1. Mobility justice

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INTRODUCTION

From its beginning the field of mobilities research has been motivated by concerns around social justice, social change and social futures. The first conference organized by the Centre for Mobilities Research at Lancaster University in 2004 was titled ‘Alternative Mobility Futures’ and the last monograph published by the late John Urry was titled What is the Future? (Urry 2016). So the problem of future trajectories, transformations and transitions have always been prominent motivations. Within that broad scope, however, there are many different ways in which scholars, who range across many disciplines and specialties, have shaped their questions and focused their research.

Some mobilities research arose at the intersection of urban sociology, transport studies and transition theory, and was concerned initially with the problem of automobility and questions concerning how to understand (and possibly accelerate) low-carbon transitions. By the turn of the millennium, it was evident that global warming was driving climate change and that a big part of the problem was the degree to which fossil fuel and automobile dependency were built into our urban and suburban environments. Engineers were promoting technical solutions such as renewable energy and more efficient vehicles, economists were pushing market solutions such as carbon pricing and road pricing, and businesses were selling consumer-product solutions such as electric vehicles or new disruptive mobility services. Yet it became increasingly clear to social scientists that there were complex social and cultural processes that interfered with the expected uptake of green solutionism. The decarbonization of our energy systems and transportation systems was progressing too slowly, there were huge backlashes and resistance to it from carbon capital, and the dominant system of automobility was continuing to spread rapidly around the world. It seemed increasingly urgent to bring in richer cultural and social understandings of the co-construction of complex socio-technical systems, including imagining transportation as more than a matter of simply moving people and things across space.

In my own case, after initially thinking about the problematic yet often ignored ways in which automobility shaped cities, in collaboration with John Urry (Sheller and Urry 2000), I began to explore the emotional and affective dimensions of car cultures and automobile dependence, and especially their social and spatial embedding in the everyday lives of families (Sheller 2004), which was in part a reaction against the usual transport models that assume a rational, individual and efficiency-maximizing consumer. Even traffic engineers and transport modelers were beginning to recognize that they needed more complex models of human users, while the emerging designers of mobility as a service in the on-demand and peer-to-peer economy were deeply interested in what motivated different transport choices. For environmentalists interested in sustainability transitions, it seemed crucial in the first decade of the twenty-first century to better understand why
unsustainable forms of automobility were continuing to persist in the first-adoption countries, and rapidly taking off and spreading to new adoption countries.

However, there were other types of questions that were equally important in the emergence of the field. There had been robust discussion since the 1990s about more global-level processes of mobility conceived in terms of cultural flows and scapes (Appadurai 1996), nomadology and traveling theory (Clifford 1997), cross-border circulation of people and goods, and globalization. In contrast to dominant views of an increasingly flat earth, as Thomas Friedman (2005) summed it up, in which all things were mobile and mobility was accelerating, sociologists, geographers, transnational feminists and postcolonial theorists were articulating a critical historical view of the ways in which diverse mobilities and immobilities were imbued with power (Kaplan 1996; Kaplan and Grewal 1994). Geographer Tim Cresswell was involved with some of the early formulation of this critical perspective. He describes how he organized an event on mobilities in 1999 in which:

The immediate inspirations for me were figures such as James Clifford, Manuel Castells, Gilles Deleuze, Caren Kaplan, and Rosi Braidotti. At the same time the conference addressed the increase in attention being paid to actual empirical cases of mobility – of migrants, tourists, the homeless and the exiled. We wondered if the two were related. (Cresswell 2018, p. 11; see also Cresswell 2006)

As these two trajectories came together in my own work, I became increasingly interested in linking together the problems of sustainability transitions in relation to automobility, transportation and urban infrastructure, with the problems of social justice, global inequalities, postcolonial and decolonial theory, and questions of power and the politics of mobility.

MOBILITIES AS A PROBLEM OF JUSTICE

In reflections in the aftermath of Hurricane Katrina in New Orleans, and the 2010 earthquake that shook Haiti, I became ever more convinced that understanding deeper histories and spatial formations of what I termed uneven mobilities – divided by race, class, gender, sexuality, ability and nationality – were crucial to understanding the limits of contemporary sustainability transitions. In a brief essay, ‘Creating sustainable mobility and mobility justice’ I began to articulate the need for a ‘twin transition toward environmentally sustainable mobility and mobility justice’ (Sheller 2011a, p. 114). I argued that the concept of mobility justice can highlight the structurally distributed class, racial, gendered, and other inequalities in the potential for mobility. ‘A full transition away from the currently dominant automobility system,’ I argued, ‘will only take place when we simultaneously address the issues of social inequality that underpin the un-sustainability of the current system, and begin to promote mobility justice as integral to sustainability’ (Sheller 2011a, p. 114). This vision has shaped my subsequent work, and especially my book Mobility Justice: The Politics of Movement in an Age of Extremes (Sheller 2018), which seeks to bring this message to a wider public audience.

It is very easy for anyone to understand how mobility injustices begin with their own embodied experiences of everyday life. When a person living with disabilities, or a pregnant
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mother or an elderly person is unable to access basic needs and activities because of the way transportation systems, streets and buildings have been designed to be inaccessible to all, there is obviously an injustice of accessibility. When a young woman, or a Black teenager, or a lesbian, gay, bisexual, transgender or queer (LGBTQ) couple are unable to walk down the street or board public transportation without being harassed, there is an injustice of social exclusion which occurs through a restriction on their mobility. When a child, or a college student, or an underpaid bicycle-delivery person cannot ride safely in the streets without the likelihood of being hit by a careless car driver, there is an injustice of social protection that distributes the harms of automobility upon the most vulnerable. These are the types of personal mobility injustices that social research concerned with transport justice has brought to light and has sought to measure and define. The field of transportation justice seeks to identify the causes, effects and transformation of these personal mobility injustices.

However, we can also think of mobility injustices more broadly, from a spatial justice perspective, which goes beyond an individual’s particular embodied experiences and, even, beyond issues of accessibility. When a city and its surrounding suburbs are built in a way that makes most people living in them automobile dependent, there is an injustice for those without automobiles and for those affected by the air pollution, traffic and potential crashes created by excessive automobile dependency. When an urban redevelopment project puts a multi-lane highway through a working-class neighborhood, dividing it in half and obliterating homes and businesses, or when a new light-rail line bypasses poorer areas and brings the service only to the better off, there is an injustice enacted in spatial organization. When a rural community is left without transport services, and cannot access healthcare, education or Internet connections, because they have all been concentrated in cities, there is another kind of infrastructural mobility injustice. These are problems not just of accessibility of existing infrastructure, but of the ways in which easier access for some makes life harder for others when the built environment is designed to exclude some people and create hierarchies of benefits and unequal distribution of harms.

Mobility injustices, however, do not stop at the urban scale. They also have a national, a transnational and, even, a planetary dimension. When a nation builds a fence on its borders, and implements regulations and controls of movement that lead some potential entrants to meet their death at sea or in the desert, there is a mobility injustice, especially if we still believe in a human right to mobility. When a multinational corporation extracts resources from a poor country, and ships them overseas with little benefit and many environmental harms to the people and ecology of that country, there is a mobility injustice expressed through the movements of resources, energy and logistics systems that empower some places to the detriment of others. Also, when high-consumers of energy, transport and globally circulated resources pump excessive amounts of greenhouse gases into the atmosphere, leading to catastrophic global climate change, there is a mobility injustice in terms of the mobility of high-emitters harming the right to life of those who have not created the problem. Hence, mobility justice is not only personal or infrastructural, but also linked to national scale issues of migrant justice and transnational scale issues of climate justice.

Thus mobilities research extends beyond the problems of transport justice, automobility, or urban infrastructure. It is a much bigger field, that examines the complex relational (im) mobilities of people, goods, data and representations through both physical and virtual
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domains, at multiple scales, and within contested territorial and infrastructural configurations that geographer Doreen Massey (1993) referred to as ‘power-geometry’. There is always a politics of (im)mobilities. Indeed, it could be argued that uneven mobilities are fundamental to political identities and the making of differential political subjects. Political mobilization against mobility injustices often generates political protests, sometimes instigates collective social movements and, occasionally, generates enough public mobilization to bring about social change. Short of revolution, this type of change might take the more gradual form of new policies and legislation, but it could also come in the form of new technological or design solutions, or new ways of building, engineering, socially organizing and regulating mobility systems. Applied mobilities research has begun to engage with these movements by seeking innovative ways to generate social action, stimulate new design thinking, spread public awareness or support new forms of social organization.

MOBILITY JUSTICE AS A DRIVER OF RESEARCH

Mobilities research is often driven by a desire to contribute to better understanding the causes and effects of these complex problems, as well as the hope of finding appropriate solutions. Thus we can think of applied mobilities research as contributing to policy and regulation, planning and design, or innovation in systems and processes. What types of research methods would facilitate such a research program? We can find mobilities research addressed to each of the dimensions or scales described above and therefore requiring diverse methods to deal with the problem at hand. Researchers often specialize in one area of research, using particular methods, and addressing mobility justice either from the perspective of individuals, social interactions or macro-level systems.

In relation to personal embodied issues of mobility injustice, the preferred methods often occur at the micro scale of individual bodily experiences or interpersonal social interaction, understood from a social interactionist or phenomenological perspective. Researchers seeking to understand embodied experiences of uneven and differential mobilities try to imagine themselves in the shoes (or on the wheels) of their informants, to understand how they move through the world and what they experience as they do so. This has involved methods such as interviews on the move, participant observation during travel, ethnography across mobile sites and sites of mobility, and collection of records such as space-time diaries, Global Positioning System (GPS) tracks, or drawings of subjective maps and routes. These observations and ethnographic methods might involve video, sound recording, autoethnography, or some combination of all three. The questions driving these research methods are often concerned with how different individuals or groups practice movement, how they experience spaces of movement, and how they interact with and make judgements about particular assemblages of equipment, spatial affordances and infrastructure. In contrast to economic or behavioral approaches to individual mode choice in studies of transportation, these research methods create a much richer array of qualitative data.

As we move to questions about the urban, suburban and rural scale, however, other methods may be needed to gather data about aspects such as land-use patterns, transport planning and urban policy. Here the driving questions would concern how we became so automobile dependent, how racial segregation and ethnic enclaves have been shaped by
transport systems and policies, and how more empowered groups have created spatio-temporal patterns in their own favor while marginalizing the needs of the less powerful. These types of questions might call for historical archival research, interviews with decision makers, scanning of policy documents and shadowing of planners, policymakers or engineers to better understand how decisions have been made that shape uneven spaces and differential mobilities. A specific conflict or decision might be the subject of investigation, such as the history of a social movement that sought to challenge highway building, plans for public transit investments, and other mobility injustices. Or, in a more applied orientation, these types of meso-level research questions might lead to participatory workshops or other activities that seek to intervene in these processes as they are occurring and redirect them in more reflexive or creative ways. In contrast to traditional transport planning or urban planning approaches, driven by experts offering solutions, these mobilities research methods generate more complexity, greater critical purchase and, sometimes, open-ended participation and innovation, as well as critiques of limited forms of shallow stakeholder consultation.

At the national and transnational scale, we have further dimensions of mobility research questions and methods. At this macro level, questions of interest might concern: the experiences of migrants crossing borders and of workers who secure those borders; or the social and technical construction of border zones, data systems and policing methods; or the rules governing transnational corporations and the international legal systems in place for regulation of corporate malfeasance around resources extraction and migrant labor abuses. Mobilities research can contribute to addressing mobility injustices at this scale too. This calls for more macro-level approaches to analyzing social structures, regulatory frameworks, transnational policy mobilities and complex interlocking systems. What we might term macro-mobilities research focuses on identifying and describing the infrastructures, networks and flows of inter-state systems and global economies. This type of research might also draw on comparative and historical methods that identify typologies, turning points or changes in systems over time.

Finally, the planetary scale calls for research that examines the social dimensions of climate change, transformation of energy systems, such as fossil fuel dependence or the emergence of renewables, and the study of alternatives, such as off-grid living, slow mobilities or, more generally, decarbonization. This also indicates attention to global processes including relations between the Global North and the Global South, and colonial histories and postcolonial critique. My own early work,Consuming the Caribbean (Sheller 2003), for example, examined the interlocking mobilities of labor, bodies, capital, nature and representations that shaped the Atlantic world, drawing on historical comparative methods, visual and textual analysis, and postcolonial theory. This, too, is a study in mobility justice, though it has little to do with transportation, fossil fuels or automobility. It concerns the deeper dimension of mobility injustices that inform the shape of the contemporary world and its distribution of inequities.

LEARNING FROM RESEARCH EXAMPLES

What I term the scalar fluency of mobilities research allows for a multi-pronged approach to the problem of sustainability transitions, drawing on divergent perspectives and
methods, but applying them to a common concern with mobility justice and how it might be advanced. In this section I illustrate how two particular sub-fields within mobilities research seek to apply the lessons of the mobilities paradigm by combining methods that focus on micro-level embodied practices, meso-level urban assemblages and complex macro-historical processes. First, I focus on the sub-field of cycling research, and then the sub-field of migration and border studies, as they are both interpreted through the tools of mobilities research.

**Cycling Research**

Overcoming automobile dependence by providing better cycling infrastructure and promoting greater access to it has been linked to issues of transport justice, racial justice, gender justice and climate justice. Yet in many cities the rate of bicycle commuting remains stubbornly below 5 per cent of commuters, remains lower for women than for men, and remains suspect when new infrastructure is often seen as benefiting gentrification rather than being accessible to all classes and races. In view of these problems, the efforts to expand cycling in existing automobile-dependent cities has become a central and thriving area of mobilities research.

Traditionally, policymakers, planners, designers and engineers usually focus on individual behavior change and immediate solutions, such as street design, building bike lanes or pricing parking. In contrast, a mobilities research perspective adds more dimensions to the analysis, different methods and a more sophisticated theoretical framing. As Nick Scott argues in his book, *Assembling Moral Mobilities*, there is a ‘need for social scientists to historicize and unpack the dynamic, interwoven complexities of society and technology facing the expansion of cycling in the city built for driving’ (Scott 2020, p. 7). Unlike cycling research from a behavioral change or public health perspective, which reinforces the idea that interventions should focus on changing individual behavior, cycling scholarship, drawing on the new mobilities paradigm, seeks to show how individual cycling practices are embedded in complex assemblages situated within the constraints of a dominant system of automobility.

‘Through a mobilities lens, cycling does not appear as the isolated product of a personal, healthful choice,’ argues Scott, ‘but rather as a distinctive, self-propelled system of travel continuually developing in concert with wider mobility norms, infrastructures and policies (Walks 2014; Furness 2010; Mapes 2009)’ (Scott 2020, p. 9). On the one hand, cycling is an embodied practice, which can be best studied through its doing. Researchers have therefore sought to show how cycling animates sensuous intensities (Spinney 2006) and attunes affective capacities (Larsen 2014), while building embodied cycling capabilities (Aldred 2012) within markedly different cultural and infrastructural contexts (Horton et al. 2007). Indeed, cycling can be imagined as a form of ‘inhabiting infrastructure’ (Larsen and Funk 2018).

We could make similar observations about the study of embodied practices of walking (Büscher et al. 2010), wheeling (Parent 2016), running (Edensor and Larsen 2017) or, even more so, activities such as waiting (Bissell 2007), which have also each been the subject of mobilities research. That is, this is not specific to research on cycling, but pertains to a way of theorizing how people, vehicles, infrastructures and urban space interact and co-constitute differential mobile subjects and spaces (including non-urban, suburban and rural places).
These micro-level experiential accounts of cycling, however, are also joined by more meso-level historical perspectives on the ‘wider, political changes in cities, technology and society that push back against the social injustice of neoliberal car capitalism’ (Scott 2020, p.8). This includes an unabashed critique of neoliberal automobility and the types of unjust spaces it shapes, including unequal cyclescapes (for example, Furness 2010; Scott 2012; Stehlin 2019; Gopakumar 2020). Analysis of the possible openings for post-automobility transitions, as well as the closures and self-defense of the fossil-fuel system, might also call for a macro-level perspective on the histories of colonialism, carbon capitalism and military dominance that inform contemporary global systems of automobility, car-dependent urban forms and land use, freight-transport logistics and uneven resource distribution (Sheller 2011b). Cycling research is about far more than getting more people to ride bikes, and this implies the need for multiple methods and approaches to these complex problems.

Migration Mobilities

A different area of concern for mobility justice is the study of migration and borders. Urgent political questions concerning migration, refugees, asylum and the granting of citizenship to undocumented migrants have driven researchers to re-think approaches to borders and migration in relation to more complex (im)mobilities, sometimes theorized as mobility regimes. If cycling studies have expanded from immediate embodied experience toward more expansive meso-level and macro-level research questions and methods, then we might say migration studies has moved in the opposite direction: extending beyond the typical macro-level analysis of international migration found in the field of migration studies, inward towards the micro-level embodied experience of border crossing and the meso-level infrastructures of border zones and migration controls, as well as the complex entanglements of all of these scales of (im)mobilities.

At the micro level, we find renewed attention given to the experience of migration as a mixture of mobilities and immobilities, and as a combination of practices, performances and passages. Jorgen Ole Baerenholdt theorizes ‘governmobility’ as a form of governmentality in which self-regulation of mobility becomes internalized within mobile subjects, but may also serve as a point of resistance. He emphasizes that ‘borders must be studied along with the practices of resistance, with people’s tactics and strategies in coping with, transcending, ignoring, overcoming, using and not least building borders. As such borders are made not the least by way of the various passages crossing them’ (Baerenholdt 2013, p.31).

At the meso-level, the border itself is imagined as a mobile technology (Vukov and Sheller 2013) through which bordering practices are performed (Sassen 2013). The ‘state border is not simply a borderline’, Sassen (2013, p.30) writes. ‘It is a mix of regimes with variable contents and geographic and institutional locations’, including different flows of capital, information, professionals, undocumented migrants and smuggled goods (Sassen 2013, p.30). This calls for mixed methods of research tracking various kinds of movements across borders, and the mobility regimes governing those movements, whether licit or illicit.

Studies of such mobilities are as concerned with detention and detainment. Alison Mountz et al. argue that ‘We find paradoxical issues of containment and mobility, as well as bordering and exclusion built into national and transnational landscapes of
Detention . . . Detention functions as part of a rationale to *regulate* mobility through technologies of exclusion rather than to end mobility altogether’ (Mountz et al. 2012, p. 524, original emphasis); and so there emerges ‘a principle of managed mobilities, mobilizing and immobilizing populations, dislocating and relocating peoples’ (Stoler 2011, n.p.), forming a type of global metabolism of mobilizations and demobilizations. These managed mobilities have become increasingly controversial as the human right to mobility is increasingly infringed, and mobilities research has an important part to play in re-imagining social protection beyond national bordering (Raithelhuber et al. 2018).

These innovative perspectives on border mobilities and mobile migrants are also generating entirely new research areas, such as the study of reproductive mobilities. Reproductive mobilities are concerned with the ‘seemingly incessant movement of people as reproductive actors (both legal and rogue), commodities in reproductive markets, reproductive technologies, and entire “repro-assemblages” across international borders, and their regulation, securitization, and lack thereof’ (Frohlick et al. 2019, p. 97). Human reproduction currently involves multiple mobilities, from the transnational mobilities of frozen eggs, sperm, surrogates, laboratory technicians, intended parents and doctors involved in artificial reproduction, to the travel of birth tourists to foreign countries to gain citizenship for their children. Complex spatial and temporal mobilities are involved in practices such as transnational artificial reproductive technologies, border-crossing for giving birth or seeking abortion, midwifery in contested spaces such as reservations and borderlands, and reproductive labor in situations of refugee or migrant interdiction, detention and deportation (Speier et al. 2020). Power relations and questions of mobility justice shape how these reproductive mobilities are determined, how they are imagined, how they are narrated and who controls the technological practices, legal regulation, embodied performances, representations and stories of human reproduction.

CONCLUSION

In summary, I argue that debates over sustainable urbanism, transport justice and urban accessibility must also be placed in the context of wider transnational mobility regimes, including borders, refuge and migration. Low-carbon transitions away from the dominant system of automobility are just one of the issues driving mobilities research. In addition, mobilities research helps us to see the wider systems of (im)mobilities in which transportation is situated. Unequal global mobility regimes, for example, also include the carbon-intensive use of air travel, the logistics of shipping and the law of the sea, and the right to cross-border mobility of refugees and migrants. These are all situated within longer histories of colonialism, imperial legacies and uneven global development. Thus mobilities research can widen the aperture to macro-level research questions, as well as zooming in on micro-level questions, and these each call for different research methods.

These developments in mobilities research, especially those with a motivating concern for mobility justice, pose several great challenges. First, how can we integrate these differing perspectives and styles of doing research, at the micro, meso and macro scales? Each scale not only requires different research methods that produce heterogeneous types of data, but each relies on entirely different methodological conceptions of the link between theory and research, the purposes of research, the formulation of questions and
the legitimation of arguments. We need to move beyond the notion of mixed methods research simply involving a mixture of qualitative and quantitative methods, toward a notion of mobile methods which shift around according to the question at hand.

Secondly, how can we communicate the complex findings to wider audiences? If we wish to influence policy, planning, design, social movements and politics, then our research needs to step outside the purely academic conversation in which teaching, research and publishing often take place. There has been a growing emphasis, within some universities, on experiential learning and civic engagement among students, and a demand for broader impacts of work among faculty. Applied mobilities research can contribute to these projects, yet it should not simply be instrumentalized to achieve external ends.

Finally, we must again return to the questions with which we started, what is the future and how can we reach alternative mobility futures? While these questions already motivated mobilities research in the face of growing climate instability, the global mobility disruption and economic chaos caused by the COVID-19 pandemic make these questions even more urgent. In a world of quarantine, social distancing, and market instabilities we will need even more critical mobility perspectives and innovative applied research to find any kind of footing for sustainable human futures.

REFERENCES


