Geographies of Transport III: New spatialities of knowledge production?

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Abstract

This third report in the series reviews recent research on the geographies of transport in Africa, Asia and Latin America to reflect on the spatialities of knowledge production and the question as to whether a post/decolonial turn is occurring in geographical scholarship on transport. A simple and heuristic classification scheme is developed and deployed to demonstrate that predominantly western worldviews, theories, concepts, methods and research practices continue to prevail in geographical scholarship on transport in the global South. It is also shown that this hegemony is being reworked and resisted in various ways, and the report concludes with suggestions about how geographical scholarship on transport can be worlded and ultimately decolonised further.

Keywords: transport, knowledge production, transfer, mobility, worlding, decolonisation

I Introduction

A focus on the geographies of transport in Africa, Asia and Latin America can be justified on many grounds. Perhaps the most common is the historically unprecedented yet spatially uneven growth of all forms of motorised transport and hence the very large increases in emissions, noise, traffic injuries and casualties, and road congestion in these parts of the world in recent decades (see, for instance, Sims et al. 2014). In this Progress Report my motivation is more epistemic in nature. This is because critical analysis of recent geographical scholarship on transport in Africa, Asia and Latin America allows us to better understand some potentially significant developments in how geographers are examining questions of transport and mobility. At the end of the previous Report I suggested that geographical scholarship on transport is expanding rapidly outside its traditional heartlands of North-America and North-western Europe, and that post- or decolonial[1] studies of transport and mobility are emerging in our discipline (Schwanen 2017; see also Kwan and Schwanen 2016). Here I want to elaborate – and qualify – these claims on the basis of a critical examination of the spatialities of knowledge production within recent geographical scholarship on transport.

My starting point is that the history of academic research on the geographies of transport can be understood as a product of both specific processes that were predominantly (though certainly not exclusively) undertaken from the early 1900s onwards in research institutes across the USA and Western Europe, and wider circulations of worldviews, concepts, theories, methods and research practices. Sites in Africa, Asia and Latin America have long since been part of those circulations. For port geography this has been the case since at least the 1950s, according to Ng and Ducruet's (2014) analysis of the historical evolution of this field. Nonetheless, it is equally clear that, as in so many other parts of the discipline, there is a historical hegemony of predominantly western worldviews, concepts, theories, methods and research practices. My question in this Report is to what extent and in what ways this hegemony is contested, reworked and overcome in recent (since 2014) publications in the Anglophone literature on the geographies of transport.[2]

Western in this context can be understood as developed in research institutes that are located in North-western Europe, USA/Canada and Australia/New Zealand and firmly rooted in philosophies, theories, methods and research practices originating from these regions. However, as post-colonial geographers contend (Sidaway et al. 2014), neither those regions nor Africa, Asia and Latin America nor their cities, countries and other spatial formations should be understood as clearly defined and bounded, relatively homogeneous territories. They are better understood as "contemporaneous field[s] of motion" (Lin and Yeoh 2016: 1005) with specific histories, long since internally differentiated and enmeshed in other constellations of the movement of people, material goods, capital, ideas, knowledge and so forth. Indeed, spatial formations like Africa, Asia and Latin America and the places within them must be understood relationally as hybrids that are entwined with each other, the West and a mobile world.

To explore the possibly changing hegemony of western ideas, concepts, theories, methods and research practices, I draw a distinction between transfer, mobility and worlding. All three labels are based on recent work in Urban Geography, which is going through a period of decolonisation of epistemology, theory and method (Robinson 2006, 2016; Roy 2009, 2016; Derickson 2015; Peake 2016). Authors like Eugene McCann, Kevin Ward and Jamie Peck have argued that policies tend not to travel unscathed from one site (city) to another as the policy transfer literature in political science has often assumed (McCann 2011; Peck 2011; McCann and Ward 2012). Rather, policies mutate along the way of moving from A to B because they first need to be deterritorialised, or loosened from place-specific embeddings, and then reterritorialised – made to fit locally specific circumstances – elsewhere. Building on this line of argument, I will use *transfer* to denote a situation in which western worldviews, concepts, theories, methods and research practices are deployed in

more or less unchanged form to make sense of the geographical aspects of transport in Africa, Asia or Latin America. *Mobility* identifies situations in which selected significant elements of originally western worldviews, theories, concepts, methods or research practices have been changed or adapted to fit local circumstances. It thus suggests greater sensitivity to particularity and geography but does not "'dislocat[e]' the EuroAmerican centre of theoretical production" (Roy 2009: 820). The underlying core-periphery structures, which have characterised most transport geography and according to which theory is formulated in the global North and travels from there to other places on the earth's surface, remain largely intact. The category of *worlding* (Ong and Roy 2011; McCann et al. 2013) challenges such structures. It is used here to identify research in which transport in cities, countries and other spatial formations in Africa, Asia and Latin America triggers new and inevitably site-specific worldviews, theories, concepts, methods or research practices that can somehow speak back to western versions. The resulting theories, concepts methods and research practices therefore help to provincialise (Chakrabarty 2000) geographical scholarship on transport, much as Sheppard and colleagues (2013) have advocated for urban studies.

I emphasise that the distinctions between transfer, mobility and worlding need to be seen as heuristic. The transitions between them are gradual and a given piece of research can be classified in different ways, depending in part on the assessor's situatedness and perspective but especially because studies can reproduce (neo-)colonial relationships in knowledge production in some ways but not in others. Nonetheless, as shown below, the simple classification scheme brings out how in recent geographical scholarship on transport in Africa, Asia and Latin America predominantly western worldviews, theories, concepts, methods and research practices continue to prevail but are also being reworked and resisted in various ways.

II Transfer

It would be mistaken to assume that the history of transport geography is one of mere transfer (see, for instance, Rimmer 1982; Pirie 1982; Hoyle 1997). Still, transfer has been common and remains very widespread across all forms of geographical research on transport. If anything, it seems to have become more rather than less popular in recent years. It certainly can be found across all subject areas – urban commuting and everyday trip-making, vehicle ownership, aviation, high-speed rail (HSR), port and maritime geography, etc. – and is widespread as far as theories, concepts and methods are concerned.

Transfer of predominantly western theories and concepts is exemplified by recent studies of increasing vehicle ownership in China (Yang et al. 2017), India (Choudhary and Vasudevan 2017) and the global South more generally (Law et al. 2016) which all seek to explain spatial variations in ownership levels in terms of differences in income, urbanisation levels and transport network characteristics. These studies thus replicate and enhance the credibility – and normative power – of explanations of changes in vehicle ownership that were developed in the 1950s-70s in North America and Europe and from there exported to other parts of the world. Li and colleagues' (2014) study of the governance of inland waterway transport on the Yangtze River offers another illustration. These authors carefully construct a theoretical model based on mostly western theoretical ideas from economic geography, institutional economics and political science and then apply this to empirical materials from the Yangtze River as a case study.

There are many recent cases of method transfer, including Wachowicz and Liu's (2016) approach to study collective mobility patterns from Twitter use in Dakar, Senegal and Zheng and Yang's (2016) development of a hub-and-spoke model for container shipping on the Yangtze River. Particularly popular has been the transfer of accessibility metrics originally developed in Europe (e.g., Gutiérrez

2001) to analyse the spatial-economic effects of HSR to the Chinese context (Cao et al. 2013; Jiao et al. 2014; Song and Yang 2016; Wang et al. 2016; Wu et al. 2016). However, with the evolution of this literature, individual studies have been speaking each other and subtly advancing each other's methods, so that something akin to a Chinese methodological approach to HSR accessibility research is coming into existence. Transfer can over time morph into mobility.

The unabated popularity of transfer has multiple causes. Many transport geographers continue to subscribe to the idea that theories and methods are, and should be, place-independent instead of site-specific, tending towards the universal rather than tailored to local particularities. Whilst certainly not unique to the history of European thought or science, this epistemological commitment helps legitimising the transfer of theories, methods and practices in the eyes of researchers trained in research institutes in Europe, North America and Australia/New Zealand. The same seems to be true for researchers working in the borderlands of transport geography and other disciplines – most notably engineering – where exposure to feminist, post-colonial and decolonial perspectives on knowledge production is minimal. For geographers originating and working from Africa, Asia and Latin America, repeating predominantly western worldviews, theories, concepts and research practices with minimal change may have extra appeal because it can act as a marker of quality, prestige and authority in interactions with peers and non-academic stakeholders, and increase the odds of getting published in the globally recognised leading journals on transport and geography.

III Mobility

Transfer can be perfectly sensible in specific circumstances but there are significant risks. Perhaps the biggest is that key elements of the transport system or practices are rendered invisible or insufficiently captured and expressed. This is why mobility as previously defined is, and long since has been, common in geographical scholarship on transport. However, mobility comes in many versions, some of which differ only in a few minor aspects from what I have labelled transfer.

Modest forms of mobility can be identified in recent research on home-to-work travel (Zhou et al. 2014; Feng et al. 2015; Li and Liu 2016; Motte et al. 2016; Suárez et al. 2016; Zhao 2016). These remain within an epistemological and methodological framework revolving around the separation of subject from object, traditional notions of objectivity and econometric analysis of quantitative survey data. In a number of cases commuting is also seen as a cost to be minimised or at least overcome (Zhou et al. 2014; Li and Liu 2016; Suárez et al. 2016; Zhao 2016), and space is typically rendered metric, fixed and morphological in line with the western tradition of classic quantitative geography, urban planning and urban economics. Change and adaptation occur primarily in the set of variables expected to explain variations in commuting and in the interpretation and explanation of results from econometric analysis. Thus Zhou et al. (2014) follow previous studies (e.g., Wang and Chai 2009) in suggesting that the legacy of *danwei* is one reason why there is greater quantitative balance of jobs and housing in neighbourhoods in Xi'an than in western cities.[3] Zhao (2016) refers to both the *danwei* legacy and the combination of rapid gentrification of Beijing's central zone with rapid sprawl in its outer areas as shaping low-income workers' commuting burden in China's capital. Meanwhile, Li and Liu's (2016) analysis show that *hukou* is an important institution shaping the relationship between the distribution of housing vis-à-vis employment and commuting in Guangzhou.[4]

Studies focused on Rio de Janeiro (Motte et al. 2016), Mexico City (Suárez et al. 2016) and Nanjing (Feng et al. 2015) go beyond offering contextualised explanation. The former two redefine the classification of employment as commonly deployed in western commuting research by making a – still rough – distinction between formal and informal jobs in their analysis. This allows them to show

how conclusions about the effects on commuting patterns of the distribution of housing relative to employment from US or European cities cannot be readily transposed onto southern cities with a large informal sector. Feng et al. (2015, page 761) extend prevailing categorisations of the household in their study in Nanjing because of the "frequent co-habitation with elderly residents". They formulate and find evidence in support of the Elderly Co-residence Hypothesis, which holds that co-residing elderly parents take over some of the household responsibilities, which have widely been shown to constrain women's everyday travel and employment careers (Hanson and Johnston 1985; Turner and Neimeier 1997), and thereby reduce gender inequalities in everyday travel.

Emphasis on contextualised explanation within an epistemological and methodological framework resonating with conventions in western transport geography and transport studies more generally also prevails in recent geographical scholarship on aviation (Njoya 2016; Oliveira et al. 2016), ports and maritime transport (Wilsmeier et al. 2014; Li et al. 2016; Mohamed-Chérif and Ducruet 2016; Wilsmeier and Monios 2016) and logistics (Wang and Xiao 2015). In these fields there is also a tendency to develop theoretical or econometric models that rely on originally western concepts, categories and techniques and are presumed to have more universal application in order to explain site-specific events and processes, such as the "big blackout" of massive flight disruptions in 2006-2007 in Brazil following strong concentration of airline activity on the country's two busiest domestic airports in São Paulo and Brasília (Oliveira et al. 2016). Another example is Wang and Xiao's (2015) theorisation of the co-evolution of e-retailing and the parcel express industry in China. Studies such as these unintentionally reproduce the dominance of western concepts, categories and/or research practices because, as Chakrabarty (2000: 39) has observed, their presumed universal applicability makes them appear very useful to understanding societies in non-Western cultures in spite of their inevitable rootedness in mostly US and Western-European experiences and concerns.

Something similar is happening in research on what are often touted as African, Latin-American and (South-)Asian transport phenomena – Bus Rapid Transport (BRT) (Casas and Delmelle 2014; Vermeiren et al, 2015) and the very poor access to employment, healthcare and other services experienced by low income households and particularly poor women from peripheral locations in rural areas (Naybor et al. 2016; Seedhouse et al. 2016) or rapidly expanding cities (Hernandez and Rossel 2016; Alberts et al. 2016; Maia et al. 2016; Oviedo Hernandez and Titheridge 2016). Much more than mere transfer is going on in these studies, as exemplified by the ways in which thinking on livelihoods is deployed (Alberts et al. 2016; Naybor et al. 2016), attention is directed towards informal modes of transport and motorbikes (Vermeiren et al. 2016; Naybor et al. 2016; Maia et al. 2016) and care is taken not to impose researchers' "own parameters of distance and place on the participants, but rather to let those evolve from their own perceptions" (Maia et al. 2016: 137). Nonetheless, many of the concepts and ideas used to frame the issues at stake remain undeniably western. The framework of transport-related social exclusion, originally developed for the UK context, is deployed rather easily (Casas and Delmelle 2014; Oviedo Hernandez and Titheridge 2016); Hägerstrand's time geography is relied upon (Hernandez and Rossel 2016; Naybor et al. 2016); and travel time is unreflexively framed as a cost (Hernandez and Rossel 2016), a waste (Seedhouse et al. 2016) or something to be sped up (Vermeiren et al. 2016), especially if economic development is to be stimulated (Seedhouse et al. 2016).

I do not deny the usefulness of these concepts and ideas, nor do I seek to strongly territorialise certain concepts and ideas. My point is rather that those concepts and ideas constrain as much as enable our understanding because they constitute transport in specific, surreptitiously western ways and may conceal and obscure its other, yet unknown qualities and geographies. Mobility as defined in this Report is about the entanglement of sameness and difference, continuity and change. However, the balance has perhaps been tilted too strongly towards the former term in each pair in recent research on BRT and access from peripheral locations.

IV Worlding

A case for intervention in the scholarly practices of geographers interested in transport in Africa, Asia and Latin America can be made and is not without precedent. Informed by decades of research experience in various parts of rural Africa, Porter (2016: 442) has argued that "[t]he mobility conceptualizations developed within late capitalist urban societies have limited application in rural Africa because extreme precarity interposes different constraints". Esson and colleagues (2016: 187) offer a similar conclusion:

> "conceptual frameworks such as the new mobility paradigm derived entirely based on conditions in the global North are inherently limited, despite their implicit claims of global relevance. Indigenous, colonial and postcolonial urban legacies of modernist urban planning, including land-use zoning and residential segregations, have long embedded conditions that necessitate high levels of flexible mobility for the conduct of even precarious informal livelihoods".

Recognising the need to decolonise mobility theory (Cresswell 2016: 1085) and transport geography is one thing, actually doing so is another. Key to this, I suggest, will be to selectively delink and disengage from the global circulations of worldviews, theories, concepts, methods and research practices as hitherto configured and explored above. This will help geographers interested in transport to move beyond the USA and/or Western Europe as "the silent referent" (Chakrabarty 2000: 28), thereby circumventing and reworking understandings of transport in the spatial formations of Africa, Asia and Latin America in terms of lack, absence or incompleteness relative to a (Western) other (*ibid*.) and directly derived from supposedly universal theories, concepts, categories, methods and practices.

Geographers working on transport in Africa and, to a lesser degree, Latin America have begun to world research along these lines; various modalities can be identified. In an early contribution Pirie (2009: 32-33) has turned the popular idea that mobility levels in Africa lag behind those on other continents on its head, arguing that "Africans [should] turn motorised mobility deficits into a virtue" and see themselves as frontrunners in "aligning mobility … with social and environmental values". Others look from below by seeing mobility as part of livelihoods and focusing on site-specific (yet relationally constituted) forms of transport. For instance, Esson et al. (2016) affirms the creative ways in which small-scale entrepreneurs and itinerant workers in Accra, Ghana make the various transport systems work for them and so negotiate the postcolonial city as a messy, moving and morphing whole that is replete with contradiction. Diaz Olvera et al. (2016) offer an in-depth, non-judgemental study of what it means to be a motorcycle taxi driver in Lomé, Togo. They show how this livelihood allows low educated young men to generate a decent but in principle temporary income; the social stigma, health risk and precarity of employment mean that many intend to move into other occupations if the opportunity arises. Their analysis leads the authors to conclude that policies seeking to marginalise or even erase motorcycle taxis in the name of modernity are undesirable in a city where jobs are scarce because of the loss of livelihoods among drivers and capabilities to move around the city. Finally, a number of studies have considered how certain ways of providing and regulating transport services – in particular BRT (Wood 2014, 2015; Paget-Seekins 2015; Agyeman 2015) and formalisation of loosely regulated services (Paget-Seekins et al. 2015; Oteng-Ababio and Agyeman 2015) – circulate between cities and what site-specific effects they generate. These studies highlight the importance of considering provision and regulation in Southern as relational political processes of learning on their own terms "[a]s experiences from countries [or cities] in the North are only partially applicable" (Paget-Seekins et al. 2015: 427). And yet, sometimes

these studies slip into the stubborn habit of representing loosely regulated minibuses and motor taxis as second-best solutions operated by reckless, ill-disciplined drivers; framings of lack and absence compared to a silent referent are never far away.

More broadly, the project of worlding geographical scholarship on transport can be advanced, particularly in terms of theory and method. Selective disengagement from the global circulations of knowledge production regarding the geographies of transport will be aided by what Jazeel (2014: 98) calls "working in the domain of the uncertain" so that we "learn differences precisely by unlearning the kind of conceptual language [and methodological practice] that we already know as social scientists". This does not mean rejecting-out-of-hand the worldviews, theories, concepts, methods and research practices with origins that lie predominantly in Western research institutes; through decades of research-policy interface these have had real, material and socio-spatially uneven consequences for the geographies of transport across the world.

It rather implies opening up those worldviews, theories, concepts, methods and research practices by tracing their genealogies and the myriad effects of their circulation and invocation. It also means humility and inventiveness. There is a need to explore how the conventions of geographical research on transport, bestowed upon the field by its historical development, restrict the kinds of insights it is able to generate, and new theories, concepts, methods and research practices should be developed. The latter should not elevate parochial norms – Chinese HSR, the livelihoods afforded by motor taxis in Sub-Saharan Africa, etc. – to new but arbitrary global hegemonies. Moreover, aspirations to develop global understandings of transport and its geographies[5] are best restrained because, as post- and decolonial thinkers (Mignolo 2011; Sidaway et al. 2014) argue, the very notion of the global is already implicated in colonial-like power relations which assume the same system of exchange to be in place everywhere. It is this system that makes possible the worldwide circulation of supposedly universal but ultimately site-specific worldviews, theories, concepts, methods and research practices regarding transport. This is, of course, not to suggest that worldviews, theories, concepts, methods and research practices can no longer travel but to say that they need to move and be moved differently, as exemplified by recent experimentation with comparative methods across the wider discipline (e.g., Hart 2016; Robinson 2016). Finally, a key challenge will be to develop concepts and methods that can articulate alterity in the geographies of transport – radical site-specific differences that are more than disparities/similarities vis-à-vis a referent but still connected to interactions and processes involving numerous sites across the earth's surface.

Worlded geographical scholarship on transport cannot strive to become the new orthodoxy and is better framed as a modality that will open up new research trajectories. Developments elsewhere in the discipline, including urban geography, suggest that the risks of reconfiguring the spatialities of knowledge production in transport geography are well worth taking.

Notes

1. I make a distinction between post- and decolonial thinking because they have different genealogies, philosophical orientations and geographies despite many parallels and overlaps. See Mignolo (2011) for further discussion.
2. This focus on Anglophone research is a limitation because research contesting the hegemony of northern concepts, logics and methods in geographical scholarship on transport might well be easier to publish in non-Anglophone outlets. Nonetheless, a focus on Anglophone geography journals is not unreasonable because the pressure to publish in the leading Anglophone journals is increasing in countries like China, Brazil and Columbia.

3. *Danwei* was the socialist work unit system and basic unit of economic, social and spatial organisation of economic activity, social life and political control in urban China before the country's economic reforms in the 1980s. By 2000 many of *danwei*'s functions and power had been removed (Wang and Chai 2009).
4. *Hukou* is a Chinese institution from the 1950s that classifies people by type (agricultural/non-agricultural) and residential location (local/non-local). While no longer constraining migration, *hukou* continues to shape access to public services and segment housing and labour markets (Li and Liu 2016).
5. These are not to be confused with understandings of worldwide transport. Such understandings remain possible as long as they are seen as constructed in partial and site-specific research practices with their own geographies and histories.

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