to one kind of commerce – vegetables or spices, for example. More often, these are big sprawling collections of small stores and vendors that sell all sorts of goods. In Khartoum, the big *souqs* sell anything from clothing, cookware, tapestries, furniture, toiletries, computer hardware, kitchen appliances and, if you are lucky enough to find the right vendor, bicycle parts.

considering that many of the city's streets are not lit at night. Mary describes this as a considerable obstacle to her cycling plans:

Sometimes when I decide like I want to go for evening ride because I don't have the proper lights, then I said, OK, no, it's getting late, let me just do it tomorrow and then you start procrastinating and then tomorrow becomes one month, two weeks, so it depends. So sometimes you feel like you want to tour the city at night, then there are no lights, proper lights, because you know Sudan roads are terrible. (...) And there is a lot of holes around and everything, I feel like no, I can't do it, you get a little bit afraid, so, yeah...

5.1.4 A woman cyclist in traffic

There is also an aspect of perceived accessibility of infrastructure for women in particular.²² Some women told me, for example, that it is illegal to cycle on the bridges that connect the different parts of the city (Bahri, Omdurman, Khartoum). I later discovered that this is, in fact, legally allowed and some of the members of the group say that they cycle on them regularly, but this demonstrates that the bridges are perceived as inaccessible. While Mary assured me that it is no problem to cycle on them and that she had crossed 'all the bridges in Khartoum,' others explained how they did not feel like they could cross the bridges on a bike while riding alone. Fatma works as a bike deliverer, but only cycles within the Khartoum proper area, because she feels like the traffic on the bridge to Omdurman, the other side of the Nile where her employer is located, is too busy. Therefore, she takes a long bus journey to Omdurman to pick up her goods, and then travels back to Khartoum, where she distributes the packages by bike.

One of the women in the group expressed to me that only men could cycle in certain areas of the city, because they would be more able to keep up with traffic. In general, women cyclists encounter quite some resistance and harassment from fellow road users. 'Even the cars they don't respect each other when they drive, so if you're riding a bike and you're a lady, no one respects you at all,' according to Mary. The first time I met Souad, who was watching her son play on a playground in the middle of the city, she told me that she had recently been hit by a car and had fallen, and that the driver yelled at her.

He said to me, 'You can't ride a bike, why are you [on] a bike?'

²² This topic also relates to the gendered accessibility of public space in general (section 5.1.3) and relational resources, which are discussed below (section 5.2).

I said, 'You pushed me!'

He said 'No, I didn't push you! Fuck you!' and then he went away.

5.1.5 The role of the group

The cycling initiative plays a considerable role in expanding the access of individual women to material resources. Regarding the availability of bicycles and cycling accessories, and bicycle maintenance, the group provides access to these through their network and knowledge. Not everyone who comes to the group's training owns a bicycle. Some cannot afford it. Some own or share a bicycle at home but cannot take it to the Freedom Yard. This can be for a variety of reasons: they do not feel comfortable cycling in public, they live too far away to cycle, or transport is difficult or expensive. Knowing this, the women that are present at the training always share bikes around with those who have come without. During some of the training sessions only two bikes were available to share with six or seven people, and still everyone present had a chance to cycle. During one of the public rides that I attended, there was one group member who did not have her own bike, so the women agreed to ride in laps and took turns riding the bike.

The group also facilitates obtaining a bicycle. They have received bicycles in the past from companies or charity organisations, and those bicycles were distributed to members of the group. Fatma, the bike deliverer, was using public transport to move around until she learnt how to ride a bicycle with the group. When her bicycle broke, her free transport mode disappeared and her income decreased, so when Rawaa received a bicycle through a company's raffle, she donated it to Fatma. They also know reliable bicycle dealers and shops and put new members that are looking for materials in touch with them.

Additionally, the group has access to a network of supportive male cyclists that act as mechanics. There used to be a man who would attend all the group's trainings and even serve as a cycling coach, but nowadays there are one or two guys from a men's cycling group in the city that sometimes visit the training, hang out and bring tools to perform minor repairs. The women still refer to them as 'coaches,' despite the fact that they don't really coach the group. They always seem to know where to get certain accessories, according to Sham:

'I can go to the market, but not all of the accessories are found in the market.'

'So then how do you get them?'

'I just call the coaches and they bring it to me.'

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Mary also uses this network when her bike breaks: ‘Normally when it breaks... If it’s at home sometimes.... I open YouTube and try to fix things but also, we have the challenge of not having all the spare parts, like the keys and everything, to fix everything. Then we always call [one of the coaches] to come and fix for us. Sometimes we just go to the Freedom Yard and do maintenance, to check all the bikes and do some maintenance if there is anything...’

All in all, the group’s network and knowledge make cycling there more accessible for the women, although buying bicycles and subsequently transporting them to the weekly training remains one of the most-heard objections for women who aspire to join the group. Rawaa is therefore working on obtaining some common bicycles for members and a safe storage place in the Freedom Yard. This would expand the facilitating role that the group has in terms of access to material resources.

5.1.6 A safe space

The group also provides access to the Freedom Yard, where the training takes place. Obtaining permission to use it as a weekly practice ground for a group of cycling women required quite some work, money, and patience from Rawaa, who managed to do so by presenting the group’s purpose as an environmental awareness group – this was in 2016, when Omar al-Bashir was still in power. Under his regime, an explicitly activist group aiming to empower women would not have gotten permits to train every week, so using environmental activism as a cover – and with some political support from the Dutch embassy – the group was established.

The stretch of asphalt that the group uses in the Freedom Yard offers a solution to the infrastructure and traffic-related obstacles that the women encounter: it is separate from public streets, free from traffic, relatively well-maintained, covered in smooth asphalt and well-lit. This is why Souad chose to go to there when she decided to learn how to cycle. Rana also appreciated how the park offered a safe haven to problematic traffic and unfriendly roads: ‘the Freedom Yard is a good place to go.’ This makes it a very important material resource, which the group helps provide.

5.2 Relational resources

Relational resources that shape access to cycling relate to having the sense of being permitted to cycle, stemming from the reactions of direct relations and broader social norms on proper behaviour for women in Sudanese society. This section explores the way that these resources shape the women's access, discussing the role of peers and siblings, family members and the influence of opinions of the community. It also examines how these norms influenced earlier cycling behaviour for the members of the group and explores the way the group shapes these resources. Having a safe space is discussed again, this time with regard to relational resources.

5.2.1 Peers and siblings

One source of support and encouragement for the women comes from their peers. For women of the group, friends and colleagues seem to be mostly supportive and enthusiastic. Yasmine's colleague helped her get a bike and Sham found the group because a friend, who knew she liked cycling, tagged her in a Facebook post. Rana said: 'My colleagues in the office they are excited, they are OK. I even posted on Instagram, my photo of cycling, [in] China²³ and last week, and people are like, 'Please take me, I want to join you!' Others experience less support from their peers but find it within the group itself.²⁴ In general, the people that the women deem as supportive in their direct relations, are people who are of a similar age to them.

Male siblings are a notable exception to this: older brothers are often critical of their sisters cycling. This is noteworthy because it contrasts with the generally supportive reactions that women receive from people in their age range. Rana offered an explanation on this subject:

'They're OK to come and support us as friends, they're OK. But for their sisters I don't know.'

'Why?'

'Because in culture, sometimes you encourage your friends because you know it's normal for her. But if it's not normal in your house you won't encourage your sister, you understand?'

²³ Rana had travelled to China a few months prior, on a business trip. More on this in the section on cognitive resources below.

²⁴ This is discussed in more detail in the next chapter.

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This has largely to do with the general pre-conceptions and prejudices that surround cycling women in Sudanese society, and with older siblings being concerned about what cycling in public might mean for the reputation of their sister. In contrast, sisters are more often seen understanding and supporting the cycling endeavour. Rawaa's sisters immediately joined when she founded the group. Haya was concerned about how her sisters would react, but as she started explaining more to them about the cycling group, they started to like the idea.

5.2.2 Parents and the opinion of others

In reactions of parents, there seems to be a gendered divide as well: most supportive reactions seem to come from mothers. Sham's mother accompanied her to the first training she attended, and Mary's mother was immediately encouraging and enthusiastic when she joined the group. Many of the women's mothers cycled when they were little.

Fathers can not always be counted on for support. When I first spoke to Rana, she told me that she was not going to tell her father that she had joined the group, because she thought he would not approve. 'Because he thinks this will affect my sexuality, this will expose me to men, it might risk my virginity... yeah.' – this is also why she was looking for a foldable bike to store in her car. Yasmine had also not told her father about the cycling either, because he doesn't think it is fitting for her status. Her mother helps her to sneak out for the training, and she keeps her bicycle on the balcony of her room. If her father asks about it, she plans to tell him that a friend asked her to store it there.

Notably, whenever family members – irrespective of their gender - oppose the cycling, they seem to be concerned about the opinions of the community and how the cycling will affect how people view the women and their family. Sham's father was initially opposed to the idea of her cycling:

No, he didn't like it at first. He said, you know, he didn't like it not because he didn't like it, but because the community, saying, you know, a girl on a bike everywhere... How will they react to it, and he was [worried] about family and stuff. You know, he doesn't like it because he was afraid for people. How people would react about it. So, he just said, 'why do it?,' and I said, 'why not?'

Both Souad's parents and siblings were also opposed to her cycling, especially when she posted about it on social media. That's when her father became concerned about what people might think, and he did not want the neighbours to find out:

When my father [saw] my picture on Facebook he said to me 'Souad, you are still riding a bike?' I said to him, 'Yes!' and he told me, 'Don't ride near to our home.'

This topic is also a concern for the women even when family members do not explicitly address it: some of the women, especially newer members of the group, are concerned about how the public will react to them if they cycle in public outside of the Freedom Yard. Rana said: 'I don't know whether people outside, how do they, will they react to this. (...) I don't know if I try it alone outside, what will be the reaction, some people might take pictures, this might make my family annoyed...'

5.2.3 Stopping to cycle

These concerns about the community and social norms are often also what made the women stop cycling when they were younger: cycling is accepted when girls are young but becomes less accepted as they grow older. Haya cycled as a young girl, on her brother's bicycle, together with her sister. 'And when she grew up, she used to cycle outside the home in the street, and then the neighbours come to her mom and told her about her daughter who was cycling, and she was very angry about this and told them that they have to stop cycling.' Rana cycled as a girl too: 'So when I grew up my mum [said], 'Ok now you are old enough, you can't cycle outside.' She added:

'It's because they think that this might... make male[s] look at you in a sexual way.'

'So, how old were you at this time?'

'Twelve. Twelve years, yes.'

Souad was never allowed to ride a bicycle at all, even as a young girl. Her mother told her that cycling was for boys, not for girls. Rawaa's bike got taken away by her uncle: 'They just, the family, my uncle suggested that I'm a grown girl and it has to go to his son, to my cousin, and they took it and I used when I go to their house, I saw my bike and it was really one of the sad moments in my life, when the bike was taken from me.'

In some cases, the women stopped of their own accord, as a reaction to social norms. Mary stopped cycling when she was fifteen, because she felt it was no longer an appropriate activity for her. 'No one told me. No one stopped me but it was just automatically because of the society this is what happens. Without even me knowing it, I just stopped. Without any reason, just because we know that it's a cultural thing. When you reach a certain level or a certain age you just know that this thing is not allowed, and you just stop doing it accordingly.' Sham also stopped as a teenager: 'Maybe all Sudanese girls stop cycling at some point, when they grow up. They stop cycling because it's not acceptable. They don't like us cycling. So, it's just for boys.'

5.2.4 The role of the group and a societal shift

The group has influence on relational resources in multiple ways. The first way relates closely to the influence of social norms as described above: through public rides and online advocacy, the presence and visibility of the group in public space functions as an expander of social norms. Lately, Rawaa has seen an increase of interest for the cycling initiative, both online and in attending to trainings. She attributes this to the group's on-going activism, in tandem with a broader societal shift, the one that also culminated in the 2018/2019 revolution and ousting of Omar al-Bashir. According to a gender activist and expert that I spoke to, the revolution is a symptom of gradually changing ideas about citizenship and gender, and it resulted in more spaces for women in Sudan, be it online, on the streets, or in organised events and conversations about gender issues. Haya sees a shift in the community: 'The community now is changing, you know. They are in the process of change. Maybe [I] will find some people who are accepting or happy [about cycling].' Mary agrees with this:

Women are realising that they are powerful in Sudan now. Because there are so many activists, because we have now national women football team, yeah, and gradually maybe we [will] have the basketball, the volleyball and everything. And we have other roles as well, like we are cycling now, and there are other groups doing some other events so I think women are realising that they can actually do a lot of things, a lot of amazing things.

But even before the revolution, the activities of the group were changing social norms in the neighbourhoods where the group cycles, according to Rawaa: 'The people that saw the biking already, that saw us previously, one, two, three times, they really changed.' Mary also told me how, whenever she cycles alone and people ask her about it, she refers to the group activities and explains that she belongs to the group. 'In Khartoum people are like... because maybe we cycled a lot in Khartoum, people are now aware, they see us around and they see ladies [cycling] around.'

Since many objections from family members are based on existing social norms, challenging, and expanding these social norms has a long-term positive impact on the relational resources of women that aspire to cycle.

5.2.5 A safe space, again

The influence of social norms on the women themselves and the opinion of their direct relations re-emphasises the importance of access to the Freedom Yard during the weekly trainings. This is another way in which the group provides access to cycling for women in Khartoum. Not only does the Freedom Yard offer a safe area to cycle in terms of infrastructure, there is also less public exposure and more privacy for the cycling women. It is sheltered by fences, hedges, and walls, and additionally the entrance fee that visitors have to pay means that most visitors enter the park with a purpose (such as

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meeting friends, doing sports, getting some food), and there are less people that are loitering. For the cycling women, this is an assurance.

Haya felt comfortable enough to take off her *abaya*²⁵ during practice, because there were no men in the area of the Freedom Yard where training takes place. That feeling of privacy meant a lot to her. Rana also felt comfortable with the privacy of the Freedom Yard, and even thought that her father would accept her cycling if she emphasised that it was a women-only group – no exposure to men and the public makes it more acceptable! – and as long as she only cycled within the Freedom Yard. This shows how having access to this space can help to navigate and negotiate familial norms and opposition, minimising social consequences for the family's reputation and minimising the exposure to unwanted attention from men, which are two often-heard objections to cycling.

In this sense, the Freedom Yard functions as an 'owned space,' with light, security, safety and privacy (relatively), where norms are different, clothing norms aren't as strict, there are less stares and there is no traffic, so it is possible to safely practice. By providing access to this space, the group facilitates the availability of a material and relational resource that increases women's access to cycling.

5.3 Cognitive resources

Cognitive resources relate to having the confidence to cycle, or feeling that cycling is within the achievable realm. This section explores the resources that the women have available to them as they enter the process of cycling, discussing the role of travel, work and upbringing, as well as the importance of role models.

5.3.1 Travel

The first influence on the achievable realm of the women is travelling and experiencing different contexts. Rawaa and Rana say that travelling was what (re)introduced them to cycling. Rawaa describes her travels to The Netherlands as a direct motivation to introduce cycling to Sudan. She says:

I was in the city centre of Utrecht, at one of the busiest cycling lanes and I was just having coffee and I thought about Sudanese women. There are some nice ladies, they deserve to have, to enjoy this, because when you cycle in Holland it's really different, the feeling, free, the lanes, you feel safe.

²⁵ A loose, robe-like outer garment worn by some Sudanese women when in public.

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Similarly, Rana's first time cycling since childhood was when she travelled to Port Sudan and Sawakin, Sudanese cities on the coast of the Red Sea. There, she felt that she could cycle 'because she was already like a foreigner to the people there,' meaning that the social norms applied to her by the public felt looser from those in Khartoum. So, she borrowed a bicycle from some kids and cycled on the beach. Later, she travelled to China for work and cycled using bicycles from a public bicycle sharing system. This made her realise how much she enjoyed cycling, and when she heard of the group upon her return to Sudan she decided to join. This shows how travelling to another environment with different norms can introduce or change certain assumptions about what is achievable or feasible.

5.3.2 Work

A second influence on the achievable realm of the women is their job and professional mindset. This has a significant influence on how they approach activities and norms. Rawaa has worked as a development worker for 12 years, and she told me how that influenced her mindset when she visited The Netherlands for a course and saw how bicycles were used:

I really love [the cycling lanes and the variety of people using bikes] and for me I always think about, because I'm a development person I don't think for myself, I always think why this doesn't happen in my country? I need to do this thing, I need to copy this idea to try. I thought, yeah, let me start something like that.

This is what motivated her to start the cycling initiative upon her return to Sudan. Because of her background, she was inspired to make a change and decided to work towards a similar integration of cycling for women in Khartoum. Yasmine explains that her legal background affects the way she views cycling: 'I know what I'm doing and I'm not doing anything wrong. (...) That's why I don't get irritated. And I don't open the space for discussions. I just focus. And I also think the nature of my work - that shapes my personality. Because I always stand in front of the court and defend.' These examples show how work, or a professional environment offered an alternative frame, challenging and expanding their notions of what activities are in their achievable realm.

5.3.3 Upbringing

There is also a large influence of the women's upbringing. This is, of course, closely related to relational resources, direct relations, and social norms. However, where relational resources relate to the influence of those factors on being 'allowed' to cycle, the way upbringing relates to cognitive resources is how this upbringing shaped the achievable realm of the women, the feeling of being 'capable' of cycling. For some of the women in the cycling group – for whom cycling is now within their achievable realm – their upbringing had a large influence in this.

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Rawaa grew up in an all-woman household after her father passed away. After losing her father as primary caretaker of the family, she, her mother, and sisters learnt to work hard to provide for themselves, and this has given Rawaa a sense of independence from more traditional social norms. Additionally, this provided her with financial independence from direct male relatives, and this also expanded her achievable realm.

In Sudan of course it's a man dominated society but because I'm independent from them. They don't have to decide anything for me. I can go and rent a house, and I can buy a house, so they know that. So sometimes they don't like to put a lot of pressure on me, so I don't go on some very extreme decisions. I can leave the country, I have the option, like I know how to get the entry visa it's not so difficult for me.

This shows how material resources can, in turn, influence cognitive resources. Souad attributes her motivation to cycle despite restrictive social norms to her childhood spent with her grandmother.

She was really convinced in my ability. And she always, she was always motivating me and saying to me, 'You can do anything if you want to. Don't listen to any person.' (...) She discussed with me about things, and she said her opinion and said 'Try anything you think is right. After that, come to discuss with me. But this is my opinion. You can do this opinion, or you can change it.'

This taught her to form her own opinions on matters, independent of social norms, so when she considered to start cycling, she was able to evaluate her own wishes and capabilities against obstacles that she perceived and decided that she would be able to master it. These examples show how encouragement, or lack of direct opposition, can foster an achievable realm for women, allowing them to question restrictive norms and to pursue their objectives. This means that they obtain resources that allow them to see cycling as a part of their achievable realm.

5.3.4 Role models

Another factor that shapes women's cognitive resources and achievable realm is the visibility of role models. When it comes to cycling women in Sudan, there is a general lack of role models that convey that this is normalised behaviour. This decreases the achievable realm and, in combination with the relational resources described above, often causes women to stop cycling when younger. While some of the women that I interviewed already cycled in Khartoum before joining the group – Fatma already used her bike to get to football practice, and Souad started learning how to ride a bike in the Freedom Yard by herself – most women only decided to cycle when they heard that the group existed.

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Haya joined the group in January of 2020, around the time I started my fieldwork. When she saw the group through social media, she immediately wanted to join and cycle with the group. Rana echoes this sentiment. '[I thought] this is amazing, I'm coming!' When Yasmine heard of the group, she tells me, she felt inspired to be 'brave and strong' and join the group. All of them express that they would not have started cycling without having the group as an example.

Older members of the group express a similar sentiment. For Sham, the fact that she knew girls who were cycling around the city inspired her to do the same. Mary would not have started cycling without the group:

'The group triggered that feeling of OK, we women can change things together. Because before-'

'For you personally?'

'Yeah. Because before maybe I had the... the feeling that I want to do it, I wasn't confident enough to do it. Then when we came together, Rawaa came with the idea it was like, yeah, that was the missing part of it!'

This shows another role that the group has with regards to the availability of resources: by existing and performing in the public space (online and offline), the group not only expands social norms and relational resources as described above, but also the achievable realms of women that aspire to cycle. As such, they function as a role model and catalyst, making the act of cycling more accessible for those women.

5.4 Conclusion

To conclude, resources shape the women's access to cycling in various ways. Materially, the availability of bicycles and accessibility of public space seem to be the largest obstacles that shape access to cycling. The group increases access to cycling by providing materials, a knowledgeable network and a safe place to practice cycling. Relationally, access is increased by the support of peers and mostly woman family members, but restricted by others – mostly men, social norms, and concerns about the family's reputation in the community. The group slightly increases access through a slow process of advocacy and activism in public spaces, which slowly expands social norms and community opinions. Cognitive resources are shaped by travel, work, and upbringing, which shape the achievable realm. The group increases the achievable realm by functioning as a role model for women that aspire to cycle.

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As such, the group functions in an enabling manner on a material, relational and cognitive level by providing resources that increase women's access to cycling. Having access to the motility system of cycling is, as described in the theoretical framework chapter, in a way a pre-condition for the process of empowerment. This process and its outcomes are discussed in the subsequent chapters.

6 Wednesdays at the Freedom Yard: agency and competences

As March rolls around the lower temperatures of ‘Sudanese winter’ are definitively over. Temperatures now reach up to 40 Celsius in the afternoon. During those times outside activities are preferably limited to sipping tea in the shade of trees or buildings, hoping to catch a gust of wind. The sun is also starting to set a bit later, meaning that cycling practice can be postponed with an hour or so, to that time of the day when the sun is starting to set, and temperatures begin to fall. As people leave work and travel home, tea ladies by the side of the road are working hard – this is rush hour for them too. The atmosphere is good, with people unwinding, relaxing in more manageable temperatures.

At the Freedom Yard, shadows are becoming longer and the stadium-type lights that light the park have been lit, producing light that seems a bit too bright compared to the dusty, hot sunlight of the afternoon. On the paved parts of the Yard, and on the walls of buildings around it, murals carry reminders of the Sudanese Revolution a year earlier: flags, slogans and murals of the people that died during the protests adorn the street. The façade of the building directly across from the pedestrian’s entrance carries the words ‘huriyya, salama, ‘adala’; freedom, peace, justice - slogans from the revolution. Small stalls near the entrance sell various foods and refrigerated drinks. There is the low hum of traffic from outside the park. Inside echo the sounds of the football field in the corner of the Yard, where young kids have their practice. On the dusty grass, people are hanging out with friends or family – having a picnic, taking selfies or sitting around the dried-up fountain in the middle of the yard. Around the grass, there is an athletic track. A sprinting man in a track suit passes two women in niqab, who leisurely stroll on the far-right lane of the track, chatting and swinging their handbags animatedly.

The stretch of asphalt where the group cycles is in the back of the Freedom Yard, half-hidden behind some half walls and lower than the elevated grass field. While sitting on the grass, it’s difficult to see exactly what happens on the asphalt. Few people visit this end of the park, and by now the group has become a familiar sight to those who do.

As the workday ends, members of the group start arriving, each at their own time. Initially, there are only three of us, with only one bike to share. We take turns cycling a bit, and the others sit on the curb edge, in the shade of a billboard. We chat about the past week, and I practice my newest Arabic words. Slowly more women arrive. Some come by bike, others on foot. Others arrive by car, parking on the side of our stretch of asphalt. Everyone is greeted enthusiastically; the atmosphere is relaxed and sociable. Conversations arise around me, the women laughing and making jokes. Soon there are ten of us, and four bikes to go around. The cyclists hold short races, or show off their skills in speed, steering or cycling without hands. Someone hands out homemade cake. Off to the side, someone else has rolled out a prayer rug, and those who want to pray patiently wait for their turn to use it.

One of the women that arrives is a first-time visitor to the group. She speaks to Rawaa first, as they were already in contact through the group’s social media, and Rawaa introduces her to other members of the group, who immediately welcome her and offer

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her one of the bikes to practice on. The woman approaches it with a hint of trepidation – the last time she cycled was as a young girl, she explains with a smile – but after a moment of hesitation she eagerly removes her abaya and kicks off her shoes, so she can cycle better. Two of the group members hold the bike steady as she climbs onto the saddle and help her find her balance while she starts pedalling.

Wobbling, she rides a couple of meters, but then she loses control of the handlebars and falls to the asphalt. Without fail, she gets up and calls to her helpers. Let's try again. Over the next half hour or so, other members of the group stay by her side, supporting the bike as she pedals and explaining how to start and stop safely. It doesn't prevent her from falling several times more, but as the training draws to an end, her helpers are struggling to keep up as she cycles, and the group collectively cheers to her achievements.

With the sun now definitively set, the wind picking up and the temperatures dropping, the group members start to go home, discussing their cycling plans for the next week and arranging to meet up early Saturday morning to go for a ride around the neighbourhood – leaving behind the brightly lit, empty stretch of asphalt.

The previous chapter discussed how resources shape women's access to cycling, the role of the group and the importance of access to the Freedom Yard, where the group's weekly trainings take place. The excerpt above describes such a training – the surroundings, cycling and interactions that are part of the process of utilising the resources of the previous chapter in order to join the mobility system of cycling.

This chapter explores the second pair of the motility-empowerment conjunction: agency-competence, referring to how the access to cycling and its mobility system is utilised, and which competences play a role and are developed in that process. This entails practical, relational, collective, and individual competences. Below it is discussed how those competences are developed by the women of the cycling group, and what role the group has in this process.

6.1 Practical competences

Practical competences, in the context of cycling, refer to the ability to ride a bike and the ability to navigate an area and a traffic system – individually or collectively. This section explores the practical competences that the members of the group develop, discussing learning how to ride and navigate on a bike, and the impact of riding with the group.

6.1.1 Using a bicycle, part 1: Learning to ride

For most of the women that I interviewed, riding a bike was a skill they had already developed as a child, but this was not the case for all the members of the group. Souad did not cycle when she was little, because her family deemed it inappropriate for her as a girl. Now, as a grown woman, she wanted

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to teach her young son how to ride a bike. Therefore, she – without knowing about the existence of the cycling group – decided to go to the Freedom Yard and teach herself how to ride.²⁶

I couldn't ride a bike; I fell again and again and again. But after [the first] day, the second day, I go to YouTube and learn how to ride a bike. (...) In the second day I try again and after I'm training more than one hour or two hours continuously, I do it.

Souad learnt the basics of riding a bicycle on her own, using online videos as instruction. After mastering the basics, she also tried to ride on the road outside the Freedom Yard, but she was intimidated by the traffic and drivers, and fell over multiple times. Also, at this time, the old regime was still in place and the Public Order Act²⁷ was in effect. Because of this, she was afraid to be arrested for riding a bike and wearing trousers and a shirt in public, so after that one attempt she decided to only train in the Freedom Yard. While there, someone told her about the cycling group and she decided to join because she wanted to learn how to ride in public streets.

Many other women in the group, including most of those that I interviewed, had cycled before they joined the group – mostly as little kids. They 'merely' had to brush off their cycling skills after joining the group. As described in the scene at the beginning of the chapter, the group members play a large role in this process. There is a supportive atmosphere during trainings with a lot of practical help to those who need some support while learning how to ride: older members function as teachers to newer members and there is a very non-judgmental, supportive environment in which practical competences can be developed. Sham recalls one of the first training sessions that she attended: it was a bigger event, organised and promoted with the aim of attracting new members. Some thirty interested women showed up and there was an experienced cyclist (one of the group's 'coaches') who set up training exercises, like doing a speed test or cycling in patterns between traffic cones.

6.1.2 Using a bike, part 2: Navigating on a bike

As Souad's story also shows, after learning how to ride a bike physically another practical competence to develop is how to ride that bike on the road and how to navigate the traffic and infrastructure of a city or learning about the rules and regulations of movement.

²⁶ Technically, at this point the Freedom Yard was still called the Green Yard – its name changed after the 2019 revolution. For clarity's sake (and because of its rather poetic sound), I solely use the name Freedom Yard.

²⁷ A law *de facto* governing the appearance and actions of women in public space (see section 4). It was applied in less or more strict manner in different neighbourhoods. The neighbourhood that the Freedom Yard is in is relatively progressive, so the Public Order Act was not enforced as harshly, but it was still a real, scary possibility.

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During one of the trainings I attended during my fieldwork, a small group of attendees decided to go for a short, ten-minute ride outside the Freedom Yard, around the circumference of the park, in order to practice riding in traffic. I join them for the first round. We cycle in a single-file row, on the right-hand shoulder of the road. The most experienced riders lead and close our ranks, less experienced riders are sandwiched between them. Using hand signals, turns are signalled to riders behind you and to other traffic. Although traffic is busy at this time of day – the group intentionally met earlier than usual to ride outside while it is still daylight outside – cars yield a small strip of the road to our presence.

Upon our return, four or five women are already waiting to join the second ride. Among them is a woman who has not cycled outside the Freedom Yard before. She will ride in the middle of the cyclists, flanked in front and the back by more experienced riders. Taking a deep breath, she mounts her bike, and the group takes off. When they re-enter the Freedom Yard ten or fifteen minutes later, she has a relieved and triumphant grin on her face. As soon as they turn the corner everyone present starts cheering and congratulating her on her achievement.

6.1.3 Riding with the group

In the context of this competence, the group functions as a trainer. They train women's ability to ride a bike, and guide those that want to navigate traffic. Yasmine explains: 'The group teaches you like, how you have to cycle and they give you the support that is needed when you cycle in the street and how to avoid accidents. And with the group also you can cycle for a very long distance.' Haya also said that riding with the group enabled her to cycle outside of her own neighbourhood. I asked her why this was, expecting an explanation about social norms and people's reactions, but the answer was much more practical: 'I don't know the routes.' Souad, who trained in the Freedom Yard with YouTube videos, also says that the group helped her: 'Now, after cycling with the group for a while she says: 'I [am] more confident, because I'm a good rider now. I can ride, I can control my bicycle, when anyone push[es] me or put me from the [road], I can control myself.'

The occasional rides that the group organises with the Dutch embassy also function in this way and provides additional circumstances in which these competences can be developed. Since those rides are aimed at attracting a large group to make a public statement, the barriers to join are lowered as much as possible. As such, there are extra traffic safety measures: roads are blocked off, there are cars that flank and security personnel that clear busy roads. This ensures that the women have more space and peace to use the road, and that they can learn how to ride in public in a relatively safe way.

6.2 Relational competences

Other competences that are important to develop, especially for women who want to ride in public, are relational competences. This relates to navigating and negotiating reactions of others and broader social norms whilst cycling. This section explores the relational competences that the members of the group develop, including a discussion on how reactions and social norms are navigated, how clothing can be used in this process, and how the group can function as a buffer.

6.2.1 Navigating reactions and social norms

Dealing with reactions from people on the street can be done in various ways. Some of the women prefer to engage with reactions as little as possible. Mary notices a lot of reactions when she cycles on crowded streets. Some are positive and encouraging, some are negative, insulting, but Mary says most are just surprised.

I think some of them they are in shock. I won't blame them because it needs time. Change needs time. So even if they are reacting negatively, I won't blame them. But through time they will get used to it, I mean now it's even better [than before].

Nonetheless, she likes to avoid crowded streets with many onlookers and therefore she often goes cycling on Fridays²⁸, early in the morning, when the streets are quiet. Sham shares this feeling and likes to cycle on Nile Street, a well-maintained and well-paved road that runs along the Nile for [distance]. During the day, this road is often traffic-jammed and busy, but early in the morning it is quiet, both in terms of traffic and in terms of people. This allows her to focus on the cycling – ‘just me and my bike and the street.’ She puts on some music in her headphones and cycles for as long as she can. Rawaa also strongly dislikes any reactions on the street, whether they are positive or negative – she sees them as harassing and condescending. She says:

Even the nice words, they say it, I mean we don't want comments, good or bad. For me I don't want comments, even the good ones I don't want, just keep it for yourself! (...) I feel I achieved what I want to do, the day when we cycle and it's normal.

²⁸ The Sudanese workweek runs from Sunday to Thursday. Friday and Saturday are the weekend. Friday is also the day of the week on which congregational prayers are held in mosques. They are considered holy days, or minor public holidays. Since many people are off on Fridays and spend the day with friends or family, public life starts up slower and later than on weekdays, so the streets are quieter in terms of traffic and pedestrians.

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Other women in the group are okay with the reactions and see them as an opportunity to engage with others' opinions. Souad sometimes also puts on some music and does not engage with the reactions of onlookers, but sometimes, when she is feeling happy and rested, she likes to discuss with them and change their mind. One time, an older woman called out to Souad when she was cycling, and she stopped to engage in a conversation. After having tea together and discussing their faith for almost an hour – Souad wanted to show her that despite the cycling she still knows the Quran – the woman had changed her mind slightly. She still did not like cycling as an activity for her own daughters but accepted that Souad was doing it. When Fatma cycles in the city's different neighbourhoods she often gets the reaction that cycling is not appropriate for women, or that she is not allowed to cycle. She likes to reply that there is no label or manual on the bike that states that it is only for men, so she will continue to use it. Whether they engage with reactions or not, the women agree on one thing: it would be nice to not hear them at all.

6.2.2 Clothing

Another theme that emerged around negotiating norms and dealing with reactions is clothing. Some members of the group dress specifically for cycling in comfortable, sometimes sportive, wear that allows for freedom of movement. Others cycle in their everyday wear. One of the interviews I conducted took place in the interviewee's car, parked in the Freedom Yard just before the weekly training. In between questions she changed her long skirt for a pair of trousers, so that she would be more comfortable for the cycling and able to use a bike with a higher crossbar.

Some members use their clothing as a way to react to social norms and assumptions non-verbally. Whenever Souad goes cycling outside of the Freedom Yard, she ensures that she is dressed in clothing that is deemed 'appropriate' for a young Sudanese woman: a tunic that passes her hips, wide trousers, and a headscarf that covers her entire hair. She does this to show to onlookers that she is a 'proper' Muslim, 'despite the cycling.' The way this contributes to the social acceptance of her cycling is exemplified in this anecdote: one time, she stopped to talk to a man who was yelling at her that she was 'a failure' and she was not a 'proper' Sudanese woman.

I say to him, 'Yes, I'm Sudanese and I ride a bike, what is the problem? Also, I can ride a car, do you accept any girl to [drive] a car?'

He says to me, '[Driving] a car is different!'

I say to him, 'What is the difference between driving a car and riding a bicycle? Just because the car is closed from outside? And you couldn't see my clothes?'

He said, 'Yeah, maybe.'

And I say to him, 'Do you have any comments to my dress?' [...] 'Is this dress not suitable for our tradition?'

He said 'No.'

I said, 'Then what is the problem?'

*After he thinking he say to me, 'Sorry for that, my daughter, I am wrong.'
And put his hand on my shoulder and said, 'Sorry for that, go.'*

For Yasmine, her traditional dress style is a way to ignore negative reactions, because she knows that she is wearing a 'proper' dress and a hijab. This enables her to ignore any negative commentary that she gets and just focus on the cycling, because she knows she is not doing anything wrong.

For the women who preferred a more sportive or casual style of clothes, most emphasised that they did it for comfort and range of movement on a bike, emphasising how it is difficult to cycle in a dress or too hot to wear many layers while riding. What became more apparent as I explored this further, is that this outfit of activewear functions as another way to react to social norms, to navigate and silently reframe how onlookers perceive them. Cycling as a sport is generally much more accepted than cycling for transport. A woman that looks like a dedicated, even professional cyclist is less likely to encounter harassment or negative reactions.²⁹ Rawaa describes this as follows:

*I always advise them with the strategies. Make a sport your strategy. (...)
Wear sport things in the neighbourhood where they didn't accept normal
women and clothes, wear sports[wear] because then they think of the
cycling as a sport and health is good.*

Looking like a cycling athlete legitimises the activity of cycling in a way that is visually different from, but at the same time similar to, the way conventional dress does.

6.2.3 The group as a buffer

The group's collective public rides play a significant role when it comes to developing the relational competences of its members. While they learn how to relate to and react to reactions of others, the group functions as a buffer or diffuser of criticism. All women I spoke to, both in interviews and informally during trainings, mentioned that they found it easier to ride outside with the group. This

²⁹ This of course relates back to the availability and meaning of cycling accessories as discussed in the previous chapter.

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was not only for the practical competences described above, but also because the presence of the group made it easier for them to deal with criticism. When the group is there, they do not feel so targeted by negative comments. Souad explains that when she is with the group, she feels that comments are cushioned by all group members around her, and not aimed at her personally. The presence of the group decreases the impact of negative comments, so she has learnt to cycle with the group whenever she is not in the mood to manage negative comments alone.

Others echo this sentiment, and some choose to exclusively cycle outside of the Freedom Yard when they are cycling with the other group members. Haya does not feel comfortable cycling alone, but the presence of the group makes her feel that there are people present who support her and this – in addition to the fact that more experienced members know which roads are good to cycle on – allows her to enjoy cycling outside of the Freedom Yard with the group. Rana – who had joined the group around the time I started my fieldwork – did not want to cycle outside of the Freedom Yard at all, initially, because she was concerned about reactions from other people and being exposed to their opinions. When I spoke to her again a couple of weeks later, she had changed her mind a bit, as she was now entertaining the possibility to go on a public ride with the group: ‘Of course it’s different! You are together so people will not be able to say whatever to you.’ The way the presence of the group enables other members to feel more comfortable to cycle develops their relational competences.

6.3 Individual competences

Individual competences³⁰ relate to arranging an environment in which cycling can take place (Kaufmann et al. call this a process of ‘self-organisation’), to learn to give meaning to the process of using a bicycle, and to expand what one thinks themselves capable of (this is what I describe as the ‘achievable realm’). This section explores the individual competences that the women develop,

³⁰ Individual competences are often developed through relations with others, which make them very intertwined and overlapping with the relational competences described above. For now, I maintain the distinction of these competences based on Kabeer’s conceptualisation of agency, where she distinguishes between relational agency, which refers to competences employed directly in contact with others – dealing with reactions, expressions of social norms – and individual agency, which refers to competences that relate more to the individual level: self-esteem and confidence. Of course, these can still be developed through relations with others, but the focus is different.

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discussing organising a cycling environment, learning how to use the bike for one's own purposes, and learning what one is capable of.

6.3.1 Organising a cycling environment

The first aspect, arranging a cycling environment ('self-organisation'), was an individual act for some women in the group. Fatma already cycled before joining the group, borrowing a bicycle from a cousin to go to her weekly football practice. Souad started her YouTube-based trainings before she knew of the group's existence and started to learn how to use a bike on her own.

For most of the women, however, the act of self-organisation that led to them cycling was the act of joining the group. Some women approached the group themselves after hearing about it online or in their network. Haya had just joined the group when I interviewed her. She detailed how she saw the group's pictures on Facebook and just felt like she had to become a part of it, so she sent a Facebook message and was invited to come to the next training session by Rawaa. Sham also joined the group after seeing it online and went to an open training by her own accord, and in order to ensure that her family would be okay with her joining the group, she brought her mother along, to show her the Freedom Yard and the other women in the group. For her, these were all acts to organise a cycling environment that works for her and allowed her to start cycling.

Other women in the group did not approach the group individually but were introduced along social lines in their network. Mary joined the group shortly after its founding, when she heard about it through a former colleague of her mother. She reached out to Rawaa and became friends with her family, and she has been a member since the group's first events. In turn, Mary brought in several other members: Rana and Yasmine both joined because they heard about the group through Mary. Fatma heard about the group through her women's football coach, and liked the idea of an all-women cycling group, so decided to join. For them, the initial step of starting to cycle was made more accessible through social connections.

6.3.2 Using a bicycle, part 3: Becoming a cyclist

The second aspect of individual competences entails learning to use a bicycle in a way that suits one's needs, which takes a different shape depending on individual preferences and aspirations of each cyclist. This requires the development of confidence and an expansion of the achievable realm and learning what one is capable of. In this process, the group's collective rides play a large role: they show the women where, or how far, or how fast they can cycle. Seeing these women and hearing about their experiences increases the achievable realm of the women because they see women that they relate to performing actions that they did not deem themselves capable of previously.

I found out that I had, myself, had played a small role in this during my previous encounter with the group. Sham recalled the first time we met, in 2017, when we – several women of the group, my travel companion and I – cycled together to the edge of the city, the state border about forty kilometres away. Now, three years later, she exclaimed that she still thought about this trip often, because it was the furthest distance she had cycled until then, and it showed her what she was capable of. At the time I conducted my fieldwork, she regularly went on longer rides within the city, with others or by herself.

Yasmine experienced the same effects through the group's collective rides, which she says not only taught her how to cycle in the streets - a practical competence - but also challenged her to ride longer distances than she would individually.

Of course, these competences are closely related to the relational competences as described above, since knowing how to deal with reactions is a big part of deeming yourself capable of cycling in public, but the focus here is more on how these competences influence self-esteem and the achievable realm.

6.3.3 Learning what you are capable of

A specific type of public rides that the group organises has a particular influence on the women's self-esteem and achievable realm: the rides that are organised in cooperation with the Dutch embassy. Rides with embassy are aimed at making a public statement and are organised with special attention to route, safety, and accessibility so that as many interested women can attend the ride. Several women in the group explained how those rides were their first experience of cycling outside of the Freedom Yard and that they played a crucial role in developing their confidence with regards to cycling in public or cycling faster or further than they knew they were able to.

Souad described her experience of joining the embassy's most recent ride, the so-called *Kandaka Ride*³¹ that was organised in November 2019.

This is the first time to ride more than about sixteen kilometres. This is the first time. Before that I didn't believe [that] I can achieve all this distance. And I feel something different, it was very amazing. (...) In that time, I realised I can achieve long distances without problems. And I saw another country believes in us. (...) After that, one day later I ride more than twenty kilometres alone! More than twenty! Long distance, without stopping. Because I have the power now because yesterday, we saw together, riding the road from Nile Street until the embassy. The next day I was riding in the same route. But I reached to my work, from the embassy. Like twenty-one,

³¹ 'Kandaka' is an old title that was used for the queen in the times of Nubian civilisation in Sudan. During the revolution in 2018/2019, this term was popularised to refer to strong, revolutionary women.

twenty-two kilometres. Without feeling this distance is long. Because I achieved [this] before with my group.

As such, the group's rides and the embassy's rides in particular not only serve as a booster of practical competences, but also boost morale and strengthen the women in their beliefs.

6.4 Collective competences

Collective competences³² refer to competences that are developed as part of collective processes, relating to group organisation and group identity. This section explores what collective competences the members of the group develop, discussing solidarity and a feeling of belonging to a group, and legitimacy and visibility in public space.

6.4.1 Solidarity and belonging to a group

The first theme that emerged in this regard was that of social interaction and solidarity. Mary describes the other women in the group as 'strong, courageous women who are able to break the barriers that we have in our culture.' She says that meeting other women that wanted to cycle inspired her: 'There are people who love the same thing, and we share the same common cause, then why not continue doing that [cycling]?' This sense of recognition means that the members of the group no longer feel alone in their desire to cycle, but in joining the cycling group, the women do not merely join a group of people that cycle together. Rather, they join a collective that is, by virtue of its existence, activist, in the performative sense that they bring cycling as a gendered activity to a space that is not used to them cycling.

A note of nuance here is that the cycling is not an explicitly activist act for all of the women. Some describe themselves as activists and lean into the statement and message that they want the public to know about. Others don't describe themselves as activists at all, and instead see the cycling as a hobby or sport activity, that they do because they enjoy it.³³

³² Like with individual competences, it is almost impossible to see them as independent from relational competences, since the competences are *de facto* always developed through relations with others. Again, I'm maintaining Kabeer's conceptualisation, which means that the focus of collective competences lies at competences that are developed as a distinct part of a group action or group process.

³³ Different 'functions' of cycling are explored in the next result chapter.

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In any case, women who join the group become a part of a network of women with whom they share a common goal, and a sense of recognition, regardless of whether that goal is cycling or achieving social change. Sham describes this process as follows:

This group, it's not about sports only. It is kind of sport, but it's about, you know, empowering women. Here in Sudan, we have so many things that they say women can't do, women should not do. We are here, we can do everything, we are not so weak as they think we are. We can do everything we want. So, the cycling is a way to show, we're here, we're strong. We're strong, we can do everything, we are capable of doing everything, we have a mind, we can think, we can do everything. Women can do everything.

Indeed, a very prominent aspect of the group's interaction is social aspect of them sharing ideas, aspirations³⁴ and knowledge. The group's WhatsApp chat, which hosts about 80 people, entails an almost continuous stream of messages discussing the social events and life updates, news articles and funny photos and videos, but most of all it is a place to share anything, and everything related to cycling and the group's activities. Members will share photos of bikes that they find online, advertisements of bicycles that are for sale in Khartoum, pictures of past events, memes, and illustrations with bikes on them or pictures of (somewhat) famous people on bikes. Because of Rawaa's connection to The Netherlands, Dutch cyclists are often shared in the group, whether it's road cycling world champion Anna van der Breggen winning an Olympic race, queen Máxima riding on a bicycle or prime minister Mark Rutte cycling to parliamentary meetings in jeans and a hoodie.

This solidary sentiment is also found during the group's offline interactions. There is a solidarity in a practical sense, in sharing resources and knowledge as has been described above. This is accompanied by a welcoming and encouraging atmosphere. Rana describes: 'We meet at the cycling day, we enjoy our time, we talk, and people can share the bikes, you take a round or two, then you put the bike so other girls can do it. And this is really lovely. The spirit of sharing. (...) I like this spirit among the group. And they are welcoming people in the WhatsApp group, and they are inviting the other people and sharing the news, looking to empower others, I like it so much.' Haya also described this sense of solidarity and appreciated the supportive and cooperative atmosphere in the group.

Sometimes, cycling as an activity even seems subsidiary to the social aspect and sense of solidarity that the group provides. During the weekly trainings, the time spent waiting for an available bicycle is mostly filled with catching up with others, telling jokes and stories, and general socialising. Some only

³⁴ The next result chapter further explores the aspirations of the group's members, also beyond cycling.

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cycle for ten minutes, others sometimes leave the training without cycling at all – partly due to not having the required material, but partly also because they choose to attend the training for the social aspect rather than the cycling aspect. The group's public rides outside the Freedom Yard also have a large social component. In fact, they entailed much less cycling and much more socialising than I had initially anticipated. One of the shorter rides I attended consisted of twenty minutes of gathering and organising the ride, ten minutes of cycling, 30 minutes of talking and drinking tea in the shade of the large tree, and ten minutes of cycling back to the original point of departure.

For most, this limited time spent cycling does not seem a problem. Sham describes: 'You know sometimes I go by myself but it's more fun in the group. You know, we're talking, stopping there, drinking tea somewhere (...) and it's just more fun. We can do a lot of stuff together.' Souad agrees riding in the group is fun and easier, but if she wants to ride longer distances she prefers to go alone. Fatma also says that she does not like the cycling group for the cycling in itself – she prefers football as a sport - but she enjoys meeting the other women and spending time with them.

This sense of mutual recognition when joining the group and the sharing of ideas and goals contributes to solidarity within the group, which in turn contributes to the women's achievable realm.

6.4.2 Legitimacy and being visible

Another aspect of collective competences is the collective action that the group takes and the sense of legitimacy this provides to the act of cycling. Mary explains that when people see the group cycling together, they see them as an 'official' group with a message, while women cycling by themselves are perceived as strange individuals. In this sense, the group cycling together legitimises their activity – in a way that appearing as a cycling athlete also does.

The rides that are organised in cooperation with the Dutch embassy also have this effect: the presence and support of embassy officials legitimises the group in the public eye. Sham says the embassy's rides make the group seem more official to others, and that the embassy's support strengthens their message by making them more visible: 'This is what we are doing and what we want to be. You know, making a girl on a bike something normal on the streets. They are helping by being there, going outside, organising events. Being visible.' Rana calls it a 'political empowerment, because [the ambassador] is there. She is the one with the title.' There is also an element of protection. In addition to the practical

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safety elements mentioned above, the support and endorsement of the embassy provides another buffer to reactions and legitimation of the group's actions through being present.³⁵

At the same time, it is important to be mindful of a different effect of embassy rides, which is that the presence of *khawajas*³⁶ might take away Sudanese ownership of the initiative and its message – at least in the eye of the public. Fatma explained that when she showed pictures of the *Kandaka Ride* to her friends, they became interested in the group and wanted to join, but they also questioned if the initiative was Sudanese.

I saw this effect to a much smaller degree whenever I would join one of the group's rides outside the Freedom Yard, because reactions on the street would be quite focused on my presence and question the fellow cyclists on whether it was my or their idea to cycle there.

Nonetheless, these collective actions that the group organises, both by themselves and in collaboration with the embassy, create a collective sense of legitimacy that is also felt on an individual level. The group does not even have to be physically present: Mary and Fatma both told me that whenever they ride alone and people react negatively to them, they emphasise that they are not cycling alone, but are part of the women's cycling initiative, and are therefore 'official' cyclists.

6.5 Conclusion

To conclude, the women in the group develop competences and agency in a variety of ways. Practically, the most important competences to develop are the physical ability to ride a bike, and the ability to navigate that bike in the mobility system. This is mostly advanced through practicing with the group, either within the Freedom Yard or on the public streets of the city. Relationally, competences include the ability to handle reactions and norms. The women navigate these by shaping their cycling behaviour in a way that allows them to engage or disengage with reactions, and in some cases by adjusting their clothing to do the same. Another factor is to choose to cycle alone or with others, and the group has a large role in buffering and dispersing negative reactions from the public. Individual competences relate to arranging a cycling environment and shaping the process of cycling in a way that fulfils individual preferences. This is sometimes done individually and through solo rides, but the group has a large influence in extending the achievable realm of its members through organised rides.

³⁵ This is an example of how these processes are intertwined with relational competences, since this is also an effect that the women ascribe to cycling with the group, but the most notable effect of embassy rides seems the legitimising aspect of the presence of embassy officials.

³⁶ Foreigner, white person, outsider (see context chapter).

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Collectively, competences relate to building solidarity and a sense of belonging, which is done through the group's online and offline interactions. It also relates to building a sense of legitimacy and belonging, which is developed through the group's own collective rides and the rides that are supported by the Dutch embassy.

The chapter discussed the process of developing competences and agency through cycling, using the resources and access discussed in the previous chapter. The next chapter discusses the outcomes of this process, also beyond the act of cycling itself.

7 Beyond the Freedom Yard: achievements and appropriation

It's an early Saturday morning. The sun has already risen, but has not yet gathered its scorching heat, and the air feels fresh and cool - to the extent that it can in a dusty city in a desert. I've cycled to a local park. In the evenings, this place is brimming with people – young and old, students, friend groups and families meeting for ice cream or drinks all gathering and sitting on the plastic chairs that line the pavement. Right now, the shops and restaurants are closed. The place is deserted, and very little traffic is passing on the adjacent road. I'm meeting the other cyclists here for an early morning ride around the neighbourhood.

Over the span of thirty minutes of so, a group of around ten women gathers. Some arrive by bike, others came by car with their bike in the boot. One of the women arrives in a rickshaw that somehow fits her, her bike, and a friend in the back seat. Once everyone is there, we set out to cycle. We ride on the far-right end of the road, on the edge of the shoulder and the unpaved sandy sidewalk, in single file. Cars that pass us mostly swerve to the left lane of the road, creating a safe distance between us and the traffic. There are not many people on the street yet, but those that are around tend to do a double take when they see us approaching. A man drinking coffee in front of a grocery shop nudges his neighbour and points in our direction. The women don't pay them any mind, shouting jokes back and forth, and showing off their cycling skills. One of them can cycle with no hands, another is zigzagging rhythmically, a third is trying to overtake the others and move to the head of the line. When we approach crossroads, the women get more serious, making sure that the group moves as efficiently as possible to not hinder other traffic. One of the more experienced riders leads the group, and she has selected a route that avoids the city's bigger roads as much as possible.

After about fifteen minutes, it is time for a break. In a smaller side street, we find a woman serving tea and coffee in the shade of a big tree. As she gets to work on our large order of drinks, we sit down on the plastic chairs and stools that she provides for her customers, and the conversation turns to nice places to cycle to. Soon, the women are planning future rides in the city's different neighbourhoods and discussing the pros and cons of different roads and routes. Fatma says that she would like to try to cycle to Omdurman, since her employer is located there. Mary considers leaving her bike at home for a while and to learn how to ride a motorbike. 'I want to learn something new!' Rawaa is already thinking about the next big public event with the Dutch embassy, and repeats something she already told me when I first met her, in 2017: she wants to plan an overnight trip with the group to the Meroe pyramids. 'Perhaps we can take a bus part of the way, then cycle and camp there for the night, and then return in the morning. It will be nice for everyone, to go that far on a bike!

This chapter explores the final of the three motility-empowerment pairings: achievement-appropriation. This entails the degree to which cycling is appropriated into the women's daily lives, and how it has affected their cycling and their life beyond cycling, and what opportunities it has opened for them. The scene above gives an idea of how the women of the group move through the city's public

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space and how they view their own mobility – actual and potential – for the future. This entails three aspects: behavioural, individual, and relational appropriation.

The degree of appropriation can, according to the theoretical framework, be seen as the result of the pre-conditions for cycling (access and resources, described in chapter 5), and the process of learning how to engage those resources to develop competences and agency (as described in chapter 6).

7.1 Behavioural appropriation

The first form of appropriation, behavioural appropriation, refers to how the cycling behaviour of the women of the group has changed over time.³⁷ This section explores the behavioural appropriation of cycling for the members of the group, discussing changes in location, distance and company of bike rides, and changes in the function cycling has in their lives.

7.1.1 Change in location, distance, company

Some of the group's older members say that their cycling behaviour has changed for them over time. As mentioned in the previous chapter, both Mary and Sham mention our ride to the state border in 2017 as a ride that showed them how far they are able to cycle and say that it inspired them to cycle longer distances. Since then, they have in fact changed the way they cycle. For example, Mary has crossed 'all the bridges' in Khartoum, and Sham rides out on her own regularly, to get some exercise and relaxation.

The group's newer members also report an increasing confidence in their skills. Since Souad started riding with the group, she slowly built up the confidence to cycle alone outside of the Freedom Yard, and she now regularly cycles to work, a journey of about ten kilometres. Yasmine had only been a member of the group for a couple of weeks when she decided to try cycling without them, because she had heard the other women talking about cycling in the city. So, in the week before I interviewed her, she cycled by herself for the first time, early on a Friday morning before the city woke up, which she really enjoyed.

I witnessed Rana go through this process myself – when I first interviewed her near the beginning of my fieldwork, she said that she only wanted to cycle inside the Freedom Yard, since she did not want to expose herself to reactions from the public. A mere two months later her views had changed – she was then considering going for a small ride in one of the city's quieter neighbourhoods. 'If I get other

³⁷ This is largely related to what Kaufmann et al. would categorise as an increase in mobility (versus an increase in potential mobility – motility – which is discussed in the next section of this chapter).

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girls with me, it will be fine. But I won't go alone.' She also hoped to travel abroad in the near future, to cycle there.

In general, the process of learning how to cycle and practicing with the group as described in the previous chapter shows these women what they are capable of on a bike, and the above examples show that they integrate the practice of cycling in their daily lives.

7.1.2 The function of cycling

When the women feel more comfortable riding in different settings, cycling can fulfil various functions in their lives. Cycling can mean transport from one place to another – Souad uses her bike to get to work regularly. Fatma also cycles for transport, for example when she goes to her football practice. Additionally, the cycling is an inherent part of her work: she is a delivery person for a dermatologist, delivering packages to clients across the city. Since she obtained her bike, she can cover longer distances faster and cheaper – the bike is often faster than public transport and requires no tickets – which means her earnings have increased. For her, cycling represents both transport and a source of income, and having the bicycle 'has made her life very easy.'

For others, cycling is a way to exercise, or a hobby to do for enjoyment. Sham sees it as a way to stay active and fit and feels more energised when she cycles regularly. Yasmine likes to spend time cycling and has noticed her health has improved since she started cycling. Haya describes cycling as a hobby, something she likes to do for enjoyment. Mary also cycles mostly for fun, and as a form of exercise.

Cycling thus is more than a mode of transport: it opens doors to various ways of spending time.

7.2 Individual appropriation

The second aspect of appropriation, individual appropriation, relates to a change in self-esteem, confidence, and the achievable realm that the cyclists experience, or the meaning that they ascribe to it. This is very related to the behavioural appropriation described above, but that focuses more on actualised mobility, whereas this individual aspect is more focused on a change in motility – potential mobility – and a broader expansion of what one sees herself capable of: the achievable realm. The below sections explore functions of cycling that are related to the expansion of the achievable realm, discussing the way cycling with the group can serve as time for oneself, a feeling of having control, and a feeling of freedom.

7.2.1 Cycling as time

The first theme that arises here is the meaning that cycling carries as having time for yourself. It is in a large degree related to the many things that cycling can be³⁸ – and the things it is actively *not*. The time of many young Sudanese women is, to a large degree, spoken for by others. To spend time cycling for many of the women means that they are not spending time on work, schooling, family or their home life, time in which they are accountable to others. In that sense, cycling is a way to have time for oneself, and the ability to spend it in a way you enjoy.

Haya told me that cycling and joining the group (which she did around the time I started my fieldwork) was ‘the only thing she [was] doing for just herself,’ and that this made her very excited and inspired to take on other projects. Yasmine shared a similar sentiment and even discussed the cycling with her manager at work, so that she would have more time to practice her new hobby. It was a big challenge for her to claim this time for herself and the fact that she succeeded made her feel very accomplished. ‘Before the cycling I dedicate all my time and my energy for work. (...) But now I can manage my time pretty well, I allocate a time for myself, to do the thing that I enjoy.’ Fatma recognises this: ‘Emotionally, I feel very happy when I come back from the training for spending my time doing something I like. I feel proud that I kept doing what I love in spite of all the obstacles.’ Rana also described cycling as something fun she was doing for herself, which made her feel very happy.

The lives of these women were to a large degree filled with moments that were accountable to others. The cycling is a notable exception as a moment that the women can spend on themselves.

7.2.2 Cycling as control

A related process that expands the achievable realm of the women is that cycling helps develop a sense of control and agency, and the ability to make decisions. Making the decision to cycle has shown Mary that she is also able to decide other things in her life: since that was a difficult thing that she overcame she now feels stronger and able to do other difficult things as well. She describes it as follows: ‘I think it changed, because first of all, it added to me more confidence, because now I can decide so many other things in my life. The moment I started to go on bike on the street is not an easy decision, especially in Sudan, but after that, it contributed to a lot of decisions in my life.’ Fatma also says that cycling made her more courageous and excited to try new things. Sham explains the process like this:

They say when you learn to drive a car, it gives you more control on your life, on your things. You have something that you control everyday, you take it

³⁸ As described above.

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from somewhere to somewhere, under your control I mean. It gives you more power of making decision. I guess cycling does these things just a little bit higher. It gives me more confidence, I can't explain it, but it happens. [It gives you c]onfidence in yourself.

Sham is not the only one to compare riding a bicycle and driving a car: Souad also mentioned that since she can drive a car, she can also ride a bike, and that she has confidence in her beliefs and her actions that allows her to act on her goals and wants.

7.2.3 Cycling as freedom

What seems to be an overarching theme for all women that I interviewed is that they associated cycling with a feeling of freedom and flying. Regardless of the specific function that cycling took in their lives, they all deeply enjoyed the feeling of riding on a bike. I asked Rana about her motivation to cycle:

'How does cycling make you feel? Why do you cycle?'

(sighs) 'Happy. Yeah. This kind of thing that... I love it. It makes me energised, enjoying the... You feel like you're flying, you know. This is exactly how I feel, like flying, feeling free, being myself.'

Sham echoed a similar sentiment:

'How did you feel when you got on the bike, and you were riding?'

'It felt like I owned the world, you know. It is amazing. I love the breeze in my face, I love everything about it. The voice of the tires on the street, the feeling... Everything, I just love it.'

And so did Mary:

'And how did it feel to start cycling again? What did it mean to you?'

'Ah... (smiles) I felt like I was flying. (...) I felt like, 'I'm free, I'm light... It was just an amazing feeling, that you feel like all the negative energy is just gone. (...) It's really an amazing experience and you feel like you fly.'

This feeling of flying and freedom shows a how cycling can contribute to the feeling of being able to anywhere, to expanding the women's achievable realm and sense of self-determination.

7.3 Relational appropriation

Relational appropriation of cycling relates to a change in how one navigates reactions of others and social norms. This can mean direct reactions of others, a changed attitude to social norms on women's

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cycling, or to social norms about women in Sudanese society in general. This section explores the relational appropriation of the members of the group, discussing the effects they perceive of being a member of a cycling group, the effects of that cycling group beyond the cycling – as a social network – and how they view social norms and reactions differently.

7.3.1 Being a member of a cycling group

The first theme that arose when I asked the cyclists to tell me about any changes they saw in the way they dealt with reactions from others, was the influence of them growing into the identity of being a woman cyclist and a member of an activist cycling group. This relates to another meaning that cycling can carry: cycling as advocacy. For some members in the group, this is not a very prominent meaning. Others, however, explicitly lean into it and want to promote cycling to other Sudanese women and girls. Rawaa started the group as a political statement, and still sees cycling more as a social movement than a way of transport or exercise. Mary says:

I believe when you do some things as a team, it works because it creates a network. People tell people and then it like, when we started at the beginning, we weren't that much, like of a number, but now, increasing, increasing. And then when people see us, oh these are the women group cycling. (...) You can do it, but I believe when you do it as a group it grows faster.

For both of them, this translates into advocacy-related ambitions for the cycling group. Mary works in finance and didn't see herself as an activist before joining the group, but now she would like to set up some workshops on bike mechanics, to improve the women's self-reliance when dealing with repairs and breakdowns. 'If you once a week gather all the ladies, tell us how to like fix your tyre, teach us some skills, it would be great.' They both also aspire to expand the group's scope. Mary would like to have bikes available for interested members to try out, in order to remove an often-heard barrier for women looking to join the group. She also wants to actively reach out to young girls in Khartoum, to let them know that they should not give up on cycling or doing other sports. 'Maybe we can arrange some young girls cycling event, like age of 13, 10, like this, they can come with their bikes, even an event in the Freedom Yard (...) so that they know that they can continue doing this, that would be really helpful. So, you see now we can have an entire generation impact[ed].' Rawaa is even looking to expand the group's activities to other places in Sudan in the future and to create a network of Sudanese women's cycling groups.

This shows that she now relates to social norms in a different way and is actively choosing to engage with them and try to change them.

7.3.2 Being a member of a social network

The second theme that emerged is also related to the fact that the women became a member of the cycling group, but it has more to do with the network that they entered than the activity of cycling. As described in the previous chapter the members of the group share a lot of ideas and goals related to cycling, both online and offline. A large amount of the interaction, however, is spent on topics that reach beyond cycling: conversations during the training are about the women's daily lives, aspirations, opinions, and implicitly show the women how others – whom they share goals, values, or at least a hobby, with – spend their lives and of what they are capable. In the WhatsApp group, messages on everything related to cycling are interspersed with messages about women's rights in Sudan, news about prominent women, and events related to gender or women's emancipation, but also with the women themselves sharing ideas, job opportunities, advertisements, or information. As such, the group is a network of likeminded women that share ideas and opportunities. Mary says:

This is what we do, like, we help each other, if there is any opportunity, we can like send our CVs to each other. If there is any event, like, something related to gender, if someone has a background, then we send them. We ask in the group if anyone has something, like 'There is a workshop going somewhere, are you interested to go?,' then we share experiences... yeah that one opened for me another door, like to join an organisation for an internship programme and to explore... it was amazing.

Being a part of this network, for many of the women in the group, is inspiring. Whenever I would ask someone to describe the other members of the group, she would without fail describe their passion and ambition, drive to achieve goals, courage attitude and dreams. As Mary put it: 'They didn't listen to anyone, and they just did it! They started it, that's it.' This in turn inspired many to cultivate their own ambitions. Yasmine wants to adopt the attitude of the women in the group and has decided she wants to learn English. Rana would also like to do this and was planning to visit her sister in the United States to practice her language skills and ride some bikes. Souad particularly liked how the group allowed her to meet people from different backgrounds in and outside of Sudan and enjoyed exchanging viewpoints with those people. For Rawaa, founding the cycling group has made a significant difference in how she spends her life, because she has become a quite prominent actor in the women's rights field of Sudan: 'Like I didn't imagine that one day people they would write about me like I'm an agent of change, a change maker, this kind of things.' This shows the extent to which these women inspire and help each other beyond cycling. During this process, they redefine what is deemed possible for women and learn to relate differently to social norms for women.

7.3.3 Changed attitude to social norms

When I asked Sham if her views on the role of women in Sudanese society had changed, she told me: 'This thing was forbidden. Exactly forbidden for girls to go with the bike and outside on the street and such things. But with this group we are breaking this and now we are going forward. So, I guess Sudan is going to have more options. For the girls exactly. So, I guess it's some kind of change. Maybe it's a little one, but it's bigger. If you can see what I am saying.' This was echoed by others in the group, with Mary saying:

I've learned that it is possible, anything that you believe you want to do it, you can do it, and together, I've learned that we should empower the younger generation. (...) Yeah. Stronger. Women are realising that they are powerful in Sudan now. Because there are so many activists, (...) and there are other groups doing some other events so I think women are realising that they can actually do a lot of things, a lot of amazing things.

In this sense, the cycling and being a member of the group have effects far beyond cycling: they allow the women to relate differently to social norms and the possibilities they see for women in Sudan.

7.3.4 Changed navigation of reactions

In addition to relating differently to social norms, the women are relating differently to the reactions that they receive from bystanders and direct relations. Here, there seems to be a difference between older and newer members of the group: many of the older members have been comfortable about their cycling for a longer time and enjoy the support of most of their immediate family members. For newer members, this was not always self-evident, and they were able to tell me about changes in their mindset. Souad described that the sense of control over her bike that she gained through learning with the group allowed her to feel confident about her cycling, in the way that allows her to discuss the topic with bystanders, as was discussed in the previous chapter. 'I can accept another opinion, and also, I have ability to change this opinion, or accept [it]. Because this is my belief. I'm so confident in my believing.' When I first spoke to Rana, she did not want to tell her dad about her cycling because she was afraid that he wouldn't accept it. A mere two months later, when I asked her about the topic again, she had changed her mind:

'Yesterday I was just [calling] with my father, and now I think that I can just tell him. When I started [cycling] I was like, oh I will never tell him about cycling. Now I'm thinking, maybe...'

'So, what has changed?'

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'I don't know, something inside. Maybe because I practice... And I feel more confident in cycling. If you notice me at the beginning I was like scared, but now it's like OK, I can fly.'

These experiences show that the sense of control that is developed through cycling contributes to the women feeling more comfortable in navigating reactions from others.

7.4 Conclusion

To conclude, the appropriation of cycling in the women's lives seems to have various effects. Behavioural appropriation, the integration of cycling in their daily lives, takes on multiple forms. It encompasses moving through public space, but also a form of income, enjoyment, or exercise. Multiple members of the group reported a change in the duration, location or purpose of their cycling behaviour, and in that sense, it has opened up new ways to spend their time. In relation to individual appropriation and the development of confidence and the achievable realm, it represents having time for yourself and a sense of having control over your own decisions. As cycling symbolises control, time for oneself and freedom for the respondents, it serves as a vehicle that expands the achievable realm. Relationally, the cycling and being a member of the group provides a different way to relate to social norms: by connecting to a network of cyclists, but more importantly similar-minded or inspiring women, the respondents find new ways to relate to themselves, each other, gender norms in Sudanese society and the reactions they encounter when they cycle.

This chapter discussed the appropriation of cycling and its effects on the women's lives, including those beyond the act of cycling. This, in a sense, is the outcome of the process of utilising the pre-conditions described in the previous results chapters, and the results show that cycling expands the achievable realm of the group's members in multiple ways.

8 Discussions and conclusions

This research explored the relationship between cycling as a form of mobility and women's empowerment. The one thing that kept coming back to me while writing this thesis was the many ways in which the cycling group's activities and effects encompassed more than mobility alone. This was echoed in the many statements of women that equated cycling to flying and freedom, and in the way that the women of the group – offline and online in their WhatsApp group, even during a global pandemic – interacted and supported each other. It was also echoed in the way they phrased their future plans and the way they described being inspired by the plans and ideas of other women, by meeting people (e.g., other women cyclists, but also generally people outside of their existing networks, cycling men, foreign supporters of the group) through the group, by their own achievements and the achievements of others.

Meeting the members of the women's cycling group for the first time in 2017 inspired me to investigate their empowerment through mobility, the role of cycling as an activity and the role of being a member of the group in this process. For this purpose, I have explored Kabeer's conceptualisation of women's empowerment as a process that entails resources, agency and achievements (Kabeer, 1999, p. 437). To account for the particular experience of cycling as being mobile, having access to public space and the meaning of mobility, I combined this conceptualisation with the concept of motility – actual and potential mobility. Motility also encompasses three aspects: access to mobility, competences to develop and appropriation of a mobility method (Kaufmann et al., 2004, p. 750). I combined these concepts by adding motility-specific considerations to social and relational aspects of women's empowerment. Combining women's empowerment and motility resulted in a framework that distinguishes pre-conditions for cycling, the process of building competences and the outcomes of that process.

In this chapter, I first discuss the research's key findings (section 8.1), which answer the research questions as defined in chapter 1. This is followed by reflections on three overarching themes that relate to the research objectives of chapter 1:

1. how cycling carries a broader meaning than movement alone, what that means for framing cycling as sports or activism, and how to approach mobility as an activity of exchange or play, and to account for the varying meanings of cycling in research (section 8.2).
2. the role of the women's cycling group as a social network, relationality and the collective nature of empowerment and what that means for conceptualisations of and research into women's empowerment (section 8.3).

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3. the different forms of power, the way they are interrelated and how they contribute to and limit analysis of women's cycling behaviour (section 8.4).

These discussions are followed by some reflections on the implications and limitations of the research (section 8.5) and recommendations that follow from the findings (section 8.6).

8.1 Key findings

The first result chapter (section 5) on resources and access showed how the access to motility systems for the women in the cycling group is governed. Social norms largely shape this access, as they prescribe women's expected behaviour and appearance in public space in Khartoum. Cycling in Sudan does not adhere to predominant norms about womanhood and proper Muslim women's behaviour. These norms combined with concerns around how a woman appears to neighbours and other members of the community make choosing to cycle a difficult choice for most Sudanese women. More often than expected, however, when asked about obstacles and barriers my respondents listed practical or material obstacles as their most prominent barriers to mobility: weather, infrastructure, or the availability of cycling gear. It might be that these visible, practical objections are simply easier to list for respondents than more invisible social norms, and as a researcher it might be tempting to brush over these objections in favour of social norms and processes. That would not do justice to the many practical barriers that exist in tandem to – and sometimes due to – these norms: they should not be overlooked. The group offers a way to overcome these barriers. It serves as a facilitator and catalyst by providing easier access to materials, a way to perform maintenance on them, and a physically safe space – the Freedom Yard, safe from both disapproving looks and dangerous traffic – to enter the mobility system of cycling.

The second result chapter (section 6) on competences and agency illustrated the competences that the group's cyclists develop to navigate the motility system that they entered. This entails practical skills for riding a bicycle through the city as well as different strategies to navigate social norms and learning about the things one is capable of and confident about. In this process, the group again has a very prominent role. The group rides are a way to practice acquired competences. The other members serve as teachers and buffer by sharing valuable skills and knowledge about cycling and about how to deal with negative reactions and social norms while doing so. In addition to the previous chapter, the group's role appeared to be highly relevant for social norms and cohesion beyond practical competences. They, in a way, form a network of alternative norms that provides them, as women in Khartoum, the safety to grow into a confident cyclist.

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The third result chapter (section 7) on achievements and appropriation showed the effect that the cycling and the cycling group has on the lives of the cycling women: learning how to ride a bicycle and participating in the social network of the cycling group enables them to move differently through Khartoum's public space. Moreover, as a self-powered mode of transport, it also expands their achievable realm in relation to what they see themselves capable of - learning a new language, opening a business, or any other ambitions they might imagine. The training time serves as a time for one's own to spend on something fun, for oneself. This is enhanced by the group. The role of the group here is to inspire and serve as a catalyst: the social network that the women form together combined with their experiences of being a mobile, self-powered cyclist creates a powerful steppingstone for change, determination and, in some cases, activism on an individual and collective level.

8.2 The meanings of mobility in the context of women's empowerment

On the topic of the first research objective, the significance of cycling and mobility in the context of women's empowerment, the results showed that cycling carries multiple meanings. A particular meaning that has relevance is the inherent political meaning that women's cycling in Khartoum carries. Through the act of cycling, the women of the group challenge and expand existing gender norms and remnants of public order law, thereby bringing gendered politics to a public space that previously did not include them. Hoodfar describes this as follows:

[W]omen are politicizing spaces normally considered outside politics. It is in this context that sport in particular has become an arena of vociferous contestation where gender politics are played out as women fight to re-map the boundaries of their public engagement rights as citizens (Hoodfar, 2015, p. 46).

The results bring some nuance to this political significance of cycling, in the sense that this is not necessarily a conscious choice for all respondents – in fact, some (consciously or unconsciously) solely frame or approach cycling as a sport, hobby, or social activity. Whether they do this because this is a more socially accepted way of framing cycling, or because they are genuinely not interested in engaging with political statements is a topic that requires further research. Only some of the women consciously embrace their cycling as a political act of activism. This corresponds with existing academic work on how this political meaning that cycling carries is not always a conscious or explicit individual goal, and it should not be framed as such (see, for example: Castaneda, 2020; Heim LaFrombois, 2019). Since navigating reactions to cycling can go hand in hand with more 'conformist'

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choices in clothing and religious behaviour, challenging norms about cycling sometimes combines with confirming or even strengthening other norms.

With regards to other meanings of mobility, the results show that there is a myriad of more implicit meanings that expand the achievable realm, capabilities, and women's empowerment. While not all members of the group explicitly adhere to the political meaning of cycling, this does not mean that cycling has no political meaning or doesn't carry other meanings for them. Some of these other meanings are found in existing literature: access to education or work, an increased range of travel, a form of sports, a way of efficiently transporting people or goods.

Another important meaning of cycling that is not addressed as explicitly in existing literature that addresses mobility in the context of women's empowerment, though, is the way cycling can carry a sense of having control, building self-confidence and self-determination, to having time for oneself and the space – literally and figuratively – to do something for oneself, something one enjoys. This meaning is precisely what connects cycling as mobility to the broader process of women's empowerment and should therefore be more explicitly addressed in academic debates.

This meaning – having space to do something one enjoys – has a myriad of implications for the theme of women's empowerment. It underlines the importance of mental time and space: having time for oneself to spend how one wants to spend it, in a physically, socially, and mentally safe space that might entail different norms and thus mean a feeling of being temporarily loose from those dominant in other spaces. This process – having the means to think in order to address the restricted access of women to public life and culture – is not a new concept. In fact, it is exactly what Virginia Woolf argued for in her essay *A Room of One's Own*, in which she emphasised the importance of women having time and space to think, reflect and develop, away from obligations of private life, so that they would be able to act on their aspirations and enter the public sphere if they so desired.

In a similar vein, recent mobility debates have recognised the importance of cycling as a joyful activity as well. Castañedas (2020) proposes a reframing of mobility as joy rather than mobility as exchange. Baker (2021) also emphasises the importance of playfulness in cycling in relation to identity performance and youth agency. This contrasts with the notion of mobility as exchange – exchange of goods, services, people, ideas. Even when focusing on non-monetary exchanges of ideas and values, this reduces mobility to a utilitarian activity, a form of capital. These articles, however, do not connect this joyfulness, playfulness, and agency to the process of young women's empowerment. This research makes a start on this topic and suggests a need for further investigation, which the results show is a very significant part of this process, especially when combined with the self-powered form of mobility that riding a bicycle is.

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Cycling being a self-powered form of mobility is significant: while there have been many examples throughout history of women gathering and forming their own spaces of connection and gathering, withdrawing and creating spaces of their own, my research shows that the way cycling, or possibly other forms of motility activities, expands the achievable realm of the women is not a side-product of moving, but an intrinsic part of the process of learning how to cycle. This is a prominent gain from the activity of cycling itself and the process of gaining control over a vehicle without the need for excessive training, a license or petrol. This shapes a feeling of freedom and flying and encourages to claim public space and get to where one wants to go by herself.

When analysing the meaning of cycling for women in Sudan, a motility lens alone does not sufficiently account for the broader implications that this form of mobility and having access to public space has for women. Meanwhile, a women's empowerment lens alone does not account for the way that this self-powered vehicle specifically influences women's self-esteem and achievable realm. Combining them therefore creates a richer, fuller understanding of how different aspects of cycling interrelate and reinforce each other. Although this thesis is only a first step towards a combination of the two academic discourses, it makes it clear that it has a lot to offer, particularly when considering the effects an increased achievable realm might have for the futures of the young cyclists. As was described in the third results chapter, after learning how to cycle with the group, they start to reconsider what they deem possible for themselves in other aspects of their lives, which has implications for them in areas such as education or profession, family life and the people they surround themselves with. Especially in contexts where a certain form of mobility goes against the prevailing norms, it is therefore advisable to use a combined lens of women's empowerment and motility.

8.3 The role of the group and the collectiveness of empowerment

On the topic of the second research objective, exploring the impact of a women's cycling group on the mobility of women and the empowerment of women, the results showed the significance of the group and the many roles that it performs for the women that I interviewed. This overlaps with literature on the political meaning of women's collectives as described above, but that does not account for the empowering effect of the sense of belonging that women gain. Neither does Kabeer in her often-cited conceptualisation of women's empowerment which centralises the individual as separate from the collective. Kabeer emphasises the importance of collective action and solidarity, but the individual remains the point of departure.

The results of this research, however, show how the Sudanese Female Cycling Initiative not only offers support in obtaining resources or building competences needed to enter the mobility system as a cyclist, but it also provides legitimacy, support and alternative experiences and narratives to the social

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norms that Sudanese women encounter in daily life. The cycling initiative also serves as an inspiring and uplifting network of women for any ambitions that they have *beyond cycling*. This plays a larger role than my theoretical framework can account for, and it suggests that the academic debate at the crossroads of women's empowerment and motility needs to account more for the collective than the individual.

On the topic of a theoretical approach particularly, there might not be a need for the distinction between individual, relational and collective aspects of empowerment, to the extent that I attempted to distinguish them in this research. This became most apparent in the second and third results chapters, in which I attempted to classify results into individual, relational and collective sub-categories of agency and achievements, respectively: this distinction was often arbitrary and ambiguous, because the women that I interviewed experienced their empowerment as an individual part of a communal whole – the cycling initiative - or in relation to other members of the group. As such, while the distinction of these three categories does provide a defined frame through which analysis can be performed, it might not always be the most fitting lens through which to analyse women's empowerment in the context of activism or collective action. Rather, it might be more fitting to recognise the significance and impact of being a member of a social network – of the individual *as a part of* a collective that exists *in relation to* other members of that network.

There are several concepts from different fields that support this idea. A first useful approach is contained in the concept of relationality, or the focus on relations in anthropological research (see, for example: Strathern, 2020). In this approach, research is not focused on the individual as a separate entity, but rather as being formed by relations. A second approach can be found in the work of Oyewumi, who criticises Western feminism and related empowerment discourses as an individualistic approach that inherently defines women in relation to men, and by doing so risks confining them to the private sphere (2002). In a similar vein, Ngunjiri proposes to approach women's leadership and empowerment in the context of ubuntu philosophy. Ubuntu philosophy centralises relations and connectedness of living beings as opposed to the more individualistic approaches that traditionally underlie the concept of women's empowerment. Ngunjiri therefore proposes a style of leadership that centralises spirituality or ubuntu, unity and community building and interdependence (Ngunjiri, 2016). The same values could form the basis for a more community-based approach to women's empowerment, not as individuals but as a collective. The third is to approach women's empowerment not as an individual-focused process but a collective-based process. Sardenberg (2009) distinguishes 'liberating empowerment' as opposed to a more individual 'liberal empowerment'. Liberating empowerment refers to the women's empowerment that takes place as a result of a structural change in power structures that can only be achieved when there is collective action and a sense of collective

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identity. This is in line with the results of this research: both things are provided by the Sudanese Female Cycling Initiative.

Future research could therefore benefit from an approach that does not separate the individual from her surroundings to the extent that this theoretical framework – and the conceptualisations of women’s empowerment and motility on which it is based – did. The strength of my framework lies in its ability to recognise different phases of a temporal process and their sub-components, which make it a useful tool for the analysis of the process of women’s empowerment through mobility. It enables the exploration and understanding of different aspects of this process as it is experienced on the individual level. However, it has significant limitations in the way it can incorporate the influence of collective processes, such as the case of this cycling initiative. As the data show the extensive interconnectedness of individual empowerment and collective empowerment, adopting an approach based on relationality, ubuntu and liberating empowerment forms a valuable additional approach to the existing individual-based framework. It is advisable that future research centralises the relationality or the collective level as well as, or even in favour of, the individual level.

8.4 Theoretical reflections on analysing through forms of power

On the topic of the third research objective, conceptualising how mobility and women’s empowerment interact and how to approach their interaction on a theoretical level, a question arises: What do these two themes – cycling carrying a broader meaning than movement, and the individual being embedded into a relational context – tell us about the power in empowerment? I introduced the five forms of power in my theoretical framework: *power over*, *power to*, *power with*, *power within* and *power through*. They were used to structure my interview questions and during the coding of the data and structuring of my results. They were very useful during this part of the research process for making sense of the data and demarcating the results. They also played a big role conceptually when I was first approaching the concept of power and empowerment – especially as an introduction to various ways different ways in which power relations can be engaged with, especially beyond the traditional conceptualisation of power as *power over*.

Several forms of power were quite clearly apparent in the results: the value of the collective action of the group clearly demonstrates *power with*, the way the cyclists are inspired by other members of the group is a clear example of *power through*, and the development of cycling competences and learning about one’s capabilities on and off the bike illustrate *power within* and *power to*.

In the analysis of the results, I did not feature the forms of power prominently, despite the ways in which they could be connected. This is because the effects of cycling as a mode of transport and the

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value of the group emerged as two big themes from the results. These themes can of course be related to forms of power: the former relates directly to *power to* and *power within* and the latter relates directly to *power with* and *power through*. However, this was not the focus for two reasons. The first is that the theme of cycling carrying a broader meaning for empowerment is not necessarily as much about forms of powers as I had assumed, but rather about how different meanings and functions of mobility can influence empowerment. The second is that the impact of belonging to a group and the interrelatedness of the individual and her surroundings conflicted with analysis of power that takes the individual level as a point of departure. Women's empowerment being such an interactive and collective process makes it difficult to ascribe empowerment as a process to a particular form of power: the different forms are intertwined to such an extent that distinguishing and analysing a specific form of power or the interaction between them risks to restrict the analysis to a level and extent that would not capture the themes that turned out to be most relevant for this research. A more individual-focused level of analysis could be useful when aiming to understand the specific interactions and contributions of these forms of power to women's empowerment, but limiting the analysis to this scope would not contribute to an understanding or clarification of the two main themes that turned out to be most important of this research: the liberating meaning of cycling and the liberating empowerment of the cycling initiative.

8.5 Limitations

There are several factors that impact the findings of this research beyond the ones already discussed in the methodology chapter (section 3). First, there are the women of the group. While I met the approximately twenty active core members of the group during my fieldwork, there are about fifty members that are involved in a more loose manner, and I only met a couple of them. Of the core members, I spoke to about eight of them in extensive, full length interviews. This means that the findings of this research are not necessarily generalisable to all women in this group, and likely best represent the more actively involved members. Instead, this research provides a deep dive in the experiences of specific women and examines how they have experienced the process of cycling. This gives an understanding of what factors could also be significant for women in similar situations, but in order to make the findings more generalisable, more research needs to be carried out with a larger number of respondents, and in other contexts.

Second, the women of the cycling initiative are not per se representative of 'the average urban Sudanese woman'. In many ways, they are, since the group consists of women from different economic backgrounds, religious denominations, geographic origins and educational levels. But in other ways they are not, since in comparison, they are relatively rich and well-educated and many of them from

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relatively progressive families, especially the older members of the group. All of them are rather stubborn, self-driven, determined, idealistic. It makes sense that these are the women that can afford to go against the norms in a way that less privileged women cannot. These women can be seen as pioneering changemakers that are at the forefront of societal change, and that by default, makes them not-average. However, research on the different experiences that accounts for the intersectional dimensions in the background of these women would provide more insights into how, for example, economic, ethnic or educational differences impact the empowerment process.

Third, and on a related note, I have treated the Sudanese Female Cycling Initiative as a relatively homogenous group during this research – not always accounting for differing opinions or ambitions within the group but rather generalising the majority opinions to the whole. This is partly due to the fact that I had to leave the field earlier because of the COVID-19 pandemic. Because of this, I could not carry out some focus group sessions and collective group discussions that I had planned with core members to reflect on the group's inner workings, ambitions and effects. It is also partly due to the fact that my research set-up initially mainly focused on the experience of individual women rather than the exact internal relations or dynamics within the group. My set-up gave an accurate in-depth view of their experiences and as the research progressed also of the relations and interactions between group members (through the combination of interviews and observations). It would however have been interesting to have had more focus on that social interactions and different roles of members in the group, on how the group decides to face the outside world as a collective and how ambitions and activities are decided upon. This is in line with a more collective approach to women's empowerment as is described above.

Fourth, this group is quite used to getting international attention, because they are doing a remarkable thing that speaks to the imaginations and provides a compelling story in the international media. This means that the women's answers or stories, especially in the beginning, could have been repetitions of earlier stories that they shared, or coloured as socially acceptable, because they are experienced in what most international visitors to the group ask, want to hear, and what they themselves want to convey. To mitigate these effects, I showed and expressed that I was interested in their detailed experiences, I spent a longer amount of time with them, attended all trainings, informal meetings and official group activities for the duration of my fieldwork, and carried out multiple long interviews to go beyond the first, usual commentaries.

A fifth limiting factor is more related to my approach to the research. As discussed earlier in this chapter, the theoretical framework used in this research initially steered my focus on individual

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experiences and cycling mainly as a mode of transport.³⁹ These were two relevant and insightful but also limiting lenses. Over the course of the research, my focus expanded as the data showed the importance of the collective in the other meanings of cycling. I incorporated these insights by planning more interviews with women that I spoke with in early stages of my fieldwork, and by shifting the focus of later interviews to better account for these meanings. Another part of this awareness grew over the course of the data analysis and writing part of this process. For future research, it would be important to focus on these broader meanings from the start of the research.

8.6 Recommendations

The limitations above lead to a broader academic recommendation that research on the intersection of women's empowerment and mobility should approach the process in a relational or collective manner. Understanding the individual level is important and insightful, but research that focuses too much on changes on the individual level glosses over the wider context in which these changes happen. Focusing on the relational and collective aspects from the start leads to more a more integral approach. The theoretical framework of this research could be strengthened by including this relational nature of the empowerment process.

The findings also point to recommendations for development practitioners, policy makers and urban planners. First, the findings show that the interplay between visible, tangible obstacles (e.g., limited access to materials, unsafe infrastructure) and the invisible, social effects of the group requires more recognition. These visible obstacles can to some extent be lifted with the support of outside actors. Bicycles can be provided, options for bicycle storage at strategic places can make material more available to women who are not able to bring their own, cycling accessories can be provided to improve safety on the road. To some extent, cycling groups can be supported publicly through statements or physical presence of people in a position of power.

However, the most impactful effects of the group happen from below. These effects can be supported by providing space for such groups to grow and bond. It is important to provide a safe space for such a network to enable women to inspire each other. It is therefore important to provide and create safe spaces where women can cycle, but more importantly spend time together and meet up, and explore and strengthen social bonding away from restrictive or overpowering social norms. Spending time

³⁹ Of course, the premise of this research has always been to look at the meaning of cycling beyond transport, but my theoretical focus, perhaps combined with how normalized cycling as transport is in The Netherlands, still took cycling as transport as a point of departure, despite my aim and efforts to do the opposite.

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together, both online and offline, can help to support ambitions of growth on an individual and collective level, through relations with others.

In many contexts, this means providing a women-only space where women can share experiences and empower themselves. Whether mixed-gender groups could have the same empowering effect in specific circumstances requires further research, but the results of this research have shown the value of a safe space for women particularly. This can concern cycling groups but also other forms of mobility. There are many parallels to be drawn between a women's cycling group in Khartoum and one in Kabul or Mexico City, and there are also parallels between cycling groups and a women's skateboarding collective in Bogotá, roller-skaters in Warsaw or even motor bikers in New Delhi. It might also be applicable to other (non-mobile) activities, although there is something particularly powerful about gaining mobility and being mobile and self-powered, which makes the social collective more empowered. From the context of urban planning and design, these places for coming together should be accounted for in inclusive urban spaces. And of course, prioritising bicycle infrastructure is hugely beneficial as well. Future comparative research is recommended to provide more insight into these processes, and the impacts in various contexts.

8.7 Postscript

When setting out to research the topic of cycling and women's empowerment, I quickly dug myself into a deep theoretical and analytical hole, looking for a way to evaluate and analyse every part of the change I saw these women go through. In that process, I at times fell into the exact trap I was trying to avoid: to not reduce the experiences of these women cyclists to distinct aspects of power or a function of empowerment, where my aim was to explore them fully. This thesis is my attempt to capture that exploration and to share the stories of the Sudanese cycling women.

Some time has passed since I returned from my fieldwork in Khartoum. When I arrived dictator Omar al-Bashir had just been ousted. Revolutionary ideas were tangible everywhere, there was a sense of freedom, hope and political change. Women had played a major role in the uprisings that led to al-Bashir's removal from power, and this impacted both how they were seen by men and how they saw themselves. Since my fieldwork, the situation in Sudan has again changed drastically. A diplomat I met in Khartoum told me how any change in Sudan was a matter of patience – any three steps forward would be followed by two steps back. Unfortunately, she was right: in October of 2021, a coup d'état happened that positioned military leaders in power (rather than the transitional government that had been in place). While the situation is still different from al-Bashir's reign and civil resistance to the coup is on-going, it is still a precarious time for civil freedoms and particularly women's rights. Some hard-

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won freedoms are now being restricted again as the Sudanese people continue to call for a democratic, civilian government.

Despite this political situation, the women of the Sudanese Female Cycling Initiative are continuing to cycle. They have been cycling since 2016, under al-Bashir. They cycled during the revolution and during the time of the transitional government. They are now cycling under the military rule of al-Burhan. And irrespective of who leads Sudan politically, the women form a network of strong, determined cyclists, riding towards freedom together.

9 References

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