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Using urban transport histories to help construct narratives of the future

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Abstract

The objective of current paper is to provide an impressionistic overview of 19 papers, taken from academic journals, that narrate histories of urban transport, and to consider how insights from this overview might be used in the construction of narratives of future urban transport. The selected papers provide narratives of specific cities as well as those of urban transport developments on broader scales (i.e. national and continental), and put particular emphasis upon changes in the transport system in the 1960s and 1970s, which was a period of great transition both in urban transport and in the wider economy more generally. Given the widely different geo-political trajectories of different world regions in this period, narratives are restricted to the (relatively homogenous) 'western democracies', covering (most of) Western Europe, North America and Australia. A distinction is made between the *historical* aspects of the papers (the events that are recounted by the narratives) and their *historiographical* aspects (how the histories are written). The paper concludes that it is the former that are more controversial when being used to help think about the future, and suggests that transport futures thinking can be enhanced by seeing the analogies between changes in the transport system in the 1960s/70s and potential changes in a future transition period associated with the 'end of neoliberalism'.

1. Introduction

There are many indications of a current increased interest in thinking about the future of urban transport, where the futures being considered are, in important senses, significantly different to the present. Such futures thinking typically emphasises uncertainty as being a function of ontological contingency rather than a lack of knowledge, and should thus be distinguished from the more positivist-oriented type of futures thinking that was widespread in the latter half of the 20th Century, facilitated by 'extrapolative' forecasting models. Typically, such futures thinking involves the creation of images for specific years such as 2030, 2050 or 2100: various terms get used for such images such as *exploratory future scenarios*, *backcast scenarios*, *visions*, *utopia* or *dystopia*. The portrayal of the transport futures presented in these images varies between 'thick descriptions', with a large amount of illustrative detail, and 'thin descriptions', often involving little more than a target for CO₂ emissions. Compared to the amount of literature describing such images of the future of urban transport, there is a relative scarcity of (academic) literature providing narratives as to how these futures might evolve from the present day. This is curious, given that arguably one of the main motivating factors for futures thinking is to help locate the present in a long term perspective, using any consequent insights to help think about short term change. Thus a narrative describing how a

city changes from the present to the future is potentially of more practical interest than a description of such a future. Even when such narratives have been constructed they tend to be thin descriptions, often involving little more than milestones on a linear pathway to the desired future, thus replicating the output widely used by traditional forecasting models.

In contradistinction to this lack of thick narratives about the future of transport, there are a very large number of thick narratives available about the history of transport. A central assumption of this paper is that the process of writing narratives about the future can be helped greatly by consulting such historical narratives, both in terms of their historical aspects (the events that are recounted by the narratives) and their historiographical aspects (how the histories are written). The precise distinction between history and historiography in general depends to a great extent upon philosophical perspective. Whilst this paper will not attempt to make a comprehensive definition of the difference, we can say that the overall perspective that we take is 'mildly realist'. Such a perspective recognises the 'objective' existence of historical facts/events, independent of the writings of any historian, whilst at the same time appreciating that the narration of such facts/events, and hence their interpretation, is highly dependent upon how the narratives are constructed.

Given this background, the objective of the current paper is to provide an impressionistic overview of 19 papers, taken from academic journals, that narrate histories of urban transport, and to consider how insights from this overview might be used in the construction of narratives of future transport. The papers selected provide narratives of specific cities as well as those of urban transport developments on broader scales (i.e. national and continental). In order to attain a sense of focus, we restrict narratives to a particular period in history. Given that the 1960s and 1970s saw fundamental changes in urban transport, this period seems particularly fruitful with respect to the paper's objectives, and all 19 papers give prominence to this period. Furthermore, given the widely different geo-political trajectories of different world regions in this period, narratives are restricted to the (relatively homogenous) 'western democracies', covering (most of) Western Europe, North America and Australia. Section 2 introduces the 19 narratives, and makes brief comments about their historiographic features in terms of their temporal and geographical scales. The section then picks out a number of key historical themes with respect to change in urban transport. It must be emphasised that this exercise does not attempt to make a comprehensive literature review: rather, the aim is to identify some of the themes that will be of particular importance when thinking about the future. Section 3 then shows how these insights might actually be used when constructing narratives of the future. Section 4 gives conclusions.

2. Transport histories

Overview of the 19 papers, and their temporal/geographical scales

Tables 1 to 5 give the titles and authors of the 19 papers selected for consideration, along with short names and numbers that will be used when referring to them at subsequent points. Whilst all 19 papers give prominence to changes that occurred in the 1960s/70s, the papers take different approaches to periodisation, and these approaches are reflected in the distinction between the different tables. At one extreme, Tables 1 and 2 cover periods that include events both before and

after 1960s/70s, with Table 1 covering (approximately) the whole of the 20th Century and Table 2 covering the latter half of the 20th Century. On the other hand, Table 3 focuses solely upon the 1960s/70s. Intermediate between these two extremes are Tables 4 and 5 which respectively cover periods which finish and start with the 1960s/70s.

Table 1: Narratives covering the 20th Century (and beyond)

Author(s) / year	Full paper title	Short paper title
Reynarsson (1999)	“The planning of Reykjavik, Iceland: three ideological waves- a historical overview”	<i>The Planning of Reykjavik</i> [1]
Oldenziel and de la Bruhèze (2011)	“Contested Spaces: Bicycle Lanes in Urban Europe, 1900–1995”	<i>Bicycle Lanes in Urban Europe</i> [2]
Farmer and Noonan (2014)	“The Contradictions of Capital and Mass Transit: Chicago, USA”	<i>Capital and Mass Transit</i> [3]

Table 2: Narratives focussing upon the second half of the 20th Century

Author(s) / year	Paper title	Short paper title
Rooney (2014)	“The Political Economy of Congestion: Road Pricing and the Neoliberal Project, 1952–2003”	<i>Road Pricing and the Neoliberal Project</i> [4]
Schmucki (2010)	“Fashion and technological change: Tramways in Germany after 1945”	<i>Tramways in Germany</i> [5]
Mees (2014)	“A centenary review of transport planning in Canberra, Australia”	<i>Transport Planning in Canberra</i> [6]

Table 3: Narratives focussing upon 1960s/70s as a transition era

Author(s) / year	Full paper title	Short paper title
Edwards and Gilbert (2008)	“‘Piazzadilly!’: the re-imagining of Piccadilly Circus (1957–72)”	<i>Re-imagining of Piccadilly Circus</i> [7]
Edwards (2001)	“City Design: What Went Wrong at Milton Keynes?”	<i>What Went Wrong at Milton Keynes?</i> [8]
Mohl (2004)	“Stop the Road: Freeway Revolts in American Cities”	<i>Freeway Revolts in American Cities</i> [9]
Wong (2012)	“Architects and Planners in the Middle of a Road War: The Urban Design Concept Team in Baltimore, 1966–71”	<i>The Urban Design Concept Team in Baltimore</i> [10]
Ortolano (2011)	“Planning the Urban Future in 1960s Britain”	<i>Planning the Urban Future in 1960s Britain</i> [11]
Gunn (2011)	“The Buchanan Report, Environment and the Problem of Traffic in 1960s Britain”	<i>The Problem of Traffic in 1960s Britain</i> [12]

Table 4: Narratives showing the 1960s/70s as the end of an era

Author(s) / year	Full paper title	Short paper title
Flonneau (2006)	“City infrastructures and city dwellers: Accommodating the automobile in twentieth-century Paris”	<i>The Automobile in Twentieth-century Paris</i> [13]
Emanuel (2012)	“Constructing the cyclist: Ideology and representations in urban traffic planning in Stockholm, 1930–70”	<i>Constructing the Cyclist in Stockholm</i> [14]
Hanna (2015)	“Seeing like a cyclist: visibility and mobility in modern Dublin, c. 1930–1980”	<i>Visibility and Mobility in Modern Dublin</i> [15]

Table 5: Narratives showing the 1960s/70s as the start of an era

Author(s) / year	Full paper title	Short paper title
Buehler and Pucher (2011)	“Sustainable Transport in Freiburg: Lessons from Germany’s Environmental Capital”	<i>Sustainable Transport in Freiburg</i> [16]
Stone (2014)	“Continuity and Change in Urban Transport Policy: Politics, Institutions and Actors in Melbourne and Vancouver since 1970”	<i>Transport Policy in Melbourne and Vancouver</i> [17]
Richardson et al (2010)	“Changing Frames of Mobility through Radical Policy Interventions? The Stockholm Congestion Tax”	<i>The Stockholm Congestion Tax</i> [18]
Aldred (2012)	“Governing transport from welfare state to hollow state: The case of cycling in the UK”	<i>Cycling in the UK</i> [19]

It can be seen from Tables 1 to 5 that three basic approaches are taken to periodisation. Firstly there are those approaches which rely upon general historical eras that make no reference to the transport system¹ in their definition. They are defined here as *external* periodisations: examples are the histories of the 20th Century featured in Table 1. On the other hand, there are those histories which start or finish with highly precise years (i.e. not rounded to the start of a decade) related to key transport events being narrated. These are defined as *internal* periodisations: an example being *Re-imagining of Piccadilly Circus*, which covers the period 1957-1972 (Table 3). In between these two extremes are those narratives whose periodisation is based around specific decades (and thus could be considered externalist) but where the choice of decades is due to characteristics of the transport system (thus giving them also an internalist aspect).

It is clear from the tables that a wide range of periods are used in the 19 narratives. At one extreme is *The Planning of Reykjavik*, which commences with the 10th Century, whilst at the other extreme is *The Urban Design Concept Team in Baltimore* which covers the five years between 1966 and 1971. It can be noted here that none of the narratives is based around one single event, such as the narrative by Höhne (2015) concerning the opening of the New York City subway on 27th October 1904. In general, for all historical narratives, a decision (implicit or explicit) needs to be made as to the importance of particular events. The 19 papers are highly varied in this respect: those attaching greater importance to events typically put focus upon the 1973 oil crisis and elections (national and local) which resulted in significant changes in the transport system.

Apart from *Road Pricing and the Neoliberal Project*, all papers combine information about specific cities with information about developments on a higher geographical scale. However, the balance between geographical perspectives varies greatly. At one extreme are those narratives (*Cycling in the UK* and *Bicycle Lanes in Urban Europe*) that are not concerned about specific cities beyond providing one-off references to them in order to illustrate broader points. At the other extreme are those narratives, a majority of the 19, which focus upon one specific city (or two cities, as in the case of *Transport Policy in Melbourne and Vancouver*), only mentioning other geographical scales in order

¹ The transport system is understood here as being made up of three interacting elements: (1) the mobility of people and goods; (2) the means provided for such mobility (including infrastructure, technology and regulation); and (3) the process by which transport policy is made.

to provide context. In between these two extremes are three narratives that are framed at a national scale, but illustrate their points with relatively detailed ‘case studies’: *Tramways in Germany*, *Freeway Revolts in American Cities* and *The Problem of Traffic in 1960s Britain*.

Historical aspects of the 19 papers

The identification of historical themes in the 19 papers is a potentially enormous task, given that all authors have differing perspectives with respect to how conceptualise the transport system, and differing political standpoints which underpin these perspectives. It follows that the approach taken to identify themes in the present paper must be consciously simple. With this in mind, the ‘analysis’ is limited to two steps. Firstly, quotes are given (as shown in Table 6) from the 19 papers which illustrate how the 1960s/70s was an era of great importance in terms of changes in the urban transport system. By presenting the authors’ ‘own words’ (albeit in very short extracts) at least a flavour of the different approaches (and hence perspectives) of authors is provided. The second step involves identifying a small number of themes arising, many of which are illustrated in the quotes in Table 6. These themes are discussed along three dimensions: (i) transport planning, with a focus upon transport modes; (ii) political issues concerned with transport; and (iii) the economic context.

Table 6: Quotes from the 19 papers

Paper	Importance of 1960s/70s: quotes from the papers
<i>The Planning of Reykjavik</i> [1]	“In 1960 the city council of Reykjavik decided that a comprehensive plan should be developed for the city. Part of the 1960 proposal involved permission to hire foreign planning consultants [who] introduced to Icelandic professionals the newest planning ideology, the systematic planning approach, and used Reykjavik as a kind of an experimental case..... One of the main assumptions of the 1962 plan was that every household should have its own automobile. This became the case.” (p60)
<i>Bicycle Lanes in Urban Europe</i> [2]	“In the late 1960s, from Copenhagen to New York and Toronto, new grassroots organizations challenged traffic planners’ technocratic views. “Amsterdammers!” the anarchist cycling activist Provo announced in 1967, “The asphalt terror of the motorized bourgeoisie has lasted long enough.... In several cities, policymakers either matched or adopted the 1970s grass-roots initiatives.” (p40)
<i>Capital and Mass Transit</i> [3]	“The national Keynesian accumulation regime entered a phase of diminishing effectiveness in the late 1960s and had become exhausted by the mid-1970s. The rigidities that had stabilized capitalism in an earlier moment were now a drag and impediment on profit-making. By the 1980s the CTA [Chicago Transit Authority] was in a deep financial crisis. Public mass transit that, under Keynesianism, had been sustained through progressive tax policies was redefined as anti-competitive and too costly under ascendant neoliberalism.” (p71)
<i>Road Pricing and the Neoliberal Project</i> [4]	“In the 1960s, [Alan] Walters and a group of transport economists attempted to gain the ear of British transport minister Ernest Marples through a Ministry of Transport report framed in opposition to the dominant discourse of centralized planning and urban reconstruction. Their work was promoted energetically by neoliberal think-tanks..... Ultimately the idea foundered in the 1970s and 1980s on Tory-led concerns about individual freedom and taxation, and Thatcherite class politics of car ownership” (p1)
<i>Tramways in Germany</i> [5]	“Tramways remained the major means of transport until the early 1960s when their decline began. As part of a common trend in Western Europe, most German cities began to abandon their tramway systems in order to replace them with buses. In the 1980s this process slowed down, the tramway began to reappear and transport experts spoke of the ‘renaissance of the tramway’.” (p1)
<i>Transport</i>	“[T]he election of the reformist Whitlam government [in 1973] saw a reversal of

<i>Planning in Canberra</i> [6]	priorities. Canberra was to become a model for a new transport approach that gave priority to public transport, walking and cycling, ahead of the car.” (p5) “Over the last three decades, Canberra’s transport planners have abandoned the pro-transit policies of the 1970s and suppressed the research that showed the policies were workable.” (p30)
<i>Re-imagining of Piccadilly Circus</i> [7]	“As well as growing misgivings about ever-increasing flows of road traffic, the plans [for Piccadilly] and the responses to them also reveal changing conceptions of the nature of pedestrian movement in the city. Imagining the pedestrian as worker, as citizen and, increasingly, as consumer implied different routes through the city, different forms of movement and a different kind of Piccadilly.” (p459)
<i>What Went Wrong at Milton Keynes?</i> [8]	“Whereas the earlier new town corporations had built (and retained ownership of) most of their housing, by 1969 the Labour government - under pressure from the International Monetary Fund - was already calling for the involvement of private capital and the reduction of state expenditure.” (p92)
<i>Freeway Revolts in American Cities</i> [9]	“Until the mid-1960s, state and federal highway engineers had complete control over freeway route locations. In many cities, the new highways ripped through neighborhoods, parks, historic districts, and environmentally sensitive areas. Beginning in San Francisco, citizen movements sprang up to challenge the highwaymen. New federal legislation in the 1960s gradually imposed restraints on highway engineers, providing freeway fighters with grounds for legal action.” (p674)
<i>The Urban Design Concept Team in Baltimore</i> [10]	“In 1966, an interdisciplinary team led by architect and planners replanned a freeway system of Baltimore to meet “the social, economic, and esthetic needs.” But staying true to their mission, they had to side with the affected residents and clash with their client in the court of public opinions, through behind-the-scenes lobbying, and with sober debates about technical details. They fought the road war on behalf of fragmented freeway opposition groups and bought them valuable time to join together.” (p179)
<i>Planning the Urban Future in 1960s Britain</i> [11]	“North Bucks New City represents one iteration of the larger phenomenon of imagining the urban future during the 1960s.” (p480) “The city’s boldest innovation... was its system of transport... transport inside the city would be handled by a quiet, automated, high-speed monorail. The monorail would be paid for out of local rates, and thus free at the point of service, and no home would be more than seven minutes from a station.” (p478)
<i>The Problem of Traffic in 1960s Britain</i> [12]	“As the examples of Leeds and Leicester suggest, attitudes to the car had begun to shift by the late 1960s.... Confirmation that 1973 was indeed to be a turning point in the history of the car-owning society came with the oil crisis when crude oil prices, which had remained broadly stable since 1950, rose four-fold between November and December of that year.” (p541)
<i>The Automobile in Twentieth-century Paris</i> [13]	“The consensus between technocrats, property developers, elected officials and voters [concerning the need for road building] lasted only until the mid-1960s...For many, the numerous holes in the ground across Paris were transforming the capital into a gigantic black hole of cars. Little by little, the Administration was persuaded to review, modify or even abandon a good number of its projects. The mobilisation of protest took several different forms, as diverse as the locations.” (p106)
<i>Constructing the Cyclist in Stockholm</i> [14]	“In the 1962 and 1967 plans for the new central business area most traffic space was dedicated for car traffic (while pedestrians were compensated by car-free spaces). This became visible in the planning and building of widened streets, surface and underground motor traffic routes and multi-storey car parks.... In the late 1960s, these technocratic plans and practices became the subject of intense criticism to such an extent that most plans were reworked and scaled down during the 1970s.” (p78)
<i>Visibility and Mobility in Modern Dublin</i> [15]	“The contingency of the urban values which led to the decline of cycling is revealed by how quickly they shifted in the period after the oil shock of 1975, when, due to changing conceptions of the ideal urban environment, the planner’s inability to see the cyclist became increasingly apparent.” (p287)
<i>Sustainable Transport in</i>	“Freiburg’s second auto oriented land-use plan of the 1960s was never approved by the city council and got shelved in the early 1970s after long controversial discussions

<i>Freiburg</i> [16]	between the public, council members, and the administration... By then, public opinion had shifted away from supporting automobile centered growth—due to various environmental and social problems caused by the car and the oil crisis of 1973.” (p53)
<i>Transport Policy in Melbourne and Vancouver</i> [17]	“The urban regions of Vancouver and Melbourne provide interesting examples of relative success and failure in progress towards the broad goals encompassed by the idea of sustainable transport. From 1970, urban planning and transport policy and practice in the two urban regions have followed very different trajectories.” (p388)
<i>The Stockholm Congestion Tax</i> [18]	“The late 1960s and early 1970s were years of growing criticism against increasing car use and related schemes for investments in road infrastructure in Stockholm. In the late 1970s, the political parties in Stockholm agreed to reduce car use in the inner city by 20%... The Left Party, the Centre Party and the Stockholm Party wanted to go even further, and argued for a 50% reduction” (p57)
<i>Cycling in the UK</i> [19]	“While cycling was virtually invisible within UK policy-making, the 60s and 70s here as elsewhere saw campaigners raising it within an environmental transport frame.... Themes raised then continue to resonate in transport debates: not least because ‘environmental transport’ advocacy formed part of a rising dissatisfaction with the welfare state consensus.” (p97)

Firstly, for many cities, the 1960s/70s represented the peak of high modernist city planning, frequently supported by the use of new computerised modelling techniques recently developed (primarily) in the USA. Such planning was typically accompanied in the transport sector by a very strong emphasis upon building car-oriented infrastructure, leading directly to ever-increasing use of cars. A common theme described in the 19 papers is the subsequent decline in this period of the visionary aspects of this approach. However, the impacts of this decline upon car dominance were highly varied. Some narratives describe a long-term trend-break, where car traffic was reduced or (more generally) the increase in car traffic was slowed down: Reykjavik [1], Paris [13], Freiburg [16], Vancouver [17] and Stockholm [18]. Other narratives cover cities in which, whilst car-predominant planning was challenged in the 1960s/70s, it made a subsequent strong recovery, such as in Canberra [6] and Melbourne [17]. With respect to public transport, some examples of high modernist planning included an emphasis upon ‘heavier’ forms of public transport such as underground systems (Munich [5], Stockholm [14]) and the parallel devalorisation of lighter forms of public transport such as trams (Munich [5]). The contrast is provided between two alternative ‘new town/city’ projects from the 1960s for the county of Buckinghamshire (north of London): (the unbuilt) North Bucks New City ([11]), which was based around a monorail system, and Milton Keynes ([8]), which was (and continues to be) based around roads and cars. In general, high modernist city planning excluded cyclists, making them ‘invisible’ (European cities [2], Stockholm [14], Dublin [15], UK [19]). *Bicycle Lanes in Urban Europe* provides a graph of bicycle mode shares in 11 European cities between 1920 and 1990, which shows very sharp declines in the 1960s, typically reaching minimum points around 1970, followed by mild increases. The consideration of pedestrians in such planning was complex. On the one hand, unlike cyclists, they were not made invisible, whilst on the other hand they were often ‘penned into’ particular areas (London [7], Milton Keynes [8], Stockholm [14]).

Accompanying these transport planning themes, a number of political themes can be identified in the 19 papers. Perhaps the most striking of these is the breakdown in the consensus about the desirability of ever-increasing road-building. Two aspects of this breakdown can be highlighted. Firstly there was the widespread phenomenon of anti-road protests in the late 1960s and early 1970s (Various cities worldwide [2], US cities [9], Baltimore [10], Britain [12], Paris [13], Freiburg

[16]). The role of particular actors in the context of such protests was complex. This is portrayed fully in *The Urban Design Concept Team in Baltimore*, which describes the roles of urban planners and architects as intermediaries in the conflict between road engineers and community activists. Secondly, the influence was felt of 'new left' inspired political parties (in control either at national or local level). For example, *Transport Planning in Canberra* deals extensively with the interventions of the Gough Whitlam national government (elected in 1973) which had some success in changing the transport planning regime in Canberra from monomodal (car-based) to multimodal, which led directly to increases in public transport mode share. In general, the overall picture is that cities reacted to this breakdown in consensus in a variety of ways, thus initiating trajectories that have continued to the present day. Although, typically, these trajectories are complex and highly location-specific, three contrasting meta-trajectories can be identified. Firstly, there are cities such as Freiburg ([16]) and Vancouver ([17]) in which a new political consensus formed in the 1960s/70s which was (and continues to be) supportive of 'sustainable transport', and which involved broad agreement as to how sustainable transport might be achieved. Secondly, there are those locations which reached consensus on the rhetoric of 'sustainable transport', but without agreeing on what was meant by the term (Stockholm [18], UK [19]). Finally, there are cities in which no consensus formed about sustainable transport, with transport remaining a highly contested area to the present day (Canberra [6], Melbourne ([17])).

All these transport planning and political movements can be seen in the context of the deep economic changes in western societies that have taken place over the past 70 years. Of particular importance in the current paper, given its significance for futures thinking, is the onset of neoliberalism. Given that neoliberalism was not fully implemented in the western democracies until the 1980s/90s (after its first full-scale experiment in the Chilean Pinochet dictatorship of the 1970s: see Figueroa, 2013), it is not surprising that it does not generally feature as a key aspect of the 1960s and 1970s in the 19 papers being considered. However, neoliberalism did not 'appear ready-armed out of nowhere', and the 1960s/70s was an important transition era that foreshadowed its later widescale implementation. This is most clearly brought out in *Capital and Mass Transit* and *Road Pricing and the Neoliberal Project*. The former paper describes the impacts on mass transit in Chicago of the breakdown of the Keynesianism economic regime in the 1970s which led to the later imposition of neoliberalism. The latter paper describes the debates in the 1960s/70s involving neoliberal economists, who advocated road pricing as a fundamental transport policy measure.² *Cycling in the UK* also tackles the issue of neoliberalism, contrasting the "welfare state" of the 1960s/70s with the subsequent "hollow [neoliberal] state" in terms of national UK cycling policies. The simple conclusion of the paper is that both were highly problematic for cyclists. Finally, indications of 'early neoliberal thinking' can be seen in some of the narratives. For example, *What Went Wrong at Milton Keynes?* describes how initial plans for Milton Keynes to have a range of densities, including high densities which would have been supportive on non-car modes, were undermined by the insistence of the International Monetary Fund, in 1969, on the involvement of private capital in housing development. Private developers "resisted calls to build at a range of local densities, citing their judgements of marketability. Most of the private housing estates were thus built at very homogeneous suburban densities." (p92).

² The paper also describes how, for political reasons, road pricing was not subsequently adopted as widely as neoliberal economists would have chosen once the neoliberal regime was fully in force. Instead, it tended to morph into a more social democratic 'congestion charging'.

3. Transport futures

How might narratives of future transport be constructed?

With respect to the periodisation used in narratives of the future, it is worthwhile returning to two of the comments made at the start of Section 1. Firstly, it was pointed out that the vast majority of (currently existing) narratives of future transport are based upon extrapolations of current circumstances/trends. Such narratives do not have ‘surprises’, i.e. they are event-free, and typically describe a future that is as ‘close as possible’ to the present, whilst being consistent with externally-provided predictions of economic and population growth etc. Their main use is as tools in processes such as economic assessment, and the periodisation of such narratives is mainly determined by the technical requirements of the assessment, i.e. the number of years over which costs and benefits need to be estimated. Secondly, it was pointed out in Section 1 that the vast majority of exercises in thinking about transport futures that break with this trend-extrapolation approach concentrate only about images of a future year, without providing (detailed) ‘thick’ narratives as to how these images are reached.³ The question thus arises as to how such thick narratives might be constructed.

With respect to periodisation, Tables 1 to 5 suggest a wide range of options. Arguably the main distinction between such periodisations concerns whether they are *internalist* or *externalist*. Given that internalist definitions are based upon transport system events (understood in a broad sense as including sudden changes in government transport policy or events comparable to the 1973 oil crisis), externalist periodisations might be seen as being ‘safe’, i.e. they are not overly-dependent upon speculation about the occurrence of specific events. The choice about periodisations is almost certainly dependent upon the type of audience for whom the narrative is being constructed. For a certain type of audience, for example current policy-makers, a safe approach might indeed be sensible, given that speculation might seem threatening. However, for other audiences, it is worthwhile considering this type of speculation. For example, in participatory planning exercises, the collective speculation about future transport system events might make futures thinking more ‘accessible’ for the participants, in comparison to the potentially drier exercise of strategy formulation.

With respect to geographical scale, we would suggest that the decision as to whether to concentrate upon specific cities or upon urban areas more generally also depends the type of audience foreseen for the narrative. For national decision-makers, including national NGOs promoting different approaches to transport, a national scale seems to be appropriate, though perhaps supplemented by one or more city case studies. For local decision-makers, including those involved in public participation, city-specific narratives seem preferable.

³ Where ‘pathways’ to the future are indicated in these exercises, they are generally limited to the specification of particular transport policy measures that need to be implemented at some point, without entering into the complexities concerning policy implementation when policies are contested (we return to this point below).

What can be learnt from the past when thinking of the future?

The thoughts now presented about transport futures will take into account the three dimensions set out in Section 2: transport planning, with a focus upon transport modes; political issues concerned with transport; and the economic context. It will concentrate upon futures thinking that breaks with the traditional extrapolative approach described above. Arguably, most current transport narratives of the future that make this break (such as those of the backcasting type mentioned in Section 1) concentrate heavily upon environmental sustainability, and in particular upon averting climate change. Apart from those futures involving technological fixes such as electric cars (Driscoll et al, 2012), heavy emphasis is typically put upon mode change or reduced travel, with a reduction in cars in favour of public transport and 'active modes' (i.e. walking and cycling). Whilst a variety of transport policies are suggested that would lead to such mode change, there is relatively little description of the political contexts that might hinder and facilitate the implementation of such policies beyond rather bland characterisations of future scenarios such as 'the population accepts the need for sustainable transport'. The evidence from the 19 histories in this paper shows that sustainable transport issues are always contested by differing social groups, even if in some (limited) periods consensus emerges. The 19 histories give descriptions of the complex power relationships involved with urban transport, and these descriptions can be used to help inspire the construction of more sophisticated narratives of the future than are currently available (in academic journal papers etc).

In the background to all these considerations about transport and politics lies the issue of economic regime. Without succumbing to economic determinism, i.e. assuming that all social and political issues are determined solely by economic regime, the evidence of the 19 papers shows that changes in economic regime played a key role in the evolution of urban transport systems in the 1960s/70s and beyond. As described in *Capital and Mass Transit*, the 1970s was a transition period in which, on the one hand, the old Keynesian economic regime broke down whilst, on the other hand, it had not yet been fully replaced by the subsequent neoliberal regime. Arguably such transition periods are much more contingent than the more stable periods that precede and follow them. Section 2 demonstrates this phenomenon with respect to urban transport in the 1960s/70s, when a wide variety of different paths were initiated in different cities resulting from the local combination of various factors: once these paths were established they were generally pursued without too much interruption up to the present day. Two questions immediately arise with respect to narratives of the future: (1) what will happen to urban transport during the next transition period, when the current neoliberal economic regime gives way to a new economic regime?⁴; and (2) what are the implications for urban transport of (differing) potential new economic regimes? Probably all that can be said with certainty is that these questions are highly concerned with contingency, and are thus highly suitable to be framed in terms of alternative narratives of the future. On the other hand, any consideration of 'what happens after neoliberalism' must be greatly aided by questioning the nature of neoliberalism and, in particular, examining its impact on urban transport. Whilst (current) narratives of future transport are noticeably reticent on these questions (it almost seems to be a taboo subject), there is an ever-increasing literature on the present (and near past) relationship

⁴ Some might argue that the current neoliberal regime is 'here to stay for eternity' so that the idea of a future transition state away from neoliberalism is nonsensical. This is an example of utopian thinking, which is discussed fully in Timms et al (2014).

between transport and neoliberalism. Academic journal papers published since 2010 which explore a large number of different aspects of this relationship include: Deboulet (2010), Obeng-Odoom (2010), Rizzo (2011 and 2013), Sager (2011), Siemiatycki (2011), Norcliffe (2011), Henderson (2011), Freestone and Baker (2011), Farmer (2011 and 2014), Aldred (2012), Chronopoulos (2012), Haughton and McManus (2012), Wolff (2012), Kirouac-Fram (2012), Bassett and Marpillero-Colomina (2013), Addie (2013), Yazıcı (2013), Enright (2013 and 2014), Rooney (2014), Walks (2014), Sagaris (2014), Gössling and Cohen (2014), Meegan et al (2014), Hall and Jonas (2014), Farmer and Noonan (2014), Stehlin (2014 and 2015), Strauch et al (2015), Jupe and Funnell (2015), Dowling and Kent (2015) and Bon (2015). A vast number of insights can be taken from this body of research for helping to think through future urban transport in the context of declining neoliberalism.

4. Summary and conclusions

This paper opened with comments about the lack of thick description in currently-available narratives of future urban transport, and it was suggested that attempts to write such descriptions could be greatly helped by examining narratives of past urban transport. It is hoped that the subsequent sections of the paper have at least demonstrated that such a line of research is worthwhile pursuing. Whilst such a conclusion might at first sight seem uncontroversial, it is remarkable how little attention is given to transport history in 'mainstream' transport studies. Although the situation appears to be changing (as can be seen in some of the papers cited above), historical narratives have traditionally been confined to those journals specifically concerned with history (such as the *Journal of Transport History*) and excluded from the wide range of other transport journals. If such a line of research is seen as being useful, various questions arise as to the precise ways that such historical narratives might be used for constructing narratives of the future. As mentioned at the start, it is useful to distinguish between the historiographical and historical aspects of such narratives. With respect to the former, the paper has had a brief look at aspects such as periodisation and issues of geographical scale. Given that the overall recommendation is that different approaches are appropriate in different circumstances, the conclusions from this exercise are (also) hardly controversial: rather, they just emphasise that explicit attention should be given to the issues that have been raised.

On the other hand, the use of the (factual) content of past narratives for thinking about the future is likely to be far more contested. In the case of the current paper, the underlying hypothesis is that the 1960s/70s was a time of great transition, both in transport and in the wider economy, and that this period was followed, in the countries covered by the 19 papers, by a period of relative stability with respect to the transport system. Whilst the first part of this statement is probably not controversial, the second part is liable to be contested. However, to back up our argument, we would cite the following 'constant themes' associated with the transport system since the 1980s: the continuing privatisation of public transport; the 'weak' input of the state to promoting walking and cycling (in distinction to the strong input of the state to continuing road-building); and the 'individualisation' of sustainable transport, whereby problems of sustainability are blamed on individual car users as opposed to the system that implicitly encourages car use. If this overall perspective is accepted and it is agreed that particular economic regimes do not 'last for eternity', it follows that there will be a further transition period at some point of the future in which current

trajectories are liable to be altered: such a period can be termed 'the end of neoliberalism'. Since the nature of transition periods is that they are highly contingent, we would argue that there is little point in attempting to make a single 'accurate' advance prediction as to what will emerge from such a transition period: rather, we suggest that it is more useful to identify a range of possible alternative trajectories. Furthermore, we would claim that consulting the experience of the 'most recent' transition period, i.e. the 1960s/70s, is helpful for thinking about these alternative trajectories.

Clearly, the scope of the paper has been limited to a highly specific (though dispersed) world region. Any conclusions drawn with respect to other world regions would need to be treated with great care. In highly superficial terms, 1960s/70s was a period of: military dictatorships in Latin America; the Cultural Revolution in China; post-colonial independence in Africa; and the start of the wind-down of the Soviet Union and the Eastern European 'socialist' regimes. However, it should be pointed out that an increasing amount of academic literature covers the changes in the transport system in the 60s/70s in these regions, particularly with respect to Latin America and Eastern Europe. A parallel exercise to the one that we have described in this paper could thus be carried out for these regions.

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