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Environmental justice at the intersection: exclusion patterns in urban mobility narratives and decision making in Monterrey, Mexico

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Manuscript submitted: 29 November 2019 / Accepted for publication: 30 June 2020 / Published online: 31 August 2020

Abstract

Placing the urban environment of Monterrey, Mexico at the center of our research, this paper examines how urban mobility intersects with gender and environmental justice. As a transdisciplinary team of scholars, artists, and activists, we examine the urban mobility discourses and discuss how transportation and urban narratives such as sustainable mobility and human cities reinforce: a) a car centered dominant narrative that maintains environmental and mobility injustices, and b) the socio-spatial segregation, exclusion, and accelerated gentrification processes in Monterrey. And, we discuss how these narratives exclude queer and feminist perspectives and their bodies. Using official and media reports we look at how the political and economic elites use narratives to prop up an imaginary of urban equality as part of a walkable and/or cycling city. These narratives maintain a status quo that includes new housing and transportation construction as part of an ongoing unjust system that we refer to as intersectional, in regards to gender, racism, socio-economic status, and age. We conclude environmental justice can only be achieved with mobility justice and that to achieve mobility justice we need to queer the city. To queer a city is when mobility patterns and connectivity of neighborhoods in the periphery are prioritized; when transparency mechanisms, gender perspectives and embodied experiences are the norm, and when aspiration includes achieving a less polluted, sustainable and equitable city.

Zusammenfassung

Dieser Beitrag stellt die städtische Umwelt von Monterrey, Mexiko, in den Mittelpunkt und untersucht, wie sich städtische Mobilität mit Geschlechter- und Umweltgerechtigkeit überschneidet. Das transdisziplinäre Team von Wissenschaftler*innen, Künstler*innen und Aktivist*innen betrachtet Diskurse über städtische Mobilität und diskutiert, inwiefern Narrative über Verkehr und Stadt durch nachhaltige Mobilität und human cities verstärkt werden, und zwar in Bezug auf a) ein autozentriertes Narrativ, welches Umwelt- und Mobilitätsungerechtigkeit aufrechterhält und b) sozialräumliche Segregation, Ausgrenzung sowie beschleunigte Gentrifizierungsprozesse in Monterrey. Außerdem diskutiert der Beitrag, inwiefern diese Narrative queere und feministische Perspektiven sowie Körper ausschließen. Anhand offizieller Dokumente und medialer Berichte wird nachgezeichnet, wie politische und wirtschaftliche Eliten diese Narrative nutzen, um ein Bild städtischer Gleichheit als Teil einer begehbaren und/oder Fahrradstadt zu erzeugen. Diese Erzählungen halten einen Status quo aufrecht, der den Bau neuer Wohnungen und Verkehrsinfrastruktur als Teil eines ungerechten Systems einschließt, das in Bezug auf Geschlecht, Rassismus, sozioökonomischen Status und Alter intersektional diskriminierend wirkt. Abschlie-

Libertad Chavez-Rodriguez, Raquel Treviño Lomas, Laura Curry 2020: Environmental justice at the intersection: exclusion patterns in urban mobility narratives and decision making in Monterrey, Mexico. – DIE ERDE 151 (2-3): 116-128



DOI:10.12854/erde-2020-479

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ßend wird herausgestellt, dass Umweltgerechtigkeit mit Mobilitätsgerechtigkeit einhergehen muss und dass, um Mobilitätsgerechtigkeit zu erreichen, die Stadt *queer* gemacht werden muss. Um eine Stadt *queer* auszulegen, müssen Mobilitätsmuster und Anbindung von Stadtvierteln in der Peripherie Vorrang haben. Außerdem sollen Transparenzmechanismen, *gender*-Perspektiven und verkörperte Erfahrungen verbindlich und eine weniger verschmutzte, nachhaltige und gerechte Stadt angestrebt werden.

Keywords socio-spatial segregation, intersectionality, urban mobility, transit deserts, critical discourse analysis

1. Introduction

The aim of this paper is to unveil how discourses and narratives on urban mobility – when used by the economic and government elites – foster exclusionary processes that deepen the socio-spatial segregation, reproducing patterns of social and environmental injustice, and marginalization. Placing the urban environment of Monterrey, Mexico – among the nine most polluted cities in the world and considered the second most polluted in Latin America (*Jiménez* 2019) – at the center of our research, we analyze the discourses used in three case studies within the city of Monterrey.

We discuss that what is presented to the public through media and government channels, in fact does not reflect those actual decisions and approved projects regarding urban mobility. We identify how the elites have appropriated the narratives of a better and improved urban mobility by using terms such as *sustainable mobility, urban renewal,* and even *human city.* Through the use of this rhetoric, the appropriated narratives foster elitization, gentrification and privilege a car centered mobility, thereby creating hollow terms and empty signifiers that have very different meanings depending on who is speaking and with what inferences (*Harvey* 2013).

We argue that environmental justice is an intersectional system that must include mobility justice. We refer to an intersectional justice system that is concerned with new theoretical approaches and methodological innovations for analyzing the complex movements of people, objects, and information, and the power relations behind the governance of mobilities and (im) mobilities (*Sheller* 2018). Justice is not achieved in the abstract and must engage the embodied experience of the individual user and include needs, types of mobilities and gender. We consider these as fundamental components in queering the city.

Hubbard states that "for capitalist cities to survive and flourish, it has historically been important that they are sexually ordered with the elevation of the monogamous nuclear family unit, and the sexual identities they imply. That this model is vital to the organization and reproduction of urban life" (2012: 30). We argue that this hetero normativity wouldn't be possible without an inequality gender perspective regarding the types of bodies that can and cannot gain access and move within the city.

Further, we agree with *Hubbard*: "To 'queer' a city is to interrogate and destabilize its heteronormativity" (2012: 28) as we interrogate city spaces that appear asexual, equitable, and accessible to all inhabitants; but instead promote constructed images of misleading heteronormativity, in the same way car centered cities are constructed with invisible discourses that perpetuate the normalization of car usage.

Indeed, urban mobility types, available transportation means, and access within cities strongly determine the degree of citizen's access to the city's own services and opportunities, the fulfillment of their right to the city (*Harvey* 2013) and the ability to freely enjoy their lives.

Through critical discourse analysis, we explore official documents, media reports and social media data concerning two case studies. We define useful theoretical concepts as spatial justice, environmental and mobility justice. We connect urban mobility to environmental justice by discussing and analyzing the urban mobility narratives used in both case studies in Monterrey:

1. the introduction of the BRT Ecovía;

2. the "urban regeneration" project Distrito Tec. We conclude with reflections on the above cases, the Vial Interconnection project proposal, and Monterrey's current state of affairs. Ultimately, we propose principles for a new emancipatory narrative on urban mobility grounded in our framework definition of queering the city.

2. Environmental justice and mobility as parts of an intersectional justice system

In Mexico, environmental justice has experienced a variety of approaches and definitions since the 1960's, from socio-environmental issues of the peasantry focused on development models, to the socio-environmental crisis in rural areas, and the effects this has on indigenous communities. Nevertheless, under the precepts of environmental justice and according to the Mexican constitutional right (article 4) to a healthy environment, we consider that access to sustainable, safe and accessible mobility is key in achieving environmental justice. As we will discuss, environmental justice has several definitions depending on the approach and context being addressed (*Walker* 2012: 11).

Edward Soja's re-defining of spatial justice considered justice broadly: "As a starting point, this involves the fair and equitable distribution in space of socially valued resources and the opportunities to use them" (Soja 2009: 2). According to Soja, the three familiar forces that shape location and spatial discrimination are "class, race, and gender, but their effects should not be reduced only to segregation" (2009: 3). He states that the everyday functioning of an urban system is a primary source of inequality and injustice because the decision making in a capitalist economy favors wealth over poverty, which leads to spatial and locational discrimination, which is further intensified by racism, patriarchy, and heterosexual bias.

Furthering *Soja*'s argument, *Teddy Cruz*, architect and artist known for his urban research of the Tijuana/ San Diego border, states urban conditions are framed with the ethos of this current time defined by income inequality and social disparity that has yielded neoliberal economic models that not only enable a small elite to be in control of economic power but, in control of political power as well (*Cruz* 2012).

Maintaining an intersectional justice perspective, we again turn to *Mimi Sheller* who states that academic research has not adequately decolonized it's empirical approach by seeking out "ideas and practices around transport and mobility from the Global South or from Indigenous knowledge or from critical disabilities scholarship" (2018: 16). We apply her perspective to our own city, Monterrey, as we consider that the freedom of mobility may be considered a universal human right, yet in practice it exists in relation to class, race, sexuality, gender, and ability exclusions from public

space, from national citizenship, from access to resources, and from the means of mobility at all scales (*Sheller* 2018).

Maria Victoria Castro and Lina Fernanda Buchely continue this line of thinking stating that "transport systems materialize useful relations of space and power to make visible what geographical representations hide as they reproduce asymmetries in the distribution of power and resources" (2016: 233, translation from Spanish by the authors¹).

Indeed, Susan Hanson defines mobility as the act of commuting as part of daily life (Hanson 2010). In such an act the situated body: in a moment, a space, and in relationship with other human beings and particular abilities; is intertwined with technologies and infrastructures that intersect environments, and that enable both physical and virtual connections, where practices, experiences, representations and political dynamics are present that have implications in people's lives. Thus, mobility can facilitate or impede social relations, and restrict or allow access to certain resources (Vanini et al. 2012). Further, Susan Hanson (2010: 8) defines sustainable mobility as that which entails a lower emission of greenhouse gases and other pollutants, a reduction in the use of non-renewable fossil resources (oil/gas), and which ensures the greatest possible equity in access for everyone.

Considering intersectional justice, we agree with *Arriaga* and *Pardo* (2011), and *Sarokin* and *Schulkin* (1994): populations with lower incomes are those subject to greater risk of environmental pollution, and are also excluded from decision-making processes. Once these communities and people are exposed to environmental injustices, other vulnerabilities and inequalities are certain to follow (cited in *Ramírez Guevara* et al. 2015).

And while these definitions do not include a gender differentiated perspective, we recognize that one of the most transcendent aspects is gender, as gender intersects all other forms of inequality such as socioeconomic status, racial and ethnic discrimination, age, physical and mental abilities, among others. For *Castro* and *Buchely*, "space is not the stage where power happens, but rather the very vector in which power unfolds. The city is not the arena in which rich and poor compete, men and women meet, or exclusion occurs. It is creation itself that excludes, finds and competes. It is the space that makes the poor more vul-

nerable (thus underpinning their poverty), the women weaker and the 'others marginal'" (2016: 237).

We consider that mobility is an axis that intersects this three-dimensional phenomenon. Access to sustainable transport and mobility goes hand in hand with the territory in which one lives. As an example, at the outskirts of the city in order to reach the territory to carry out daily activities, we ask: What are the ways in which inhabitants can move around? Do these ways of moving place communal or private wellbeing first? Who are the people who can move around? How much time and money does this take? Is it safe?

Indeed, it is *Sheller* who asks "not simply about who travels but when, how, and under what circumstances?" (2018: 80). In response to the contemporary problem that *Sheller* poses, we point to our definition of environmental justice above – an intersectional system that includes mobility, and the authentic representation of the individual user's embodied experience, which we name queering the city.

2.1 Socio-spatial segregation in Monterrey's periphery and center from a gender perspective and beyond

Since 2000, the Metropolitan Area of Monterrey, comprising 12 municipalities, has experienced a real estate boom. In 2006 Monterrey's housing construction with at least 70,565 homes built, represented a 13% housing growth nationally². This development was possible through the creation of high density, new neighborhoods located in the periphery. The so-called "micro-houses"³ on small plot construction sites, are located in neighborhoods away from health, education and recreation services, and have inadequate green spaces, non-existent or usually inefficient sewage and garbage collection services, and are often located in areas of flood risk or in buffer zones of great environmental importance, like natural water filtration on hill slopes.

The periphery, described as areas that usually possess inadequate resources and income, are impacted by inaccessibility to services that Monterrey provides to individuals and groups from diverse socioeconomic strata. This is a result of neoliberal reforms in housing policy that "transformed the state into one of financing individual mortgage loans, ceding control of the entire process of building social interest housing to

the private real estate sector..., from location to promotion, construction and sale" (*Puebla* 2002, in *Bayón* 2017: 820). As a consequence, the social gap between socioeconomic strata is reinforced. "The social interaction between the privileged classes and the popular sectors is unusual, weak and controlled, thereby avoiding – and even denying – encounters with each other in public spaces" (*Bayón* 2017: 820).

The profound inequalities and socioeconomic disparities in Monterrey are spatially reflected in the coexistence of pockets of wealth with large areas of poverty and extreme poverty (*Aparicio Moreno* et al. 2011). For *Madanipour* (2003) "the life of cities imposes divisions, which are translated into spatial differences. The basic disparity [...] is that of public spaces, access to all in theory and the private entrance for a few [...]. Segregation is a question of access and power in different spheres of social, cultural and economic life. In spatial terms this translates into social organization according to the powers and capacity to influence different spheres of decisions" (quoted in *Pérez-Campuzano* 2011: 407).

According to *Schnell* "segregation is a three-dimensional phenomenon: residential (where people live), territorial (where people carry out their daily activities), and interactive (the relationships established by social networks). Thus, segregation is a result of two strategies: the struggle to inhabit exclusive spaces that are socially, racially or culturally homogeneous, and to avoid contacts with individuals belonging to another social group" (*Schnell* 2002, cited in *Pérez-Campuzano* 2011: 408).

There are also other types of segregation such as selfsegregation, where certain communities, mostly in middle and high-income groups, separate themselves by living in gated communities that have guarded entrances and controlled access, reinforcing sociospatial differentiation. This type of self-segregation disrupts city transit, and the use of any other type of mobility, inside and outside these urbanizations other than the private car. Public transportation is non-existent, and there is no connection with the city other than through private vehicles. "The polarization of the labor market has a consequence which is the disparity in access to housing. The lowest-income sectors should look for housing in the periphery mainly if they are expelled from the interior of the city by the middle and high-income sectors" (Pérez-Campuzano 2011: 416).

This phenomenon of spatial and social disparity can be seen in the accelerated growth of low-quality housing in the periphery of Monterrey where access to services is highly dependent on the private car because of inefficient connectivity, the high cost of public transport, and the lifetimes spent on long journeys. Thus, the practical access for people in peripheral communities to education, health services, job opportunities, and the political decision-making that directly affects them, is either severely limited by mobility or made precarious by existing mobility options. In fact, taking the significant differences of each group's material possibilities into account, both low-income, and those of medium and high income depend on car use.

Segregation is advanced by road infrastructure designed for the car, public mobility, transport policies, and mobility cultures that legitimize and normalize car use as the dominant transportation in Monterrey, both materially and symbolically. In 2015, 80% of public resource costs were spent on automobile infrastructure versus 20% on total sustainable mobility projects (*ITDP* 2016: 30), thereby ignoring the huge impact of air quality on public health and ecosystems.

The peripheries and the people who inhabit them have access to, when existing, public transport systems with little or no connection to city services because of either:

- a) transport functionality: There are very few bus routes that connect the peripheries with very few places in the city;
- b) accessibility: it is too expensive (in time and money) to reach a destination;
- c) efficiency: trips are usually more than 60 minutes (c.f. *Pérez Esparza* 2008);
- d) safety: buses circulate without any type of road safety or infrastructure measures (speeding, junk buses);
- e) high rates of theft and sexual harassment: 91.6 % of women using public transport (trucks/taxis/metro) have suffered sexual assaults at some time in their lives. 84.7 % have suffered incidents in 2018, according to a study in five municipalities (*UN Women* 2019).

It is important to distinguish that there are quantitative and qualitative differences between men's and women's mobility related to gender-based origin-destination daily trips: income earning trips for men, and predominantly multipurpose trips for women

who earn income and perform care work trips. This is where the *mobility of care* takes on importance (*Sánchez de Madariaga* 2013: 58), which in Monterrey continues to be mainly attributed to women; e.g. transporting children to nursery schools, preschools or schools of all levels of training (4.5%), shopping (14.7%), going to the doctor (5.3%). This results in a total of 24.5% multi-purpose trips not including the high percentage, almost 18%, of other travel reasons (*BiciPlan* 2014: 15), which can be attributed to non-classified tasks associated with child rearing, the reproduction of life and work force.

Travel time is another factor regarding mobility decisions. The notion of time poverty mainly affects women, which as a result deepens income and consumption poverty, contributing to its replication. More time is expended for walking or taking public transport creating income scarcity for urban mobility, like private cars or taxicabs (*Gammage* 2009).

Thus, a woman living in the periphery who is in charge of childcare and/or the care of elderly adults has disproportionate material and time constraints in gaining access to areas in the city where activities are concentrated. Additionally, for large numbers of women, mobility outside her neighborhood depends heavily on the primary user of the family's or neighbor's car: the income earner and typically male. Women's mobility, autonomy, and the autonomy of life choices are restricted by the activities and availability of others' time. She is confined along with the people she cares for, in *transit deserts* (*Junfeng* and *McGrath* 2017). According to *María Cristina Bayón*, "being poor and female seems to lead to a vocation of subordination, isolation and reclusion in the household" (2017: 834).

Transit deserts also affect children, the elderly and the existing limited mobility of persons with disabilities. Those who have no or very limited access to public transportation are 'trapped' inside their own communities and even inside their own houses. Like food deserts, transportation deserts have a debilitating impact on the economic, health, and well-being of poorer and peripheral communities and neighborhoods. And while the location of transit deserts doesn't necessarily follow a geographic pattern, they are usually associated with low-income and remote areas.

As user *Paula López* states: "There are no more buses. We are suffering because we, the elderly, are at the drift because we have no way out of here. When you

have money, you pay for the taxi. And when there is no money, then you don't go, because there is no way out... I personally missed my appointment at the health clinic in Salinas, because I had no money to travel" (*Paula López*, ca. 70 year old resident of Los Morales community in the Municipality of Salinas Victoria, a peripheral community of Monterrey).

We see this type of limited mobility that reinforces social exclusion operating hand in hand with gentrification processes in urban centers. The emergence of new exclusive residential areas and shopping centers with luxury retail, only accessed by car, juxtaposed against dense and expanding peripheries of concentrated poverty, correlate to the ever more increasingly remote large social housing complexes that are privatized and widespread (c.f. *Bayón* 2017: 819).

State and municipal administrations promote and prioritize the development of certain types of real estate, urban mobility and infrastructure projects, framed as sustainable mobility and urban regeneration. These project developments include language such as: integration, social cohesion, and improvement of the urban environment, sustainability, right to the city, complete streets, and rehabilitation, which can be found in the "new urban agenda" of UN Habitat (2017), among other documents. However, no physical form or evidence of what these terms or concepts imply exists within the highly neglected infrastructure of Monterrey's marginalized neighborhoods. Urban regeneration projects in the central area of Monterrey such as Paseo Santa Lucía and Calle Morelos in the Old Town of Monterrey have fallen to the gentrification process (Jurado Montelongo 2016).

Indeed, as we analyze the two case studies in section 4, we will unpack the 'sustainable mobility' and 'urban regeneration' discourse as it is applied to community developments within Monterrey, Mexico.

3. Methodology

To examine the discourses concerning urban mobility as they intersect with gender and environmental justice, we utilize the narrative research method Critical Discourse Analysis (CDA) (*Sparkes* and *Devís Devís* 2007), applying the perspective of *Teun van Dijk*: "The focus is on power relations, or rather on abuse of power or domination between social groups [...] we are interested in how social domination is reproduced in

discourse" (2001: 19f.). We also draw from *Ruth Wodak* regarding the purpose of CDA "to analyze 'opaque as well as transparent structural relationships of dominance, discrimination, power and control as manifested in language' (*Wodak* 1995: 204). More specifically, '[CDA] studies real, and often extended, instances of social interaction which take (partially) linguistic form' (*Wodak* 1997: 173)" (as cited in *Blommaert* and *Bulcaen* 2000: 448).

For the purpose of our analysis, we have selected two projects that, while they contrast each other, share a rhetorical context. One project is realized, one is not; one project is adjacent to Monterrey's city center, while the other project is located in the periphery. Both projects share an urban mobility focus, have extensive media coverage and are endorsed by both the developer community, and Monterrey's body politic. First: BRT Ecovía, a completed transportation project that promises to connect the peripheral zones with central parts of the city (4.1). Second: Distrito Tec, an ongoing urban regeneration project that is located adjacent to the central zone of metropolitan Monterrey (4.2).

We empirically draw upon two types of information about these case studies: 1. We include publicly held project presentations, political endorsement speeches, academic conferences and official press conferences, including radio and television news from government agencies involved with the projects. Following *Wodak*'s political fields of action we situate this material within the formation of public attitudes, opinion and will, and the field of political control (*Wodak* 2001: 68).

2. Additional materials include information from the press and the social networks of people and communities whose daily mobility and/or whose daily life dynamics are directly affected by these projects. We look to user groups, neighbors, and organized neighborhood groups who have formed to challenge these projects, initially considered legitimately beneficial due to the discursive use of specific topics or terms.

We considered approximately 300 documents as empirical material. These include official web pages, official documents, technical studies, laws, and regulations, statistics of transport usage, journalistic notes, interviews, transcripts of videos that appeared on TV, facebook posts, statements of public and private actors and officials, businessmen, activists, citizens,

and users related to public transport, urban mobility, and environmental pollution. This material date range is 2010 to 2019. We make use of existing information and documents that, while relevant, may not be specifically produced for this analysis. Much of the material exists in video format, as such the recorded images and language spoken contribute to the argument we present and our reflections. The available information regarding gender is limited to a binomial perspective, and as such even this information is frequently not available. We acknowledge our positioning, experiences, and knowledge as non-motorized mobility activists, queer, Spanish speaking women who live and move in the city of Monterrey Mexico (c.f. Wittig 1980).

For the analysis of the case studies we take advantage of different CDA tools. We identify *topoi*, following *van Dijk*, which are "generalized sets of ideas used as grounds for arguments" and work "as key elements in argumentation strategies" (2011: 365). In these materials we identify categories of topics and terms that characterize a specific rhetoric or language used about mobility in Monterrey and that are used to persuade public opinion, and to justify a false pretense regarding the public benefits these projects provide.

Additionally, we employ the CDA tools guide for media analysis proposed by Astorga Veloso (2015), which is written in the CDA main authors' Spanish and English languages. The guide includes analysis strategies and tools summarized as: description of background and context of a case study; identification of ideological categories; strategies for identification of rhetorical and linguistic figures in discourses such as: polarization of opinions (friends/enemies, they/us), implicit information versus explicit expressions, syntactic structure of the text, the way content is shown e.g. by emphasizing a topic, use of metaphors and euphemisms, among others; strategies of nomination, reference and predication of actors and discussion elements; identification of the level of specificity of a subject; and the analysis of signifiers, infrastructure material, visual elements and narrative structure of published texts.

The process we conducted for the description and interpretation of the case studies consists of three steps:

a) We review and contrast both types of material information described above: 1. official discourse,

and 2. project impacts on the city's inhabitants.

- b) We describe how these projects, once implemented, do not reflect the advantages and benefits for the city's inhabitants that were originally promised in the used topics or terms regarding mobility.
- c) Finally, we demonstrate, on the basis of the type 2 material information described above, that the communities affected by these projects do not feel included in the decision-making processes regarding mobility and living spaces within Monterrey, nor do the communities enjoy any benefits that the studied projects promised.

4. Results

In the following two sections we describe the stated case studies, identify the *topoi* that strongly characterize the discourses on mobility, and the analytical strategies that guided us to analyze the available empirical material. We present selected passages of analysis in order that the empirical sources that ground our reflections and critical interpretation may be accessed.

4.1 Ecovía: "faster, more places, cheaper"

Ecovía is the first and only BRT (Bus Rapid Transport) project in Nuevo Leon State for the implementation of modern buses that circulate through exclusive lanes in the center of the main road of the Lincoln-Ruiz Cortines Corridor. The BRT is proposed as a multimodal, integral solution where dedicated lanes change with usage types, giving bicycles and pedestrians priority along with the low-floor collective transportation that runs on natural gas. Bicycles enter buses and bus lanes are cycle-inclusive, in order "to send a strong multi-modality message" (*Gutiérrez Moreno* 2012).

The project was presented at the 4th National Urban Cycling Congress held in Monterrey in 2012 by *Fernando Gutiérrez Moreno*, then State Ministry for Sustainable Development. It was discursively framed as an urgent need, and a way to combine non-motorized mobility with improved, multimodal, public transportation "in a city where the only alternative is the car and the percentage of people using public transport has been decreasing over the years" (*Gutiérrez Moreno* 2012, audio transcription). The BRT was presented

through government channels, as the "response to the needs of our city in constant movement" (*Gutiérrez Moreno* 2012, audio transcription).

As in this speech in front of mainly non-motorized mobility activists, engaged scholars, urban mobility experts, and public officials, we identify the consistent use of terms such as 'paradigm shift', 'multimodal transport' and 'a good urban development system' in the official promotional discourses targeting the general public. These terms are key elements in argumentation strategies (i.e. *topoi* or common places), which feed into a 'sustainable mobility' discourse that persuades public opinion about the benefits of the BRT and justifies public investments for implementation of the BRT project.

The public presentation of the project to a national urban cycling congress strategically implied the endorsement of the congress participants, among them were some of the most visible non-motorized mobility groups in the city (civil organizations like *Pueblo Bicicletero* or *La banqueta se respeta*). This supported a discursive strategy of polarizing public opinion, in the sense that it communicated the idea of cars as something bad and BRT as something good and desirable.

Another strategy of discursive analysis that we find useful in this case is the level of specificity of the issues, and in particular the contrast between what has been explicitly emphasized and what has been left implicit in the project presentations. The emphasis was on sustainable mobility, explicitly. But the cancellation of bus routes in and around the corridor was implicit in the diffuse term 'redesigning the transport system' and not addressed. Simultaneously, the users affected by eliminated routes and the communities affected by the 'redesign' were not engaged in any type of public consultation. This represents a clear case of environmental injustice in distributive, procedural and recognition terms (c.f. Walker 2012).

We also consider that in discursive terms the context chosen to present the project in detail was important. In a cycling congress it could be expected that the announcement of the removal of the existing public transport routes around the BRT system would be resolved by "feeder bicycle lanes around the BRT system would be well received. These include 87.6 km of feeder lanes, 30 km of shared bus-bike lane with a cyclist overflow lane directly on the Ecovía, and 117.6 km of cycling infrastructure linked to the new system"

(Gutiérrez Moreno 2012, audio transcription).

Unfavorable topics about the project were discursively de-emphasized, e.g. precise details about the transport fare monthly increments were avoided. As of today, the fare keeps increasing 0.05 Mexican pesos every month. The decreased quality of the service, measured by the number of collisions, delays, and failures in the charging system increases, makes users question the monthly fare increase (*Martínez* 2018).

The promise of multi-modality was also vaguely expressed in the official discourse and finally not realized. After many citizens and organized civil society groups accepted the project and public investments were concentrated on the introduction of the buses, the original idea of multimodal transport was quickly forgotten by the project developers.

In reality, the Ecovía is far from what it was promised to be. There are no trees, bicycle lanes, or sidewalks and it is one of the most expensive transport systems in Mexico. The special burden on women and other vulnerable groups in an intersectional perspective is the additional responsibility of *care work* and *mobility of care*, mostly assigned to women, of all ages and bodily/mental conditions. This increases their time poverty, and limits their access to goods and services, labour markets, and other life options (c.f. *TCRP* 2000: 27).

Since the project presentation, it is clear that many potential users' needs, vulnerable groups, and even those living around the project, are excluded from the project development discourse. These include women and their differentiated mobility patterns and needs related to *mobility of care* (as explained in 2.1), people who do not live near the corridor, people who do not use a bicycle, people with disabilities and, in general, large numbers of users who usually commute with other structured bus routes.

As a response, since 2014 groups of neighbors, mostly women, keep protesting for the previous bus routes to come back. "A group of neighbors from Cementos and Moderna neighborhoods ask that their previous bus routes return, like 21, 215, 122 and 222, that served thousands of families in this sector" (*ABC Noticias* 2014: 1). They complain about the long walking distances required to get to the BRT stations and other places they need, and the security issues these women face daily (*ABC Noticias* 2014).

The promise of 'faster, more places, cheaper' that the BRT project promoted, is a distant memory of the reality in and around Ecovía. The needs of users, especially women, youth, and the elderly are not considered in the project development processes. Meanwhile as the state government projects extending the BRT an additional 5 km, we ask: based on whose needs?

4.2 Distrito Tec

Distrito Tec is a project promoted by the private university *Instituto Tecnológico y de Estudios Superiores de Monterrey* (ITESM), which aims to transform the urban space within and around their campus. In 2014, ITESM announced the Distrito Tec initiative and an investment of \$500 million dollars (*Frutos* 2014). The ongoing project aims to repopulate the area around the campus through new housing construction, commercial and business complexes, and the rehabilitation of roads (*López* and *Jiménez* 2017) in the 24 neighborhoods that surround this space of 452 hectares.

From the several projects under the Distrito Tec umbrella we take, as example, the remodeling of the Garza Sada roundabout, directly in front of the ITESM campus. This "was made possible thanks to the sponsor of neighbors (such as Seven Eleven, adjacent owners and ITESM), the participation of experts and the support of the Municipality of Monterrey authorities" (Abrego 2017: 1). From these financing sources it can be inferred that projects serving private interests are disguised as 'social improvements', and are supported by the municipality without public knowledge, or public engagement, that is deliberately absent from the tasks involving the project. Again, this demonstrates that private interests are at the center of the city's 'improvement' creation.

Nevertheless, the realization of Distrito Tec projects were confirmed through community meetings regarding the Partial Program of Urban Development Distrito Tec. The neighbors that form the Front in Defense of Citizen's Heritage (FREDEPAC) declared: "In June 2014 ITESM invited the neighbors with the purpose of presenting their Distrito Tec project" (2018: 1). At the end of the meeting neighbors were asked to identify the problems they have, indicating that their stated problems could be solved. These meetings continued in the following weeks in each neighborhood without clearly stating the actual purpose of the meetings, regarding the implementation of Distrito

Tec. Neighbors reported that they were not listened to during the process and that their needs, observations and ideas were not considered or recorded. "ITESM manipulated everything..., in order to have one more vote, Neighborhood Council Distrito Tec was installed overnight. Indeed, on November 28, 2017 ITESM created a board of directors for a neighborhood named 'Unnamed 34', which does not exist, and has no inhabitants, but does have a board of directors" (*FREDEPAC* 2018: 1).

Among the works carried out by the Distrito Tec project, is the remodeling of the Garza Sada roundabout directly in front of the ITESM campus. This roundabout was presented as a 'universal accessibility' measure. "Today we inaugurate one more area that opens up a space that improves the environment, roads, and also the mobility of everyone, of pedestrians, of citizens. We are delighted to be able to participate with ITESM as an authority, with society in a joint effort", said Mayor Adrian de la Garza (*Abrego* 2017: 1).

We consider that this topic of universal accessibility, emphasized in the roundabout, is one of the central discursive elements or *topoi* of this project. The notions of urban renewal, complete streets, environmental improvement, and the discursive use of the term social cohesion, which framed the topics on urban development in a space installed precisely to strengthen community and social cohesion (through public events, including talks, and discussion tables with panels of experts), had been delegitimized by the area neighbors during the consultation processes and through further virtual and face-to-face discussions (c.f. *FREDEPAC* 2018).

Regarding the CDA strategies that guide our analysis we identified, in the case of Tec District, that the level of specificity of the issues is important. That is, few details are provided in the press and in policy statements, particularly about impacts and consideration of affected communities. The impacts of the project on the daily lives of the residents of the 24 neighborhoods in question are discursively blurred, and the positive effects of (sometimes temporary) measures to improve pedestrian mobility for ITESM students are highlighted. For example, tactical urban planning events, which are widely covered by the press and the private university's media channels are highly celebrated.

The style in which information is shared has polarizing effects. It situates neighbors, who publicly oppose the project, such as the organized neighbors in FRE-DEPAC, as 'wrong' or 'bad' citizens that want to preserve their car use and access to their parking slots in front of their private residences, while the institutions promoting the project are represented as 'good' and doing the right thing regarding sustainable mobility and environmental preservation. This also relates to discursive strategies of reference and nomination; that is, how the different actors are constructed and represented in the discourse.

The project information was managed in such a way that the institutions and actors involved simulated organizational working meetings to create the illusion that this project was wanted or even asked for by the public. The implications of displacement and social exclusion were and are not being explicitly discussed. Following *Walker* (2012), this results in procedural and recognition of environmental injustices, since the neighbors were asked for their opinions but just for the illusion of being taken into account.

Like many mobility projects in the city, the roundabout is a self-contained walk or a destination. It serves a user who is already in the intersection, like those who enter ITESM by other means and need to cross the street, or those who arrive by public transport. This designation can be seen in the street signs that start and end one block away from the roundabout. For people with disabilities, pedestrians and cyclists it is still impossible or very difficult and confusing to access and use this area.

Beyond that specific roundabout, organized neighbors from FREDEPAC have stated that, in general, the interventions of Distrito Tec were created to exclude them, and to increase housing and commercial rentals as a result of the creation of 'mixed use' commercial corridors in their central neighborhoods.

This case shows how certain methods of citizen participation are not a guarantee that user groups' needs and opinions are listened to. And how community meetings can be co-opted by public and private institutions, with the support of government authorities for the documented legitimization of citizen participation for gentrifying, developer driven projects.

We have not found any information regarding the consultation of gender differentiated patterns or any

other gender aspects during the community meetings. But we again turn to the reference to differential mobility patterns based on gender and other categories of differentiation that intersect with gender, and how these differences are deepened as the mobility conditions of people identified as women become more difficult, given the burdens related to care work and mobility of care.

5. Conclusion

In this paper, we discussed the dominant discourses of sustainable mobility, urban renewal and the 'human city' and their impacts:

- reinforcing social practices of a car-centered city by ignoring gendered and intersectional patterns of mobility, and by taking a non-critical stance on mobility plans and measures;
- reinforcing the overall power asymmetry between political decision makers at state and municipality levels as opposed to civil groups working for alternative urban mobility;
- accelerating the gentrification processes.

Clearly, municipal and state administrations understand the discursive power of 'sustainability', 'human city', 'human scale', and 'urban regeneration', and apply this language to projects that increasingly exclude vulnerable communities, while deepening environmental injustices (c.f. *Walker* 2012).

This, coupled with conventional planning that is typically grounded in processes meant to serve engineers and designers who draw upon an abstract understanding of user experiences, while leaving the lived, embodied experience of public transportation users outside the scope of work, leaves Monterrey in the hands of the engineering professionals who are usually male gendered, drive in single occupancy private cars, and who probably do not use public transportation by necessity, choice, or both.

As we write this paper, these same discourses are used to promote the "Sustainable Mobility Project Monterrey's Downtown-San Pedro Garza García", known as Vial Interconnection. This is an urban mobility megaproject designed to connect the municipalities of San Pedro Garza García and Monterrey. By dynamiting the hill of Loma Larga, to make room for "six car lanes, two of which are exclusively for public transportation, this project is

meant to connect the Park Rufino Tamayo with the Plaza Zaragoza. Two years of construction are expected for 4.3 km" (*González* 2018, audio transcription).

Érika Charles, speaker of the Neighbors' Front in Resistance (Frente de vecinos en resistencia Independencia, Tanques y América) against the Vial Interconnection, explained "they have tried to sell us the idea of sustainable mobility, greater social cohesion and urban development; however, we do not understand why it is necessary to create new avenues for sustainable mobility" (Milenio Digital 2018: 1).

All of the projects were presented to the public discursively using the *topoi* of 'human city', 'sustainable mobility', 'complete streets', and 'urban renewal/urban regeneration', evoking imaginaries of an equitable, safer, and more just city.

Indeed, these projects negatively impact the communities' mobility circumstances, and quality of life, even threatening residents with dispossession and forced displacement to other, less central areas of the city. This is most evident in Distrito Tec and Vial Interconnection, due to the gentrification effect in these neighborhoods.

In conclusion, we stress that environmental justice as an intersectional system can only be achieved with inclusive and accessible urban mobility. That mobility patterns and connectivity of neighborhoods and municipalities in the periphery, where daily users reach in excess of 2.385.000 (*ATTPNL* 2018) must be prioritized through the development of accessible, safe, affordable, and efficient public transportation. That such mobility will achieve a less polluted, sustainable and equitable city. Therefore, we openly take a critical stance against discourses and narratives that benefit projects with gentrifying effects.

We believe these goals can only be created through mechanisms of transparency, inclusion and a gender perspective; gender being the cross-cutting axis that intersects environmental justice and urban mobility. Further, we see these mechanisms as queering the existing hegemonic system of oppression and exclusion. As such we commit to exposing, through speaking and writing, any and all current patterns of exclusion that currently exist in the decision-making processes that affect the Monterrey Mexico public. And, we consider the absence of the embodied experience as part of these patterns of exclusion, thereby queering existing

planning and policy practices with our bodies, words and actions.

Notes

- ¹ Please note that the citations of scientific articles, official documents, and journalistic notes and video transcripts in Spanish included in this article were translated into English by the authors.
- ² According to the Mexican System of Information and Housing Indicators (SNIIV, *CIDOC* and *SHF* 2006).
- ³ The purchase of these relatively low-priced dwellings is possible for low- and middle-income people through employment benefits such as soft long-term loans (20-30 years) for the purchase of private housing, supported by public institutions such as INFONAVIT (Institute of the National Housing Fund for Workers).

References

ABC Noticias 2014: Amenazan vecinos con aumentar protestas contra Ecovía, 07/10/2014. – Online available at: https://www.abcnoticias.mx/amenazan-vecinos-conaumentar-protestas-contra-ecovia/12049, accessed 11/05/2019

Abrego, M. 2017: Inauguran remodelación de rotonda del Tec. – Info 7, 16/02/2017. – Online available at: http://www.info7.mx/locales/inauguran-remodelacion-de-rotonda-del-tec/1777642, accessed 18/08/2020

Arriaga, A. and M. Pardo 2011: Justicia ambiental: El estado de la cuestión. – Revista Internacional de Sociología **69** (3): 215-230, doi:10.3989/ris.2009.12.210

Aparicio Moreno, C.E., M.E. Ortega Rubí and E. Sandoval Hernández 2011: La segregación socio-espacial en Monterrey a lo largo de su proceso de metropolización. – Región y Sociedad XXIII (52): 173-207, doi:10.22198/rys.2011.52.a185

Astorga Veloso, M. 2015: Herramientas para un análisis crítico de discurso de la prensa. Material didáctico – Universidad de Chile, Facultad de Ciencias Sociales. – Online available at: http://www.mastor.cl/blog/2017/09/analisis-critico-de-discurso-van-dijk-y-otros-autores/, accessed 24/05/2020

ATTPNL (Asociación de Transporte Público de Pasajeros de Nuevo León) 2018: Análisis del sistema de transporte público en Nuevo León. – Monterrey. – Online available at: http://www.hcnl.gob.mx/hacia_la_modernizacion_del_marco_normativo_en_materia_de_movilidad_y_transporte/pdf/06-ATPPNL.pdf, accessed 18/08/2020

Bayón, M.C. 2017: Ciudadanías periféricas. Desigualdad,

- pobreza y fragmentación en los márgenes urbanos. In: *Ramírez Kuri, P.* (ed.): La erosión del espacio público en la ciudad neoliberal. Mexico City: 815-843
- BiciPlan 2014: Plan maestro de ciclo vías en el Área Metropolitana de Monterrey; incluyendo los proyectos de las ciclopistas alimentadoras y difusoras del BRT Lincoln Ruiz Cortines. BiciPlan para el Área Metropolitana de Monterrey. Informe Final. Consejo Estatal de Transporte y Vialidad del Gobierno del Estado de Nuevo León Monterrey
- Blommaert, J. and C. Bulcaen 2000: Critical Discourse Analysis. Annual Review of Anthropology 29: 447-466, doi:10.1146/annurev.anthro.29.1.447
- Castro, M.V. and L.F. Buchely 2016: Mujer, espacio y poder: ciudad y transporte público como dispositivos de exclusión. Reflexiones desde la ciudad de Cali. Estudios Socio-Jurídicos 18 (2): 229-254, doi:10.12804/esj18.02.2016.08
- CIDOC (Centro de Investigación y Documentación de la Casa) and SHF (Sociedad Hipotecaria Federal) 2006: Estado Actual de la Vivienda en México 2006. Mexico City
- Cruz, T. 2012: Democratizing urbanization and the search for a new civic imagination – In: Thompson, N. (ed.): Living as form: socially engaged art from 1991-2011. – Cambridge: 56-63
- FREDEPAC (Frente en Defensa del Patrimonio Ciudadano)
 2018: La verdad que no se dice del Distrito Tec, pinned
 Facebook post from 23/11/2018. FREDEPAC [Facebook
 profile]. Online available at: https://www.facebook.
 com/fredepac1/, accessed 12/05/2019
- Frutos, M. 2014: Proyecta Tec de Monterrey construcción de lo que será el Distrito Tec en la capital de NL, 17/02/2014.
 La Jornada en línea. Retrieved from: http://semanal.jornada.com.mx/ultimas/2014/02/17/proyecta-tec-demonterrey-construccion-de-lo-que-sera-el-distrito-tec-en-la-capital-de-nl-2793.html, 12/05/2019, not available any longer
- Gammage, S. 2009: Género, pobreza de tiempo y capacidades en Guatemala: un análisis multifactorial desde una perspectiva económica. – Santiago de Chile
- González, J. 2018: El añejo proyecto de interconexión entre Monterrey y San Pedro. Las Noticias Televisa Monterrey, 15/06/2018 [YouTube video]. Online available at: https://www.youtube.com/watch?v=P-oLQwl3sxE, accessed 12/05/2019
- Gutiérrez Moreno, F. 2012: Presentación del proyecto Ecovía y su integración con la bicicleta. 4º Congreso Nacional de Ciclismo Urbano, Monterrey, 13/11/2011 [YouTube video, posted by Bici Congreso]. Online available at: https://youtu.be/z-stcgHETHo, accessed 11/05/2019
- Hanson, S. 2010: Gender and mobility: new approaches for informing sustainability. Gender, Place & Culture 17 (1): 5-23, doi:10.1080/09663690903498225

- *Harvey, D.* 2013: Ciudades rebeldes. Del derecho de la ciudad a la revolución urbana. Madrid
- Hubbard, P. 2012: Cities and Sexualities. London
- ITDP (Institute for Transportation & Developement Policy) 2016: Invertir para movernos. Diagnóstico de Inversión en Movilidad en las Zonas Metropolitanas 2011-2015. – Mexico City
- Jiménez, G. 2019: Encabeza Monterrey lista de las ciudades más contaminadas en Latinoamérica. Multimedios, 12/04/2019. Online available at: https://www.multimedios.com/local/encabeza-monterrey-lista-de-las-ciudades-mas-contaminadas-en-latinoamerica, accessed 23/04/2019
- Junfeng, J. and N. McGrath 2017: Stranded in our own communities: Transit deserts make it hard for people to find jobs and stay healthy. The Conversation, 27/07/2017. Online available at: https://theconversation.com/stranded-in-our-own-communities-transit-deserts-make-it-hard-for-people-to-find-jobs-and-stay-healthy-77450, accessed 23/04/2019
- Jurado Montelongo, M.A. 2016: La renovación del centro de Monterrey. - Milenio Diario, 19/11/2016. - Online available at: http://www.milenio.com/firmas/corredor_fronterizo_corredor_fronterizo/centro_de_monterrey-renovacion-macroplaza-mirador-obispado-milenio_18_850894952.html, accessed 23/04/2019
- López, A. and J. Jiménez 2017: DistritoTec, un lugar para las grandes ideas. Tec Review, 23/11/2017. Online available at: https://tec.mx/es/noticias/nacional/institucion/distritotec-la-construccion-de-un-lugar-para-lasgrandes-ideas, accessed 12/05/2019
- Madanipour, A. 2003: Social Exclusion and Space. In: LeGates, R. and F. Stout (eds.): The City Reader. London: 181-188
- Martínez, O. 2018: Sube Ecovía las tarifas a usuarios, pero baja la calidad. Info 7, 10/08/2018. Online available at: http://www.info7.mx/locales/sube-ecovia-las-tarifas-a-usuarios-pero-baja-la-calidad/v-2264937, accessed 11/05/2019
- Milenio Digital 2018: Colonos de la "Indepe" se oponen a interconexión, 23/04/2018. Online available at: https://www.milenio.com/estados/colonos-de-la-indepe-se-oponen-a-interconexion, accessed 18/08/2020
- Pérez-Campuzano, E. 2011: Segregación socioespacial urbana. Debates contemporáneos e implicaciones para las ciudades mexicanas. Estudios Demográficos y Urbanos 26 (2): 403-432, doi:10.24201/edu.v26i2.1388
- Pérez Esparza, J.D. 2008: Reestructuración del Sistema de Transporte Público de la Zona Metropolitana de Monterrey: Diagnóstico del Problema y Propuesta de Política Pública. – Tesis de Licenciatura, ITESM. – Online available at: http://hdl.handle.net/11285/572929, accessed

- 21/02/2018
- Puebla, C. 2002: Del intervencionismo estatal a las estrategias facilitadoras. Cambios en la política de vivienda en México (1972-1994). Mexico City
- Ramírez Guevara, S., M. Galindo Mendoza and C. Contreras Servín 2015: Environmental justice. Between utopia and social reality. – Culturales 3 (1): 225-250
- Sánchez de Madariaga, I. 2013: From women in transport to gender in transport: Challenging conceptual frameworks for improved policymaking. Journal of International Affairs 67 (1): 43-65
- Sarokin, D.J. and J. Schulkin 1994: Environmental Justice: Coevolution of Environmental Concerns and Social Justice.
 The Environmentalist 14 (2): 121-129, doi:10.1007/bf01901305
- Schnell, I. 2002: Segregation in Everyday Life Spaces: A Conceptual Model. In: Schnell, I. and W. Ostendorf (eds.): Studies in Segregation and Desegregation. Hampshire: 39-66
- Sheller, M. 2018: Mobility justice: the politics of movement in the age of extremes. London/New York
- Soja, E.W. 2009: The city and spatial justice [«La ville et la justice spatiale», translation: Sophie Didier, Frédéric Dufaux]. Justice spatiale/spatial justice 1 (September). Online available at: https://www.jssj.org/wp-content/uploads/2012/12/JSSJ1-1en4.pdf, accessed 24/05/2020
- Sparkes, A.C. and J. Devís Devís 2007: Investigación narrativa y sus formas de análisis: una visión desde la educación física y el deporte 4º Congreso Nacional de Investigación en Educación Física, Deporte y Recreación. Universidad de Antioquia Online available at: http://viref.udea.edu.co/contenido/publicaciones/memorias_expo/cuerpo_ciudad/investigacion_narrativa.pdf, accessed 23/04/2019
- TCRP (Transit Cooperative Research Program) 2000: Welfare to Work: Integration and Coordination of Transportation and Social Services. Transit Cooperative Research Pro-

- gram. Online available at: http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_webdoc_16.pdf, accessed 24/05/2020
- UN Habitat 2017: Subject index of the New Urban Agenda.
 New York Online available at: http://habitat3.org/wp-content/uploads/NUA-Subject-Index-English.pdf, accessed 18/08/2020
- UN Women 2019: Acoso sexual y otras formas de violencia sexual en el transporte público: Área Metropolitana de Monterrey. – Monterrey
- Van Dijk, T. 2001: El análisis crítico del discurso y el pensamiento social. Athenea Digital 1: 18-24. Online available at: https://atheneadigital.net/article/view/n1-van accessed 18/08/2019
- Van Dijk, T. 2011: Discourse Studies: A Multidisciplinary Introduction. London
- Vannini, P., L. Budd, O.B. Jensen, C. Fisker and P. Jirón 2012:
 Technologies of Mobility in the Americas: Introduction.
 In: P. Vannini, L. Budd, O.B. Jensen, C. Fisker and P. Jirón (eds.): Technologies of Mobility in the Americas.
 New York: 1-20
- *Walker, G.* 2012: Environmental Justice. Concepts, evidence and politics. London
- *Wittig, M.* 1980: The Straight Mind. Feminist Issues **1** (1): 103-111, doi:10.1007/bf02685561
- Wodak, R. 1995: Critical linguistics and critical discourse analysis. In: Verschueren, J., J.-O. Östman and J. Blommaert (eds.): Handbook of Pragmatics. Amsterdam/Philadelphia: 204-210
- Wodak, R. 1997: Critical discourse analysis and the study of doctor-patient interaction. In: Gunnarsson, B.-L., P. Linell and B. Nordberg (eds.): The Construction of Professional Discourse. Amsterdam/Philadelphia: 173-200
- Wodak, R. 2001: The discourse-historical approach. In: Wodak, R. and M. Meyer (eds.): Methods of Critical Discourse Analysis. – New York: 63-93