In a peripheral neighborhood of Mexico City, there is an informal motorcycle cab service (MCS), which provides local mobility and mass transport connectivity to thousands of inhabitants that travel to the city to work or study every day. This phenomenon entails at the same time thousands of employment opportunities offered through its implementation. However, the MCSs of Mexico City have also caused an increase of air pollution and informal-unequal economy and have been occasionally used for undertaking criminal activities.

The aim of this investigation is to comprehend how the MCS can be headed towards a sustainable service. This research outlines how to grasp the importance of the MCS within the context of its neighborhood and how the service can reach formality in the future through field-based and participatory planning processes. Reaching a formal and legal status can provide a service that is of benefits to its users, workers and inhabitants of the neighborhood.

This dissertation additionally provides punctual recommendations for informal and emerging transport planning in Mexico City, addressing legal frameworks and public policies. The outcomes of some of the methods implemented for this research have had impact on the process of the MCS formalization in Mexico City, heading towards its sustainability.

Towards Sustainable Local Transportation in the Periphery of Mexico City
The Case of a Neighborhood Motorcycle Cab Service
Juan Carlos Finck Carrales

Towards Sustainable Local Transportation in the Periphery of Mexico City

The Case of a Neighborhood Motorcycle Cab Service

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PhD dissertation:
Doctoral School of Society, Space and Technology
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Preface by the Doctoral School

It is with great joy that the PhD research program Society, Space and Technology here presents Juan Carlos Finck Carrales’ PhD dissertation which forms a significant contribution to understanding the meaning of informal mobility services in the Global-South. A PhD dissertation marks the end of an academic apprenticeship and shows how the author has conducted independent research under supervision. It is thereby the culmination of a process of developing and forming new areas of research within the SST research program.

The research education in the PhD program in Society, Space and Technology is situated within the Department of People and Technology and is based on a multidisciplinary approach to research. Academically it spans technology-natural science, social sciences and the arts. However, there is a predominant emphasis on the social sciences. Juan Carlos Finck Carrales has been situated within the research group MOSPUS. The research focus in this group is the development of everyday life, culture, state and industry in interaction between place and mobility, including how citizens and organizations can participate in the development of spatial change. This dissertation forms an excellent example of transdisciplinarity. Perhaps not so much in the finished manuscript presented here, but truly in the development of knowledge moving from the technical quantitative transportation research into the social qualitative mobilities research.

This work is a continuation of Juan Carlos Finck Carrales’ master thesis that showed that Mexico City has undergone cases of informal transportation for approximately the last 20 years. Systems that are mostly placed in the peripheral zones of the city which tend to be the ones with the lowest social groups economically. The motorcycle cab service is a self-organized and self-regulated system which provides connectivity to thousands of people that travel to work or study every day. It offers thousands of job opportunities but also entails air pollution and informal-unequal economy and occasionally criminal activities. Therefore, it has undergone political frictions and patronages between the city municipalities, the city central government, and the city Motorcycle Cab Service organizations.

The focus in the master was on quantitative measurements of the development of the motorcycle cab service as well as the socio-economic perimeters of the area they were placed in. Whereas in this dissertation this is moved forward to also understand the spatial and social meaning as well as the dynamics of the governance of the service. This is done through qualitative research on structural stories, motility, governance and sustainability characteristics.
The dissertation shows how identifying structural stories can help planners to understand the stakeholders’ resources, social relations, power displays, and implications of actions at a macro-political level. And on a micro-level the structural stories are intrinsic elements that conform people’s mobile plans. Also the materialities of public space create embodied experiences on people that produce or/and reinforce these structural stories. These conclusions are based on a large amount of empirical work through ethnographic, visual and interactive methodologies. The interpretative and decolonial approaches under an abductive methodology used in the dissertation provide knowledge for transport planning that goes beyond time-space and economic efficiency logics. This is necessary to consider because using transportation and mobility together for planning of the MCS, explains different angles within the same phenomenon, which help to understand it in a wider perspective. As part of the theoretical contribution and to understand this phenomena, Juan Carlos Finck Carrales has deconstructed the sustainability concept by decolonizing it through the transmodernity philosophy of science, in order to situate the dominating Global-North literature in a Global-South context. Thereby this dissertation forms a significant contribution to a deeper understanding of the contours of informal mobility services and all its implications.

I have had the pleasure of supervising Juan Carlos throughout his PhD as his first supervisor until I changed my working place and after this co-supervising with Professor David Pinder. It has been a process with many interesting discussions and learnings, and I am happy to be able to write this foreword and wish you an interesting reading.

Copenhagen, 5 February 2020
Malene Freudendal-Pedersen
Professor in Urban Planning
Aalborg University, Denmark
I want to thank my beloved wife, Nazila Ghavami Kivi, for encouraging me to studying a PhD degree and for giving me her unconditional support, caring and love during the whole process of my PhD studies. I would not have made it without you! I dedicate this work to you.

I want to extent my gratitude to my main supervisor, Professor Malene Freudendal-Pedersen, for believing in my PhD project even before I was granted with its funding. Malene’s support, commitment and mentoring were key elements during my PhD studies. Her professional and academic work greatly inspired the approach of my PhD research.

I would like to thank my second supervisor, Professor David Pinder, for joining my research and his thorough and important advice, comments and feedback on my PhD research.

I would like to thank Professor Jørgen Ole Bærenholdt, since -as the first contact I had in Roskilde University- he had the kindness, professionalism and interest to communicating and sharing my PhD proposal with Malene.

I want to thank my mother, Martha; father, Adolfo; sister, Marian; grandmother, Hugo-lina; and younger brother, Erick for their great support during my PhD studies. Even though we were separated by a long distance, I could feel your presence and love very close to me.

Lastly, I would like to thank all the people who directly or indirectly supported this research; especially: my methods participants, Professor María Gabriela Lee Alardín, Professor Ruth Pérez López, Professor Célida Gómez Gámez, Dr. Amado Crotte Alvarado, and -Bicycle Mayor/Ambassador of Mexico City- Areli Carreón.
Abstract

In a peripheral neighborhood of Mexico City, there is an informal motorcycle cab service (MCS), which has provided local mobility and mass transport connectivity to thousands of inhabitants who travel to the central parts of the city to work or study every day for the last twenty years. This phenomenon at the same time entails thousands of employment opportunities offered through its implementation. However, the MCSs of Mexico City have also caused an increase in air pollution and informal-unequal economy and have been occasionally used for undertaking criminal activities.

This investigation ‘Towards Sustainable Local Transportation in the Periphery of Mexico City: The Case of a Neighborhood Motorcycle Cab Service’ aims to comprehend how the MCS can be headed towards a sustainable service through future regulations and policies directed at its planning. I argue that it is possible to provide sustainability to the MCS by implementing planning processes that go beyond transport time-space and economic efficiency logics.

This research outlines how to grasp the importance of the MCS within the context of its neighborhood and how the service can reach formality in the future through field-based and participatory planning processes. Reaching a formal and legal status can provide a service that is of benefit to its users, workers and inhabitants of the neighborhood. This research thereby answers the general research question: How can a neighborhood motorcycle cab service achieve sustainability? To do so, I carried out three analytical steps. First, I found 20 stories by interviewing stakeholders that belong to different social groups (a motorcycle cabs [MCs] organization, a transport NGO, a scholar, and a public servant). The stories reflect the stakeholders’ ideas, opinions and thoughts related to the MCS. I explored and studied the field and participatory methods in the light of those stories. In other words, the stories guided and framed the analyses. Second, I related those stories to people’s mobile praxes of my study zone by implementing fieldwork that included taking pictures by walking and recording stationary videos in strategic intersections. Third, I also related the stories I obtained with the interviews to stories I obtained later by implementing two participatory workshops, in which key stakeholders related to the MCS participated (MC users/a non-user, MCs organization leaders, and scholars).

By analyzing the field and participatory methods together, I put into perspective the possible sustainability of the MCS through planning processes based on the context of my study zone. I deconstructed and reconstructed the concept of sustainability for transport planning according to what happened in my study zone and to its stakeholders. Thereby
I could understand and unveil ‘opportunities’ and ‘barriers’ for achieving sustainability in the service.

Throughout this research, I have used interpretative and decolonial approaches under a reflexive and abductive methodology. Under that prism, the significance of this research rests on its methodological and conceptual academic contributions within the transport planning field. These include elements for understanding and studying the MCS phenomenon in more accurate and multidisciplinary ways by enriching, differentiating and even creating theoretical concepts. The contributions also include novel ways of carrying out transport research by interrelating outcomes of fine-tuned methods and concepts for academic analysis. That process involves understanding stakeholders in a contextual way and making use of their mobile praxes, knowledge and experience related to the MCS phenomenon as well as taking into account their power relations.

This research additionally provides punctual recommendations for informal and emerging transport planning in Mexico City, addressing legal frameworks and public policies. Finally, I argue that the outcomes of some of the methods I implemented for this research have had impact on the process of the MCS formalization in Mexico City, heading towards its sustainability.
Danish Abstract


Dette studie ‘Towards Sustainable Local Transportation in the Periphery of Mexico City: The Case of a Neighborhood Motorcycle Cab Service’ har til formål at udforske hvordan denne transporttjeneste kan dirigeres hen imod bæredygtighed gennem fremtidige reguleringer og politisk planlægning. Jeg argumenterer for, at det er muligt at skabe en bæredygtig transporttjeneste ved at implementere udviklingsplaner, der har et bredere sigte end transporttid og -strækning og økonomisk effektivitet.


Resultaterne fra det lokalt forankrede feltarbejde sammen med de participatoriske metoder bidrog til fremvæksten af mulige perspektiver for en kontekstbaseret bæredygtig...
tighedsplan, der tager hensyn til områdets særlige karakteristika. Jeg dekonstruerede og rekonstruerede betydningen af begrebet bæredygtighed i overensstemmelse med de aktuelle begiveheder i studiets lokalområde og med de deltagende interessenter. På denne måde kunne jeg erkende og afdække både potentialer og barrierer for bæredygtighed i MCS.


Ydermere tilbyder dette studie specifikke anbefalinger til planlægning i forbindelse med fremvækst af ureguleret og uofficiel lokaltransport i Mexico City, med inddragelse af juridiske og lokalpolitiske elementer. Afslutningsvis demonstrerer jeg hvordan udfaldet af nogle af de anvendte metoder har haft praktisk indflydelse på den igangværende formalisering af MCS i Mexico City på vej mod bæredygtighed.
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Introduction

It is 6 o’clock in the morning. Lupita has just gulped down her banana milkshake and is rushing out the door to reach her job in central Mexico City in two hours. Every second that passes, more people enter and move in the city, creating more traffic. As she steps out the door, she quickly catches one of the thousand available ‘moto-taxis’ (motorcycle cabs) moving in the neighborhood. There is an average of one of these vehicles crossing the streets every five seconds during rush hours on weekdays. The motorcycle cab (MC) takes Lupita to the metro station of her neighborhood, *La Conchita*, Tláhuac. This underserved (in poor conditions) neighborhood belongs to one of the sixteen municipalities of Mexico City, which is only slightly smaller than Copenhagen (2.75 km$^2$). Lupita reaches her work on time, partly thanks to the MC, saving her fifteen minutes in the beginning of her journey for a relatively inexpensive price. At 7 in the evening, when Lupita gets back to the metro station of her neighborhood, she finds a long line of MCs waiting outside. The MCs are neatly arriving to their improvised stop. Lupita takes one of the MCs that leaves her right outside her door. She will take the exact same journey tomorrow and the rest of the week. Lupita is one of the thirty thousand inhabitants of the neighborhood who have used the MCs service (MCS) within the last twenty years. In Mexico City, thousands of people use the MCS to connect to mass transport, fulfilling the first and last sections of their journeys. However, currently the MCS is illegal in the city and the government is not willing to formalize it, so Lupita’s MC drivers could be breaking the law.

This research outlines how to grasp the importance of the MCS within the context of its neighborhood and how the service can reach formality in the future through field-based and participatory planning processes. Reaching a formal and legal status can provide the service with benefits directed to its users, workers and inhabitants of the neighborhood. This research departs from my 2015 thesis for the Master in Urban Development Projects at *Universidad Iberoamericana* (IBERO) in Mexico City, which I carried out from a technical perspective and through a positivist methodology. The outcomes of that thesis highlighted the main causes, consequences, benefits and negative externalities of the MCS in that neighborhood, *La Conchita* in Tláhuac. Before starting that research, I already had a worldview of the study zone (the neighborhood) and its MCS due to having lived there for about 10 years (2005-2015). I often used the

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1 According to O’Donnell, Kramar and Dyball (2013), ‘positivist approach focuses on logical inferences from theoretical concepts (i.e. deduction) or a generalization from evidence (i.e. induction) […] the aim of positivism is to use measures to test hypotheses, ideally in a clinical experiment’” (p. 11). Researchers guide their studies from previous propositions that generalize/universalize reality and, consequently, researches’ outcomes as well.
MCS for moving inside the neighborhood and for connecting to mass transport when commuting on weekdays. Being a previous MCS user and neighborhood inhabitant provided me with knowledge about the phenomenon before doing research there. My worldview of the MCS thereby was formed at the very beginning when my mind and body were immersed into those experiences. This way, more specifically, this PhD research departs from all the experiences related to the MCS phenomenon that I had in my everyday life and academic work.

After my master’s studies, those experiences made me reflect on the opportunities for doing research with a local focus beyond its technical aspects. That involves taking into account the social and material elements of the field and the possible participation of stakeholders from different social groups in the planning of the MCS phenomenon. That also entails going from a positivist methodology to an interpretative one. The contextual and interpretative approaches of this research refer to a different way of doing studies about MCSs from the Western positivist ones, which have had case studies placed in the Global South and have mostly involved universal and deterministic logics. The importance of contextual and interpretative approaches rests on the aim of providing social science with the idea of producing transport planning framed under local ontologies and epistemologies that are not attached to and conditioned by Western positivist guidelines. The latter are based on ideas of rational-choice, economic growth, time-space efficiency, etc. My approach entails embracing and acknowledging worldviews of people that belong to my case study. I take into account understandings about my phenomenon that include ontological self-evaluation, self-critique and openness to dialogs between, for example, Western-produced theory and my study case data.

My research aims to implement that shift of focus because, historically, doing transport planning under Western positivist guidelines has usually not given satisfactory results in the case of Mexico City. Additionally, from my master’s thesis outcomes, I realized that technical, positivist and Western-guidelines approaches are not sufficient for doing research aimed to find effective ways for formalizing the MCS in the future. I concluded that because my master’s research outcomes did not have visible impacts on my study zone in the midterm as I expected. On the one hand, I did not get the attention of the city government (central and congress branches) by sharing my research outcomes with it (even though that could have partly happened due to politics-related reasons of the city). On the other hand, my master’s research did not address MCS users’ ideas on the possible future planning of the service. I think that the reason is that I did not take into account users’ mobile needs/desires and reproductive mobile praxis from a focus beyond travel efficiency. Additionally, I did not intend for the key stakeholders to meet one another and share their experience and knowledge about the service with the objective of planning it. The importance of
the ethnographic perspective of this research thereby rests on the aim of providing planners with human and more-than-human elements of a case study that they can only find through fieldwork implementation. These can open the door for understanding social praxis related to mobility and transportation in a broader perspective. The same way, implementation of participatory methods about informal transportation can provide complementary bottom-up elements that can be taken into account in the planning. Additionally, this research attempts to contribute to the mobility and transport concepts by separating, reconstructing and intersecting the understanding of those concepts. My aim is to use their elements and features within planning studies for future regulations and policies of the MCS in Mexico City.

Research problem

The formation of new modes of transportation in any given city is a process interdependent with its local history, economic development, socio-cultural, and political context. In some cities of the world, a phenomenon of informality within local transportation has appeared. Informal transportation refers to services that fulfill people’s mobile needs of public transport journeys by working outside legality (see Aworemi et al., 2008; Al-Hasan et al., 2015; Mbara et al., 2014; Cervero, 1992; Cervero, 2011; Guillen et al., 2012; Kassa, 2014; Kumarage et al., 2010; Cervero and Golub, 2007). The MCS is one of the main informal transport means that exemplifies the informal transportation phenomenon usually as a response to different levels of historical social exclusion and inequalities in a given city or locality (Cervero and Golub, 2007). Informal transportation systems of Mexico City are mostly seen in its peripheral zones, which tend to be the ones with the lowest income levels social groups living in them. The majority of the informal transportation of the city is made up by MCSs that currently are self-organized and self-regulated and provide local mobility and mass transport connectivity to thousands of inhabitants of the city and people that travel to the city to work or study every day. Usually, the key stakeholders of the phenomenon are the MCS users, non-users, leaders, workers, renters, and municipal and city transport public servants (Finck Carrales, 2015). This phenomenon also entails thousands of employment opportunities offered through its implementation. However, the MCSs of Mexico City have also entailed increasing of air pollution and informal-unequal economy and have been occasionally used for undertaking criminal activities. Furthermore, the service has seen political frictions and patronages between the municipalities of the city, its central government, and its MCSs organizations (MCSOs). The negative externalities relate to the fact that the majority of people that work in the MCS guild do not belong to a MCSO. That entails fights for getting passengers and using the service stop points between MCS workers and a disproportionate number of MCs providing the service in the same zones and at the
Introduction

same time. Nevertheless, according to the current Mobility Law of Mexico City, it is possible to give formality to the MCS, since currently it is legal to provide electric bicycle cab service (“ciclo-taxis”) as a public transport service through a governmental permission to operate.

According to the 2017 Origin-Destination survey of Mexico City (EOD in its Spanish acronym), an average of 1.1 percent of the total public transport journeys on weekdays in the city are carried out in MCs. This represents 93,050 journeys everyday (EOD, 2017). In the peripheries of Mexico City, the significance of the MCS relates to the increase in the demand for connectivity to mass transport, chained travels (a journey with many stops) within the suburbs, and the need for faster commuting (Finck Carrales, 2015; Cervero and Golub, 2007). People use motorcycles mainly due to increasing of transportation speed, since the everyday city life demands people to accomplish many activities at specific times. On average, motorcycles are 46 percent faster than cars and 127 percent faster than buses (Hagen et al., 2016). Approximately eighteen years ago, a process involving the appearance of bicycle cab started. Within the last twelve years, these bicycles have been gradually replaced by faster (more than 15 km/h) MCs. In fact, there are currently between approximately 20,000 [according to an interview by the Mexican media Reporte Indigo in 2019] and 30,000 MCs moving every day in Mexico City, where around half of them are in the peripheral Tláhuac municipality (ALDF, 2015). While it is true that the MCS is solving economic, mobility and connectivity needs, it is also affecting both private and public spaces. The outdoor spaces are faced with pollution, increased motor noise, decrease of social productivity and competitiveness due to MCS workers’ stress increasing, and thousands of informal employments that entail patronage networks involving working inequalities and injustices. In the private sphere, the main issues an increase in personal health risks, increase in monetary transport costs (in the study zone the transport costs represent 20 percent of family incomes,2 5.8 percent only in MCs) and an increase in levels of stress in zones where MCSs have developed (INEGI, 2007; Finck Carrales, 2015). Additionally, the motorcycles represent 10 percent of the emissions from mobile sources in Mexico City, where there are no emissions controls and, thereby, these present a higher rate of emissions of pollutants per kilometer than cars (2.7 times CO and 16 times HC). Furthermore, these are deploying more Criterion Gases, and emit 380,453 tons of CO₂, 6,075 tons of CH₄ and 5,364 tons of N₂O tons per year (PROAIRE, 2010; Vasic and Weilenmann, 2006).

In 2015, in spite of the significance of the MCS for the everyday mobility and connectivity of thousands of city inhabitants, its thousands of jobs, and the need for

2 Armstrong-Wright points out that people should not spend more than 15 percent of their monthly income on journeys to work (Cervero, 2011).
regulations and public policies directed to it, the head of the Mobility Ministry of Mexico City said in an interview to Milenio Mexican newspaper that his ministry had no intentions of formalizing the MCS and he wanted to practically abolish it and substitute it with public buses due to its illegality and insecurity (Milenio, 2015). In contrast, for more than fifteen years, municipal governments and some congress people of Mexico City have been creating and implementing regulations to the service and have had constant contact with many service organization leaders, even though according to the Mobility Law, only the Mobility Ministry aims to and can provide policies and permissions directed to that type of transport service for formalizing it.

Among much literature about MCs, the main aspects shared by several cities that have seen the informal transportation phenomenon are their territorial expansions and informal economic processes. Some examples of those cities are Mexico City, Auchi, Rio de Janeiro, Jakarta, etc. (see Finck Carrales, 2015; Al-Hasan et al., 2015; Golub et al., 2009; Cervero, 1992). For instance, electric and bicycle cab services have been introduced in different cities besides Mexico City, such as Paris, London, Copenhagen, etc. Several local governments around the world have made studies and public policies regarding that phenomenon due to its economic, environmental and social effects. However, for example, in the cases of Kingston and Mexico City there has been governmental incapacity to create public policies addressed to the issue (Finck Carrales, 2015; Cervero and Golub, 2007). Moreover, there are some cases in which the services of informal transportation are currently legal (Togo, Vietnam, and Tanzania). In other places, the service is illegal (Indonesia, Sri Lanka, and Philippines). Finally, there are other cases in which the services are legal in some zones of the city and illegal in other zones, depending on the vehicle type used to provide the service (see Tuan and Mateo-Babiano, 2013; Diaz et al., 2016; Rizzo, 2011; Cervero, 1992; Kumarage et al., 2010). Mexico City is one example of the third case, where the bicycle and electric bicycle cabs are legal and directed to the city center and the MCSs are illegal in the whole city. So far, in Mexico City, there have not been sufficient and interdisciplinary governmental studies regarding the social, spatial and economic consequences of the city’s informal transportation phenomena, specifically, the MCSs—or at least, if such studies exist, they have not been publicly published. Nevertheless, some local governments of the Metropolitan Area of the Mexican Valley3 (ZMVM in its Spanish acronym), that currently have MCSs, have started to plan and make diagnosis about the phenomenon along with civil organizations and experts. One example is the Green Infrastructure Laboratory of the National Autonomous

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3 The Metropolitan Area of the Mexican Valley (ZMVM in its Spanish acronym) is formed by the 16 municipalities of Mexico City, 59 municipalities of the State of Mexico and 1 municipality of the State of Hidalgo (SEDESOL, 2010). Furthermore, according to the EOD of 2017, in the ZMVM 1.8 percent of the total weekday travels in public transport are carried out in MCs, which represents 274,166 journeys every day (EOD, 2017).
University of Mexico (UNAM), which created a transport diagnosis in the next neighborhood of my study zone in 2013.

Research approach

This study has two approaches: fieldwork analysis and participatory analysis. My general aim is to understand how the MCS can be turned into a sustainable service through future regulations and policies directed to its planning. Sustainability refers to the satisfaction of necessities and the equitable distribution of resource benefits related to that service for future generations (see AUSJAL, 2015; Cucca, 2012; Brundtland and World Commission on Environment Development, 1987). I thereby formulate my general research question as the following: How can a neighborhood motorcycle cab service achieve sustainability?

In order to address my sustainability aim, I will take three analytical steps. First, I will frame and guide the field and participatory analyses through stakeholders’ ideas, opinions and thoughts related to the MCS of the study zone. I will do so by carrying out interviews with key stakeholders. I will interpret those elements of the interviews as structural stories. Structural stories are people’s expressions of common stories within everyday life conversations. These can become “common truths” for all members of a society as substance of rationales that produce and reproduce actions. Society reproduces structural stories systematically (see Freudendal-Pedersen, 2009). In relation to that, my first research sub-question is 1) What are the stakeholders’ ideas, experiences and opinions that relate to the motorcycle cab service of the study zone? In order to address that sub-question, I will phrase structural stories from the interviewees’ ideas, experiences and opinions. Structural stories relate to sustainability in the sense that these can be taken into account for planning the MCS in a sustainable direction. The stories about the MCS can be reflected in people’s mobile praxis in the field and in stakeholders’ exchange of experience towards understanding the use, importance, and main characteristics of the service for improving and formalizing it in the future in a sustainable way.

After getting structural stories about the MCS through interviews, as a second step, I will relate the stories to people’s mobile praxis in the study zone. In other words, I will analyze the field in the light of the stories through observation. In the field, I understand people’s mobility potentials in relation to the MCS by analyzing pictures and stationary videos of the study zone urban facilities, transport infrastructure, public space, types of transport means and their volume, and people’s mobile and stationary activities. Mobility potentials are conceptualized through the concept of motility. This
is the individual competence to move which is dependent on people’s access to options and conditions to fulfill movement (see Kaufmann, 2002; Kaufmann, 2014; Kaufmann and Canzler, 2008). The second research sub-question relating to that is 2) *What is the importance of the use of the motorcycle cab service in the study zone?* The importance of the service can be understood through structural stories and be taken into account in relation to a sustainable planning process as well.

Finally, I will relate the structural stories of the interviews to other stories obtained from stakeholders’ workshops with the aim of favoring a planning process for the MCS. By doing so, I aim to understand MCS key stakeholders’ governance through workshops analysis. *Governance* is the performance of activities between different stakeholders based on common objectives and rules by using their different abilities to achieve these, in this case, related to the MCS planning (see Bruquetas and Moreno, 2005; Bayat, 2012; Valencia Escamilla ed., 2007). In relation to that, my third research question is 3) *How can a participatory method enable governance between motorcycle cab service stakeholders?* Enabling governance for the MCS planning can direct its process towards achieving a sustainable aspect, as the latter involves common benefits for stakeholders.

Overall, my interest in people’s mobility potentials in the field rests on their relations to mobile or stationary materialities of the public space, which (re)shape to some extent people’s mobile praxes. Transport planners can thereby take into account reproduced human activities that relate to materialities (*embodied praxis*) happening every day in the field where the MCS phenomenon takes place. Additionally, I am interested in understanding the process and outcomes of a governance exercise between MCS stakeholders from different social groups. Transport planners can also use outcomes resulting from MCS key stakeholders’ workshops and previous interviews based on governance. By analyzing those focuses together, I put into perspective the possible MCS sustainability through participatory and field-based planning processes when these are based specifically on the context of my study zone. I can deconstruct and reconstruct the concept of sustainability for transport planning according to what happens in the MCS field and to its stakeholders in order to understand the possibilities of achieving sustainability in the service.

**Research structure**

**Study zone backgrounds**

In Chapter 1, I describe the backgrounds of Mexico City in order to contextualize my study case. I mention the historical territorial expansion of Mexico City as a background that entailed transportation systems. I explain the different typologies of
the informal transportation phenomenon for defining which one relates to my study case. Afterwards, I delve into the neighborhood of my study zone, Tláhuac’s municipality. Finally, the section includes a first description of the political framework of the neighborhood as a first ‘political arena’ mapping, providing the key stakeholders of the phenomenon.

Philosophy of science and literature review

In Chapter 2, I lay out the philosophy of science of this research. This is an approach of informal transportation studies under an interpretative research method and with a decolonial aim, doing planning research outside Western guidelines and normativity (mostly positivist). I explain cases of informal transportation around the world, mostly manufactured under positivist approaches and carried out by Western scholars, framed in themes related to my research questions. Finally, I delve into the possibilities of applying a decolonial approach within mobility and transport planning studies.

Theoretical framework

In Chapter 3, I focus on the main concepts (structural stories, motility, and governance) that structure my theoretical framework, creating theoretical discussions. Under those main concept frames, I create sections of concepts that stem from them in order to interweave a theoretical construction of my case study phenomenon. I lay out the recent changes and development in the conception of mobility. I problematize the application of the mobility concept in relation to public space materialities as mainly transport and public space infrastructure. I also define macro and micro-politics for social science research in order to understand social phenomena based on their social group differentiations. Afterwards, I explore the concept of sustainability in relation to governance, structural stories and mobile utopias.

Methods, research design and strategy of analysis

In Chapter 4, I delimit my research, explaining its abductive process. I also outline the methodology of this research by explaining the perspective of my ethnographies and my research design from the methodology. I set out my selected methods for this research in relation to its main concepts and aims. These separate into field and participatory methods. I address the field and participatory methods by explaining their research aims. I address the participatory methods by explaining their aims within the research. Furthermore, I examine the key stakeholders’ participatory methods that I carried out regarding ethics for my research. Finally, I set out my strategy of analysis, where my methods and concepts interplay.
Structural stories from interviews

That is where I start the second part of the thesis, which is the analysis. In Chapter 5, I answer the sub-question: 1) *What are the stakeholders’ ideas, experiences and opinions that relate to the motorcycle cab service of the study zone?* In doing so, I found 20 structural stories with my interviewees related to the MCS of the study zone. The stories help me understand the differences and standings of the key stakeholders’ social groups (MCS Leader, NGO Servant, Municipality Servant, and Scholar) about the MCS phenomenon. The first 5 structural stories relate to the distances and differences between the key stakeholders’ social groups. The next 4 stories relate to the stigmatization of the MCS and the different stakeholders’ ‘voices’/ideas for regulating it. These aspects reflect the polarized social positions of the social group phenomenon, where their power relations are taken into account for the possibilities of regulating the MCS. The power characteristic relates to the next 5 stories. In the second section of the Chapter, the next 2 structural stories relate to the inner community within the MCSOs that reflects solidarity between its workers. Finally, the last 4 stories relate to the community formation resulting from the MCS activities happening in the neighborhood.

Fieldwork analysis

I structure Chapter 6 in sections according to the three elements of the motility concept (access, skills and appropriation) in relation to the neighborhood MCS, answering the research sub-question: 2) *What is the importance of the use of the motorcycle cab service in the study zone?* Additionally, I relate structural stories I obtained with my interviews to the sections of the Chapter in order to know and understand the importance of the use of MCs in the study zone. That process relates to its public space conditions, humans-materialities relations, people’s mobile praxes, people’s structural stories and community formation linked to economic activities and affective relations. In doing so, I explain that people depend on MCs for fulfilling mobility in terms of accessibility. Thereby, I understand people’s movement related to the MCS through materialities of the public space, structural stories and the study zone context.

Participatory method analysis

In Chapter 7, I answer the research sub-question: 3) *How can a participatory method enable governance between motorcycle cab service stakeholders?* In doing so, I analyze the governance for the MCs by carrying out key stakeholders’ workshops, where they share structural stories and I relate these to the ones I obtained with my interviews. I explain how multi-social group workshops based on governance can help unveil key stakeholders’ structural stories about the MCS of the study zone that can be used as tools for transport planning. The processes of the workshops include dialogs and debates between stakeholders based on their experiences (as stories). The stakeholders could
define problems about the MCS towards reaching common agreements. Those elements involve the possible future planning of the MCS.

Conclusions

In the conclusions, I bring the analysis together by explaining the relation of the structural stories I obtained with the interviews to my field and participatory outcomes. I also explain the outcomes related to motility in the field and to governance in the workshops as conceptual and methodological elements for planning. I lay out the relation of those two approaches to the possible planning of the MCS regarding sustainability as a ‘re-constructed’ concept and by highlighting its different dimensions (cultural, social and economic). I also make concrete recommendations for planning the MCS. Furthermore, I address the shortcomings and limitations of my research, bringing up important questions for further research into the case and field. Finally, I narrate an update of my case study until August 2019, mentioning the impact of the implementation of some of my methods regarding the phenomenon.
Chapter 1. Informal transportation in a neighborhood of Mexico City

After I finished my bachelor’s degree, the first job I got was located in one of the central municipalities of Mexico City called Miguel Hidalgo. I was living in Tláhuac’s municipality by then. On weekdays, I had to commute back and forth between the municipalities, and as a result, I had to spend around four hours traveling every day. During that period (2010-2012), the metro line of my neighborhood was under construction, so each journey to work was forty minutes longer compared to the time it would take by metro today. Living in a South-Eastern municipality not only involved long travel time. It also affected my employment opportunities, my social networks and my income level. In my interview for that job, the interviewer (who was actually the owner of the company) told me that he liked my CV but that he found very problematic to hire me due to my home being far away from his company. I told him that he should not worry about that because the city government was building a metro station close to my home, which would make my commuting shorter in the medium term. He understood and hired me. However, I noticed that my starting salary in that job was related to my geographical position, meaning, that for living in a peripheral undeserved neighborhood, automatically I was symbolically “punished” with a lower salary compared to coworkers that lived in more central municipalities and who had not even finished their bachelor’s studies (in Mexico, salaries are not completely adjusted according to the workers’ educational level, and company owners pay their employees minimum wage). Living in a peripheral neighborhood therefore involves a certain level of direct or indirect social exclusion and limited access to employment opportunities and even services and products. I was “lucky” to get a job in a central municipality of the city, even with a low salary, but other peripheral inhabitants struggle so much to find a job that they decide to start their own businesses in the neighborhood where they live. The informal transportation service is one of them.

The aim of this Chapter is to understand the peripheral MCS phenomenon from its socio-historical background. That involves knowing the transportation systems of Mexico City, which, at the same time, respond to its historical expansion. It is important to know the causes and characteristics of the process of the expansion of the city and its current transportation systems in order to understand its peripheral informal transportation. The whole process of territorial expansion favored the creation of informal means of transportation as the expansion has involved social exclusion reflected as disparities on access to opportunities between inhabitants of
central and peripheral municipalities. I start this Chapter by explaining the relation between the territorial expansion of Mexico City and its land use zoning. The central municipalities concentrate mixed-use zoning in comparison to those in the periphery, which involve unequal public and private investment between municipalities, favoring unequal implementation of urban and transport policies as well. That process involves unequal access to the city for its social groups and social exclusion for people living in the peripheries. I explain that this happens because territorial expansion leads to an urban fragmentation that, at the same time, favors urban segregation. I continue the Chapter by explaining that the unequal access to the city has increased the transport demand, historically favoring the creation of complex mass transportation systems in Mexico City. That stage has also involved transport regulations targeted at mass transport concessions and time-space efficiency aims, which paradoxically restrict people’s movement until limiting their accessibility to jobs, products and services. Afterwards, I relate that process to the creation of informal transportation by differentiating it from the paratransit types of transport and the emerging transportation. The latter relates to my case study as it involves peripheral transportation that closes the mobility “loop-holes” left by formal transport services. The non-satisfactory economic systems and social exclusion characteristics of the zone favored those emerging means of transportation. Finally, I address my study zone by describing its underserved characteristics, the main stakeholders of its MCS and its physical features related to the job demand, spatial mobility and connectivity which that service provide to people.

1.1. Territorial expansion and polarized land use zoning of Mexico City as causes of its unequal access

In this section, I explain the causes of the access disparities between social groups of Mexico City. These were caused by the territorial expansion of the city and, consequently, how the land use zones have been distributed within the city, favoring more urban and transport work in central municipalities compared to the peripheries.

During the last six decades, Mexico City has undergone substantial territorial expansion and, therefore, an extensive transport system based on daily long-distance commuting has been developed⁴ (see Ramírez, 2007; Gamboa and Revah, 1990; Hiernaux, 1999; Sedesol, 2010; Garza, 2000; Bruquetas and Moreno, 2005; Benítez and Pérez-Campos, 1990; Lee, 2014; De Pirro, 2014; Duhau and Giglia, 2009). Consequently, according to the Global Cities Business Alliance (2016), inhabitants of

⁴ Guillen et al. (2012) points out that generally long-distance travel is defined as 10 km or more, while short distance travel is between 1 and 3 km.
the city spend an average of more than three hours a day traveling, mainly to work or study activities (113 minutes per journey on average). According to the EOD (2017), people in the city spend 48 minutes per journey on average: 54 minutes to work and 35 to studies. As a result, unequal distribution of mixed-use zoning has involved unequal implementation of governmental urban and transport policies among the zones of the city (Martínez Flores, 2015). The majority of mixed-use zoning land is located centrally in Mexico City. That process has favored unequal access to benefits for some social groups of the city regarding mainly job offers, habitability and life quality, services and facilities. One of the results of the unequal access to the city is the creation of emerging means of transportation by its peripheral inhabitants. Thereby, the specific case of the MCS in my study is a result of those historical processes.

The distribution of productive activities and effective urban structure within the city (which is legally stated as land use zoning) determines unequal access to the city. This aspect entails different productive activities, which involve housing proximity to job offers and proper services. In theory, the more mixed-use zones, the more capacity of production and the higher inhabitants’ life quality (Martínez Flores, 2015). Therefore, understanding the land use zoning in Mexico City can help me explain its social exclusion characteristic reflected as unequal access to the city for underserved social groups.

Over the past eighteen years, the government of Mexico City has been implementing urban development policies mainly in central and Western zones. For instance, in 2014, approximately 25 percent of the finished governmental works related to public urban services and spatial improvement (urban projects in general) were made in Álvaro Obregón, Benito Juárez, Cuauhtémoc and Miguel Hidalgo central municipalities. In that same year, merely 7 percent of public works were finished in the Eastern zones of Iztapalapa, Tláhuac and Milpa Alta municipalities (AGU, 2015).
Figure 1. The 16 municipalities of Mexico City  
(Tláhuac municipality remarked in orange) - Territorial map. Source: zonu.com.

Inequitable redistribution of the public budget among the municipalities of the city has sought to guide private productive investments towards only the most productive and rich zones (Bret, 2009). Therefore, central and Western municipalities have the highest rate of Gross Domestic Product (GDP) of Mexico City.\(^5\) As a consequence, in 2010, approximately 87 percent of people in poverty (approximately 30 percent of the total population) were inhabitants of Eastern municipalities (Coneval, 2010). Plus, central and Western municipalities (three out of sixteen) of Mexico City concentrated 48 percent of its total formal jobs (PGDUDF, 2003).

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\(^5\) Benito Juárez with 27,824, Cuajimalpa de Morelos with 25,407 and Miguel Hidalgo with 21,549. Peripheral municipalities have the lowest rate of GDP: Iztapalapa with 10,481, Tláhuac with 10,155 and Milpa Alta with 7,689 (Perfil Socioeconómico del Distrito Federal, 2009).
The mayor of Mexico City during the period 2012-2018, proposed in his 2012 political campaign the implementation of strategic development in five of the peripheral zones through economic stimulus. The zones were: Iztapalapa, Milpa Alta, Xochimilco, Tláhuac and Azcapotzalco municipalities. However, so far, those zones have not seen sufficient private investment for urban development projects. The reason is partly that the land use zoning of those zones mainly consists of housing. For example, Tláhuac municipality mainly has raw material production, but it has a lack of mixed-use zoning. Currently, Tláhuac has 40 percent housing land-use zoning, 50 percent ecological reserves and the rest is addressed to low level convenience stores and mixed uses (Información Geoespacial, 2010). There is little mixed-use zoning in the majority of peripheral municipalities. Mixed-use zoning would require extra governmental management and administrative work. Peripheral local governments cannot manage offices and housing estates for mixed-use zoning because their local urban development programs do not take it into account. Moreover, peripheral zones often receive the lowest public budget from its congress every year among all of the city municipalities because they have a low formal economy productive rate (PDDU-Tláhuac, 2008).

Consequently, territorial expansion entailed by polarized use zoning among the territories of Mexico City has favored planning of mass transport from that physical condition. The government has been planning and designing the transportation systems of the city under a wide territorial expansion condition, which materializes as development of the metro, bus routes, the ‘Metrobús’ Bus Rapid Transit (BRT) lines, the trolleybus system, etc. through decades.

1.2. Transportation policies and regulations of Mexico City as a result of its urban fragmentation

In this section, I explain the urban fragmentation and segregation processes of Mexico City that are the consequence of its territorial expansion. These involved complex transportation systems in the city that try to connect its different zones. Those systems and the transport regulations have favored long-distance travels, thus favoring access disparities between social groups.

One of the main characteristics of the expansion of the city is that its territories are not only political-geographically separated but also socioeconomically fragmented. That phenomenon creates territorial distinctions and therefore exclusive
governmental treatment translated into public policies to ‘connect’ territories in different ways, such as economically, socially, culturally, etc. (see Kuppinger, 2004; Cass, Shove and Urry, 2015; Sanz, 2010). In Mexico City, the main policy to ‘connect’ its territories has been the development of a huge transportation-system. Transport has been planned under a ‘mobility-on-demand’ system because transportation aims to respond to mobility needs created under long-distance separation between territories with and without formal or informal productive activities (Urry, 2011; Suárez Lastra and Delgado Campos, 2015). Knowing the transportation system of the city entailed by its policies and regulations provides me with information to understand its relation to the current informal transportation phenomenon placed in its peripheral zones.

1.2.1. Urban fragmentation and urban segregation as background for complex transportation systems

The neighbors of a city that belong to the lowest social classes tend to have unequal access ‘to the city’ through social exclusion. Here, people’s ability to move depend on their socioeconomic stages that reflect social inequalities (see Sheller, 2015; Vannini, 2009; Cucca, 2012; Soja, 2010; Kaufmann and Canzler, 2008). Sheller (2014) explains that phenomenon through what she calls mobility justice in terms of people’s achievement of sustainable mobility and mobility rights. Furthermore, her focus addresses the ‘right to the city’ or the ‘right to urban life’ that differentiates social groups that belong to the same city. The territorial paradigm that entails those inequalities is what is called urban fragmentation. The cities’ historical process that entails the splitting of its territories and consequently proliferation of exclusive and exclusionary urban spaces involves urban fragmentation. Thus, in a fragmented city, some zones contain more goods, services, products, etc. (generally the central zones) than the others (generally the peripheries), such as the case of Mexico City (see Czeglédy, 2004; Kuppinger, 2004; Cass, Shove and Urry, 2015; Urry 2011; Sanz, 2010). After a physical separation, the city divides the population based on its socio-economic conditions and creates polarization of accessibility among the populations of its zones, preventing their participation in society with different kinds of exclusions. Those could be physical, geographical, of facilities, economic, time-based, fear-based, and of

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6 The city expansion involves a process of physical separation within municipalities and their neighborhoods that can even entail borders that divide zones of the city in relation to its social class housing. For example in the case of the Santa Fe zone of Mexico City, there is a border in the middle of its hill that separates the ‘Town of Santa Fe’ (the poor) and the ‘Hills of Santa Fe’ (the rich), even though both are placed in the same municipality.
space (Urry and Grieco, 2011). That process generates *urban segregation* because the splitting of the territories involves social disintegration in a socio-cultural level through the polarization of values, habits, and identity among different social groups. Moreover, the separation of population in groups entails small social-networks among them which, in turn, involve a process of social exclusion, resulting mainly in poverty conditions because of lack of economic activities (see Kaufmann, 2010; Veiga, 2004; Ziccardi, 2012; Vannini, 2009; Czeglédy, 2004; Sheller, 2015; Low, 1997; Mubi Brighenti, 2014; Soja, 2010; Graham and Marvin, 2001).

For Van Eijk (2010), social class analysis of geographical areas (those of what she calls ‘resource-poor’ people and ‘resource-richer’ people) is helpful for understanding processes of exclusion and segregation when social groups are excluded from resources through segregated networks. The author uses the concept of *social capital* to refer to the resources that are available through individual membership in a social network, which could also be a mechanism for (re)distribution of resources among social classes. Those conditions create ties based on *affectivity* between social groups with the same social class, namely, people feel strong and socialize with one another for the sake of ‘sociability’. The concept could relate to social engagement formation in a segregated context based on *social capital*. Furthermore, the author states that in cases with absence of ‘resource-richer’ people in high-poverty neighborhoods, that condition makes it difficult for ‘resource-poor’ people to form relationships with ‘resource-richer’ ones. That characteristic affects the ‘resource-poor’ options to improve their societal and economic status (social isolation thesis). Furthermore, after the zones of the city have been split, an attempt of spatial class integration within neighborhoods does not moderate the formation of unequal networks. That happens because those possibly mixed neighborhoods could not facilitate or stimulate the formation of relationships between ‘resource-rich’ and ‘resource-poor’ people. Van Eijk concludes that spatial segregation in itself does not structure opportunities of encounters between ‘resource-rich’ people and ‘resource-poor’ people; instead, it reinforces unequal networks and inequality. Nevertheless, neighborhoods are meaningful places for spatial segregation and spatial integration understanding, since boundaries between socioeconomic categories remain in place. Hence, the greater the spatial segregation, the more the reproduction of unequal segregated networks and inequalities, which could reflect on access to transport means. Additionally, in terms of positional and participatory inequality, Van Eijk suggests that city planners should worry more about ‘class’ than about ‘ethnicity’ in this regard. Thereby, individual earning of resources (such as income, political voice, education, etc.) relates to frictions between people in the ‘resource-poor’ and ‘resource-rich’ categories. Regarding my case study, neighbors have seen social inequalities related to their geographical position. In contrast, people living in central zones of the city tend to receive more
governmental attention in terms of transport offer. When peripheral neighbors have had the need to move, they have found difficulties finding journeys. Therefore, historically, people have created emerging transport means.

1.2.2. Transportation systems of Mexico City

In the second half of the 20th century, the government of Mexico City developed what is known as the Program of Transportation and Roads, which basically planned the creation of a trolleybus system and the extension of the metro. By the end of the 1960s, the government created the Collective Transport System and the second stage of the Project Metro, which preceded the creation of the Integral System of Transportation and Highways. Those systems started a series of public transportation programs with a focus on the articulation of economic development, road construction and parking systems based on indicators to determine the transport demand. Those indicators related to population growth, urban expansion and trends in transport coverage. By the end of the 1970s, the government built several road axes and it created the Passenger Transport Network to physically connect the peripheries of the city with its center (Benítez and Pérez-Campos, 1990).

Within the past 10 years, the government has expanded the public metropolitan transport network of Mexico City with big constructions such as the Metro 12 Line, the BRT system and the new suburban train lines. The government has been implementing the majority of the city public transport under a concessionaire legal system in order to accelerate the creation of hundreds of public transport routes, given mainly by mini-buses. Those transport means aim to feed the metro stations with thousands of passengers day by day from all kinds of remote zones of the city (Proaire, 2011). Therefore, one of the most important consequences of the historic development of the transportation system in Mexico City has been the modification of its structure and infrastructure. For example, the central government extracts water constantly, which has involved ecological instability and environmental pollution (Lee, 2014).

In summary, on the one hand, the transportation policies of Mexico City have been responding to the accelerated transport demand that has been ongoing as a consequence of the urban fragmentation. On the other hand, the policies have also responded to fast peripheral dwelling construction. The transportation system of the city has been satisfying transport demand and has at the same time been creating it in an apparent ‘never ending’ cycle. The transport demand relates in its majority to daily
long-distance commuting.

1.2.3. Current transport regulations of Mexico City

It is important to consider the current transport regulations of Mexico City because these provide me with the government’s profile, vision and focus regarding transport policy making. That description, in turn, allows me to understand the government’s current and possible future views on the informal transportation phenomenon of the city.

In July 2014, the Congress of Mexico City (ALDF before 2018) launched the Mobility Law of Mexico City. The Law states a series of points that define the “new” transport conception of the city regarding planning, regulation and managing of, what it calls, people’s ‘mobility’. The general objective of the Law is to assure people’s movement effectively through security, quality, equality, and sustainability of transportation systems.

The Law emphasizes the following points. There is an overlap in concessions for public mass transport (regarding its regulation and administrative processes through an Integral Transport System). The purpose of those concessions is mainly to fulfill long-distance commuting, urban structure planning, and designing of roads for transport. Additionally, priority is given to pedestrians by considering them as a vulnerable group (the object of ‘mobility’ is people) over the rest of transport means, which involves the premise that all vehicles must give way to pedestrians whilst traveling.

Moreover, the Mobility Law conceives the term ‘mobility’ as a socially inclusive right of people to carry out displacements for satisfying needs and for achieving access to jobs, education, health, leisure, etc. in the city. The Law states that all displacements will be assured through a ‘mobility system’ instead of only through a ‘transportation system’. The Law defines the ‘mobility system’ as a collection of elements and means, whose structure and interaction allows displacements of people and goods. On the other hand, the Law defines the ‘Integral Transportation System’ as the collection of transport services that are physically, operationally, informatively, etc. articulated. However, with those definitions, it is not clear what is the difference between the ‘mobility system’ and the ‘transportation system’ of the city, since both involve a wide transport infrastructure and structure for effective massive displacements.
Chapter 1: Study zone backgrounds

Either way, the alleged change of paradigm within the Law is important because it refers to a change of vision regarding the transport policy making in the city. In fact, only a few months before the Mobility Law was introduced, the city Ministry of Mobility was named Ministry of Transportation and Roads, and the Law of Mobility used to be called Law of Transportation and Roads before the 2014 reform. This way, the term ‘mobility’ is the new basis of transport policy making in Mexico City.

However, the Mobility Law merely added the ‘mobility’ term for stating a ‘mobility hierarchy’ (from pedestrians to bikers, public transport, private vehicles, and so on) among transport means. Additionally, it stated the term ‘effective mobility’ for fostering easy movement, which translates into increasing speed while traveling (time efficiency). In the Law, the term ‘mobility’ presents as ‘freedom of movement’ but, at the same time, it is immersed in a complex given transportation system, which ends up restricting that ‘freedom’ and making people dependent on that system (see Kaufmann and Canzler, 2008).

Hence, the majority of points that remain in the new Law are basically the same as those in its predecessor from before 2014 regarding, mainly, administration of wide transportation systems that respond to a given demand. That aspect dismisses social, cultural and accessibility aspects related to the new mobility paradigm (which will be explained thoroughly in the Theoretical Chapter) because it entails reinforcement of legal mechanisms and instruments addressed to long-distance commuting (Vincent-Geslin and Kaufmann, 2012; Kaufmann, 2014). The transport rules stated by the Law aimed to be implemented without taking completely into account aspects that can involve people’s accessibility to products, services and job offers.

Later, on August 17, 2015, the government introduced the Mobility Law regulation to specify and implement the elements stated in the Mobility Law. The Road Regulation of Mexico City focuses on assuring safety and free movement on journeys. The regulation stresses the following elements: the government will provide tools to the city road police for increasing traffic tickets application in order to diminish private car speed, there are specifications on pedestrian and driver praxis whilst traveling

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7 Hence, in the same year, the city government acquired 11,105 new road cameras, 500 new ticket handhelds, 156 new traffic radars, etc. As consequence, from 2012 to 2015 traffic tickets increased by 64.8 percent but vehicular accidents decreased only 15.45 percent during the same period (SSP-DF, 2015; INEGI, 2014). Besides, the government of Mexico City made a two-year contract with the company ‘Autotrafic’ (which provided new road cameras) in which it was stated that the company had to issue at least 150,000 tickets per month mandatorily and in return it would receive 46 percent of total incomes estimated for the road ticket system (SSP-DF, 2015).
(fostering politeness), and there are elements favoring vehicles parking organization and proper use of roads. The Road Regulation ended up being an instrument aiming to keep the focus of the transport policies on the development of mass transportation systems and constant and controlled use of private gas-motorized vehicles. These mass transport preferences end up being economically regressive, since they tend to benefit only middle-class workers, central-city businesses, retailers, and landowners (Cervero, 2011). While the Regulation takes into account more aspects regarding biking and walking than its predecessor, it does not promote the non-dependency on motorized vehicles and long-distance commuting. Hence, biking and walking remain a privilege in the city for lack of urban structure, and concentration of services and products in the center of the city.\(^8\) People made only 2.2 percent of their total weekly journeys on bicycles, while people made 22.3 percent in private motorized vehicles and 50.9 percent in mass public transport (EOD, 2017).

Additionally, the environmental aspect within the transport policies of Mexico City is highly contemplated in regulations and has several objectives to achieve. Therefore, transport policies focus on diminishing polluting emissions of the vehicles mainly through restrictions on cars traveling.\(^9\) Furthermore, transport policies mention the concept of sustainability. However, if transport policies mainly seek to diminish air pollution and minimize cultural, social and economic aspects related to daily commuting, these are not fully sustainable (this idea is described in more detail in the

\(^8\) It is difficult for traveling by sustainable transportation, such as bicycles, to become a constant activity because currently, there are merely 25 bicycle lanes in Mexico City (170.11 km). Plus, the majority of bicycle lanes are placed in only 3 (the most central: Cuauhtémoc, Miguel Hidalgo and Benito Juárez municipalities) out of sixteen of the city municipalities, and only one is placed in the North-Eastern zone (Gustavo A. Madero municipalities) (SEDEMA, 2016).

\(^9\) In 2012, there were 2,498,719 motorized vehicles moving in Mexico City, and in total, 31,000,000 tons of CO\(_2\) were emitted (SEDEMA-DF, 2014; SEDEMA-DF, 2012). In 2014, 24,551,216 tons of CO\(_2\) were emitted, meaning a decrease of 20.80 percent in two years (C40, 2014). Since 2006, the city has reduced CO\(_2\) by 2.2 million mainly due to the Metrobús (Bus Rapid Transit) public service, which has cut 122,000 tons per year (METROBÚS, 2015). However, private vehicles account for 78 percent of the total transportation means and only provide 33 percent of total travels. Also, public transportation represents only 8 percent of total means, provides 66 percent of total travels and accounts for 52 percent of CO\(_2\) emissions (SEDEMA-DF, 2012; C40, 2014). In addition, due to environmental contingency in Mexico City, since April 2016, there have been several changes and over-implementation of the 1989-introduced program ‘Hoy No Circula’ (no ride today), which bans private cars from traveling in the city on some weekdays depending of their license plate. The ‘Hoy No Circula’ has been one of the main public transportation programs implemented in order to diminish air pollution, even though currently only 18 percent of the city CO\(_2\) emissions come from private cars (Izquierdo, 2016). Also, since its implementation, private car traveling in the city has been increasing, because people have tended to buy an extra car instead of using public transportation on the days when they cannot use their cars.
In summary, the current Mobility Law of Mexico City and its Regulation do not entail in depth changes in people’s mobility reflected in their daily commuting. In other words, with these new regulations, inhabitants of the city will possibly continue their long-distance commuting. Daily traveling also includes breathing pollution, hearing motor noises and doing several interconnected transfers within complex mass transport systems. As one of the main consequences, constant and long-distance commuting in Mexico City has entailed increasing private and social costs, such as constant air pollution and stress-related diseases.10

1.3. From paratransit to informal transportation… to emerging transportation

In this section, I explain the differences within the informal transportation phenomenon based on contextual matters and processes between study cases. My case study relates to the emerging transportation type due to the characteristic of the excluded social group that favored transport self-creation.

The transport ‘paratransit types’ are those modes that people usually create in response to a certain lack of mobility potentials in order to close ‘mobility loopholes’ in the cities left by the transportation systems historically built by their governments (Cervero, 1992; Cervero and Golub, 2007). I can divide paratransit into two types: the personal and the informal/formal services. The first ones are those which people create, manufacture or adjust according to their own mobile needs and desires. One example of these are Copenhagen’s cargo bikes called Christiania bikes (ladcykler). People started to use that transport means as a way of transporting persons (mainly partners, children and friends) and carry things that were difficult or impossible to carry on a regular bike. For instance, Freudendal-Pedersen (2015) mentions that ladcykler ‘serve specific needs that are most often served by cars’ (p. 611). The second paratransit type is the services that take place when a person or (self-)organized groups of people offer a transport service and make a profit. They do it with transport means

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10 In a survey made in 2010 by IBM with private drivers in Mexico City, 56 percent of the respondents thought that road traffic had affected their jobs and studies. 43 percent of them thought that road traffic affected their health because of stress and pollution. Additionally, besides Beijing, Mexico City is the city with the highest points of annoyance index (frustration rising) with 99 within the whole world (IBM, 2011).
that they created, manufactured or adjusted according to certain people’s mobile needs and desires, and that their governments could regulate. One example, continuing with Copenhagen, is its electric bicycle cab service (taxacykler) that its workers offer mainly to tourists in the city center. As the examples show, both types of paratransit could take place in the same city and context, and form part of its transportation and mobilities systems as well. Therefore, paratransit services are the transport modes considered the “backbone” of transportation systems as they complete them by meeting the city inner mobile needs, such as door-to-door stops and fulfilling the first and last journey sections (Cervero, 1992). As a result, paratransit is estimated to be half of total transport offer worldwide11 (Cervero and Golub, 2007) and it is used satisfactorily most of the time12 mainly by students, self-employed, and company employees with the dominant mode being the MCs (Al-Hasan et al., 2015).13 Those transportation modes mainly provide seating capacity, speed variation, carrying objects capacity, and geographical coverage, which together have become a basic right for people in a city. However, as I mentioned before, the majority of paratransit cases have entailed lack of governmental acceptance and recognition, which is an important barrier for their regulation or prohibition. Therefore, the service usually involves irregularities that affect people directly and indirectly reflected mainly as: road accidents, criminal activities, income inequalities within the sector, mismatching of supply and demand, over-tariff pricing and non-tax payment (see Aworemi et al., 2008; Al-Hasan et al., 2015; Mbara et al., 2014; Cervero, 1992; Cervero, 2011; Guillen et al., 2012; Kassa, 2014; Kumarage et al., 2010; Cervero and Golub, 2007). Under this logic, self-organized paratransit services as a business outside the legal terms of a city are what I can call informal transportation.

Informal transportation provides ‘on-demand’ mobility for the those depending on transit, meaning that it closes the mobility gap left by formal transport and the non-satisfactory economic systems. Usually, the main reasons for the creation of this type of service are the lack of fiscal and institutional capacity, and lack of meeting journey demands by current formal transport in mainly underserved peripheral urban zones. In turn, those aspects involve lack of services and products (and usually high criminal rates) (see Cervero and Golub, 2007; Cervero, 2011; Kassa, 2014; Kumarage et al., 2010). Additionally, I categorize informal transportation as motorized and non-motorized services, and there are three types depending on the volume of passengers

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11 In Buenos Aires 54 percent, in Calcutta 41 percent and in Sao Paolo 23 percent (Aworemi et al., 2008).
12 Al-Hasan et al. (2015) consider the term ‘satisfaction’ related to transportation as the gratification achieved in the fulfillment of a need if expectations are met.
13 Guillen et al. (2012) explain that usually women and elderly people tend not to use informal transportation modes because of their lack of service quality.
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it can carry: individual (1-4 passengers), shared (5-10 passengers), and collective (11-20 passengers) (Kumarage et al., 2010). Furthermore, informal transportation users could end up being dependent on it on a personal, household and community level based on the quality of the service. As the main consequence, by time, informal transportation use turns into a people’s habit, which is difficult to alter (Guillen et al., 2012). In summary, informal transportation provides a service beyond regulations, which is adapted to people’s transport demand that is not satisfied by the current public offer. Governments do not usually attend informal transportation services for considering them as a not relevant phenomenon.

Usually, self-organized and self-regularized informal transportation services have a strong structure based on the loyalty and responsibility of the people involved in their organization (see Figueroa, 2005; Lizarraga, 2012; Holston, 2009; Kesselring, 2014; Urry, 2012; Sopranzetti, 2014; Cervero and Golub, 2007; Goodfellow, 2015; Kassa, 2014; Diaz et al., 2016; Kumarage et al., 2010). Hence, informal transportation is also characterized as stressing the role of social networks within its organization. It tends to involve diminishing of costs and labor flexibility by creating client relations, started by social networking, between members of the organization and its leader based on the protectionism and patrimonial logic (Jaime and Campos, 2002). Consequently, leaders of those organizations tend to ‘fight’ for the drivers usually against their local governments and at the same time provide administrative rules to their organizations (see Blimpo, 2015; Menzel, 2011; Kumarage et al., 2010). This way, within an informal transportation organization, there are mainly three types of workers related to the vehicle use for providing the service as production means: the first ones are called ‘work-and-pay’ (drivers whose work is intense and whose machines wear fast), the second ones are the ‘renters’ (they earn low income, but enough to survive), and the third ones are the ‘earners’ or ‘self-employed’ (they have high income, almost double the renters) (Diaz et al., 2016). Furthermore, informal activities are a response to social exclusion as a way, on the one hand, to create local economy and, on the other hand, to satisfy people’s needs of mobility. The creation of informal work favors local economies because, for example, the networks which organize the informal transportation service tend to distribute the income among its workers. Thereby, informal work generates jobs by fragmenting existing work, which subdivides the income (Rizzo, 2011). The organizations therefore tend to coordinate, not only the creation of alternative means of transportation, but also the creation of economic flows inside the local zone among the inhabitants. Those people tend to be hired for the informal work (as a main or complementary job) which, in turn, means they become part of the informal network of flexibility and negotiation. The social groups with less access to the city thus tend to create ways to reach mobility differently from other groups that have more accessibility privileges provided by their government (see
From my point of view, emerging transportation\textsuperscript{14} involves social groups that create their own means of transportation due to their spatial and socio-economic conditions which relate to the social exclusion resulting from a historical urban segregation process. In this sense, I ask: when the emerging transportation is informal, how can it provide the accessibility and mobility that people in peripheral zones need? My aim is to understand the emerging transportation phenomenon that people created and developed in informal ways of self-organization and self-regulation under a socio-historical background of territorial expansion. According to Sheller (2014), mobility capabilities are the demands of social movements for rights of access to the city and transportation justice. In emerging transportation terms, service organizations have found, worked and fought for their rights to work and move for decades and have usually tried to find governmental acknowledgement and attention for their service regularization. The actions of organizations tend to create additional potentials of mobility and economic activities that result in contextual conditions of transportation and mobility systems. Moreover, Adey (2010) considers that mobility depends upon spatial fixities (arrangements) that relate to social and economic transformations. In this sense, the transformation of paratransit modes of transportation into emerging transportation mirrors contextual economic, social, cultural and even political characteristics of their cities. Those stages previously favored social arrangements in order to develop social conditions towards a more balanced accessibility between the different social groups expressed as social classes (divided in different zones of the city). That entire process is what my study zone has undergone for the past 20 years and currently its MCS workers are struggling to make the service a sustainable and formal one.

I could also use emerging transportation\textsuperscript{15} to describe the MCs of Mexico City in relation to informality characteristics: informal planning and informal management and its lack of regulations. It is a phenomenon placed in the outskirts of the city due to an urban fragmentation process, and it has been responding to three kinds of people’s needs: job demand, spatial-mobility (see Urry and Grieco, 2011) and connectivity to mass transport. The first need refers to the thousands of employment opportunities that the service entails, providing its workers with a relative sufficient income\textsuperscript{16} (Finck Carrales, 2014; Sheller, 2015; Figueroa 2005; Finck Carrales, 2015; Kaufmann and Canzler, 2008).

\textsuperscript{14} For example, an extended city like Johannesburg has ‘kombi-taxis’ that follow regular routes on the main roads because the majority of jobs are in the suburbs of the city (Czeglédy, 2004).
\textsuperscript{15} So far, I have not seen the concept or term of emerging transportation mentioned in other scientific studies, so I have been developing it on my own since my master’s thesis.
\textsuperscript{16} In my MCS case study, the monthly amount per worker is MXN 5,520 (EUR 252.50) if they
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2015). The second need involves (enchained) travels to shop, visit family or friends, attend school, etc., which people perform inside the local zone (neighborhood). The third need entails maximization of mobility potentials that favors the possibility to connect people to fast-mass-transport, which involves appropriation of possibilities of movement and it results in people having access to the rest of the city (see Kaufmann and Canzler, 2008).17

1.4. The motorcycle cab service in the study zone

In this section, I describe the characteristics of the MCS in my study zone. I address its geographical, demographic, social and mobile elements. The latter relates to the spatial mobility and connectivity demand that the service provides to people.

As I mentioned before, in the outskirts of Mexico City there is one neighborhood that belongs to the Tláhuac municipality, in which approximately 1,000 MCs move every day. That neighborhood is my research case study. It has approximately 30,000 inhabitants (SCINCE, 2010) and it has 5.90 km of perimeter, 1.82 km² (182.29 hectare), which gives a population density of 164.57 persons per hectare. Each block has a perimeter of approximately 400 m, producing an area around 10,000 m², which gives approximately 60.76 m² per inhabitant (Google Earth). Moreover, the neighborhood is a “popular” one (underserved) since it is populated mainly by low and low-medium income social class inhabitants (Finck Carrales, 2015).

are owners of the vehicle; and MXN 1,920 (EUR 87.82) if they are not the owners, which represents 33.3 percent of the total income created (Finck Carrales, 2015). In Mexico City, the minimum monthly wage in 2014 was MXN 1,884 (EUR 89.62) (CONASAMI, 2014). Therefore, the incomes of non-vehicle owner drivers were slightly under the minimum monthly wage in Mexico City by -2.28 percent. On the other hand, drivers who owned the vehicle had a monthly income greater than the average by +125.11 percent, which was a considerable difference in the relation to the non-owners (Finck Carrales, 2015).

17 On the other hand, the term alternative transportation could refer to cases that have not necessarily undergone those processes, like Copenhagen’s ‘Christiania bikes’ (ladykler), which respond to people’s needs in a different socio-historical, economic, and political context.
Figure 2. The neighborhood of my study zone – Territorial map. Source: Google maps; Instituto Electoral del Distrito Federal (IEDF).
The stakeholders of the MCS in this zone are: the users of the service, people living in the area who do not use the service, the MC drivers, the leaders and workers of the MCSOs and the city and the municipality governments (ibidem).

Currently, the MCS offers spatial mobility and connectivity with mass transport (see Kaufmann and Canzler, 2008). The main mass transport of my study zone is the Metro station placed in the North end when reaching the main Avenue. The way people reach those transport offers depend on different key factors: mainly physical neighborhood design, land use zone distribution (legal or illegal), and connectivity key zones (ibidem).

The neighborhood block design is gridded, and the zone topography is practically flat. These factors allow the MCS to operate in an efficient and fast way. Therefore, picking up and getting off is easy for users and can be done in practically everywhere in the neighborhood, allowing a door-to-door service. In addition, drivers have the ability to maneuver in crowded and narrow secondary streets (see Cervero and Golub, 2007). The majority of the land use zones of the neighborhood is for housing. The main streets of the neighborhood that connect to the main highway (Tláhuac Avenue) have a land use zone of low-level convenience stores. People tend to travel frequently towards those stores using the MCS. Furthermore, many people reach the main Avenue zone using the service, since it connects to the rest of the city towards the North-Center-West.
There are several connectivity key zones in the neighborhood which have MC stops which the majority of the service organizations share. Key zones are placed beside neighborhood main markets, street corners of the main Avenue and stops of mass transport means, such as the Metro station.

Figure 4. Study zone key connectivity points. Source: Finck Carrales, 2015 (adaptation of image by using google maps).
Despite the neighborhood having several problems related to urban structure conditions, such as potholes in practically all the streets and sidewalks occupied by garbage or construction material, the MCs are still the main means of transport selected by the inhabitants. It is people’s first choice of transport for moving inside and outside (through connectivity) the neighborhood because it provides with fast travels, regardless of where the users take the MC (Finck Carrales, 2015).

Chapter conclusion

In this Chapter, I addressed the backgrounds of my study zone. That involved describing the transportation systems of Mexico City in relation to its historical territorial expansion. That process led me to approach to the informal transportation phenomenon that exists in the peripheries of the city. The phenomenon relates to people’s access disparities to products, services, and employment opportunities. That process passes from the low municipal public budgets and the lack of private investment to people’s individual productive characteristics. In other words, the city
is fragmented and segregated between its local governments and their social groups in relation to socioeconomic aspects. I focused the description on the emerging transportation created by excluded social groups in order to generate their own wealth. Thereby, studying the MCS of my study zone gives an understanding of the city as a whole system that, from the government, has historically favored social exclusion in the social groups that live in the peripheries of the city and have the lowest socioeconomic status. The implications of the MCS of my study zone whether ‘positive’ or ‘negative’, answer to that process.

In summary, the background of my research study zone relates to a socio-historical process of social exclusion in different dimensions. This reflects the needs of the socially excluded social groups to create their own transport means in response to lack of governmental attention to them regarding formal employment offer, product and service accessibility, and effective transport offer. Therefore, those elements must be taken into account in the analysis of the MCS.

In the next Chapter, I will delve into my approach for studying informal transportation. That involves my philosophical approach, which will be interpretative and decolonial.
Chapter 2. Decolonization of informal transportation studies

When I was a bachelor’s and master’s student, I sometimes wondered why all the knowledge that I was getting in my classes was based on or came from Western countries. During my bachelor’s studies in Policy and Social Management at Universidad Autónoma Metropolitana of Mexico City, I used to read classic scholars mainly from France, Germany and the UK together with some from the USA. When I read Latin-American authors, their argumentation was based and referring to those Western scholars and their schools, even when they were addressing Latin-American study cases. My master’s degree was more technical; however, the study cases on which I based my analyses were situated mostly in European and US cities. In spring 2016, I had the opportunity to accompany my wife to the BE.BOP (Black Europe Body Politics. Call & Response: performance, activism and Afropean decoloniality) international forum at which she was a keynote speaker and production manager in Copenhagen. After attending the artistic expositions and debates of the BE.BOP mostly related to decoloniality, I realized that I was not the only one who had questioned why higher education in the Global-South\(^\text{18}\) is based on and guided by Western traditions and worldviews. I learned from the BE.BOP that the reason was directly related to the historical colonization of the Global-South by the Global-North. Today, colonization is still ongoing in many ways through, for example, economic, financial and military supremacism between countries. Science production, acknowledgement and validation from the Global-North to the Global-South are part of that global paradigm as well. When I started writing my PhD research proposal, I had in mind to not reproduce those scientific practices and I decided to provide my research with a decolonial philosophy of science, even though I wanted to study in Denmark and make use of Western knowledge. This might sound contradictory. Nevertheless, my aim was not to dismiss, discredit or/and overlook Western knowledge but to break the traditions of the Western scientific validations and science guidelines application commonly practiced in Mexico, and more so in social sciences. I wanted to apply a different approach in my MCS case study in order to try to get a better understanding and outcome of its context that could help to formalize and improve the service in the future. So far, Mexican ‘traditional’ ways of knowledge production about that phenomenon have not helped completely for that purpose.

\(^\text{18}\) According to my notes from my BE.BOP attendance, the Global-South is formed by countries that historically have undergone colonial settlements and/or ‘developing’ countries that are not placed in the ‘developed’ Western Europe, Asia and Anglo-America.
This Chapter aims to establish the philosophical approach of this research, differencing it from the approaches of the academic literature about MCSs I compiled. Most of the literature about MCSs I read have had a positivist approach. That has involved implementation of mainly interviews and surveys in order to find causal logics, information from comparative cases, and diagnoses about social and political stages towards possible creation of regulations and public policies about the phenomenon. Instead, I want to provide an interpretive approach in order to glimpse different angles of the phenomenon beyond deterministic logics, universal propositions, theory testing/adaptation, rational-choice, transport time-space efficiency, etc. I explain the differences between MCS cases in many cities of the world (mostly from the Global-South) in relation to their contexts. I mention the negative externalities (barriers), recommendations for policy making (opportunities related to mobility potentials), social groups’ access to transport planning and stigmatization (in relation to governance), and organization of the MCSs that studies of my literature review have. In order to contrast a positivist approach of informal transportation for my case study, I present the decolonial approach for Latin-American science. This is based on ideas beyond modernity and postmodernity for avoiding universal statements and for creating other epistemologies besides the Western. That decolonial approach involves historical colonization acknowledgement and no need of Western approval on Latin-American science. In relation to planning studies, I address the South-Eastern turn as this criticizes Western science monopolization mostly from a postmodern approach. I describe the characteristics of its main academic works. I argue, however, that in order to reach a decolonial approach, it is necessary to do research that aims to go beyond acknowledging non-Western cultures by doing fieldwork in the Global-South. Therefore, it is also necessary to address ontological and epistemological levels regarding Global-South cases when doing research. I thereby chose the transmodernity philosophy of science as my decolonial approach. It roughly aims to favor a ‘horizontal’ dialog between Global-North and Global-South philosophies. Global-South researchers hence have the possibility of using European theory as ‘basis tools’ and background that ‘dialog’ with their Global-South case study data. It also involves a contextual approach that favors situated knowledge. Finally, I consider the possibilities of reaching transmodernity within mobilities and transport studies. I provide examples of Global-North research that uses interpretative approaches and is open to new methodology and method creation and application. This opens the doors for further transmodernity approaches within those fields.
2.1. Literature review on motorcycle cab research: positivist approaches

In this section, I address diverse academic literature about informal transportation I have gathered in order to understand its different research approaches. Most of that research has positivist approaches, where causality and correlation are used for understanding the phenomenon and its possible direction. I use this understanding to differentiate those studies from mine as this aims to be interpretative. I divide the understandings into barriers and opportunities of mobility potentials, access to transport planning and workers stigmatization, and the internal organization of the service.

With regard to my research study case, my aim is to analyze it as an informal transportation phenomenon geographically far away from European in relation to a time-space context. For instance, cargo bikes (ladcykler) in Copenhagen could be considered as a paratransit phenomenon, which is very different from “similar” cases of developing countries due to its socio-historical process of creation, implementation and development. Theory and methodology applied to the cases of Copenhagen and Mexico City therefore have to be managed and focused in different ways while at the same time considering the scientifically developed studies done so far. For example, the case of the ‘kombi-taxis’ in Johannesburg (Czeglédy, 2004) and the case of the ‘hand-pulled rickshaw’ in Kolkata (Hyrapieten and Greiner, 2012) are different from each other. In the first case, the city had processes of gentrification related to social class position and people’s skin color, which resulted in the need to create personal, and communal transportation for center-suburbs commutes. In the second case, the transportation has a long history, since it passed from being used by underserved people to being used by the middle class as well, and lately it has been contributing to the social and cultural assimilation of the city. Within the field of emerging informal transportation, researchers have mainly tried to explain their local cases to understand them mainly with a deterministic approach in the sense of causal positivist analysis. A positivist approach involves logical inferences from theoretical concepts that include propositions that generalize/universalize evidence by testing it in relation to, for example, case study data (O'Donnell, Kramar and Dyball, 2013).
2.1.1. Opportunities and barriers for improving MCS cases around the globe

According to the literature review I carried out for this research\(^{19}\), opportunities and barriers for improving worldwide MCS cases have been presented in different ways. With regard to the barriers, in some cases,\(^{20}\) the service has a lack of safety conditions\(^{21}\) for its users and drivers. Therefore, their MCs contribute to an increasing number of road accidents in the cities, mainly because of the drivers’ violations on road regulations. In addition, there is constant competition for passengers between drivers to make more money. That effect happens due to drivers not having a salary and also usually not owning the vehicles with which they work, and it increases the risk of accidents and premature motorcycle wear. Drivers tend to speed and not care about vehicle maintenance, since they are more concerned with making money by increasing their daily number of trips (see Tuan and Mateo-Babiano, 2013; Al-Hasan \textit{et al.}, 2015; Ogunrinola, 2011; Diaz \textit{et al.}, 2016; Hagen \textit{et al.}, 2016; Mbara \textit{et al.}, 2014; Blimpo, 2015; Menzel, 2011; Rizzo, 2011). In other cities,\(^{22}\) MCSs have variable travel fares and are even sometimes overpriced, meaning that the users and the drivers negotiate. However, prices are usually not based on travels distances. In some cases, such as the South American ones, the price of the service is higher than formal public transport means. Thereby, non-regulation of informal transportation fares could favor direct or indirect abuse of the users by the drivers (see Tuan & Mateo-Babiano, 2013; Hagen \textit{et al.}, 2016; Kumarage \textit{et al.}, 2010; Al-Hasan \textit{et al.}, 2015). In the cases in Lomé, Togo; Auchi, Nigeria; and Vietnam, MCS workers do not have an established work schedule and route coordination, and the majority of them work an average of 10-12 hours every day for 6-7 days per week. Therefore, being a MC driver is a street job in hard environment conditions. That characteristic causes problems for the drivers’ health, mostly spine and hip pain, usually due to bumpy roads, and headaches due to exposure to the sun (see Tuan and Mateo-Babiano, 2013; Al-Hasan \textit{et al.}, 2015; Diaz \textit{et al.}, 2016). In other cities,\(^{23}\) the majority of MCs drivers do not own the vehicle they use for

\(^{19}\) It is important to clarify that I utilized literature that I could find in English and Spanish languages under my possibilities and access to scientific knowledge during this research development but that does not mean that I checked all the literature related to my research phenomenon that exists within the field.

\(^{20}\) In the Bo-Town, Sierra Leone; Dar es Salaam, Tanzania; Auchi, Nigeria; South West Nigeria; Lomé, Togo; Barranquilla, Colombia; Recife, Brazil; Caracas, Venezuela; Zimbabwe; Vietnam; Togo; and Benin cases.

\(^{21}\) In Vietnam, its MCS is involved in 60 percent of the total road accidents and 80 percent of drivers violate the roads laws (Tuan and Mateo-Babiano, 2013).

\(^{22}\) In Auchi, Nigeria; Barranquilla, Colombia; Recife, Brazil; Caracas, Venezuela; Vietnam; and Sri Lanka cases.

\(^{23}\) In Auchi, Nigeria; Togo; Benin; Dar es Salaam, Tanzania; Bo-Town, Sierra Leone; South West Nigeria; and Sri Lanka cases.
working. People that own the vehicles are usually only vehicle renters or organization leaders of the service. Therefore, there are several consequences related to that characteristic: there is a clear misbalance in income earning between the owners of the vehicles and their drivers. That is because drivers usually have to pay not-negotiable dues to their organizations and/or a fixed daily payment to vehicle owners through non-formal contracts based on trust (ethnicity-based interactions). Hence, that feature favors a systematic process of inequalities between service workers, vehicle owners, and organization leaders. In some cases, such as in Bo-Town, drivers’ income is not enough for sustaining a family after paying bills. In the majority of cases, the service is very profitable for renters and organization leaders rather than for drivers. Therefore, some drivers do not join organizations of the services because they do not consider them helpful and beneficial at all. On the other hand, another consequence of that is that owners of the vehicles cannot check the amount of money that the drivers make, which causes possible abuse of the job agreements (see Ogunrinola, 2011; Diaz et al., 2016; Menzel, 2011; Kumarage et al., 2010; Rizzo, 2011; Blimpo, 2015; Menzel, 2011).

In relation to the opportunities of the informal transportation, in some cities, MC services have created lots of local employment opportunities of which the majority have ended up being the main one or the only one for the workers. Usually, those employment opportunities are directed to the less educated social groups of the cities. Therefore, the service lets drivers earn ‘quick money’ in their daily life for meeting basic needs. Employment provided by the service is usually taken by young males (19–38 years old), who are commonly school quitters who find the work as a driver attractive, since it is time-flexible and usually provides an income above the minimum national wage level. In fact, in some cases, such as in Lomé, the MC driver job is the most profitable informal one. Also, the job could be used as a supplement to self-income. Furthermore, in some cases, such as in South West Nigeria, it seems that the personal education level helps people earn a higher income within the informal transportation sector, which becomes as an incentive for working in it. That specific feature is stressed because the service is self-regulated by its organizations that hire and ask fares from their drivers. The rules of the organizations are basically related to vehicle registration and workers’ driving licenses. Therefore, in some cases, such as in Lomé, the service has low fares, so that it can be purchased with small capital amounts.

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24 In Auchi’s case, drivers tend to quit their jobs if other opportunities come, since only 69.7 percent of the drivers own the vehicle and those who do not own the vehicle tend to earn a very low income (Al-Hasan et al., 2015).
25 In Sri Lanka’s case, the high price of fuel is added to that issue (Kumarage et al., 2010).
26 In Auchi, Nigeria; Bo-Town, Sierra Leone; South West Nigeria; Lomé, Togo; Vietnam; and Sri Lanka cases.
Actually, in some cities, such as Bo-Town, the service has contained local violence proliferation, inasmuch as it offers lots of employment opportunities (see Tuan and Mateo-Babiano, 2013; Al-Hasan et al., 2015; Menzel, 2011; Ogunrinola, 2011; Diaz et al., 2016; Kumarage et al., 2010; Hagen et al., 2016). According to the authors of the studies, usually, it is recommended that informal transportation regulations should be limited only to safety, licensing, and indemnity standard aspects within a competitive market (Cervero, 1992). Yet, the literature suggests that there is an imminent worldwide trend towards informal transportation increasing, meaning that extra specific standardized aspects should exist. Examples of that could be: storage space of vehicles, exclusive road lanes, monitoring technologies, service apps management, creation of drivers unions, and mandatory helmet use, among others (see Hagen et al., 2016; Blimpo, 2015; Kassa, 2014; Kumarage et al., 2010). In the same way, it is important to prevent public policies related to informal transportation services characterized for providing only grants and loans to service workers without taking administrative features in account. For example, the government issues permissions to work but without completely regulating the administrative and organizational processes of the services. That action is important because those policies tend to generate internal tensions between leaders and workers, creating more conflicts than solving (Rizzo, 2011).

Nevertheless, regardless of the benefits and negative externalities caused by informal transportation worldwide phenomena, the governments of some cities have created and implemented public policies directed to their MCSs based mainly on previous regulations. Some policies have been successful in either increasing benefits or diminishing negative externalities, and others have not. That is because it is not effective to provide legality and treatment to those kinds of phenomena without a concomitant governmental permanent attention towards them. Togo was one of the first countries to regulate the MCS in 1996 by recognizing it as a necessary transport means. In Vietnam and Tanzania, the service was formalized as well, with the first taking place in 2005. In other cases, regulation of the service is related to its organizations, such as the case of Auchi, where MCs are regulated by its Commercial Bike Riders Association. In Rio de Janeiro, besides MCs, informal transportation means have entailed a great social benefit to the extent they have been regulated. Restrictions on the service have led to social and economic negative externalities on its experience (see Diaz et al., 2016; Tuan and Mateo-Babiano, 2013; Al-Hasan et al., 2015; Golub et al., 2009; Rizzo, 2011). Fostering vehicle ownership for drivers as a governmental policy has resulted in diminishing inequalities between drivers, renters and organization leaders. For example, in Vietnam, a business model has been executed based on individual implementation. In Lomé, Togo, some policies are meant to make it easy to buy the service vehicles by providing financial help. Also, in
Dar es Salaam, Tanzania, micro-credits grants have been directed to MCS drivers (see Tuan & Mateo-Babiano, 2013; Diaz et al., 2016; Rizzo, 2011). Other specific regulations of the service have included drivers’ licensing and mandatory use of helmet (Lomé, Togo). In addition, drivers have to pay several taxes and fees for implementing the service, and governmental inspectors try to control their praxis as well (Kigali, Ruanda’s case) (Diaz et al., 2016; Goodfellow, 2015). However, in some cases, such as in Dar es Salaam, Tanzania, the formalization of the MCS has not alleviated its issues, since there has been constant lack of response from governments with regard to issues favored directly or indirectly by the MCS (Rizzo, 2011).

Figure 6. Motorcycle cabs services, worldwide examples. Source: english.vietnamnet.vn; investvine.com.

2.1.2. MCS cases of the world that relate to mobility potentials

According to the literature review that I carried out, there are aspects of the MCS cases of the world that relate to mobility potentials that have been carried out under a positivist approach. MCs as informal transportation is used mostly in urban centers.
Usually, the centers of those cities are ‘disorganized’, meaning that their roads are in bad condition, and they have inefficient transport infrastructure, which leaves their transport systems unable to completely meet their mobile demand. Most commutes are long-distance travels made by low income social groups from the city peripheries from the center, mainly for working and studying in response to a historical territorial expansion. There are cases, such as in Vietnam, in which the majority of land use conditions of cities only allow MCs enter to certain secondary roads. In addition, the mixed-land use and high density of some cities centers have intensified internal short-distance travels undertaken by MCs every day (see Tuan and Mateo-Babiano, 2013; Al-Hasan et al., 2015; Golub et al., 2009; Mbara et al., 2014; Cervero, 1992; Menzel, 2011). Other cities have seen urban traffic congestion and lack of road hierarchy, such as collapses on bus services. Usually, motorcycles are more affordable than cars or buses, making them easier to buy. As a result, those characteristics have involved increasing ‘on-demand’ mobility, which makes it even more difficult to satisfy the commuting demand as well (Cervero, 1992; Hagen et al., 2016; Kumarage et al., 2010).

In some cases, the MC service provides low class groups with ‘cheap’ spatial-mobility and connectivity to mass transport. Consequently, it also provides accessibility to city centers or inside peripheral neighborhoods. In the majority of cases, the service covers main roads, road intersections and local markets areas. This means that some services, such as in Auchi, MCs have stops along corridors (transit points) between localities. Consequently, the service tends to increase the street-level experience of travels (see Tuan and Mateo-Babiano, 2013; Al-Hasan et al., 2015; Mbara et al., 2014; Hagen et al., 2016; Ogunrinola, 2011). In other cities, informal transportation services are implemented by using small vehicles. These have entailed balance in travel speed (higher speed than cars in some cases), reduction of travel times, less time spent on loading and unloading vehicles, diminishing of speed, and less frequently interrupted travels. Therefore, the service is used mostly for shopping or leisure (social trips) with an average distance of 5-10 km (see Cervero, 1992; Hagen et al., 2016; Ogunrinola, 2011).

27 In Vietnam (‘xe om’ service); Auchi, Nigeria; Rio de Janeiro, Brazil; Jakarta, Indonesia; Manila, Philippines (‘bajaj’s’, ‘helicaks’, ‘bemos’, and ‘becaks’ services); Bo-Town, Sierra Leone; and Zimbabwe cases. In Vietnam, there is 1 MC per 6.8 inhabitants. Therefore, it depicts the 5-11 percent of the total population trips and is used mostly by students and workers but not in their daily activities (Tuan and Mateo-Babiano, 2013).

28 In Jakarta, Indonesia (‘go-jek’); Manila, Philippines; Barranquilla, Colombia; Recife, Brazil; Caracas, Venezuela; and Sri Lanka cases.

29 In Auchi, Nigeria; Barranquilla, Colombia; Recife, Brazil; Caracas, Venezuela; Vietnam; Zimbabwe; and South West Nigeria cases.

30 For example, in Togo’s and Benin’s cases, the MCS is cheaper than the regular taxis one (Blimpo, 2015).

31 In Jakarta, Indonesia; Manila, Philippines; Barranquilla, Colombia; Recife, Brazil; Caracas, Venezuela; Lomé, Togo; and Vietnam cases.
et al., 2016; Tuan and Mateo-Babiano, 2013; Diaz et al., 2016). In other cases, MCs have the particular characteristic that provide a ‘door-to-door’ service. That is very useful and comfortable with regard to mobility as it creates preference on the service over others means of transport (see Hagen et al., 2016; Tuan & Mateo-Babiano, 2013; Blimpo, 2015; Diaz et al., 2016). Moreover, the use of technology has favored benefits related to MCSs around the world. For example, in Sri Lanka’s case, cellphones are used for implementing the service, which have made drivers more independent. Furthermore, the service fares are based on travel distance but the fares tend to increase if it is late night, raining, and if there are mid-journey stops on a trip. Hence, in Sri Lanka’s example, an average of 67 percent of the users are satisfied with the service (Kumarage et al., 2010). In those terms, my literature review about informal transportation has conclusions (recommendations) regarding MCSs that relate to possible policy making directed to mobility potentials. Those conclusions are the authors’ ‘worldviews’ after having analyzed the causes and consequences of their cases. One of the main conclusions about worldwide informal transportation research is that it is not viable to dissolve because it is acknowledged as a complementary service. It feeds interconnected transport means from city peripheries to centers and vice versa and it provides a high number of jobs as well. This way, the main challenge for formalizing informal transportation is avoiding the tendency of its social non-recognition as a complementary transport from legal frameworks towards public policy implementation. Such policies should be designed with social participation and involve permanent monitoring of the service (provided only on secondary streets). Additionally, the policies should include: revitalization of transport infrastructure, proper urban facilities and urban design, changes for sustainable vehicles, and fostering economic formal opportunities through competitiveness by individual and collective credit granting (for preventing monopolies) (see Cervero & Golub, 2007; Al-Hasan et al., 2015; Goodfellow, 2015; Golub et al., 2009; Menzel, 2011; Kumarage et al., 2010).

2.1.3. Governance in the MCS cases of the world: access to transport planning and workers’ stigmatization

In relation to the governance aspect, the literature review shows that MCS cases relate to the lack of access to transport planning and stigmatization of the social groups that work in those services. For example, some cases are characterized by lack of formal job offers. That aspect was mainly favored by systematic economic policies that

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32 In Barranquilla, Colombia; Recife, Brazil; Caracas, Venezuela; Vietnam; Togo; and Benin cases.
destroyed job creation, favored black markets, and diminished force of workers. Some cases are more related to post-war periods, such as Bo-Town, in which mostly young ex-combatants got into a self-integration process that made some of them become drivers of MCs, owing to their lack of access to high social classes. Other cases, such as Rio de Janeiro, have also seen an increase in informal transportation due to urban congestion and rising of public transit fares. As a consequence, in those cases there has been a correlation between being poor and working in the informal sector (see Blimpo, 2015; Ogunrinola, 2011; Menzel, 2011; Rizzo, 2011; Goodfellow, 2015; Golub et al., 2009; Al-Hasan et al., 2015). In other cities, there is a social stigmatization towards MC drivers. That bad reputation is a response to different aspects of the services. For example, in the case of Kampala, drivers are disorganized and have certain political power, which has made them ‘untouchable’ within the ‘social imagination’ of the city. Other examples are the cases of South America, where increasing pollution related to motorcycle use has stigmatized MCS drivers. Finally, there are other cases, such as in Dar es Salaam, where the government and society ‘criminalize’ the drivers by associating them with robberies occurred in relation to those vehicles (see Al-Hasan et al., 2015, Goodfellow, 2015; Hagen et al., 2016; Kumarage et al., 2010; Rizzo, 2011). In Lomé, Togo, drivers of the service are associated with aggressive actions, since there are cultural aspects in which the majority of them recall insurgence of past violence for being army ex-combatants. Their violent actions are mostly confrontations with the police. Moreover, in Kampala, Uganda, drivers are related to constant conflicts with the local and central governments owing to service banning intentions from the latter (Diaz et al., 2016; Goodfellow, 2015). Nevertheless, in some cases, the service leaders have managed to counteract the historical social exclusion internally by their ways of organizing the service. In some cities, organizations of the services provide their workers with an internal social care system, even though some are running outside legality. For example, in Dar es Salaam, the service leaders created NGOs to attend to their workers’ social care needs, and in Lomé, service employees get a minimum of facilities, and social and professional assistance from their organizations (Rizzo, 2011; Diaz et al., 2016). Thereby, according to the authors of these studies, public policies directed to the service should be designed in conjunction with the public sector, academia, transport operators, and users (stakeholders’ clusters). In addition, its market should be invested by public-private partnership models. Thereby, the aspects that pose a challenge to obtaining the public transport policy features that should be taken into account are: road

33 In Bo-Town, Sierra Leone; Dar es Salaam, Tanzania; Rio de Janeiro, Brazil; Togo; Benin (“zemidjans” service); South West Nigeria (“okada” service); and Uganda cases. In Lomé, Togo 93 percent of motorcycle cabs used in the service come from China (Diaz et al., 2016).

34 In Dar es Salaam, Tanzania; Auchi, Nigeria; Kampala, Uganda (“boda-boda” service); Barranquilla, Colombia; Recife, Brazil; Caracas, Venezuela; Bo-Town, Sierra Leone; and Sri Lanka cases.
congestion, use of public space, road safety, environmental conditions, the relation and balance between costs and use, economic security for workers, permanent governmental intervention, understanding of local cultural aspects, and lack of stakeholders’ skills capacity. Therefore, creating consensus between stakeholders could be difficult, so their different points of view with respect to the service for creating possibly sympathy between one another should be taken into consideration. That characteristic could mainly foster costumer care, organized transport systems, sustainability, and business ethics directed to the service (see Mbara et al., 2014; Hagen et al., 2016; Blimpo, 2015; Guillen et al., 2012; Kassa, 2014).

The literature review helped me with two aspects. On the one hand, I got information about MCS cases in the world that could be the basis of the understandings and diagnoses of the phenomenon towards their improvement. On the other hand, I could find the outcomes about the phenomenon obtained from doing research under a positivist approach, which I will avoid in my research. In the next section, I will establish what my philosophical approach involves which is different from the approach of the studies described above with the aim of getting different understandings about the phenomenon. My decolonial philosophical approach will allow me to not repeat the outcomes of the studies above (‘reinventing the wheel’) as comparing or correlating them to my case study or testing their causal logics, such as the positivist approach, aims for generalizing the phenomena. I will therefore provide this research with creativity based on the context of my case, which responds to an interpretative methodology. The final aim is to find opportunities for providing the MCS of my case study with sustainable planning.

2.2. Decolonization of science for Latin-American studies

In this section, I explain the decolonial approach that emerged in Latin America. This aims to favor the creation of epistemologies different from the Western ones. For that purpose, it is necessary to acknowledge the Latin-American science that researchers can create without and outside Western guidelines and approval.

I am studying an informal transportation phenomenon in a non-North-Western global zone. My intention in relation to its contextual characteristic is to provide an approach beyond the postmodern one, regardless of whether this has already been used in Global-South research. In this context, postmodernism is the way of thinking that started after the Second World War and developed within social science in the 1980s-1990s. This is directed to socio-cultural critique, especially of universal propositions and
instrumental rationality of modernity. Here, theory is manufactured by Western thinkers, offering perspectives of indeterminism, diversity, differentiation, complexity, etc. Postmodernism thereby is the consequent part of modernity (Alvesson and Sköldberg, 2000; Dussel, 2016). Since that approach was developed and manufactured under North-Western worldviews and guidelines, I can explain it from a scientific ‘decolonial’ focus.

After the world colonization period of the sixteenth century, there has been a tendency to euro-centralize science in practically the whole world, which has entailed generalizing its worldviews within research. For instance, even though Latin-American countries are currently ‘politically independent’, they still adopt European and Anglo-American thinking in science by acknowledging Europe as the ‘start’, ‘center’ and ‘ending’ of science history (see Dussel, 2012). That idea has entailed an epistemological issue for other sources of knowledge creation and acknowledgement; namely the ones manufactured in South-Eastern global zones (see Watson, 2016; Roy, 2009A; Mignolo, 2011; Dussel, 2016; Bryman, 2008; Porter, 2006). As a consequence, non-Western scientists tend to implement North-Western theories and methodologies directly into their research by ‘force-adapting’ them into South-Eastern study cases. That situation generally ends up giving non-expected and non-beneficial results on Global South social phenomena because these are treated in Europe and Anglo-America (see Galland and Elinbaum, 2018). The distance between the Global-North and the Global-South relates to cultural, social, environmental, economic and political contexts regarding science creation and validation. The last 50 years or so, have seen the start of a wave of science decolonization aimed to focalize it from a hermeneutic thinking based on non-Western native myths (ethnicity). This aim pretends to create a ‘sense of place in reality’ beyond modernity and postmodernity guidelines when doing research in the Global-South. That approach could provide a different epistemology for understanding contexts through new theoretical work (see Mignolo, 2011; Dussel, 2016; Yiftachel, 2006; Hofmann et al., 2007; Watson, 2016; Porter, 2006; Roy, 2009B). My decolonial approach is partly based on the interpretation of Tuck and Yang (2012). In it, decoloniality ‘is not a metaphor’ in the sense that it is not meant to be used for arguing what they call ‘settlers’ innocence’ through searching for historical colonization, re-centering whiteness and resettling theory: decoloniality adoption or/and absorption under ‘reconciliation’ terms by non-colonized people in colonized land ends up metaphorizing the approach. In other words, Western people do not take action on historical colonization reparation, such as land returning, but merely have

35 For example, within mobility studies, López Galviz (2016) states that ‘Examining the role that symbols and myths play in how cities and mobilities interact also enables us to identify important continuities across space and over time. Mythmaking is, after all, as fundamental as storytelling.’ (p. 9).
mental critical awareness of it on speech – or even just ‘historical amnesia’ through natives’ culture appropriation or ‘social justice’ aims. For the authors, reparation means literally giving back the stolen land to the natives as this contains the natural resources that create wealth without any kind of compensation to the settlers or their homelands. The settlers thereby give up power and privileges. However, with regard to academic knowledge production, my interpretation of decoloniality ‘is not a metaphor’ is that Western researchers can also reach that reparation through their acknowledgement of colonized native philosophies and science, including own methodologies, theories and methods. That process means that Global-South science does not need the ‘validity’ approval or permission of Global-North philosophers and their scientific community.

2.3. The South-Eastern turn in planning

In this section, I explain the South-Eastern turn in planning in order to delve into an approach of doing social sciences towards the decolonial. By describing its main authors’ works, I stress the importance of creating an ontological and epistemological treatment of Global-South study cases in order to reach a decolonial approach within interpretative research.

The last decade or so, has seen the start of a wave called the ‘South-East turn in planning’ created by mostly Western scientists. This approach is directed mainly at planning studies and criticizes strongly the monopolization of science by Western culture. Different scientists have started to be part of this wave. I mention some works in the following. Watson (2016) (from South Africa) talks about a Southern and postcolonial perspective of new theories for planning that has to include a cultural turn as well in terms of a contextual shaping of knowledge. That perspective was reached using a methodology far away from universalizing ideas of Europe and Anglo-America. Porter (2006) (from Australia) studies planning processes for Australian indigenous people in a postcolonial perspective by claiming them as the original landowners in order to achieve new theoretical contributions for understanding their contexts. The author points out that there has been an epistemic barrier of indigenous perspectives in science, so it is necessary to favor a socio-cultural shift in order to break it. Roy (2009A; 2009B) (from India) explains that there is a universal scope regarding planning theory (‘parochialism’) started by Western science. Therefore, it is necessary to be open to new concepts produced ‘in place’, so that there will not be any generalized theory within research. Finally, Yiftachel (2016; 2006) (from Israel) refers to the ‘dark side of planning”, in which the ‘others’ have been marginalized by North-
Western modern planning theories. The author explains that there has been a colonization of consciousness by imposed power through history, so it is necessary to set up a ‘reverse flow’ in planning by linking it with ethnicity as cultural identity based on common ancestry in a specific place (territory of identity and history). Furthermore, there have been patriarchal ‘ethnocracies’ that have been justified as ‘natural’ within the market which we need to liberalize by creating new democratized communities.

All those researches have criticized modern universal ideas for knowledge production and have offered new perspectives outside Western guidelines, which is a clear advance with regard to the current Global-South science development. The authors stress planning as part of the main problems of colonial thinking after Europe and Anglo-America imposed modernity thinking globally. According to Lefebvre (2014), planning is a Western construction in itself, since it comes from the urbanization of places, which is also a characteristic of modernity. In addition, it has been historically imposed in the Global-South under deterministic ‘development’ logics and goals by hegemonic governments (USA and Europe) and international financial organizations, resulting in socioeconomic and spatial disparities in those territories (Galland and Elinbaum, 2018). In my research, I aim to improve planning in a non-Western global zone for favoring decoloniality in it. However, I do not want to only acknowledge that my study zone has other cultures besides the Western. I additionally aim to provide my case study with a philosophical treatment of decoloniality in order to understand and let its culture create its own knowledge through field-based and participatory approaches. I thereby do not aim to provide a research process that ‘speaks for’ the Global-South ‘natives’. Instead, I aim to have a project that ‘speaks with’ the ‘natives’. That aspect goes beyond a critique of modernity and postmodernism that still looks at the Global-South with Global-North ‘eyes’. Even by doing fieldwork in the Global-South, it is not sufficient to wear the ‘Global-South glasses’ at an ontological and, even less, epistemological level. For instance, one important challenge in my research regarding my decolonial aim is that if the local and central government of Mexico City only incorporates the MCS workers and users of my study case in its future planning as ‘native stakeholders’, it would not be acknowledging them as the real ‘owners’/creators of the MCS. Therefore, the government would not be giving a meaningful and powerful voice to those actors within the MCS planning process. My research was not meant to ‘incorporate’ stakeholders in the planning process under that logic (Porter, 2006; Watson, 2016; Yiftachel, 2016), but rather to acknowledge and foster their possible new social engagement towards a community creation (Mignolo, 2011). This way, it is important that I analyze the approach of decoloniality that works with cultural hermeneutics, epistemology and ontology by going beyond modernity and postmodernity through what has recently been manufactured in Latin-America. This decolonial approach is the transmodernity project.
2.4. Enrique Dussel’s Transmodernity: beyond postmodernity

In this section, I explain the decolonial approach called transmodernity, which is the one I use in my research. My aim is to create ontological and epistemological discussions without dismissing Western theory. In other words, by using transmodernity, it is possible to do research under a decolonial approach and to have a ‘dialog’ between Western theory and a study case of the Global-South without the first guiding the entire research process.

The intended decolonial aspect of my research is not something which is easy or fast to plan and complete. Therefore, I made use of Dussel’s (2016) project of transmodernity in my research as part of my philosophy of science in order to sensibly achieve its contextual approach of South-Eastern beyond-postmodernity science acknowledgement and validation. By using the transmodernity decolonial philosophy of science, the European theory I am using in my research is merely a basis tool and background for developing and creating a scientific Northern-Southern theoretical ‘dialog’ (Dussel, 2016), rather than mirroring or fitting it into my study context. That feature entailed ‘another’ knowledge directed and focused specifically on my study zone in order to attend to its issues and, in turn, interpret its ‘reality’.

Over the last 50 years or so in Latin-America, a wave of philosophy of science has been developing that aims to dismiss the imposed ‘worldviews’ of Western science inherited since the colonial periods of the sixteenth century as the unique and truly universal ones. That approach can be used in research processes by acknowledging, self-valuing, and working with own South-Eastern cultures in hermeneutical, epistemological and ontological ways. This project is called transmodernity and has the main aim of creating a South-South dialog between philosophers from countries that have undergone coloniality. Afterwards, it should be possible to reach a South-North critical and multicultural dialog, in which all philosophers, including Western thinkers, will converge and share science in a ‘pluriversal’ utopia (Dussel, 2016).

Dussel (2016; 2012) (from Argentina-Mexico) points out that it is important to acknowledge that all philosophies are based on cultural-historical myths of certain civilizations from a hermeneutical focus and that currently there is a dominant one: the European (extended into the Anglo-American). Currently, basically in every university and academic institution of the world, it is considered that philosophy was born in Greece as the ‘true unique philosophy’. This reductionist idea started with the colonial period of Asia, America and Africa, where Western philosophies dismissed
and looked down on all philosophies that were not European and in which non-Europeans were considered as inferior ‘sub-humans’. Even Dewey (1917) had that idea in mind somehow when he stated that

The philosophic tradition that comes to us from classic Greek thought and that was reinforced by Christian philosophy in the Middle Ages discriminates philosophical knowing from other modes of knowing by means of an alleged peculiarly intimate concern with supreme, ultimate, true reality. (p. 132)

Under that understanding, Dussel (2016), together with other scholars, started the thinking wave of philosophy of liberation at the end of the 70’s which consisted of creating a critical dialog of culture in the sense of critical theory. That philosophy questioned all the modernity inheritance of Western science that was taking place mainly in Latin-America. Afterwards, while the author continued his studies for decades, his project evolved to something that he called transmodernity.

Transmodernity is a world project that goes beyond European and Anglo-American modernity, meaning that it is post-Western by avoiding the European science superiority of the last five centuries and by strengthening the forgotten philosophies of the ‘other world’. Transmodernity also goes beyond postmodernity, since, as I mentioned before, the latter is partly a partial critique to modernity made by Western thinkers as well. The main aim of transmodernity is that scientists and thinkers whose homelands were ‘victims’ of colonization articulate a self-reflexive discourse and acknowledge their own history. Transmodernity stresses materiality as vulnerable corporeality, critique as theory that reflects from ‘pain’ (of colonization ‘victims’), and ethics of ‘pain’ from the ‘periphery’ of the world (Africa, Asia and Latin-America). That ‘periphery’ is the contrary of the ‘center’ presented as Europe and Anglo-America, which is aimed to generate consensus between colonization ‘victims’ through solidarity towards communitarian inter-subjectivity. The project starts by ‘fighting’ for the acknowledgment of the ‘others’ (the non-Europeans/Anglo-Americans) and recovering creativty through self-valuation. Furthermore, there will be a philosophical dialog South-South, namely between the different world scientific ‘victims’ of Western domain (as Dussel mentions). Therefore, the transmodernity project is an anti-domination one of cultural liberation through an intercultural dialog. Thereby, ‘trans’ in this sense means beyond and before modernity, since transmodernity does not ‘touch’ modernity due to its aim is to avoid it completely because modernity is historically based only on capitalism, eurocentrism and colonialism. However, the transmodernity project does not try to set aside Western thinking completely, but rather to get the important outcomes of it as selected tools that can entail benefits (mainly technological) in a final South-North open dialog, which will be critical and,
therefore, ‘pluriversal’. This paradigm will be possible only if both Southern and Northern philosophers are reflexive/open and acknowledge the value and meanings of the ‘others’ philosophies. In relation to my research, the application of this approach involves an analytical discussion between Western theory and contextual data in the Global-South. The approach also entails considering the different ontologies and worldviews of people that I analyze about the MCS of my study zone and Mexico City through field-based and participatory methods. These ontologies and worldviews differentiate between stakeholders depending on their geographical positions, social classes, and even skin colors. Some are closer to the culture of the study zone and others are closer to European.

Additionally, in order to seek and strengthen the ‘pluriversal’ aim of transmodernity philosophical science dialogs, I could highlight what Mignolo (2011) (from Argentina) points out coloniality as the ‘darker side’ of modernity. That study comes from the idea that modernity has entailed mainly a human life sense of inferiority by historical control of the economy, authority, gender, sexuality, and knowledge for governing global wealth. The author argues that it is necessary to build decolonial options, namely ‘a world in which many worlds will coexist’ as the Mexican Zapatista Army of National Liberation (EZLN) stated. The author explains that ‘communality’ is ‘pluriversal’, contrary to ‘pluriversality’” which is ‘universal’, where no one civilization will impose over all the rest. Therefore, the ‘decolonial option’ is the ontological and epistemic difference that will allow South-Eastern scientists to change the content and terms of science, since it entails own knowledge, subjectivity, authority, economy and objectivity (‘in parenthesis’/flexible). This future possible paradigm contrasts with the ‘project of westernization’ and the ‘de-westernization’ in which there is a total objectivity that tries to erase other cultures’ thinking. This way, the communal thinking presents as the management of resources that people carry out as collectively produced and shared rights.

2.4.1. Contextual approach for this research analysis and knowledge production

In this research, I am addressing a specific study zone by not using taken-for-granted North-Western theoretical ‘rules’/normativity, as usually modern social science is developed by South-Eastern researchers. Within the field of urban studies, Lefebvre emphasized the possibilities of rethinking the cities that, as in South-Eastern zones, were designed under Western guidelines as a colonial aspect of modernity. The possibilities of implementing other urbanization processes rest on the idea of
conceiving urbanization as a *utopia* of alternatives to capitalism for reaching better futures (Pinder, 2013). For example, a context of any zone that can be possibly (re)designed. My conception of contextuality is close to my interpretation of what Haraway (1991) calls *situated knowledges* from feminism (local knowledges instead of world systems/universality). The author uses that concept to describe and criticize Western modern science domination over the rest of the world. She explains that the majority of science has been created under positivist closed epistemology guidelines overlooking non-‘capitalist-white-patriarchal’ events and worldviews, even with their attempts of avoiding bias. Therefore, the author argues that modern science is ‘rhetoric’**, since only ‘powerful’ people can reach ‘manufacturing’ of knowledge in their own language. Under this line, by using Dussel’s (2012; 2016) *transmodernity* project, the North-Western concepts to be applied in my research are not translated, fitted, adjusted, transplanted or mirrored into my peripheral case of Mexico City. Rather, there are open, critical, multicultural and ‘pluriversal’ dialogs between the theory developed in North-Western research (including theory manufactured by South-Eastern academics under the same epistemological guidelines as European ‘branch offices’) and the understandings that I reflected on and develop in a South-Eastern context. The analytical innovation *transmodernity* was convergent and enriching in order to create new scientific knowledge. Haraway (1991) supports this idea as well by calling to translate ‘knowledges among very different – and power-differentiated – communities’ (p. 187) around the world through ‘solidarity in politics and shared conversations in epistemology’ (p. 191). In this sense, my research analysis consists on modeling the reality through different methods and, afterwards, interplaying their outcomes with theory. In terms of knowledge manufacturing, Thrift (1982) points out that the contextual approach could be interpreted as a series of situated events in a space-time context, where there is human intentionality and motivation in a more-than-deterministic approach. Contextuality provides researchers with social interaction construction towards social theory. For Thrift, knowledge production is situated and ‘determination’ is a particular matter. For example, Freudendal-Pedersen (2009) uses explorative analysis for knowledge production as an empirical process, where empirical action and theory are in constant dialog towards finding outcomes. The research is carried out under new possible vocabulary and knowledge that will interpret that reality, since ‘A new concept is the result of reconceptualization and of fine-tuning’ (Kaufmann, 2002: 37).

Current studies within urban issues are partly based on making and searching for comparisons between other cities in the world in order to determine their ‘development’ (see Sassen, 2005; Sassen, 2011; GCM, 2014; Moulart and Rodriguez, 2005; Beaverstock and Smith, 1999). For instance, for decades the government of Mexico City has spent vast amounts of money on receiving ‘consultation’ from
different European and USA researchers and agencies with that purpose in mind. One example of that was the Gehl Architects (2009) consultation in 2007-2009 regarding the potential of a bike lane system in Mexico City, hoping that it was similar to the Copenhagen one as an ‘inspiration’ to ‘transfer’ just because the latter is efficient. Furthermore, positivist comparative analysis (see George and Bennett, 2004; Mahoney, 2007; Moses and Knutsen, 2007) tends to follow the causal logic as if, for instance, I stated that ‘only because one of my female-friends looked physically like my sister, both could have the same habits, thoughts and social praxis’. Differently, López Galviz (2016) argues that the comparative analysis between cities should be done by drawing their connections as parallels between their contexts for revealing similarities between their transformations. In this regard, Tuvikene (2016) analyzes inequalities from comparative urbanism within the example of the post-socialist cities of Europe. In that approach, the author states that the comparative analysis between cities should go beyond only putting attention on the distinctiveness of the cities. These are based merely on policy discourses that centralize the analysis on cities that are ‘excluded’ under the global sights. Nevertheless, the analysis should address a wider thinking as an open interpretation of multiple processes, where also local experience preservation, complexities and own potentials and capacities of the cities should be taken into account. This way, researchers could possibly change the current Euro-American (USA) domination within urban studies through mainly the de-territorialized characteristics of particular phenomena and processes among cities under a more-that-contextual approach. Thereafter, under these lenses, with regard to the creation of new concepts, Tuvikene states that ‘the context in which a concept is developed affects what it is and, hence, how it can be used to understand other conditions.’ (p. 137). This idea reflects that researchers can use concepts as backgrounds of contextual phenomena. Finally, the author concludes that ‘particular issues of cities in the global South – such as informality […] – can be developed into concepts that are valuable not only for the contexts from which they emanated, but also as they are applicable for urban theory and research more widely’ (p. 139). Contextuality has to be placed in research not merely to create distinctions between cities in order to ‘label’ them, but also to create theory within urban studies based on the potentials of cities. This approach is based on inequalities between cities that, at the same time, can be studied from their inner and particular social inequalities.

Jensen and Lanng (2017) analyze social inequalities through the lenses of *mobilities design*. In this regard, social stratification obeys a ‘macro structural’ way of designing in and for cities where ‘Values and norms are embedded within design principles and ideas’ (p. 125). Political decisions tend to entail social differentiation, in-access, exclusion and marginality related to mobility. The authors pin down that statement by explaining that, for instance, what they call “Stealing time” [by moving] from one user
group to another has become a key issue within the mobility differentiations inscribed in the everyday life infrastructures’ (p. 126). The historical ideology of the designing approach through political action comes from a Western idea of ‘progress’ of modern city planning, management and development or in the authors’ words: ‘speed and connections across distances, most often by car, were seen as a promise of progress, involving ideological organizations of mobility with universalism and freedom’ (p. 126). That approach is called ‘engineered design’ and is mostly used in transport policies that overlook embodied mobile subjects and which are designed outside contextuality, following usually Western guidelines. For example, for Nixon (2012), ‘cycling and walking are marginalized by autocentric planning, engineering, politics, and legal regimes’ (p. 1664). That approach, however, does not dismiss the individual actions that materialize those social inequalities. In order to address the relation between rationalities and inequalities within mobilities design, Jensen and Lanng (2017) explain that people’s rationalities contrast and crush with traffic-planning rationalities of segregation. My case study has passed for a historical social exclusion that involved emerging means of transportation and a specific spatial design of the neighborhood. In the same way, people’s rationalities relate to the conditions of the public space. Taking design aspects of the space into account can therefore help me understand the potentials of my study zone in relation to its MCS implementation. People’s rationalities are based on situated journeys, rich and tactile experiences, and various social interactions. Those aspects define people’s ‘claiming’ of public space. The authors partly conclude that urban designers could prevent inequalities by giving ‘priority to local mobilities in segregated systems’ (p. 142). Dead and solid objects can thereby create inequalities regarding accessibility, since these ‘are assembled into frames for life and affect both on the level of the calculated and conscious as well as on the affectual level’ (p. 143). Jensen and Lanng suggest the creation of inclusive processes of interdisciplinary co-design of alternative materialities that could provide spatial organization, social interaction, and flexible use of land. Those negotiated mobilities are based on what the authors call a situational approach of mobilities design through power issues immersed in materialities as potentials to change the ‘status-quo’ of spaces.

2.5. Towards reaching transmodernity within mobilities and transport planning studies

In this section, I address Global-North studies related to transport planning and mobilities that use an interpretative approach. These are examples of research openness in those areas, in respect of which I am inspired to use the transmodernity
approach.

So far, I can conclude that in order to reach transmodernity in science production, research needs to be open, reflexive, and, above all, critical of Western modernity and postmodernity thinking. Thereby, transmodernity can take place in different research disciplines, such as mobilities and transport planning studies, which are my interest for this research. Currently, within academic research, I could not find during my literature review process an intersection between Dussel’s transmodernity and mobilities and transport planning studies. The theoretical approaches that I can relate to my case study research have been manufactured mainly in Europe. I used approaches manufactured in Latin America but under Western guidelines. Therefore, that situation meant that I had to start my analysis from European worldviews, since those are the ones I have access to as a PhD student enrolled at a Danish university. Nevertheless, as the transmodernity project states, I was not looking to set aside Western worldviews. Instead, I was looking to create a dialog between these worldviews and the ones I could get, in this case, from my fieldwork interpretations and philosophical approach as the native Mexico City mestizo ("chilango") researcher that speaks Spanish and English (two European languages) that I am (actually, that was indirectly the reason why I wanted to study my PhD in Denmark in the first place).

Some Western and Southern-under-Western-guidelines thinkers had already indirectly opened the door to possible decolonial approaches regarding mobilities studies and transport planning. They inspired me to work with mobility, even though their works are not related to the informal transportation field. Their studies have interpretative approaches. I will mention some of the studies that are most relevant for me as examples in relation to my research aims as following. Adey (2010) started his analysis clarifying that his book called Mobility is based on Western contexts. Thereby, in order to develop mobilities studies, it is necessary to use new vocabulary from the case context that describes determinate people’s practices, culture and time and place phenomena. Another case is when Jensen and Lanng (2017) wrote about mobilities design as a critique to universal and disembodied approaches, since they state that the ‘discussion of inequality is of course relative to their actual contexts’ (p. 128). Mobilities approaches should not follow merely one type of research guidelines. In his comparative urban study, Tuvikene (2016) concluded that ‘The Euro-American dominance in urban theory might thus simply be replaced by a different regional division of cities in the

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36 That situation is a result of unfortunately not having access to my native land indigenous language and precolonial documents from which I could create and start a hermeneutical approach of my study disciplines. That approach could be based on times before the colonial ones in Mexico City (see Solares, 2009) towards an ‘independent’ theorization of my case study phenomenon.
world.’ (p. 139). That study acknowledged decolonial research thinking from an open perspective of knowledge production within city development studies. In Sheller’s (2014) analysis of the *new mobilities paradigm*, the author concluded that in order to rethink the relations between bodies, movement and space, it is necessary to develop emerging topics for researching a postcolonial studies approach. By doing it, even though there is an ongoing debate about the differentiation and similarities between postcoloniality and decoloniality, it could be possible to create new questions, theories, ethnographies and even methodologies within mobilities studies. Büscher, Sheller and Tyfield (2016) suggested that in order to study emergent processes within *mobilities* studies, it is necessary to address interdisciplinary and integral focuses for creating contextual concepts. These would challenge West and East, and North and South worldviews and complexities. Finally, Freudendal-Pedersen (2018) explained how individualized understanding of autonomy is related to a specific society, namely, its time-space context in order to relate analysis of senses to people’s storytelling for communicative planning.

All the statements above were manufactured in North-Western academia. These nevertheless open the doors to such mobilities and transport studies could have a decolonial approach. I reached that conclusion, since the authors’ approaches acknowledge a possible epistemological change of mobilities theoretical focus based on an interpretative methodology that goes beyond positivist Western normativity. Therefore, the decolonial-transmodern approach within mobilities studies is the one that, even though it could make use of Western-manufactured theory, is open to new methodologies and methods, and could apply those concepts instead of testing them (force-adapting). That approach is partly meant to create a dialog between Western concepts and Southern study cases (data) while doing research towards finding contextual knowledge. Hence, the mentioned mobilities studies were used in this research as an approach to a South-North ‘pluriversal’ dialog.

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37 Bhambra (2014) argues that postcolonialism is a tradition that comes from an intellectual movement, which addresses issues related mainly to socioeconomic and cultural stages of societies whereas decolonial school is linked to ‘world-systems’ studies affecting the ‘non-developed world’. Postcoloniality comes from diasporic Middle East and South Asian scholars referring to the nineteenth and twentieth century and decoloniality comes from diasporic Latin-American scholars referring to the fifteenth century onwards. Both approaches suggest consideration of colonial stories in human history, offering ‘new geopolitics of knowledge’. Furthermore, I work and collaborate with postcolonial and decolonial scholars at Roskilde University, Denmark and all of us have different understandings of postmodernity and decoloniality that we share with one another in order to create academic dialogs instead of agreeing on ‘exact’ conceptual definitions for both approaches.
Chapter conclusion

In this Chapter, I differentiated research approaches about informal transportation into the positivist and interpretative. I delved into studies of the South-Eastern turn in planning, which criticize modernity. I argue that in order to provide research with a decolonial approach, it is necessary to go beyond that critique towards an ontological and epistemological treatment of a study case. For that purpose, I address the transmodernity philosophy of science that involves using Western theory as background and basis for interpretative research.

In summary, I will make use of the transmodernity philosophy of science in this study with the aim of creating a South-North dialog between my data and Western theory related to my case. Having a decolonial approach means creating open argumentations to fine-tuning theoretical conceptions, meaning the possibility of enriching concepts based on the analysis of my phenomenon. That can be reached by using the interpretative approach. However, I argue that the difference between only having that approach and having it together with a decolonial one is that the latter involves considering the context as something that in the process will fine-tune methodologies, methods and concepts and additionally will allow me to acknowledge worldviews and epistemological Western impositions in the Global-South. In other words, the decolonial approach involves looking at power relations as the politics of knowledge production. In turn, by having only the interpretative approach, I risk considering the context, dismissing the colonial background, which could favor overplaying Western theory over the contextual methodology and methods. In my case study, implementing interpretation without decoloniality therefore can still involve having Western theoretical propositions as unreflective adoption to some extent, which I want to avoid in order to reach my research aims.

In the next Chapter, I will create a theoretical discussion based on the concepts I chose for addressing my case study. The discussions include the background and meaning of the concepts related to my research aims.
Chapter 3. Embodied mobility potentials, structural stories and governance

Under the understanding that ‘sociological inquiry is no longer the sole domain of sociology, but of many disciplines’ (Büscher, Sheller and Tyfield, 2016: 489), the aim of this Chapter is to address the concepts related to my study phenomenon: motility (mobility potentials), governance, and structural stories. For framing this Chapter, I add secondary concepts that stem from the main ones as a result of the iterative process of my method theory and the abductive analysis. The theory I draw upon involves a reflexive interpretation through its application in the case study. The importance of the process is that it entails contextual reflexivity, so that analyzing the context enriches the theory.

This Chapter frames three theoretical discussions that relate to my three analytical aims: finding stories and, in the light of these, analyzing the mobile praxes, and implementing a participatory method. 1) I aim to delve into the mobility concept and its potentials as the basis for understanding the use of MCs in my study zone. I address the implications of conceiving mobility as a ‘total social phenomenon’. That opens the door to using reflexive and contextual approaches and to creating new questions, theories and methodologies when doing research. Furthermore, I explain the differences between the concepts of mobility and transportation in relation to policy making directed to emerging transportation, such as the possible planning of the MCS in my study. I mention the different categories of mobility in order to get a wider social meaning of it. I thereby stress mobility potentials towards understanding social inequalities in relation to people’s access to jobs, services and products that relates to my study zone stage as socially excluded. 2) I aim to address transport and public space materialities for gathering conceptual elements that help me study people’s mobile praxes beyond transport time-space efficiency logic. I explain the process of creating knowledge by doing ethnographies. This involves interpretation of people’s (mobile) praxes through observation for avoiding universal ideas. Those elements relate to my case study when I implement my fieldwork for understanding the importance of the MCS. I delve into the study of public space potentials for visualizing people’s mobile praxes in the field (towards a place of community). Meeting people’s needs through the public space characteristics favors social interactions (that includes a network of
shared transport means). Nevertheless, all those characteristics are context-dependent.

3) I aim to relate informality, governance and structural stories, since the last two are part of my main concepts. In other words, I aim to understand the significance of structural stories for planning under a governance focus in order to find possible sustainable futures for the MCS. I explain the sustainability concept as a multidisciplinary indicator of, in my case, transport effects in society. Within transportation, sustainability relates to possible stakeholders’ participation in planning. I address the governance concept for understanding how emerging transportation can possibly reach sustainability through collective agreements, such as in the case of my study zone, the possible planning of the MCS. That process involves understanding stakeholders’ power within mobility in micro and macro scales. I frame macro and micro-politics understandings under social sciences research. These involve differentiations and classifications for understanding social phenomena. The differences between both concepts entail understanding the relations, structures and power of key stakeholders of a certain phenomenon, in this case, related to emerging transportation. These concepts interrelate to each other. In relation to my research, these concepts help me map the different positions of my stakeholders’ ideas, aims and thoughts about the MCS that I obtain through interviews and that I interpret as stories. Furthermore, thinking in possible futures about the MCS phenomenon helps to intervene its issues, since these reflect people’s forms of knowledge and truths. Planning futures involves an attempt to eradicate social inequalities by acknowledging people’s common benefits. Participatory and ethnographic methods are tools for planning. Stakeholders’ participation involves a communicative learning process through the sharing of stories (unveiling praxis, identity, needs and habits) for influencing public policies.

Theory from a reflexive interpretation

The process of interpretation forms both theory and interpretation of facts, so that theory cannot be grounded in facts after research is concluded. Since reality is already always interpreted, it is better to use ‘application of the theory’ instead of ‘verification and testing’ of it (Alvesson and Sköldberg, 2000). In this sense, my theoretical analysis is taken from general outcomes of my previous research on the MCS. This started as contextual hermeneutics in a socio-historical approach, which provides different facets of reality through language expressed in texts. As I mentioned before, my contextual focus involves the interpretations of the phenomenon by my participants and me that relate to our experience –scientific objectivation in Bourdieu’s (2003) terms. On the other hand, I selected theoretical material of this study as state-of-the-art models from previous researches that were similar or related to mine (including my master’s thesis).
Looking into those frames gave me a general approach to the phenomenon. However, I had to be careful and not take their theories as ‘dogma’ or taken-for-granted knowledge, especially while relating them to my empirical material. I took into account that aspect because I could end up ‘reinventing the same theory’ directed to my own empirical material (Bourdieu, 2003).

As Lefebvre (2014) exemplified in his *urban revolution* study, ‘theoretical approach requires a critique to this “object” [“the urban”] and a more complex notion of the virtual or possible object’ (p. 16). Therefore, there is not an accomplished reality, but ‘there is an emerging understanding of the overall process’ (p. 16), so that theoretical knowledge can only reveal the terrain and foundation of the virtual object (the urban space as an open category in this example) as an ongoing social practice. That process occurs by acknowledging various forms of urbanization in order to explain social practices (urban problematic). The *virtual object* is the interpreted reality to study, meaning the reality to theorize. That process could be construed as contextual reflexivity, since the socio-historical process, in this case of the urbanized space, provides an overall view of the contextual phenomenon to interpret and work with. Therefore, in Lefebvre’s terms, urban reality is a spatial and temporal virtual object of research, which defines an urban problematic with regard to its solutions and modalities. The theory I used during my research thereby was not meant to ‘fit’ into my research context, but rather the analysis of my context enriched the theory (not replaced it) from a reflexive understanding of my virtual object, the MCS planning. In order to be reflective, my research was open to the possibilities of developing different aspects with uncertainty but with an ongoing direction provided by the reflexive process of the studied phenomenon in itself as well (Alvesson and Sköldberg, 2000).

In the following section, I will delve into the mobility concept and its potentials for finding conceptual tools that I can use for understanding the importance of the MCS in the study case. Those understandings also relate to the possibilities of planning the service by differentiating between mobility and transportation concepts within planning.

### 3.1. The changes and development in the conception of mobility

In this research, I aim to understand the use and importance of the MCS in my study zone. Knowing the current status of the mobility concept and its potentials within the social sciences opens the door to using reflexive and contextual approaches. That
includes enriching the mobility concept, in its motility aspect, when it relates to emergent studies, such as the MCS. Furthermore, I can use concepts that stem from mobility as analytical tools for transport planning. I will carry out the whole discussion from general to particular by addressing the current conception of mobility (different from transportation), its typologies, until researching the one I will use for my analysis (motility, stressing its characteristic of accessibility).

Before the second half of the twentieth century, the concept of mobility was merely used as a term to implement and justify policies of transport focusing the attention on technical aspects: the calculation of associated costs, the modeling of the demand, the simulation of flows, the optimization of the vehicular infrastructure, and the evaluation and maximization of vehicle development. That is what researchers call the classic paradigm of mobility (see Kaufmann, 2014; Freudendal-Pedersen, 2009; Islas, 2000; Harris, Lewis and Adam, 2004; Susino and Martínez-Reséndiz, 2010; Graizbord, 2008; Graizbord and Santillán, 2005; Salazar and Ibarra, 2006; Sobrino, 2003). Over the last three decades, mobility has been considered as a ‘total’ social phenomenon (Kaufmann, 2014), which entailed the so called ‘mobility turn’. In the same way, Urry stated that ‘society is a ‘set of relations’ (Jensen & Lanng, 2016: 4) in order to partly support that ‘turn’. That consideration led to the new paradigm of mobility approach. It consists of recovering the active character of people and society in conjunction as mobile entities. That entails an intrinsic value in social, cultural, and affective dimensions in the everyday life (involving identities from the experience of the travels). Furthermore, ‘the new mobilities paradigm disrupts existing disciplinary boundaries and reorients “normal” social science, leading to new communities of practice, new kinds of applied research, as well as new scales for social theory’ (Sheller and Urry, 2016, as paraphrased in Büscher, Sheller and Tyfield, 2016: 487). Now the concept of mobility hence is not only focused on the improvement of the efficiency and equipment of transport, but on the creation of links, synergies, and opportunities among the flows of goods, services, cultural shapes and so on. With this new paradigm, there are identities to take into account from the travel experience which, in turn, entail people’s daily practices and meanings (see Banister, 2008; Sheller and Urry, 2006; Freudendal-Pedersen, 2009; Vannini, 2009). In this way, ‘Mobilities research explores how the social world is constituted of complex adaptive systems stretching over time-space’ (Büscher, Sheller and Tyfield, 2016: 487). That research focus opens the door to reflexivity and contextuality approaches.

Sheller (2014) developed this new mobility paradigm by relating it to what she calls ‘live sociology’. She explains that the new mobilities paradigm should not be addressed through a structural or post-structural approach, namely, relating it merely through the lenses of globalization, nomadism and flow. On the contrary, the new paradigm should be based on a ‘realist relational ontology’, which addresses subject, space and
their relations. Therefore, mobility should be related to systems, capital, justice and intersected with inequality, power and social hierarchies. This approach also combines complex dynamics of people, objects and information. In order to achieve those aims within academic research, the new mobilities paradigm should develop and use new methods and methodologies that could show an ‘observer’ and an ‘observed’ engagement of phenomena related to mobilities. Thereby, Sheller defines *mobility theory* as ‘rethinking the relation between bodies, movement, and space’ (p. 792), which involves new questions, theories and methodologies within new post-colonial studies or, in my case, decolonial ones of emerging topics for research. New methodologies, therefore, are needed for studying more ephemeral, embodied and affective dimensions that are not captured with traditional methods that could be reached by using, for instance, mix-methods analysis, among others. Furthermore, the author’s approach to the new mobilities paradigm determines the contextual focus of analysis as motions related to bodies, technologies and cultural practices.

According to Urry (2007), the mobilities paradigm ‘refers to broader project of establishing a movement-driven social science’ (p. 18). Here, movements and their potentials are conceptualized from economic, social, and political relations as post-disciplinary ‘cosmobilities’. In this sense, Büscher, Sheller and Tyfield (2016) argue that *mobilities* research is integral to social phenomena. That statement means that researchers should take into account intersections between mobilities research and adjacent fields by connecting them through different epistemological frames and complex interconnected phenomena. This approach charts emergent areas as well. The authors refer to ‘intersections’ as the way of finding questions and methods, rather than answers or solutions by carrying out research due to the complexities of different contextual issues. Hence, that research approach will attempt to develop what the authors call ‘globally-deployed concepts’ by reinforcing the possibilities of an open and reflexive theoretical analysis.

As part of the discussions of the new mobility paradigm that open the door to interdisciplinary and open conceptualizations, I aim to know the differences between the concepts of mobility and transportation for public policy making in planning. The first relates to patterns and relations of movements while the latter helps people to accomplish their mobile needs. I stress the conflict that happens when both concepts are used for policy making. Policy makers usually tend to put technology at the top of transport policies. Thereby, within transport polices, a dialectic should exist between technology and social life for favoring people’s access to the benefits of the city, rather than merely increasing the volume of transport means.
3.1.1. Mobility vs. transportation

Basing my discussion mainly on the works of Kaufmann and Canzler (2008) and Urry and Grieco (2011), theoretically, so far it is not clear to me what is the accurate separation between the concept of mobility and the concept of transportation. That is because both concepts are deeply interconnected. Mobility tends to be more related to movements (of persons, materials, information, etc.) and systems of potentials to move. On the other hand, transportation tends to be considered part of those systems of potentials as a materialized one. Therefore, transportation is a tool for creating and favoring mobility and, at the same time, mobility depends on transportation regarding the materialization of movements. Additionally, in modern societies, people usually use transportation to reach speed potentials, which are translated into cities’ systems of transport that respond to mobility needs commonly as everyday commuting. Those systems end up being a fundamental aspect of common lives, since the first fosters social relations and economic flows ‘at-a-distance’, namely, reachable social and economic interactions between different places.

Researchers can make use of the mobility concept within transportation studies. This involves a focus on people’s lifestyles within their travel praxis. Different types of mobility can be defined from a transportation focus by centering on distances, destinations and routines of travels. Transportation research is meant to understand, describe, and model choices of travel distances and modes of transport and destinations in everyday life (Urry and Grieco, 2011). The concepts of mobility and transportation are highly interconnected and studying them can entail synergy, inasmuch as both can be studied focusing on each other. However, the main theoretical conflict when discussing those concepts shows up when both concepts are used as basis for public policies, since policy makers can confuse and misunderstand them easily. One of the aims of this section is to clarify the difference between those concepts while taking into account public policy making. Thereby, I can ask: what can be the theoretical differences between mobility and transportation used in public policy planning for emergent and informal transportation?

Nixon (2012) defines a transport mode as ‘a particular assemblage of person, technology, landscape, culture, and practice’ (p. 1662). Under that complexity, systems of transportation relate to the creation of individual restrictions, since these create people’s dependency on travels and, more precisely, dependency on only travels that they offer, which are usually based on speed potentials. Thereby, systems of transport create social control even though they enable sociability as ‘freedom’ of moving because they contain it as well. Actually, transportation does not necessarily provide people with mobility ‘freedom’ even when mobility and its potentials converge. The reason is that context of territories (geography, culture, economy, politics, etc.) defines
people’s mobility. That phenomenon is partly what Freudendal-Pedersen (2009) calls un-freedom entailed by mobility individualization imposed by external structures (such as transport systems) that are supposedly aimed at creating useful time in people’s everyday life. Hence, by differentiating between spatial-mobility and ‘social-fluidity’, it is possible to understand why transportation systems do not necessarily favor mobility ‘freedom’ (Kaufmann, 2002). Transportation systems commonly help people to accomplish their individual mobility needs by favoring mobility potentials (Kaufmann and Canzler, 2008). This is the conceptual background of what I call emerging transportation in my study zone. As I explained before, segregated people (not governments) create emerging transportation, aiming to be an alternative mean of transport besides that offered by the systems of transportation and mobility.

According to Urry (2007), mobility supposes many systems in order to provide spaces of anticipation whilst moving. Those systems are specifically materialized through infrastructure and software devices. Urry’s concept of mobilities can make differences to social relations through mobility systems that favor the movement of people, ideas, information (person to person, place to place and event to event), and take into account all their implications. Hence, studies of mobilities systems address sociabilities from an interdisciplinary approach directed to patterns and relationships of movements, forms of movements, socialities of everyday life through infrastructures, and social solidarities. In addition, mobility systems consist of different routes of circulation based on implemented expert forms of knowledge (time synchronization by computer software) that distribute people, activities, and objects through time-space. On the other hand, according to Urry, transportation systems are those which are based on a technological determinism from basic science studies of travels. Therefore, he argues that, between transportation systems and mobility systems, there is dialectic between technology and social life reflected as complex interactions of mobilities and inmobilities (disruptors of movements). These are reproduced, at the same time, under systematization and personalization logics as ‘mobile hybrids’ (such as train person, bike rider, car driver, etc.).

Transportation is a ‘condition for modernization’ because it provides means of spatial integration and social differentiation (Urry and Grieco, 2011). In this sense, for Nixon (2012), mobilities relate to knowledge, embodiment, and transport geography. For instance, patterns of transportation involve social disadvantage when people are not willing to travel outside a certain locality due to lack of employment opportunities. Transport therefore reinforces patterns of social disadvantage and exclusion, for example, lack of transport favors social exclusion (Urry and Grieco, 2011). That condition exposes a dilemma regarding transport policy making at a political level: it is important to understand to what extent transportation is necessary and needed in a local or regional society for favoring supposedly its ‘development’ through people’s
‘free’ movements. As a consequence of that misinterpretation, as I mentioned before, there has been a political obsession in modern cities with putting technology at the top of hierarchies of mobility (Nixon, 2012). On the other hand, mobility is also based on the principle of modernity, since it is considered as a ‘multi-dimensional concept’ for being the current ability to move in physical, virtual and social ways (Kaufmann and Canzler, 2008). Mobility-on-demand systems (mainly motorized transport) promise access to benefits by diminishing travel time, from dependency through shared vehicles, real time transit information, and dynamic pricing (Urry and Grieco, 2011). That distinction, however, could be managed at a theoretical level considering that a transportation system develops into a mobilities system (plural) to the extent people use it mainly for achieving mobility (Urry, 2007). This understanding involves a contradiction between humanistic (travel social benefits systems) perspectives and economic (speed-oriented systems) ones that relate to transport or mobility public policies making (social benefits vs. economic growth). That discussion departs from the idea that both systems tend to create immobilities on a controlled political level. Following the perspective of Urry and Grieco (2011) in that regard, governments need to favor communication and intermittent travels in economic, physical, organizational, and temporal forms in order to prevent inaccessibility to mobilities and to generate social relations and networks that mobilities can afford. Otherwise, rights of movement will remain exclusionary in a sort of social and individual ‘fetishism of movement’. However, the mobility access problematic does not consist in making the transportation systems available to people. Rather, it consists in reaching different mobilities in an individual way by gaining economic, social, cultural, and spatial power and by having access to proper services, infrastructure, and facilities. As described in the backgrounds of my case study, a governmental misinterpretation of that problematic at a political level favors that excluded social groups from transportation and mobility systems historically create their own micro-economies of transportation. This mean that those social groups reach potentials of mobilities through materialized emerging self-manufactured means of transportation. That process has happened in my study case MCS.

Now that I have defined mobility and distinguished it from transportation, I will address its different typologies for choosing the one that I will use for the analysis of my case study (motility). Thereby, in the next sub-section, I explain the different categories of mobility in order to understand its social meaning. This involves taking into account that both subjects and objects can move, acknowledging people’s lifestyles related to attitudes and motivations for moving. Those categories help me to understand the possible benefits of the MCS in relation to the movements it provides to people.
3.1.2. Mobility or mobilities?

Kaufmann (2002) explains categories of the concept of mobility in order to offer a wider social meaning. The author states that there are four types of what he calls spatial mobility as the physical movements of things: residential, migration, travel (recreational from my interpretation), and daily traveling, where the space-time expression (context) is present in all of them. Within the daily spatial-mobility, researchers can interpret two types: ‘inside-locality’ and ‘outside-locality’ (commuting). Urry (2007) points out that the concept of mobility is ‘post-disciplinary’ due to how it conceives physically moving as ‘a way of life’. That idea takes into account different forms of travel, transportation and communication through social and economic paradigms. Under this prism, mobility consists of ‘observable movements’ that are categorized as residential, migratory, traveling, and commuting journeys. Therefore, in his initial approach, there are four main categories of mobility: physical mobility of things, mobility of multitudes through electronic devices, social mobility from social hierarchies, and migratory mobility. There is a dichotomy between ‘actions of moving’ and ‘models of moving’ that comes from the mobilities paradigm, which entails acknowledgment of a variety of objects not only related to transport, such as books, cellphones, washing machines, etc. This way, researchers need to take into account frameworks within which subjects and objects can move (movement-spaces), providing a conception of five mobilities that interact one another: corporeal (spatial-mobility “A”), objects (spatial-mobility “B”), imaginative (visual and digital media searching), virtual travel in real time (geographical and social distance related to working, visiting, shopping, or leisure), and communicative (personal direct chatting). Then, Urry and Grieco (2011) continued working with the conceptions and classifications of the different mobilities. The authors state that within transportation research, several travel praxes have been defined, such as role patterns, intra-household interactions, time budgets, mobility biographies, lifestyles, social networks, and social influences. From lifestyle praxis as ‘a unitary set of persons, goods and practices’ (Bourdieu, 1996: 15) constructed and consequently familiar to its agents (Larsen and Morrow, 2009), three main categories of mobility can be defined: first, spatial mobility, which addresses the physical and geographic movements that involve maneuverability of individuals and objects. The second category is socio-spatial mobility, which is based on social needs interpreted as the availability of opportunities to fulfill those needs. It could relate to spatial justice and social equalities, among others. Finally, the third category is socio-cultural mobility, which involves changing the social position of persons. The three categories contemplate the attitudes, values and orientations of mobility as symbolic dimensions that stress an affinity to the lifestyles of particular social groups. Urry and Grieco (2011) therefore explain transport praxis by analyzing lifestyle-specific orientations (attitudes and motivations). Additionally, within this analysis, the authors consider that trips combine elements of several different journey purposes,
meaning that mobility is contingent on other people and events, and it is tied into multiple identities as well. According to Kaufmann and Canzler (2008), ‘mobility is a competence to realize plans on the move’ (p. 167). There are two dimensions of mobility: the first one is the movement as *mobility performance* that could be social, physical, and virtual. The other dimension is what the authors call *motility* as the competence to move. This is the conception of mobility that I will use in the analysis of my case study. When both dimensions come together, an event of mobility occurs. People are characterized by multiple roles and identities in their daily life activities as part of modern life, so that at first, ‘routinization dominates the ways in which people use modes of transport’ (p. 107). Hence, within that mobility terminology, in general terms, there are different travel notions. The authors call those *residential mobility* (migration), *regular circular mobility* (commuting), and *irregular circular mobility* (seasonal workers), in which different social, cultural and even technological aspects interplay. Additionally, for Kaufmann (2002), there are three types of travelers: involving *sensorial quality*, *pre-planner* and *flexible*. Sensorial quality means that the goal of the travel is seeking pleasant experience. Pre-planning involves seeking the combination of time-space that allows the maximum of activities to be carried out (activities during the travel). Finally, flexible involves opportunities meant to be seized during a travel in a reactive way. On the other hand, what Kaufmann calls *reversible mobility* is when people can cancel or substitute their moving activity mostly in terms of distance. I will use those definitions of travelers when gathering the stakeholders for my workshops. The travelers either use or do not use MCs, but they all belong to the neighborhood of my study zone.

After explaining the different categories of mobility, I pointed to motility, which is, as I mentioned above, the particular conception within mobilities theory that I will use for my field analysis.

3.1.3. Motility vs. connectivity

In this sub-section, I stress people’s potential to move (motility). By using it, it is possible to explain the structures and dynamics of different societies, including their inequalities. This focus allows me to examine how people create their own access to competences to move based on their aspirations and plans, such as in the MCS case. Additionally, the three elements of motility –appropriation, skills and access– will frame my fieldwork analysis in order to understand the importance of the MCs in the study zone in relation to stakeholders’ ideas, aims and thoughts on the MCS I obtain through interviews.
According to Kaufmann (2002; 2014), in order to understand how people can achieve the mobility they need, it is necessary to take into account the concept of motility. The author defines motility as people’s potential to move (mobility capital) given by access to their social, cultural, spatial, economic, political, and individual conditions as multiple possibilities. For this research, I base my conception of ‘capital’ on Bourdieu’s terms: this is the capacity ‘to have’ and ‘to do’ (power) related to the social class to which an individual belongs, mirrored as symbolic wealth in a constructed ‘social order’, which can be applied in culture, economy, sociality and, for this research purpose, even in mobility (Bourdieu and Passeron, 1996; Kaufmann, 2002). For instance, Bourdieu used the concept of social capital to show how different forms of economic, cultural and social capital are interconnected and transferable, and how members of ‘dominant class’ maintain their position by excluding others from their networks and thus from their capital (Van Eijk, 2010). Under that logic, it is possible to place Bourdieu’s ‘capital’ term within mobility theory, since ‘Differentiating new forms of capital enables theorists to provide a deeper understanding of wealth and inequality’ (Huppatz, 2009: 46). Explained in Bourdieu’s words: ‘Acknowledging that capital can take a variety of forms is indispensable to explain the structure and dynamics of differentiated societies’ (Wacquant, 1992: 119, as quoted in Huppatz, 2009: 46). Under that understanding, motility can entail economic, social, and cultural capital, since according to Kaufmann, motility can entail the sensation of ‘freedom to move’ by the appropriation of possibilities to reach mobility. People achieve this by gaining access to options and conditions, physical-organizational-administrative skills, and appropriation (interpretation of access and skills) as aspirations and plans (structured in various systems towards mobility). When mobility achieves fluidity, there is coexistence between motility and mobility, and when these are based on experience, there is a convergence between them. For my research interest and use, Kaufmann’s motility concept involves three main elements: 1) access as the available choice of personal options and conditions; 2) skills as the competences for moving (in physical, acquired and organizational ways); and finally, 3) appropriation as the personal evaluation means of the available contextual access (interpretation of access and skills mirrored into aspirations and plans from strategies, values/interiorisation, perceptions and habits). Those three aspects wrap together different mobilities conceptions, such as connectivity. Furthermore, in order to understand mobility easing, researchers need to take into account the connectivity concept (connexity in Kaufmann’s terms). Connectivity is the point in which communication exists between different interconnected means of transport that facilitate the transfers. The process can favor diminishing individual costs when commuting (mainly time and money) (see Vannini, 2009; Flamm and Kaufmann, 2006; Lerner, 2013; O’Sullivan, 2012; Kaufmann and Canzler, 2008; Urry, 2007).

As a mobility dimension, motility is also the spatial and social capacity to move based
on a previous intention. Hence, motility entails skills to move, appropriation of movement and clarification of all forms of access. From the meaning given to the appropriation of possibilities, people create access to competences to move (Kaufmann and Canzler, 2008). In this sense, people can reach accessibility through connectivity. Connectivity, therefore, has the attribution of maximizing motility and, in turn, of providing more movement possibilities. However, that attribution tends to relate to speed when moving, which means that connectivity is part of transportation-systems and, therefore, relates also to transport means for achieving commuting and diminishing costs whilst traveling. Commuting can entail a process of conceptualization and memorization of the results of travel experience, namely, people get a cultural process of identity and performance of a unique lifestyle. To the extent people use different means of transportation, they gain travel experience. Furthermore, people appropriate the means of transportation to the extent these can entail benefits to them. Nevertheless, the spatial conditions of a commute are a key for choosing a certain mean of transportation during a travel because it provides several potential opportunities of mobility to the traveler 38 (see Czeglédy, 2004; Flamm and Kaufmann, 2006; O’Sullivan, 2012; Vannini, 2009; Sheller, 2015; Bayat, 2012; Kesselring, 2014; Freudendal-Pedersen, 2009; Sopranzetti, 2014). This way, beyond but not unattached from travel rational choices 39, people ‘are not only choosing routes, but also moving between different affective experience of mobility’ (Jensen et al., 2014:13, as quoted in Jensen and Lanng, 2017: 135). Hence, the institutions that provide people with those travels are the transportation systems as a result of policy making based on the classic paradigm of mobility. In modern cities, those systems have usually generated daily traveling individualization, ‘connoting work-bound single drivers detached from community and alienated from their own nature’ (Edensor, 2003: 152, as quoted in ibidem: 134). That materializes as long as people have somehow access to those systems, mirroring relations between mobility, connectivity and social equalities. Therefore, with the objective of developing and complementing that phenomenon, I ask: how can some social groups with limited motility achieve the mobility and connectivity they need on a daily basis? What options do they have and what do they do about it? This way, under the new paradigm of mobility, it is necessary

38 For example, in a Garden Cities Redux (TODs) (a way of planning cities, facilitating people’s access to services and products), the spatial features and urban facilities provide the opportunities to use bicycles as means of transport, inasmuch as a TOD is a small town in which the services are close to housing. In this case, the bicycle is an alternative means of transport to the car (Rutheiser, 1997).

39 I refer to the concept of rational-choice in this research in terms of how it is paraphrased in Larsen and Morrow (2009) as when individuals choose and act according to their calculations for inducing situational optimization for themselves. This rational-choice focus needs to be supplemented with a bodily experience practice perspective in Bourdieu’s terms, namely, passing from a focus on individual behavior to a focus on everyday life and social processes (situated social reproductions and relations of power).
to approach studies related to social groups that do not have access to mobility but which have created their own means of transportation to reach it through a socio-historical process.

Now that I have defined motility, in order to link that concept with a transportation focus, I will address the accessibility concept as it highlights social aspects of transport issues that relate to my case study. Thereby, in the next sub-section, I explain accessibility as a characteristic of motility. It encompasses the focuses of mobility and transportation, unveiling social exclusion. Socially excluded groups that create emerging transportation try to gain or recover accessibility to the benefits of the city. As one element of motility, accessibility helps me understand the importance of the use and creation of the MCS in my study zone.

3.1.4. Accessibility: a wider concept?

Martínez Flores (2015) defines accessibility as the capacity to obtain opportunities, facilities and resources to facilitate the realization of different daily life activities. It can be reached mainly through mobility and connectivity by increasing motility of proximity (contiguity in Kaufmann’s [2002] terms). Hence, accessibility addresses all the aspects related to movements with respect to their potentials, ways, aims, causes, effects, etc. Thereby, according to the author, accessibility decreases the social and individual time, monetary, psychological and physical costs that arise from the journeys. Consequently, the accessibility that any person can obtain depends on their socio-economic and spatial positions. The explanation is that the access to activities, values, networks, communication, goods, products, and services also depends on those conditions as potentials of opportunities, facilities and resources (see also Czeglédy, 2004; Vannini, 2009; Cucca, 2012; Flamm and Kaufmann, 2006; Cass, Shove and Urry, 2015; Litman, 2010; Cervero, 2011; Kaufmann, 2002). In Bourdieu’s terms, access to any kind of resources is not ‘invented’ by every agent that has such resource, but rather these are transferred between generations as social capital depending on the social position of each agent (Larsen and Morrow, 2009). This way, accessibility relates to social exclusion to the extent that less accessibility involves less people connected to jobs, services and facilities on physical, geographical, economic and spatial levels. Therefore, accessibility depends on transport and demands of jobs, services and cultural factors, since it is based on the social, cultural, economic and political stages of territories (Urry and Grieco, 2011). Under this prism, certain social inequalities can partly come from mobility systems in terms of access (Urry, 2007). That means that lack of accessibility involves, simultaneously, lack of mobility, connectivity, transportation per se on different levels and in different relations and contexts. By
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taking into account those ideas, I ask: how can social groups with limited accessibility recover it on their own (through, for example, emerging transportation) and to what extent? This way, Martínez Flores (2015) states that ‘the accessibility focus pretends to facilitate the realization of activities by prioritizing structural changes’ [my translation] (p. 43). The author suggests that, with regard to public policies, accessibility depends on governmental interpretations and actions about mobility and transportation decision making. Usually, mobility is the mainstream focus of public policies conceived like a ‘brand’ or ‘slogan’ and, as I mentioned before, policy makers confuse it with transportation, which ends up overlooking, as a consequence, the accessibility focus. In this sense, accessibility would be meant mainly to reduce the time of the journeys by changing the origin-destination criteria and consequently improving their quality. While it is true that Martínez’s focus is primarily technical, he pins down the main differences between mobility and accessibility conceptions within governmental authorities of modern cities. The author concludes that accessibility encompasses mobility and transportation approaches towards sustainable and efficient use of time, territory and income by questioning how and why people move in modern cities. Therefore, transportation and misinterpreted mobility policies tend to stress the importance of building infrastructure for vehicles and mass public transport by increasing their volume and consequently increasing the number of daily (usually long-distance) journeys. Additionally, that process involves, in turn, more use of energy, time, money and public space (including wastes, such as pollution). This is why the accessibility concept is crucial for policy making with respect to city planning by interrelating the concepts of mobility, transportation, connectivity, and so on. However, as I explained before, the three motility aspects of Kaufmann include the conception of access. While is true that accessibility is a wider concept within the new mobilities paradigm, it is also based on the concept of motility as a personal and intrinsic function of people’s movement potentials. My general conceptual discussion thereby embraces motility as the approach of people’s ‘access-skills-appropriation’ in which accessibility is formed from and, in turn, encompasses the rest of the mobilities concepts. This prism therefore opens the door to analyzing social groups that lack accessibility in order to understand how and why they attempt to recover or gain it through transportation. Furthermore, this approach embeds the relation between equalities entailed by social groups’ accessibility and emergent self-manufactured means of transport within my theoretical discussion.

Now that I have framed and specified the mobility elements that I will use in my analysis, I will next explain other conceptual elements that relate to motility and its accessibility aspect by focusing on the physical elements of my study zone. These elements shape and highlight the potentials of the space from its materialities and people’s mobile praxes related to the importance of the MCS.
3.2. Materialities of transport and the public space

Based on the mobility understandings I have worked with so far, in this section, I will frame my case study in relation to its public space conditions and transport means as materialities, specifically the MCS. In the next sub-section, I stress the importance of observation (ethnographic focus) for interpreting people’s mobile characteristics. Understanding people’s praxes of movement thereby helps to avoid universalization of everyday life. Furthermore, I acknowledge that the MC is a materiality itself, which involves and favors embodied performances in the public space of my study zone.

3.2.1. Embodied performances within mobility

Understanding how and to what extent materialities and embodied performances affect, impact and relate to mobility and transportation involves considering their theoretical conceptions. The basis of this theoretical conception is mainly Leon van Schaik’s (2005) Practice-Based Research. It is based on the design research approach which creates knowledge ‘through doing’. Additionally, it entails the practice in the context of reflection and speculation about nature of practice by taking into account cultural products on the work process, research in the medium of design, speculation through design, and enablement of communication by the process. That connection as design research provides an ethnographic focus. Mitsogiani (2014) explains that it is possible to make research ‘through doing’ by following processes, expanding and developing trajectories for obtaining new knowledge at the end. Thereby, according to the author, the Process-Based Design methods are potentials for discovering conditions, arrangements and effects. These are discovered through reflection on researchers’ own projects, experimentation and innovation; intersecting and interweaving ideas, thinking/doing simultaneously, and any means of use. Furthermore, according to Jensen and Lanng (2016), in a mobility focus, materialities and embodied performances involve an urban design agenda and a mobilities research framework that together develops into mobilities design. Within that analysis, materialities provide and are based on people’s constraints, experience and practices. Researchers interpret these people’s characteristics through observation. Additionally, this approach is based on and inspired by an understanding between materialities and embodied performances called actor network theory (ANT). That analytical development has been carried out between poststructuralist science and technological studies. With regard to mobilities, ANT is a theoretical background that presents in what Jensen and Lanng call stating mobilities framework. In that conception, there are three dimensions within a ‘mobile situation’ process: the material site, the context and the action of movement (embodied performances). The social analysis of those kinds of situations
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involves taking into account their problems and potentials, which researchers can
determine and materialize through urban, public space and mobilities designs. Those
designs involve specific concepts, theories and experimental activities in order to avoid
universalization and naturalization of the ‘mundane’, ‘ordinary’ and the everyday life
and surpass the design of mono-functional, standardized and alienating materialities.
Therefore, this analytical process includes ‘fine-grained’ vocabulary, affective
engagement and attention on lives and atmosphere affections in order to achieve those
sustainable and contextual designs. I will use the focus of embodied performances in
my analysis, which involves incorporating elements of materialities in my
understandings of the phenomenon. My understanding of that theoretical analysis
takes me back to the contextual approach, which supports to a certain extent Dussel’s
(2016) thesis of theoretical-reflexive dialog according to the geographical positions of
the study zone of a research. Materialities and embodied performances are contextual.
An ethnographic focus thus helps create new knowledge and fieldwork, and has
helped position myself in the study zone field and has given me access to stakeholders’
worldviews. That position departs from actors’ embodied performances that occur in
their places together with their materialities. However, in order to provide my research
with that contextual approach, it was necessary to have a theoretical description of its
background related at the same time to its main concepts.

Concepts of transport design involve taking into account materialities and their
embodied performance in the public space. Therefore, in my study zone, materialities
that I will consider for the fieldwork analysis include the MCs and the public space
conditions and elements as a contextual matter. Understanding the importance of the
MCS in my study zone is a complex task under an interpretative approach. Therefore,
besides addressing the human-material relations in the field that also relate to mobile
praxis, I will address concepts that highlight the potentials of the space and its social
characteristics that I relate to the MCS.

3.2.2. Local transport design concepts related to the public space of the
case study

This sub-section aims to relate public space design for local transport to the public
space characteristics of my study zone. This can help me understand the potentials of
the streets regarding their organization and structure, which are based on different
mobile patterns. This discussion therefore provides an approach to the street design
and urban amenities needed for improving the MCS implementation in the study zone
as possible futures. The design discussions help me set up my inquiry. It is important
to point out that the aim of relating street design concepts to my study case is not to
mirror and force adapt their possible applications. Rather, my aim is to provide physical insights of the study zone based on designs that already exist and are materialized in other zones of the world that can help me understand the importance of the MCS in a broader way. Furthermore, this section helps me understand the public space of my study zone for unveiling elements of people’s mobile praxes associated to materialities from concepts that relate to spatial design.

**General street design approach**

It is possible to focus on public space and public life for designing streets in order to demonstrate the opportunities of social activities that, in turn, can create a place of community (Gehl and Svarre, 2013). Street design basis can take into account creation of demand by meeting people’s needs using design tools (Whyte, 1980). Urban designers can fulfil that aim by examining the physical characteristics of the streets using a multidisciplinary approach in order to obtain the fundamental information of them while also taking into account the main street aspects: social, practical and physical (Mantho, 2015). In studies regarding public space, Jan Gehl set out basic urban design principles in order to meet social needs: mix of public uses, architectural detail, visual transparency, physical transparency, physical permeability, sensitivity to context, and human scale (Mantho, 2015; Jacobs, 1995). Those principles are based on the idea that public spaces surpass private spaces because people control and orient the latter (usually inhabitants of the space). Everyday social praxis is the basis of street design by understanding, analyzing and acknowledging human needs. Streets should thereby meet safety, community orientation, community participation, community representation, responsiveness to contextual climate, symbolic ceremonial aspects, and transport means balance (Mehta, 2013). Additionally, different studies about creating livable streets have remarked that streets should foster and promote local self-sufficient commercial stores with a variety of businesses in order to create an indoor/outdoor local economy (Mehta, 2013; Jacobs, 1995; NACTO, 2012B). Livability and stability of a locality go hand in hand with its micro-economic development, which street design needs to favor. Street design success thereby requires the collaboration of different study zone stakeholders, such as public authorities, inhabitants and a multidisciplinary team of professionals. That process aims to understand the local community by creating objectives of the contextual thoroughfare functional roles, types, and predominant land uses (Institute of Transportation Engineers, 2010). That process should have a communicative focus open to the idea that ‘streets can change’ to build neighbor support and participation by having full social consensus. That is based partly on constant monitoring of the planned design implementation in order to maintain and remind stakeholders of the public aspect of the streets (San Francisco Parklet, 2013; NACTO, 2012B). I aim to apply conceptual elements that come from design in my case study analysis, such as
community and outdoor economy as aspects of the everyday life of my study zone that are in constant contact with and relate to MCs dynamics. Thereby, the understanding of the MCS phenomenon is not limited to address its own dynamics as an isolated matter but also to address other elements surrounding it that occur in the public space as well.

*Shared street*

The concept of *shared street* provides me with the basis for partly understanding the need to have MCs moving in local streets along with cars, bicycles and pedestrians in the study zone. A *woonerf* (shared street) is a Dutch concept for a surface shared by bikes, pedestrians and vehicles in which there are integrated pedestrian activities and vehicular movements occurring at the same time and, generally, in the same public zone. Historically, the idea of developing shared streets started with the fact that ‘common design’ streets entail costs to people. Its design should be based on traffic needs and environmental capacity by creating the impression of a ‘yard’ (the street as an extension of personal space) by minimizing space for roads, which also entails an efficient use of land (Owings, 2015; Ben-Joseph, 1995). Shared street design should pay attention to favoring quality of life. One important aspect of that approach is to have in mind that street planning and design will depart from regular congestion and work towards movements on shared streets in order to create healthier public spaces (NYC Streets Renaissance, 2014). That kind of design is possible to achieve only if the concept of shared street is stated in the legislations of the cities, so that public servants should always take into account livability and legal issues through a public informative process directed to the public. Design should be tailored to the context of a society and its physical demands in terms of space in order to provide an ‘attractive’/‘positive’ public environment. Finally, a spatial network of shared streets can extend accessibility in both a locality and a city (Ben-Joseph, 1995)
For example, as the image above shows, Blågårdsgade in Copenhagen is ‘completely’ shared between all transport means allowing ‘freedom’ of movement and public space use, mainly encouraged by the kiosks, bars, cafes and restaurants in the street.

Overall, shared streets are very useful when it comes to different human activities in the same space and at the same time, and these can provide both social inclusion and space appropriation in different international cases. I ask: in my study zone streets, would it be theoretically possible to incorporate ideas and basis from the concept of shared street, since its social praxis is related to a mix of several transport means, and inhabitants’ land use and appropriation? (see Finck Carrales, 2015).

**Complete street**

The understanding and analysis of the term ‘complete street’ provide the basis for
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fostering space distribution and balance between transport means within the possible future street design of my study zone. Currently, my study zone has ‘broken streets’, since these are unlivable and make pedestrians vulnerable and have ‘unfriendly’ sidewalks (see NYC Streets Renaissance, 2014). The term ‘complete street’ refers to the creation of streets which could favor a comprehensive and integral transportation network (minimizing their speed) but, also, with a variety of activities that can involve a vibrant community through social interactions (Mantho, 2015). A complete street considers all the users’ needs/desires reflected on previously planned public policies that encourage the connectivity and flexibility of streets (regarding balance of needs), and set up a vision of a transportation plan made by and for the local community. Urban designers should base a complete street on measuring quality of travels (comfort, sense of safety, and adjacent land use), the current laws and regulations which take that into account, and include pavement resurfacing projects (McCann and Rynne, 2010; Los Angeles County, 2011). However, it is important to take into account that urban transport design is a political issue. Therefore, during the design process, designers should consider the stakeholders of the public space that are ultimately going to benefit by its design (NYC Streets Renaissance, 2014). In the end, the results of a complete well-planned street will show an integrational network of shared mobile means and mix of land uses that foster sustainability by meeting social needs (Los Angeles County, 2011).

According to Los Angeles County (2011), the illustration above shows an example of the ‘proper’ distribution of the space in a complete street. The position and dimensions of the lanes can be different depending on the street size and space contextual human needs.
Figure 9. Frederiksbergade, Copenhagen. Example of a complete street. Photos taken by author in November 2016.

For example, Frederiksbergade in Copenhagen has bicycle lanes, bus stops, car lanes, and ‘friendly’ sidewalks full of all kinds of stores and restaurants. The street favors livability (people live there as it entails life quality) and ‘free’ physical mobility due to its design creates balance between the space dedicated to transport means and human scale needs.

Complete streets are usually difficult to design, since they require wide space for different lanes. Nevertheless, while designing, it is important to take into account the basis and elements of a complete street to foster equality between transport means in order to ultimately meet contextual social needs. I ask: in my study zone, would the basis of a complete street theoretically help understand and create a balance between public transport and pedestrians, since currently its streets do not allow ‘free’ fluidity of movement, which can directly affect the inhabitants’ livability and possible community formation? (Finck Carrales, 2015).

**Sidewalk design**

Urban designers use sidewalk design to improve the mobility and livability of neighborhoods. A ‘pedestrian-friendly’ street enables plain walking and sitting and allows for the performance of other activities related to people’s leisure (Mehta, 2013). Under that understanding, the majority of my study zone sidewalks would be
apparently ‘useless’ due to different physical obstacles placed on them, which makes people walk on the streets most of the time (see Finck Carrales, 2015).

![Figure 10. Sidewalk design. Source: AWPA Congress and Exposition, 2008.](image)

As the illustration above exemplifies, according to AWPA (2008), urban designers should consider sidewalks as zones of activity and ‘free’ human mobility through space section balance. The elements for achieving sidewalk balance are the following: there should be stationary activities and social interaction (sitting, drinking, eating, etc.) next to the roadway, there should be free circulation in the middle, and there should be available utilities to use (public phones, ATMs, etc.) immediately by buildings and houses. Those characteristics will give the street qualities, such as continuity (quality of permanence of a place), adaptability (changing with regard to human needs), and personalization of the space (depending on the contextual social habits) (Mantho, 2015).

As I explained with the general street design aspects, local economy is essential for achieving street livability. Therefore, to foster local economy, sidewalk design can help consider walkers as potential ‘shoppers’. In addition, the importance of fostering local
businesses means that business leaders should be involved in the street planning and design as well (NYC Streets Renaissance, 2014).

Overall, sidewalk design could have the same characteristic of visualizing ‘positive’ possible futures as the complete streets. However, the important features of properly developing a sidewalk are the ones that favor fluidity of movement, activities directed to people, and local business creation in order to ensure people’s use and local economic activities. In my study zone, in theory, proper sidewalk design could be necessary (see Finck Carrales, 2015). As I mentioned in the Case Study Chapter, the municipal local public budget of the zone is small, so its government cannot afford big design changes in its neighborhood streets. I ask: would the first step be to acknowledge that the sidewalks of the zone are possibly causing social problems? After completing that first step, would it be more likely to make a public call for a new street design planned by the local government together with inhabitants as a public agenda priority?

Pros and cons of the space (tracking narrative)

Urban design can also determine the ‘beneficial’ and ‘non-beneficial’ aspects of the public study zone. Urban designers can determine those aspects from what could be considered as (non-)functional elements in terms of mobile and economic activities and social praxis. My aim is to consider the public space and materialities of my study zone as features of social praxis. Within observational public space analysis, Whyte (1980) describes the ‘beneficial’ (pros) and ‘non-beneficial’ (cons) public space features. Those aspects can be conceived from a social development perspective, which at the same time, could be based on a sustainable focus (see AUSJAL, 2015; Cucca, 2012). The conceptions of ‘beneficial’ and ‘non-beneficial’ spaces are also based on different international urban design manuals (see NACTO, 2012B; Institute of Transportation Engineers, 2010; San Francisco Parklet, 2013; NYC Streets Renaissance, 2014; Los Angeles County, 2011). I consider that as a first approach to understanding contextual design from an urban general design. The main features of my study zone to possibly take into account are the following examples: ‘beneficial’ (pros) characteristics of the study zone, such as encounter zones, variety of uses and activities, versatility of the space, social groups’ diversity, etc. On the other hand, ‘non-beneficial’ (cons) characteristics of the study zone could be movement obstacles; dead, wrong-used and polluted spaces; decayed or closed local stores, etc. I ask: could taking into account ‘beneficial’ and ‘non-beneficial’ aspects of my study zone help me understand people’s praxes related to the MCS? Could these aspects also help me approach to the possible sustainability of the service?
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So far, I have presented the concepts I will use for the fieldwork analysis that aims to understand the importance of the MCS in the study zone. In the following section, I will outline the concepts that I will use for the participatory analysis. Thereby, I will address the conceptual relations between informality, governance and structural stories. This process focuses on the possibility that the MCS of my study zone reaches sustainability through a participatory planning process. The participatory analysis will be also guided by and related to the stakeholders’ ideas, aims and thought of the MCS that I obtained with my interviews.

3.3. Informality, governance and structural stories: three irreconcilable elements for favoring sustainability?

As I mentioned in the Case Study Chapter, the implementation of emerging transportation services in my case study has involved different effects, such as job offers, air pollution, users’ health risks, users’ mobility and connectivity satisfaction, etc. (see Finck Carrales, 2015). It is necessary to interpret the balance between those service ‘positive’ and ‘negative’ effects towards the neighborhood society in order to understand the consequences of the phenomenon. For that purpose, I make use of the concept of sustainability. **Sustainability** is defined as a series of processes that equitably satisfy economic, social, cultural and environmental needs among people without putting at risk the satisfaction of the same necessities for future generations (see AUSJAL, 2015; Cucca, 2012). The application of this concept depends on the study zone context under interdisciplinary, intersectional and multidimensional treatments. Furthermore, sustainable ‘development’ entails a process where politics, technology, investments, etc. are consistent with future and present needs, involving a new era of equal resources distribution between social groups (Brundtland and World Commission on Environment Development, 1987). Therefore, **sustainable transportation** somehow entails sustainability (Sheller, 2015). For treating that transport conception, it was necessary to incorporate into my analysis and understanding the concept of **sustainable mobility paradigm**. It aims to find quality on travels through policy interventions sustained on key stakeholders’ engagement. The process can entail that social groups support governmental efficient transport initiatives (Banister, 2008). Under that focus, sustainable transportation should cope with wide and efficient mobility systems related to environmental and sociocultural practices and participatory approaches. Those practices are directed to social development from travel praxis (analytical research) and developing implemented measures (practical research) (Urry and Grieco, 2011). I ask: how can informal emerging transportation services become sustainable with mobility systems? And how can I know whether the informality
characteristic is a barrier for making the service sustainable and to what extent? In order to answer those questions, I need to understand how it is possible to provide governance to my MCS. As the sustainable mobility paradigm states, people’s involvement in transportation planning is crucial for reaching the sustainability aim. Therefore, in the next sub-section, I explain how the concept of governance can be used within mobility, specifically in terms of transport planning. Governance involves the participation of key stakeholders of the MCS for its planning by taking into account their power relations.

3.3.1. Governance within mobility studies

_Governance_ is the performance of activities between different stakeholders based on common objectives and rules, but by using their different abilities to achieve these. Furthermore, governance provides the capacity of ruling based on society’s management (see Bruquetas and Moreno, 2005; Bayat, 2012; Valencia Escamilla ed., 2007). According to Aguilar Villanueva (2006), social groups can reach governance when the governmental institutions allow governing the society based on legality. That process is directed towards the ‘public interest’ previously defined and managed between the government and different social groups (the private, social and public ones: decentralized, de-hierarchized and flexible governmental framework). Basically, for Aguilar Villanueva, governance articulates and maintains the directive role of the political institutions to public policies within an open process of integration of different stakeholders. Additionally, it entails the resurgence, revaluation, and consolidation of independent social forms of self-regulation, co-/self-government, and social coordination. Societies can thereby use governance as a tool to transcend the contradictions between socio-political values and socio-cultural ones (Kaufmann, 2002) towards more sustainable conditions of specific zones and their populations. Following that participatory logic, it is possible to state that the main feature of governance is _citizens’ participation_. It is defined as the involvement and influence of people in public management, which is acknowledged as a mutual necessity by both government and citizens. Citizens’ participation can entail different aspects: people’s renunciation to their first aspirations for achieving collective agreements, people’s feeling of responsibility about a certain issue, and people’s feeling of belonging to its reparation (see Langton, 1978; Gilbreath and Zakharchenko, 2002; Bayat, 2012; Ziccardi, 2012; Merino, 2001; Auwerx, 2011; Valencia Escamilla ed., 2007). Therefore, governance involves all the stakeholders that contribute to the functioning of, for instance, an emerging transportation service. As I already mentioned, these stakeholders are mainly: organization leaders, renters, drivers, users, non-users, and local and central (the city) governmental authorities. In the case of my study zone, the
leaders of each MCSO are the coordinators of the service. Furthermore, the leaders have relations and constant communication with the local and city governments. However, as my master’s research showed, according to some leaders, the organizations feel oppressed and betrayed by the local government because the local government has asked them to organize public demonstrations in favor of certain political parties in exchange for allowing them to provide their services. That situation happens despite of the fact that, as I mentioned before, MCSs are currently illegal in Mexico City (see Finck Carrales, 2015). That issue demonstrates a clear social disengagement from political intentions and interests. In order to favor the governance of a MCS phenomenon, it was important to encourage its study zone users and non-users to participate in activities related to its future possible planning together with governmental authorities and service leaders. That aspect is an attempt of governance creation from citizens’ participation based on the sustainable mobility paradigm approach. In this sense, my further questions are: how can I understand the governance between stakeholders of the emerging transportation? And how can governance, through citizens’ participation, help achieve sustainability and formality in emerging transportation services? In this case, those questions are framed within a complex power paradigm between the stakeholders that I mentioned. Even though the governance concept is clear regarding its process, it involves stakeholders’ willingness to participate in the dialog regarding the phenomenon and, more importantly, willingness of power flexibility and sharing in order to let other stakeholders take part in the participatory process itself. This consideration opened the door to discussing the relations between mobility, transportation, and power within my informal transportation study on a theoretical level. In this section, I explain the focuses of macro- and micro-politics in social science. These involve structures of society that interrelate. Micro- and macro-politics differentiations help understand social phenomena based on the power relations of the different social groups. These concepts also relate to my research aim of knowing my stakeholders’ ideas, aims and thoughts about the MCS through completion of interviews. Moreover, micro- and macro-politics bring together the conceptions of mobilities, embodied performances (ethnographic work) and social capital that I started explaining earlier in this Chapter, as micro- and macro-politics help me frame those concepts together in a power relational way with regard to the key stakeholders of my study case. That process enables me to enrich the governance focus of my subsequent participatory analysis.

3.3.2. Macro- and micro-politics for social science research

The study of micro- and macro-politics helps me map the stakeholders’ positions and power relations relative to the MCS phenomenon. Some of the MCS stakeholders of my study case belong to its neighborhood and others to other areas. By understanding
micro- and macro-politics, I can also unveil the social relations in my study case. This will be my starting point towards the MCS planning process.

According to Foucault, the exercise of power (as actions) is everywhere as open arrangements of practices that produce knowledge, with which researchers can create differentiations and classifications for understanding the roots of societal practices (Alvesson and Sköldberg, 2000). That reflexive interpretation suggests that social science researchers can misunderstand and determine power relationships in vague conceptualizations and treatments. Usually, social events are described and analyzed from ‘macro’ approaches that at large scale tend to fix hierarchized social processes which, in turn, generalize social phenomena (Bissell, 2016). For example, there are studies that concentrate purely on social class, gender, ethnicity, geographical position, etc. with non-contextual and non-intersectional perspectives. My interpretation of macro-politics is based on Bourdieu’s (1966) terms, where it is acknowledged that ‘human beings’ are social agents related to a social space and who occupy a place, so that focusing on their situations means focusing on their taken space. As I mentioned before, when those agents ‘consume space’, they are holding power from their occupied place, involving ‘inherited’ social hierarchies and distances because their world positions depend on those of their ancestors passing from generation to generation (Larsen and Morrow, 2009). Thereby, social space is an invisible set of relationships that form definite distributional arrangement of agents and properties. The hierarchies and distances in the space make it symbolic, and its differences are visible in practices, possessed goods and expressed opinions among agents. Each agent is in and speaks for his/her particular ‘institution’ as a macro-political representation of their occupied social space. As I was presenting earlier in this Chapter, Bourdieu presents an idea of social capital involving ‘actual and potential resources that are linked to the possession of durable networks’ (ibidem: 17). Within this conception, agents accept and internalize an arbitrary culture/norm/value or practice that is bodily experienced (embodied) in their social spaces and positions as habitus and associated with other similar contexts that define their everyday lifestyles (ibidem). That embodied macro-political praxis embeds from people’s social positions as their individually situated time-space context.

On the other hand, micro-politics are ‘ongoing processes of transformation that take place through events and encounters’ (Bissell, 2016: 395) related to power as human body capacities and sensations. Those aspects are connected to embodied postures, attitudes, perceptions, and expectations. In relation to that, Crouch (2001) supports the idea of ‘contextual representations and embodied subjective practices’ (p. 61) in an interpretation of cultural everyday life. Thereby, the embodied perspective entails the involvement of bodies in their material surroundings transforming the spaces in practice simultaneously. In this understanding, the focus is based on individuals whose
embodied contexts could interweave and ‘make space’ for other individual contexts by recognizing them and possibly creating mutual empathy in the process. These aspects relate to sensorial-emotional spatial encounters for community shaping and, in turn, constant re-shaping of power ‘levels’. Bissell (2014) provides an example of micro-politics within train commuting reflected as ‘micro-cracks’. These are slow disruptions during the movement causing effects in the bodies and altering, consecutively, passengers’ perceptions and desires. In that example, the power relationships change, affect, and are affected during the event. Therefore, social science research (especially focusing on politics, policy and planning) needs to attend to micro-political transformations. That can be done by recognizing those transformations as results of events and encounters that change power relations from enablement and constraint and by interpreting the power of the ‘unique’ event as unpredictable (indeterminate) new potentials. In my research approach, ‘micro’ and ‘macro’ perspectives are not definitely separated, but rather both go together (Bissell, 2016) by articulating the gap between their forces (Stewart, 2014). Therefore, for example, mobilities and socio-technical systems go together infused with politics (Jensen et al., 2016). Following that example, the social-material environments can involve mobility or immobility combined with institutional decisions, such as ‘macro’ interventions. On the other hand, the situated embodied practices manifest as ‘micro’ interventions, which at the end define affordability, enable/disable aspects, and prevent travels, in which mobility potentials are negotiated (ibidem). ‘Macro’ and ‘micro’ perspectives relate to institutions, such as governments that rule citizens and civil organizations. The distinction between ‘macro’ and ‘micro’ levels helped me see linkages between discourses and social process as differences in power and responsibilities as well (Fosket, 2015). Finally, those ‘levels of power’ or power ‘in-action’ (in Foucault’s terms) potentials, in ‘macro’ and ‘micro’ perspectives, need to be defined regarding the contextual and temporal situations of the stakeholders involved in an event or a series of events (in history).

Overall, micro- and macro-politics perspectives are important for my research as these can provide me with analyses that relate field and participatory data. Both perspectives allow me to interrelate the micro- with the macro-levels of my phenomenon in an interpretative and contextual way within mobilities, embodied performances and social positions conceptions. Under that understanding, in the next sub-section, I explain the power differentiation between stakeholders for understanding the micro- and macro-scales of my case study of an MCS. It includes relations between mobility, power and politics.
3.3.3. Power within mobility

As I mentioned before, explaining people’s achievements of mobile needs and desires includes understanding mobility in a power-relational way because these have been fixed historically by economic and political systems (Adéy, 2010). According to Sodero and Stoddart (2015), historically, the actions of those systems have been based on the interests of complex (mostly private) social groups guided by, what they call, ‘divergent policies’ and ‘diverting attention’ within public policies design and implementation. Those terms refer to when governments carry out contradictory actions, making use of ‘rhetorical techniques’ for communicating these to the public with the aim of maintaining legitimacy. However, these actions sustain policy tensions and delay substantive political decisions, leading to generalized social rationalization of the ‘status quo’. The authors’ research concludes that in a ‘concomitant lack of discussion […] about macro social issues […] the result is a naturalization of the status quo’ (p. 66). In other words, overplaying ‘micro scales’ within public policies involves dismissing ‘macro-social’ scales. With regard to mobilities studies, by referring to Massey, Adéy (2010) calls similar governmental aspects ‘power geometry’, where the relation between mobility, power and politics frames mobility in political terms. Mobility thereby involves power and domination through immobilities (ibidem) and it is socially distributed (Jensen and Lønn, 2016) from ‘macro’ systems but through ‘micro scales’. For example, as I mentioned before, in Mexico City, central municipalities concentrate the majority of bike lines, whereas Southeastern municipalities lack that kind of infrastructure. The government of the city has made those decisions related to public investment. Hence, analyzing power differentiation between social actors (Kuijer and Spurling, 2017) could help me understand those ‘macro’ and ‘micro’ scales within power-related mobility praxes, needs, desires, etc.

Adéy (2010) states that people’s mobility can involve resisting authoritarian establishments. Mobility, therefore, can mean and entail private or collective power attributions in different perspectives and contexts. For instance, according to Freudendal-Pedersen (2009), sub-politics come from individuals that make choices based on responsibility and consensus. These choices are open to actions, defining what is ‘right’ and what is ‘wrong’ towards practical interdependence. Thereby, social praxis is mediated between action and structure of individuals and the society. The author states that under capitalist modernity, external structures (macro) tend to internalize people’s praxis via institutionalization. People therefore tend to take for granted reality/truth without considering their previous experience, which also create contradictions between people’s attitudes and actions. That is how mobility choices are influenced and affected by media and politics in a conscious and unconscious ways. Furthermore, Sheller’s (2014) perspective on the relation between power and mobility is presented in her analysis of what she calls critical mobilities research. According to her,
that relation appears when ‘textured rhythms are co-produced, practiced, and represented in relation to the gendered, raced, classed mobilities and forms of dwelling and “grounding” of particular others’ (p. 795). Those people’s particular characteristics are embedded within power dynamics reproduced in the process. Freudendal-Pedersen’s (2018) analysis of city planning through storytelling within a reflexive methodology states that ‘preconceptions about gender, place of living and education, blur the ability to hear the other stories that might be common despite different types and living conditions’ (p. 247). For example, in relation to social class differentiations, in Mexico City, governments tend to belong to privileged social groups that keep a distance from excluded social groups. As a result, the government does not take proper care of issues related to underserved zones of the city. Thus, socially constructed characteristics of people (macro-politics) can define the course of their ability to practice and conceive different levels and types of power related to their mobile activities.

Van Eijk (2010) exemplifies the idea of ‘micro-politics’ power by developing the term of ‘brokers’, which is applied to people with a certain power display within a social network. ‘Brokers’ themselves have a particularly advantageous position as they control the flow of information. They learn about information first and can act on it before other people can, so that they can decide whether or not to disseminate the information to other people as a source of power. I can use that term for interpreting the power of information within mobility and, for example, specifically emerging transportation by describing the inequalities of power between the members of an MCSO. Usually, the organization leaders have and monopolize the linkage between the governments and the MC renters and drivers, which entails an unbalanced hierarchy of benefits (mostly economic) between them (see Ogunrinola, 2011; Diaz et al., 2016; Menzel, 2011; Kumarage et al., 2010; Rizzo, 2011; Blimpo, 2015; Menzel, 2011; Finck Carrales, 2015).

The (mobile) power relations regarding transport planning between different social groups can be taken into account in the analysis of participatory methods. As I mentioned before, I aim to implement stakeholder workshops on the MCS. The process of those workshops includes the possibilities of creating possible futures about the service planning when stakeholders share their experience through personal and/or common stories. Those futures are conceptualized as utopias. In other words, the stakeholders’ stories that I gather with my methods will guide and shape my governance stakeholder analysis, and I will consider a utopian dimension of these for planning the MCS. Those utopian possible futures, however, will be analytical elements in my research rather than a method in themselves. In other words, utopia as a conceptual element is an inspiration for my analysis rather than a method. Therefore, in the next sub-section, I explain how possible futures can be used in
analysis of planning processes. For example, these can be directed to the eradication of social inequalities through acknowledgement of stakeholders’ common benefits. Participatory methods involve opening stakeholders’ imaginaries, allowing stakeholders to share stories related to the MCS, thus unveiling their mobile needs and habits. The outcomes obtained from those methods can influence policy making processes.

3.3.4. Utopian mobilities through structural stories

For Levitas (2013) ‘story-telling is itself a utopian practice, narrative itself an intrinsically utopian expression’ (p. xiv). Under that understanding, people’s stories can be interpreted as possible futures for planning. Freudendal-Pedersen (2009) defines *structural stories* as expressions of common stories within everyday life conversations. These can become ‘common truths’ for all members of a society presented as the substance of rationales that produce and reproduce actions, namely, going from symbol production to meaning production. Society reproduces structural stories systematically. The way in which researchers can provide meaning to structural stories is by analyzing their multiscale characteristics related to social praxis, identity formation and social practices. For that propose, for example, Freudendal-Pedersen uses the concept of *everyday life*, which is related to freedom, time, space, and structural stories. The concept is in a constant recreation and transformation. Additionally, in her analysis, *life politic* takes into account the connections between earlier experience (moral questions) and future actions influenced by global strategies. Under that prism, there are three types of *structural stories*: possible-creative (constructing a defined lifestyle), practical (justify one way of action), and impotent (freeing the individual from responsibility). Structural stories influence communities, *lifestyles*, and *life politics*. People make choices by rationalizing with structural stories for achieving lifestyles and for constructing identity towards the ‘good life’. Thereby, from a perspective of sociology of mobility (questioning), ‘good life’ (utopias of freedom) relates to needs and habits embedded in psychological and social dynamics. Furthermore, by explaining the engagement between city planning, mobility systems and sustainable mobilities, Freudendal-Pedersen (2018) addresses how common and democratic communicative planning can form alternative futures as utopias. In her analysis, she explains that based on people’s feelings (in this case of freedom associated with cycling in Western Europe), it is possible to create sustainable mobilities through planning guided by people’s storytelling, which responds to their needs and aspirations. The author calls that process emotional and embodied praxis, which can initiate an understanding towards changing ‘path-dependent’ power relations in city mobilities from car use to bicycle use. In order to reach this angle within mobilities research, it
is necessary to make use of reflexive research that encompasses cycling, depicting a possible future towards livable and green cities. Therefore, people’s cultural symbols from, for instance, childhood memories, build practices and networks assembled in the space of the city. This idea dismisses ‘unique’ and universal technical matters of cycling. Consequently, it is possible to interpret how cyclists see themselves as part of the city organism after their storytelling exposes their everyday praxis in a communicative process. It re-conceptualizes ‘normality’ and ‘taken for granted’ praxes within city planning. Thereby, ‘Utopian reflection carries a critical potential to break through the barriers of convention and create common stories’ (p. 245). The sharing and acknowledgement of those common stories between stakeholders can transform their visions, and consequently, they can plan together better futures for themselves. In theory, transport planners can therefore use story sharing events for communicative planning in emerging and informal transportation for favoring governance (as a utopian analysis).

According to Levitas (2013), ‘utopia is the expression of the desire for a better way of being or of living, and as such is braided through human culture’ (p. xii). The author states that utopia is not an irrelevant fantasy or a malevolent nightmare for totalitarianism as anti-utopian thinking assures (a political answer when there is not alternative to the present status-quo). On the contrary, utopias are the desires of our hearts and minds that can reflect forms of knowledge and truths. People thereby produce actions that started in the ‘imagined future’. For Urry (2016), people can use the future to question, unpack, and invent in the present. There are no linear changes. However, the author stresses that the future is usually ‘corporatized’, meaning that economic systems have monetized it as a commodity. Therefore, ‘planning’ has become a term contaminated by capitalism as it is commonly privatized through public-private investments and management of urban projects. Urry suggests that societies should think and democratize futures by imagining various kinds of social futures. That approach focuses on what is probable, possible and preferable through an analysis of multiple social institutions, practices and movements. Futures are the opposite of what is already planned by governments, but it is possible that societies anticipate these by using public institutions and by basing their decisions on social science studies. The outcomes of those processes could relate to mainstreaming and democratizing the future.

As López Galviz (2016) states, people could articulate imaginary possible futures through representations and symbolisms. The interpretation I give to that statement is that utopian thinking is significantly contextual, and it should be conceived under different disciplinary approaches. In this sense, researchers could analyze and interpret utopia from mobilities lenses, such as Büsch, Sheller and Tyfield (2016) suggest by affirming that emergent social processes regarding mobilities should be studied with
an interdisciplinary focus. That idea follows the purpose of shaping better futures with regard to epistemology and methodology. In my research, the utopian analytical interpretation happens after the stakeholders have shared their experience about the MCS in workshops. Therefore, through my analysis, the possible planning of the service becomes a utopia based on stakeholders’ ideas, aims and thoughts. For Nixon (2012), ‘culture may circumscribe the mobility imagination within an evolinear framework’ (p. 1673). Researchers could set up together context and future as the initial and elemental frame for studying utopias, including particularly mobilities focuses with an interdisciplinary approach. For example, within her analysis of the new mobilities paradigm, Sheller (2014) sees utopia as ‘hope for spatial justice and the extension of basic human mobility rights and capabilities, including the potentials both to be mobile and to reside in a place’ (p. 798). Here, the utopian mobilities approach reflects and directs towards futures with possible eradication of social inequalities. For that purpose, researchers’ definitions of terms related to future ‘better’ realities are necessary in order to develop the utopian thinking. For my case study, social inequalities are the background that explains the current stage of the MCS. This way the analysis of the possible futures can help provide an understanding of what is needed for canceling those social exclusions related to the service, especially regarding its planning. In this sense, Freudendal-Pedersen (2015) explains that in order to understand people’s ‘common good’, studies should focus on issues of freedom, ethics and responsibilities. She develops this analysis with the example of cycling in Copenhagen. She concludes that mobility does not contribute to the erosion of community as Bauman assured because ‘there are groups and practices highly structured through moral and ethical arguments’ (p. 604). Thereby, ‘common good’ ‘is a compromise that to some extent can benefit most people’ (p. 614) and can cope with discourses of individualized competition as long as individuals work and acknowledge a common benefit. In that study case example, aggressions between means of mobility in the public space can change into common arrangements. That process involves the possibility of going from a ‘resistance identity’ to a ‘project identity’ by building new institutions of praxis based on feelings and mirrored as ‘self-organized harmonization’. Therefore, that process goes from people’s individualization to communities towards achieving their ‘common good’ within a planned system open to the public. Under that prism, ‘the agents of government policy are aware that they cannot manage with their own instruments […] and thus depend on the norms and disciplinary effects of the citizens’ public spirit’ (Offe, 2012: 669, as quoted in p. 614). That process should be open to different social groups. I thereby ask: what could be the ‘common good’ of the MCS for its stakeholders that can be used for its planning? In their study of mobile utopias, Jensen and Freudendal-Pedersen (2014) state that researchers need to provide a social theorizing within utopian thoughts (imaginations of the future) regarding cities and systems of mobility. What the authors call contemporary critical scenario thinking is based on going from issues of social justice and power to questions
of sustainable mobility. The authors consider that a ‘good society’ is based on social stimulus for imagining change as the form and function, where ‘barriers of convention’ must be broken to provide questions and potentials as constructive visions. In order to achieve that perspective, researchers should incorporate ‘wild’ and ‘non-dogmatic’ frames of imaginaries to their studies. The result could be what the authors call pragmatic utopianism, where through redesigning, renewing and replacing, the creation of perfect sustainable places could be possible. I will not do that in my research; however, I will use the understanding of a ‘good society’ as part of the possible futures that my stakeholders could share through stories in the workshops towards reaching sustainability in the MCS. In connection to that analysis, Jensen and Lanng (2017) use mobilities design as a theoretical and methodical tool and as a driver for the imagination within a research practice by anticipating well-functioning environments, evoking potentials and creating innovation. Research perspectives could thereby focus on problems and potentials through the ‘refinement of arguments, the tuning of methods, and the experiences of ameliorated experiments’ (p. 168). Therefore, method designs and implementations are an elementary tool in the processes of going from the desired future to the possible utopia achievement. Again, I do not aim to ‘design a future’ of the MCS, but rather I will continuously fine-tune the procedures of the workshops for obtaining stakeholders’ structural stories that I will later interpret as possible futures.

As I have mentioned, utopias could come from participatory processes. One important concept that involves participatory methods which could be used as emergent implementation within mobile utopias is action research. ‘Action research produces new knowledge based on direct social engagement and action […] it accepts and legitimates the subjectivity of all experience […] learning, knowing and doing’ (Lewin, 1946, as paraphrased in Swaffield and Deming, 2011). It is a concept whose methods come from and relate to the idea and focus of the concept of citizens’ participation. Action research thereby enables work with the main characteristic of utopian methods, such as reflexivity and contextuality through social involvement and participation. I will base my workshops on the action research concept because it involves communicative participatory elements for planning. Freudendal-Pedersen and Kesselring (2016) state that action research was introduced in the 1940s by Kurt Lewin who used it in order ‘to interrelate democracy and research’ (p. 581). In that way, action research ‘needs to be methodologically controlled and structured with clear rules of conduct’ (p. 582). The way to that is by trying to gather people, as stakeholders of a certain issue, who coexist and discuss together through the creation of platforms directed to communicative processes. In my research, as I will explain in the next Chapter, the workshops that I implement have a participatory focus based on a communicative process between stakeholders who share their experience. Hence, that process involves utopias about the MCS that could spring from workshops. In my
workshops, in relation to action research, the roles of my participants are mainly as storytellers and my role is as organizer and facilitator. However, in theory, the stakeholders co-learn from one another and I learn from them. The methodology of the workshops adjusts according to my research aims towards favoring an impact on the policy agenda (MCs becoming formal and sustainable), by having a transformative participatory approach based on my stakeholders’ knowledge and problem-solving orientation (see Andersen et al., 2018). Freudendal-Pedersen and Kesselring state that communicative planning theory explains potentials of actors’ actions that share a specific understanding or a problem definition through generation of stories. Therefore, researchers use storytelling for finding ‘the problem’ where ‘theories, abstract ideas, visions and concepts can be transported into stories’ (p. 577). In that tone, communicative action is seen as an activity for social change and structure, which involves moral and philosophical aspects (feelings and values) that affect individual rationalities in order to gradually influence public policies. Furthermore, Freudendal-Pedersen et al. (2016) explain that in order to create interactive planning, researchers should take into account methods to facilitate relationships and dialogs between many actors. Critical action research involves the ‘active use of utopias and creation of learning space’ (p. 2) by favoring co-dependent initiatives from stakeholders with a holistic and interdisciplinary focus that provides certain praxis and approaches in planning. With regard to mobility studies, the authors address this approach with what they call ‘mobility management tools’ that researchers use to avoid, improve and replace factors for ‘identifying potential gaps in modern transport planning’ (p. 3). It may be possible to implement mobilities from an action research approach. Critical utopian action research seeks to entail non-elitist planning for societal change through open workshops for creating common utopias and community between stakeholders by sharing stories and learning. It might be possible to create ‘strange/new’ visions and aspirations by ‘collaborative story telling’. In this case, researchers use stories to guide the utopias towards the development of a project through a stakeholders’ common point of reference. Furthermore, it is possible to evaluate social groups through their stories, since the process pins down what stakeholders want and need in relation to a phenomenon. Those approaches of action research can be used for planning possible futures, making use of a participatory process. Thereby, I will make use of the understandings of the communicative planning theory and the critical utopian action research for analyzing my workshops with the aim of transforming the public agenda that relates to the MCS.

Chapter conclusion

In this Chapter, I defined the main concepts of my research: motility, governance, and
Chapter 3: Theoretical framework

*structural stories* together with other concepts that stemmed from them. These were related to micro- and macro-politics of my case study for mapping the social structures of the phenomenon. I will use the concepts as analytical tools for understanding my case study. My concepts are based on reflexive and contextual approaches with the intention of enriching them within the social science realm. The theoretical discussions addressed social and mobile inequalities between different social groups as my case study relates to that phenomenon.

I discussed elements of mobility, differentiating it from transportation concept and explaining the importance and role of motility concept in my research. The latter will help me explain the importance of the MCS in my study zone. Furthermore, I gathered conceptual elements that address transport and public space materialities for understanding the mobile praxes in my study zone in a wider perspective. This involves considering the importance of doing ethnographic work in the field for explaining the human-material relations, including the space design, in the light of the use of the MCS and its community potentials. Finally, I related the governance and structural stories concepts concerning the possible sustainable planning of the MCS. That relation includes stakeholders’ participation in planning within a communicative process of sharing stories. That process involves understanding the relations between the stakeholders’ mobility, power and social positions in micro- and macro-political perspectives. Planning also includes a utopian dimension that I interpret through stakeholders’ structural stories for transforming the MCS by influencing the public agenda.

Overall, it is theoretically possible to interpret people’s mobile praxes through observation, which favors a contextual understanding of the phenomenon. Providing the MCS with sustainability is theoretically possible through participatory methods that involve a communicative process between stakeholders. Ethnographic and participatory methods can contribute to the MCS planning.

In the next Chapter, I will discuss my field and participatory methods selection. Under my interpretative approach, that selection involves a reflexive methodology, which I will explain as well.
Chapter 4. Methods implementation under a reflexive methodology

The aim of this Chapter is to explain the implementation processes and justify the selection of this research methods. I implemented these in order to obtain data. I divide them into field methods (observation: pictures and videos) and participatory methods (interviews and workshops). My methods connect to my interpretative approach, which involves reflexivity and contextuality.

I start the Chapter by explaining the delimitations of my research as a diachronic case study, which I carried out under an abductive process. Moreover, I frame the Chapter in the following points. 1) I explain the contextual and reflexive approaches of my research. On the one hand, reflexivity entails taking into account the worldviews of my method participants, relating these to differentiation and classification of the social aspects of the phenomenon. On the other hand, the context of my study zone affects social interactions that I can take into consideration through empirical analysis of everyday life events, praxes, etc. as an open and indeterminate reality. This includes the relations between bodies and materialities. 2) I explain how I selected my methods in relation to the main concepts and my research sub-questions. At the end, the whole process aims to create a reflexive interpretation through empirical work. 3) I explain the aims of my field methods. These are based on observational analysis, from which I obtain experience that I translate into knowledge. I describe the processes of each field method implementation. 4) I create, describe and explain the ‘political arena’ of the phenomenon in order to select key stakeholders to participate in the interviews and workshops. I explain the implementation processes of those participatory methods. 5) I mention the research ethics I took into consideration. That relate to the sustainability-related main aim of this research and to my role as facilitator and coordinator within my participatory methods. 6) I explain the strategy of analysis of this research. This consists in relating the concepts, the methods and the research sub-questions to one another towards an interpretative analysis. Additionally, it opens the door to the following analytical chapters of this research.
Research delimitations

This research is a diachronic case study from September 2016 to April 2017. The latter was the time when I finished the implementation of my empirical methods. Afterwards, I carried out the process of data analysis from April 2017 to August 2019. Therefore, the study zone stage that I took into account in this research was before April 2017, meaning that events and changes on it and the ones related to it after that point are not considered and, therefore, not analyzed in this research. However, that delimitation does not apply to the possible effects or impacts that my research process could have on the phenomenon after the implementation of the method. In case my research methods or conclusions had effects or impacts on the study zone phenomenon, that was taken into account for this research analysis even though these could have occurred between April 2017 and August 2019.

Furthermore, I am studying an informal transportation process undertaken in a specific context whilst enriching theory and for understanding and interpreting my study phenomenon (see Giere et al., 2006; Creswell, 2009). My conclusions therefore were not ‘absolute’, since rather than doing experiments, I reached for new knowledge through interactions between methods and theory within an iterative process based on abductive analysis (Hofmann et al., 2007). Abduction involves ‘the ability to see patterns, to reveal deep structures’ (Hanson, 1958, as quoted in Alvesson and Sköldberg, 2000: 75). It is the process of generating an initial hypothesis; namely, the creation of new ideas from observation inferring based on previous ‘rules’ that we already know (‘backward-looking’) (Tschaepe, 2014). Within that process, the consequent result is the initial observation, the ‘rule’ is the knowledge and understanding, and the antecedent case was the guess or inference to explain the observation (Plowright, 2016). Moreover, this approach required considering the social groups of my research as stakeholders whose reality was built through an empirical process. I did not interpret that process in an ‘objective’ way. Furthermore, my participatory approach involved interpreting the phenomenon by intertwining the political arenas, needs/desires and ‘worldviews’ of the stakeholders (see Cresswell, 2009; Hofmann et al., 2007; Bryman, 2008; Grimen and Ingstad, 2007; Gliner and Morgan, 2000; Kumar, 2005; Alvesson and Sköldberg, 2000).

40 Contrary, induction is ‘the process whereby a general principle or law is discovered, or produced, from a particular instance or observation.’ (Plowright, 2016: 31). It is used to predict events based on previous ones (‘rules’). The antecedent case is the event or occurrence, the consequent result is the observation, and the ‘rule’ is the inference or conclusion about a general rule (ibidem).
4.1. Contextual hermeneutics from a reflexive methodology

In this section, I explain the reflexive methodology of my research, which includes the implementation of ethnographic and participatory work. That methodology stresses its characteristics of understanding reality as open and indeterminate for creating social differentiations and classifications of my case study context.

My research starts from my personal experience, the experience of participants from whom I obtained information, the empirical material outcomes, and the interpretations I made from all that. That research approach is called reflexivity. Alvesson and Sköldberg (2000) worked on reflexive methodology, which involves doing research based on outcomes to be understood together with participants as ‘alternative voices’ of research perspectives, whilst knowing their social conditions of possibility as effects and limits as well (Bourdieu, 2003). Different understandings open the door to a wider vision towards a contextual analysis. Being reflective involves making an interpretation of our interpretations by clarifying the previous ‘primary interpretation’, using techniques in research procedures, and being aware of our political-ideological characteristics. This way, I first assume that scientific facts (at least in social science) do not exist as results of interpretations. Then, by being reflective, I am aware of how contexts affect interactions with a phenomenon, namely, being aware of my perspective to be constructed during my research process. Reflexive interpretation takes into account that interpreting is not simple and evident, rather it is ambiguous (no element is totalized). Understanding then involves interpretation and reflection of data in a contextual way, where language is presented as an interactive cultural phenomenon through abductive approaches. In addition to the contextual understanding, seeing things not as natural or rational provides an understanding of the context through empirical analysis from a triple hermeneutical focus: individuals (cultural reality), researcher interpretation of social events, and unconscious/not visible processes (ideologies, power, etc.). Moreover, that involves reflexivity when researcher and object affect each other by contemplating that words, praxis, and happening have more than one sense whilst being expressed in several ways and being context-dependent as a micro-process. This process, however, might mean that I am open to finding as much data as possible during the research, which can persuade a ‘trivialization’ of its outcomes from a data-oriented process. For that reason, it is important to take into account awareness regarding the creation and relation between my theory and my empirical material. The process of selecting the methods is crucial under a reflexive approach. Moreover, in order to understand the relation human-materiality of my phenomenon, it is important to implement methods that take into account the materialities in the field that affect and are in constant contact with people.
in there. That approach is the no-representational for ethnographic fieldwork.

4.1.1. Non-representational ethnography

Postmodernism in social science involves an on-going and self-reflective research that is skeptical of universal bases for science by applying social constructions, temporality, and contextuality. Those scientific visions are also presented as multiple interpretations by texts that depict an external reality and content. Additionally, those visions involve re-thinking methodologies and methods, and re-problematizing the world from experience and contexts in order to understand events (experiential more than rational) (Alvesson and Sköldberg, 2000). This way of thinking generates affinity for the analysis of the everyday life events, practices, structures of feelings, etc. (Vannini, 2015). That vision is a supplement to the ordinary to encourage diverse ways of thinking, and is more skeptical. Thereby, in order to do research with those characteristics, it is necessary to use ethnography involved in qualitative methods. This can provide a description with a contextual interpretation that has non-discursive and non-cognitive perspectives as main characteristics (Vannini, 2015; Jensen and Vannini, 2016). The approach of this research is not postmodern. However, I will make use of the non-representational focus in my fieldwork implementation for taking into account human-materialities relations in the public space of my study zone as an interpretative element. That focus can thereby help me understand in a wider way the importance of the MCs. Non-representational research concentrates on events (focus on ‘doings’) within their possibilities of alternative futures, failures of representations, contingencies of interventions, and effervescence of things. This approach enables the study of relations, affective resonances (capacity to affect and be affected), and examination of backgrounds (outcomes of habitation practices). Therefore, a non-representational approach focuses on what is happening and what might happen next in an uncertain way beyond rational-choice perspective. In the same way, non-representational methodologies are concerned with practice, action, performance, relational materialism, non-separation between corporeality-materiality-sociality, experimental theory, importance of bodies, and ethics of novelty (Vannini ed., 2015). Relations between bodies and materials bring out acknowledgment of capacities to affect and being affected by one another, which is the basis of affect theories (Stewart, 2014). Non-representational understanding thereby takes into account body transformations that happen while moving into certain specific environments (relational bodies). Hence, it entails studying the nature and distribution of outcomes (Bissell, 2014). In a deeper

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41 Vannini (2015) separates the non-representation ethnography characteristics of the everyday life into: vitality (relations among objects and people), performativity (ritualized performances and identity), corporeality (moods and feelings affected by bodies), sensuality (perceptual dimensions of everyday life), and mobility (kinetic dimensions of fieldwork as concrete time-space).
In perspective, this approach stresses human body and materiality as entities inscribed on ‘equal terms’, where the first engraves the physical features of the materialities (motion, movement, and autos) and the second the experience of humans (emotions, feelings and motives). Those elements together form embodiment and sensorial processes as a result of social interactions within a material environment (Jensen and Vannini, 2016). That ‘worldview’ of reality is what Jensen and Vannini (2016) call flat ontology, in which human and non-human entities are perceived to be ‘the same’, which also entails an ‘alien phenomenology’ that transcends human consciousness. Materialities therefore play an important role within research design as concrete conceptions by creating and using sensitive and ‘fine-grained’ vocabulary that entails understanding, which makes things move from a ‘body-world’ perspective (Jensen, 2016). In this sense, I made use of non-representational analysis from a reflexivity methodology, rather than the non-representational style of writing in itself. A non-representational style evokes a more artistic-poetic writing, as Stewart (2014) and Vannini ed. (2015) refer. I did not use it as I did not want to analyze the phenomenon in a ‘romantic’ and/or ‘aesthetic’ way. Hence, I avoided interpreting the phenomenon as an ongoing quotidian (banal or uncommon) process because that could possibly mean dismissing the consequences of the phenomenon and its treatable issues. I tried to maintain my writing open towards new and reflexive vocabulary for a better interpretation of my phenomenon.

Furthermore, non-representational research acknowledges that there are human forces that separate situations from people’s power and skills. Those forces move people’s decisions that additionally interact under non-human forces, forming at the end concrete experience and practices (Jensen and Vannini, 2016; Jensen et al., 2016). In this sense, I mainly performed mobile ethnographies based on public space observations, which enable the researcher to observe and be part of the study zone activities with regard to micro-bodily movements and mobile role practices as events. Bodies and materialities moving in the place therefore become an intermediate between ‘subject’ and the ‘world’ (as non-representational mobility). This kind of ethnography entails maintaining the idea that it is not possible to predict social praxis, but it is possible to interpret it and infer its consequent meanings (Ady, 2010). Additionally, the reflection in action directed to strategies, theories, frames, etc. denies the problems ‘as given’. Reflective researchers therefore become aware of their implicit knowledge based on and learnt from their experience (Schön, 2013). In reflection-in-action, ‘doing and thinking are complementary. Doing extends thinking in the tests, moves, and probes of experimental action, and reflection feeds on doing and its results. Each feeds the other, and each sets boundaries for the other’ (ibidem: 325). In the same way, my conclusions were only classifications and differentiations of the social practices observed, supported and related to my own obtained experience in-action (Alvesson and Sköldberg, 2000). For that reason, such ethnographical experience could be understood as ‘in bodily memories’ (Stewart, 2014) that could be interpreted in a
Chapter 4: Methods, research design and strategy of analysis

‘macro’ and ‘micro’ perspective.

4.1.2. Research design from a reflexive methodology

Using a reflexive methodology in my PhD research enabled me to re-problematize its informal transportation phenomenon and issues from an open and reflexive multi-interpretative perspective. Re-thinking the problem to attend in my research entailed leaving the door open to different focuses and elements that could shape its form. However, stating that purpose does not mean that my research did not have any direction or a point to achieve by its ending. On the contrary, reflexivity made me understand, in the process and at the end, in a deeper way my research phenomenon. For example, important aspects, such as the material-human relations and the stories behind people’s choices of transport means. For that reason, the theory that I chose to work with provided me with the direction and justification of the research design and its consequent empirical material. In this sense, reflexive interpretation enabled me to focus on a contextual way of re-problematizing my phenomenon by combining different contextual and temporal interpretations as ‘worldviews’ and using a wider vocabulary and narrative for it at a theoretical level. Non-representational ethnography made me focus on actions and relations as interactions that happened in my study zone. Those processes occurred by taking into account that persons and their bodies, immersed in certain environments and materialities, could be affected and affect their sensations and emotions. Finally, micro-political analysis and focus allowed me to understand and study the ‘in-power’ relations of my research stakeholders by opening the possible interactions they could have in order to (ex)change their potentials of power. At the same time, that aspect made them able to communicate one to another in an event or a series of events related to my research phenomenon towards possible futures of social engagement and public policies design. Those events were led by the stakeholders’ common aspects related to my study case sustainability achievement. Additionally, macro-political analysis let me acknowledge and understand my phenomenon key stakeholders’ institutional power that defined their position in their ‘inherited’ social spaces. In general, those three concepts provided me with reasons for defining the methods to be used in my research as empirical material. Those concepts could help me open a wider understanding and define the methods.
The figure above depicts a research design based on a non-reflexive and representational research process, which I avoided in my research. In this case, the context of the study phenomenon is defined through empirical material data related to the study case. In a second step, the data forms the theory outside the contextual approach by pushing it into a verification process adjusted to the previous theoretical propositions that were taken into account. Furthermore, here, macro-politics cover the whole process, which involves generalizing the theory and data by providing a vast grounded theory and predictable totalized data (from a data-oriented process) faraway from human-materials (embodied) interpretation at the end of the research.
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The figure above is the depiction of the research design that I carried out in my research. Contrary to the non-reflexive and representational figure, this one indicates that the empirical material and the theory are directed towards each other under a contextual hermeneutical focus. It means that the empirical material would help to enrich the theory in an open reflexive and non-representational multi-interpretation of the contextual time and space. At the same time, that process is immersed in micro-political and macro-political perspectives, which are not separated. Micro- and macro-political analysis could be part of the contextual hermeneutics in order to define the human-material affectations from experience of certain events. The process is guided by the empirical material towards theory enrichment. Towards the end of my research, I created differentiations and classifications of the research phenomenon as an open and indeterminate ‘reality’.

4.2. Methods selection in relation to the main concepts

This section aims to justify and explain the methods selection processes of this
research. That involves acknowledging my sub-research questions as aims and my main concepts as analytical tools.

My first research sub-question (1) *What are the stakeholders’ ideas, experiences and opinions that relate to the motorcycle cab service of the study zone?* involves obtaining key stakeholders’ *structural stories* that relate to the MCS of the study zone by carrying out interviews with them. Structural stories are a main concept in my research as these are people’s ‘common truths’ that produced and reproduced social praxis. These stories will guide and frame the subsequent field and participatory methods.

My second research sub-question (2) *What is the importance of the use of the motorcycle cab service in the study zone?* relates to the mobile praxis aspect of my stakeholders. Therefore, *motility* as potential mobility was the main concept of this sub-question as a general approach to that. Those mobility potentials could show the relevance of the MCS in the study zone based on the stakeholders’ praxes. However, it was necessary to take into account that that analysis was situated in a specific time-space where relations between people and materialities shaped those mobile processes (the MCs are materialities in itself). Therefore, the contextual analysis stresses the people’s embodied performances characteristics. These reflect people’s mobility potentials in the field that relate to mobile or stationary materialities (specific and singular micro-events as *micro-politics*). The *micro-politics* reflected in those events are sensorial-emotional effects on power relationships between individuals. They experience, in an embodied way, their contexts while reshaping their communities’ interrelations (Crouch, 2001; Bissell, 2016). Embodied performances included taking into account the study zone materialities, social interaction and, from a reflexive approach, my sensations and feelings entailed by doing the empirical fieldwork. These helped me understand the study zone, as a first approach, from my embodied experience in it. The field methods that I chose to implement in order to capture the micro-events and my feelings and sensations had to be related to literally ‘capture’ those embodied praxes. Pictures taken while walking and stationary videos were selected in order to achieve that purpose. Within those methods, there were quantitative and qualitative approaches: the videos let me count the means of transport used in the study zone, so that I could verify that the volume of MCs was bigger than other transport means and trace people’s movements in the study zone related to their connectivity and accessibility. That data could support the relevance of the MCS for the stakeholders. At the same time, the videos and pictures helped me capture social interactions and embodied performances of specific micro-events. Both approaches (quantitative and qualitative) complemented each other.

My third research sub-question (3) *How can a participatory method enable governance between motorcycle cab service stakeholders?* relates to the general aim of my research about how...
the MCS could achieve sustainability. At the same time, that point of view opens the door to possible participation and involvement of key stakeholders in informal transportation planning through pre-planned micro-events. The macro-politics reflected in people’s needs and desires are the representations of their occupied social space in a particular social ‘institution’ while internalizing embodied experience of that context expressed in their everyday life actions (Larsen and Morrow, 2009). Acknowledging the key stakeholders’ aims, interests, experience, etc. with regard to the MCS is important for mapping the possibilities of turning it into a sustainable means of transport. However, that information could be separated and analyzed from a macro-political and a micro-political perspective, where the positions and powers of each key stakeholder varied depending on those focuses. The macro-political perspective relates to the institutions to which each key stakeholder belonged and in which each key stakeholder acted in an isolated way affecting directly or indirectly the MCS. On the other hand, the micro-political perspective is related to the interactions of those key stakeholders, which could turn into agreements between them on the MCS by making use of their power. For the stakeholders’ micro-political analysis, I am using governance as the main concept from which the interests of the key stakeholders were extracted as ‘micro’ storytelling. This is a focus of analysis in which people’s common stories about a certain phenomenon (previously obtained through participatory methods) can be translated into ‘theories, abstract ideas, visions and concepts’ for academic research (Freudendal-Pedersen and Kesselring, 2016; Freudendal-Pedersen et al., 2016; Freudendal-Pedersen; 2009). Those stories let me define lines towards the possible sustainability of the MCS with a micro-political focus. To obtain those ‘micro’ stories, I used the method of consensus conferences as workshops within action research and citizens’ participation approaches where the key stakeholders talked to each other in a ‘neutral space’. The conversations were about the issues of the phenomenon, the participants’ personal experience and feelings and afterwards, the participants made agreements in this respect. For the stakeholders’ macro-political analysis, I used the concepts of power within mobilities studies by acknowledging the key stakeholders’ ‘macro’ storytelling. Those stories let me define the MCS approaches towards its possible sustainability from a macro-political perspective. As I mentioned before, the way I found those key stakeholders’ ‘macro’ stories was by interviewing them. The interviews provided me with information about their interests, thoughts and needs related to the MCS from their ‘isolated’ social positions.

Empirical material enriches the understanding of my phenomenon and it can generate arguments for theoretical ideas (not verify them) in order to understand the world as a social reality. However, one interpretation can be stressed if it matches the empirical material much better than the others by following the process of the reflexive interpretation: 1) the research implements various mixes of empirical work (different ethnographies and participatory methods). 2) The researcher provides a meaningful
interpretation of the data by acknowledging the participants’ knowledge. 3) The
researcher reflects on the outcomes in a critical way as an interpretation of reality.
Finally, 4) the researcher tries to provide a linguistic-textual self-reduction in his/her
own research contextual terms and understanding (Alvesson and Sköldberg, 2000).
My methods were used as tools for obtaining contextual knowledge. Those methods
were carried out in the mentioned 4 steps of the reflexive interpretation. At the end, I
implemented three qualitative methods. The three methods were divided in two types:
field analysis and participatory analysis. The first type included pictures, walking and
recording videos in the field and the second one included the stakeholders’ interviews
and workshops.

4.3. Field methods

The field methods aim to obtain information about 1) the mobile potential praxes of
the study zone people, 2) the visible social micro-events in the study zone public space,
and 3) the relation between the study zone inhabitants and materialities. The aims of
the field methods relate to my second research sub-question (2) What is the importance
of the use of the motorcycle cab service in the study zone?). In this regard, Dewey ([1938] 2008)
points out that field observation ‘is made for the sake of finding out what that field is
with reference to some active adaptive response to be made in carrying forward a
course of behavior’ (p. 67). I relate that approach to observation of movements in the
public space. Also, the author states that, ‘The only way in which the term reality can
ever become more than a blanket denotative term is through recourse to specific
events in all their diversity and thatness.’ (Dewey, 1917: 133). Field methods based on
observation thereby helped me clarify the relevant spaces and zones related to people’s
daily movements and flows. Hence, they tried to define the physical conditions,
people’s mobile needs/desires, people’s routines, key connectivity zones, and people’s
physical/spatial movements and stationary activities in the study zone related and
connected to its MCS.

The observational analysis was a compound of pictures and recorded stationary video.
Also, it was defined through a schedule of observation periods by day, daytime, period
of time and spatial position. The observation was separated in the following methods:
Photography (pictures) and Analysis of Senses (while walking) and Counting and
Tracing (stationary videos).

I recorded all the information obtained using those methods in a diary of activities,
and finally I wrote it down as an account with the aim of partly reflecting my emotions.
and feelings experienced whilst carrying out those activities. That process followed the reflexive approach of this research, since as Dewey ([1938] 2008) states: ‘feeling, sensation and emotion have themselves to be identified and described in terms of the immediate presence of a total qualitative situation’ (p. 68). In the same way, the observational periods and zones that I chose were related to rush hours and main economic, social and leisure activities placed in the study zone (Finck Carrales, 2015). Furthermore, the process also relates to a non-representational approach in terms of the way I carry out methods that relate human bodies and materialities and how I collect and interpret their outcomes.

4.3.1. Photography (pictures)

I took 31 pictures while walking some streets of the study zone, following a specific route. I photographed the public space houses, sidewalks, streets, people, shops, vehicles, etc. (see Annex C.I.). I described my observations as a narrative in which my experience was expressed along with the possible social micro-events that I could capture. This method aims to be precisely the first ‘picture’ of the study zone analysis. Images of the phenomenon are important to obtain as ‘discursive cultural products of particular worlds’ (Clarke et al., 2018: 275), whose representations need to be analyzed in a reflexive way in order to identify and interpret their (re)presentations and meanings.

Taking pictures relates to the creation of the notes for illustrating the experience narrative and, in turn, developing the physical analysis of the zone and its social praxis (Gehl and Svarre, 2013). Schön (2013) explains that ‘knowing-in-action’ through a reflective design process starts with the initial appreciation of the situation; then, the situation ‘talks back’; and finally, the researcher responds to the situation as a ‘back talk’. The result is what the author calls the acquisition of ‘professional knowledge’, which allows considering several possible choices of implications involving a reflective conversation between humans and materials of the situations. Practice-based research examines and reflects affected ‘body of work’, meaning humans affected by and with materialities. Taking pictures while walking allowed me to determine the dynamics of the study zone and its mobile potentials ‘by doing’ observation immersed within the zone materialities, which affected myself.

_Taking pictures while walking_

I walked different streets of the neighborhood following a predetermined route on the
afternoon of Sunday, March 12, 2017. The route had a distance of 1.82 km and crossed the main two neighborhood secondary streets: \textit{Antonio Sierra} (Street 1) and \textit{Francisco Jiménez} (Street 2).

![Observational walking route map](image)

\textbf{Figure 13. Observational walking route map. Source: Google Maps and made by author.}

I chose the route in the image above based on the concentration of economic activities and services located inside the neighborhood, which entail and define most of people’s movements within the public space. The route exemplifies the zones with more activities, including MCs stops and most representative and crowded shops and stores of the neighborhood (Finck Carrales, 2015).

\textit{Taking pictures on a car in movement}

I took a short car journey in the passenger’s seat and took 5 pictures in order to expand
my experience of going across the neighborhood streets using another transportation mode than walking (see Pérez López, 2014; 2015). I took the journey a few hours after the first walking journey where I had taken the first pictures.

![Observational car-driving route map. Source: Google Maps and made by author.](image)

The journey had a distance of 1.44 km and it was mostly concentrated in Street 2, until reaching Tláhuac Avenue. I took few pictures that illustrated the vehicular traffic praxis and dynamics of the streets.

**Analysis of senses while walking**

As an extension of the photography method, I specified the sensations I felt while taking the pictures in the study zone related to all kinds of the materialities and micro-events in the streets.
The analysis of senses is meant to make aware of my affected body perceptions that the space could supply to me (Rapoport, 1977) as complementary information about the observational field when taking pictures while walking. Those characteristics could provide me with specific information in relation to people’s social praxis regarding mobility potentials starting from my senses that are affected by materialities. My experience was my starting point of analysis in that regard. Therefore, the analysis of senses was important because with it, I could get full experience over time of how my body could be and is affected by the materialities dynamics together with people’s praxis in the public space. The sense experience also relates to my potentials to move in that space and in that context (see Vannini ed., 2015; Stewart, 2014). The senses used in this method were: smelling, watching, touching, listening and feelings/emotions entailed during the observations.

4.3.2. Counting and tracing (videos)

I recorded videos from three different intersections of the streets in the neighborhood on different days and times in order to count the types of movements of the different transport means that were present (see Pérez López, 2014; 2015). This method was quantitative, but its information was incorporated in the rest of the observational field analysis, which ultimately turned out to be mostly qualitative because it took into account captured micro-events as well [such as what Sheller (2014) suggests in her new-methodologies approach for mobilities studies research as mix-methods]. Furthermore, based on the observational method explained by Gehl and Svarre (2013), my observation focused on people’s praxis, separating the analysis into stationary activities and flows (as mobility praxis) (see Kaufmann, 2002; Kaufmann and Canzler, 2008). I recorded a total of 135 minutes of video (45 minutes per day) showing people’s movements and their possible intentions and desires. Hence, I analyzed people’s mobility potentials starting from the volume (number) of different transport means based on quantitative backup (counting). This reflects people’s mobile desires embedded in micro-events as the embodied praxis of those desires (see Jensen, 2016; Kuijer and Spurling, 2017; Jensen and Lanng, 2017; Bissell, 2016; Bissell, 2014).

I counted the movements and social praxes inside the study zone from three different street corner points: 1. Street 1, 2. Street 2, and 3. Metro Station by recording video with a stationary camera (see Pérez López, 2014) for 5 minutes in each intersection, 9 times during 3 different periods of the day:

- Morning: 7:00, 7:15, and 7:30;
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- Afternoon: 13:00, 13:15, and 13:30; and
- Evening: 19:00, 19:15, and 19:30.

This schedule involves 1 week, and the chosen days were Monday (March 6th, 2017), Wednesday (March 1st, 2017) and Sunday (March 5th, 2017), as I considered them days with different and varied mobility and social praxis (see Finck Carrales, 2015).

It is important to point out that I recorded the videos with a smartphone camera from the front seat of a parked car, so that the people recorded did not know that they were being recorded.

![Figure 15. Observational recording street corner points. Source: Google Maps.](image)

Hence, mobility praxes were separated into the following variables:
- Motorcycle cabs/internal (movements towards the inside the neighborhood),
- Motorcycle cabs/external (movements towards the outside the neighborhood),
- Pedestrian/internal, pedestrian/external,
Movements towards the inside vs. movements towards the outside of the neighborhood

It was important to make a distinction between the movements that apparently head towards the inside of the neighborhood and the ones that head towards the outside of it. I inferred from the videos that going towards the outside of the neighborhood usually happens when people go towards the Metro station. With that, it could be possible to interpret people’s mobility intentions and desires inside the study zone as potentials. Therefore, I intersected the volume between the transport means that moved towards the inside of the neighborhood and the ones that moved towards the outside with the variables of weekday, daytime, and street intersection. That separation helped me describe people’s moving aims and desires as a first approach to their motility in-action (Kaufmann, 2002; 2014). Those aspects were reflected in the connectivity offered by the study zone, such as the streets that take people directly to the Metro station.

Social praxis described as moving and non-moving activities

I related active social praxes to moving and non-moving/stationary activities (Mehta, 2015), such as persons:

- buying,
- talking,
- eating or drinking,
- walking pets,
- watching their cellphones,
- watching a performance (or watching the street activity) and
- working (in the shops or in the street as sellers).

The quantitative analysis of the mobility praxis was based on time-space variables: date, weekday, daytime and street intersection. I crossed those variables with other variables related to the transport means and people’s active social praxis (Whyte, 1980; Gehl and Svarre, 2013) described as moving and non-moving/stationary activities. I carried that out in order to obtain the first-approach interpretations of the analyzed social reality from descriptive statistics (see Annex C.III.).
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Additionally, by drawing on the public space analysis of Whyte (1980), I considered that active social praxis could be seen through the lenses of demand creation based on people’s mobile desires and favored by materialities. What Gehl and Svarre (2013) call public life focus within public space is based on demonstrating the social activity opportunities towards a place of interaction that could possibly even create community. With regard to the counted mobility praxis of the Counting and Tracing method, the analyzed transport means helped me study the public space and the public life of the study zone, since the mobile opportunities created have a direct impact on the social activities.

Captured micro-events

During the analysis of the videos, social micro-events that I found interesting were captured in relation to my research questions and concepts, since as Dewey ([1938] 2008) points out:

The pervasively qualitative is not only that which binds all constituents into a whole but it is also unique; it constitutes in each situation an individual situation, indivisible and unduplicable. Distinctions and relations are instituted within a situation; they are recurrent and repeatable in different situations. (p. 68)

I used micro-events to reflect the relation between social actions and their micro-sections that disseminate within every recorded second of my videos (Bissell, 2014) (because having isolated numbers as statistics could not reflect a more-than-descriptive analysis). Moreover, quantitative focus is not the purpose of this method, even though I consider that descriptive statistics could be taken into account as the first approach to social realities (see Suárez Lastra and Delgado Campos, 2015).

With this method, the observational notes I took were spontaneous, depending on the spatial position and context in which I was placed (mostly traced by the movements I made while changing positions for recording). These were linked to the counting zone points. My descriptions included taking into account people’s activities, which reflect interactions between public space and public life (Gehl and Svarre, 2013). Additionally, I took notes during the counting process from the analysis of the videos by concentrating on the micro-events that caught my attention. The captured micro-events that I found were very particular, albeit not banal, regarding the active social praxis that was seen in the street intersections. I took screenshots on the videos every time I found an interesting micro-event. I analyzed each of them individually from a micro-political perspective (Bissell, 2016; 2014).
4.4. Participatory methods

My participatory methods aimed to describe and understand the ‘political arena’ related to the MCS towards its key actors’ governance. That involved three actions: 1) finding, describing and mapping the political arena of the study case as descriptive macro-politics; 2) interviewing the key stakeholders of the MCS as macro-politics with a storytelling focus; and finally, 3) creating communicative consensus conferences (workshops) as pre-planned micro-events (micro-politics) with a storytelling focus and with the stakeholders’ participation. My participatory methods relate to my first and third research sub-questions (1) What are the stakeholders’ ideas, experiences and opinions that relate to the motorcycle cab service of the study zone? and 3) How can a participatory method enable governance between motorcycle cab service stakeholders?). On the one hand, my interviews and workshops aimed to analyze the stakeholders’ institutional roles, capacities, willingness, and limitations related to the study zone MCS. These were also intended to create events of dialog between the stakeholders related to the MCS for favoring governance; namely, participation, understanding, acknowledgement and tolerance between one another.

The participatory methods interconnected with one another as the information resulting from each method was meant to be used to enrich the others. For example, the information obtained with the interviews helped me choose the participants for the workshops, and the structural stories obtained with the interviews framed and guided the workshop analysis process.

4.4.1. Focused interviews

The aim of the focused interviews was to obtain structural stories about the key stakeholders’ macro-politics (institutional social positions) as needs, objectives, knowledge, ideas, opinions and experience related to the MCS. With that information, I could frame or have an idea of their individual intentions and willingness with regard to the MCS.

The political arena in relation to governance

In order to select the key stakeholders to interview, it was necessary to define and frame the ‘political arena’ of the phenomenon (see Hall, 1993). This process consisted
in dissecting the roles of the most ‘important’ actors of the phenomenon. I determined who they were by acknowledging their current direct or indirect ‘level of power’ (see Bourdieu and Passeron, 1996; Huppatz, 2009) over the MCS in Mexico City and, particularly, in the study zone neighborhood. Therefore, I investigated the roles of those actors based on their professional activities and interviews made by the media related to the MCSs of the city, which in turn, let me understand a ‘macro’ structure.

Framing the current roles of the key stakeholders of the MCS provided me with the specific activities regarding political positions, level of power, level of knowledge, social capital, cultural capital, etc. (see Bourdieu and Passeron, 1996; Huppatz, 2009). The frame served as a guide to interpreting the stakeholders’ governance. Moreover, it provided reasons for selecting some of them to participate in the interviews and consensus conferences.
Figure 16. Framework of the key stakeholders of the phenomenon. Made by author.

The stakeholders' role regarding the phenomenon means the actions and activities they are currently carrying out in relation to the MCS that have direct or indirect impact on the phenomenon. The stakeholders' level of power is the awareness of their political, economic, social, and cultural capital level regarding the MCS. This level results in the stakeholders' 'capacity to do' in relation to the service in different contexts and action types.

### Table: Framework of the Key Stakeholders of the Phenomenon

<table>
<thead>
<tr>
<th>Stakeholder Type</th>
<th>Sector</th>
<th>Organization</th>
<th>Occupation</th>
<th>Role Regarding the Issue</th>
<th>Level of Power</th>
<th>Level of Knowledge</th>
<th>Level of Political Closeness</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC Leader 1</td>
<td>Motorcycle cab service</td>
<td>Union of Independent Bike cab Drivers of the study zone</td>
<td>Leader of MCs service organization</td>
<td>Agent of all the association in the study zone to the government. Head of the main motorcycle cab organization in the study zone.</td>
<td>Very High</td>
<td>Very High</td>
<td>Very High</td>
</tr>
<tr>
<td>Public Servant 1</td>
<td>City Government</td>
<td>Ministry of Mobility of Mexico City</td>
<td>Sub-secretary of Planning</td>
<td>Main precursor and promoter of the new mobility focus of public policies in Mexico City.</td>
<td>Very High</td>
<td>Medium</td>
<td>Low</td>
</tr>
<tr>
<td>Public Servant 2</td>
<td>City Government</td>
<td>Ministry of Mobility of Mexico City</td>
<td>Sub-secretary of Development</td>
<td>In charge of public policies making and implementation regarding transportation intersected with social groups' condition.</td>
<td>Very High</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Public Servant 3</td>
<td>City Government</td>
<td>Ministry of Mobility of Mexico City</td>
<td>Secretary of the Ministry</td>
<td>Manager of all the transportation public policies of Mexico City.</td>
<td>Very High</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Public Servant 4</td>
<td>City Government</td>
<td>Mexico City Congress</td>
<td>President of the Committee on Mobility, Transportation and Roads</td>
<td>Coordinator of the legal initiatives related to transportation, roads and mobility in Mexico City.</td>
<td>Very High</td>
<td>Very High</td>
<td>Very High</td>
</tr>
<tr>
<td>Public Servant 5</td>
<td>Local Government</td>
<td>Tláhuac Municipality</td>
<td>Chief of the Municipality government</td>
<td>Chief of the Municipality public policies (executive power).</td>
<td>Very High</td>
<td>Medium</td>
<td>Very High</td>
</tr>
<tr>
<td>Public Servant 6</td>
<td>Local Government</td>
<td>Tláhuac Municipality</td>
<td>Head of Transport and Roads of the Municipality</td>
<td>Creates and manages regulations and permits regarding transportation in the Municipality.</td>
<td>High</td>
<td>High</td>
<td>Very High</td>
</tr>
<tr>
<td>Public Servant 7</td>
<td>Local Government</td>
<td>Tláhuac Municipality</td>
<td>Transport Territorial Coordinator</td>
<td>In charge of motorcycle cab coordination in the municipality.</td>
<td>Medium</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>NGO Servant 1</td>
<td>International NGO</td>
<td>Institute for Transportation and Development Policy (ITDP)</td>
<td>Regional Director of Latin America</td>
<td>Coordinates the linkage between the government of the city and ITDP regarding transport and mobility issues and public policies.</td>
<td>Low</td>
<td>Low</td>
<td>Very High</td>
</tr>
<tr>
<td>Scholar 1</td>
<td>Public Mexican University</td>
<td>National Autonomous University of Mexico (UNAM)</td>
<td>Professor of Urban Landscape, Architecture Department</td>
<td>Created a diagnosis of the study zone and its next neighborhood MCS in 2013.</td>
<td>Low</td>
<td>Very High</td>
<td>Medium</td>
</tr>
</tbody>
</table>
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- The stakeholders’ level of political closeness means how close they were to the current political context regarding legal or illegal local negotiations, agreements, communication, etc., about the MCS.

- It is important to take into account that if some stakeholders selected to participate in my methods refused or canceled their possible participation, I stated that aspect as a lack of interest in the phenomenon in my analysis.

**Key stakeholders of the phenomenon to be interviewed**

It is important to point out that not all key stakeholders found and placed in the ‘political arena’ framework were interviewed and participated in the consensus conferences. I decided that because, even though they could have a high level of power related to the phenomenon, some of them were not fully close to the problematic in a political way or had very little knowledge about it. Also, I did not consider some stakeholders for participating in the methods due to their very busy personal schedules. I planned to perform 6 focused interviews to obtain specific information about key stakeholders’ and transport experts’ needs, objectives, knowledge, ideas, opinions and experience related to the MCS. Furthermore, I decided not to mention the names of my participants in this research because its topic is very controversial in the current context of Mexico City, mainly because of the illegal and criminal activities that characterize the MCS. The persons that were planned to be interviewed were:

1. Public Servant 1, Sub-secretary of Planning of the Mobility Ministry of Mexico City. She was one of the main precursors in the design of the Mobility Law of Mexico City launched in 2014. She provided the governmental point of view and objectives regarding the mobility of Mexico City.
2. Public Servant 2, Sub-secretary of Development of the Mobility Ministry of Mexico City. His role within the Ministry includes attending to the cultural and community aspects of transport issues in the city.
3. MCS Leader 1, Leader of the main/biggest MCSO in my study zone (Finck Carrales, 2015). The leader is the agent of all organizations in the study zone in relation to the government. She could provide information about the internal structure of the service and its relationship with the city and municipal governments.
4. Public Servant 6, Head of Transport and Roads of Tlahuac’s Municipality. He provides information about the position of the current local government and about future planned actions regarding the MCS in the municipality.
5. NGO Servant 1, Regional Director of Latin America from the Institute for Transportation and Development Policy (ITDP). He provided an NGO
point of view on transport policies regarding the MCS.

6. Scholar 1, Professor of Urban Landscape, Architecture Department of the Mexican Autonomous National University (UNAM). Head of the Green Mobility and Infrastructure Laboratory for Energy Efficiency. He had done research related to the MCS in the neighborhood next to my study zone.

I also considered Public Servant 1, MCS Leader 1, Public Servant 4, and NGO Servant 1 for taking part in the consensus conferences. I carried out the interviews with these persons before the conference in order to create ideas and thoughts in the minds of the interviewees regarding the MCS, so that they would be better prepared for the conferences.

I structured the interviews with a focus on the following sections and in the following order (Vela, 2001): A) knowledge, B) experience, C) opinions, D) needs, E) objectives and F) ideas regarding the MCS (see Annex B). The objective of having structured interviews was to make them clear and practical for obtaining all the important information, since the majority of people would only accept to be interviewed, if the interview did not take too long (maximum one hour).

At the end, I carried out four interviews with MCS Leader 1, Public Servant 7, NGO Servant 1 and Scholar 1. Finally, after I undertook and analyzed the interviews, I created a Social World/Arenas Map (Clarke et al., 2018; Fosket, 2015) in order to visualize the macro-political positions of the interviewed stakeholders with regard to the research phenomenon. According to Fosket (2015), social world/arenas are ‘realities within which people act, interact and make meanings of their situations in ways that give rise to shared realities’ (p. 197). That means that through these, it is possible to obtain knowledge constructed in everyday practices from understanding and interpreting its historical construction. Knowledge production is negotiated, shaped by power and acknowledged through understanding and by adding every element (acts as a conditional) that is part of the situation (phenomenon). This map helped me realize the multiple possible social worlds and sub-worlds that I have to take into account when analyzing my research empirical findings. Those ‘shared realities’ helped me with the wording of the conclusions to my interviews as these clarified and put into perspective my stakeholders’ standpoints and, therefore, situate their respective macro-politics that I could relate to my data.

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42 The interviews were transcribed in their original language (Spanish), and the selected quotes were translated into English by me.
4.4.2. Consensus conferences (workshops)

After I had completed my interviews, I could select the stakeholders that could take part in the communicative consensus conferences (workshops) (see ITDP, 2014). These put the stakeholders’ points of views, aims and experience related to the MCS into perspective at a ‘micro-political’ storytelling level. As Adey (2010) considers, ‘Ethnographic research seeks to explore the richly detailed and complex life-worlds of its respondents’ (p. 70). The stakeholders’ profiles for participating in those meetings were: citizens as users and non-users of the MCS in my study zone neighborhood, MCSO leaders, governmental authorities (public servants), and academic and NGOs experts. I submitted the conclusions of the consensus conferences to some governmental authorities that hold political power over the MCS in Mexico City as part of the conferences process in order to observe their possible ‘re-actions’ about these.

Creating social support and participation

As I mentioned before, I carried the workshops out to involve the key stakeholders in the MCS phenomenon and to know the possible elements with which the government of the city could plan proper future regulations and public policies. Furthermore, involvement of neighbors in the conferences can possibly encourage social responsibility and strengthen social networks in the study zone regarding the service (see Van Eijk, 2010).

The consensus conferences were organized, coordinated and facilitated by me. I did not participate in the conferences myself and I did not induce or affect the participants’ opinions, suggestions, praxes and deliberations. I received help organizing the conferences from only one person with regard to the technical aspects. Also, the conferences were video recorded in order to have a backup with the previous consent of the participants.

Each consensus conference took two days, divided in two parts, and their processes consisted in the following:

- I organized two conferences which were held in February 2017. The location was the Universidad Iberoamericana (IBERO) of Mexico City under an academic

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43 I used ITDP’s Consensus Conferences as guide and inspiration for planning my workshops. However, I readjusted some aspects of the process and aims of the workshops in order to connect them to my research aims. For example, I added the stakeholders’ storytelling as a section of the second workshop process.
Memorandum of Understanding (MoU) between the Architecture Department of IBERO and the Doctoral School of Society, Space and Technology of Roskilde University (RUC). The reason that the workshops took place in a University was because I considered it as a ‘neutral’ space among all the participants’ profiles.

- I planned to convene an expert panel of 5 people made up of governmental authorities/public servants (2), civil society and academic experts (2) and a leader of the MCS (1). I invited the panel members to participate in advance, giving several months’ notice, using an official RUC invitation letter written and signed by me. I also delivered the letters personally to each participant days before the conferences started regardless of whether they could attend or not.

- I planned to convene an evaluators group of 3 MCS users and 3 non-users who were neighbors of the study zone. I gathered them in a local private school in the study zone two weeks before the conferences to prepare questions together regarding the service, which were addressed to the panel. Also, I provided them with the outcomes of the legal analysis and the transport design comparisons (Annex A and part of the Theoretical Framework translated into Spanish) in order to give them useful information about this research. In the same way, the members of both groups were invited to participate in advance, giving several months’ notice, by an official RUC invitation letter, which was also delivered personally by me days before the conferences started.

- At the first conference on February 17, 2017, the 6 evaluators asked questions\(^{44}\) (2 questions in each of the 8 subcategories) to the panel of authorities, experts and leaders about the service development, encumbrances, benefits, disadvantages, recommendations, etc.

- Each person in the expert panel gave an answer to each question (96 answers of 2.5 minutes each; approximately 30 minutes per subcategory).

- The questions were exposed in sections regarding different topics and separated into 2 categories with a total of 8 subcategories.

\(^{44}\) None of the questions and answers were meant to personally attack or question a member of the panel of experts. In that case, I aimed to interrupt and ask the speaker to skip his/her comment. In the same way, the time for answering as stated in the conferences program was completely respected.
Figure 17. Official MCS Consensus conferences schedule showed in the participants’ invitation letters.

- After the first conference, the evaluators group created a report that summarized and analyzed the answers previously obtained, contrasted with their needs, worries, opinions, etc.

- On the second conference on February 24, 2017, the evaluation report was discussed by the expert panel in order to suggest relevant actions to serve as conclusions (20 minutes per person). Additionally, each group and panel member shared stories related to their own MCS experience.

- Finally, the participants could agree on the suggested actions with a short and/or long term focus for the purpose of creating possible regulations and/or public policies points related to the MCS.

**Group formation at the Conferences: encouraging a governance exercise**

With regard to group formation at the Consensus Conferences, to the aim was to have the different characteristics of the key stakeholders represented in order to make the groups as diverse as possible for the purpose of making a governance exercise. Each expert selected to participate fulfilled a professional specialization regarding the Conference issue. Furthermore, I selected the neighbors that participated in the
Consensus Conference evaluators group\textsuperscript{45} based on their different individual characteristics: age, gender, socioeconomic conditions, and daily activities, including daily spatial-mobility traveler profile [pre-planner (calculates everyday travels), flexible (sizes the travels for doing extra activities), and having a mobile aim (moving inside or outside the neighborhood) (Kaufmann, 2014)]. Those distinctions provided me with participants with wider points of view and different needs/desires and worries regarding the MCS as ‘interdisciplinary’ profiles (see Freudendal-Pedersen \textit{et al.}, 2016), who could pursue the same preferences and open-minded deliberations during the conferences (see Fischer and Gottweis, 2012).

Thereby, the study zone neighbors that participated in the evaluators group were:

- Neighbor 1: MCS user, Manager and promoter of culture, Male, 26 years old (external spatial-mobility, pre-planner traveler profile).
- Neighbor 2: MCS user, Local school assistant, Female, 58 years old (external spatial-mobility, pre-planner traveler profile).
- Neighbor 3: MCS user, Local kiosk owner, Female, 59 years old (internal spatial-mobility, flexible traveler profile).
- Neighbor 4: MCS non-user, Local kiosk owner, Female, 49 years old (external spatial-mobility, flexible traveler profile).
- The governmental public servants who I considered for the expert panel at the Consensus Conference were:
  - Public Servant 1: Sub-secretary of Planning of the Mobility Ministry of Mexico City.
  - Public Servant 2: Sub-secretary of Development of the Mobility Ministry of Mexico City.
  - Public Servant 6: Head of Transport and Roads of Tláhuac Municipality.
- Nevertheless, none of the invited public servants of the central government went to the Conferences. In the same way, Public Servant 6 declined to participate. They did not send any representative from the government either.
- On the other hand, the NGO Servant and the Scholar who I considered for the expert panel at the Conferences were:
  - NGO Servant 1, Regional Director of Latin America from the Institute for Transportation and Development Policy (ITDP) (Specialty: Transport Policies and Planning).
  - Scholar 1, Professor of Urban Landscape, Architecture Department, National Autonomous University of Mexico (UNAM) (Specialty: Urban Landscape

\textsuperscript{45} The results of the conferences could get credibility from the study zone neighbors, since some of them took part of their entire process.
and Transport infrastructure design).

- NGO Servant 1 and Scholar 1 declined to participate. Therefore, they were replaced by the following participants, who had some knowledge and experience of the MCS issues:

- Scholar 2: Coordinator of the Alliance for Urban Regeneration - NGO and Urban Sociology, External Lecturer at Universidad Iberoamericana, Mexico City. She was a second supervisor of my master's thesis (Specialty: Urban Development Projects and Social Cooperatives).

- Scholar 3: PhD Candidate, Research assistant at University of Toronto (Specialty: Street Design and Bike trades of Mexico City).

Finally, the MCS leader that I considered for the expert panel was:

- MCS Leader 1: Agent of the Union of Independent Bike cab Drivers of the study zone and Leader of MCSO 1.

MCS Leader 1 participated and brought another MCS Leader and a collaborator to the workshops. Therefore, the expert panel was complemented with both of them:

- MCS Leader 2: Leader of MCSO 2.
- MCS Collaborator 1: Collaborator of MCSO 1.

At the end, the expert panel was formed by 5 persons: 2 scholars and 3 MCS leaders/collaborator. The evaluators group was formed by 4 neighbors of the study zone: 3 MCS users and 1 non-user.

First meeting with the Evaluators Group before the first Conference

12 days before the first Conference, I met with the evaluators group in order to provide them with useful information compiled in one document. The information was about the MCS phenomenon related to its current legal framework and the general international street design basis. This way, they could be more informed about the phenomenon for creating, at that first meeting, the list of questions for the expert panel to be asked at the first Conference. The meeting was carried out in a private elementary school in the study zone neighborhood. I offered lunch and refreshments to the participants and I also explained to them how the Conferences were going to be carried out as a reminder.
The agenda of the meeting consisted of the following: I asked each individual participant about their mobile activities (see Kaufmann, 2002). Afterwards, the participants meet one another and gave a short presentation of themselves. Then, I presented my PhD research to them and specifically the role and aims of the Consensus Conferences. After that, I let them read the informative document, which I had already sent to them by e-mail several days before the meeting date. Finally, they started to draft the questions they wanted to ask to the expert panel at the first Conference. The questions were divided in 8 sections: Working, Administration, Regulation, Traffic, Public Space use, Pollution, Security, and Alternative Vehicles. Each section had 2 questions, so a total of 16 questions were created. 46

46 1) Employment: 1.1. What do you think should be the profile and training of a MC driver given the current context of the service? 1.2. What do you think are the benefits and disadvantages of drivers providing the service? 2) Administration: 2.1. Why do you think that the ‘ciclo-taxis’ service could be formalized in the city center and in its not so far peripheries? 2.2. Why do you think there is no standard in rates and service coverage and how do you think it could be obtained? 3) Regulation: 3.1. How do you think specifications can be added to the current regulations for providing the service; such as dimensions of the units, people on board, service hours, etc.)? 3.2. How do you think a rule could be implemented to ensure ‘inspection’ of vehicles and drivers as it is done with taxis of the city? 4) Traffic: 4.1. What types of roads and routes do you think are appropriate to provide the service? 4.2. What kind of street design do you think can be implemented, so that the service can be incorporated into the current transportation system of the city? 5) Use of public space: 5.1. What kind of road signs and street furniture directed to the service do you think could be implemented? 5.2. How do you think the roads and set points for the service stops could be controlled without affecting
The picture above shows me having the meeting with the participants that formed the evaluators group. The participants shared their ideas as needs regarding the MCS and listened to one another. At the end of the meeting, the participants seemed to be satisfied with the outcomes, especially in relation to the questions they had created. We even planned common transport to the first Conference and we agreed when to have the second meeting in the same study zone place after the first Conference and before the second one.

6) Pollution: 6.1. Do you know about visual, auditory and air pollution studies related to the MCS? If yes, can you mention something about it. 6.2. In case motor verification and the ‘not circulate today’ programs are implemented for the MCs, do you think that would be enough for controlling the pollution generated? 7) Security: 7.1. What guarantee do you think the users of the service have or could have to arrive well at their destinations with the current situation of the service? 7.2. In case of accidents, what knowledge do you think MC drivers have to have, in the context that many are very young and perhaps not well trained? 8) Alternate vehicles: 8.1. What do you think can be done to make a vehicle more sustainable? 8.2. If people opt for electric vehicles, do you think their use would generate fewer social costs and less pollution than the MCs already generate?

The young girl in the picture above was not part of the group, since she was the girlfriend of the male participant and was only keeping him company. However, she was interested in taking part in the meeting, which I allowed as she was a MCs user herself. The fourth participant took the picture.
Second meeting with the Evaluators Group before the second Conference

Five days before the second Conference, I had the second meeting with the evaluators group. The aim was for the group to make conclusions as recommendations with regard to the outcomes of the first Conference received from the expert panel.

In order to make the meeting practical and its aim feasible, I told them to make a brainstorm sharing of the conclusions they could draw from the Conference in relation to its different sections. I offered to write a document on my computer with the ideas they came up with in bullets. The document bullets were worded as recommendations for improving the MCS. After having the concrete ideas as bullets, the group started to relate each one to the current legal framework of the city that they had studied in order to provide with justifications and sustentations to each recommendation.

Finally, the result was a 5-page document divided in 6 sections: Alternative Vehicle Pollution, Regulation Acknowledgement, Jobs offers formalization, Administration improvement, Public Space use – Street Traffic, and Security. A total of 16 bullets were stated and the document was directed to the Congress and Mobility Ministry of Mexico City, Tláhuac’s Municipality, Tláhuac’s MCSOs, Mexican entrepreneurs, the Mexican academic community, and the organized civil society of the city. Also, each member of the evaluators group signed the document. Some days after Conference 2, I personally handed over the evaluators group’s document of conclusions to Public...
Servant 7 in his Municipality office, and to the personal assistant of Public Servant 1 and to the secretary of Public Servant 2 in their respective offices in the Mobility Ministry of Mexico City. Furthermore, I sent the document in PDF format by e-mail to the Public Servant (1) from the Mobility Ministry, the Scholar (1) from UNAM, the NGO Servant (1) from ITDP and, additionally, to a Local Congress woman of a Municipality and another NGO Servant and activist recognized as the ‘Bike Mayor/Ambassador’ of Mexico City.

4.5. Research ethics

Since my main research aim relates to sustainability and two of my methods involve the participation of stakeholders, I had to be aware of research ethics. In this section, I describe that.

Basing the ethics related to my research case on the work of Gjerris et al. (2013), and Brigge and Mitchham (2012), I aimed for my research ethics to favor pluralism among the participants of my methods. However, in the everyday praxis, there is a visible cultural difference between my research stakeholder groups regarding ethics. Drivers and organization leaders of the MCS tend to have ‘contractual’ ethics, since they are self-organized and benefit from it without always taking into account negative externalities of their actions (Finck Carrales, 2015). In the same way, the ethics of my research governmental authorities tend to be ‘contractual’ because their objectives are, apparently, related to gaining political power in their closed sphere. Therefore, the workshops I carried out were partly meant to create ethical pluralism. The aim was to create a climate of tolerance and understanding among the participants through a debate and, consequently, obtain different knowledge and form consensus among them. In addition, the objective of my research to pursue sustainability. Therefore, it could be closer to an ethical ‘ecocentric’ approach, since it could favor sustainability in social, economic, cultural and environmental dimensions.

According to the work of Kumar (2005) and Oliver (2003), my position whilst conducting some of my qualitative methods could contain some stakeholders’ ethical issues. As facilitator among the stakeholders, implementer of interviews, and coordinator and moderator of the workshops, it was important to be careful during the processes in order to avoid unethical practices. For example, as I mentioned before, two weeks before the workshops, I met the participants of the study zone neighbor group and gave them some information about the topics to be treated on the workshops in order to provide them with knowledge. That decision was made as
they were going to write questions for the other panel of stakeholders (academic experts and MCS leaders) as part of the workshops process. I did it because I considered that the neighbor group had a disadvantage from the other groups regarding academic and technical knowledge about the issue. I however did not intervene in the process of drafting the questions and the document of conclusions. Thereby, since I was in constant contact with all the different stakeholders (after previous consent), I tried to not show any direct empathy with their different objectives and positions towards the phenomenon. Rather, I only showed them understanding about the problems that the issue has caused them, which involved keeping them informed during the entire research process. Otherwise, I would have taken part in one stakeholder groups’ side. Another example was the incentives I offered for getting the stakeholders to participate in the workshops and interviews. Those incentives included official diplomas of workshop participation issued by the university were they took place after concluding and sharing the videos recorded at the workshops with the MCS leaders that participated in them.

4.6. Strategy of Analysis: application of concepts and data use

In this section, I aim to set out a Strategy of Analysis as the conclusion to this Chapter, since I have already described and explained my research concepts and methods. This opens the door to the next Chapters of this research that involve the case study analysis of the phenomenon.

My Strategy of Analysis is the way I relate the theoretical concepts and the methods to my research questions. In that regard, it is important to point out that not all of my concepts had a specific hierarchy: for example, as I explained before, the concept of citizens’ participation is the main characteristic of governance. The concepts of mobilities is the starting point of the concept of mobility, connectivity, and accessibility. In the same way, the concept of motility relates to mobility. Those hierarchies, however, did not mean that one concept is more important than others for the analytical purpose. Rather, each concept has a specific purpose and value that I take into account in the analysis based on the method findings.

Moreover, I make a distinction between background and overall concepts (motility, governance and structural stories), and the concepts for the analysis of politics (macro and micro). The first ones are the concepts that help explain the backgrounds of my research phenomenon and case study, such as urban fragmentation, urban segregation,
**Chapter 4: Methods, research design and strategy of analysis**

transportation systems, etc. The second ones were the concepts that related directly to the method findings in the analysis. All concepts were used in the analysis section to different extents, since I relate to the research questions without exception. Additionally, some concepts that I used for building the Analysis were not only taken from the Theoretical Framework Chapter but also from other Chapters, such as the Philosophy of Science and Case Study ones.

Therefore, the interconnections/intersections between my research methods and concepts were as follows:

<table>
<thead>
<tr>
<th>RESEARCH QUESTIONS</th>
<th>METHODS</th>
<th>CONCEPTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) What are the stakeholders' ideas, experiences and opinions that relate to the motorcycle cab service of the study zone?</td>
<td><em>Interviews</em></td>
<td><em>Structural stories</em></td>
</tr>
</tbody>
</table>
| 2) What is the importance of the use of the motorcycle cab service in the study zone? | *Observational field analysis*  
-Photography (pictures)  
-Analysis of senses (walking)  
-Counting and tracing (videos) | *Motility* |
| 3) How can a participatory method enable governance between motorcycle cab service stakeholders? | *Consensus conferences* | *Governance* |

**Figure 21. Framework of interconnections/intersections between research questions, methods and concepts.**

The framework above depicts the interaction between the research questions, the methods and the concepts that took place in the Analysis Chapter. In the same way, as I explained before, during the analytical process, each concept could interact with different methods, since the interrelation between methods and concepts was not linear. Rather, the process was iterative from the points where the Analysis took me
through its own process. Furthermore, as I mentioned before, the structural stories obtained with the interviews guided and framed my field and workshop analyzes.

Chapter conclusion

In this Chapter, I explained the reflexive and contextual focuses of my research that relate to its interpretative approach. In order to achieve the interpretative differentiations and classifications of my study case, I chose the field and participatory methods that will provide me with data for answering my research questions. My field methods (pictures and videos) implicate that I will be able to create an analysis about the social praxes I observed in relation to the MCS in my study zone for understanding its importance. On the other hand, my participatory methods (interviews and workshops) implicate an analysis that involves considering stakeholders’ understandings, opinions and ideas for planning the MCS. The interviews allow me to find stakeholders’ structural stories about the MCS. Through the fieldwork observation, I can unveil mobile praxes in the light of those people’s stories. Finally, the workshops will allow key stakeholders to share more stories that I will also relate to the interview stories towards the possible MCS planning.

As I explained in the Strategy of Analysis, in the next Chapter, I will start with the analysis of this research, which consists of the three following Chapters. These divide into analysis of structural stories obtained through interviews with key stakeholders (Chapter 5), analysis of field findings (Chapter 6), and analysis of participatory workshop findings (Chapter 7).
Chapter 5. Structural stories about the motorcycle cab service through stakeholder interviews

The aim of this Chapter is to find structural stories through stakeholder interviews in relation to the MCS in order to answer my first research sub-question: 1) What are the stakeholders' ideas, experiences and opinions that relate to the motorcycle cab service of the study zone? I obtained 20 structural stories (see Annex B.IV.).

Throughout this chapter, I will use the concepts of social position, mobility power, structural stories and community/communality. I stress that structural stories have the power of changing people’s ideas about a phenomenon, such as the MCS, regardless of whether they belong to different social groups. Therefore, structural stories can ‘travel’ between different social groups (structures). The obtained structural stories help me understand the social groups’ differences and standings about the MCS phenomenon. I categorize the structural stories I obtained in 3 types in order to unveil their sources, roles and importance within the phenomenon: 1) embodied. Structural stories that come from people’s experience where materialities affect their bodies and minds. 2) Voice-to-voice. Structural stories that people hear from others, traveling between social groups and probably getting distorted in the process. 3) Scientific. Structural stories that come from scientific studies and depend on their validation and reputation. I also take into account that structural stories are always true in people’s minds regardless of whether these reflect reality (people’s praxis).

Afterwards, in Chapter 6, I will use some of the 20 structural stories I obtained for analyzing my study zone through the fieldwork implementation as people can reflect these stories in praxis. In other words, by using the structural stories I obtained through my interviews, I can guide and shape the analysis of the study zone from observing people’s praxis in the public space. That process helps me analyze the field in the light of the stories by relating what the stakeholders said in the interviews to people’s praxes in the field. I therefore argue that the 3 types of structural stories to some extent guide people’s praxis in relation to the MCS and that can help me understand its importance and role in the study zone.

Finally, in Chapter 7, I will relate the structural stories obtained through the interviews
to the ones that the key stakeholders tell in my participatory workshops in order to favor understanding and empathy between one another towards the possible MCS planning. Here, structural stories work as argumentative tools for unveiling the stakeholders’ needs/desires, worries, wishes, etc. about the MCS of the study zone. In other words, by sharing their experience as structural stories, stakeholders from different social groups can create a communicative space for planning the service based on common interests and future benefits.

I divided the structural stories I found through the interviews into 5 sub-sections: 1) stakeholders’ social positions (5 stories), 2) stigmatization of the MCS (4 stories), 3) power relations in relation to the MCS (5 stories), 4) inner community of the MCS (2 stories), and 5) community in the study zone (4 stories). In the first section of this Chapter, I frame 14 structural stories into 3 sub-sections. The first 5 structural stories relate to the social positions of the MCS stakeholders who I interviewed. As I explained in the Methods Chapter, they belong to different social groups: a study zone MCS, the municipal government, academia, and an NGO. I unveil the differences and distances between the aims, interests, knowledge, importance, etc. of each social group related to the MCS through their own structural stories. The next 4 structural stories relate to the stigmatization of the MCS. This means taking into account the service informality aspect and its characteristics and consequences. I explain how positive structural stories (mostly scientific) could help combat the stigmatization of the MCS. The next 5 structural stories relate to the stakeholders’ power relations with regard to the MCS. These showed the importance of rules for the MCS as rules provided coordination, control and order. The stories also unveil the power misbalance between the government and the MCSOs in relation to the MCS regulation. That power depends on people’s geographic position and social class. Furthermore, public servants of the central government do not seem to care about the transport issues in the peripheral zones of the city. In the second section of this Chapter, I frame 6 structural stories in 2 sub-sections. The next 2 structural stories relate to the relations inside the MCSOs, where workers support one another, showing solidarity. This unveils a more-than-utilitarian aspect when it comes to coordination of the guild. Finally, the last 4 structural stories relate to the community formation in the neighborhood which includes the MCS. This shows the positive aspects that the service provides to its users and non-users. On the one hand, the service can provide its users with comfort and security. On the other hand, the service workers negotiate with the neighbors the public space they use for providing the service. Moreover, the MCS workers counteract the service and their stigmatizations by participating in communal events of the study zone, going beyond utilitarian needs and aims towards entailing worker-user affective relations.
5.1. Polarized social positions: MCS stigmatization and regulation

It is important to take into account the non-participation of some of the Public Servants in my interviews for my stakeholder analysis as a starting point of my understanding of macro-politics. I explain that perspective from every participant’s social position as that concept can help me frame and visualize their motivations and needs in relation to the MCS. Moreover, I can analyze social positions of people who ended up not participating from a macro-political perspective as it can reflect individual interests other than those of the ones who participated in my methods from the social ‘institutions’ they belong to.

In order to understand the social positions of my key stakeholders, I will first draw upon the process of how I contacted them asking them to participate in my methods. I invited the Public Servant (1) from the planning area of the Mobility Ministry of Mexico City (a high-rank head) to be interviewed by e-mail. She showed interest in participating in both the interviews and the consensus conferences by replying my e-mail. She even referred me to her personal assistant in order to set up a date for the interview. However, later on, her assistant wrote me back explaining me that after they had read the invitation letter to the consensus conferences, they concluded that the topic of my PhD research was not part of the ‘attributions’ of the Public Servant’s ‘planning’ area within the Mobility Ministry. Instead, the assistant referred me to the ‘development’ area of the Ministry (Public Servant 2, who I had already planned to interview), since they found my topic more related to that area. I sent two e-mails to the second Public Servant from the Ministry and after not receiving any answer from him, I decided to go directly to his office in Mexico City where I personally handed the invitation letter to his secretary and told her about the interview invitation as well. She told me that he would be informed of the invitations. Nevertheless, I never received any answer from him after that event.

The case of the Public Servant (6) from Tláhuac’s Municipality was different from the Mobility Ministry’s Public Servants. It was complicated to get in contact with him but after I had delivered the invitation letter to his secretary in person and called him directly, he agreed to the interview. When I went to his office in the Municipality, he told me that maybe it was better for me to interview a Municipality worker instead of him. The particular Municipality worker was specifically in charge of the MC issues within the zones of the Municipality, he was the Public Servant’s subordinate and he

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48 As I mentioned in the Methods Chapter, I had planned to interview six stakeholders. However, I ended up interviewing four stakeholders and one was changed from the original one.
was right there in the next office at the moment. I agreed to interview him instead. Public Servant 7. This way, I ended up interviewing him with the other Public Servant, his boss, staying next to us inside his office. Both seemed to be very uncomfortable with me trying to make an interview about the MCs, even though I stated that it had merely academic and scientific purposes. The interview went very fast because the Public Servant’s answers were very short and reserved. Before the interview started, he read my interview questions and afterwards, both told me some things ‘off the record’ regarding the MCS issue. The things they told me were not anything out of what I already knew regarding the difficulties that the Municipality had coordinating the MCSOs and handling at the same time the Mobility Ministry’s aims and rules regardless of the many meeting they supposedly used to have twice a month (together with ‘transport experts’ as well). Apparently, the Municipality was in the middle of the struggles, with the MCSOs being very insisting and ambitious about working and the Ministry was, according to the Municipality’s public servants, unprepared, uninformed and uninterested in attending to the situation. Anyway, they applauded me for doing my research.

5.1.1. Defining key stakeholders’ social positions from structural stories

In this sub-section, I explain the different social positions of the stakeholders who I interviewed in relation to the MCS in order to know their interests in improving it. I gather structural stories that reflect each stakeholder’s opinions and knowledge about the importance of the MCS. This illustrates some of the positive and negative aspects of the MCS. There are clear differences and distances between the social groups of the interviewed people.

The difficulties involved in getting interviews from both Public Servants from the Mobility Ministry can be seen as a sign of their political distance from my study case phenomenon in a social position perspective. Bourdieu’s (1966) social space explains how social agents occupy a specific place and, by ‘consuming their spaces’, they hold certain level of power within a specific social institution as a macro-level structure. Differentiations of social institutions fragment society and even polarize it. When each agent talks or acts from their occupied social space, they make use of their social capital (as their networks possession) from their social position (Larsen and Morrow, 2009). Thereby, agents’ contextual experience defines their everyday praxes from their social positions. These agents also tend to take reality/truth for granted by institutionalizing praxes via institutionalization of external structures (Freudendal-Pedersen, 2009). That is, for example, the meaning that I give to the expression: ‘take it from whom it comes’, since every social position could even entail a specific worldview on and for specific
situations, such as my study case phenomenon. The central government of Mexico City is an institution in those terms that it could have different ideas and praxes about the city and the issues in its different zones. As I explained in the Case Study Chapter, the central and Western municipalities of the city tend to receive more governmental attention and public-private investment than the Southern and Eastern ones. That fact relates to the social position of the public servants who have the power to make it happen. Political and social interests and worldviews involve actions by public servants, for instance, dismissing or ignoring a public issue. In the case of my MCS, the issue is about transportation and mobility in a power relational way. The Mobility Ministry is apparently not interested in the MCS phenomenon of the peripheral zones because it is probably not part of their social position in terms of their political agenda. This is a conclusion that I made from the Public Servants’ non-participation in my methods together with some of the statements of the Public Servants from Tláhuac’s Municipality and the MCS Leader I interviewed (I will mention that later on). Therefore, by not participating in the interviews, even though they were informed well in advance and it was made easy for them to participate, the public servants’ decisions make me consider this non-participation to have political social reasons. That means that the peripheral MCS phenomenon is ‘politicized’ at the ‘macro’ level of a central government. Politics is constantly intervening in the public agenda.

With regard to the interview with the Public Servant (7) from Tlahuac’s Municipality, as mentioned before, he became alert and showed uneasiness about being interviewed. Nevertheless, his social position seemed very different from that of the Mobility Ministry’s Public Servants because he was very close to the MCSs of the municipality:

‘As a user, well I use it very little, when I happen to use it, it is practically from one to two blocks and that’s all […]’ [my translation] (Public Servant 7).

Once in a while, he was an MC user himself. The Public Servant’s social position physically relates to the MCSs phenomenon. He has direct contact with practically every MCSO of the Municipality. As a member of the local government, he knows many dimensions of the phenomenon and that aspect has shaped his knowledge about the MCs drivers. That characteristic indicates that his social position makes him give high priority to the MCS phenomenon on his political agenda.

The case of the MCS Leader (1) from the biggest MCSO in my study zone was very particular. After accepting right away to be interviewed, she gave me the most
extended interview of all, which showed her clear interest in having it. Initially, she indirectly explained her social position from a historical starting point with regard to the MCs phenomenon:

‘[…] it [the MCS] starts to appear for necessity, the necessity of having a job, the necessity of having an open job […]’ [my translation] (MCS Leader 1).

She found herself in a position of social exclusion related to where she was born and had lived all or most of her life. As I explained in the Case Study Chapter, the lack of employment opportunities of the peripheral zones of Mexico City has entailed that the inhabitants create their own ways of making a living from scratch. That characteristic probably creates a sense of belonging and responsibility towards the MCS of the study zone:

‘[…] for me it is a matter of moral that my work, which started twenty years ago, will one day culminate in a concession or permission from the Mobility Ministry where the work we do is recognized […]’ [my translation] (MCS Leader 1).

Apparently, her aims and intentions related to the MCS extend beyond the merely utilitarian and profit-making ones, since her feelings are involved. Additionally, her way of seeing the Mobility Ministry of the city depicts a distance between the Ministry and the MCSs which she has shortened over the years by demanding and asking for public attention. She knows that the only way of getting the Ministry’s attention and defending from it is by seeking legality, which could provide the MCSs with formality, so she even has personal aims in that regard:

‘[…] I have enrolled and have already accepted in high school […] I admire lawyers very much, many good coworkers have defended us and that is my professional objective: I want to be a lawyer’ [my translation] (MCS Leader 1).

She considers that the best way of defending the MCS is by becoming a lawyer. According to her, she has unveiled supposed threats and attempts of closing down and taking advantage of the service by the central and municipal governments on different occasions, and she used the help of lawyers in order to be able to continue with her work. That MCS characteristic reflects how its organizations oppose authoritarian practices (see Adey, 2010). In that regard, the distance between her MCS and the central government becomes more visible when she states the following:

50 Structural story 2: ‘The MCS starts for the necessity of people having a job’.
Her socially excluded social position goes beyond the individual, meaning that the ongoing exclusion reaches even people’s working organizations. Apparently, the government has historically, directly or indirectly, created a social exclusion cycle that goes from social groups to their own economic activities. In this case, this exclusion reflects on the legal frameworks of the city. My description of the MCS as an economic activity does not justify and cheer its illegality, but rather it tries to emphasize and unveil the governmental inattention regarding that characteristic. Rather than romanticizing and normalizing the peripheral MCSOs, my aim is to understand its macro-political social structures and their possible relations based on the key stakeholders’ social positions. According to the MCS Leader, some Public Servants have taken advantage of the service illegality by searching for patronized relationships with some of its leaders:

‘[…] to some groups […] it was said as an encouragement: “When I am there, you will be able to keep working and I will work for you to stay…” […] because new elections will come […] they have done this to us for twenty years’ [my translation] (MCS Leader 1).

She stated that the current ‘disorder’ of the service is the result of the constant free entrance of some MCSOs to the sector that do not take proper responsibility for and care of their activities. Additionally, some people from different central and local public institutions have allowed it in exchange for political support. According to that statement, the government goes in and out of the MCS sector depending on their own political interests. With regard to the mobility power characteristic, the phenomenon involves the creation of symbolic immobility to the MCS by the government in Adey’s (2010) terms. However, in this case, it does not relate to physical mobility but to ‘symbolic’ mobility in working allowance terms [access to options and conditions within motility that I will discuss in the next Chapter (Kaufmann, 2002)]. When the government is not regulating the service but at the same time is giving hope to the service for the possible regulation and illegal permissions for working when elections times come, it causes the MCSOs to ‘freeze’ or ‘paralyzes’ them and makes them stay/stuck exactly in the social position in which they have been for the last twenty years as an informal working sector. That happens due to the government having the monopoly of legality creation (power) in that regard that has reflected domination over the organizations in an historical way (see Finck Carrales, 2015; Adey, 2010). That phenomenon relates to what Sodero and Stoddart (2015) call ‘diverting policies’, which allow legitimacy of governmental contradictions, since in this case, the Municipality’s actions of giving illegal permissions provide legitimacy to the MCSOs. On the other hand, the governmental intervention in the service and its lack of regulation contradict
that legitimacy. As a consequence, the governments confuse the organizations and the users (‘diverting attention’), making them dismiss the macro-political problem as a proper legal framework for the service by merely attending micro-political elements such as micro-management of the issue without specific and formal aims (for example, when the road police randomly takes MCs to the car pound).

In the case of the NGO Servant (1), the Latin American Regional Head of ITDP, his social position seemed to be similar to the Mobility Ministry’s Public Servants with the difference that he accepted to be interviewed in his office located in one central neighborhood of Mexico City.

‘Well look, I’m not a specialist; I know that it is a service, which has answered to, well, a demand for mobility especially in the Southern-Eastern zone […] I don’t know… I mean, I haven’t gone to the zone, I’ve been told about it […] It is a zone that, well… there is a lack of infrastructure […] also, there have been many irregular settlements, etc.; it has a very particular topography […] Let’s see if, well! I’d like to go with you one day to see it with my own eyes, but, well yes, I think it’s an important issue’ [my translation] (NGO Servant 1).

His knowledge about the MCS of the city relates to technical aspects of the study zone even though he has not been there in person. His physical distance from the phenomenon makes him understand it as something technical in most of its dimensions. That is something that is made up from structural stories about the Southern-Eastern zone of the city that could come from academia, the central government of the city, his NGO, other NGOs, private companies, etc. I can phrase them as follows: ‘the MCS answers to a demand for mobility in the South-Eastern zone’ (structural story 3) and ‘the South-Eastern zone lacks infrastructure and it has irregular settlements and a particular topography’.

‘[…] it is a vehicle that in the end is relatively cheap […] it is not something that needs a great investment […]’ [my translation] (NGO Servant 1).

In that way, the statement above reflects a structural story, since by affirming that ‘the vehicle of the MCS is cheap’, the NGO Servant is probably comparing it in his mind to expensive transport vehicles, such as brand-new cars (UBER), buses, the metro, etc. and at the same time, he is probably overestimating the purchasing power of the people that work in the MCS sector.

‘[…] I have the impression that this [the MCS] gives you very much accessibility but it has maybe little capacity and it worries me also in terms of security […]’ [my translation] (NGO Servant 1).
The comment above reflects structural stories about the accessibility, capacity and security of the MCS. He probably has those three concepts very well defined in his mind (whatever they are) from his institutionalized social position. There are structural stories within his statement that I can phrase as follows: ‘The MCS gives people very much accessibility’ (structural story 4) and ‘MCs are dangerous’ (structural story 5). This aspect indicates and stresses his distance from the phenomenon because his relational thoughts are based on ‘distorted’ information that has been ‘traveling’ at macro-levels as structural stories until reaching him. Within this interview analysis, my aim was not to expose the NGO Servant’s lack of knowledge or closeness to the peripheral MCS as a critique, but instead my aim was to unveil his social position with respect to the service by acknowledging those aspects. Therefore, the NGO Servant’s structural stories about the peripheral MCS relate to Freudendal-Pedersen’s (2018) explanation of people’s preconceptions of other people’s macro-political characteristics that make them the first to dismiss other people’s structural stories that might be common. In this case, it is through macro-political geographical and social class separation that the structural stories about the service are prejudging it in a power-relational way.

In the case of the interview with the Scholar (1) from the National Autonomous University of Mexico (UNAM), it is important to take into account that in 2014, he had carried out a technical diagnosis of the MCS in the neighborhood next to my study zone, so he already had consistent (mostly technical) knowledge about the phenomenon. His projects commonly tend to be coordinated with some central government ministries of Mexico City and external NGOs or private companies, so he knows how other key stakeholders think and act with respect to transport issues in the city. He works on behalf of his academic laboratory of Mobility and Green Infrastructure at UNAM, where he has a specific vision and aims:

‘[…] what we want is for the investment in the city to be more efficient […] that the investments in those nodes [peripheral] could be associated to this type of mobility […] the best way of creating proximity is through multidisciplinary projects and for these have a more holistic vision in which mobility is one of the topics, not all the topics’ [my translation] (Scholar 1).

His statement above involves his acknowledgement of a lack of ‘access to the city’ for inhabitants from peripheral zones (see Sheller, 2014). By being aware of those technical aspects based on fieldwork research, I understand that these are different from the technical aspects of the NGO Servant from ITDP. I argue that that is possible, since having embodied experience [body and mind affected by materialities that I will discuss thoroughly in the next Chapter (Jensen and Lanng (2017)] in the phenomenon creates different ‘worldviews’ about it in people’s minds. Such worldviews are different from the ones obtained just by being told about them as ‘voice-
to-voice’ structural stories as they have been experienced rather than only heard.

‘Well, I don’t use it [the MCS], I know very little’ [my translation] (Scholar 1).

Additionally, the Scholar acknowledged himself as someone that knows ‘very little’ about the phenomenon based on the fact that he has not used the service. His social position, however, was modified from the moment he did his fieldwork research about the peripheral MCSs because it made him extend his ‘worldview’ of the phenomenon through his own experienced ‘embodied’ structural stories about it.

In the next sub-section, I will explain structural stories that reflect the MCS stigmatization. It involves how people look at the drivers of the MCS. However, the informality characteristic of the MCS favors negative structural stories about it. These also help people to differentiate between the MCSOs of the study zone. Structural stories, therefore, can change people’s ideas about the MCS.

5.1.2. Changing people’s stigmatization of the MCS through structural stories

With regard to the interviewed people’s ideas and opinions about the MCS and its drivers, these were commonly depicted as stigmatization. For example, the Public Servant from Tláhuac’s Municipality, who is very close to the MCS phenomenon, has his own opinion about the MCS drivers:

‘[…] they don’t respect the transit laws, don’t respect the pedestrians’ [my translation] (Public Servant 7).

The structural story above stigmatizes the MC drivers as dangerous while they drive — maybe because he has seen some of them doing that. Additionally, there is another negative depiction of the drivers according to him:

‘[…] the taxi drivers don’t tolerate the MC drivers. Why? Because the taxi drivers pay their taxes, their permissions and the MC drivers don’t’ [my translation] (Public Servant 7).

The stigmatization of the MC drivers has apparently been built up by different social groups and for different reasons that could be socially and/or geographically close to

51 Structural story 6: ‘MC drivers do not respect the transit law and the pedestrians’.
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their working sector. The depiction of them does not only relate to the structural stories built up from the praxis of using the MCS (embodied structural stories), but also from other stories based on other praxes that come from other social groups. Thereby, when the Public Servant from Tláhuac’s Municipality adds up all those stories in his own mind, he reaches a consistent conclusion:

‘[...] about 50 percent of the community accepts them [the MCs] and 50 percent doesn’t’ [my translation] (Public Servant 7).

His conclusion is that the common or general opinion about the MC drivers is 50-50 percent and he never assured that the Municipality has carried out a single survey that validates that statement. That means that his conclusion was merely based on a mix of structural stories in his mind.

So far, it is important to state that, from this research empirical material analysis, structural stories are not necessarily based on false events, but some are also based on real events. For example, the MCS Leader assured indirectly that the stigmatization of the MC drivers relates to some of the service characteristics:

‘[…] We know that our vehicles pollute. A public servant once told me: “no, a motorcycle doesn’t pollute” […]’ [my translation] (MCS Leader 1).

Far away from justifying why her service uses motorcycles instead of bicycles or electric bicycles, by talking about an old chat with a public servant, she seemed to realize that the stigmatization of the service parts from the way people provide it.

‘[…] a person that doesn’t have an ID and happens to ‘throw’ a person [an user] […] that affects the whole guild as they [people] would say: “A bicycle-cab ‘threw’ me and left me there on the ground” […] we are trying to get rid of the bad image that we have because it is our job and we take care of it […]’ [my translation] (MCS Leader 1).

With the statement above, she is apparently aware that the MCS is vulnerable to bad images created from single events that could turn into structural stories. In the quote of that example, an MC accident could affect the organizations of the whole neighborhood. Therefore, the stigmatization relates to the lack of the service regulation because its legal vulnerability entails that some MCSOs do not have the proper conditions for implementing the service and that the MCSOs, for example, do not have access to proper accident insurance. That has a cascade of negative implications favoring the service stigmatization. The MCS Leader also sees this as something that it is already in people’s minds:
'There have been criminal activities inside the carts with the MCs, and they [the users] don’t know how to tell us what happened because they say: “It was one MC but, well, it was ‘black’.”'

Thereby, the service stigmatization is something that partly comes from ‘embodied’ structural stories (as these are based on people’s direct physical and mental experience) that sprang from some cases of criminal activities related to the MCs. In that example, the story tells that the ‘black’ colored MCs are dangerous. The story, however, evolves into the study zone people’s minds until the point of affecting the whole zone MCS regardless of the MCs colors, which vary a lot between organizations (that is how they distinguish between one another). From the statements of the Public Servant of Tláhuac’s Municipality and the MCS Leader, I argue that the vulnerability of ‘the service sector entailed by its informality favors the construction of generalized negative structural stories’ (structural story 8), entailing stigmatization.

In that regard, the NGO Servant from ITDP talked about some of the consequences of the lack of regulation of the MCS:

‘[…] the [central] government wants to regulate but, at the same time, many times it doesn’t know how, then some ‘mafias’ start to appear from both the current [MCS] organizers and the ones that want to get in, so those tensions are not often positive for the neighborhood […]’

He probably got the information in his quote above from what I call ‘voice-to-voice’ structural stories (stories that ‘travel’ between different macro-political structures and get ‘distorted’ in the process), since he never mentioned that he had read studies about peripheral MCSs of Mexico City. His closeness to the Mobility Ministry and other transport NGOs has made him create or realize the service stigmatization, where the macro-political structures of the phenomenon have become the source of knowledge. However, during the interview, he started asking me questions about the MCS and, after receiving my answers, when he had learned more about the phenomenon from me based on the outcomes of my research, his opinion about the MCSs started to change slightly in some respects:

‘Yes. Well there are things that yes, maybe it [the MCS] is already well organized and it only needs a ‘push’ […]’

Therefore, scientific knowledge about the MCS could favor its de-stigmatization to

52 Structural story 7: ‘Black MCs undertake criminal activities’.
the extent such knowledge is disseminated as ‘scientifically documented’ *structural stories* within the macro-political structures. The stigmatization of the service also comes from the lack of attention and distance from the social groups. From the NGO Servant’s example, I therefore argue that ‘structural stories could be constantly (re)shaping people’s ideas about the service’ (structural story 9), depending on the attention given to the stories and their dissemination within different macro-political structures. This aspect indicates an opportunity for changing the stigmatization through, for example, scientific knowledge about the service towards a more positive depiction. Thereby, structural stories play an important role within the MCS on a macro-political level, since they have the power of changing people’s opinions about it regardless of their social position in regard to the service.

5.1.3. The possible regulation of the MCS: towards balancing power between social groups

In this sub-section, I will explain the power relations between each social group and the MCS based on structural stories. This relates to the possibilities of regulating the MCS in Mexico City. The rules are important for improving the MCS, since its disorder generates troubles. For that reason, the government has to listen the MCS leaders. Nevertheless, the central government is not willing to regulate the service as its social position is very distant from the phenomenon and other social groups.

Regarding the regulation possibilities of the MCS, each stakeholder’s social position could explain their points of view as ‘voices’ in relation to possible future scenarios. For example, the Public Servant from Tláhuac’s Municipality talked about the different interests of the MCSOs:

‘[…] it is difficult to deal with the ideals of every organizer, everyone has his/her own point of view and way… we don’t intervene in how they lead their organizations, but we try to plan a good project in order for everybody to work in harmony with the municipality […]’ [my translation] (Public Servant 7).

At the end, according to him, the 35 MCSOs of the municipality just want to provide the service after communicating their demands to the government of the Municipality. Apparently, he has listened the organizers’ demands and has worked on them to the extent of his power possibilities. With that, he has a main aim in mind:

‘The ideas are the dialog with people, with the organizers that, at the same time, take good care of the
public [...] that is one of the priorities, the good care; and that way, you can accept them in the future without any problem. [...] for trying to make a good project that benefits the community and, if in the future it reaches paperwork processes, to be part of it [...]’ [my translation] (Public Servant 7).

His aim is that the service takes proper care of the users and, with that, to keep incorporating MCSOs. Even though he wants to develop the coordination of the services by the Municipality, as I mentioned before, the Municipality does not have the legal faculties for doing it. It is interesting that he mentions how the MC drivers should behave towards the public, even though he acknowledges at the same time, that there is no formal regulation for providing the service yet (as a sort of ‘regulation within the informality’). Nevertheless, according to him, he tends to listen to the demands of MCSOs leaders and tries to make agreements with them towards a more likeable and safer service for the public (users and non-users).

In that regard, the MCS Leader has implemented and abided by the MCS ‘illegal regulations’ that have come from agreements between the Municipality and the organizations as something positive:

‘Here in Tláhuac, a regulation was developed 3 years ago [...] with it, we told to the youth [MC drivers]: “This is what the authority dictates and we have to follow the rules”. It worked very well for us [...]’ [my translation] (MCS Leader 1).

Seemingly, the regulations were actually partly a coordinated effort that came from the willingness of the Municipality and the organizations. Her statement indicates that having the rules have helped them to have certain control and coordination over the different MCSs in the study zone53, especially over their drivers. Rules creation and implementation, therefore, are necessary for the improvement of the service, since these seem to somehow balance the power distribution between its macro-political social groups because, in this example, the MCSOs and the government have agreed on common rules.

‘Today, we know that according to the Law, [...] the permission should be given by SEMOVI [the Mobility Ministry] [...] the disordered way is what causes troubles54’ [my translation] (MCS Leader 1).

Regardless of the conflicts between the government of the Municipality and its MCSOs, she somehow and to some extent has had a ‘voice’ to be listened to when

53 Structural story 10: ‘Rules help with the coordination and control of the MCS’.
54 Structural story 11: ‘The disordered way of providing the MCS involves troubles’.
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attempts of regulation have been made. Moreover, she has participated together with other MCSO leaders in several attempts of what could be the starting of the service formalization in the City Congress.

‘[…] four years ago, more or less, the intervention in the [Mobility] Law that gave us at that time the President of the Mobility Commission of the Congress of Mexico City. Together, we had several meetings, many I would say, in order to agree on this new Law that would make it possible to start our regulation’ [my translation] (MCS Leader 1).

Some of the MCS leaders in the study zone have met with Congress people who have been in charge of the transport regulations of the city. Nevertheless, the MCSOs have had to learn how to defend themselves legally when the central government of the city (the executive branch) put pressure on them with regard to their illegality.

‘[…] sometimes we have to dig deep into different Laws to learn to what extent we are right or wrong and that gives us […] that capacity of defending ourselves, for example, from the abuse by […] the ‘motor mice’ […] because they arrive and tell you: “Stop, I’m going to take your vehicle to the car pound”, wait… here is my regulation and it says that you can only give me a penalty […] [my translation]’ (MCS Leader 1).

In her example, the road police of the city that use motorcycles are what the study zone MC drivers call ‘motor mice’. According to the MCS Leader, these tend to chase and apparently blackmail the MC drivers by taking advantage of their service irregularities. Paradoxically, the MC drivers and MCS leaders defend themselves from the road policemen by showing them the regulation that they created together with the Municipality, even though this does not have any legal validation but it has legitimation. It seems that for some reason the ‘illegal regulation’ has helped the MCS against those apparent abuses.

‘[…] so far, we have been asked to take action to stand, and we are ready […] We would like only that, and in the same way, the authority […] clarifies the legal loopholes which they always talk about and starting to working together’ [my translation] (MCS Leader 1).

She assured that the MCS workers are willing to follow ‘legal rules’ if such rules are issued. She also acknowledges that in order to create the regulations, it is necessary to have knowledge about the phenomenon, such as formal diagnoses and studies.

‘There have been studies where […] they [the government] tell us and everything, but we don’t know the results and they haven’t told us […]’ [my translation] (MCS Leader 1).
The central government has told the organization about apparent studies on MCs that it has carried out without inviting the organization to take part of or even sharing their results with them. This suggests a clear separation between each social group, even when the leaders have been invited to meetings in the City Congress. On the other hand, the Public Servant from Tláhuac’s Municipality assured that his administration has reached census about the number of MCs in the municipality although the MCS Leader did not mention that.

‘I would like one day for the Government to let us express ourselves like that. They always give us 5-10 minutes and they tell us and goodbye, ready, bye. No! There should be open tables where we could really express ourselves. I know that many of us don’t have that skill because […] we haven’t got the required education, and the Government doesn’t let us express ourselves that way, but believe me – we have the knowledge and willingness’ [my translation] (MCS Leader 1).

The quote above is divided in two interesting statements that are interrelated to the social position issue: on the one hand, when the MCSOs have gone to the City Congress, these have had little ‘voice’ in the meetings. According to the MCS Leader, they have been invited to take part in the meetings, but they have not been completely listened to by the government55, which probably makes the government dismiss the needs, issues, opinions, ideas and even knowledge of the MCS leaders about the MCS phenomenon. On the other hand, the MCS Leader considers herself as less educated than the Public Servants, especially than the Congress people. It is interesting to conceive her statement as an indirect justification of the Public Servants’ lack of interest in listening to the MCS leaders by acknowledging that the MCS leaders are supposedly less educated. Actually, through my studies and the interview outcomes, the leaders have proved to have much more information and knowledge (mostly empirical) about the MCS phenomenon than the public servants of the city I have been in contact with. In this case, the difference of social position between the social groups is mainly based on their socioeconomic and political power levels, which, at the same time, are based on their geographical position and social class within the city. Therefore, I interpret the statement of the MCS to be related to that as that ‘people’s power level in mobility and transport issues for its regulation depend greatly on their individual social positions’ (structural story 13).

Moreover, it is important to point out that only few of the MCS leaders in the Municipality are invited to participate in the Congress meetings, which means that even though this could be an attempt of inclusiveness, it can also be an exclusionary activity. The leaders who are invited are usually those with a political closeness to some Congress people. This makes the invited leaders possible ‘breakers’ in Van Eijk’s 55 Structural story 11: ‘The City Congress has not listened to the MCS leaders’.
(2010) terms as they tend to get more power than the other leaders within their own social network, as the invited leaders can control the obtained information for their own advantage and benefit. This can create a power misbalance between the sector of the MCS leaders, guided by politicians who get close to only some of them mostly for political reasons (in exchange of ‘political favors’). Therefore, in those terms the MCS is ‘politicized’.

In the case of the NGO Servant from ITDP, his social position could apparently be between the ones of the MCSs leaders and the public servants, since its institution has a certain extent of power regarding mobility and transport issues.

‘[...] if it could be possible, we as an organization have always supported very much [...] the topic of the three-wheel freight and also for two-person carriage. [...] in other cities, in ITDP-India, it helped improved the design of the rickshaws [...] it was a great victory that these weren’t banned [...]’ [my translation] (NGO Servant 1).

The NGO Servant explained that his institution has gotten involved in other countries’ cases of informal transportation, where they had carried out studies and even political interventions about it. Those types of phenomena are not probably outside ITDP’s interests and ‘attributions’. However, for some reason, ITDP Mexico has not been interested in intervening in the MCS of Mexico City even though ITDP is very close to the Mobility Ministry and the City Congress. Actually, the NGO Servant from ITDP formally recommended my PhD research project for being granted a full public scholarship on behalf of his institution. The NGO Servant’s social position therefore is not right between the other two social groups, but rather it is closer to the central government. The relations between ITDP and the Ministry and the lack of relations between ITDP and the MCSOs are core points within mobility power distribution. How close those social groups and persons are is probably the basis for the service regulation possibilities.

In that regard, the Scholar from UNAM had an interesting statement about why the central government of the city had not gotten close to and, consequently, had not regulated the peripheral MCS yet:

‘[...] there is a social class barrier, mainly towards the decisions makers on the governmental level because on the one hand you have that they want to ‘do’ as they ‘do’ in Denmark, and Denmark is usually one ‘mental regression’ and one reference of the decisions makers, but they don’t realize that the bicycle mobility is seen in the parts of [Mexico] City’s East where there are very few resources and where it is a life style, and when they have the opportunity they ‘beat’ them [the MCSOs]. [...] [A]s a country, when we talk about mobility, our decisions makers have an emotional dependency [...] it
really affected them to have been in Denmark [...] they told us: “No, it should be as in Denmark”, and we, well: “It cannot be as in Denmark because this is Mexico”. But there are still many decision makers there in the key sectors, who keep thinking that it has to be like in Denmark without taking into account that the problem of social justice in Mexico happens before, in an urban way, in the access to housing and dignified work. [...] it is a problem of social class, I’m telling you, regarding the professions/trades. Thereby, currently an MC driver and an UBER driver cannot be seen the same way, but actually they are the same, they are providing the same service. [...] I think that in order to improve, the service would need a legal status, that is the main thing, [...] recognized by SEMOVI. They [the public servants] should stop looking down on them (the MCS workers). I imagine that if they were like those blonde guys who are there, in ‘Strogetts’ [a European street] waiting for people, they would see them in a different way. [...] it is very odd because the same public servants, who go there [Europe] and get in and use them [the bicycle cabs], are the same who are ‘beating’ the [MCSs] groups here. Therefore, SEMOVI in that sense has a great challenge’ [my translation] (Scholar 1).

His statement above addresses different dimensions that could explain the lack of MCS regulations in the city. The basis is the social position from the acknowledged differentiation of social classes and skin colors. However, his explanation goes many steps back by tackling ontological aspects: as I explained in the Philosophy of Science Chapter, transport studies and projects in Latin America tend to be adaptations of other European/Anglo-American ones. In my study case, for some reason and according to the Scholar from UNAM, ‘transport public servants of Mexico City identify more with European cities’ (structural story 14). They want to force-adapt what they see in Europe into Mexico City, and apparently the issues that are not similar to the European are completely invisible for them, such as the peripheral MCS. What they see in Europe translates into ‘voice-in-voice’ structural stories: some Public Servants go to Europe; when they go back to Mexico, they tell how well things are done there to other Public Servants, scholars, entrepreneurs, etc. from their own social position until creating solid stories in these people’s minds about, in this case, transport policies. The possibilities of the MCS regulation therefore part from the ontological level of acknowledging, in first place, the existence and importance of the phenomenon in contextual terms and, then, consequently opening the possibilities for giving ‘voice’ to the people who are part of it, such as leaders, drivers and users. That could be done in order to balance the mobility power of the phenomenon on a macro-political level.

In summary, the interviews that I carried out helped me frame the key stakeholders’ social positions in relation to their interests in the MCS, some of which reflect the stakeholders’ political or professional agenda. Those interests are based on stakeholders’ personal formation within their social institutions and networks. The important element of that aspect is the stakeholders’ individual but institutionally gained level of power in relation to the MCS phenomenon. The manifestation of this
depends on the stakeholders’ individual social positions. However, with that in mind, I do not imply that the interview method could be the unique scientific tool for working with macro-political social positions, since this could entail shortcomings. For example, maybe what MCS Leader told me during her interview was what she wanted me to hear in order to create structural stories in me about her, her MCSO, and the governments as she was very interested in having the interview, and she is clearly an intelligent person who could have calculated and planned to do that. Nevertheless, the important point here is that, for example, her simple interest in ‘clearing’ the MC stigmatization from my mind indicates an interest based on personal experience and needs, which are very different between each interviewee but provide slight glimpses of their different social positions that could relate to power display within the phenomenon.

Furthermore, the interview analysis helped me define different typologies of structural stories about the study zone MCS. The variation of each stakeholder’s knowledge made me unveil the different ways and sources from which they had gotten that information. This could be ‘distorted’ through time: 1) ‘Voice-to-voice’ structural stories are the stories that pass from one macro-political institution to another, which people could distort in the process. People do not get these stories in relation to their own embodied experience. 2) ‘Embodied’ structural stories are the stories that come from people’s individual experience involved in places and their materialities as time-space context, affecting their bodies and minds (these were also an outcome of the field analysis). Finally, 3) ‘scientific’ structural stories are the stories that come from documented scientific findings and provide reliability to people based on scientific validation, ranking and reputation. The importance of these categories rests on the fact that structural stories can shape people’s perspectives and opinions about a phenomenon towards their worldviews, so these are significant when relating them to social praxes. Separating them into those categories makes it easier to understand their sources, possible social relations, power displays and implications, and even consequences of the phenomenon to which they belong on a macro-political level. Therefore, in the case of the study zone MCS, it is important that the governments make sure to listen to the statements provided by the MCSOs beyond fulfilling public meetings quotas, where merely the ‘privileged’ MCS leaders only have only had 5-10 minutes to express their ‘demands’ and opinions (the City Congress has done this until now). The different social groups have to meet physically and have to listen carefully one another in order to share their different types of structural stories as a communicative process of the issues relating to the phenomenon. Here, the power relations could balance from an ontological acknowledgement to an active one. This process involves passing from the macro-political level to the micro-political level.
5.2. Community formation through working activities, negotiated use of the public space and participation in traditional festivities

The community aspect is one of the macro-political stakeholder elements which I can take into account in order to unveil the potential relations between the praxis of the people in the study zone and the one that involves the MCS. Thereby, during the interviews, I unveiled aspects related to that.

In the next sub-section, I will explain the social relations inside an MCSO based on one service leader’s structural stories. Such structural stories involve job support and solidarity between the service workers based on affective relations beyond the utilitarian.

5.2.1. Inner community formation within the MCS as a solidary social group

During her interview, the MCS Leader explained the process that entailed the change of the MCS from bicycles to motorcycles. By doing so, she justified the process with utilitarian economic practicalities but she also assured that having the motorcycles has involved a sort of social inclusion for MC drivers working within the sector networks.

‘[…], we replaced the bicycles by motorcycles. These were more comfortable, it was more practical, we paid them in small weekly payments […] nowadays you see [in the study zone] women, elderly people, young people, sometimes even kids riding a motorcycle’ […] [my translation] (MCS Leader 1).

Having the motorcycles for providing the service had certain advantages. However, the shift of vehicles was also an opportunity for other persons other than male adults to become an MC driver. In that regard, the service has become inclusive as it provides working opportunities to different social groups. The relation driver-motorcycle as an embodied performance (see Jensen and Vannini, 2016) thereby plays an important role for working inclusion. That aspect reflects and relates to Mignolo’s (2011) suggestion of communality formation in relation to shared working activities and their wealth outcomes, which could go beyond utilitarian aims. For example, the increasing demand of the MCs does not only relate to the shift from bicycles to motorcycles, it has also entailed self-manufacturing of MC-pulled carts that carry passengers (hansom). That is something which even the Scholar from UNAM acknowledged:
‘[… there are many good carts manufacturers and welders throughout the Eastern zone of the city’ [my translation] (Scholar 1).

That self-manufacturing has become a productive sector of technology, which has evolved over time in relation to the changes of the MCS that are, at the same time, based on its users’ mobile praxes. It is a sector that is geographically close to its buyers and where the manufacturers could even take part in the service organization themselves. The productive systems of the MCS are found in the same place as people who coordinate it, forming a macro-political social group (institution). Moreover, the community characteristic of the service goes beyond productivity as it parts from its inner self-organization and self-regulation. According to the MCS Leader, at least in her MCSO, there is a feeling of community that reflects on their workers’ actions within the organization.

‘[… here, we have small programs with which we help young people […], in my organization, we have beautiful stories where, for example, we have had young workers who reached the university thanks to the effort of themselves and their fathers or mothers in supporting them with this transport [the MCs] […]’ [my translation] (MCS Leader 1).

She partly considers the service as a job support especially for young people or other adult workers that need a supplementary income, since being an MC driver cannot provide them with sufficient money for themselves and their families, especially drivers who do not own the vehicle (see Finck Carrales, 2015). Anyhow, the service organization aims to help especially its elderly and young workers by getting close to them and even to their families.

‘[… at a personal level, when we have had a loss, the solidarity of the coworkers has been proven’ [my translation] (MCS Leader 1).

Sometimes, her organization even helps the workers with funerals when they lose a member of their family in case they do not have enough money to paying for the funeral. It is interesting that regarding that point, within the interview she said: ‘When we have had a loss’. She could have said instead: ‘When some of my (co)workers have had a loss’. That particularity in her sentence formulation expresses how close the MCS leaders can be to the MC drivers. This could symbolize that their relations go beyond the boss-worker or coordinator-coordinated ones. Therefore, those relationships could direct to a more personal level, which could favor community/communality creation within the MCS as an inner community based on

56 Structural story 15: ‘The MCS is a job support’.
57 Structural story 16: ‘There is solidarity between MCS workers’.
personal solidarity and empathy. Nevertheless, so far, the economic and communicative disparities within the MCSOs (reflected as power levels between the leaders and the workers) form an inevitable hierarchy between their participants.

5.2.2. The MCS role in community formation: a more-than-utilitarian and de-stigmatizing aspect

In this sub-section, I will address the role of the MCS in the community formation of the study zone. This relates to the positive sensations that the service provides to its users. In addition, MCS workers interact with neighbors when negotiating the use of the public space. The MCS workers counteract their stigmatization by taking part in communal events in the study zone. Those aspects favor affective relations between the MCS workers and their service users and non-users.

With regard to the possible community formation within the MCS towards the neighborhood public (meaning beyond its inner organization), during the interview, the MCS Leader shared information about how the service satisfies its users’ needs:

‘[…] somebody arrives very tired from work, we see it every day, people arrive annoyed, tired from commuting, the travel, the metro and when he/she sits in the bike cab, he/she can really rest and arrive to his/her home with calm […] the passengers feel safe and calm […] they sit comfortably in the seat of the bike cab because they know that they told to the guy [driver] where to go and he will take him/her there’ [my translation] (MCS Leader 1).

She assured that the service entails positive sensations on the users that relate to a feeling of security and comfort. Furthermore, it is interesting that she called the vehicles ‘bike cabs’ when there is almost none of them left in the study zone, since these have for the most part been replaced by MCs. However, I could also perceive in other of her stories that providing the service could go beyond the utilitarian client satisfaction logics by trying to get closer to the users in other ways:

‘[…] last December, very funny, one little girl left her sneaker [in one MC] […] so we published it on the social media, on Facebook […] A lady came [her mom] […] she saw it on the social media […] she hurried up to us and she showed it to us: “Look, look! Here is the other one, yes, it is mine!” […] I mean, those kinds of services we provide, we do them happily because, well, it is our own community […]’ [my translation] (MCS Leader 1).

58 Structural story 17: ‘The MCS involves security and comfort for its users’.
Some of her stories showed the different dynamics that people of the study zone have experienced with the MCS, where the aspect of belonging to a community constantly makes present. The service therefore reaches the point of being part of the community as the neighborhood is historically formed from different urban-precolonial aspects and mixes (see Duhau and Giglia, 2009). Within that paradigm, for example, there are other stories where the use of public and private space makes presence:

‘[…] we have built the [MC] stops, that’s right! We take care of them, we sweep, we clean […] in some cases, at some stops, we used to paint every year the house of the neighbor so that she wouldn’t throw us away from that street corner […]’ [my translation] (MC Leader 1).

In the story above, the public space is the sidewalk, but this has become a sort of private and even ‘intimate’ space that ‘belongs’ in first instance to the people of the house placed by it, reflecting an ‘unwritten’ social rule. Hence, when ‘invaders’ try to use a street corner as an MCS stop, they have to negotiate and mediate its use with the neighbors to the point that they have taken care of it in exchange. From the working activities of the MCS, the workers take care of the public space and its activities become part of the community to certain extent. Furthermore, that MCS aspect could possibly counterweight its stigmatization. For example, when the stigmatization of the MCS reflects from people’s structural stories, it seems that its workers tend to take action against it, so that sometimes they participate and get involved in communal activities of the study zone besides the ones related to negotiated spaces:

‘[…] that social distinction as “the last of the last”, sometimes makes us feel bad […] That is the reason why my co-workers get happy when we have the opportunity to participate, for example, in a school […] in a spring festival […]’ [my translation] (MCS Leader 1).

MCS workers know about their stigmatization and, therefore, try to counteract it by participating in some of the study zone public activities, such as in carnivals and fairs. Additionally, they have participated in school spring festivals by being part of them or by providing their assistants with the service.

In the case of the Public Servant from Tláhuac’s Municipality, he recognized a relation between the MCS and the neighborhood communities:

‘[…] we try to do our best to help the people, the community and, at the same time, they in the same

59 Structural story 18: ‘The public space becomes a sort of private and ‘intimate’ space that is negotiated from unwritten social rules’.

60 Structural story 19: ‘The MCS workers try to counteract their stigmatization by participating in communal events’.
way […] help us to create a good job, a good project to make this go on’ [my translation] (Public Servant 7).

His statement above indicates his acknowledgement of the ‘positive’ outcomes of the MCS towards the community despite its illegality. His perspective and priorities with regard to the MCS coordination goes in favor of the public, meaning the community. He did not explain that relation in a direct way in terms of how the MCS could build or/and improve the community. However, the important aspect here is that he, as a public servant, acknowledged that aspect from his social position.

On the other hand, the NGO Servant from ITDP acknowledged the community aspect of the MCS in a different way. During his interview, his distanced social position from the phenomenon made him use a ‘scientific’ structural story for explaining that relation:

‘[…] it is a zone that has its own dynamics, its own, let’s say customs and habits, so that it can be an obstacle, it could be an opportunity if it is well understood and if it undertakes a good work with the community […] people just want to reach their destination without caring about the conditions’ [my translation] (NGO Servant 1).

He knows somehow that ‘the study zone has its own dynamics’ and such dynamics are probably different from the central zones of the city. He also acknowledges that ‘the MCS could improve by working in favor of and together with the community’. However, he stressed the users’ utilitarian characteristic of the service related to transport time-space efficiency, which is supposedly more important than the service security and comfort. That statement involves structural stories that could come from other studies about the peripheral zones of the city, which could be mainly or merely technical. Within his interpretation of the service outcomes and its relations with communities, the utilitarian aspect practically defines and mediates these completely.

On the contrary, the Scholar from UNAM related the efficiency of the MCS to the social ties that this could entail:

‘[…] those are enchained travels and that has a very interesting effect because “when I’m going to take my child to school…”, which we observed a lot here [in his own fieldwork], “…the MC is very useful for me because it doesn’t make a return journey, but rather it makes a journey that takes me to pick up my child from school, my child gets in the MC and it takes me to the market.” […] it transforms in a sort of “family vehicle” that, at the same time, provides a service. Thereby, it has many advantages’ [my translation] (Scholar 1).
He knows some processes of the MC journeys from his own fieldwork research. With it, he realizes that the journeys that people can carry out with the MCs provide a certain ‘family gathering’. The MCS therefore could help tie and strengthen the neighborhood community from everyday journeys as embodied performances (see Jensen and Vannini, 2016). Here, the relation between the service benefits for its users goes beyond their transport utilitarian needs and aims into more personal and social network-related levels. Furthermore, the unchained travels are pre-arranged with the MC drivers, so the personal closeness between the driver and the user is a social encounter of mobile needs’ acknowledgement and, probably, even empathy.

Overall, the possible community/communality formation and implications related to the MCS were important outcomes of my interview analysis: the MCS productive sector proved to be a more-than-utilitarian system, where its stakeholders are forming an inner community. It compounds people’s personal involvements that relate to the MCS and people shape them through solidarity, empathy and wealth sharing within its working activities. On the other hand, the interviews also reflected the aspect of community formation from the MCS towards the study zone neighbors on three elements: 1) The positive sensations that the MCs could favor to its users, including extra services that can directly or indirectly favor closeness between each other and even a sort of embodied ‘family gathering’ through the user and driver-client encounters. 2) The public-private spaces negotiated with the neighbors that the MCs use in exchange for taking care of the space reflects the neighbors’ acknowledgment of MCS as caring for the community. Finally, 3) the participation and involvement of the MCs in the traditional activities and festivities of the neighborhood to be part of the community. Those three elements aim mainly, directly or indirectly, to destigmatize the service as a first step in its formalization by creating or renewing different (‘positive’) structural stories about the MCS in the process. Moreover, these stories possibly could reach other key stakeholders of the phenomenon that belong to other macro-political levels at a point (by ‘voice-to-voice’), especially if they meet and communicate with the MCS workers and users at a micro-political level.

Chapter conclusion

I answered my first research sub-section: 1) *What are the stakeholders' ideas, experiences and opinions that relate to the motorcycle cab service of the study zone?* I relate those stakeholders’

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61 Structural story 20: ‘MCs journeys provide people with a certain sense of ‘family gathering’ strengthening the community with embodied performances, going beyond utilitarian needs and aims’.
characteristics to the 20 structural stories I found as follows:

\textit{Stakeholders’ social positions}

1. ‘The Ministry of Mobility is not interested in the MCS phenomenon of the peripheral zones because it is not part of their social position in terms of their political agenda’.
2. ‘The MCS starts for the necessity of people having a job’.
3. ‘The MCS answers to a demand for mobility in the South-Eastern zone of the city’.
4. ‘The MCS gives people very much accessibility’.
5. ‘MCs are dangerous’.

\textit{Stigmatization of the MCS}

6. ‘MC drivers do not respect the transit law and the pedestrians’.
7. ‘Black MCs undertake criminal activities’.
8. ‘The service sector entailed by its informality favors the construction of generalized negative structural stories’.
9. ‘Structural stories can change people’s ideas and opinions about the MCS’.

\textit{Power relations in relation to the MCS}

10. ‘Rules help with the coordination and control of the MCS’.
11. ‘The disordered way of providing the MCS involves troubles’.
12. ‘The City Congress has not listened to the MCS leaders’.
13. ‘People’s power level depends on their social positions’.
14. ‘Transport public servants of Mexico City identify more with European cities’.

\textit{Inner community of the MCS}

15. ‘The MCS is a job support’.
16. ‘There is solidarity between the MCS workers’.

\textit{Community in the study zone}

17. ‘The MCS involves security and comfort for its users’.
18. ‘The public space becomes a sort of private and ‘intimate’ space that is negotiated from unwritten social rules’.
19. ‘The MCS workers try to counteract their stigmatization by participating in communal events’.
20. ‘MCs journeys provide people with a certain sense of ‘family gathering’ strengthening the community with embodied performances, going beyond utilitarian needs and aims’.

At the same time, I categorized the structural stories in embodied (personal experience), voice-to-voice (word of mouth), and scientific (study outcomes) stories in order to know and understand their different sources. There are two important implications in that regard: 1) structural stories have the power of changing people’s ideas about the MCS and 2) structural stories can ‘travel’ between social groups, getting distorted in the process.

Furthermore, I make five conclusions from this Chapter: 1) The majority of social groups related to the MCS phenomenon are distant and different from one another, such as the MCSOs and the Mobility Ministry or the MCSOs and the ITDP. However, some of them are closer, such as the MCSOs and the Municipal government. 2) The MCS and its drivers are stigmatized through negative structural stories about them. 3) The power to regulate the MCS depends mainly on each social group’s geographic position and social class within Mexico City. Therefore, the City Congress and the Mobility Ministry have much more power than the Municipality and the MCSOs in that regard. The central government’s social groups have more power than the other groups and are not interested or willing to regulate the service. 4) On the other hand, the internal organization of the MSSOs involves affective relations between its workers. 5) There are also affective relations between MCS workers and its users and the study zone neighbors. These are favored through the positive aspects of the service, and its workers’ care for the public spaces and participation in communal events. Those practices counteract the MCS stigmatization as they favor positive structural stories.

In the next Chapter, I will analyze the fieldwork I carried out in the study zone in order to understand and unveil the importance of the MCS there. For that purpose, I will relate some of the structural stories gathered in this Chapter to people’s praxis.
Chapter 6. Motility related to the motorcycle cabs of the neighborhood

This Chapter aims to answer my second research sub-question: 2) What is the importance of the use of the motorcycle cab service in the study zone? For that purpose, I make use of the data I obtained from my fieldwork, which includes pictures, stationary videos and my observation notes. Furthermore, I make mainly use the concepts of motility, shared street, materialities, structural stories, and communality/community. This Chapter therefore addresses the importance of the MC use in the study zone in relation to its public space conditions, humans-materialities relations, people’s mobile praxes, people’s structural stories and community formation related to formal and informal economic activities and affective relations. Those elements bring other perspectives to be taken into account in the transport planning. Those perspectives are different from rational-choice and time-space efficiency logics. This shift in planning is important because so far, mostly positivistic studies of the MCS have been carried out.

I structure this Chapter in sections according to the three elements of the motility concept (access, skills and appropriation) in order to relate it to the neighborhood MCS, understanding its importance and role in the study zone. Additionally, I relate some structural stories I obtained with my interview analysis to the sections of the Chapter. First, I explain that people depend on MCs for fulfilling mobility needs. This reflects on reproductive praxis in relation to people’s access to options and conditions for moving. That process modifies people’s power relations, resulting in different types of social and economic activities taking place in street intersections. The contextual characteristics of the study zone, however, favor informal economy, involving also ‘negative’ externalities. I stress the relation between the bad conditions of the public space, its use and its distribution to people’s mobile desires/needs. Furthermore, I outline the importance of senses and feelings that people get in the public space that guide and influence their mobile praxis. I also lay out different community characteristics of the study zone that relate to social engagement and affective relationships. With regard to people’s skills as their competences for moving, economic activities in the study zone involve reproduction and sharing of resources, favoring community formation. On the other hand, I point out that social interactions modify people’s power relations and that affects their mobile praxes. The latter reflect
people’s structural stories related to the ones I obtained with my interviews. In relation to people’s mobile aspirations and plans (appropriation), they perform mobile praxis by avoiding obstacles in the public space. Moreover, social interactions mediate that process, reflecting certain mobile patterns in street intersections. The process reflects people appropriating, engaging, claiming and occupying the public space to different extents related to personal and economic activities, such as the MCS.

Elements of motility and mobility systems in the study zone

People in the study zone rely on MCs for fulfilling mobility needs. People appropriate transport means for ‘moving freely’. This aspect also relates to people’s skills for moving, such as purchasing power, available time, physical conditions, etc. depending on their contexts. The process reflects people’s plans to move, giving as a result reproductive everyday mobile praxis.

According to Mantho (2015), by examining the physical characteristics of the space as materialities together with the social and practical characteristics of the space, researchers could determine an effective space design and management. From the authors’ perspectives, I can infer, regarding the case of the MCs in my study zone, that these vehicles could act as people’s materialities that shape mobile opportunities according to people’s needs/desires as interpreted from my fieldwork. For example, according to the counting and tracing method of my recorded videos, people tend to use more MCs on weekdays at 07:30–07:35 (250 MCs) and 19:00–19:20 (more than 150 MCs). Therefore, people in the study zone tend to depend to certain extent on the MCs for fulfilling their mobility needs/desires, such as reaching the Metro Station for their morning journeys. I relate that aspect to structural story number 4 which I obtained with my interviews: ‘the MCS gives people very much accessibility’, so people rely on the MCS especially on weekdays. According to Kaufmann (2002) and Kaufmann and Canzler (2008), transportation systems provide people with conditions of opportunities, facilities and resources for moving. The authors stress the motility factor related to skills for moving (purchasing power, available time, etc.) and appropriation of transport means. Those characteristics depend on the context in which the mobile or stationary activities take place. The authors also point out that the mobility event happens when the motility competence comes together with a mobility performance (either social, physical, or virtual). In the study zone, MCs move people inside the neighborhood and to the Metro Station. This praxis reflects, for example, people’s aims and desires to move freely. People appropriate that from an individual interpretation of transport access and mobile skills as aspirations and plans from available mobility systems that include public space urban facilities and elements.
In the study zone case, MCs and other vehicles build up that system and offer that sensation of ‘freedom to move’ to their users as access opportunities to be seized within their previous intentions and desires/needs to move. The counting and tracing method I used between the movements towards the inside and outside of the study zone (see Annex C.III.) shows that in the first activities of week mornings, people tend to appropriate whatever mean of transport is offered in order to satisfy their mobility desires/needs. In this case, the MCs are the most offered and fastest in traffic vehicles (see Finck Carrales, 2015). Furthermore, the main access point to ‘the outside’ and ‘the inside’ of the neighborhood is the Metro Station, creating mobility flow and, in turn, coexistence between motility and mobility. At the same time, this is based on people’s experience acquired from the travels that make them reproduce the movements. In the same way, when people are off work in the evening on weekdays and on weekends they tend to use the car or walk. Those cases entail people seizing the mobility systems as well.

In summary, 1) the skills of people in the study zone for moving are based on their context, in this case, related to the study zone current stage. Moreover, 2) the offer of mobility systems and the public space involve people’s appropriated accessibility based on desires/needs that get materialized in mobility plans (Kaufmann and Canzler, 2008). People reinforce these every day by using the experience they obtain when implementing their mobile plans. Finally, 3) elements of mobility systems in the field cause mobile ‘freedom’ and mobility potential flows on people. Those three ideas will help to understand the following analytical sections of my fieldwork as the starting point of their argumentations.

6.1. Access to options and conditions for moving: public space, informality and sensations

In this section, I relate the public space, informal activities and people’s sensations as elements involving people’s access to options and conditions for moving. People use or take part in those elements for fulfilling mobile activities that, at the same time, relate to the MCS. I first explain how social encounters relate to economic activities through nodes (spatial gathering points). Public spaces of the study zone which are in bad conditions involve ‘negative’ activities, preventing ‘positive’ activities and social interactions.
6.1.1. Activities that depend on the conditions of the public space

From a social interaction perspective, social encounters taking place in the public space of the study zone relate mainly to economic activities that allow people meetings in the public space by making use of materialities. In the study zone, the encounter zones relate more to transport and economic activities nodes (with some exceptions, such as the neighborhood catholic church on Sundays) (see Finck Carrales, 2015). Those could be public space gathering points for families, friends and acquaintances. Public space with a diversity of social groups can potentially allow coexistence between diverse social groups which, in turn, allows social encounters. For example, urban subcultures, different age groups, different gender groups, nuclear families, etc. Apparently, the study zone allows and contains different social groups, which can coexist and share the public space to a certain extent, except when some of these groups use the public space privately. Spaces in ‘bad condition’, such as dead, wrongly used and polluted spaces, tend to relate to a lack of attention and maintenance by the government and neighbors. The use of those ‘forgotten’ spaces involve ‘negative’ activities, such as criminal, informal, polluting activities. In the study zone, lots of zones and even nodes of the public space are in ‘bad condition’. Such conditions depend on its internal and external contexts. Their impact can prevent social interactions or activities in the public space that could be ‘beneficial’ for people to different extents (see Jensen and Vannini, 2016; Jensen and Lanng, 2017; Adey, 2010).

6.1.2. ‘Motor activities’ that cannot distribute the resources

I explain that informal economy depends on external contexts and includes activities that involve materialities which take over the public space, such as the MCs. Nevertheless, informal economy can favor activities that also redistribute resources between people.

I consider some economic activities of the study zone as the main ‘motor activities’ (the ones that activate the local economy). Such activities usually depend on the opportunities to create and maintain local stores, shops, restaurants, services, etc. that relate to the contextual characteristics of the neighborhood. At the same time, they connect to a certain extent to the district, city, regional, national and even global economies (paradigms from institutions). Historically, unequal access to the resources of the city by excluded social groups favors the self-creation of economic activities by forming social networks (see Sheller, 2015; Ziccardi, 2012; Vannini, 2009). In my study zone, I interpret Van Eijk’s (2010) resource sharing through social networks from its economic activities based on ‘sociability’ for reaching directly or indirectly
redistribution of resources. For example, if ‘macro-political’ paradigms prevent economic activities, the activities of the study zone could negatively affect the society through mainly monopolies, criminal activities and poverty. The study zone has economic ‘motor activities’ that are visible in the public space, such as the MCS. However, many of those activities take place in the public space as informal economy, involving illegal or even criminal activities. This aspect relates to structural story number 8 which I obtained with my interviews: ‘the service sector entailed by its informality favors the construction of generalized negative structural stories’ because ‘bad’ practices carried out with MCs reproduce those stories. Informal economy thereby reflects two factors: on the one hand, the action of informality is indeterminate because it depends on the neighborhood external context. Informal economies could entail inequalities and injustices within the space, such as exploitation of workers and criminal activities (see Al-Hasan et al., 2015, Goodfellow, 2015; Hagen et al., 2016; Kumarage et al., 2010; Rizzo, 2011; Cervero and Golub, 2007; Cervero, 2011; Bayat, 2012). On the other hand, those informal economic activities entail materialities that take place in the public space, which could ‘get out of control’ and ‘take over’ the space, such as the big number of MCs moving at the same time. I relate that aspect to structural story number 11 which I obtained with my interviews: ‘the disordered way of providing the MCS involves troubles’. Troubles in the sense of the disorder that MCs create in the public space, such as traffic and noise. As a consequence, people struggle with those materialities for implementing movements every day (Jensen and Lannng, 2017).

In the next sub-section, I will explain how people in my study zone use public space regardless of its bad condition. Within people’s praxes, there are symbolisms of the study zone that relate to some ancestral traditions that ‘clash’ with its urban design and activities. However, that aspect can potentially involve community formation as there are ‘positive’ social interactions coming from it. The process also entails people’s pre-arranged social norms that define their capacity to move, favoring public space sharing.

6.1.3. Streets elements of the public space: shaping the community

According to McCann and Rynne (2010) and Los Angeles County (2011), a complete street can entail flexibility, connectivity and transportation adapted to local communities. Those aspects mean that the streets create comfort and a sense of safety for people. In that process, the use of land within the zones can shape quality of travels as it defines the spatial conditions. During my walking fieldwork while taking pictures in the study zone, I realized that my study zone reflected the features of a complete
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street in terms of outcomes/products of the travelers, even though the public space conditions were bad and poor, and obstacles constantly interrupted and disrupted people’s mobile flow. I noticed that people were used to the conditions of the public space but also people were utilizing the urban facilities ‘offered’ by it. Mehta (2013) suggests that by analyzing and acknowledging human needs based on social praxis, it is possible to define the basis of street design with community values, symbolisms, safety and transport balance being the core points. The street design in my study zone is a grid. However, the street design was not entirely based on Mehta’s element balance in the design as the historical planning of my study zone was gradual through decades (as a progressive development) (see Finck Carrales, 2015). There are spatial symbolisms in my study zone people’s activities that unveil some of its characteristics as an ‘ancestral space’. For example, the traditional religious celebrations (carnivals and fairs) that take place, which people combine with precolonial traditions (Duhau and Giglia, 2009). Those ancestral traditions provide a certain balance between people’s praxes performed in the public space (leisure or some other kind) that ‘clash’ with its urban design, its economic activities and its public urban facilities in bad condition. The combination of both characteristics also provide an apparent community sense which I perceived when I walked the zone streets taking pictures. For example, I saw people of different ages interacting in personal and easygoing ways, hearing relaxed voice tones in the entrance of kiosks and on street corners. Consequently, the public space has livability and a certain extent of stability when the praxes are combined with the local economic activities and the transport activities as a sample of self-sufficient locality from in/outdoor economy (Mehta, 2013).

On the other hand, as a pedestrian, I had the sensation of being in the middle of a ‘traffic fight’ for road territory between different vehicle drivers. For example, I saw vehicles crossing by fast and others struggling to get a space to park. Adey (2010) states that people’s movements express spatial arrangements in a certain context. In my study zone, vehicle patterns partly reproduce those ‘traffic fights’, which apparently seem pre-arranged by people in the sense of having a preexistent social norm about it, which could define mobility power on a micro-scale as the capacity to move (see Freudendal-Pedersen, 2015). Moreover, as Jensen and Lanng (2017) point out, it could be that different people’s experience that come from everyday travels mediate those movement arrangements. The study zone ‘traffic fights’ are not only an example of people claiming public space but they also reflect a specific mobile praxis within people’s journeys. Furthermore, from a street design point of view, Owings (2015) and Ben-Joseph (1995) wrote about shared streets in which different vehicles occupy the same street possibly at the same time in order to avoid costs to people (mainly pedestrians) and provide efficiency to the land use. Designers thus base street design on traffic needs and environmental capacity as an extension of ‘personal space’ (yard). My study zone has those characteristics. However, these are not reflected in the street
design, but rather in people’s use of the land, mostly as their informal ‘personal space’ extension. Furthermore, people do not show that extension as a spatial harmony, but as a ‘traffic fight’. In some places of Europe, a fully shared street can usually favor livability and communality by facilitating people’s movements in the public space (see Owings 2015; Ben-Joseph, 1995). In my study zone, there could possibly have been an ongoing communality formation process, paradoxically through its everyday ‘traffic fights’. Space fighting provides some kind of equality between people, at least with regard to public space occupation and use. Equality between people in the sense that everybody can use the public space for fulfilling their personal and/or economic needs as long as they claim it (‘fighting’).

6.1.4. Self-sensorial walking experience and observation of praxes: embodied mobile structural stories

In this sub-section, I stress the importance of people’s bodily and mental sensation obtained in the public space by referring to my fieldwork experience. Materialities involve both sensations. Furthermore, that aspect is mixed with structural stories in people’s minds of the study zone, shaping rationalities. Embodied interactions thereby guide people’s mobile praxes, reproducing them. Hence, people’s search for transport efficiency together with the sensations and feelings they obtain results in reproductive mobility praxis. In the study zone, mobility characterizes having people relying on MCs.

In theory, the lack of order of the streets in my study zone could involve ‘asymmetry’ between the public space elements and sections (Los Angeles County, 2011). I could detect asymmetry in the public pace of my study zone during my fieldwork, involving ‘dissatisfaction’ while moving (see Annexes C.I. and C.II.). However, people moving inside the study zone apparently do not feel the same that I, since they somehow manage to fulfill their own needs through the use of public space on a daily basis.
Figure 22. Examples of sidewalks with obstacles and people fulfilling their mobile needs/desires. Observational walking pictures – from no. 12 to 15. Source: taken by author.

My walking journey during which I took pictures involved all kinds of bodily and mental sensations (see Rapoport, 1977). Some of them were related to something that was not happening in the moment. I had ideas showing that I was probably mentally hasty (maybe feelings). These were different from the ones that came from my embodied actions (such as touching the ground with my feet or smelling the smog of the vehicles). For example, one of the mental sensations (worries/anxieties) was of being mugged while walking, which I got in the part of my journey where the streets were practically empty. However, sometimes when some MCs crossed by where I was walking, I started to feel a little bit safer. I could explain that change in my feeling from what Jensen and Vannini (2016) call *embodied performances*, where material environments wrap social interaction by the combination of space-time actions and emotions. — With respect to my fear of being mugged, the presence of MCs (as a materiality) in the public space created a sense of ‘companion’, even though I was not inside the vehicle.
When the MC was close to me, I had an embodied performance, as a result of which my fear went away a little bit. The action is mixed with a previous knowledge/idea I had in relation to MCs, which I can translate as a structural story as follows: ‘most of the MCs only want to get passengers and do not want to mug people’. Additionally, that story relates to structural story number 17 which I obtained with my interviews: ‘the MCS involves security and comfort for its users’. In this case, the security relates to not getting mugged in a MC. A structural story is a personal expression of common stories within people’s everyday conversations within the same society that can also become ‘common truths’ over time (Freudendal-Pedersen, 2009). Hence, rationalities also influence the formation of emotions and feelings based on embodied events (through performance/action). At the same time, structural stories shape those rationalities in every individual. The physical design of the public space could mediate and influence the potentials for changing people’s emotions and feelings in the public space. I relate that process to what the NYC Streets Renaissance (2014) calls the ‘healthy space’ from life quality (in body and mind), which the public space design also entails. On the contrary, what the manual calls ‘broken streets’ and ‘unfriendly streets’ are the spaces that do not provide people with those characteristics and make them vulnerable. I therefore have used the terms of ‘broken’ and ‘unfriendly’ streets to refer to the ‘negative’ feelings/emotions and sensations, which the unpleasant embodied performances in my study zone entail. Thereby, in theory, my study zone is full of ‘broken’ and ‘unfriendly’ streets, but it has the potential to develop into an integrational network that allows flows of shared mobile means by meeting contextual social needs (Los Angeles County, 2011). This could possibly be done by taking into account Mantho’s (2015) three streets aspects: social, practical and physical, where these continuously interplay with one another and reproduce the structural stories of it as well within people’s minds. For example, the feeling of safety I felt was related to public security which the constant vehicle traffic and general public space occupation by people involved. That feeling mainly relates to MCs constantly coming across in the streets. I thereby consider the changes in my perception of the public space as physical and mind ‘micro-cracks’. Micro-events entail the latter. In other words, a micro-event has a certain impact on people’s bodies and minds (Bissell, 2014). For example, walking produced different changes of senses and gave me a sense of place in the process. Hence, the more multisensory experience I got, the more ties between my person-body and the place-streets were formed (Adams, 2001). What Freudendal-Pedersen (2018) defines as embodied interaction with the city comes from what people smell, hear, and feel from the city as a feeling of freedom, which guides their praxes. This individualized understanding of autonomy relates to a specific society which is time-space contextual. Thereby, freedom, un-freedom, sociability, security, hostility and endangerment were the dominant feelings and emotions I felt during my observational fieldwork. Somehow, my embodied interactions could guide my actions (for example, where I should take the pictures) in that process, even though I had a
specific journey route.

Figure 23. Examples of empty streets and sidewalks with obstacles. Observational walking pictures – from no. 16 to 19. Source: taken by author.
Furthermore, I can infer that all the experiences I had in the two processes of taking pictures (while walking and by car), regardless of whether they were ‘positive’ or ‘negative’, caused different feelings and sensations. They somehow defined my mobility dynamics during the processes. On the other hand, some of the pictures I took can describe the physical conditions of the zone and exemplify some people’s dynamics, habits and praxis, such as people walking in the street and people using the sidewalks for selling products (see Annex C.I.). The importance of the pictures rests on the social differentiations and classifications that I obtained from the observed dynamics (see Alvesson and Sköldberg, 2000). As the narrative of my pictures that my field diary describe, people’s dynamics regarding mobility deeply define and connect to the physical characteristics of the study zone, since these delineate how easy or difficult is to become mobile, namely, to get motility to a certain extent. That process involves a mix of senses and feelings that relate to the space, which affects people’s minds and bodies to different extents, but with the same characteristic of enabling or preventing people’s mobility (depending on the case/event). For instance, there is a clear relation between physical obstacles that prevent people from walking freely and the use of the MCs, and there is a clear relation between economic activities of the zone (where these take place) and the use of the MCs. Apparently, those conclusions could be obvious to state from merely a descriptive analysis of the public space, since the conclusions represent people’s logical decisions to move inside the zone because they need to. However, what matters beyond people’s rational choices is that those decisions are immersed in a constant body-material relation and friction, and previous structural stories within a time-space context. In other words, the mental and physical sensations that materialities involve in people together with the structural stories that they have in their minds to some extent favor and guide their mobile praxes. Consequently, those aspects together tend to reproduce a certain social embodied praxis that relates to mobility and motility. Therefore, lack of proper urban facilities, clean air and streets, friendly sidewalks, people’s street yielding, etc. in the study zone help that people reproduce the use of the MCs. Additionally, people who decide to use MCs are constantly seeking to satisfy needs/desires that relates to winning-time and economic efficiency finding (Finck Carrales, 2015). When to those conditions I add sensations and feelings that materialities entailed in people’s minds and bodies, the result is partly that people’s mobility is dependent mainly on specific transport services and urban facilities. These provide with what, at the same time, people expect can make them be more mobile instantly in their everyday life activities. In this sense, time-space experience in mobility events entail diverse responses on cultural, social, economic, political, etc. aspects within social interactions that, in turn, mobile and static materialities intermediate (Adey, 2010). Freudental-Pedersen (2018) states that ‘everyday life today means living with a constant component of a reflexivity and time pressure and thus a lot of choices made possible by mobilities’ (p. 245). That process also includes embodied performances embedded into micro-events that could define
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those everyday praxes.

In the next sub-section, I point out that social interactions related to the public space and materialities show something else besides people’s utilitarian relationships. Social interactions reflect affective relationships between people. Micro-events unveil that social engagement which people express through their praxes. The process entails praxes happening in the public space that favor community formation.
Figure 24. Biker surprisingly saying hi to an MC driver by touching his hip. Monday, March 6th, 2017, Street 2 intersection at 13:15. Source: Taken from video recorded by author.
6.1.5. Community spatial reflection on micro-events

According to Mantho (2015), different social patterns form the organization and structure of the public space. In my study zone, those patterns usually relate to people’s movements adapted to the public space conditions. The author explains that streets which fulfill those aspects can provide a comprehensive and integral transport network without high speed and with vibrant community through social interactions. As I mentioned before, the design of the public space aims to reach a balance in the sidewalks and streets between mobile and stationary activities, flows, and facilities and utilities. The pictures I took in the public space do not show what Mantho defines as streets balance. However, I could see some of the spatial outcomes that the author argues are coming, such as adaptability and community, which local transport and its people’s praxis mediate. I show and analyze the possible community characteristic in the public space in a more expressive and intimate way from the micro-events captured on the recorded videos, and even as social engagement related to some extent to the street design and materialities.

From the videos recorded in the study zone, the image sequence above shows an MC driver taking a break and checking his parked MC cart structure (hansom) in the street whilst having a chat with another MC driver. This example relates to structural story number 16 which I obtained with my interviews: ‘there is solidarity between the MCS workers’ as the driver was being helped by another driver checking his MC cart. While the drivers were having a chat, a biker passing by him suddenly said hi to him by touching his hip. The driver and the other person were surprised but automatically laughed after apparently finding out that seemingly the driver knew the biker. After that brief interruption, the drivers continued their chat. I can interpret that micro-event in different ways. First, it shows how people in the neighborhood know each other from a local expression of social engagement. Second, it seems that MCs drivers take some liberties regarding their working activities that allow them to take breaks and have conversations in the middle of their journeys, although in this case, the event started when checking the MC cart structure. Finally, the biker’s greeting shows social closeness of the active people in the public space as a personal embodied activity that entails expression of ‘positive’ feelings and emotions (‘breaks’/’micro-cracks’) (Bissell, 2014). I express the communal characteristic of the neighbors’ relationships in the study zone from Mignolo’s (2011) gray spacing in terms of communality formation as follows: when neighbors say hi one another in the public space, it is possible to acknowledge that the action could involve something else besides the utilitarian relationships from their local economy. A jovial attitude between the neighbors opens the door to thinking in communal relationships inside the study zone. I made that interpretation by taking also into account what Adey (2010) states about researchers not being able to predict social praxis but instead making interpretations in order to
infer its meanings. Therefore, when people get close and interact with one another, especially during breaks in working ‘activities’, the encounters reflect the action that involves affective relationships. In that example, the community aspect relates to an MC driver who interact with other actors of the neighborhood in the public space (see Crouch, 2001). This makes me understand the MCS as an activity that goes beyond economic aims (utilitarian) by also being related to social engagement.

Overall, materialities and economic activities can prevent or allow people’s activities depending on their conditions. Nevertheless, informal economic activities tend to favor inequalities, injustices and immobilities as these are mainly a response to a socio-historical social exclusion. Under that prism, I understand people’s praxes in the study zone from their ancestral traditions that ‘clash’ with the materialities of the public space, such as the urban design, urban facilities and the transport means, creating pre-arranged ‘traffic fights’. Paradoxically, that process can nevertheless favor community formation from public space livability and ‘outdoor economy’ activities that generally reflect informal ‘personal space’ extensions, providing distribution of public space occupation and use between people. Furthermore, people in the study zone fulfill their needs through the public space use, where embodied events and rationalities influence the formation of emotions and feelings. Structural stories thereby shape emotions and feelings and the spatial conditions mediate and influence them from individual ‘micro-events’, involving ‘micro-cracks’ in people’s bodies and minds. People’s embodied interactions partly guide their actions (mainly the mobile ones) through different feelings and sensations obtained in the public space. People socially reproduce actions and that can make them dependent on specific materialities, such as transport means (MCs). Finally, the study zone social engagements are visible through ‘micro-events’ and relate to the street design and materialities. Social networks evoke different feelings and emotions in people. Their actions in the public space reflect such feelings. Those elements provide a more-than-utilitarian focus to the conceptions of local economic activities as opening the doors to constant community formation in the study zone.

6.2. Skills as competences for moving: resources and power

In this section, I interpret people’s resources and power as competences for moving. Those elements are visible in the fieldwork as people carry out mobile activities that relate to the MCS.
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I will first explain that people reproduce and share resources of the study zone through economic activities, such as the MCS. That process favors community formation as it relates to social engagement. Furthermore, people carry out that process by appropriating the public space. However, it entails ‘beneficial’ and ‘non-beneficial’ aspects for people.

6.2.1. Communal elements for reaching sustainable activities

By taking into account AUSJAL’s (2015) conception of sustainability as the satisfaction of people’s ‘needs’ without putting at risk the needs of future generations, I implement these ideas in spatial terms as follows: the public space can have pros and cons related to the conception of sustainability to the extent that indicators exists which usually relate to social, economic, cultural, etc. aspects. Four factors determine the ‘beneficial’ and ‘non-beneficial’ characteristics of a public space, such as my study zone: 1) the interrelations between people’s active praxis in connection with moving and not moving, 2) the structural stories, 3) the materialities and embodied performances, and 4) the socio-historical heterogeneous context (macro-politics) that encompasses all of these. Materialities offered within the space allow people to interact. Usually, people plan the interactions in advance. Transport-related and economic activities however could determine encounter zones between strangers.

From what I observed in the recorded videos, it was possible to detect that people made use of public space facilities as an expression of appropriation for common (in communal terms) use and private use. Those aspects could be ‘beneficial’ (pros) in terms of their potentials for providing people with de-stress, communality and social engagement. Therefore, if people share the public space and also have the opportunity to use it for their private benefit, they are fulfilling several types and levels of ‘needs’. I interpret that as a sustainable characteristic of the study zone, even though some activities are not covered by the city regulations. An example could be the MCS implementation and the neighbors’ activities that block streets and sidewalks flows. That praxis is a paradox between the rules and the interpreted reality regarding people’s ‘needs’. This situation goes beyond the city legal frameworks that are usually faraway from socially excluded people as unreachable institutional ‘macro-politics’. According to Mignolo (2011), communal thinking materialized in idiosyncrasies could favor the management of local resources as rights that people collectively produce and share. In my study zone case, those resources come mainly from the transport services and the local shops/stores. People sharing resources favor sustainable actions towards communality formation. This aspect also relates to social engagement as ‘socialization’. For example, the MCS is relatively open in the way that people can get hired or maybe start their own service organization, being acknowledge by the others, and share the
market among the rest of its leaders and workers. However, for instance, the MCS could be close to being economically sustainable but not environmentally sustainable as the service is provided with gas motor vehicles. Therefore, fulfilling sustainability criteria in a multidimensional perspective is a complex task for communities. Social engagement through communality can possibly help to achieve it. It is important to acknowledge this as community activities can favor sustainable characteristics within economic activities, such as the MCS. Relating the service to more-than-economic aspects can glimpse elements that can help make it sustainable.

6.2.2. ‘Micro-cracks’ and structural stories reflected in micro-events: calibrating spatial power relations

In this sub-section, I point out that micro-events related to social interactions modify people’s power relations, affecting mobile praxes. For example, ‘family gatherings’ in the public space reflect people’s emotions through social interactions. People’s power relations are also recalibrated through materialities. Furthermore, those praxes reflect structural stories that I relate to those obtained with my interviews.

Regarding my micro-events, Jensen (2016) explains that researchers need a ‘fine-grained’ vocabulary in order to understand particular perspectives. This statement departs from the non-representational approach in research that involves separating situations from people’s power and skills, forming concrete experience and practices infused in socio-technical systems which I call materialities in a general way (Jensen and Vannini, 2016; Jensen, Gyimothy and Jensen, 2016). Jensen and Lanng (2017) and Bissell (2016; 2014) agree that micro-politics could focus on encounters, dynamics, praxis, relations habits and embodied materialities (action of movement). That idea parts from the contextual and temporal micro-events, stressing people’s affective (emotional) experience of moving and non-moving, that constantly transform as ongoing processes regardless of whether those are ‘banal’ or ‘uncommon’ events. Those events tend to modify people’s power relations within their processes of interaction. That is important because those relations affect and modify people's mobile praxes. This process can also relate to what Kuijer and Spurling (2017) call power differentiation between social actors.
The image above shows a young couple chatting while walking outside the sidewalk in an early evening. This micro-event shows how they move relaxed at the end of their everyday activities. This way, walking can also involve a ‘family gathering’ in the public space and people use its materialities for fulfilling that. Based on the example with the walking couple, according to Bissell’s (2014) analysis, when people move through a specific environment, it is possible to note the distribution of outcomes that transform people’s bodies as ‘micro-cracks’. People’s interactions in my study zone hence reflect expressions of emotions that can change their bodies in a healthy way, since, for instance, people usually looked relaxed in the recorded videos. That feature, in turn, can entail differentiation and disruption of some power relationships between people through their interactions in the public space as a constant and continuing recalibrating of these. When people walk together with their partners, family members or friends, they seem to be relaxed and appear as some kind of a ‘social meeting’. My study zone also makes those meetings possible as materialities play a role in that process. That process could be what Vannini (2015) defines as performativity from a non-representation ethnography characteristic, where identity and rituals shape everyday life action. Therefore, people walk in the street and at the same time, they are having social interactions based on everyday life rituals, such as picking up their children from school or going out to the bakery, and so on (see Finek Carrales, 2015).
For example, the micro-event above presents two persons waiting for a free MC outside their house. The MC was for the girl, so the woman was keeping her company while waiting until the woman had made sure that the girl had boarded the MC. It took them 27 seconds to find a free MC from the moment they were outside their home, which shows the big volume and offer of MCs at that time of day (Wednesday at 07:00). The volume of MCs counting Monday, Wednesday and Sunday represents 49 percent of the total transport means in the study zone (see Annex C.III.).
The event thereby shows that families keep family members company in the public space perhaps due to a structural story related to crime and insecurity in the neighborhood or/and maybe the action is a sign of mutual care. That aspect relates to structural story number 17 which I obtained with my interviews: ‘the MCS involves security and comfort for its users’ as the woman trusts that the MC will take the girl safely to her destination. Additionally, it is important to point out that the girl deliberately dismissed the public bus that passed by before she took the MC, meaning that she preferred the MC over the public bus (that relates to structural story numbers 3: ‘the MCS answers to a demand for mobility in the South-Eastern zone of the city’). Structural stories can thereby favor social cohesion in the study zone. ‘Family gatherings’ can also take place with the use of transport means. For example, when your relative waits with you for your transport service outside your house door, there could be an additional structural story behind that action, which I phrase from my observation as follows: ‘it is dangerous for a girl to wait outside her place for her transport, even if it’s only for a few minutes’. Here, that argument involves cohesion between family members expressed as care regardless of whether that event involves danger or not. The structural story, however, is always true in people’s minds. I thereby relate that aspect to structural story number 20: ‘MCs journeys provide people with a certain sense of ‘family gathering’ strengthening the community with embodied performances, going beyond utilitarian needs and aims’. Furthermore, since the woman left the girl when she got inside the MC, that possibly means that the structural story that ‘most MCs just transport people, they don’t mug them’ I had while walking is somehow also in other people’s minds.

Overall, when people share the use of the public space, it brings sustainable characteristics to people’s activities as directly or indirectly distributing their consequent resources. That process is also part of the community formation process as it entails social engagement as well. However, the formation of sustainable activities in the study zone not only depends on their resource distribution but also on the external context of the zone. On the other hand, I interpret some people’s public space interactions as ‘family gatherings’ from observation. Furthermore, structural stories can favor social cohesion. It is important to take into account that structural stories are always true in people’s minds regardless of whether micro-events reflect the stories.

6.3. Appropriation as mobile aspirations and plans: social interactions, patterns and intimacy

In this section, I explain how the elements of social interactions, mobile patterns and
people’s intimacy in the public space reflect motility appropriation as people’s mobile aspirations and plans.

I first stress the importance of embodied praxis. This relates to people’s unhindered movements and movements disrupted by materialities. The first relates to the offer of transport means whereas the latter relates to the physical conditions of the public space. For example, people avoiding obstacles in the sidewalks is an embodied and reproduced common social activity. Embodied praxes, however, involve a certain flow and order within people’s active (mobile) and stationary activities.

6.3.1. Stationary activities from micro-events: embodiment, (un-)freedom and social interactions

According to the outcomes of my counting and tracing method, people of the study zone tend to be active both during weekdays and weekends when finishing their morning activities (see Annex C.III.). People tend to walk outside the sidewalks, which could be interpreted as ‘freedom’ in the streets but ‘un-freedom’ in the sidewalks. Nixon (2012) and Freudendal-Pedersen (2009) agree that ‘free’ movements could relate to political interventions that created the idea of the right of citizens to move freely on their own land. However, the authors also point out that transportation systems create individual movement restrictions from travel dependency. In the study zone, the physical conditions of the public space restrict people’s movement. Examples of these are the obstacles on the sidewalks, such as holes, car ramps, trees, bushes, etc. or even MCs. I relate the latter to structural story number 11 which I obtained with my interviews: ‘the disordered way of providing the MCS involves troubles’. Here, the ‘trouble’ come from the MCs disrupting some people’s mobility. However, the offer of transport means also enables other people to move. Some of these are not even part of the city’s planned and legal transportation systems, such as the MCS. This idea relates to structural story number 3: ‘the MCS answers to a demand for mobility in the South-Eastern zone of the city’.

Figure 27. Examples of sidewalk obstacles in the study zone. Observational walking pictures – from no. 3 to 6. Source: taken by author.
People tend to avoid the sidewalk obstacles when walking. That is my interpretation based on my observations where people avoiding those obstacles is a ‘common’ social activity. The society of the study zone internalize that, feeling free from responsibility about it (see Freudendal-Pedersen, 2009). Therefore, that particular active social praxis is not sociably questionable and people use it as a way of showing ‘freedom’ to claim space by walking on the street within everyday life. This means that people reproduce that action constantly through space-time. Additionally, the relations between pedestrians, sidewalks, obstacles, and streets relate to the embodied materialities conception of Jensen and Lanng (2017), where they write that pedestrians define their walking routes according to those materialities. The rubbing/friction that people have with materialities in the public space reflects the tactile experience involved in a journey process. I interpret what I call the ‘intimate’ characteristic of people’s active praxis (from the authors’ analysis of transport means ‘stealing time’ one another): when people choose certain weekdays and hours for activities in the public space where the space is less occupied, it means that materialities (specially vehicles) push people out of the sidewalk or even the street. In this case, ‘intimacy’ in the public space is a reaction from embodied situations that escalate people’s control over their everyday actions in the public space.

With regard to the stationary activities in a public space, Mantho (2015) explains and stresses the importance of these activities from a social interaction point of view in European streets. The author explains that there should be a balance in the public space between the circulation (flow) and the stationary activities. Materialities define and encourage that balance from the space design. When the balance is achieved, continuity reflects on the streets as permanence quality, adaptability to people’s needs, and contextual personalization of the space. In the study zone case, I observe those characteristics when the space holds stationary activities. Afternoons are the time of the day with the most stationary activities taking place mainly in kiosks, shops, restaurants and the Metro Station. Maybe there is not an exact balance in terms of what Mantho (2015) points to in his analysis, but I argue that the study zone reflects ‘an order within the chaos’. In other words, stationary activities that take place in the study zone are part of the moving embodied process of the non-stationary activities. Stationary activities could be based on embodied performances that generate people’s experience as well and that, at the same time, relates to the ‘freedom’ sensation characteristic of the public space in the afternoons.

By recording videos, I captured micro-events that reflect ‘freedom’ or ‘un-freedom’ (some as immobilities), including embodied characteristic as performances.
Figure 28. Woman laughing and friendly slapping her companion’s back with a plastic bag. Sunday, March 5th, 2017, Street 2 intersection at 19:15. Source: Taken from video recorded by author.
The micro-event of the image sequence above shows a situation where a family is walking and chatting in the public space. During the chat, the man starts laughing after saying something and the woman reacts by slapping him with her plastic bag. I infer that he was teasing her or saying some kind of ‘bad joke’ as the woman also laughed before and while slapping him. This situation shows how jovial and easy going the public space can be, even though the couple was walking in the middle of the afternoon traffic ‘chaos’. Lots of families tended to walk together. When I saw people walking in the afternoons, I generally saw people that were free from their duties and relaxed. The body language of the recorded people expresses communication with their companions and others moving in the public space. I interpret people saying hi and playing with each other as an ‘intimate’ activity. At the same time, I relate that process to a community matter, since it expresses understanding of people's praxis between one another even though they might not know one another. The process could create affectivity (strong socialization) (Van Eijk, 2010) as social engagement.

6.3.2. Motility interpretations of patterns in spatial nodes

In this subsection, I explain the importance of spatial nodes/intersections as these reflect social interactions. The majority of those interactions relate to mobile patterns. Those patterns mirror economic and other stages of the study zone. For example, social interactions mediate embodied praxes taking place in nodes/intersections. At the same time, people's reproductive praxis form key nodes, unveiling mobile and stationary dynamics.

With regard to social interactions, materialities dependency and embodied performances, when Urry and Grieco (2011) write about ‘travels praxis’, they talk about the role of patterns within a travel, time budgets, lifestyles and social networks. They separate each travel praxis in order to classify the possible individual ways of perceiving a travel. It is possible to analyze those travel praxes together, where each spatial node/intersection of a certain study zone concentrates and reflects different travel praxes at the same time. It is possible to define different social interactions related to mobility from an observed spatial node even from a short moment. Furthermore, travel praxis is connected to the different types of materialities offered inside the public space, since these also shape to a certain extent mobile patterns (Whyte, 1980). I found patterns in the study zone and these reflect micro-events stemming from social interactions. In those, people get embodied within materialities that provide, transform or prevent those patterns to different extents. The spatial nodes I found reflect the dynamics of the study zone. For example, economic activities to some extent guide some people’s mobile praxis (see Whyte, 1980). The study zone
street market on Wednesdays involves specific patterns of MC movements. Additionally, it is important to take into account that people’s mobile activities reflect complex socio-historical processes that defined current social and economic conditions. In the example of my case study, the local informal economy is the result of that process (see Finck Carrales, 2015).

With regard to embodied processes, for example, there is a relation between economic activities and materialities: when people consume products and services in the public space, bodies and materialities usually ‘wrestle’ for space and, consequently, start pushing apart one another.
The image sequence above shows a woman with kids crossing a street next to the neighborhood Metro Station, pushing an elderly person in a wheelchair and never using the sidewalk. In the moment they could cross the street, due to the heavy traffic in that intersection at that time of the day, the kids had to run, and the woman pushing the wheelchair had to speed up. This micro-event shows how people struggle to move in the public space, particularly the ones with special needs. The economic activity of the MCS in the Metro Station involves wrestling between people and MCs.
(materialities). I could also see a similar case on Sunday at 19:15 in the Street 2 intersection. Those cases exemplify how materialities become an obstacle that constantly push people out of the sidewalks and streets. That process is what I call wrestling between people and materialities (including the conditions of urban facilities) that happen on a daily basis and which creates an un-freedom in people’s ability to be mobile. That wrestling results in mobile or stationary praxis depending on the outcome of the micro-events. People reproduce the praxis of those micro-events as ongoing wrestling in the study zone on a daily basis.

Figure 30. Examples of social patterns forming spatial nodes in the study zone. Source: Made by author.

However, the recorded videos of the spatial nodes show that social interactions overcome or at least mediate human-materialities wrestling because these are the basis of the mobile and stationary activities.

On the other hand, patterns of movements frame social interactions in reproductive
micro-events. Those mobile and social patterns show the spatial relation between places and people’s praxes, forming key nodes (see Flamm and Kaufmann, 2006; O’Sullivan, 2012; Kaufmann and Canzler, 2008). The interconnected spatial nodes of my study zone are those involving people’s possibilities of access to products services and, even, social interactions. People carry out that process through mobile and stationary activities, maximizing their motility. This process makes it possible to see people’s mobile dynamics in spatial nodes. At the same time, mobile dynamics form those nodes through patterns.

Figure 31. Examples of mobile patterns. Tracing MCs movements in the neighborhood.
Source: Made by author.

The figure above exemplifies how MCs connect to the spatial nodes of the study zone providing its users with accessibility. That relates to structural story number 4 which I obtained with my interviews: ‘the MCS gives people very much accessibility’, which,
Chapter 6: Field analysis

at the same time, frames social interactions.

In the next sub-section, I will analyze some study zone micro-events from people’s motility, stressing its appropriation aspect. Micro-events involve social encounters. In the process, people show their mobile needs/desires by using transport means and claiming public space. That challenges people’s power ‘order’ in the space. Additionally, unwritten social rules define people’s praxes. The latter can be interpreted from observation as structural stories, such as structural story number 18 I obtained with my interviews: ‘the public space becomes a sort of private and ‘intimate’ space that is negotiated from unwritten social rules’. That aspect reflects people’s engagement with the public space in two ways: people take individual care of the space and they opt to avoid materialities in that space. The whole process mirrors people’s use of the public space, including both economic (profitable) and individual (‘intimate’) aims.

6.3.3. Mobile desires into micro-events: also calibrating spatial power relations

According to Bissell (2016; 2014), the micro-political focus involves taking into account specific zone environments for analyzing the outcomes. Therefore, each micro-event I found during the video recording in the study zone was treated individually. Furthermore, the micro-events analysis prevents generalizing social phenomena. Bissell explains that micro-events entail social encounters that are unique, even though they could share similar characteristics between one another as these are ongoing and indeterminate processes of transformation. Furthermore, Kaufmann (2002; 2014) points out that people can materialize the appropriation of possibilities to reach mobility by achieving access to options and conditions that people interpret from their own aspirations to move. From the appropriation aspect of motility, people mirror the evaluation of their own access to mobility from their previously planned movements. Each movement is unique. However, movements also correlate and are similar to a certain reproductive social praxis.
The images sequence above shows a cargo bike giving a U-turn. The vehicle is carrying four children and an adult is driving it. In Mexico City, people mostly use those vehicles for selling food or carrying things. Yet, in my study zone, I saw some cargo bikes that people used for carrying and transporting people. The micro-political event that I noticed in this case was that the cargo bike had to dodge two MCs and one car in order to complete its maneuver. The vehicle had to move around the street in order to give notice to the other drivers of what it was going to do. The initial maneuver reflected the driver's need/desire to move, claiming space in the street. This micro-event shows street claiming within everyday life in the study zone and how people just move in whatever transport means they find useful, such as a cargo bike with improvised seats. Thereby, when people tend to choose different transport means
(regardless of whether these are self-manufactured, legal, etc.), they are showing their moving desires and claiming their space in the street. If the transport means which people select is useful, the moving plan can be fulfilled and so can the evaluation of the moving possibilities. For example, an event showing a U-turn by a non-conventional transport means, such as the cargo bike for transporting children, expresses that the desire of moving is exceeding what the public space offers. It also expresses that that action puts into perspective and challenges the ‘power order’, even if the event happens in a matter of seconds.

Figure 33. Carpenter working above the sidewalk. Wednesday, March 1st, 2017, Street 1 intersection at 13:00. Source: Taken from video recorded by author.

The micro-event in the image above shows the flexibility and versatility of the public space within the study zone for ongoing social activities. The man in the image above is a carpenter working outside a workshop as if the sidewalk were an extension of it. The man is never accused of blocking the sidewalk because people consider what he is doing as ‘normal’ within the unwritten ‘social rules’ of the public space in the neighborhood. My fieldwork notes show that the study zone has unwritten ‘social rules’. For example, the following phrases are a reflection of people’s praxes: ‘people can work in the sidewalk’, ‘there are obstacles in the sidewalk that you have to avoid’, ‘you have to claim space in the street for moving’, and ‘if you need to, you can block the street for your own personal needs’. Those stories that materialize as actions apparently do not have any legal consequences although they involve breaking public space formal rules (it is illegal to block the streets or sidewalks in Mexico City). The carpenter’s action also relate to structural story number 18 which I obtained with my
interviews: ‘the public space becomes a sort of private and ‘intimate’ space that is negotiated from unwritten social rules’, since I interpret that the action is part of the study zone daily life.

The image above shows a person sweeping the sidewalk section by her kiosk. This micro-event is similar to the one performed by the carpenter in relation to people’s apparent private ‘owning’ of the public space, especially when people’s actions involve the sidewalk placed by their own houses or stores/shops. This praxis also shows the neighbors’ engagement with the public space as an extension of their places, which entails individual care of some urban facilities.
The image above shows a man walking his dog on an early Sunday morning in a practically empty street. This micro-event shows how when the street is quiet and free of vehicles, people can use it for ‘intimate’ activities, namely, use it for preventing getting too much stimulation from the noise and movements of the transport means (including the pedestrians). This situation is a moment of ‘owning’ the public space by being ‘free’ from the effects of mobile materialities. Thereby, from the examples of the carpenter, the woman sweeping the sidewalk and the man walking his pet, people in the study zone tend to create ‘outdoor economy’ by using the public space for their work but also for fulfilling their private activities (see Bayat, 2012). Therefore, here, the ‘outdoor economy’ works twofold: as a space for creating wealth and as an ‘intimate’ space of private recreation, which could favor appropriation, care and engagement in the public space. What I call ‘outdoor intimacy’ also works as a way of using the public space for apparently getting rid of noise and chaos for a moment. For example, walking a pet early in the morning on weekends provides people with a relative noise-free and open space for moving inside the neighborhood. The space is free from materialities as opposed to usual day times. Hence, transport means as materialities are not always useful for moving, even though I can acknowledge people’s own body as a materiality but one that is private and very intimate. For example, this argument can also apply in the case of moving in the study zone using a wheelchair, since that vehicle helps disabled people move but, at the same time, the cars surrounding them do not help.

Figure 36. Restaurant attending and serving food to people above the sidewalk. Sunday, March 5th, 2017, Metro Station intersection at 13:30. Source: Taken from video recorded by author.
The image above shows a restaurant with a sunshade that covers the sidewalk (next to the parked white car). Under it, there are tables and chairs with people sitting and eating in them while being attended by a waiter. That situation is also similar to the one with the carpenter in relation to the private use of the sidewalk. Still, it also indicates that people tend to use the public space more during weekends (I took that picture on a Sunday) maybe as an expression of having finished their working duties and having more spare time for using the space intimately and/or profitably.

Overall, the patterns I traced in the public space depict people’s mobility performance. The patterns relate to people’s social interactions, embodied materialities, and internal and external contexts. Additionally, I interpret the public space obstacles as ‘non-beneficial’ for people. The physical obstacles disrupt people’s movements (even when they use transport means). Nevertheless, it seems that people have gotten used to avoiding the obstacles when moving as if that action were already internalized in them. On the other hand, materialities can favor social interactions but at the same time prevent them. Some materialities are part of the available mobility systems (‘access tools’), favoring people to move or feeling ‘free’ to move. For example, for some people, MCs moving in the streets (materialities that belong to the mobility system) can hinder their movements when driving a car. However, for others, MCs allow them to move more efficiently when they use these vehicles, forming patterns of movements to and from the Metro Station every day. Additionally, people’s contexts define their individual competences for moving. People’s use of transport means thereby reflect their mobile aspirations and plans. Furthermore, the everyday experience that people gain through mobile processes favor common mobile patterns. In the study zone, people’s appropriation of materialities for achieving movements is indeterminate. However, people appropriate transport means in different ways and at different levels to the extent they can even carry out social interactions within the everyday life and ‘resist’ to inmobilities (obstacles) through their mobility performance. On the other hand, in the analysis of people’s ‘micro-events’ using a motility appropriation focus, people’s access evaluation reflects pre-planned movements that they reproduce as social praxes like, for example, transport selections. That process also reflects people’s mobile desires and public space claiming. Furthermore, I interpret unwritten ‘social rules’ from observation by relating them to structural story number 18 which I obtained with my stakeholder interviews (‘the public space becomes a sort of private and ‘intimate’ space that is negotiated from unwritten social rules’). Social rules reflect relations between people and the public space, where the latter is an extension of their places, entailing engagement and caring for it. That characteristic relates to the materialities-free effect on people as a sense of freedom to ‘own’ the public space in an intimate way. Therefore, ‘outdoor economy’ creates economic activities but also ‘intimate’ public space engagement as, what I call, ‘outdoor intimacy’.
Chapter conclusion

I answered my second research sub-question: 2) *What is the importance of the use of the motorcycle cab service in the study zone?* I conclude that the MCS is important for the people in the study zone. I explain that using three ideas that I obtained through the fieldwork analysis in relation to the elements of the motility concept: access, skills and appropriation. Additionally, these ideas relate to different structural stories which I obtained with my interviews (from what the stakeholders said in their interviews to people’s praxes in the field).

**Access**

- Structural story number 4: ‘the MCS gives people very much accessibility’.
- Structural story number 8: ‘the service sector entailed by its informality favors the construction of generalized negative structural stories’.
- Structural story number 11: ‘the disordered way of providing the MCS involves troubles’.
- Structural story number 16: ‘there is solidarity between the MCS workers’.
- Structural story number 17: ‘the MCS involves security and comfort for its users’.

**Skills**

- Structural story number 3: ‘the MCS answers to a demand for mobility in the South-Eastern zone of the city’.
- Structural story number 17: ‘the MCS involves security and comfort for its users’.
- Structural story number 20: ‘MCs journeys provide people with a certain sense of ‘family gathering’ strengthening the community with embodied performances, going beyond utilitarian needs and aims’.

**Appropriation**

- Structural story number 3: ‘the MCS answers to a demand for mobility in the South-Eastern zone of the city’.
- Structural story number 4: ‘the MCS gives people very much accessibility’.
- Structural story number 11: ‘the disordered way of providing the MCS involves troubles’.
- Structural story number 18: ‘the public space becomes a sort of private and
‘intimate’ space that is negotiated from unwritten social rules’.

I argue that many people in the study zone rely on MCs for fulfilling their mobile needs/desires. I explain that statement using three points. 1) In relation to people’s access to options and conditions to move, improving the conditions of the public space can favor ‘positive’ economic and other activities in the public space intersections. However, external and internal contexts of the study zone involve ‘negative’ aspects of the MCS, such as workers’ exploitation and criminal activities. The bad conditions of the public space favor the use of MCs. Furthermore, people distribute the public space use for fulfilling economic, personal and mobile activities. The importance of the MCs (as materialities) also relates to how these involve physical and mental sensation for people. The reproduction of ‘positive’ sensations through MC use entails the creation of structural stories that people have in their minds, favoring that use. On the other hand, the MCS informal economic activity has aspects that go beyond people’s utilitarian relationships. The MCS includes people’s affective relations, involving social engagement. 2) With regard to people’s skills as competences for moving, affective relations together with the MCS redistribution of resources favor community formation. Additionally, social encounters in the public space through interactions with materialities modify people’s power relations. This affects people’s mobile praxes. 3) In relation to mobile aspirations and plans (appropriation), people use MCs for avoiding obstacles in the public space, involving a sense of ‘freedom’ to move. That dependency relates to social aspects, reflecting mobile patterns, such as people using the MCs for going to the Metro Station in the mornings. The process involves public space sharing, favoring community formation.

Overall, I argue that the use of the MCS is important in the study zone. It relates to the role of materialities in the public space. People’s mobile praxis relates to and is adapted to the public space conditions. Structural stories mixed with materialities form and influence reproductive mobile praxis. Finally, there is an ongoing community formation in the study zone through (informal) economic activities and public space sharing. It is important to take into account that those ideas about the importance of the MCS depend on the internal and external context of the study zone, which makes the processes indeterminate. Nevertheless, it is possible to glimpse the ideas through fieldwork material (observation) that reflects mobile praxes and their patterns. The ideas can be taken into consideration in the MCS planning.

In order to define an approach for answering my third research sub-question, it is necessary to carry out an analysis of a micro perspective using a participatory method (workshops) involving stakeholders. However, the mobile characteristics of the people in my study zone which I found throughout the fieldwork analysis helped me understand people’s movements and activities processes through materialities,
structural stories and the internal and external contexts of the zone. Additionally, people’s social interactions can involve communality/community characteristics for achieving sustainability in the economic activities within the zone, such as the MCS.
Chapter 7. Governance for motorcycle cabs through a participatory method

The aim of this Chapter is to answer my third research sub-question: 3) How can a participatory method enable governance between motorcycle cab service stakeholders? I do it by analyzing workshops with key stakeholders. For that purpose, I mainly use the concepts of structural stories (macro), communality/community, governance and utopian mobilities. This Chapter addresses how multi-social group workshops based on governance can help unveil key stakeholders’ structural stories about the MCS of the study zone related to the ones I obtained with my interviews that, at the same time, can be used as tools for transport planning. Workshops guided by structural stories provide a different focus on transport planning from other positivist methods, such as economic, financial and time-space efficiency analyses: 1) structural stories glimpse stakeholders’ needs, opinions, ideas, etc. based on experience about the MCS. Also, 2) these favor understanding and empathy between stakeholders from different social groups towards planning together the service in favor of everyone. I relate the structural stories I obtain with the workshops to the ones from my interviews in order to understand their sources, travels and flows between different social groups but mainly their roles and meanings within planning.

I structure this Chapter as follows: in the first section, I draw a Social Worlds/Arenas Map of the phenomenon as this frame the different stakeholders’ positions within it. The Map reflects distances and relations between social groups and that helps me choose the key stakeholders I would like to participate in my workshops. I explain the process of inviting the stakeholders to participate in my workshops as part of the expert panel. Afterwards, I narrate the process of Conference 1, where I stress the community aspect related to the improvement of the MCS in terms of its proper implementation. It involved creation of dialogs between participants even when the government did not take part in the workshop. Furthermore, I narrate how the stakeholders shared statements which I interpret as different types of structural stories that started to relate one another. These were used as part of their argumentations. That opened the door for stating possible ‘positive’ futures for the MCS. In the second section of the Chapter, I mention the elements that made up the evaluators group ‘conclusions document’ of Conference 1 as a guideline of the structural story sharing that took place at Conference 2. I explain how the participants shared explicitly
personal structural stories with the aim of defining problems towards common agreements about the MCS in the study zone. The process involved producing ‘new knowledge’ between stakeholders. This favors planning based on possible futures. The whole process also aimed to favor community formation. Additionally, the stakeholders of the expert panel expressed the process of going from private to common interest, using some agreements within the MCSOs of the study zone as examples. Finally, I explain how sharing the structural stories involved reaffirming the stakeholders’ ideas and feelings about the MCS aspects by recognizing familiar elements. That process entailed empathy and understanding between participants who belong to different social groups. When talking about the ‘barriers’ for formalizing and improving the MCS, the stakeholders also unveiled ‘opportunities’ for that. Additionally, the stakeholders used their structural stories as tools as arguments in the debates and dialogs related to the MCS. The possible futures for the service opened the door for its possible sustainability. In the workshop, the stakeholders’ engagement and needs acknowledgement involved transport planning based on common agreements between them.

### 7.1. Social World/Arenas Map as macro-political visualization

In this section, I draw the Social World/Arenas Map of the phenomenon. It frames the different stakeholders’ positions. The Map also reflects distances and relations between social groups. I use the map as a guideline for choosing the key stakeholders I would like to participate in my workshops (Consensus Conferences).

After I analyzed the stakeholder interviews, I wanted to encompass their outcomes by mapping the different social position of the stakeholders’ institutions to which they belong. Therefore, as I mentioned in the Methods Chapter, I opted to do it through a Social World/Arenas Map, where it is possible to visualize those macro-political positions inside the study zone MCS arena.

Social world/arenas maps help decentralize schemes of the situation by identifying the arena as the phenomenon and specifying ‘major’ social worlds and sub-worlds of it as, in my research case, the macro-political social positions. The map therefore helped me find out how many social worlds come together to ‘cooperate’ with one another regarding the phenomenon (Clarke et al., 2018) based on the outcomes of the interview analysis.
I could visualize from a first sight the social world/arenas of the groups related to my research phenomenon. These create sub-worlds when they intersect one another. Under that perspective, it is important to take into account the groups that do not interact with one another, since that reflects important social position distances between them. For instance, it is possible to visualize that the NGO’s relate only to the city government and not to any other social group. On the other hand, the majority of the social groups have to a certain point sub-worlds between one another, and that helped me glimpse which ones could have a greater influence over others and the different mix of social worlds that exists within the arena of my phenomenon. For example, the local government, meaning the municipal one, has much more influence and closeness to the MCSOs than the central city government. Moreover, neighborhood inhabitants tend to have major involvement with the MCSOs and their workers. On the other hand, my PhD research as a sub-world is closer and more influenced by the people of my study zone MCS arena than the governments’ social worlds.

The map includes other social groups that were not part of the interviews, such as the criminal groups and the media, as these are outside my research aims and, therefore, cannot help me answer my research questions. However, it was important to visualize them in the map for considering their existence for further research and policy making.
Finally, the map shows corresponding elements with respect to the interview conclusions as these reinforce the polarization of social positions between the institutions to which the interviewed stakeholders belong as an important analysis outcome.

7.2. Conference 1: Stakeholders’ concerns and structural stories

As I mentioned earlier, the Public Servants (1 and 2) from the Mobility Ministry declined to participate in my workshops. The Public Servants from Tláhuac’s Municipality (6 and 7) also declined to participate because they would not feel comfortable being in those workshops together with some MCS leaders, especially with the MCS Leader (1) from the biggest MCSO in my study zone, with whom they had found it very difficult to make agreements in the past. One of them even told me: ‘we do not want to ruin your workshops’ in relation to a possible argument they could have with the MCS Leader during their process, since, according to them, she supposedly ‘creates conflicts before creating dialog’. Additionally, the NGO Servant from ITDP and the Scholar from UNAM were unable to participate in the conferences due to their busy agendas. With regard to the attendance of the MCS Leader, she showed up at the first Conference together with one of her MCSOs collaborators and another study zone MCS Leader. There was space for more participants, so I invited her collaborator and the other MCS Leader to participate in the conferences as part of the expert panel at the very last minute and they accepted. At the end, the panel was formed by 5 participants: 3 MCS Leaders/Collaborators and 2 Scholars, who replaced the Public and NGO servants and the Scholar.

With regard to the attendance of the evaluators group, 4 attended and only 1 was a non-user of the MCS. I had the impression that those who denied participating were worried about being involved in the topic due to stories about its informality and criminal activities (stigmatization). Thereby, 9 persons in total participated in the Consensus Conferences.

7.2.1. Governance creation: towards an MCS for the community

In this sub-section, I narrate the process of the Conference 1. I stress how the community aspect related to the MCS came to discussion. This involved the possible
improvement of the MCS in relation to its implementation. The process entailed dialog creation between participants even though the government did not participate in the workshop.

At Consensus Conference 1, all the evaluators group and expert panel participants attended. As a moderator, I started by explaining the process and terms of the Conference. Afterwards, the participants introduced themselves. As the conference agenda stated, the topics related to the study zone MCS for Conference 1 were: 1) Employment, 2) Management, 3) Regulations, 4) Road traffic, 5) Safety, and 6) Alternative vehicles.

The Conference started with the topic of Employment. Within the experts’ answers to the evaluators’ questions, the Scholar (3) from Toronto University (specialist in street design and bike-trades of Mexico City) pointed out that there seemed to be a lack of State guaranties for the service workers. For example, in that regard, the MCS Leader (1) from the biggest MCSO in the study zone stated that the service employees do not have access to public programs due to the informality of the service and she recalled a conflict in another municipality of Mexico City, where its MCS could not get access to vehicle insurance. Additionally, during that Conference section, the MCS leaders stressed the elements related to the users’ complaints, the service rules and the contracts that they gave to their workers as an attempt of self-organization. All these elements related to the lack of the government interest in making the service formal and legal. That aspect was visible even during the Conference, which was not attended by any representative of the government. The government seems to be separated from the possible process of getting formality within the service as it has historically not offered any solution in regard to the MCS sector. Thereby, for analyzing that aspect, it is important to make use of the concept of governance. Aguilar Villanueva (2006) points out that the concept relates to different social groups having the capacity to
self-regulate and co-/self-govern in relation to a previously mediated and defined ‘public interest’. That mediation and definition is a process in which social groups and governments take part. Under those terms, when the State (in this case the part of the government of the city) is not defining the agenda for the working conditions of the MCS, it affects the possible service governance. Furthermore, for the purpose of the conferences, the government absence misbalanced the possibilities of what can theoretically favor governance. However, that concept still applies in my research by taking into account the participation of the other social groups without the governmental one. I thereby take into account the government absences as an important characteristic of its own political agenda in relation to the phenomenon and the other groups’ statements as stories mentioned in the workshops in order to enrich the governance concept.

Continuing with the Employment topic of Conference 1, the MCS Leader (2) who came with the interviewed MCS Leader acknowledged that the MCS is not constituted as a company but as a sort of ‘jobs source’, usually a complementary one, as the MC Collaborator had pointed out as well. I relate that statement to structural story number 15 which I obtained with my interviews: ‘the MCS is a job support’ and to story number 2: ‘the MCS starts for the necessity of people having a job’ that came from the same MCS Leader as reaffirming it. The Collaborator also mentioned the importance of having MC driver training with a ‘human’ profile that can make them aware of their responsibilities. One that could favor a proper service offer to the public. In that regard, the Scholar (2) from IBERO (specialist in urban development projects and social cooperatives) remarked the possibilities of community creation through the service working relationships and conditions. Moreover, during the Safety section of the Conference, the Scholar from IBERO also made reference to something that she called ‘collective efficiency’, where people that belong to the same neighborhood know and take care of one another. I interpret that concept as part of a community aspect in relation to the study zone MCS. On the one hand, it relates to solidarity and empathy between workers within its organizations (inner community)\textsuperscript{62} and, on the other hand, it involves the public space negotiations and care between neighbors and the MCS workers. From this Conference, the community aspect within the service came by itself while the participants were talking about the Employment conditions related to the informality and insecurity. According to the expert panel, the community that already exists between the service workers and organizers towards a more ‘human’ service offer seemed to be a core element for the service current legitimation and booming. The more the service favors community formation, the more the service could improve. That can happen as the MCS could entail that its

\textsuperscript{62} This relates to structural story number 16 which I obtained with my interviews: ‘there is solidarity between the MCS workers’.
workers could acknowledge the service users and its neighbors as ‘humans’, namely, beyond merely in a utilitarian way. That relates to structural story number 20 which I obtained with my interviews: ‘MCs journeys provide people with a certain sense of ‘family gathering’ strengthening the community with embodied performances, going beyond utilitarian needs and aims’ because those aspects relate to users’ feelings and sensations. Additionally, the community aspect also related to the governmental lack of the service attention and acknowledgement. The majority of the conclusions achieved in those terms hence related to ‘blaming’ the government for those negative aspects, especially as it was not participating in the Conference. That characteristic relates to structural story number 1 (‘The Ministry of Mobility is not interested in the MCS phenomenon of the peripheral zones because it is not part of their social position in terms of their political agenda’) and 14 (‘transport public servants of Mexico City identify more with European cities’) which I obtained with my interviews. These reflect possible reasons of the Public Servants’ absence from the workshops as the MCS phenomenon is not recognized (visible) by the central government. Furthermore, their absence conveys lack of care about issues of peripheral zones (including the cultures). Prior to the conferences, I had inferred that its absence could make this happen, since an absent group cannot ‘defend’ itself from the indirect or direct accusations of others. Nevertheless, the important aspect here is the absence of the government. It can prevent governance creation with regard to the improvement of the study zone MCS (even by having as an example the single event of Conference 1). However, it is also an ‘opportunity’ to create dialog when there is a possibility to get a ‘government eyes-free’ during the workshops, where topics and elements that involve the government are not ‘taboo’. This is paradoxically related to the governance creation because the government absence favored an open space for sharing statements that I related to structural stories and creating dialogs of ‘public interest’.

The next sub-section shows how the stakeholders shared statements as structural stories that started to relate to and complement one another. These were used as part of the stakeholders’ arguments. This process opened the door to discussions about possible alternative futures for the MCS of the study zone.

7.2.2. Adding up structural stories for utopias

In connection with the Administration topic of Conference 1, the MCS Leader from the biggest MCSO in the study zone brought up a story. In the 1990s, in Mexico City there were attempts to create governmental programs for formalizing and finding private investment to the, at that time, bike cab organizations. During that section, the MCS leaders concentrated a lot on the technical aspects of their service by showing
some statistics and administrative documents they created. In fact, they brought to the Conference a pile of documents with information about their service. They were well prepared for exposing their arguments. They used their own information, especially in the Public Space use section. It was interesting that during the Conference, they commonly related all their information to the legal transport and mobility frameworks as rules of the municipality and the city, even though, as I have been mentioning, their service did not have the proper permissions. Thereby, I see the MCS leaders’ information as *structural stories* that were based on a historical self-manufactured ‘scientific’ knowledge (scientific structural stories) as they were overcoming obstacles and developing the service over time. I can phrase some of these stories as follows: ‘MCs are important for people’s mobility in the neighborhood’, 63 ‘the MCS workers want to transform the service into a sustainable one’, ‘the government has prevented the MCS formalization’ 64, etc. In general, their information and arguments were more accurate than those of the scholars in that regard due to their own embodied experience in relation to the service reflected in their stories (see Jensen and Lanng, 2017). On the other hand, during the section of the Pollution entailed by the MCS, the scholars came up with what had been done in other countries that had had a transport service similar to the MCS. In their case, they shared structural stories based on ‘scientific’ knowledge as well but from other cases around the world as analog ones and, therefore, without any *embodied* experience related to the case study. I can phrase some of these stories as following: ‘there is technology in first world countries that makes transport means sustainable’, ‘in other countries, transport cooperatives work well’, ‘it is important to take into account renewable energy in transport planning’, etc. The difference between those types of structural stories does not entail that some are more important or valuable than others, but it points out and reflects the different visions and dialog constructions among the different social groups by adding up these within the stakeholders’ arguments. Therefore, those stories enriched the outcomes towards the service improvement, which ended up forming governance even without the government’s involvement.

Under the last Conference topic, i.e. the one related to the possible design and incorporation of Alternative Vehicles, the structural stories of the expert panel started to relate to one another in a clearer way. The Scholar from IBERO talked about the possibilities of a business model for the study zone MCS, which could make it possible to manufacture the vehicles in the same zone of the city as where organizations provide the service. In that regard, the MCS Leader from the biggest MCSO in the

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63 It relates to structural story number 3 which I obtained with my interviews: ‘the MCS answers to a demand for mobility in the South-Eastern zone of the city’.

64 It relates to structural story number 1 obtained with my interviews: ‘The Ministry of Mobility is not interested in the MCS phenomenon of the peripheral zones because it is not part of their social position in terms of their political agenda’.
The study zone talked about the failed attempt of creating an electric bike cab factory in the past, in which the vehicles were going to have a motor converter. Additionally, she mentioned that the UNAM had presented prototypes of electric bikes but that that never went on for becoming a real project. Furthermore, the MC Collaborator mentioned a previous idea of making a unique company which could produce vehicles adapted to the MCS zone topography and urban trace. In relation to that, the MCS Leader who came with the interviewed MCS Leader talked about the possibilities of incorporating a Japanese solar cell vehicle by making use of public investment. He also mentioned that currently there are companies interested in investing in the MCS, but the government has somehow prevented that from happening by not regulating the service. In the same way, the Scholar from Toronto University gave Japan and California as examples, where renewable energy is subsidized by the government for transport projects among others [that is actually something already stated in the current legal framework of Mexico City (see Annex A)]. He also mentioned that Mexican academics are able to adapt the new vehicle prototype so that it can be used in the MCS zone context. In this last section, the structural stories of the expert panel were used for making arguments to the extent the participants shared them, and these added next to the other, complementing one another. Their arguments created a proactive environment during the Conference that passed from apparently searching for a group (mostly the government) to blame for ‘negative’ MCS aspects to creating utopias between the stakeholders as ‘opportunities’ for improving the service (‘common good’) (see Freudendal-Pedersen, 2015). The mixed structural stories reflected forms of knowledge and stakeholders’ ‘truths’ as their desires for the future (see Levitas, 2013). Thereby, the neighbors’ questions to the experts functioned for questioning and reinventing the MCS contextual ‘status-quo’ from an imagined possible better future (see Urry, 2006; López Galviz, 2016; Sheller, 2014). The Conference process turned into planning basis of futures that were democratized (see Urry, 2006), in this case, through the governance process of analyzing and giving ‘voice’ to members of many social groups. Within that process, the stakeholders’ structural stories rolled as communicative tools for shaping arguments of those futures as dialogic sensible possible future realities.

In summary, the mix and encounters of the stakeholders’ ‘scientific’ and ‘embodied’ structural stories favored governance creation during Conference 1. It brought up the common ‘public’ interests of the different stakeholders about the MCS phenomenon in a communicative process of self-organization and co-government in that regard, even without the participation of government representatives. In the same way, the mixed structural stories reached a stage of utopias unveiling based on the stakeholders’ common future goods for the study zone MCS. The aims regarding the possible improvement of the MCS between all the stakeholders were similar under their own perspectives, and that helped me define and acknowledge their social positions.
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(macro-political) into a governance (micro-political) process through their own structural stories.

7.3. Conference 2: Structural story sharing towards common interests and consensus

The evaluators group’s ‘conclusions document’ from Conference 1 serves as a guideline for the process of sharing structural stories at Conference 2.

After the first conference, I had the second meeting with the evaluators group. At that meeting, as I explained in the Methods Chapter, they created a document of suggestions/recommendations (as conclusions) directed to the MCS of the neighborhood. Overall, the document stated the following:

1) Replacing all the motorcycles by electric bikes to reduce air pollution.
2) Reformation and implementation of the Mobility Law of Mexico City and its regulation related to the MCS in order to ensure recognition and regulation for formalizing and facilitating the service permissions.
3) Enlargement and formalization of the service jobs offers for establishing proper working conditions.
4) Improvement of the internal and external MCS administration for providing good and proper service to its users.
5) Ordering of the MCS public space use for reducing the vehicular traffic.
6) Finally, assuring security to the service workers and users by providing training for workers and constant and proper maintenance of the vehicles.
Figure 39. First page of the evaluators group’s conclusions document from Conference (in original language).

Those recommendations for regulation worked as the starting point for Conference 2 in relation to planning and framing the MCS. The structural stories that everybody was meant to share related to those points, opening the door to a better possible future for the MCS. I will explain that process in the following sub-sections.
7.3.1. Co-learning through a communicative process: from private to common interests

In this sub-section, I explain how the participants of Conference 2 shared their structural stories with the aim of defining problems that can lead to common agreements about the MCS. The process involved producing and sharing ‘new knowledge’ between stakeholders. Sharing experience favors transport planning based on possible futures. The whole process can also favor community formation related to possible ‘common goods’ for the service. Additionally, the expert panel expressed the process of going from private interests to common by mentioning some agreements between MCSOs in the study zone. I interpret those elements as a utopian aspect for the MCS improvement.

A few days before the date of the second Conference, the two scholars of the expert panel cancelled their attendance due to their busy agendas. However, I inferred that since the dynamic of the Conference 2 was related to ‘individual experience’ (storytelling) sharing about the MCS, possibly the scholars felt that they could not contribute to that aim. I suspected that, since they had not had any embodied experience in the study zone different from the experience of other participants. Additionally, the male member of the evaluators group cancelled his attendance due to working responsibilities. The remaining participants for the Conference 2 were 6 people: the three women of the evaluators group and the two MCS leaders and the MCS Collaborator of the expert panel. It was interesting to see that the stakeholders who were in general closer to the study zone MCS phenomenon were the ones that remained until the last process of the Consensus Conferences. I interpret that as a commitment aspect from them towards the phenomenon and as a common interest between them as well.

Conference 2 started with the evaluators group reading out load their conclusions document to the expert panel. After that, surprisingly, the MCS leaders handed me and the neighbors a conclusions document of their own perspectives after Conference 1, which was signed by the MCS Leader from the biggest MCSO of the study zone. That was a self-initiative from the MCS leaders in relation to the Consensus Conference implementation, which shows the seriousness and commitment that they were giving to it. Afterwards, as the agenda of the workshop stated, the evaluators group were going to share their personal structural stories about the MCS. By sharing their experience, they could form and define ‘problems’ of the phenomenon and, subsequently, create ‘consensus’ between one another. This is partly a process related to an action research method with the aim of producing ‘new knowledge’ through individual experience sharing in a gathered group about a certain issue in a communicative process (see Swaffield and Deming, 2011). Specifically, the process of going from structural stories sharing to definition of social problems is part of the
communicative planning theory (see Freudendal-Pedersen and Kesselring, 2016). Hence, as Freudendal-Pedersen et al. (2016) state, the stage of creating ‘consensus’ between the stakeholders involves formation of utopias based on the critical utopian action research approach, where the non-exclusionary stakeholders’ experience sharing (from their interdisciplinary profiles) could favor planning within the defined problems. In the case of the Conference 2 development, the ‘consensus’ method aimed to reflect shared structural stories that, in a second step, I could interpret as common utopias and, possibly, community formation about the MCS context. This, again, was based on the stakeholders’ sharing of structural stories and co-learning in an ‘open’ and ‘neutral’ space. The community aspect relates to possible futures as it can involve social ‘common goods’.

Figure 40. Development of Conference 2. Source: Taken by workshop helper.

When starting with the story sharing dynamic, the Neighbor (3) who is a local kiosk owner told the other participants about something that had happened to her just three months before the Conference: she took an MC and told to the driver to go slow as she carried a basket of eggs. The driver had agreed, but he did not dodge the street potholes, so five of her eggs broke. Her story relates to structural story number 6 which I obtained with my interviews: ‘MC drivers do not respect the transit law and the pedestrians’. Her comments about that story also related to the way the drivers provided the service and she would like to know whether the MCSOs internally allowed that kind of drivers’ behavior. Likewise, she gave her opinion about whether certain ways of providing the service were ‘wrong’ or ‘right’, according to her, just as observations. She also noted some positive aspects about the service, such as some drivers that had provided good service to her. In that regard, it is important to point out that more than creating a ‘complaining’ dynamic from the neighbors to the MCS leaders, the aim of the story sharing was to let one another know how they felt, expressed and interpreted themselves regarding their own experience of the MCS. Conference 2 thereby was an open event to problem definition through story...
unveiling, where the problems and specific understandings came from stakeholders’ actions potentials as the communicative planning theory states. In this case, the stories based on the stakeholders’ visions and abstract ideas related to the MCS from the feeling and value aspects (Freudendal-Pedersen and Kesselring, 2016). Later on, the Neighbor (2) who is a local school assistant shared a story about once when she had had an accident with her kid on a MC as the vehicle passengers cart went off the motorcycle during the travel and crashed with a truck. That story relates to structural story number 5 which I obtained with my interviews: ‘MCs are dangerous’. Luckily, they were not injured, but she mentioned that after the accident, the driver apologized and took her to their destination charging her for the journey, which all the stakeholders in the workshop room found funny and laughed about. In reply to that story, the MCS Leader of the biggest MCSO in the study zone assured that MC accidents have been decreasing over the years. Furthermore, the MCS Collaborator remarked that those kinds of accidents caused by MCs that have bad accessories or are poorly assembled without a proper maintenance will be prevented once the service gets regulated. His statement relates to structural story number 10 which I obtained with my interviews: ‘rules help with the coordination and control of the MCS’. Having said that, he pointed out that for him, ‘99 percent’ of the recommendations stated in the conclusions document of the evaluators panel’s ‘were already being implemented internally by the MCSOs in the study zone’. He also suggested that the possible future MCS companies could additionally aim to produce the MCS vehicles, its accessories and even the drivers’ uniforms. This way, from those shared stories, the MCS leaders’ replies reflected the openness of the workshop as a communicative and learning space.

On the other hand, the Neighbor who is a local kiosk owner not using the MCS herself, did not have embodied experience from inside an MC (see Freudendal-Pedersen, 2018). However, she had experience as a car driver who had to share the streets with the MCs and as a neighbor who had constant interaction with these. She had some concerns related to whether some MC drivers were associated with the MCSOs, since she had the impression that many were not, after she had chatted with some of her kiosk customers who were MC drivers. She stated indirectly that one of her wishes (as utopia) for the service was that all the MC drivers were part of an MCSO in order to have a ‘proper’ homogenized service (according to the MCS Leader who came with the interviewed MCS Leader, approximately 60 percent of the MCs in the Municipality are not part of an MCSO). The utopian aspect of the Conference 2 development came up indirectly during the stories sharing, since I did not mention that as part of the workshop objectives and, in turn, its agenda. Therefore, I interpret their wishes for the MCS as a utopian aspect as these entailed a learning space through dialog creation. Within Conference 2, the participants favored the formation of a method under a utopian action research approach (Freudendal-Pedersen et al., 2016). The MCS Leader from the biggest MCSO in the study zone replied to the possible
homogenized service comment by saying that their guild was very close to having that characteristic thanks to the common agreements between the MCS leaders that they had achieved by looking beyond their own personal interests. It was mentioned in relation to the common rules for the service they had that, according to her, they created based on the current legal transport and mobility legal frameworks of the city (by taking the car-taxis rules as parameters). She exemplified that point by telling a story from last year when there were riots in many areas of the city after the Federal Government had increased the gasoline prices in Mexico. People in the study zone started to get invited to take part in the riots in exchange for money. After talking each other, the five study zone MCS leaders called their workers in order to prevent them from taking part in the riots. At that moment, that was a common interest for them, and they all agreed on not raising the MCS prices in the neighborhood after the gasoline prices increased in order to cater to the needs of the service users as most of them rely on the MCs to reach to the Metro. Common interest is an important aspect in this micro-political analysis because it is the main characteristic of the citizens’ participation within public management planning (see Langton, 1978; Gilbreath and Zakharchenko, 2002; Bayat, 2012; Ziccardi, 2012; Merino, 2001; Auwerx, 2011; Valencia Escamilla ed., 2007). As I mentioned in the Theoretical Chapter, that participation is also the main feature of governance. Hence, when people renounce to their own aspirations to achieve collective agreements, they are participating in a common issue of common interests, objectives and rules. In this regard, that concept applies not only to citizens’ participation in the public agenda when the government acknowledges and is part of it, but it will also entail stakeholders’ participation without the governmental characteristics. This is important because one of the governance features is that social groups rule on the basis of their own management, from their different abilities towards common interests (Aguilar Villanueva, 2006). In this case, the MCSOs tend to leave behind their private interests in order to achieve common agreements for the benefit of their guild, so by doing it, they are participating indirectly and informally in the public management with their transport activities and what these entail by making use of their business skills in transportation services. For example, the MCS Collaborator stressed the fact that the MCS stop at the study zone Metro tends to show the coordination between its five MCSOs: when their leaders happen to be there, they make observations in a very ‘mature’ way when they see MCS drivers not following the rules or if there is disorder at the stop. He therefore stated that that characteristic makes that neighborhood MCS much more functional than MCSs of other neighborhoods in the Municipality. That statement relates to structural story number 11 which I obtained with my interviews: ‘the disordered way of providing the MCS involves troubles’, since their coordination within the neighborhood has favored order in the MCS implementation. He stressed that that only happens because they share common interests and leave behind their individual ones when these cannot benefit all the organizations. In relation to that aspect, the MCS Leader from the
biggest MCSO in the study zone mentioned that the situation in the neighborhood had not always been like that, since many years ago she had a big fight with one MCS leader’s wife. However, over the years they had learnt to be tolerant and share the business based on common rules through a difficult process. Actually, according to her, all the organizations of the study zone were formed by people that used to work in her organization. They were slowly separated from it for ‘political’ reasons (internal) and she did not have any problem sharing the service business as long as the other leaders supported the guild and were responsible when difficulties arose.

The next sub-section addresses how the stakeholders shared their stories in more relaxed and confident ways. That involved reaffirming their ideas and feelings about the MCS aspects by recognizing familiar elements of the stories. That process favors empathy and understanding between participants who belong to different social groups. The stakeholders also unveiled ‘opportunities’ for improving and formalizing the MCS. Moreover, the stakeholders use their structural stories as tools for arguing within the debates and dialogs related to the MCS. For example, the possible sustainability of the service relates to structural stories that reflect the stakeholders’ common mobile praxes. In the workshop, the stakeholders’ engagement and needs acknowledgement entails transport planning by forming common agreements.

7.3.2. Recognizing structural stories as familiar elements: from ‘barriers’ to ‘opportunities’ planning

After the participants had addressed the MCS guild agreements, the workshop environment became more relaxed and informal in terms of sharing stories. Thereby, the MCS Leader from the biggest MCSO in the study zone continued with a story relating to how the MCSOs struggle with the MCs that are not organized like them (meaning the five in contact with and allowed by the Municipal Government), which they call the ‘pirate’ MCs. Her story exemplified how some MCSOs do not follow the neighborhood agreements. By talking about a leader of the neighborhood market and some ‘pirate’ MCSOs, the three neighbors started to relate that person and the MCs colored in ‘black’ to their own previous knowledge. That relates to structural story number 7 which I obtained from the interview with the MCS Leader: ‘black MCs undertake criminal activities’. This view is shared by MCS leaders and neighbors as it relates to the security of the users because it is not possible to see what happens and what is inside of ‘black’ MCs (that is the reason why the other MCs have transparent covers in their carts as ‘windows’). Almost every time the neighbors started telling a story, they mentioned the color of the MCs that was involved in it in order to differentiate the MCSO to which they belonged. In that regard, the Neighbor who is
a local kiosk owner told a story about her husband’s car mechanic, who lived in the next neighborhood and who had had been robbed in his workshop by people moving in a ‘black’ MC. In that respect, the MCS Leader from the biggest MCSO in the study zone commented that not long ago, they had had a meeting with the Mayor of the Tláhuac municipality about the criminal activities happening in the neighborhood. At the meeting, the MCS leaders had told him that they were going to be careful and on the sidelines of the situation as organizations by mainly not providing the service outside their neighborhood. The stigmatization of the ‘black’ MCs was an aspect shared by all stakeholders, which got strong after sharing their stories (structural story number 7: ‘black MCs undertake criminal activities’). In this sense, regardless of whether the things they said about those MCs are true, the Conference helped them to reaffirm their feelings and ideas about that aspect. In other words, that MC stigmatization could be a fallacy as it generalizes an idea in people’s minds, even when they agree on it based on their own experience. However, in the case of Conference 2, the important outcome of that example is that the story sharing unveiled common stakeholders’ ideas, knowledge and interests, which involved a sense of recognition, empathy, reconciliation, and understanding with one another in certain ways and levels. The stories therefore helped form and define stakeholders’ governance from their participation in the workshops as they came up indirectly with possible ‘objectives and rules’ directed to the study zone MCS (see Bruquetas and Moreno, 2005; Bayat, 2012; Valencia Escamilla ed., 2007).

Slowly, workshop stories started to come up that had familiar elements for all the participants. With their stories, the MCS leaders stressed the importance of their workers following the common MCS rules in order to have a respectful service. The neighbors agreed on that as a common interest, which the neighbors (3 and 4) stressed by constantly saying with different expressions: ‘that could benefit or affect both, us as neighbors and you as service providers and workers’, ‘It affects everybody’, ‘We all can ‘push’ together to improve the service’ (as paraphrased from them). In this sense, the neighbors took part themselves in the MCS ‘causes’ as they realized that they had interests in common. Hence, they offered their participation in the phenomenon beyond these Consensus Conferences, in the sense of future possible actions. Thereby, at this point, there were two social groups that shared common interests through Conference 2: the MCS leaders and the neighbors. In relation to that, the MCS Collaborator pointed out that many of the bullets stated in the evaluators panel’s conclusions document were difficult to accomplish at that time as these would need the participation by the government of the city and sometimes even its participation together with the municipality government. According to him, that aspect creates interest disparity (as a ‘barrier’) because at that time both governments belonged to
different political parties, creating a political issue (a ‘politicized’ issue). In that regard, the Neighbor who is a local kiosk owner suggested that the citizens got together with the MCS leaders when they shared the workshop conclusions and other ‘demands’ to deliver them to the offices of the Municipality and the Mobility Ministry.

Moreover, the MCS Leader that came with the other MCS Leader mentioned the general ‘negative’ ideas that usually tend to stigmatize the MCs and that these create a stigma that goes to all the MCSO as generalizing a single case. For instance, in case of traffic accident involvement or if a driver was doing drugs when working. As I also mentioned in the interview analysis, one single ‘negative’ case could affect the image of all of the MSCOs because of its consequents ‘voice-to-voice’ structural stories. That relates to structural story number 9: ‘structural stories can change people’s ideas and opinions about the MCS’ regardless of whether these are ‘positive’ or ‘negative’. Therefore, according to the MCS Leader that came with the other MCS Leader, it is important that each MC joins an organization in order to be coordinated with all the others when providing the service. The coordination goes from the basic way of how the drivers treat the users (with good manners) to the general administration processes of the organizations. He pointed out that even if every driver were part of an organization, there are limits, where the leaders cannot control the drivers’ individual behavior. The MCS thereby relates to and depends on the individual manners and behavior of each driver, who usually belongs to the study zone or to other close neighborhood. With regard to that aspect, the MCS Leader who came with the interviewed MCS Leader saw a ‘barrier’ to the service improvement that goes beyond its possible formalization. However, at the same time, he saw an ‘opportunity’ as it could be a utopian community aspect where the study zone neighbors, drivers and leaders have constant communication in that respect. For example, he mentioned that if a young MC driver is doing drugs, his/her leader usually informs his/her parents about it (that actually had happened before and, according to the MCS leaders, it is easier to do it when the involved people are relatives themselves). That example relates to structural story number 16 which I obtained with my interviews: ‘there is solidarity between the MCS workers’. Solidarity in terms of MCS leaders getting involved in their workers’ personal matters for the purpose of helping them. In that regard, the Neighbor who is a local kiosk owner replied with a story about some of her MC driver

65 That statement relates to structural stories number 1 (‘the Mobility Ministry is not interested in the MCS phenomenon of the peripheral zones because it is not part of their social position in terms of their political agenda’), 12 (‘the City Congress has not listened to the MCS leaders’), and 13 (‘people’s power level depends on their social positions’) which I obtained with my interviews.

66 That aspect relates to structural story number 19 which I obtained with my interviews: ‘the MCS workers try to counteract their stigmatization by participating in communal events’, since the MC drivers’ behavior relates to the relations and interactions they can have with the service users and non-users.
kiosk customers who had told her that there is favoritism from the MCS leaders towards the drivers who are their relatives as they are being permissive to them and do not penalize them when they break the rules, as opposed to drivers who are not their relatives. It was interesting to see that open and friendly debates and dialogs started about the study zone MCS benefits and shortcomings through individual structural stories. These worked as stakeholders’ tools of argumentation with which all the stakeholders in the room seemed to be familiar. In other words, the stories were recognizable between the stakeholders, even sometimes as ‘cultural symbols’ related to habits and customs of the MCS (see Freudendal-Pedersen, 2009; Freudendal-Pedersen, 2018).

Sharing stories reached the point of not only defining problems but also of defining common interest as possible futures (utopias) based on the neighborhood community aspect. Those utopias relate to sustainability, since these addressed environmental, economic, social and cultural aspects of the study zone with regard to its MCS (see AUSJAL, 2015; Cucca, 2012). That happened in possible scenarios of a ‘good society’ from stakeholders’ mobility management tools reflected as their stories (Jensen and Freudendal-Pedersen, 2014; Freudendal-Pedersen et al., 2016; Levitas, 2013). In other words, the sustainable characteristic of sharing stories based on the idea of the MCS shift towards a better service or the society (the stakeholders) by possibly breaking its improvement ‘barriers’, when starting to recognize common structural stories (Freudendal-Pedersen, 2018). At the same time, the structural stories relating to sustainability mainly reflected the mobile praxis of the workshop stakeholders. Thereby, the mobile utopias reached the sustainable mobility paradigm, since these involved key stakeholders’ engagement and needs acknowledgement but with the difference that they created their own ‘transport intervention’ in the workshop without the government (see Banister, 2008; Sheller, 2015). Instead of going from the government’s planning initiatives to stakeholders’ planning activities, it went in the opposite direction as a method redesign and ‘tuning’ (see Jensen and Lanng, 2017; Levitas, 2013). The stakeholders additionally created those sustainable possible futures from their individual interests to needs-/aspirations-based common interests. I interpret that as community formation and reinforcement aims during a communicative open process and space (see Freudendal-Pedersen, 2015; Jensen and Freudendal-Pedersen, 2014; Freudendal-Pedersen, 2018). Thereby, by the end of Conference 2, the participants had formally agreed on what the evaluators group’s document stated and informally on the study zone MCS elements addressed by their own structural stories. Finally, as I stated in the workshop plan, I gave participation certificates to all the key stakeholders that took part in the workshops delivered and I also handed personally the certificates to the Conference 1’s three participants that couldn’t attend to the Conference 2 few days after the workshops’ closing.

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67 I also handed personally the certificates to the Conference 1’s three participants that couldn’t attend to the Conference 2 few days after the workshops’ closing.
signed by the Coordination of the Urban Development Projects Master’s program of the Universidad Iberoamericana.

In summary, Conference 2 involved outcomes related to governance and its citizens’ participation characteristic for planning the MCS as a possible formal and sustainable means of transport: 1) the stakeholders created a communicative process where they unveiled ‘new knowledge’ about the MCS as it was shared between one another and, at the same time, they constantly learned in the process. The process consisted of going from sharing feelings-ideas-experience-based structural stories as argumentative tools to defining MCS problems, and afterwards to stakeholders’ unveiling common interests indirectly seen as communitarian utopias formation. 2) The community utopias reflected as the utopias that have been created from inside the MCS coordination and the utopias formed in the workshops by adding other stakeholders, such as the neighbors. I interpret this as ‘informal public transport management’ regardless of whether their activities (coordination and agreements formation) are recognized by the government and whether it takes part in them. The common characteristic of both ways of utopias formation was that these were based on stakeholders’ common interests and their actions as mobile potentials in relation to the MCS. The common interests tend to favor that each stakeholder (as an individual) renounces to his/her own personal interests in order to create collective interests as long as the MCS improves. That, under a rules and objectives agreement process together with other stakeholders interested in that aim. That happens because the
stakeholders acknowledged that the MCS improvement could benefit all of them. 3) At Conference 2, the stakeholders unveiled ‘opportunities’ and ‘barriers’ to turn the MCS into a formal and sustainable service. The ‘barriers’ related to the lack of interest of the government in regulating the service (mainly for political disparities and its distance to peripheral zones of the city, including cultural aspects) and the individual interests and cultural aspects of the MCSOs workers prevent the possible service regulation. However, apparently, the stakeholders also presented the unveiled ‘barriers’ as potential ‘opportunities’, since these started to reflect utopias to the extent these were recognized by the stakeholders. For example, the issues related to the government was translated into a utopia, where the neighbors were going to go together with the MCS leaders to the offices of the Municipality and Mobility Ministry to demand MCS regulation. On the other hand, the MCS workers’ issue was translated into a utopia, where the MCSOs were going to be totally homologized in terms of common rules. Stakeholders therefore can translate an MCS improvement 'barrier' (a phenomenon problem) into a community utopia (a sustainable ‘good society’) as a possible scenario when carrying out Consensus Conferences of structural story sharing.

Chapter conclusion

I answered my third research sub-question: 3) How can a participatory method enable governance between motorcycle cab service stakeholders? I conclude that the Consensus Conferences as a participatory method that I implemented enabled governance for the possible MCS planning. The basis of that achievement was the key stakeholders’ sharing of structural stories. The processes and frames of the Conferences related to some of the structural stories I obtained with my interviews as follows:

Conference 1

- Structural story number 1: ‘the Ministry of Mobility is not interested in the MCS phenomenon of the peripheral zones because it is not part of their social position in terms of their political agenda’.
- Structural story number 2: ‘the MCS starts for the necessity of people having a job’.
- Structural story number 3: ‘the MCS answers to a demand for mobility in the South-Eastern zone of the city’.
- Structural story number 14: ‘transport public servants of Mexico City identify more with European cities’.
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- Structural story number 15: ‘the MCS is a job support’.
- Structural story number 16: ‘there is solidarity between the MCS workers’.
- Structural story number 20: ‘MCs journeys provide people with a certain sense of ‘family gathering’ strengthening the community with embodied performances, going beyond utilitarian needs and aims’.

Conference 2

- Structural story number 1: ‘the Ministry of Mobility is not interested in the MCS phenomenon of the peripheral zones because it is not part of their social position in terms of their political agenda’.
- Structural story number 5: ‘MCs are dangerous’.
- Structural story number 6: ‘MC drivers do not respect the transit law and the pedestrians’.
- Structural story number 7: ‘black MCs undertake criminal activities’.
- Structural story number 9: ‘structural stories can change people’s ideas and opinions about the MCS’.
- Structural story number 10: ‘rules help with the coordination and control of the MCS’.
- Structural story number 11: ‘the disordered way of providing the MCS involves troubles’.
- Structural story number 12: ‘the City Congress has not listened to the MCS leaders’.
- Structural story number 13: ‘people’s power level depends on their social positions’.
- Structural story number 16: ‘there is solidarity between the MCS workers’.
- Structural story number 19: ‘the MCS workers try to counteract their stigmatization by participating in communal events’.

There are four main ideas which I conclude in this Chapter. 1) During the workshops, there were dialogs and debates between the stakeholders that related to the improvement of the MCS in a social, environmental, and cultural context even without the participation of governmental representatives. The improvement was mainly related to the possible community formation in the neighborhood through the service implementation in relation to workers’ resource sharing and users’ care. That element means that different social groups, such as service implementers, neighbors and academics can create a process of governance about a phenomenon without government involvement. 2) Those dialogs started from stakeholders’ structural stories that related to and complemented one another. The participants used their
structural stories as ‘argumentative tools’, which involves how important they are for conveying information between different social groups. 3) Sharing structural stories thereby helped define problems about the MCS by producing and sharing knowledge. In a second step, the stories led to favoring common agreements. Those agreements included the possible futures and direction of the service that were based on stakeholders’ common interests, favoring engagement for the workshops and future participations in other multi-social group events. That aspect implicates a democratic process for planning the service because every stakeholder’s experience, idea, need and opinion was listened to and taken into account in the workshop processes by all participants. 4) The dynamic of sharing stories also involved an open and friendly environment in the workshops where people were respectful, tolerant and interested in the issues discussed. That entailed empathy and understanding between the participants because the participants started recognizing others’ stories as familiar, since, for example, these resembled their own mobile praxes in the neighborhood. Those aspects between stakeholders from different social groups broke their distances and differences, making them close to one another and even unified in relation to ideals for the possible improvement of the MCS. It is important to take into account that the problems which the participants were defining in the process at the same time led to opportunities for solving them. I argue that that is an example of (informal) transport planning with the characteristic of the non-participation of the government. That means that planning is a process were every social group is able to contribute to obtaining a better future for the phenomenon as long as the group has an open space for expressing their thoughts and ideas and in which they are being listened to.

Overall, Consensus Conferences can be a scientific method conceived as a tool for sustainable transport planning, since these involve different key stakeholders’ meetings based on sharing experience in an open and safe space for everyone. At the conferences, their individual power display on and related to the MCS balanced through the process of sharing structural stories. That happened because listening to stories created, in my workshop case, understanding and empathy between stakeholders in relation to a certain issue. The balance, at the same time, put into perspective their power relations when planning the future possibilities and direction of the MCS. The process created a more democratic method for including and acknowledging each stakeholder’s voice based on his/her experience, needs, aspirations, etc. in that regard. The Consensus Conferences hence broke the structural barriers of macro-political stakeholders’ social positions by opening a micro-political (time-space) contextual event. This reflects a communicative democratic process of possible common-beneficial scenarios creation and consensus.
Conclusions

Throughout this research, I analyzed the case study of an MCS in the periphery of Mexico City. The significance of the research rests on the implementation of fine-tuned field-based and participatory methods directed at transport planning. I analyzed those methods by making use of motility, structural stories, and governance concepts under interpretative and decolonial approaches and a reflexive and abductive methodology. My aim was to understand the MCS based on the context and the mobile praxes of its neighborhood as well as based on the key stakeholders’ power relations, ideas, knowledge and thoughts with regard to the service. Those are important elements to take into account in transport planning as they provide a wider perspective beyond rational-choice and time-space and economic efficiency focuses. The outcomes of those analyzes helped me glimpse ‘barriers’ and ‘opportunities’ for the possible sustainability of the service.

I organize my conclusions in sections regarding motility, governance and sustainability characteristics. I reflect on the structural stories I obtained during this research that guided and framed my field and participatory analyzes (outcomes from research sub-question 1). Throughout the sections, I lay out academic methodological and conceptual contributions, and recommendations for regulation of and policy making on the MCSs of Mexico City. I explain the process of observing the structural stories I obtained with my interviews reflected on people’s praxes in the field. Furthermore, I address on the outcomes related to the motility analysis for the MCS planning. The outcomes mostly relate to the roles and meanings of structural stories and materialities in the field (outcomes from research sub-question 2). I stress the main outcomes related to those concepts. Afterwards, I address what planners should take into account in the planning. Subsequently, I outline the outcomes related to governance by first delving into the social position aspect related to the stakeholders’ participation in the workshops (outcomes from research sub-question 3). I also explain the implications of workshops that have a dynamic of sharing structural stories regarding the possible MCS planning. Then, I explain the process and implications of the deconstruction and reconstruction I carried out of the sustainability concept for the MCS planning (outcomes from general research question). That process involved taking into account the community and utopian elements of my analysis outcomes. In relation to that, I contribute with some recommendations for further transport and mobility regulations and policies for the MCS planning in Mexico City. After that, I mention the limitations I found in this study that raised some key questions for further research in the field. Finally, I chronologically narrate an update of my case study in the period from when I finished implementing my methods until I finished writing
this research (April 2017 – August 2019), explaining some impacts of my method outcomes on the phenomenon.

Motility for motorcycle cab service planning

In my field zone, a process where embodied experience and structural stories influence and interrelate to one another by affecting people’s minds and bodies (‘micro-cracks’) constantly reshapes people’s mobile praxes. People’s mobile potentials depend on materialities. Structural stories additionally influence people’s mobile potentials. In that regard, relating the structural stories I obtained with my interviews to the micro-events I observed in the field helped me consider relations between people’s ideas and thoughts and their praxes in the field. Furthermore, materialities are obstacles that prevent freedom of movements. Paradoxically, materialities also allow social interactions when people appropriate the public space facilities and elements (materialities as part of the transportation system). With regard to the motility appropriation process, this relates to the neighborhood (ancestral) traditions when these ‘clash’ with materialities. That process involves community formation when the appropriation is carried out in an ‘intimate way’ and as an extension of people’s own places because neighbors distribute the public space between one another, especially for performing outdoors economic activities. As a conceptual contribution, I call that praxis ‘outdoor intimacy’ by drawing upon the concept of outdoor economy, which explains that livability and locality go together with economic activities (Mehta, 2013; Jacobs, 1995; NACTO, 2012B). I also define this research outcome as more-than-utilitarian local economies, which form community by favoring resources distribution and social engagement between neighbors. Furthermore, people’s skills for moving (purchasing power, available time, etc.) come from their own social positions embedded in a macro-political stage (of Mexico City). Macro-politics make those people’s skills indeterminate, as they cannot control those politics. That is the reason why even though the economic activities favor community formation, they also involve negative externalities (especially criminal activities) due to their dependency on macro-politics. Nevertheless, the whole process reflects specific people’s mobile appropriations and plans. Therefore, people’s travels are unique, but people also reproduce these travels to the extent they are in contact with materialities and structural stories in their everyday life. Furthermore, people constantly reproduce micro-events happening in the field for the same reason. That the entire process is context-dependent, since the context of my study zone includes specific materialities and structural stories that are different from other time-space contexts around the world (even within other zones of Mexico City) that see the emerging and informal transportation phenomena. My study contributes to research on informal
transportation, I contribute by defining the *emerging transportation* concept by differentiating it from paratransit which are the modes that people usually create in response to a certain lack of mobility for closing ‘mobility loopholes’ of the transportation systems (Cervero, 1992; Cervero and Golub, 2007). The emerging transportation has those characteristics, but it also relates to my case study as it involves a self-created transport service mainly as a response to a historical social exclusion. I argue that the MC is a materiality of emerging transportation that favors people’s motility as it is a pre appropriated ‘access tool’ for people, allowing mobility. Emerging transport planners should take into account structural stories about the service as intrinsic elements that shape and influence people’s mobile plans in the motility processes of the study zone. Moreover, it should also be considered that materialities placed in the public space favor embodied experiences in people. That produce or/and reinforce structural stories in people’s minds. That process consists of people obtaining certain feelings and sensations from embodied interactions, such as ‘family-gatherings’ through transport means (MCs). Embodied interactions guide people’s actions, which they socially reproduce later. Furthermore, the outcomes of that process make people dependent on the materialities, from which they obtained their structural stories, in this case, dependent on MCs. I call that appropriation of transport means. My research findings add further nuance to Freudendal-Pedersen’s (2009; 2018; 2015) work on structural stories (obtained with interviews) as people’s expressions of common stories (‘truths’) that are systematically reproduced in society which, at the same time, produce and reproduce actions. Structural stories and materialities are therefore important elements to take into account when analyzing motility processes for transport planning, especially within its appropriation element. Thereby, as a methodological contribution, structural stories can be implicit in the field (of my context), meaning that it is possible to interpret these from people’s praxes from observation and, especially, from reproduced praxes when these form mobile patterns that relate to structural stories previously obtained with stakeholder interviews.

With regard to my study zone, planners should take into account that there is a possibility that if the future planning of the MCS involves improving the conditions of the public space in the neighborhood (such as fixing the asphalt of the streets, clearing the sidewalks from obstacles, and adding proper ramps and urban facilities to these), people’s dependency on the MCs could diminish and, thereby, their demand. In other words, many people rely greatly on MCs in the study zone because they struggle to move as materialities block their way in the streets and sidewalks. If such materialities were not there, people would probably walk or bike more, which could diminish their need to use MCs. However, the MCS gives people a positive experience (such as good sensations, comfort and a sense of ‘family-gatherings’) and that could be reason enough to maintain the service demand even if the conditions of the public
space improve. Moreover, it is unlikely that the government will remove all obstacles on the sidewalks and streets even if it intends to do so, since many of these are extensions of some neighbors’ businesses (‘outdoor economy’) that are socially legitimizd and tolerated based on ‘unwritten rules’ of the neighborhood which involve habits and customs that are difficult to break.

Governance for motorcycle cab service planning

The non-participation of governmental representatives in my participatory methods involves an ontological issue regarding the formalization of my study zone MCS. Ontological in the sense of the specific meanings, characteristics and attributions that individuals give to a certain phenomenon. Public servants of the central government of Mexico City tend to have a social position related to high class society in social networks and geographical terms. That social position relates and gets close to European/Anglo-American worldviews regarding transport planning, and the public servants prefer to look at how this is done in Europe instead of looking at the worldviews of their own culture for a reason that my research did not aim to clarify. When social problems are outside those social positions, these do not exist for people that form the social groups or, if they know them, they dismiss them or try to make them disappear from one day to another if possible. Inspired by studies that address resources which are transferred to individuals between generations as social capital differentiated between social groups (Larsen and Morrow, 2009; Bourdieu, 1966), the problem I draw upon is not what people’s social positions are but what people’s actions based on such social positions can potentially involve and favor in relation to a certain issue. In other words, as a methodological contribution, it is important to look at what an individual can do about an issue from his/her social position besides defining or being aware of those positions. That is partly what the decolonial approach provides to research carried out in the Global-South, as it involves considering power structures and relations when doing research in order not to reproduce knowledge of the Global-North and in order to favor additional outcomes in the Global-South that can impact societies of study zones in a more ‘positive’ way. I encourage and advocate for the implementation of contextual planning in Mexico City by using interpretative and decolonial approaches in this research.

When interviewing the stakeholders of the MCS, I realized that they used structural stories to explain their social positions in relation to the phenomenon. I argue that structural stories can help planners identify the stakeholders’ resources, social relations, power displays, and implications of actions at a macro-political level.
Conclusions

However, those distinctions provide individual and cultural aspects that can affect the MCS. Structural stories play the role of analytical tools for social science research, since the stories I obtained with my interviews guided and framed the analysis of my field and workshop work. Additionally, based on Freudendal-Pedersen’s (2009; 2018; 2015) research on structural stories, one outcome of the analysis of my interviews was the differentiation between three types of structural stories as a conceptual contribution: embodied (individual body and mind experience), voice-to-voice (stories traveling and changing between social groups as word of mouth), and scientific (outcomes of studies with good reputation). Those differentiations were important for analyzing the field and participatory methods, because with them, I could visualize the sources of the stakeholders’ structural stories and how these could pass from one stakeholder to other, possibly in a constant process of reshaping the stories. In other words, differentiating those three types of structural stories helped me analyze the phenomenon with regard to the sources, meanings, understandings, significance, change and distribution of the stakeholders’ structural stories about and related to the MCS between macro-political structures.

Furthermore, participatory workshops can potentially provide the public servants of Mexico City with another additional worldview different from a Western-based one when they sit together and listen to members of other social groups. That, however, did not happen in this research, as public servants declined to participate in my participatory methods. The reasons for that relate to the current political disparities of the city, among others, that remain unknown to me. Several research studies state that social groups can reach governance when the government allows them to be governed based on common objectives and rules, using different abilities (see Bruquetas and Moreno, 2005; Bayat, 2012; Valencia Escamilla ed., 2007; Aguilar Villanueva, 2006). Yet, as conceptual and methodological contributions, my research further expanded on those ideas by enriching the understanding of governance, as I argue that it is possible to create governance for transport planning without the participation of the governmental sector by implementing qualitative methods. Social groups related to the MCS can create, take part in and manage transport planning from their own social positions by taking part in workshops as pre-planned micro-political events. That happens outside legal terms, since, in Mexico City, the government has the monopoly regarding the preparation, implementation and management of rules and public policies. ‘Governance without the government’ is an alternative focus for emerging transport planning with the participation of members of different social groups in terms of visions and problem definition, sharing, recognition, willingness to solve, etc. for favoring transport phenomenon solutions. In this research, my participants acknowledged that as a ‘common’ public and individual interest, involving common and individual benefits. It included a communicative process of self-organization and co-government by sharing structural stories that I interpreted as (utopian) common
futures. The communicative process thereby includes participants’ potential new knowledge creation, an ongoing learning process and sharing common interests and acknowledgment. Nevertheless, a planning ‘barrier’ in that regard is that the non-participation of the government prevents the formalization of the MCS, even if the transport service can reach better practices after the implementation of participatory methods. As a result of that ‘barrier’, the structural stories about the service might relate to stigmatization among different macro-institutional structures. I thus argue that the more mixed social groups pre-planned micro-events (workshops/meetings), the more (positive or negative) change, fluidity and number of structural stories about the service at a macro-institutional level.

With regard to the utopian vision within planning at a micro-level, in my workshops, I did not tell the participants that they could create utopias about the service; that was not scheduled. These, nevertheless, came indirectly as future scenarios to the extent the participants were sharing, recognizing and appropriating structural stories in the process. I argue that planners can conceive structural stories as participants’ argumentative tools for transport planning, which can change people’s ideas about the service from pre-planned micro-events to other social groups’ macro-political (institutional) worldviews (even favoring ontological changes). For example, during the interview with the NGO Servant from ITDP, he asked me for some information about the MCS, and after explaining it to him (as scientific structural stories), his opinions about the service started to be more positive and he realized that it could improve with proper governmental attention. Additionally, the sharing of structural stories involves power balance in relation to the transport service between different social groups as each of them have a ‘voice’ in regulating and planning the service while, at the same time, they make use of their own skills and knowledge. That includes balancing the mobile power between key stakeholders as they create understandings by relating their own mobile praxes to one another. That involves stakeholders that influence other stakeholders’ mobile performances as well, changing thoughts and ideas about the MCS based on that. It is important to take into account that structural stories are always true in people’s minds, regardless of whether these reflect events in the field. The importance of structural stories within transport planning rests on the idea that the stories ultimately represent people’s worldviews about something specific. The structural stories are therefore important for conforming and shaping people’s ideas because eventually, they influence people’s actions. Furthermore, I argue that in a workshop process, participants can translate barriers to planning into opportunities by sharing structural stories. According to the communicative planning theory and the critical utopian action research, actors that share specific understandings of a problem can generate and share stories in order to seek inclusive planning through open workshops (see Freudendal-Pedersen and Kesselring, 2016; Freudendal-Pedersen et al., 2016). In relation to those understandings, as a
methodological contribution, planners can use the participatory method of the consensus conferences as a management tool for emerging and informal transport planning as it potentially involves an open and safe space for its participants, resulting in an understanding and empathic environment. Additionally, it is important that the social groups have, as far as possible, common technical knowledge about the phenomenon prior to their participation, such as legal frameworks and sociocultural background, in order to carry out the dialogs and discussions of the workshops in a more ‘fair’/leveled way between participants with regard to knowledge about the phenomenon. That responsibility falls on the organizer and facilitator of the workshops.

Sustainability of the motorcycle cab service

While current definitions of sustainability refer mainly to the satisfaction of necessities and the equitable distribution of resource benefits for future generations (see AUSJAL, 2015; Cucca, 2012; Brundtland and World Commission on Environment Development, 1987), as a theoretical contribution, I deconstructed and reconstructed the sustainability concept. By doing so, I enriched sustainability by using the interpretative approach and Dussel’s (2016; 2012) transmodernity philosophy of science, providing contextual understandings. The theoretical discussion of the concept is what I call ‘deconstruction’, whereas the interpretation and application of the concept based on a specific context is what I call ‘reconstruction’. I embedded the communality/community and the utopian perspectives in sustainability as a contextual interpretative outcome.

In the field, the community characteristic within sustainability relates to the activities happening together with the mobile praxes of people and materialities. With regard to the MCS, as a more-than-utilitarian economic activity, the service is in constant contact with the neighbors’ everyday life activities. The structural stories of the interviews reflect that there were elements beyond the ‘clashes’ between praxes, materialities and traditions of the study zone, because the negotiation of the public space can favor community formation. Moreover, that relation is visible in terms of everyday life and activities of traditional festivities. The closeness of the MCS to the neighbors unveiled an aspect of community that I add to the understanding of sustainability because the solidarity and negotiations that those relations create contribute to the distribution of the MCS resources in the process. In this case, the potentials for sustainability translate into social, cultural and economic ‘opportunities’. Social because the service workers participate in activities and public space negotiations and care and that helps provide
solidarity, empathy and engagement within the neighborhood by reinforcing the human-material relationships in a ‘positive’ way. That process involves social encounters that (re)shape mobile potentials and (re)calibrate power misbalance. That might possibly counteract the neighborhood ‘traffic fights’, even though the MCS vehicles are part of them. Cultural because the service activities help reinforce and take care of the traditions of the neighborhood, as the service workers are actively involved in festivities. That can possibly counteract the urban segregation within the neighborhood and involve social engagement. Economic because the service offers elements that go beyond transportation (spatial-mobility) — such as personal care, comfort, security and a sense of ‘family-gatherings’— increases its demand and, consequently, redistributes the resources between people. Those characteristics can fulfill necessities of the MCS users and workers for future generations if those practices continue in that direction (a possible future).

In relation to the utopian characteristic of sustainability, I argue that a beneficial possible future (utopia) for the phenomenon greatly depends on constant creation and reshaping of structural stories about the MCS that can re-stigmatize or de-stigmatize it. That process reflects to what extent people’s thoughts and ideas about the service change from the micro-political level to the macro-political level and vice versa. For example, in the field, people negotiate the public space, and in the workshops, people acknowledge the needs/desires of others. However, with regard to the environmental characteristic of sustainability, currently it is not present as the service is provided by motorcycles that pollute the air, make noise and involve health risks to its users and workers. Furthermore, as it is an illegal service, nobody controls the numbers of vehicle, which jeopardize the possible sustainable characteristics due to the large number of vehicles moving inside the neighborhood at the same time every day. Emerging transport planners need to consider the ‘opportunities’ for reaching environmental sustainability in the MCS at a micro-political level. Key stakeholders’ sustainable potentials thereby relate to a communicative process that aims to replace the MCS by electric bicycles through regulations and public policy planning. It is possible to look at how structural stories can potentially challenge power relations between stakeholders when they start creating agreements regardless of the social positions to which they belong. This means that the macro-political structures that define the participants’ social positions outside the micro-event get broken. Furthermore, the micro-events favor the distribution and leveling of the knowledge and power with regard to the phenomenon when the participants listen to one another. The planning process thereby starts the moment people share the stories and listen to them. Planners can potentially materialize the conclusions or insights resulting from those meetings (workshops) as part of formal regulations and public policies as a possible future. According to Jensen and Lanng (2017), research perspectives could focus on problems and potentials through fine-tuning of methods. As a
methodological contribution, it is important to mention that the methods I implemented in this research were fine-tuned according to my study case context. I took my methods from examples of other research studies and changed some of their implementation processes. For example, after recording the stationary videos, I decided to use them for finding micro-events. Another example was the Consensus Conferences to which I added the storytelling dynamic. It is important to adjust methods according to the case study context when doing research before and during the process. That practice implicates addressing important elements of the phenomenon that come in the process. Regardless of whether these are quantitative, qualitative or mixed methods, I argue that the use of multiple context-adjusted methods can favor a better understanding of the complexity of a transport-related phenomenon.

Recommendations of public policy and legal framework on the MCS

One ‘barrier’ for reaching sustainability in the MCS is that the neighborhood undergoes urban and social fragmentations as being geographically placed in the peripheries of Mexico City. This situation has involved ineffective or no action by the government in relation to the formalization of the MCS. Therefore, even though my workshops created ‘governance without the government’, this does not ensure governmental action for the MCS because the government legally has ‘the final word’. While planning based on positivist approach suggests that transport projects should adapt to guidelines and propositions manufactured in the Global-North (see Galland and Elinbaum, 2018; Gehl Architects, 2009; Mignolo, 2011; Dussel, 2015; Yiftachel, 2006; Hofmann et al., 2007; Watson, 2016; Porter, 2006; Roy, 2009B; Sheller, 2014) as a planning methodological contribution, I argue that it is important that governmental representatives personally go to the neighborhood, use the MCS themselves and afterwards take part in further workshops. That is necessary because, even though they received the conclusions of my Consensus Conference 1 as recommendations on paper, I argue that it is more likely to change their worldviews about the MCS if they experience the study zone, the service and the workshops themselves. They can potentially get their own embodied structural stories from the field and voice-to-voice stories in the workshops instead of just getting scientific stories in their macro-institutions as it currently happens. Therefore, instead of ‘convincing’ the government about the importance of the MCS, it is better to make them take part in the field-based and participatory planning processes from the beginning so as to reshape their worldviews and consequently challenge their power, for the benefit of other social
groups. In case that the central government still resists entering the field and taking part in workshops, as a regulations recommendation, I argue that there should be a reform in the Mobility Law of Mexico City, where it is stated that municipal governments get the attributions of (take responsibility for) administering and providing permissions of ‘ciclo-taxis’, which is the MCS but using electric bicycles instead of motorcycles for providing the service (electric bike and bike cabs) instead of the Mobility Ministry. It is true that Tláhuac’s municipality has historically ‘politicized’ the MCS, but it has also been (physically) closer to the phenomenon and has participated, together with MCSOs, in the creation of ‘informal regulations’ that have improved the service within the areas of coordination, administration and security of the service. In Mexico City, centralized mobility and transport policies and regulations have favored control by the central government (executive and legislative branches) over excluded social groups, especially regarding their self-created economic activities by doing nothing for improving and formalizing them. Giving more power (attributions) to the municipalities in that regard could terminate that political control, which is a macro-political barrier and involves negative externalities in the peripheries of the city, such as workers’ exploitation and criminal activities related to informal economies. Another option is that the Mobility Ministry keeps its faculties over the ‘ciclo-taxis’ and bike cabs but that the Law gives more autonomy to the MCSOs regarding, for example, the internal service administration, coordination between organizations, vehicles route zones, and service stops. Additionally, the regulation should state in an explicit way more severe punishments for those who try to patronize and intimidate the workers of the service. This can prevent the disparities of political parties between the municipalities and the ministry in which the MCS of the city has been taken as ‘political hostage’ for obtaining power among governments (the NGO Servant from ITDP called that situation ‘mafia’ problems that prevent the service formalization). That possible change can be partly based on the Constitution of Mexico City (Article 59) that states that underserved social groups in the city, such as Mexican indigenous (from ‘native neighborhoods’, mostly placed in the periphery of the city), can have autonomy/’self-determination’ in some of their activities that can involve ‘economic, social and cultural development’.

In addition to that, as a policy making recommendation, I suggest that the central government of Mexico City (executive and legislative branches) should understand and differentiate between transportation and mobility policies and regulations based on more accurate definitions of these concepts as follows. In support of research on the new mobilities paradigm, which suggests that researchers should avoid reducing their understanding to only technical elements (see Vincent-Geslin and Kaufmann, 2012; Kaufmann, 2014; Sheller, 2014; Büscher, Sheller and Tyfield, 2016), with regard to the case of the MCS, as a conceptual contribution, I differentiate between transportation and mobility. Transportation relates to the technical elements that
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explain the demand, efficiency and effectiveness for making people accomplish their journeys, especially the first and last sections (mostly based on a positivist approach). That includes the possible design of an adapted ‘green’ vehicle. On the other hand, mobility relates to elements that go beyond technicalities, such as the human-material relations, affections and feelings, structural story relations, community formation, possible futures (utopias) and the mobile praxes and patterns that all these involve (interpretative approach). Nevertheless, as a policy making recommendation, I argue that it is necessary to take into account transportation and mobility focuses together for the MCS planning as these explain different angles within the same phenomenon, helping to understand it in a wider perspective. That aspect means that no approach will overlap the other. Having both focuses on transport planning can help avoid overlooking important elements when analyzing a transport-related phenomenon. Both focuses can involve specific public space design, urban facilities and spatial organization adjusted to the context of the phenomenon, favoring its improvement.

Another sustainability ‘barrier’ is that the MCs take part in the ‘street fights’ happening in the field every day. As the service is disorganized and involves competition between many MCSOs, the vehicles are constantly seeking passengers for maintaining or increasing their daily income. This aspect can jeopardize dynamics that favor community formation between the service and the neighbors because it can reproduce negative structural stories about the service. Those stories can spring from bad experience related to ‘traffic fights’ and a bad service. Nevertheless, a potentially better organization of the service through formal rules and improvement of the public space conditions can make it friendlier when moving in the public space for other vehicles. That change therefore depends on the possible future regulations of the MCS.

Conclusion limitations

My research conclusions apply only to my case study context. However, these can be used for inspiring analysis of similar phenomena, especially in other Global-South zones. That does not mean that their methodologies, methods, concepts or results are or would be the same as mine. On the contrary, under my research approach and philosophy, it is important that each context finds its own research path. For that purpose, it is important to use a reflexive methodology, and interpretative and decolonial approaches with an abductive process as these elements allow a flexible and open research process that produces situated knowledge. A key question raised by this is to what extent and how a Global-South emerging transportation study case can inspire and be used in other Global-South cases.
The outcomes of my methods provide only small glimpses of my context about a single peripheral MCS in Mexico City. Therefore, it is important to implement more fieldwork, interviews, and workshops for getting a closer approach to the neighborhood reality. Researchers can carry that out over a longer period of time and by including a larger number of methods participants. It is likely that the research outcomes change if, for example, finding more types of structural stories and their role within the phenomenon regardless of whether these could be positive or negative. A key question raised by this is to what extent and how different field and participatory methods together can help to understand the emerging transportation phenomenon.

It is a shortcoming of my research that in the second workshop, only two social groups participated (MCSO leaders and neighbors). Therefore, I cannot assure that the outcomes of the workshops related to empathy and understanding between stakeholders would be the same with the additional participation of other social groups such as academics, public servants and NGO servants. It is necessary to carry out further workshops where those social groups participate as well in order to check whether empathy and understanding would be created between the participants. A key question raised by this is whether the participation of more diverse social groups would have positive outcomes for emerging transportation planning.

Some participants could also use the workshops as opportunities to encourage sympathy to people, which could be interpreted as an attempt of manipulation. For example, the Scholar from Toronto University told me in private after Conference 1 that the MCS Leader from the biggest MCSO in the study zone was ‘good at convincing other participants with her rhetoric’ as maybe trying to manipulate other stakeholders by getting them on her side. I do not think that was the case. However, it is important to take into account that participatory methods could include stakeholders who would try to manipulate others, so that, in case that happens, the moderator can take the discussions in a more open direction were dialogs do not involve that. A key question raised as a result of this is to what extent and how participatory workshops for planning could favor an ‘honest’ process of stakeholder experience sharing towards favoring empathy and understanding between them.

The ‘politicization’ of the MCS in Mexico City was a macro-political element that constantly came up during my analysis of the phenomenon. Its complexity includes different political parties and instances of governments that clash and/or relate to MCSOs in the city and other social groups, involving political competitions, fights and even patronizing activities between social groups. My research did not aim to find an approach to that complexity, even though I mapped the ‘political arena’ of the phenomenon. Therefore, political aspects that are necessary to understand for the possible formalization and regulation of the MCS in the city will remain unknown after
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completion of this research regardless of its outcomes and conclusions. What I have learned from this is that politics should be an important and imminent element to take into account in transport planning studies. A key question raised by this is to what extent transport planning studies should or should not address political elements, such as governmental institutions, public-private-NGO relations, and political parties and campaigns.

Update of my study case after the implementation of my methods (from April 2017 to August 2019)

In July 2017 (three months after the implementation of my methods), the study zone underwent military intervention. The Mexican navy carried out an operation, searching for a criminal drug lord in my study zone neighborhood and ended up killing him and other criminals. After that event, some media started reporting that the drug criminals used MCs for transporting drugs and watching over his territory inside the neighborhood. At the same time, the central government of the city started confiscating MCs by hunting them and banned the MCS. One month after that event, relatives of mine told me that suspicious people went to my former place in Tláhuac asking for me and telling that they ‘had questions’ about my MCS research. I informed my PhD supervisor and the head of my department at RUC. We agreed that I had to keep a ‘low profile’ while carrying out the rest of my research because, when I was implementing my methods, I had also given a lecture at IBERO of Mexico City about my PhD research that received media coverage (Ibero Prensa, 2017; La Prensa, 2017; Conacyt Prensa, 2017). So far, I do not know who they were but luckily, after that day, nothing like that has happened again. Some Mexican left-wing politicians argued that the operation of the navy came as a direct order from the Mexican president to damage the newly created political party in charge of Tláhuac’s municipality government, MORENA, as its popularity and support was increasing in a national level, leaving the president’s and right-wing parties, PRI and PAN, behind in voting preferences towards the coming 2018 presidential and local elections (Milenio, 2017). Therefore, besides seeking security in the neighborhood, the military intervention could have had a political aim. Whatever was the reason of the military intervention, it damaged the MCS at a city level by increasing its stigmatization and banning its implementation for a while. Nevertheless, from August 2017, even with daily military monitoring and patrolling in the study zone, some MCSOs started providing the service again. By the end of October, the service had almost returned to normal activities. The whole situation opened the door to a public discussion and debate about the MC regulation in the city, so that different politicians and MCS leaders told the media about the
benefits and shortcomings of the service even though the central government of the city openly planned to cancel it by 2018. As a response to that, in the same month, different MCSOs of the city organized themselves, creating the Front of Collective and Alternative Transport Organizations - NGO (FOTCA in its Spanish acronym). It included more than 50 MCSOs of different zones of the city, mostly peripheral. The main aim of the front is for the MCS of the city to become formalized and to change all the MCs into electric bicycle cabs based on the Mobility Law of the city.

Figure 42. FOTCA's presentation on social media. Source: Twitter. October 11, 2017.

In October and November, FOTCA and other MCS organizations had meetings in the City Congress with the Sustainable Mobility Commission representatives. In September 2017, partly as a result of those meetings, the Mobility Regulation was once again reformed. This time more specifications were included regarding the ‘ciclo-taxis’ public passengers service. Those specifications facilitate the permissions for providing the service, which includes security, administration and evaluation aspects. The Regulation states in a more direct way that it is forbidden to provide the service by motorcycles or other gas motor vehicles in the city. The Mobility Ministry of the city (SEMOVI) maintains the faculty of providing permissions to organizations of ‘ciclo-taxis’, including their administration, and the service urban facilities and evaluation in the city. The Ministry is still refusing to give the municipalities of the city responsibilities and attributions in this regard which could merely involve asking for their ‘opinions’ about providing the permissions to the service organizations.
Conclusions

In July 2018, Mexico City had central government and municipality elections. The party managing Tláhuac’s municipality, MORENA, won the central government elections (changing main political party in the city). Tláhuac remained with the same party. By then, the MCS in my study zone returned to its ‘normal’ activities. Two months before starting its administration, the new Minister of Mobility tweeted the following: ‘The emergence of ‘ciclo-taxis’, electric scooters, shared bicycles, and motorcycle cabs is interesting because they are all means of transport focusing on the first and last parts of a journey’ (my translation). That statement was a watershed with regard to the MCS paradigm in Mexico City as it was the first time that a Minister of Mobility of the city publicly recognized the MCS. In February 2019, FOTCA, together with other NGOs, including Green Peace, had a meeting and fieldtrip in Tláhuac where they discussed the proposals and working activities done so far by SEMOVI regarding the MCS formalization. The organizations collectively referred to themselves as ‘Coalition Zero Emissions’. It was the first time that a SEMOVI representative publicly took part in such an activity. That shows the interest of the new central government in improving the MCS instead of cancelling it as the former government of the city had planned.
In the same month, MCSOs held another meeting in a South-Eastern zone of the city which was attended by the new Coordinator of the Sustainable Mobility Commission of the City Congress.

In June 2019, SEMOVI included in its Plan of Emission Reduction towards 2024 the replacement of all the MCs in the city by electric bicycle cabs as one of its goals. In relation to that, the activist and Bike Mayor/Ambassador of Mexico City tweeted in SEMOVI’s Twitter thread that SEMOVI’s goal was partly thanks to me as I favored that vision by implementing my PhD research Consensus Conferences. I had shared with the activist the evaluator group’s document of conference conclusions from 2017.
The Twitter accounts of FOTCA and other bicycle cab organization from the center of the city commented in that Twitter thread that they recognized my work as well.

The same month, a Public Servant from SEMOVI who was working on a city diagnosis of the MCS contacted me by Twitter asking me about the conclusions of Consensus Conference 1 which the Bike Mayor/Ambassador of Mexico City had shared with her. I agreed to have further chats with her on Skype and share thoughts and information about the MCS future of Mexico City based on my research studies, including my PhD outcomes. In August, another Public Servant from SEMOVI contacted me, asking the same (currently, I am a consultant in the Integral Program of Mobility 2020-2024 of the city with regard to informal transportation). It is important to stress that the conclusions document from Consensus Conference 1 has been shared with people from different social groups and I argue that it has served as inspiration for formalizing the MCS of the city, and it might have favored scientific structural stories shared between social groups, especially since the military intervention. This shows that my research outcomes have had a certain extent of impact in ‘reality’. Some articles of the 2017-reformed Mobility Regulation regarding the ‘ciclo-taxis’ service resemble to some of the points of the Conference 1 conclusions. For example, Article 51 of the Regulation states that the MC drivers should have a visible ID when working, and Article 50 states that the MCs should have a serial
number and insurance. The Conference 1 conclusions state those points in bullets 6.2 and 6.3. In Article 110, the Regulation states that the service vehicles should have daily maintenance and the Conference 1 conclusions state the same in bullet 6.2 as well.

In July 2019, the new City Mayor of Mexico City issued an executive decree in search of a technological and innovative design of a sustainable/‘green’ MC vehicle prototype adjusted to the needs of the neighborhood people by offering public funding within 12 months with the aim of manufacturing it in the future. The same month, in the State of Mexico (the State that surrounds Mexico City), which has thousands of MCs as well, for the first time, the MCs in one MCSO were replaced by electric bicycle cabs with the investment of a private company. The new vehicles include solar cells that charge the electric motor. That MCSO was formalized and completely legalized in that Mexican State.

![Electric bicycle cab in the State of Mexico](image.png)

Figure 47. Electric bicycle cab in the State of Mexico. Source: Twitter. February 2019.

It is just a matter of time before something like the State of Mexico’s MCSO
formalization and changing into sustainable vehicles starts happening in the territory of Mexico City as well. The direction that the MCS is taking now is an example of how citizen organizations can influence the government to the point of participating in transport planning and regulation processes. The government of Mexico City has shown on several occasions that when it is willing to regulate and create policies regarding a phenomenon, this can happen very fast.\(^{68}\) The pressure, participation and contribution in public issues of organized civil society, (informal) entrepreneurs, neighbors, activists and scholars have been important and intrinsic elements towards the formalization and sustainability of the MCS in Mexico City.

In summary, with regard to the main conceptual contributions of this research, I defined three types of structural stories (embodied, voice-to-voice, and scientific) that help to understand and take into account the dynamics between different social groups related to the same phenomenon. I defined the concept of ‘outdoor intimacy’ for explaining the process of community formation in the field, which entails an intimate appropriation of the public space, favoring its distribution. I also defined the concept of emerging transportation for providing a more accurate understanding of the MCS phenomenon. I enriched the concept of sustainability by including community and utopian aspects, thus unveiling its contextual social, cultural, economic, and environmental aspects. I discussed the distinctions between the concepts of mobility and transportation for their use within transport planning, which involves regulations and policy making processes.

In relation to methodological contributions, under the understanding that fine-tuned methods can favor wider understandings, I associated structural stories obtained with interviews to people’s mobile praxis in the public space for understanding the importance of the MCS. I additionally argue that making distinctions between different stakeholders’ social positions under a decolonial perspective helps with the understanding of their power relations and worldviews regarding the emerging transportation phenomenon towards its formalization and sustainability. I also argue that social groups can create transport planning processes by participating in communicative workshops without necessarily including the participation of the government. Planners can implement workshops as a management tool. However, for

\(^{68}\) For example, on December 1, 2012, there were many protests in the streets of Mexico City as the elected president was taking charge. The protests left more than one hundred people taken by the police. After many NGOs and students organizations complained about the detentions, the Congress of Mexico City (which was conformed at that time in its majority by the political opposition of the elected president) reformed one article of the penal code of the city, which allowed the majority of the imprisoned people to get bail. The situation lasted 27 days but the legislative process of that reform only took 24 hours. That is an example showing that when there is unified commitment in the government, reforms and creation of regulations can be accomplished very fast.
favoring the formalization of the MCS, I state that it is important that governmental representatives go to the field, experience the MCs themselves, and take part in participatory workshops together with other stakeholders from other social groups.

My regulations and policy recommendation for the MCS phenomenon in Mexico City include providing more attributions to the municipalities of the city regarding the MCS management, permissions, and public space facilities. I recommend that the law includes more strategies for preventing patronizing practices related to the MCS. I also recommend giving more autonomy to the MCSOs for the implementation of their service, taking into account their knowledge (mostly empirical) and cultural worldviews. Additionally, in a general way, the government of Mexico City should differentiate between transportation and mobility policies and regulations; however, these two concepts should be considered together when planning for improving public policies and favoring better outcomes with their implementations.

The elements that I contribute throughout this research come from fieldwork implementation and stakeholders’ participation in planning. I believe that those contributions can help improve the MCS of my study zone and probably other cases of informal and emerging transportation in Mexico City, as these can favor formality and sustainability.
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A. Mobility and transport legal terms of Mexico City

The aim of this section is to establish the possibilities of formalizing the MCS by describing the current regulations related to it in Mexico City. The main laws and regulations in that regard are:

- Mobility Law of Mexico City.
- Mobility Regulation of Mexico City.
- Traffic Regulation of Mexico City.
- Integral Program of Mobility 2013-2018.
- Mexican General Law of Cooperative Societies.
- Citizen Participation Law of Mexico City.

The description consisted in finding late reforms of laws and regulations that can directly or indirectly affect the MCS and take them into account as legal possibilities or barriers to provide formality and sustainability. Also, I considered and analyzed lack of regulations and legal loopholes in relation to the service.

As mentioned before, the information obtained in this section was summarized and provided to the evaluator’s group of the consensus conference two weeks before the conference started. Therefore, they could use the information to complement and legally support their questions addressed to the panel of experts.

A.I. Mobility Law of Mexico City (July 2014)

- It is forbidden to provide public individual passenger service using motorcycles (Article 59).\textsuperscript{69}

\textsuperscript{69} Since August 2016, the ‘Ergo Motos’ company has been operating in Mexico City, providing a service of motorcycle cabs without carriages adapted in central zones by using Pulsar AS200 and Gixxer Suzuki motorcycle models. The travel rate is a maximum of 3 km at a cost of MXN 33.00 (EUR 1.53). That means that it is 54 percent more expensive than the MCS in my study.
• It is allowed to provide public passenger service using ‘electric bicycles’ (‘ciclo-taxis’) as a complementary transportation under a permission model (not concession) provided, organized, planned, registered and regulated by the Ministry of Mobility of Mexico City (SEMOV-I) (Article 9, Fraction XVII and XIX; Article 12, Fraction XLV; Article 123; Article 126; and Article 137).
• The ‘ciclo-taxis’ can have an adapted carriage (hansom) (Article 9, Fraction XVII).
• The public administration of the city should implement a program to support the owners of motorized vehicles that have sustainable technologies through incentives and facilities (Article 62).
• The municipalities of Mexico City have to provide opinions and suggestions to the Ministry of Mobility regarding “ciclo-taxis” management and regulations (Article 17).
• The ‘ciclo-taxis’ can only travel on ‘secondary ways’ (Article 124); those are the ones that give access to neighborhoods (Article 178, Fraction III).

A.II. Transport Regulation of Mexico City (December 2003 - Abrogated since September 2017)

• The Regulation states the conditions of providing the passenger service using ‘adapted bicycle-cabs’ (Chapter 6, Section XIII).
• The Regulation forbids providing the passenger service in ‘adapted motorcycles’ (Article 68).

A.III. Mobility Regulation of Mexico City (September 2017)

• The Regulation states the conditions and specifications of the permissions for providing the passenger service using ‘ciclo-taxis’ (electric bicycle cabs) related to vehicle security and drivers’ security, identification, inspection, and service zones (Articles 50 and 51).
• The Regulation forbids providing the passenger service by using motorcycles or any other gas motor vehicles (Article 53).
• Only the Ministry of Mobility can issue permissions for ‘ciclo-taxis’ and its whole administration (Section Four and Articles 74, 93, 109, 110, 113, 128 zone, since the first costs MXN 7.70 (EUR 0.36) every 700 m on average and the second costs MXN 5.00 MXN (EUR 0.23) for the same distance (ergomexico.com; Finck Carrales, 2015).
A.IV. Traffic Regulation of Mexico City (August 2015)

- The Regulation only refers to the service of “ciclo-taxis” regarding the conditions for providing the service, urban facilities, and stop zones. All these would be specified by the Ministry of Mobility (Article 44, Fraction III; and Article 42).


- The Cooperative Society is a social organization formed by people with common interests. The Cooperative Society can satisfy their needs by performing economic activities (Article 2).
- A Cooperative Society can entail equitable distribution of income based on the individual production of the participants under the model of ordinary producers (Article 28).
- The different levels of the Government must support the development of the cooperative societies (Article 92).
- A Cooperative Society can entail the constitution of a certain productive field federation (Article 74).

A.VI. Citizen Participation Law of Mexico City (2010)

- The Law states the rights of the citizens to intervene and participate in public decisions regarding public programs, policies and actions (Article 2).
- It is an obligation of the citizens to report governmental irregular activities and to give opinions and proposals to solve public issues (Article 10).
- The Law states the citizens’ right of forming popular initiatives about the creation and reform of laws and regulations (Article 39) by issuing a proposal signed by a minimum of 0.4 percent of the citizens subscribed in the nominal electoral list (Article 41).
- The citizens have the right to ask for accountability from the executive and legislative governments of the city (Article 54).
- In Mexico City, the 3 percent of the municipalities’ annual budget is defined through citizens’ consultation (participatory budgeting) (Article 83). This could involve regeneration of neighborhood streets as a responsibility of the municipalities’ governments.
A.VII. Mobility Integral Program of Mexico City 2013-2018

- The Program diagnosis only considers travel, pollution and health statistics of Mexico City and the ZMVM that measures mainly type and time of journeys.
- One of its objectives is that 70 percent of journeys should be performed by using ‘efficient transportation’ (walking, biking and use of public transportation) (Strategic axes 1, 2, 3, 4, 5 and 6).
- It states a strategy for public policies to integrate all transportation systems in only one (Strategic axis actions 1, Goals 1, 4, 5 and 6).
- According to one of its goals regarding the conformation of streets, it is stated to complement the streets through proper design for disabled people’s accessibility, security and multimodality criteria, especially in central municipalities of the city (Strategic axis actions 2, Goal 1).
- The majority of its goals regarding urban furniture and complete street design for bicycles streets concerns zones that belong to the most central municipalities of the city (Cuauhtémoc, Miguel Hidalgo, Benito Juárez and Coyoacán) (Strategic axis actions 3, Goal 1; and Strategic axis actions 4, Goal 3).
- According to its strategic actions, regarding the Integral Transportation System of the city, it states a goal of replacing minibuses with new and efficient vehicles through mainly new regulations framework, public funding, and by favoring new transportation companies (this model could be translated for motorcycle cabs) (Strategic axis actions 1, Goal 2).
- According to one of its goals, the Ministry of Mobility and the municipalities shall elaborate the special program for regularization of passenger transport in adapted bicycles (Strategic axis actions 3, Goal 3).
- According to one of its goals regarding street conformation, 110 km of complete streets will be constructed even though it is not specified in which zones of the city (Strategic axis actions 2, Goal 1).

B. Interview guide

B.I. Interview objectives

1) To know the stakeholders’ knowledge about the MCS.
2) To know the personal and/or professional experience of stakeholders regarding the MCS.
3) To know the positive and negative opinions of stakeholders regarding the MCS.
4) To know the stakeholders’ needs entailed by the MCS.
5) To know the personal and/or professional objectives of the stakeholders regarding the MCS in the short and/or long terms.
6) To know the stakeholders’ ideas to improve or cancel the MCS in the short and/or long terms.

B.II. Interview profile

I implemented structured interviews in order to ask a limited conjunction of categories of answers. The answers were restricted according to determinate guidelines provided by the interviewer in order to obtain precise and convincing information (Vela, 2001).

B.III. Interview structure

Categories:

A. Knowledge level.
B. Experience.
C. Opinions.
D. Needs entailed from it.
E. Objectives.
F. Ideas to improve or cancel it.

Questions:

I asked the same questions to all the interviewees in order to contrast their answers after carrying out the interviews.

- A.1. What do you know about the MCS phenomenon in Mexico City?
- A.2. What do you think are the socio-historical reasons that involved that phenomenon?
- A.3. What do you think are the positive and negative effects of the phenomenon at a local level?
- A.4. What do you think are the positive and negative effects of the phenomenon at a city level?
- B.1. So far, what is your personal and/or professional experience with the service?
- C.1. What is your general opinion about the service?
- C.2. What do you think are the opportunities for turning the service into a sustainable and formal service?
• C.3. What do you think are the barriers for turning the service into a sustainable and formal service?
• C.4. Do you think that the municipality’s political alternation of 2015 has affected the service? If so, on what and to what extent?
• D.1. Has the service entailed or created needs to you in a personal and/or a professional way? If so, what needs are those?
• E.1. Do you have personal and/or professional objectives regarding the service in the short and/or long terms? If so, what objectives are those?
• F.1. Do you have ideas to improve or cancel the service in the short and/or long terms? If so, what ideas are those?

B.IV. Obtained structural stories

Stakeholders’ social positions

1. ‘The Ministry of Mobility is not interested in the MCS phenomenon of the peripheral zones because it is not part of their social position in terms of their political agenda’.
2. ‘The MCS starts for the necessity of people having a job’.
3. ‘The MCS answers to a demand for mobility in the South-Eastern zone of the city’.
4. ‘The MCS gives people very much accessibility’.
5. ‘MCs are dangerous’.

Stigmatization of the MCS

6. ‘MC drivers do not respect the transit law and the pedestrians’.
7. ‘Black MCs undertake criminal activities’.
8. ‘The service sector entailed by its informality favors the construction of generalized negative structural stories’.
9. ‘Structural stories can change people’s ideas and opinions about the MCS’.

Power relations in relation to the MCS

10. ‘Rules help with the coordination and control of the MCS’.
11. ‘The disordered way of providing the MCS involves troubles’.
12. ‘The City Congress has not listened to the MCS leaders’.
Annexes

13. ‘People’s power level depends on their social positions’.
14. ‘Transport public servants of Mexico City identify more with European cities’.

Inner community of the MCS

15. ‘The MCS is a job support’.
16. ‘There is solidarity between the MCS workers’.

Community in the study zone

17. ‘The MCS involves security and comfort for its users’.
18. ‘The public space becomes a sort of private and ‘intimate’ space that is negotiated from unwritten social rules’.
19. ‘The MCS workers try to counteract their stigmatization by participating in communal events’.
20. ‘MCs journeys provide people with a certain ‘family gathering’ strengthening the community with embodied performances, going beyond utilitarian needs and aims’.

C. Data description and coding of the methods

C.I. Pictures

By taking pictures whilst walking, my starting point was a residential area with few shops (Picture 1). My first impression was that almost none of the sidewalks has access for pedestrians’ free flow. The majority of sidewalks had some kind of physical obstacle, which gave me a first feeling of endangerment related to falling down by tripping over something or into a hole. I noticed that, as consequence, people tend to walk by the streets next to the sidewalks (Picture 2). Physical obstacles were commonly placed in empty lots, where it was practically impossible to walk by (Picture 2).
However, I tried to walk by the sidewalks all the time in order to have the full experience of doing it. It was necessary to pay attention the different width of every sidewalk whilst walking in order to not fall down (Pictures 3 and 6). Also, every house practically had a driveway from the street, which usually affected the length of the sidewalks, so that walking by the driveways entailed a feeling of unbalance every taken step (Picture 5). The driveways of the houses also create puddles after raining between the sidewalks and the streets (Picture 5) –in Mexico City, approximately from June to September, it rains almost every afternoon, at night and in early mornings.
Figure ii. Observational walking pictures – from nos. 3 to 6. Source: taken by author.
The majority of sidewalks are filled with bushes and/or trees that house owners planted by their places as a gesture of private property (Pictures 4 and 6) – in Mexico City, house owners do not own the sidewalk placed by their houses, since this is considered as a public space (Mobility Law of Mexico City, 2014). Some of those bushes and trees were placed in the sidewalk end next to the street and others were placed randomly, making it very difficult to navigate between leaves, branches, and trunks. On top of that, urban facilities, such as lamp and telephone posts, also hindered the walking flow (Picture 3).

There was not a single public trash container in any neighborhood street, so there was lots of garbage on the ground (Pictures 11 and 15), which gave me a feeling of dissatisfaction with the space. Therefore, what I most observed was garbage on the streets. That situation took my attention because I almost started relating every ‘negative’ aspect of the public space to the garbage I saw on the ground. During my walking journey taking pictures, the public space did not fulfill my expectations and ‘needs’ of moving, since, between physical obstacles and harsh vehicular traffic, I struggled to move freely.

In general, walking in the neighborhood was very challenging due to all its obstacles and unstable ground. I was very aware of looking at the ground, avoiding obstacles and ground forms that could make me trip over, which prevented me from paying attention to other public events whilst walking. It was also very common to see construction material placed in the sidewalks by house owners (Pictures 3 and 9). Most of those materials have been there for months or even years (see Finck Carrales, 2015). Usually, street stores occupied the whole sidewalk and part of their streets (Picture 10). Some ground floor stores added private facilities in the sidewalk, such as sunshades and benches (Picture 11).
Additionally, the majority of stores placed advertisements and products in their sidewalks as an extension of it. Some of them, however, blocked the sidewalk almost completely by placing all their things on it (Picture 14). The neighborhood playground was in bad conditions even though it was crowded (Picture 15). There were only few pedestrian access points to the playground and it was surrounded by very narrow streets that commonly face vehicular congestion.

Some streets saw road chaos created by private cars, transportation trucks, pedestrians, MCs, buses and taxis (Picture 13). It seemed that drivers were not kind and did not yield to other drivers. Only vehicular traffic was seen in the main secondary streets of the neighborhood (Street 1 and Street 2). It is clear that the vehicular traffic related to the constant and great economic activities of those streets. There were several trees of different species and sizes in almost every street. It seemed as if it was trendy to plant
trees and bushes by houses when the neighborhood started to be populated. In general, urban facilities were in old and bad conditions, which makes most of them practically useless. Moreover, urban facilities blocked the most of pedestrians’ free flow. I could see people talking to one another in almost every street in shops or house doors or by walking. The social interactions were mainly related to economic activities. I however had the feeling that these were not only utilitarian, since people were constantly smiling when having the interactions.

Figure iv. Observational walking pictures – from nos. 16 to 19. Source: taken by author.
During the journey, I never felt completely safe whilst walking, since I was always worried about being run over by a vehicle even though I tried to walk on the sidewalk the whole time. I constantly had to walk a little bit on the street and then go back to the sidewalk due to all the things that blocked it completely (Pictures 16, 18 and 19).

Houses are very different from one another, since some look as if they have been built with almost no proper construction material and have had improvised characteristics, such as roofs made out of metal sheets and walls made out of superimposed stones (Picture 20). At the same time, there are other houses very well constructed. Almost
every street I crossed had potholes and cracks (Pictures 21 and 23), which made the traffic circulation of vehicles very difficult (mainly MCs), especially when there was a constant street territorial competition between vehicles.
Figure vi. Observational walking pictures – from no. 24 to 27. Source: taken by author.
Most of the trees that were placed on the sidewalks have cracked the sidewalks from the inside, forming bumps in the ground, since their roots grew towards the sides (Picture 26). Again, that characteristic made walking very difficult.

In general, it seemed that neighbors felt entitled to use the sidewalks and even part of the streets for fulfilling their private needs, since some of them parked their cars even on the sidewalks (Pictures 26 and 27). That aspect made me infer certain lack of consideration for other people’s freedom and access for moving by the majority of the study zone neighbors (see Freudendal-Pedersen, 2009; Nixon, 2012; Kaufmann and Canzler, 2008). Continuing with the people’s ‘personal space’, my impression was that the neighbors felt entitled to use the public space for fulfilling their own needs which, as far as I could see, prevented other people from fulfilling many of their needs, such as moving and consuming.

Figure vii. Observational pictures by car – from nos. 32 to 36.

Source: taken by author.
The car journey I took in the study zone to take more pictures exemplified how the neighborhood public space directed and benefited mostly motorized vehicles. However, I could see how pedestrians and the few bikers that were on the streets claimed public space when sidewalks were blocked or occupied (Pictures 33 and 34) (see Adey, 2010; Ben-Joseph, 1995). Driving inside the neighborhood therefore was challenging, since it required a high degree of caution to avoid running over persons or crashing with other vehicles, mainly MCs (Picture 35). Nevertheless, I observed that most cars went fast and careless, which again created a hostile and dangerous climate during the trip. Going towards Tláhuac Avenue by the Street 2 involved diminishing the speed while getting closer to it. That happened, since, whilst driving, I started to come across more and more obstacles in the street and people walking over it alongside with vehicles moving and parking in a cramped space (Pictures 33 and 35). In the next Northern neighborhood, there was a golf cart cab service stop, which provided the same service as the MCs (there were some golf cart cabs also in my study zone). I could see those vehicles in the opposite corner when reaching Tláhuac Avenue from Street 2 (Picture 36). No MCs and golf cart cabs traveled by Tláhuac Avenue because they were not usually allowed to do so by the rules of their own organizations (Finck Carrales, 2015). Their traveling limits were mostly their services stop lanes by the Metro Station in both sides of Tláhuac Avenue. In this regard, during my journeys of taking pictures, the feeling of endangerment was recurrent, especially when walking. It was mostly favored by a mix of physical conditions and people’s praxis. Physical conditions of the zone were not ‘friendly’ for me whilst walking and going inside a car, since I had to be aware of them basically all the time. I had the impression that people in the public space were not really aware of other people surrounding them, so I inferred that people were generally used to take account of only their needs and not those of others. Also, hostility in the public space was constant in the process. The streets were full of vehicular traffic created by different transport means, including walkers. I had the impression that each transport means traveled in a hurry. Speed, in my experience, involved hostility because, with it, transport means were not sharing the public space, but rather claiming and fighting for it.

C.II. Analysis of senses (walking)

As I crossed empty lots while taking pictures in the study zone, I commonly perceived funny or fetid smells that came from inside them, and it looked as if people had thrown garbage inside the lots and it smelled like dead animals as well (Pictures 7 and 8). Additionally, the smell of smog was very strong, and it was constant in every street. Gas-motorized vehicles were everywhere and crossing constantly every street I passed
by. The smell of garbage was not in every street. However, when it appeared, it was annoying and distracted my thoughts. The smell of greasy food only came in the streets with local and street restaurants and even more from those who extended their kitchens to the sidewalk. There is a barn close to the neighborhood, so sometimes when the wind was blowing, it started to smell like that. Also, some of the neighborhood lots were used as lamb, cow and horse yard, and even farmers used to take their animals for a walk on some streets of the neighborhood in some days of the week. Watching the animals going for a walk in the streets gave me the impression that some countryside habits were taking place that the study zone used to have before being urbanized and that still remain. That smell was definitely a mix of senses and feelings between the humble rural area and the chaotic urban city that the peripheral zones of Mexico City usually have.
On the other hand, some houses were even built with a longer width in comparison to others, occupying space of the streets and consequently dismissing sidewalks in those street sections (Picture 19). Those aspects gave me a sort of ‘asymmetric’ sensation in the public space.
When I came across some of the intersections, I did not feel like walking by them because sidewalks practically did not exist (Picture 30), making me feel vulnerable to cars and MCs. Also, I had a slight feeling of getting mugged during my journey because almost nobody else was walking in some streets and I was taking pictures with my cellphone (Picture 29). When I was walking alone and a MC passed by, I did, however, feel a little bit safer. MCs that were crossing the streets gave me a certain feeling of the streets being occupied and ‘alive’ somehow. I had the impression that MCs helped and provided security and livability by occupying the streets.

The main vehicle motor noise that I could hear was undoubtedly the MCs; I could hear them approaching and moving away constantly. Basically, every 10 seconds, there was a MC passing by and there were several of them passing at the same time in the
main streets. After a while, I think people might get annoyed by that motor noise in addition to the noise of other motorized vehicles, such as cars, trucks and buses. Walking the streets helped me hear a little of some people’s conversations, not exactly what they were saying or talking about, but rather the noise of their voices around. That noise provided me with a sensation of the public space being occupied by people that were interacting with one another.

C.III. Counting and Tracing

By recording videos, I was able to count the types of movements in the study zone as a sample of its ‘reality’ to be interpreted. Counting the movements involves the ‘first sight’ of realizing mobility praxes. Therefore, firstly, it was necessary to provide a more descriptive ‘picture’ of the potentials of mobility taking place in the study zone.

The figure above shows the different transport means captured and counted one by one as they passed by, using the recorded videos. It is clear that the MCs surpassed in volume any other type of transport means in the study zone, being almost half of the total. However, walking is the second most captured ‘transport means’, which is very
close to the cars in number. It is important to point out that legal/formal public transport, such as public buses (including wagons) together with taxis only account for 5 percent of the total transport means. At first sight, that aspect reflects that legal/formal public transport offers are very few in the study zone. MCs, pedestrians and cars were the main transport means to be taken into account in my analysis, since the rest of them were not statistically significant in volume.

![Transport means number per Day](image)

Figure xi. Transport means per Day, counted. Source: Made by author.

The figure above shows that weekdays have the most MC activity whereas pedestrian and car volume is much more leveled. On the other hand, the figure shows that the MC volume decreased considerably on Sunday and it is almost on the same level as the pedestrian volume, from which I infer that on weekends, people tend to walk more than on weekdays without using the MCs that much.
Figure xii. Transport means per daytime, counted on Monday, Wednesday and Sunday. Source: Made by author.

The figure above shows that the MCs have more activity during mornings, early afternoons and early evenings. On the contrary, pedestrians have more activity during early evenings, which indicates that people rely more on MCs in the mornings for starting their daily activities and reach their destinations faster than by walking. In the same way, cars happen to have more activity during early evenings. Additionally, the figure shows that there is practically no activity of legal/formal public transport within the hours recorded by the videos in comparison to the three main transport modes (MCs, walking, cars) in the study zone.

Figure xiii. Transport means per Intersection, counted on Monday, Wednesday and Sunday. Source: Made by author.

The figure above shows that the intersections with the most MC activity were Street 2 and the Metro Station. On the other hand, pedestrians had more activity in the street
intersections than in the Metro Station intersection. That also goes for cars. That aspect indicates that people rely more on MCs the further away they are from the Metro Station, namely, as they move towards the outside of the neighborhood.

The figure above shows that there is little difference between the MCs in the movement recorded on video that headed inside the neighborhood and the ones that headed towards the outside. In the cases of pedestrians and cars, the differences between those that headed inside and the ones that headed outside are bigger, in which the internal movement had more volume.

Additionally, I found that Wednesday was the day in which most of the MCs headed towards the inside (22 percent) the neighborhood and Monday was the day where most of the MCs headed outside (19 percent). The time with the most MC movement towards the inside (8 percent) and outside (7 percent) the neighborhood was at 7:30 and the time with the second-most movement was at 13:15 (6 percent for both).
It seems that when the weekdays start, people tend to use more MCs as these allow them to have more flow in any direction when moving. Morning is the time at which people rely more in MCs, especially for reaching the Metro Station.

Sunday was the day in which most of the pedestrians headed towards the inside (24 percent) and outside (16 percent) of the neighborhood. The time with most pedestrian movement towards the inside (17 percent) and outside (9 percent) of the neighborhood was at 19:15 and the time with the second-most movement was at 13:15 (11 percent and 8 percent, respectively).
Apparently, during weekends pedestrians rely less on transport means other than walking during, especially, early evenings, which makes me infer that when they are off work, they have more ‘free’ time that is usually spent walking.

Wednesday was the day where most cars headed towards the inside (25 percent) of the neighborhood, and Monday was the day where most of the cars headed towards the outside (12 percent). The time with the most car movement towards the inside (13 percent) and outside (12 percent) of the neighborhood was at 19:00-19:15 and the time with the second-most movement was at 13:00-13:15 (13 percent and 7 percent, respectively).
Car activities are very constant in the study zone, especially during working weekdays, since this transport can be used for heading towards the center of the city. In general, car movement tends to increase during early evenings. I infer that this is related to the working activities as well, especially for people that work outside the neighborhood.

With regard to people’s concrete mobile praxes, according to the recorded videos, pedestrians were talking the most on Wednesday (40 percent) at 19:15 (23 percent) in the Street 2 intersection (49 percent). Also, pedestrians were eating or drinking the most on Wednesday and Sunday (40 percent each day) at 13:00 and 19:15 (40 percent each time) in Street 2 (80 percent). Only one person walked a pet on Sunday at 07:00 in Street 1. People walked the most on the sidewalk on Sunday (31 percent) at 19:15 (21 percent) in Street 2 (43 percent) and outside the sidewalk on Sunday and Wednesday (7 percent each day) at 19:15 (6 percent) in Street 2 as well (8 percent). Only one person was watching his cellphone when walking on Wednesday at 07:00 in
Street 1 and only one person was staring at people on Sunday at 13:15 in Street 2. Therefore, the majority of people’s walking praxes was on Wednesday and Sunday, which I infer could mean that people are active regardless of whether it is a weekday or a weekend. The same way, people used to be more active after 13:00, which could be because people felt more ‘free’ when their morning activities were finished. That period included walking outside the sidewalk as an expression of ‘freedom’ against ‘common’ social rules, plus the physical obstacles on the sidewalks. Activities that were more ‘intimate’, such as walking pets, are usually left to do in early weekend mornings, in which streets are practically empty, apparently because these tend to be chaotic on regular weekdays.

With regard to people’s specific stationary praxes, according to the recorded videos, during Sunday, most of the people that were not moving were buying something (44 percent) at 13:15 (31 percent) in Street 2 (56 percent), talking (40 percent) at 19:00 (22 percent) in Street 2 (38 percent) as well, or eating or drinking (56 percent) at 19:00 (44 percent) in the Metro Station (56 percent). On Wednesday, most people were staring at other people’s activities (50 percent) at 19:30 (60 percent) in the Metro Station (80 percent) and were working in kiosks-shops-stores or restaurants (45 percent) at 19:00 (28 percent) in Street 1 (38 percent). Thereby, stationary activities relate to when people finish their daily activities from the afternoon. The Metro Station intersection is important with regard to stationary activities because there are usually MCs divers concentrated in its stop lane. People that arrive to the neighborhood from the Metro, however, do not tend to stop there. In general, kiosks, shops and restaurants involve stationary activities according to the recorded intersections and these are more active during afternoons regardless of whether their activities happen on weekdays or weekends (see Mantho, 2015).
The figure above shows the social patterns that I interpreted from an interaction and mobility perspective, using the recorded videos in the study zone. Mobility pattern 1: in the metro Station, MCs go back and forth dropping off and picking up people. Also, there is another node in Street 2, where there is another MCs stop by the local market. Finally, people create a similar node over the Street 1 intersection but this relates to its importance as economic activity. Mobility pattern 2: this pattern reflects materialities that are pushed outside the sidewalk by other materialities. In other words, certain vehicles cannot move over the sidewalk and there are specific nodes where that happens more often. Generally, wheelchairs, strollers and wagons were pushed outside the sidewalk by materialities of stores, such as advertisements and sunshade structures. Mobility pattern 3: in the same way as mobility pattern 2, pedestrians walking on the sidewalk tend to be pushed out by some materialities, creating patterns. People tend to start walking outside the sidewalk when there is an obstacle placed by the stores as their extensions. It seems that it is completely normal for people to do that, especially when they walk in groups. Social interaction pattern...
1: within this pattern, there is a visualized interaction between mainly MC drivers and stop lane coordinators taking place in the main MCS nodes in the study zone. Those interactions relate to journey gaps in MC drivers’ activities, mainly while they wait in the MCs lane to pick up more users. This pattern occurs more often during rush hours, where the MCs have more demand, especially in the Metro Station. Social interaction pattern 2: this pattern reflects workers and clients having interactions inside and outside stores and restaurants. Usually, those interactions take place more often between workers. On the other hand, clients tend to interact more only during the moment when they are making use of a service or buying something.

D. Examples of street design around the world

D.I. Shared streets

In order to favor efficiency in shared streets, a maximum vehicle speed of 13.5 mph (21.8 km/h) is recommended. Thereby, speed limit in shared streets has resulted in an average decline in accidents of 20 percent and a reduction in vehicular trips of 14 percent in different cities around the world (Owings, 2015; Ben-Joseph, 1995).

![Figure xix. Shared street traffic sign. Source: Ben-Joseph, 1995.](image-url)

In the example of the shared street traffic sign above, it is important to notice the intent of incorporating all kinds of movement and public space users in the same street. Those aspects tend to provide livability and community in a neighborhood.
The illustration above indicates the main differences between a ‘typical’ and a *shared street* design, so that in a shared one, space is distributed more equally between transport means (including walking).

There are several examples of shared streets around the world; some of them were meant to have the sharing characteristic from their planned designs and others ended up being shared from people’s daily use and mobile praxes.
Figure xxi. Lagos, Nigeria. Example of a *shared street*.
Source: Mantho, 2015.

The example of the Lagos picture above shows the relation between local trades and movement in a *shared street*, which tends to increase the use of the public space.
The example of Oude Hoogstraat shown above could be called a semi-shared street, since the vehicle lane cannot be used by pedestrians, but it can be used by bicycles. Also, it is important to note that the street is narrow and has one way traffic in order to leave enough width to the sidewalks.

D.II. Complete streets

In terms of complete street design, it is recommended to have a vehicular speed limit of between 15 and 25 mph (24-40 km/h) inside the neighborhoods. That characteristic is decided on the basis of the fact that the minimum limit prevents pedestrian fatalities very effectively since it provides a better visual focus for drivers. Actually, inside pedestrian priority streets and shared spaces, the recommended speed limit is 10 mph
(16 km/h) (San Francisco Parklet, 2013; NACTO, 2012B).

Figure xxiii. Examples of traffic calming devices for controlling vehicle speed - Street design.  
Source: NACTO, 2012B.

There are different urban facility designs for controlling vehicle speed in complete streets. The two illustrations above, show the implementation of calming devices, such as crossing roundabouts and narrowing of streets.

As I mentioned before, street design depends on contextual and local dimensional characteristics and social praxes. This means that some streets only fulfill some features of a complete street, which does not necessarily make them useful for inhabitants.
Mesones can be acknowledged as an example of a ‘semi-complete’ street because it does not have a specific lane for bicycles and its sidewalks are not completely ‘friendly’. However, local stores provide people with activities and ‘semi-free’ physical mobility.
Also, Gulou East could be a ‘semi-complete’ street due to its lack of a defined bicycle lane, even though it is wider than Mesones. Nevertheless, in Gulou East, bikers use the street to move and store facilities provide apparent livability.
The sidewalk on Massachusetts Avenue is a good example of livability and activities encouraged by diverse of local businesses. The sidewalk design is meant, partly, to implicate people’s ‘free’ mobility with store-related activities. This way, urban facilities and equipment should be taken into account in sidewalk designs as a complementary tool for encouraging peoples’ use of the public space. In other words, those facilities and equipment will help meet people’s needs regarding the use of space. For example, urban facilities for parking bicycles help people switch from one activity (for example biking) to another (for example entering a restaurant) within a short period of time and by using very little energy.

D.III. Urban facilities

Figure xxviii. Bicycle parking urban facilities in the sidewalk.
Source: San Francisco Parklet, 2013.
Usually, it is not easy to include urban facilities in street planning because these tend to considerably increase the financial public budgets. It is, however, possible to use temporary urban equipment in order to act quickly and to inform the community about public decision-making (NACTO, 2012B). If the provided facilities are used and useful to the society, it could be easier to include permanent urban equipment in the public budget of the final project. Moreover, some other design aspects should be taken into account during the design process of a sidewalk in order to ensure total ‘free’ mobility.
Figure xxx. Example of sidewalk curb ramp.
Source: Los Angeles County, 2011.

Figure xxxi. Curb ramp components and alternate ramp slopes.
Source: Los Angeles County, 2011.
Sidewalk ramps for disabled people and car entrances involve design details that people could appreciate. However, it is preferable to always be sure whether users actually need these by asking and letting them participate in the design and planning processes.

D.IV. Bicycle lane design

With regard to my study zone, bicycle lanes can be directed to bicycles and MCs, so that analyzing the basic and main features of that lane design help acknowledge whether the study zone needs bicycle lanes or not.

Bicycle lanes are meant to incorporate more sustainable transport means into the ‘roadway realm’ and to occupy less street space for having more amounts of people moving on it and, in turn, favoring less road traffic (AWPA Congress and Exposition, 2008). Bicycle lanes tend to be implemented in dense zones with enough products, services, mass transport stops, and job offers close to people’s homes in order to make travels on bikes efficient.
As shown in the illustrations above, bike lanes tend to be 5 feet (1.52 m) wide. However, their final measure depends on the street dimensions of a given zone. Also, bike lanes are meant to improve travelers’ safety, since these have decreased pedestrian and biker injuries and decreased vehicular crashes in different zones around the world. For example, in New York’s 9th Avenue and Grand Street, injuries decreased 35 percent on average in a medium term (NACTO, 2012B).
Bicycle lanes can be positioned between the cars parking lane and the vehicles lane. However, some bicycle lanes can be placed between the sidewalk and the car parking lanes for providing bikers with more safety (NACTO, 2012A). In either case, it is recommended to leave a space of at least 50-60 cm for the doors of parked cars in order to prevent bikers’ accidents caused by the doors when opening (Gobierno de Jalisco et al., 2013). Another piece of urban equipment that can be used in order to provide bikers with safety is placing retaining bars along the bicycle lanes and painting them for drawing attention to the spatial difference between all the street lanes.
Bike traffic lights and signals are necessary in order to control traffic in street intersections. Their function is elementary in order to ensure efficiency and effectiveness on roads because they provide mainly safety and order.
In summary, bicycle lane implementation could be a way of improving sustainable mobility in multi-central cities and dense neighborhoods with a big public budget (those with proximity of products and services). However, as I mentioned before, due to urban equipment and design that is needed, bicycle lane implementation could be very expensive to some local governments, especially in the Global-South. Some cities could opt to improve road conditions and travelers’ mobile praxes when using their local streets through an alternative inclusive design, such as the shared streets.
In a peripheral neighborhood of Mexico City, there is an informal motorcycle cab service (MCS), which provides local mobility and mass transport connectivity to thousands of inhabitants that travel to the city to work or study every day. This phenomenon entails at the same time thousands of employment opportunities offered through its implementation. However, the MCSs of Mexico City have also caused an increase of air pollution and informal-unequal economy and have been occasionally used for undertaking criminal activities.

The aim of this investigation is to comprehend how the MCS can be headed towards a sustainable service. This research outlines how to grasp the importance of the MCS within the context of its neighborhood and how the service can reach formality in the future through field-based and participatory planning processes. Reaching a formal and legal status can provide a service that is of benefits to its users, workers and inhabitants of the neighborhood.

This dissertation additionally provides punctual recommendations for informal and emerging transport planning in Mexico City, addressing legal frameworks and public policies. The outcomes of some of the methods implemented for this research have had impact on the process of the MCS formalization in Mexico City, heading towards its sustainability.
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