

Transport and Mobility Justice: Evolving Discussions

1. A surge of interest

Research on transport and mobility justice has exploded in recent years, even though questions of uneven access to places and forms of movement have a long history in transport and urban research. Early examples include the use of physical accessibility as a social indicator of the ease with which different social groups can reach destinations and services for the evaluation of government policies (Wachs and Kumagai, 1973) and the work on the spatial mismatch hypothesis. According to this hypothesis, housing market discrimination and limited access to private vehicles hampered the opportunities of African-Americans in inner areas of US cities to access suburbanising employment (Kain, 1968). Research has diversified in many ways since, including but not limited to: scholarship on spatial containment and entrapment of women of different racial/ethnic backgrounds (Hanson and Pratt, 1995; Preston and McLafferty, 2016); studies of the uneven distribution of the benefits and costs of transport subsidies, policies and infrastructure development (Hodge, 1988; Hay, 1993; Murray and Davis, 2001; Foth et al., 2013; Pereira et al., 2019); and work on how transport disadvantage and social exclusion interact with each other (Lucas, 2012; Lucas et al., 2016).

In parallel to these strands of work, mobilities scholars became interested in questions of uneven mobilities – in everyday trip-making and urban transport, as well as tourism and migration – and the politics of mobility. They developed a series of concepts to aid understanding of uneven mobilities, such as ‘motility’, or the capacity to become mobile (Kaufmann, 2002), and analysed the multiple ways in which discourses legitimise and normalise uneven mobilities (Sheller, 2018a). They proposed to consider such mobilities in terms of uneven experiences; access to infrastructure; materialities; subject formation; and events and processes of moving, passing, stopping, pausing and waiting (*ibid.*; Adey et al., 2014).

It is fair to say these different strands of research have increasingly come together in recent years. This is, firstly, due to of the broader conversations that, certainly in the discipline of Geography, have occurred between ‘transport’ and ‘mobilities’ (Shaw and Hesse, 2010; Cidell and Prytherch, 2015; Kwan and Schwanen, 2016). A second reason is that researchers in different fields and communities have been drawing on the same conceptual resources in attempts to examine questions of transport

or mobility justice. Consider, for instance, how Amartya Sen's (1993, 1999) work on capabilities is drawn upon across the full spectrum of transport and mobilities research (e.g., Krohnlid, 2008; Beyazit, 2011; Pereira et al., 2017; Sheller, 2018b; Schwanen and Nixon, 2020; Vecchio, 2020). Relatedly, and thirdly, the recent publication of Mimi Sheller's (2018b) *Mobility Justice: The Politics of Movement in an Age of Extremes* has integrated work on transport and mobility justice by proposing that issues of transport at the spatial scales of individuals and urban areas – the bread and butter of transport justice – need to be placed in the broader context of mobility justice, which also encompasses the scales of the nation-state (e.g., the border regimes that shape migration) and the planet (e.g. international tourism, global elite mobilities, and questions of climate justice). The integration works out in the temporal domain as well: she places the daily movements of people and decadal rhythms of changes in transport infrastructure and urban structure within the *longue durée* of changes in capitalism, colonialism, and extractivism.

Finally, and perhaps most importantly, a host of societal developments have thrown questions of transport and mobility justice into sharp relief. These developments include the historically unparalleled impetus to build 'fast' transport systems – elevated highways, flyovers, bus rapid transit, and so forth – in particular in urban areas in the global South. These systems tend to benefit selected social groups and places (much) more than others. The developments also relate to the uneven consequences of austerity urbanism (Peck, 2012) on everyday mobilities and sociotechnical innovations in transport. The question here is not simply who will benefit when and where from the development and expansion of, say, autonomous vehicles and Mobility-as-a-Service (MaaS). It is just as much if and how such innovations will be co-opted by vested interests and elites or rather reshuffle existing socio-spatial stratifications and changes discourses about rights, responsibilities, and opportunities with respect to transport and mobility. This brings us to another set of changes: over the last decade transport, from cycling to aviation, has become a quintessential site of contestation and the political à la Mouffe (2005) – the domain of antagonism where “questions always involve decisions which require us to make a choice between conflicting alternatives” (page 10). In some ways, neoliberalisation, planetary urbanisation, the climate emergency, and now the COVID-19 pandemic create the 'perfect storm' for questions regarding transport and mobility justice to become placed at the heart of broader discussions around fairness and justice. Automobility is increasingly the stuff of

culture wars: Should this sociotechnical system be curbed and actively broken down because of detrimental effects on the environment, public health, and social equity? Or is it (still) to be harnessed because it enables upward social mobility and a right to a better life, it tends to offer greater protection from infection than many other forms of transport, and can be substantially less polluting after electrification? Consider also how governmental interventions into the out-of-pocket costs can trigger social unrest, from France's *maillots jaunes* to Brazil's attempt to raise public transport fares in 2013 (Verlinghieri and Venturini, 2013). Look finally at how bicycle activism has raised fundamental questions about how road space is allocated, who determines how public space is experienced and governed, and how change in urban transport and the city is enacted (Blickstein and Hanson, 2001; Furness, 2007; Castañeda, 2019).

Zooming out from the surge of interest in questions of transport and mobility justice, we can identify at least four tendencies and impulses in recent and current research on transport and mobility justice:

1. Theoretical development and diversification;
2. Enhancing the recognition of the needs, experiences, and understandings of everyday mobility;
3. Expanding the understanding of the causes of injustice in transport and mobilities; and
4. Development of new and different methodologies and methods for understanding and addressing in/justice in transport and mobilities.

Cutting across these developments is a *relative* shift from what Karner et al. (2020) call state-centric to society-centric research on justice in transport and mobilities. The former concentrates on planning and policy as well as questions of equity, or the distribution of benefits and costs, harms, and risks associated with particular decisions, actions, and changes by state actors. The latter tends to consider a broader range of actors, practices, and knowledges. It expands the idea of what planning is outside the traditional institutional domain and considers social movements, community organisations, NGOs and charities, activism, participatory action research, and processes in which citizen collectives actively shape planning, either through collaboration with official planning actors such as state organisations and/or the private sector, or by contesting their actions and initiating alternative planning processes (Nixon and Schwanen, 2019). Society-centric research recognises that states have a critical role to play in achieving transport/mobility justice but are mindful of the myriad ways in which state action generates or further injustices.

The boundary between state- and society-centric research is fluid and work on either side is proliferating. It nonetheless appears that the growth in interest among both transport geographers and mobilities scholars is particularly stark in society-centric research. This is why the articles brought together in this Virtual Special Issue (VSI) tend to be society-centric. At the same time, if we are to fully appreciate theoretical diversification in research on transport/mobility justice, we also need to consider developments in state-centric research. Below we summarise the diversification in theorisation in three parts, before discussing how the contributions in the VSI speak to the three other tendencies as well.

2. Theoretical diversification #1: Transport equity

State-centric research on justice in transport has come a long way in terms of the theories and philosophical frameworks it has drawn upon. Starting from *ad hoc* specifications of guiding principles and points of departure, researchers have experimented with multiple philosophical approaches. The works of Bert van Wee and Karel Martens have constituted a turning point in their enshrining of research on questions of transport equity in deontological rather than consequentialist approaches to normative ethics in Euro-American liberal philosophy – be this the work of John Rawls (van Wee and Geurs, 2011; van Wee and Roeser, 2013) and/or Michael Walzer (Martens, 2006, 2016; Martens et al., 2012). Consequentialist approaches foreground the centrality of the consequences of action – typically by the state when transport is concerned – to normative ethics and thinking about equity, and utilitarianism is one of their most well-known varieties. Deontological approaches, in contrast, emphasize rules and duties as the basis for ethics. They are exemplified by the maximax principle advocated by Martens et al. (2012) and the Rawlsian difference principle highlighted by Pereira et al. (2017). In the context of transport planning, the first holds that decision-making should maximise the ‘average’ ease with which destinations can be reached – a.k.a. accessibility and “widely accepted as the most important benefit of a transportation system” (Karner et al., 2020, page 2) – while ensuring an acceptable level of accessibility for the least well-off group(s) in that territory. In contrast, the difference principle suggests that inequalities in accessibility can only be considered fair if they work to the benefit of the least well-off; decision making should therefore maximise the minimum level of accessibility for the worst-off in a given territory and thus follow the maximin rule (Pereira et al., 2017).

The shift towards deontological approaches has not been without critiques. Mullen and Marsden (2016) discuss the limitations of deontological (consequentialist) thinking about transport justice that foregrounds choice¹, arguing that thinking and decision making should engage more directly with substantive questions about values and the kinds of (transport) activities that should be accommodated, facilitated and reduced. They thus begin to ground thinking on transport justice in virtue ethics, according to which dispositions to think, experience, and act in particular ways (i.e., virtues) should be the basis for ethics.

The thinking on capabilities originally put forward by Amartya Sen (1993, 1999) and currently very popular in research on transport and mobilities (see above) is linked to Mullen and Marsden's call for grounding transport justice in virtue ethics (Bertland, 2009). This is because the Ancient Greek notions of *eudaimonia* plays a major role in both virtue ethics and Sen's (1993, 1999) Capability Approach. For thinkers such as Aristotle, *eudaimonia* meant living well (or wellbeing) and was to be achieved through virtuosity and especially by seeking to bring out the best in oneself (Ryff and Singer, 2008). After all, in ancient Greek the prefix *eu* means good or well, whereas *daimon* is a noun with multiple and complex meanings that often refers to a quasi-divine, moral mode of being that people can inhabit.

There are, however, other reasons over and beyond the link to virtue ethics for why transport justice research has drawn on Capability Approaches (CAs). Most significant here is that a resource such as accessibility, or even mobility understood as the ease of moving through physical space, cannot duly account for the diversity in needs, aspirations, and abilities (Pereira et al., 2017). The underlying point here is, firstly, that accessibility, mobility, and transport are not ends in and of themselves, but means to ends that are achieved through the activities undertaken across space and time that movement enables. Moreover, and secondly, the ability to convert or appropriate accessibility and mobility into actual movement and activities depends on a whole range of other factors and processes, sometimes denoted as 'conversion factors' in CAs (Robeyns, 2017; see also Ryan et al., 2015). This an important

¹ This can be considered an implicit critique of the sovereign subject, which can be found across the mobilities literature on justice as well as the contributions to this VSI

point for thinking about transport justice: having access to a bus, a bike, or a healthcare centres is not particularly helpful if you don't know how to read a timetable, don't cycle because you feel it is too unsafe, or can't negotiate the stairs or ramp at the entrance of the clinic. A 'resource' in the abstract is not necessarily enabling every person in a particular situation.

This last statement segues into a broader point made by researchers from different hues: a focus on (re)distribution – equity, or how benefits and disadvantages work out socially and/or spatially – is unduly limiting and risks disguising the processes through which certain outcomes are generated, or potentials are marshalled into actualities. Both transport and mobilities researchers have argued that attention needs to be paid to broader power configurations, which is itself a term that is conceptualised in multiple ways. One way to do so is to focus attention on procedure and recognition (see below), which shifts attention towards society-centric understandings of transport justice. Yet, also among such understandings and in critical mobilities studies, a focus on (re)distribution is common. This is, for instance, the case in most research that uses the concepts of motility and capability to analyse questions of justice in relation to mobility (see Cook and Butz, 2015 for a closely related argument).

3. Theoretical diversification #2: Transport justice

As Karner and colleagues (2020) suggest, a shift from transport equity to transport justice is one of considering a wider range of actors and concerns. This brings different theoretical resources into the fold.

One strand of work has been influenced heavily by work in feminist theory, in particular by Young (1990) and Fraser (1996). In its simplest form, this means a broadening out in focus from distribution to also consider (Karner et al., 2020; Schwanen, 2020):

- Procedure: the nature of decision-making and governance, including the level of participation, inclusiveness, and influence participants can wield.
- Recognition: acknowledgment of and respect for the rights, needs, values, understandings, and customs of groups involved in, or affected by, decision making and governance.

Cook and Butz's (2015) study of the consequences for mobility of a landslide in the Gojal district in Northern Pakistan demonstrates that justice cannot be achieved if procedures consolidate domination – the “structural or systemic phenomena which exclude people from participating in determining their actions or the conditions of their actions” (Young, 1990, page 31). Schwanen (2020) argues that even in London, which has a (in the Anglo-American context) progressive approach to encouraging cycling and walking for all, there are limits to the extent to which the state apparatus can recognise the full diversity of needs, experiences, and practices regarding walking and cycling. Recognition by the local state of already disadvantaged groups, such as people with disabilities or children from poor or ethnic minority backgrounds, is particularly challenging. The implication is that either state bodies need to change their routines and techniques significantly, or other organisations (charities, activists, etc.) that can offer the required recognition – and procedures – to enhance the capabilities to cycle and walk across *all* Londoners need strong support.

Work along these lines begins to understand transport (and mobility) justice not as a state of affairs but in terms of ongoing process, power relations and struggles over praxis, meaning and values that are actively shaped by the places and spatial configurations as part of which they unfold. Critical scholarship beyond feminist theory has also been mobilised to conceptualise transport (and mobility) justice in this manner. Golub et al. (2013), for instance, have drawn on thinking about environmental racism in their work on bus use by African-Americans in the eastern part of the San Francisco Bay Area, whereas Inwood et al. (2015) draw on the thinking of Martin Luther King Jr. and the activist-researchers of the Untokening collective depart from critical race theory to contribute to greater transit, cycling and walking justice (López et al., 2018). The work of Henri Lefebvre, David Harvey, and others on the right to the city – the right of its inhabitants to produce, appropriate, rework, and use urban space and life (Lefebvre, 1996) – is perhaps the most widely used resource from critical theory in relation to transport justice, either directly (see e.g. Attoh, 2012, 2017; Prytherch, 2018; Verlinghieri and Venturini, 2018; Castañeda, 2020) or via Ed Soja's related concept of spatial justice (see e.g. Soja, 2010; Enright, 2019). Focusing on the Bay Area Rapid Transit (BART) system around San Francisco, Enright (2019) discusses how public transport systems are sites both of racial oppression and dispossession and of resistance and re-imagination – by Black Lives Matter in 2014-2015. Justice in this context means reworking BART into a “crucial ... life support system” (page 673) that also

offers greater equity and freedom to marginalised Black and Latinx populations through radical transformation of the transport planning, urban regeneration, racial politics and other socio-spatial processes that shape this public transport system.

4. Theoretical diversification #3: mobility justice

Enright's conception of transit justice edges towards Sheller's (2018a, 2018b) multi-scalar concept of mobility justice introduced earlier. Both direct attention towards the ways in which power and inequality shape people's movements, motility and immobility, as well as the attempts of states and other actors to govern and control mobility. At the same time, Sheller's more expansive conceptualisation covers a wider range of spatial scales and pays greater attention to the circulation of goods, resources and information. This reflects the grounding of Sheller's conceptualisation in a mobile ontology with three key attributes. She holds, firstly, that spatial and temporal scales are entangled, and secondly that movements, meanings, and values co-evolve with each other and in close connection with difference, subject formation, and embodiment. She finally proposes that transport, environmental, and climate justice are inevitably entwined and co-constituted. In this, she calls for a process of commoning of mobility (see also Nikolaeva et al., 2019) with a view to shifting mobility away from individualised and privatised ownership, as well as from borders and from capitalism. Hers and Nikolaeva et al.'s (2019) are proactive proposals to reconstitute new mobility systems and practices in which the co-produced and cooperative nature of mobility is recognised and nurtured as key to achieving mobility justice.

Sheller's conceptualisation of mobility justice acts as a unifying call or, according to Henderson (2020, page 3), a "totalising framework" that – much like the right to the city – brings together the analysis, contestations, demands, visions and hopes of a wide array of social movements, activists, planners, researchers and other across many domains, not unlike the concept of energy justice is doing in and for energy studies (*ibid.*). Yet, its broadness raises questions about practical implementation. *How, for instance, might empirical research projects by students, early career researchers and faculty members contribute to the agenda Sheller has proposed? What does it mean to engage in planning from a mobility justice perspective? Which principles, methodologies, tools and approaches for*

research and planning are suggested? Cook and Butz's (2019) *Mobilities, Mobility Justice and Social Justice* offers useful pointers for the realm of research, but other directions and approaches can easily be imagined and more work with a focus on planning is required. This is why the papers in the VSI engage with all three of the questions.

At the same time Sheller's conceptualisation of mobility justice has been criticised. Davidson (2020), for instance, points out that the operationalisation of the mobility as commons that Sheller (2018b) proposes still approaches mobility as a resource that can be owned and distributed with stated required to regulate transnational firms and excessive levels of mobility and speed whilst minimising the harms and cost of mobility. Sheller's mobile ontology is still significantly oriented towards distributive justice. Drawing in particular on feminist and black feminist thought (e.g. Grosz, 2017; Ferreira da Silva, 2017), Davidson proposes to move further away from questions about distribution through two moves. The first of these is to understand mobility as a material-semiotic process of energetic transformation through death and/or the foregoing of forms of life: the movement of humans hinges on metabolisms, either of those humans themselves when they eat or drink organic matter in some form to move themselves through their physical environments, or of the "organisms that died millions of years ago" (Davidson, 2020, page 15) and so enabled the formation of fossil fuels. This energetic transformation is not merely biophysical (material) but also entangled with ideas, ranging from the notion that it is perfectly fine to extract oil 'resources' for human movement, even at high environmental or geopolitical risk, to the belief that active travel should be encouraged because of its benefits to individual health. The second move is to understand justice in terms of an immanent ethics that is not premised on universal, abstract and externally specified rules but on a collective and impersonal ethos – a set of self-imposed limits and emergent and likely place-specific ways of living that "define a purpose, values, targets for change, and potential techniques for change" (Grosz, 2017, page 134). Davidson's interest is particularly, though not exclusively, concerned with the material-semiotics of extraction and burning of fossil fuels. It thus complements Sheller's conceptualisation of mobility justice by refusing any separation of justice and sustainability of mobility and extends Sheller's approach by focusing attention on the very formation of the energetic socio-technical processes that make mobility possible, how and to what effect (something Henderson, 2020 also does, albeit in a significantly different manner). Davidson's move is significant for various reasons, not

least because it challenges the idea that, say, walking is inherently just. If this practice becomes for some people in certain situations – e.g., in unfamiliar neighbourhoods or on streets deemed ‘risky’ because of who might be encountered– heavily dependent on smartphone apps tethered to near-planetary digital systems, is it still ‘good’ or desirable given its connection to carbon consumption and the socio-spatial coding of bodies with traits like strength or skin colour?

In short, Davidson (2020) contends that mobility justice demands unlearning the typically taken-for-granted assumptions about mobility, value, and human subjectivity. Focusing on the latter in particular, Karlsson (2019) proposes that questions of morality need to be seen as embedded in the very development of movement in any living organism. He links the ability to move and communicate to the development of moral reasoning as “mobility facilitates the development of the virtue of justice” (Karlsson, 2019, page 225). Given that the boundaries between subjects and their environments are fluid, this means that both mobility and notions and practices of justice have to be understood as relational, co-constituted, historical and – we would add – geographical. In fact, a mobile ontology becomes a core precondition for the development of a discursive attitude towards justice that overcomes the limits of distributive approaches, which for many critical theorists are grounded in an understanding of an abstract and universal subject that is ultimately grounded in a masculinist, Euro-American/white, ableist, heterosexual understanding of being and the wider world.

Both Davidson and Karlsson complicate and enrich the mobility justice agenda by proposing perspectives on mobility justice that go beyond distributional and procedural justice and take the challenge Sheller has synthesised in new directions. They push us to ask: *What does it mean to be a moral agent? How do we account for different moral agents and their needs? Which subject is assumed at the base of the discussion on morality and justice?* They amplify Sheller’s slightly more muted questioning of modernity and non-western and non-representational approaches to mobility justice.

5. Contributions

The papers in this VSI were presented during four paper sessions at by the 2018 annual meeting of the American Association of Geographers in New Orleans, which sought to expand the debate on justice in the context of transport and mobility. The papers provide further insight of the complex and situated nature of the debate around transport and mobility justice through the diversity of theoretical insights and case studies they discuss. While not necessarily questioning the nature of mobility and sometimes maintaining a distributive outlook, the contributions build on the third strand of theoretical diversification we highlighted and show concrete examples of how mobility justice can be understood and researched. Taking heed of Sheller's proposal, they also illustrate how the directions proposed by Davidson and Karlsson become a necessary move for mobility studies.

The papers, firstly, establish a *practice of recognition of mobility injustice* in a manner that, at the same time, politicises the understanding of injustice, and refines the attention to the complex and dynamic roles that different mobility subjects play in constructing (in)just configurations. This is achieved by analysis of the political economy of transport and mobility injustice, showing how conceptual frameworks such as spatial justice and the right to the city can be expanded with a mobile ontology, providing empirical cases of differential (im)mobilities and the ways these are (re)produced in and through government policy. Secondly, the contributions take the *responsibility of generating* just mobilities by documenting and enabling processes of resistance and bottom-up co-creation, in line with the aforementioned society-centred approach to justice. This is achieved by adding the *critical and reflexive discussion of various participatory methods* to the existing repertoire of methodological practices for examining transport and mobility justice, and by highlighting justice as an emergent outcome of the everyday practices of various *urban actors who challenge and address transport and mobility injustice* through a wide range of strategies.

5.1 Recognition of differential needs, experiences, and practices regarding everyday (im)mobility

The papers in this theme speak to the importance of recognition as previously defined. By recognising and examining particular mobility needs, experiences, values and practices, the papers show how transport and mobility (in)justice emerge from the everyday practices of various urban actors. These

include not only the mothers, transgender people and low-income groups who experience and try to resist injustice, but also the policy-makers, transport system operators, employers and others whose practices help shape mobility practices and transport systems. As such, these papers demonstrate the need to fully recognise the complex ways and scales at which differential (im)mobilities exist and are (re)produced.

Considering family politics and gendered identities, Gilow (2020) highlights the gendered and class differences in everyday mobility and joins a venerable tradition of feminist geography research to extend the traditional mobility-work nexus to the domestic sphere. Looking at working mothers' mobility in Brussels as a form of reproductive labour or 'domestic mobility work', she recognises the efforts and skills required every day from women running an household as well as the unequal burden they face by being responsible for the bulk of trips serving domestic life. The idea of Domestic Mobility Work offers a useful means for articulating the unequal gendered and racialised distribution of domestic work whilst also recognising its social relevance. The contribution by Lubitow et al. (2020) also highlights the importance of gender in processes of recognition. By bringing together transgender geographies and mobilities literature, the authors explore the intersecting forms of oppression that shape 'transmobilities'. They highlight how an urban environment based on aggression and intolerance immobilises and renders invisible transgender people and give a voice to these subjects, highlighting the intersectional aspects of the injustice they experience when navigating public spaces and especially public transport. The paper also provides insightful policy recommendations for transmobility justice.

Vecchio's (2020) account of micromobilities in Bogotá shows the importance of recognising the strongly differential mobility needs and experiences of lower income residents. By narrating the struggles to access valued opportunities that the participants in his study experience because of spatial segregation and lack of public transport connections, Vecchio recognises mobility needs and habits that have so far remained unaddressed by Bogotá's often praised transport planning. He also draws attention to distributive justice as "every individual has different abilities to reach more or less varied opportunities" (p.7), with some participants forced to remain "shut-in" and other to be "forcedly mobile".

5.2 The causes of injustice in transport and mobility

Papers in this theme highlight the role of different actors and especially governments in constructing and favouring specific understandings of the mobile human subject and the effects these processes have had for the development of mobilities across scales. In doing so, they draw attention to the political economy of transport and mobility justice and strongly acknowledge the role of broader processes of colonialism and neoliberalism in generating mobility injustices. They constitute practical and situated examples of ways to articulate difference and challenge the practice of planning mobilities for a 'universalised disembodied subject' whilst – like Sheller – placing the causes of mobility injustices at a variety of scales.

Studying the political economy of Hong Kong's transport with a specific focus on the contradictory politics of walking, Barber (2020) discusses how relations of power and domination through narratives of sustainability co-opts the transformative potential of walking to generate landscapes of uneven mobility and reproduce a space designed univocally for Westernised mobile subjects. Using the idea of governmobility (Bærenholdt, 2013), and a participatory survey looking at perceptions of walkability, Barbers shows how mobile subjects participate in the making of uneven mobilities via the internalization of mobilities' techniques of government.

Smeds et al.'s (2020) paper complements Barber's analysis. They use Young's (1990) politics of difference to analyse the politics of nightlife mobilities in London, and how their differential formation is constructed, negotiated, recognised, or excluded in policy making. Criticising the traditional framing of difference in fixed categories of race, gender and economic status, and advocating for a feminist and intersectional understanding of mobile subjects (as in Sheller, 2018b), the authors show how vulnerable groups are made invisible in London's night-time mobilities, which are designed solely around the needs of the most economically productive social groups.

Turner (2020) highlights the detrimental effects of neoliberal urbanism and related state policies on the livelihoods of those transport users and actors who do not conform to the established direction of urban development. She examines how the state plan to transform Hanoi in to a 'sustainable mega-city' with seamless modern mobilities (new highways, BRTs, elevated metros, etc.) impacts on the

livelihoods and mobility options of millions of motorbike drivers and users. Her paper also reveals how the disruption of those 'traditional' mobilities corresponds to the loss of key forms of urban living based on solidarity, trust and compassion key to neighbourhood security and well-being.

5.3 Methodologies for transport and mobility justice research

Transport and mobility justice research cannot, and should not, stay clear from discussions about ethics and epistemic justice (Butz and Cook, 2018). However, much past transport and mobilities research has avoided in-depth engagement with ethical and moral issues when developing methodological approaches to investigate equity and justice. Some exceptions include Butz and Cook (2018), who reflect on the use of visual methods, and Lucas (2013), who has highlighted the value of action research to address current social and environmental challenges posed by transport impacts. In any case, the 'toolkit' of research methods for fully considering the complexity of transport equity and justice is rather small and could be expanded. The papers in this theme respond to these concerns and provide some new important methodological approaches. Guided by procedural justice and recognition, they use co-production and reflexivity in designing research methods and political actions for discussing, investigating and reframing mobility justice.

Sagaris et al. (2020) show how Participatory Action Research (PAR) can enrich transport and mobilities research and policymaking and support the development of a society-centric understanding of mobility justice. They offer one of the few concrete examples of PAR application in the field of transport studies (Lucas, 2013; Verlinghieri, 2019). Focusing on transport equity issues in Chile, Sagaris and colleagues co-produce with citizens an innovative 'Transport Balance Sheet' – a collaborative tool to measure progress toward sustainable transport. PAR also informs Barber's (2020) methodology and his collaboration with Hong Kong citizen groups, showing the crucial importance of procedural accounts of justice when researching about it.

Vecchio (2020) proposes another innovative society-centric method to look at the micro-scale of individuals and differential mobility needs and patterns of injustice. He builds on Sen's capability approach to design a new interview format to narrate residents' 'micro-stories'. These are in-depth accounts of individuals' local and experiential knowledge of mobility that include the activities that

each individual values, can accomplish, and how. Micro-stories provide very detailed accounts of mobility needs and patterns in Bogotá, that go well beyond aggregate evaluations of urban transport systems and that has strong potential to inform policy strategies accounting for the needs of the most vulnerable.

5.4 The importance of society-centric approaches: urban actors addressing injustices

Recall from above that a relative shift towards society-centric research on transport (and mobility) justice can be identified. Several of the contributions in this VSI are in line with, and consolidate, this trend through focus on a variety of actors that are often somehow 'marginalised' within the urban realm. These actors exemplify the lack of a just politics of mobility and, at the same time, propose practices that can potentially ground the construction of novel spaces for fair deliberation.

With her case study from Vietnam, Turner (2020) shows the ability of motor taxi drivers and urban informality to respond to 'modernisation' and neoliberal urbanism through social imaginaries, social networks, loyalty and human connections opposed to institutionalised, app-based solutions. The contribution by Sagaris and colleagues (2020) shows how citizen-led formulation of transport justice has important implications not only for a more situated understanding of what mobility justice is, but also in practical terms for policy in the city of Santiago. Similarly, Barber's (2020) analysis of Hong Kong politics of walking and his participatory account highlights the role of citizens' groups in contesting dominating narratives and producing different mobile subjects.

6. Mobility justice and an ethics of care

As a whole, the papers included in this VSI are aligned to and complement Sheller's mobility justice agenda and add to the scholarship that does not conceptualise in/justice primarily in terms of differential accessibility, (non)movement and capabilities. By recognising the different forms in which mobility injustice is produced and reproduced, they demand procedurally just approaches to how different groups are approached and participate in policymaking and research. In taking responsibility for building a practice of just mobilities, they highlight the dangers of proposing interventions targeting

a universal disembodied subject without accounting for the differential voices, knowledges, experiences, abilities and rhythms of the actors that inhabit particular spaces and places. They also show how these differences are enabled or constrained by policy frameworks themselves. Through their geographical diversity, the studies add weight to the claim that ‘fast’ policies (Peck and Theodore, 2015) that are swiftly transferred from one place to another and legitimised through discourses of ‘modernisation’ and ‘sustainability, such as Bus Rapid Transit development or bans on informal transport, can create multiple forms of mobility injustice.

The full set of papers in the VSI resonate with a feminist ethics of care, which, we believe, can make useful contributions to the thinking on transport and mobility justice as summarised in this editorial introduction. Adopting this ethics of care as a framework for justice implies a decisive moving away from distributive or liberal approaches to justice seen as right versus wrong (Gilligan 1982; Sevenhuijsen 2003; Held 2006) towards situated discussions of how ‘mobile moral subjects’ are constituted and of the imbricated nature of movement, bodies, gender, environment and energy. As Sevenhuijsen (2003) suggests, caring entails a double and situated movement of *recognition* of the other and their needs (caring about) and of *taking responsibility* for supporting the fulfilment of those needs in a way that respects the others’ personhood (caring for). This double movement can underpin ‘caring justice’ – an ongoing and dialogical negotiation characterised by openness, responsiveness, and commitment to multiple voices and needs. To an extent, this double movement has already animated the contributions to this VSI insofar that they have recognised and articulated mobility injustices and supported emergent forms of justice. It can, however, be developed further in future research.

When this double movement of *recognition* and *taking responsibility* is coupled with Davidson’s (2020) understanding of mobility as a material-semiotic process of energetic transformation, it can help to reframe mobility justice as an emergent process of participatory reflection, decision-making and action. Recognition then becomes a process of unravelling in the situated and multi-scalar way that Sheller (2018a, 2018b) proposes and Henderson (2020) adopts for electric vehicles (EVs) the assumptions on which current mobility systems are based, the ways they operate, and how they bind together specific socio-technical, politico-economic, and energetic configurations. This means, firstly,

asking, for each movement enacted, how much violence and (human and non-human) suffering goes or has gone into making that specific form of mobility possible, thereby fully charting the implications of the socio-technical and energetic configuration enabling movement for other humans and living forms. It also, and secondly, means making room for individuals' histories and mobility needs and, as the papers in this VSI have done, amplifying those voices that have so far not been heard by conventional approaches to transport and urban planning. As part of this process of making room, researchers should investigate the causes for people's inability to fulfil their needs. Is this due to missing capabilities and/or transport supply? Or does it rather reflect patterns of socio-spatial segregation and urban (re) development that are made possible by the same socio-technical, politico-economic and energetic configurations that enable and shape the movements of other people (as well as goods and information)?

This exercise of fully recognising the ways in which the mobilities of different individuals and groups are bound to those of others and to the non-human environment in complex, multi-scalar and situated ways opens up new paths for *taking responsibility*. Through participatory processes researchers, activists, planners, citizens and others can on the one hand address and mitigate the identified forms of sufferings and on the other aid in the satisfaction of previously ignored needs in ways that fully respect the others' personhood and dignity. Calling into question extant socio-technical, politico-economic and energetic configurations that enable some movements whilst frustrating others is an integral part of this mode of taking responsibility. This demands more than asking what is the right or wrong approach to the planning and design of mobilities, developing a framework for analysis and planning in which the central question becomes how to 'care' optimally for the mobility needs of the most vulnerable and for the non-human environment in an ongoing, collective and reflexive process. This might lead, at least in some cities and territories, to broad support for the view that further expanding aviation, automated vehicles and other forms of mobility that primarily benefit the better-off is less attractive and ethical than supporting forms of mobility that help to fulfil everybody's needs and cause less human and non-human suffering, now and in future, nearby and far away.

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