World Transport Policy and Practice
Volume 19.3
June 2013

1956

2013

ECO-LOGICA LA1 LTD ISSN 1352-7614

PROFESSOR JOHN WHITELEGG
STOCKHOLM ENVIRONMENT INSTITUTE AT YORK,
UNIVERSITY OF YORK,
YORK,
YO10 SYW, U.K

PUBLISHER
ECO-LOGICA LA1 LTD., 53 DERWENT ROAD,
LANCASTER,LA1 3ES, U.K.
TELEPHONE +44 (0)1524 63175
E-MAIL: johnwhitelegg@phonecoop.coop
HTTP://WWW.ECO-LOGICA.CO.UK

CONTENTS

Contents 2

Editorial 3

Abstracts and Keywords 7

MORE ROADS, LESS TAX: UK transport policy in a debt crisis
Alan James 8

Taking US transportation professionals to European cycling cities: does it matter?
Cortney Mild, Marc Schlossberg 14

City Cycling, edited by John Pucher and Ralph Buehler
Reviewed by *Dave Horton* 28

Lucius Burckhardt Writings. Re-thinking man-made environments. Politics, Landscape and Design, edited by Jesko Fezer and Martin Schmitz
Reviewed by *John Whitelegg* 32

The time has now arrived for some serious plain talking and no holds-barred reflection on our societal obsession with speed, distance, mobility and all its negative and perverse consequences for quality of life, social justice, fiscal prudence and the environment. The "perfect storm" coincidence of a massive fiscal crisis, failure to produce carbon reductions large enough to deal with climate change, 3000 dead citizens each day as a result of contact with vehicles and a dawning of realisation that public health absolutely depends on sorting out transport all point in one direction. The direction is clear and the pointing has been clear in almost every one of the 300 articles published so far in this journal.

What is not clear is the choice that must now be made between two alternative futures. There are, of course, many alternative futures but for simplicity we can chart two very different worlds and start asking which one we prefer.

Historically we have demonstrated that after a period of hesitation and doubt we can make very clear choices on very big issues. Interestingly when we have made the choice we realise that in retrospect it wasn't difficult and it was glaringly obvious which way we should go. We do not really understand why we put up with status quo which was so bad for so long before waking up to that reality and showing a burst of intelligence and humanity. We chose to abolish slavery in the late 18th and early 19th century and have forgotten how strong and persuasive was the argument against abolition. We chose to provide all the residents of all our fast growing 19th century industrial cities (e.g. Liverpool and Manchester) with clean, safe drinking water and pipes to take away sewage. We have now forgotten that the argument was not straightforward and the cost of carrying out such a major restructuring of urban life was staggeringly high and was opposed but we did it. We stopped sending small children down coal mines and into textile factories knowing that this would damage economic growth and national prosperity but we did it.

Now we have to rediscover this ability to think, reflect, decide and act and we need a similar approach to mobility. First some background

What is mobility?

We live in a highly mobile world. The planet has shrunk as the speed of physical travel and electronic communication has increased dramatically in the past 2-3 decades. Mobility has a large number of positive connotations. It triggers images of endless opportunities, freedom, rich experiences, shopping in New York, holidaying in the Seychelles, commuting to work in northern Europe from an idyllic country residence in Mediterranean France, Spain or Italy. To the geographer this means that traditional constraints associated with space and time are a thing of the past. To the politician this means that large amounts of public spending on high speed rail, high speed roads and new airports guarantee political success, association with modernity economic growth and progress.

Our high speed, high mobility society is assumed by most to be a really good thing and any debate about going slower, being less mobile or spending more time in one place is seen as very odd indeed and better avoided. One can lose friends and be disinvited from prestigious international transport conferences or government commissions for expressing such views. Questions around the possibility that spending more time in one place to soak up history, culture, food, language and landscape are rarely asked and if asked are rapidly dismissed. We have become accustomed to reducing travel time, spending less time in one place and maximising the number of places we can experience in any unit of time. We have all co-operated in an elaborate time–space restructuring that has the effect of maximising the number of places we visit, minimising the time it takes to get from one place to another, ignoring the joys that go with a deep understanding of place and landscape, ignoring the experiences to be had on journeys that take time and celebrating our successes as a very modern species able to boast about all the places we have visited.

Our highly mobile world has been purchased at a very high cost. The destruction of place, landscape and nature by high speed transport infrastructure is a common experience whether this is an airport expansion trashing a forest (Frankfurt) or a new motorway going through valuable, undisturbed landscape in Poland or high speed rail in Britain destroying miles of beautiful countryside and woodland. These costs are simply airbrushed out of the picture rather like a discredited Soviet politburo member on a 1950s photograph. We do not talk about these things in polite society. Mobility is very expensive in terms of materials, energy use and space but all these things are regarded as items of everyday consumption with little thought for limits or "one planet" thinking.

The planet reached its 1 billion car total in 2010 and is expected to reach 2.5 billion by 2050. Daniel Sperling (UC Davis, Institute of Transportation, California) estimates that a vehicle population of 2 billion would require the world to produce at least 120 million barrels of oil per day, up from about 87 million today.

Given that cars are regarded as so liberating and essential for a happy life it is reasonable to assume that national and international policies promoting economic growth, modernization, and the elimination of poverty will also produce a population of 6 billion cars for 6 billion people. If this is not the case then the newly appointed world controller has to tell us all who can have a car and who cannot have a car. If these 6 billion cars drive around at the same annual total of kms as US drivers or UK drivers or Swedes we will certainly need several thousand kilometres of new roads that will have to be 12-20 lanes wide on major global corridors e.g. Beijing-Shanghai and Delhi-Mumbai. Given our well established fetish for high speed experiences and our dismissal of landscape and nature in building infrastructure to support this brave new world we will also need many more square kms of land for new roads, high speed rail and new airports. This in turn will require much increased supplies of energy, more air and noise pollution and enough extra CO2 to destroy any chance of meeting climate change reduction targets.

The land take for new high speed infrastructure also means much less land for growing food which might produce another interesting problem as the planet's high speed, highly mobile population find it difficult to find enough to eat.

None of this debate has made even a slight dent on high speed, highly mobile fetishism. We are in love with mobility and that is enough to drive the system forward to the point where it collapses.

What would a different world look like? What could we expect from reduced mobility?

We can start with Kolkata (formerly Calcutta), the main city in West Bengal in India. Kolkata has a population of 14 million, a wide range of transportation vehicles that include ferries on the River Ganges, a dense railway network, a tram and underground system, cycle rickshaws, hand-pulled rickshaws and large amounts of walking. The city is being torn apart by road building especially flyovers to serve the needs of the new Indian middle classes and politicians seeking to serve that constituency. The volume of traffic makes walking and cycling difficult and for many impossible and crossing a road is a very risky undertaking. Kolkata is an amazingly beautiful, vibrant city that is slowly dying because of traffic and the impact of traffic on ordinary everyday life on millions of residents. A reduction in mobility which means a reduction in car based trips will bring the city to life. Air pollution, currently at serious health damaging levels, will be eliminated. Noise pollution will be eliminated. Road space can be reallocated to child friendly and older person friendly uses. Traffic choked streets can be replaced by tree-lined, shady boulevards with fully segregated and 100% safe walking and cycling. Quality of life, currently at a very low level, would be improved dramatically for the 90%of the population that are low income, walk and cycle and live in densely populated urban communities within a few hundred metres of everything they need (schools, shops, doctors, work places). Mobility has nothing to offer to these people except death, risk, danger and grime. Let us be even clearer about the details of a reduction in mobility in

Kolkata. It means an end to road building, it means the designation of significant residential areas and streets as car-free, it means the construction of world best walking and cycling facilities, it means the promotion of cycle rickshaws with attention to the health of rickshaw drivers. It means a complete make-over/new investment in the 19th century tram system, it means a massive tree planting project (one per resident would be a good start) and it means the end of death and injury on an industrial scale currently caused by vehicles and deaths and hospitalization from air pollution on an even larger scale.

Turning to Europe what would a reduced mobility world look like? It would be a place where children could once again be free range rather than battery reared. In my childhood in the 1950s there were very few cars and we roamed for miles around an industrial city in the north of England (Oldham). We were independent, adventurous, full of enthusiasm and energy and happy. Childhood obesity was rare. We would head off to the slopes of the Pennines, visit river valleys, spend a whole day in the park, play in abandoned derelict buildings, trespass on industrial property and build rafts to "sail" on the mill lodge (a small lake next to a cotton mill and primarily for fire fighting purposes). We would build carts with recycled pram wheels and use them in our car-free streets. This is not a rose tinted, nostalgic look back. It is a vision of a world where children can play safely, form solid friendships, negotiate and achieve consensus, solve problems and manage their own space-time routine and grow in confidence to deal with whatever difficulties life might bring. This is not possible in 2013. Parents worry about road traffic danger and also worry about "stranger-danger" (will my child be murdered, raped, kidnapped or mugged?). We can eliminate the former but not the latter but stranger danger recedes if communities are more active, streets are populated by people rather than cars, parks and small urban spaces are well used by all age groups and the number of people of all ages and both genders provides reassurance and herd protection.

A reduced mobility world would benefit older people. The street that used to be full of badly behaved traffic is now relatively traffic free, it is easy to cross roads and this improved environmental quality encourages sociability, conversation and walking trips to local facilities. This helps older people to be physically active for longer and avoid the health problems associated with social isolation and sitting alone in a living room with a television for company.

There are wider social and economic benefits associated with reduced mobility. If we can bring about a 50% reduction in the numbers of cars and a 75% reduction in the kilometres that the remaining 50% are driven, our cities will take on a different shape. The evolutionary trend of the last 50 years towards reduction in the number of schools, shops, workplaces etc and their concentration at fewer locations that trigger longer distance journeys will be thrown into reverse. Like Kolkata we can expect richly textured neighbourhoods to come into existence with new arrangements of health care, education and shopping facilities all closer to where we live and all creating a much more exciting space and vibrant community than is currently the case. The age of the out of town shopping centre and the very large hospital with thousands of car parking spaces will be over and we will rediscover the joys of local facilities supporting local neighbourhoods where most of the moving around is walk, cycle and public transport based. New technology also has a role to play. In Britain we closed hundreds of hospitals in the late 20th century on the logic that we need to centralize and specialize to give better care. The advent of very sophisticated ICT systems including video linkage can now support health care at many locations rather than few.

The future can be summed up as a move from "few" to "many" (hospitals, schools etc), a reduction in distances travelled and a switch from high energy/high carbon modes transport to low or zero carbon alternatives. Importantly and contrary to the assumptions of those who promote mobility, citizens living in this altered world will have many more opportunities to do things, meet people and be active and at a lower cost than the current system allows. Also the high cost to the pub-

lic purse of supporting mobility, currently a 240 billion Euro subsidy from public funds every year in the EU, will be substantially reduced and will ease the fiscal difficulties of all EU member states

There is a parallel logic with high speed rail and aviation. Do we really need to rush around our national territories by these very expensive, high speed means of transport? If we pulled back what would the world look like? If we travel less to Berlin, London and Paris then we can expect to see more activity in regional cities. The degree of capital city economic, cultural and administrative concentration in London and Paris brings a high cost in terms of housing, travel bills, congestion, air pollution and infrastructure. There are very sound fiscal reasons and financial savings for having a much reduced level of concentration in London and having more activities (offices, government departments, theaters, opera, research establishments etc) in Liverpool, Manchester, Newcastle, Leeds and Glasgow. It is also possible to harness ICT systems. Many of our physical trips can be substituted for by video-conferencing and other e-mobile solutions which reduce the need for expensive upgrades in high speed rail or new airport expansion and at the same time gives us more time with friends and family and more time in our communities to build community cohesion.

We now have a choice to make between two very different worlds.

World 1 is characterised by less mobility but with many more things within reach within a given time window. It is cheaper, more gregarious, healthier, more convivial, kinder to children and older people, cleaner safer and deepens links with neighbours, nature and landscape. It supports local economies and retains far more of the benefits of financial transactions in the local economy than the current system is capable of.

World 2 is characterised by the current fetish around high speed transport, new infrastructure, noise, air pollution, fear of traffic, tens of thousands of deaths and serious injuries on our roads every year, obesity, respiratory disease, children not allowed to grow in independence and confidence (battery reared), expensive, unaffordable and unfair.

Which shall we choose? Please let us know.

In this issue of WTPP we continue the signposting, the clarification of direction and celebrate the wealth of good ideas all routinely ignored by those we trust with governance and decision taking.

Alan James very neatly sums up the wild inconsistencies between the rhetoric and reality of austerity /fiscal restraint and what actually happens in transport spending. Transport spending is based on thoughtless and reckless principles and decision-taking and pursued at the same time as we are lectured about the need to "tighten our belts" and reduce spending on care for the elderly, public transport and public realm.

The book review by Dave Horton returns us to one of our main themes which is the contrast between the vital over-riding importance of cycling and the inability of decision takers to take this on board with wide and deep structural change to promote cycling.

The Whitelegg review of the writings of Lucius Burckhardt picks up on wider failures in planning and decision making and the damage done by large scale motorisation. Burckhardt's description of the problems around cycling…"but cyclists are dirt as far as traffic engineers are concerned" has far reaching significance in understanding the scale of the task that has to be carried out to move towards World 1.

The article by Cortney Mild and Marc Schlossberg describes a very important practical issue around social and cultural change. How do we motivate and inform cycling professionals in the USA to upgrade to cycling standards in best practice European cities? This is part of a bigger question around the dissemination of innovation and we will return to this in future issues

John Whitelegg
Editor

MORE ROADS, LESS TAX: UK transport policy in a debt crisis

Alan James

Abstract:
The UK government has an overarching priority to reduce the government deficit, but has failed to do so for the past two years and the deficit is forecast to flatline for the coming years. The government has shied away from tax rises but slashed revenue spending, at considerable hardship to many people: but instead of using the savings to reduce the deficit they are being diverted into other areas of expenditure, in particular infrastructure because this is supposedly better for economic growth. In transport, the government has since December 2102 scrapped two planned rises in fuel duty and announced several major road building projects or programmes. This paper examines the logic of these actions, both as transport policy per se and in relation to the ostensibly primary objective of deficit reduction. It concludes that investment in pointless but expensive new roads, such as the recently approved Heysham-M6 Link, and measures to make motoring cheaper, are contrary to the purported thrust of UK transport and climate change policy, and make even less sense in the context of deficit reduction.

Keywords: transport spending, infrastructure, fiscal restraint, deficit reduction, austerity, fuel duty, road building

Taking US transportation professionals to European cycling cities: does it matter?

Cortney Mild, Marc Schlossberg

Abstract:
The Bikes Belong Foundation and the Federal Highway Administration have sponsored a series of study tours for U.S. transportation professionals to European cities with more robust infrastructure and higher modal splits for cycling. Via this hands-on approach, professionals experience how bicycle transportation functions within integrated, multi-modal, balanced transportation systems. The ultimate goal of these programs is to give policymakers and transportation professionals opportunities to learn lessons they can apply in the US to encourage greater use of the bicycle for transportation. This research assesses the impact of those study tours as well as providing recommendations for future study tours.

Keywords: bicycle transportation, United States, Europe, study tour, bicycle policy

MORE ROADS, LESS TAX: UK transport policy in a debt crisis

Alan James

The UK Government's top stated priority since coming to office in 2010 has been to reduce the deficit in annual government spending, with an ultimate goal to reduce total government debt. The annual deficit was £170 billion in 2010, has been flatlining at £120 billion since 2011/12, and is forecast to carry on flatlining for at least the next two years[1], beyond which it is anybody's guess. Any hope of eliminating the deficit by the end of this parliament in 2015 (see also Note 1), and thereby beginning to reduce the £1.2 trillion national debt, appears to have long vanished.

As long as the annual deficit is still a positive figure, even if that figure is reducing, the total debt carries on rising and the cost of servicing the debt carries on rising as well. It currently costs the government £50 billion a year in interest payments to whoever is lending the government the money. In 2003 the cost of servicing the national debt was 2% of GDP, but by 2017 that will have risen to 3.5%[2]. Deputy Prime Minister Nick Clegg fought the 2010 election, as leader of the Liberal Democrats, on a platform that the debt was costing £120 million a day in interest charges and he would prefer government money to be spent on more useful things.

The government's logic is that if not enough is done to tackle the deficit, and ultimately the debt, the UK's economic credibility, not to mention its credit rating, will come under threat, which could in turn lead to higher interest rates on government debt and still higher repayment charges: a classic vicious circle of decline (see also footnote 2). The UK credit rating has recently been reduced from AAA to AA+ by two of the three major ratings agencies, so the thing that was paramount to avoid is already happening.

On 19 March, the government announced approval of the Heysham-M6 Link Road, at a cost of £123 million, part of a £1.5 billion investment in new local authority road schemes in England. In the budget the following day, the Chancellor of the Exchequer George Osborne announced that a planned increase in fuel duty of 3p/ litre was being scrapped, to help the plight of hard-pressed motorists, at an estimated loss to Treasury revenues of £1.5 billion. That week was nothing new: in one week in December 2012 the government announced a £1 billion investment programme for national highway infrastructure[3], and the scrapping of another 3p/ litre fuel duty increase[4].

These decisions represent £5.5 billion of deficit reduction foregone in the space of three months: two lots of £1.5 billion revenue per annum lost to the Treasury in not implementing the fuel duty increases, and £2.5 billion investment in roads, albeit not in a single year. Set against the annual deficit of £120 billion, which stubbornly refuses to go down, this is not an insignificant amount, and neither is the £200 million per annum cost of servicing £5.5 billion of debt: yet the projects are waved through, the lost revenues cheerfully accepted, and the government wrings its hands because deficit reduction is proving so elusive. There appears to be little questioning of whether or why the purported benefits of major road investment and cheaper fuel should take precedence over the supposedly overarching objective of deficit reduction.

This short paper can do little more than scratch the surface of an undoubtedly complex subject: but it does not take too much scratching to uncover serious doubts about the validity of the current UK government's transport policy in the context of a deficit reduction strategy, quite apart from its shortcomings as a transport policy in an age where transport demand management and combating climate change are supposed to be to the fore.

Deficit Reduction

If I were seriously in debt and wanted to get out of a pernicious spiral of indebtedness and money down the drain servicing the debt, I would seek both to maximise or at least maintain my income and reduce my expenditure, perhaps cutting out luxuries or generally cutting down my levels of everyday spending. The last thing I would contemplate in such a situation would be

to turn down income opportunities and spend £10,000 on a new kitchen: the new kitchen would have to wait until I had my finances back on an even keel. Still less would I scrimp on my weekly grocery bill to save say £50 a week in the cause of debt reduction, only to spend it instead on a new kitchen.

Yet this is exactly what the UK government is doing. The priority is to reduce the deficit, but we still want some nice new roads/ kitchen units. The 2013 budget saw a reduction of £2.5 billion in government department expenditure through 'efficiency savings', to transfer to 'infrastructure projects': not to contribute to deficit reduction. The priority is to reduce the deficit, but unfortunately we have to help the hard-pressed motorist so we shall deny ourselves £3 billion of increased income: at the same time, we shall cut funding support to buses, and thereby to the hard-pressed bus user, by 20%[5] resulting in a comparatively trivial cut of £43.5 million (2011-12) which decimated bus services in particular across rural England.

As transport policy, in a context of seeking to reduce CO2 emissions from transport by 14%[6], this is madness. In the additional context of deficit reduction it is totally incomprehensible.

Ah, yes, I hear the government sirens say: but when you as a person decide whether or not to order a new kitchen you do not have to consider the well-being of kitchen installation companies. In contrast, the government has to consider its role in the stimulation of economic activity, and balance deficit reduction objectives against promoting growth and avoiding recession. This is roughly where we are now. The coalition government argues that government expenditure should be directed to infrastructure projects, because that is where you get some (literally) concrete bang for your buck: and the political opposition demands even more infrastructure expenditure to boost the economy. There are however several reasons to question whether at a time of huge national debt the government should spend money it does not have in order to promote economic growth, and why infrastructure spending is better than revenue spending:

- As JK Galbraith famously said, the only function of economic forecasting is to make astrology look respectable. Economists got the developed world into its current mess, and appear incapable of getting us out of it. Economic theories nowadays appear to be as likely to lead to unintended consequences as to intended outcomes, so there is little reason to be confident that infrastructure spending during a debt crisis (which is not the same thing as the classic Keynesian model, with which it is often equated, of increased government spending in a recession) is a sensible course of action.
- It is predicated on the assumption that growth is both a good thing and achievable in perpetuity. This assumption is increasingly questioned, notably in the report 'Prosperity without Growth'[7], as being both unsustainable (how can there be endless growth with finite resources?) and illusory (growth is vital to human wellbeing up to a relatively low per capita GDP, above which the incremental benefits of further growth tail off sharply).
- Even economic commentators who support the need for growth appear unconvinced that infrastructure spending is better for growth than revenue spending, and judge it to be at most only marginally better[8]. The transfer of billions of pounds from revenue to capital spending, and the hardship it is causing, may well be doing more harm than good.

There is, though, a further fundamental issue, that if deficit reduction is to be foregone at a time when it is supposedly paramount, the reasons for doing so have to be worth it in their own right, not just as a crude and unproven way of splashing money around the economy to promote growth. In the context of this paper, new roads have to be useful in the real world, not just in the fantasy world of cost-benefit analysis: and scrapping fuel duty rises in the interests of cheap fuel – assuming it achieves the desired effect, which is by no means a given – is only worth doing if cheap fuel is a good thing when set against national transport policy objectives. The rest of this paper explores these questions in turn.

New Roads: Heysham-M6 Link case study

The Heysham-M6 Link (HM6L) is a proposed 4.8km stretch of dual carriageway being promoted by Lancashire County Council (LCC) primarily to link the M6 and the Port of Heysham, bypassing the existing route along urban roads in Lancaster and Morecambe. At an estimated cost of £25.6 million per km it is the most expensive local authority road scheme in England, with a total cost of £123 million. All the funding is coming from central government (£12 million notionally funded by LCC, but out of a block grant from central government).

The scheme was subjected to an Examination in summer 2012, under a new procedure for Nationally Significant Infrastructure Projects. The Examining Authority agreed with many objectors' arguments against the scheme, but recommended approval in what can only be described as a process of policy-led evidence, using the all-too-easy argument that on balance the benefits of the scheme outweighed the harm. This recommendation has been accepted by the Secretary of State for Transport, though it is subject to a legal challenge.

So what are these benefits that outweigh inappropriate development in the Green Belt; the severance of the suburban community of Torrisholme and its rural setting; a near-doubling of traffic through the village of Halton due to creation of a rat-run to the new road and M6 junction; large adverse landscape impact; destruction of the habitat of species of mammal protected by law and European Directive; and significant increases in CO2 emissions contrary to the objectives and entire policy direction of the UK Climate Change Act?

- The road is forecast to save at most five minutes, at peak times only, on the six mile journey between the M6 and the Port, itself a small fraction of most end to end trips for vehicles (mostly HGVs) accessing the port. The HGVs by and large do not have to access the port at peak hours, as the peak sailing times are late evening, overnight, or early morning.
- The scheme was originally forecast to result in the creation of 6,000 jobs in the Morecambe/ Heysham area, with a local economic benefit of £162 million (double the then cost of the road): but over the course of three Economic Impact Reports between 2005 and 2007 this fell to 600 jobs and £16.2 million local economic benefit (one-eighth of the current estimated cost). The methodology for even the most conservative of these forecasts is so weak that – returning to Galbraith – we might have done better with an Astrology Report!
- The road, by LCC's own admission, will do very little to relieve congestion on existing urban roads (this was never the intention of the scheme, according to LCC's project manager at the Examination[9]): for every road where traffic is forecast to reduce – leaving aside induced traffic effects which have been significantly underplayed – there is another road where increases are forecast.
- The scheme is claimed to be necessary to enable the implementation of complementary measures to promote sustainable transport modes in the urban area, but LCC has consistently failed to come up with a single example of a measure that cannot go ahead unless the road is built, and is anyway backpedalling furiously on most of the potential measures.

The recommendation to approve the HM6L is bizarre in its own right, but its acceptance by government in the face of the supposed priority of deficit reduction, is beyond belief.

There is one road in Britain – the M6 Toll road in the Midlands – where performance can be judged against the real economic world, as road users have to pay real money to use it. Originally called the Birmingham Northern Relief Road, it is a 27 mile stretch of motorway opened in 2003, built parallel and to the north of the existing heavily congested section of the M6 through the West Midlands conurbation, to relieve that road by removing long distance traffic with origins and destinations outside the West Midlands. It is the only toll road in Britain of any length, originally costing £2 for cars and £10 for HGVs, now £5.50 for cars and £11 for HGVs. It is es-

timated to save an average of 10 minutes on end-to-end journeys, though savings are minimal outside peak hours.

The M6 toll lost an average of £26 million a year up to 2010[10], and the latest figure is a loss of £41 million in 2011-12[11]. It is largely empty outside of peak hours, and almost entirely shunned by HGVs whose operators regard its use as financially unviable (it is to be made free for HGVs in July 2013 in an attempt to persuade operators of its benefits!). Traffic levels have been declining since 2006, long before the post-2008 recession had any effect on traffic volumes, while they continued to increase on the existing M6 in spite of the severe congestion. The M6 toll is operating at well under half its capacity, and unless tolls are dramatically reduced there is no reason to suppose that the downward trend will be reversed.

It is estimated that revenue from the M6 toll would have to double for it to break even, but it is difficult to see how that could be achieved. If tolls were to double far fewer road users would be prepared to pay. Conversely, the amount of increased usage that would be needed to compensate for reduced toll charges is inconceivable: for example, most car users would probably pay a £1 toll, but this would require an elevenfold increase in usage to break even.

In the real world, the economic value of such an expensive piece of infrastructure simply does not stack up. There is no reason to suppose that the Heysham-M6 Link, also designed to take through traffic off a congested route, would be any different.

Fuel Duty, Fuel Costs

It is generally accepted that the cost of competing modes of transport is a factor in modal choice. The tipping point between one mode and another varies with each individual according to circumstance and attitude: some people are very resistant to changing away from car use regardless, some are more amenable but unable to change, some are open to change but need some sort of stimulus to make it happen, some actively want to change but need to be shown the way. At any given price point in the cost of travel by car, there will be some people at the margin for whom a marginal increase in car travel costs will tip the balance towards a different form of travel behaviour which makes less use of the car: equally, if the equation goes the other way, or costs of a competing mode increase, some people will move back towards increased car use.

Monetary cost is a basic component of travel demand management, though not the only one. UK government policy since 1994, with the first version of PPG 13, has been to manage demand with the aim of reducing car use and car reliance. One of the tools of demand management was a 'fuel duty escalator', originally introduced by Conservative Chancellor Norman Lamont in 1993, which undertook to raise fuel duty by 3% per annum above inflation (later increased by Conservative Chancellor Kenneth Clarke to 5%). The Labour government from 1997 retained the escalator until 1999, but still continued thereafter with a planned programme of fuel duty increases. There was a backlash against fuel taxation in the fuel protests of 2000, and ever since then successive governments have been wary of fuel duty increases (though ironically it was oil price rises that caused the fuel price increases that triggered those protests).

The present coalition government has consistently scrapped fuel duty increases scheduled by the previous Labour government. In doing so, and in other acts such as the reduction in funding support for buses and the policy to generate more and more rail revenue from passengers through above-inflation fare increases, it shows at best a lukewarm attitude towards demand management and reduction in car use. Policy appears to be governed more by political opportunism to help the 'hard pressed motorist' than by the need to manage transport.

The absurdity of the government foregoing £3 billion of revenue that could have been put towards deficit reduction becomes clear when the actual effect on the hard pressed motorist is analysed. For a car user doing an average 8,000 miles a year at a middling fuel consumption of 40mpg,

the cost of a fuel duty increase of 1p/ litre is £9 per annum. The average total cost of running a car for a year is about £3500, so 1p/ litre fuel duty accounts for 0.25% of total motoring costs. Each of the last two scrapped fuel duty increases would have raised an average motorist's running costs by 0.75%, even assuming no behavioural change in response to the fuel price increases: the saving from scrapping the last two fuel duty increases amounts to less than a tank of petrol a year for most cars.

Even if £9 is £9, and cumulatively it all adds up, it is difficult to understand why fuel duty is such a totemic issue for the motoring lobby. The price hikes in fuel over the past several years have had far more to do with world oil prices than with taxation, yet the response is to demand that the state intervenes to cushion us all against the unwelcome effects of market forces (a classic example of complaining against the nanny state most of the time then running to nanny for comfort as soon as something goes wrong).

All this presupposes that scrapping fuel duty increases actually results in lower fuel prices. There is a suspicion that the fuel supply industry has used the absence of fuel duty increases to increase profit margins, on the basis that there is a going rate that people will pay, however grudgingly, and if fuel duty leaves a vacuum it will be filled. There is a specific example of this happening. In 2012 the Scottish Government agreed to a long-standing demand to subsidise fuel costs on the Scottish islands by rebating 5p/ litre of the fuel duty. Within weeks either side of the rebate coming in, distributors increased prices by 5p/ litre[12]! This was characterised as pure coincidence, but the suspicion is unavoidable that, no matter how loud the cries of 'foul', the calculation was that a supplier price increase that did not increase the retail cost of fuel would be accepted and forgotten more quickly than it might otherwise have been.

In any case, the basic question remains whether it makes sense to have cheaper or more expensive fuel. Cheaper fuel would promote more car use, more congestion, more climate change gases, more pollution of other kinds, more noise, more severance of communities and unpleasant living conditions along main roads, and more demand for new roads. More expensive fuel, through increased taxation, would have the opposite effect in all respects. Which of these is the direction of government transport policy? Which helps the goal of deficit reduction, and which hinders it?

Conclusion

My own view, travelling along a British motorway at the legal limit of 70mph and being overtaken by 90% of all cars, is that by and large fuel is still not expensive enough to encourage most drivers even to think about fuel-efficient driving, let alone levels of car use. As long as 4x4 sales continue to burgeon, and white vans drive in fuel-crazy ways around the road network, the message seems to be that the cost of fuel still does not matter enough.

Meanwhile, as long as expensive and pointless road schemes like the Heysham-M6 Link continue to be approved, the conclusion has to be that the government is not interested in sustainable transport, and not all that interested in deficit reduction, no matter how much it might protest to the contrary.

The government should grasp the opportunity to reintroduce fuel duty increases, and redirect its scrapping tendencies to the bulk of the roads programme, in the interests of both its erstwhile transport policy, and its purported commitment to deficit reduction which is failing on so many fronts. I confidently predict that this government will not do so, and will thereby confirm its limp grasp of both transport and economic realities.

Author Details:
Alan James
Snade Mill Cottage,
Dunscore,
Dumfries DG2 0XA

Email: alan@snademill.co.uk

References:

1 http://www.bbc.co.uk/news/business-21869515

2 http://www.bbc.co.uk/news/business-21829146

3 http://www.bettertransport.org.uk/blogs/roads/051212-autumn-statement

4 http://www.guardian.co.uk/politics/2012/dec/05/george-osborne-fuel-duty-autumn-statement

5 http://cdn.hm-treasury.gov.uk/sr2010_chapter2.pdf

6 UK Low Carbon Transition Plan 2009 p14

7 'Prosperity without Growth': Sustainable Development Commission 2009, author Professor Tim Jackson

8 Stephanie Flanders, Radio 4 'Today' programme 20 March 2013

9 The project manager subsequently attempted to clarify this comment, stating that the road had never been intended to solve all Lancaster's traffic problems. This scarcely changes anything: the road was recognised all along as not solving existing congestion apart from claimed traffic reductions on the Lune bridges, and is incapable of doing so, even without allowing for induced traffic effects.

10 Campaign for Better Transport 'The M6 toll 5 years on; counting the cost of congestion relief' August 2010: all facts prior to 2010 are from this report, conclusions are my own.

11 http://www.bbc.co.uk/news/uk-england-18114141

12 http://www.bbc.co.uk/news/uk-scotland-17198666
http://www.scotsman.com/business/energy-and-utilities/call-for-island-fuel-price-probe-1-2642504

Taking US transportation professionals to European cycling cities: does it matter?

Cortney Mild, Marc Schlossberg

Introduction

Over the past few decades, Americans have started using bicycles for transportation more often. Cities such as Portland, Oregon, for example, have implemented a wide range of pro-bicycle measures and have experienced the greatest increase in rates of cycling in the US (Pucher, Buehler, & Seinen, 2011). Although a few dozen US cities have made significant efforts and achievements around cycling, they do not begin to approach the fully integrated policy packages and rates of cycling seen in some European cities in The Netherlands, Denmark, and Germany where top bicycle modal shares reach 40% (Pucher & Buehler, 2007). Contrary to popular myth, these European cities have not always been world-class bicycling environments (Pucher & Buehler, 2008) suggesting that US cities may also have the potential to significantly increase rates of bicycle commuting.

There are many common ways that transatlantic lessons are traditionally shared, such as professional reports, academic case studies, sharing best practices and design manuals at international conferences, or bringing US professionals to world-class bicycling cities. This last technique is exactly what the Bikes Belong Foundation and the Federal Highway Administration (FHWA) have used over the last two decades, giving professionals the opportunity to experience how bicycle transportation functions as part of an integrated, multimodal, balanced transportation system. Their goal is to give policymakers and transportation professionals the opportunity to learn lessons they can apply in the US to encourage bicycle transportation.

While the goal is clear, there has been no research to date regarding the impact of these study tours on professionals and their US communities. The purpose of this research is to assess the impact of these study tours by investigating major lessons learned, how participants implemented lessons, and barriers impeding their implementation. The intention of this research is not to determine if participating in a study tour is a necessary prerequisite for developing a world-class cycling city in the US. Rather, the intention of this research is to evaluate study tours as one of a milieu of techniques for sharing transatlantic lessons and promoting bicycle transportation in US cities. There are many potential paths other than travelling to the world's best cycling cities to improve one's cycling systems, such as learning directly from staff in other U.S. cities, accessing the latest research and expanding set of books on cycling, viewing the large expanse of on-line videos, bringing in consultants, or learning from other professionals at conferences, for example. Learning by seeing and doing, however, is one approach that has been supported by Bikes Belong and the FHWA, and assessing the impact of what can be considered a more costly investment than just attending a conference or browsing the internet deserves some assessment and evaluation. The remainder of this paper explores the impact of experiential learning within the setting of robust European cycling cities on transportation professionals interested in improving cycling infrastructure in their own cities in the United States.

Background

Bicycle Commuting in the US

Bicycling is on the rise in the US. The percent of total trips taken by bike nearly doubled between 1977 and 2009 (0.6% to 1%), and the number of daily bike commuters increased significantly between 2000 and 2009 alone (488,000 to 766,000) (USDOT, 2004, 2010a; USDOC, 1980-2000, 2009, 2010). The US Department of Transportation (USDOT) has recently embraced cycling as an important part of the overall transportation mix as a mode that can "improve individual health as well as reduce air pollution, carbon emissions, congestion, noise, traffic dangers, and other harmful impacts of car use" (Pucher, Dill, & Handy, 2010). At the 2010 National Bike Summit, President Obama's Transportation Secretary, Republican Ray LaHood asserted that bicycling is central to livable communities. His department issued the US DOT Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations indicating that "walking and biking should

not be an afterthought in roadway design" (USDOT, 2010b).

The modern era of federal support of bicycling began in 1991 with the passage of the Intermodal Surface Transportation Efficiency Act (ISTEA), raising annual federal funding for walking and biking from $5 million to $150 million per year from 1992 to 1998. Subsequently, the Transportation Equity Act for the 21st Century (TEA21) and the Safe, Accountable, Flexible, Efficient, Transportation Equity Act (SAFETEA-LU) built on this momentum and increased funding (Pucher, Buehler, & Seinen, 2011). While the most recent transportation bill, MAP-21, is largely considered a step backward for supporting bicycle transportation, some cities may have crossed their own tipping point where bicycle planning will carry on despite the reduced federal support.

Growing rates of cycling and pro-bike policies may be indicative of a "bicycling renaissance" in the United States, albeit not distributed evenly. Rather, "the boom in cycling… has been limited to a few dozen cities, which have implemented a wide range of programs to aggressively promote cycling" (Pucher, Buehler, & Seinen, 2011)

Of all the US cities, Portland may have transitioned most significantly toward bicycle supportive infrastructure and policies. Portland experienced a 5-fold increase in bike mode share between 1990 and 2009 achieving the highest rate of cycling in North America (5.8%). On the infrastructure side, "The cornerstone of Portland's policy package is the steadily expanding and improving bikeway network, consisting of bike paths and lanes as well as superbly designed bike boulevards through residential neighborhoods". Portland is also increasing the supply of bicycle parking, instituting education and marketing programs, organizing community cycling events, enforcing cyclists' legal rights to the roadway, and offering incentives to employers who provide end-of-trip facilities (Pucher, Buehler, & Seinen, 2011). It is this comprehensive approach to infrastructure and culture, which most closely resembles the approach of top European cities for cycling that led to Portland's 5-fold increase in cycling rates.

The success of Portland and other US cities that have begun to implement a wide range of pro-bike measures demonstrate that US cities may have the potential to significantly increase rates of bicycle commuting. While Portland's efforts and accomplishments are significant, they do not begin to approach the fully integrated policy packages and cycling rates in some European cities. Thus, these European cities may still offer valuable lessons for the US (Pucher & Buehler, 2007).

Top European Cycling Cities

Cycling rates are highest in the Netherlands, where 27% of all trips are made by bike. Many Dutch cities achieve even higher levels of cycling. In Amsterdam 50% of residents made daily bicycle trips in 2003. In Groningen, 59% of local trips are made by bicycle. Denmark is second to the Netherlands, with cycling rates of 18%. Copenhagen, a Danish city with many large streets like those in the US, achieved cycling rates of 20%, with 36% of work trips by bike in 2005. Even Germany, home of the Autobahn, is closely tied with Finland and Sweden with 10% of trips by bike (Pucher & Buehler, 2007). Rates of cycling in these countries are distributed fairly evenly across a range of demographics including gender, income, and age. All types of people bicycle in the Netherlands, Denmark, and Germany (Pucher & Buehler, 2008).

The "universality" of cycling is due in part to the safety of cycling in these countries. Cyclist fatality rates are lowest in the Netherlands, despite having the highest cycling rates. Averaged over the years 2002 to 2005, the number of bicyclists killed per 100 million km cycled was 1.1 in the Netherlands, 1.5 in Denmark, 1.7 in Germany, and 5.8 in the US. Evidence suggests that safer bicycling environments increase the rates of cycling, (Pucher & Buehler, 2007) and motorists are less likely to collide with bicyclists when there are more people bicycling (Jacobsen, 2003). This phenomenon is commonly referred to as "safety in numbers"; (Pucher & Buehler, 2007) that is, the more people there are biking, the safer it is.

Although cities are "ultimately responsible for implementing the key transport and land use policies that establish the necessary supportive environment for cycling to thrive", (Pucher & Buehler, 2007) since the 1980s, the central governments of all three countries have become increasingly involved in cycling by promoting research, disseminating best practices, creating National Bicycling Master Plans, and funding innovative projects. Prior to the 1970s, cycling levels had fallen in these countries, but oil shortages and environmental awakening prompted explicit transportation and urban planning to support bicycles as an important transportation mode (Pucher & Buehler, 2008). These European cities were not always "cycling cities" but became so through deliberate policies that created balanced transportation systems integrated into an urban environment conducive to bicycle transportation.

Study Tours as Experiential Learning

Taking professionals to Europe to learn about cycling firsthand involves experiential learning. Literature on educational theory indicates that learning is most effective when linked with action and experience (Dewey, 1938; Revans, 1998). Experiential learning in unfamiliar environments encourages students to question the origins, causes, and implications of cultural paradigms and take action for social change (Mezirow, 1998).

Educational theorists David Kolb and Ronald Fry delineate four key aspects of effective experiential learning: concrete experience, reflective observation, abstract conceptualization, and active experimentation. During these stages, learners engage "fully and openly" in new experiences, "reflect on and observe these experiences from many perspectives", "create concepts that integrate … observations into logically sound theories", and "use these theories to make decisions and solve problems" (Kolb & Fry, 1975).

Kolb and Fry's description of effective experiential learning has obvious connections to the hands-on learning tours sponsored by FHWA and Bikes Belong, where the goal is to immerse participants in a new environment in the hopes that it leads eventually to active experimentation with new insights that have been learned and experienced. Yet, there is no research to date that has linked theories of experiential learning to bicycle transportation system change. Analyzing study tours that allow American professionals to experience how bicycles are integrated into some European transportation systems is intended to fill that gap.

Methods

The purpose of this research is to determine how study tours impact participants and their communities. Study tours are one technique that the Bikes Belong Foundation and FHWA utilize to expose transportation professionals and politicians to these cities in Europe where bicycling is more "normal". The Bikes Belong Foundation is the non-profit branch of the Bikes Belong Coalition, a national organization for bicycle retailers who work to "put more people on bicycles more often" ("What We Do," 2012). Bikes Belong has led separate tours for representatives from Madison, Wisconsin and the San Francisco Bay Area (Bikes Belong, 2011).

FHWA is concerned with design, construction, maintenance, and safety of the nation's highways ("About FHWA," n.d.). FHWA has supported transportation professionals from across the nation on a study tour to Europe focused on bicyclist and pedestrian safety and mobility, (Fischer et al., 2010) although this program is currently suspended.

Twenty-five US transportation professionals and politicians participated in one of the three European study tours organized by either Bikes Belong or FHWA between 2009 and 2010, and eleven were interviewed for this study. Data was collected through semi-structured interviews conducted over the phone and digitally recorded using Google voice. Interviews lasted approximately 30 minutes. Interviewees were chosen based on being representative of the diversity of the larger study population. FHWA participants included representatives from the federal, state, and local levels in three different states while Bikes Belong participants included both politicians and transportation professionals from April and August 2010 tours. Table 1 outlines the characteristics

Tour	Cities visited	Participant	Position at time of tour
FHWA May 2009	**Denmark** Copenhagen & Nakskov **Germany** Berlin & Potsdam **Sweden** Lund &Malmö **Switzerland** Bern & Winterthur **United Kingdom** Bristol & London	Ernie Blais	Division administrator, FHWA Vermont Division
		Cindy Engelhart	Bicycle/pedestrian transportation engineer, Northern Virginia District, Virginia Department of Transportation
		David Henderson	Bicycle/pedestrian coordinator, Miami-Dade County Metropolitan Planning Organization
		Jon Kaplan	Bicycle/pedestrian program manager, Local Transportation Facilities; Vermont Agency of Transportation
Bikes Belong April 2010	**Germany** Muenster **The Netherlands** Amsterdam, Nijmegen, s'Hertogenbosch, & Utrecht	Peter Bock	Former state legislator, Wisconsin state assembly
		Dave Ciezlewicz	Mayor, City of Madison
		Tony Fernandez	City engineer, City of Madison
		Dan McCormick	Traffic engineer
Bikes Belong August 2010	**The Netherlands** Amsterdam, The Hague, Rotterdam, & Utrecht	David Chiu	President, San Francisco Board of Supervisors
		Ed Reiskin	Director, Department of Public Works; City of San Francisco
		Bridget Smith	Director, Livable Streets Program; San Francisco Municipal Transportation Agency

Table 1. Outline of study tours and interviewees

of the interviewees and the tours in which they participated.

Participants were questioned about their motivation for participating in the study tour, their experience of bicycle transportation in Europe, how they implemented lessons in the US, barriers to implementation upon return, what would help them better implement lessons learned, and their major recommendations for increasing bicycle transportation in the US. Follow-up questions were used to clarify responses and encourage participants to elaborate. Audio recordings of the interviews were transcribed and information provided by interviewees was grouped thematically to identify similarities and differences by study tour, professional affiliation, and city base.

Two pilot interviews were conducted with national experts Jay Wallajasper and Gary Obery to test the data collection instrument and the audio recording equipment. Mr. Wallajasper is a freelance writer and editor who joined Bikes Belong's August 2010 tour. Mr. Obery is an alternative modes traffic engineer with the Oregon Department of Transportation, who attended the Velo-city conference in Copenhagen, Denmark in June, 2010.

Additional interviews were conducted with Gabe Rousseau (FHWA) and Zach Vanderkooy (Bikes Belong), organizers of the respective tours, as well as Charlie Zegeer, associate director of the University of North Carolina's Highway Safety Research Center. Zegeer participated in FHWA tours in 1993 and 2009. These interviews provided background and context for the study. The tour organizers provided

additional insight into their intentions for creating the tours.

Findings

Data from the interviews can be grouped into four main categories: lesson learned, lessons implemented, lessons that participants hope to implement, and barriers to implementation.

Lessons Learned

Participants shared major lessons from their study tours regarding what they saw, heard about, and experienced. Their responses can be grouped into these broad categories: general observations, policies, infrastructure, and soft measures.

General Observations

Sheer Number of Cyclists Participants were overwhelmed by the sheer number of people commuting by bicycle. Peter Bock, former representative to the Wisconsin State Assembly was "very impressed with the high numbers of people who use a bicycle to do their daily routines, whether that's going to work, going to the store, or traveling to the nearest town". Ernie Blais, Division Administrator of FHWA's New Jersey Division, described, "We started off in Copenhagen, and it was just amazing the number of people that use bicycles for transportation year round, and the weather there is comparable to many of our Midwestern and Northeastern cities".

Bicycling as a Normal, Everyday Activity Another commonly-expressed observation was that commuting by bicycle seemed to be an ordinary, everyday activity for all types of people in the cities visited. Jon Kaplan, Bicycle and Pedestrian Program Manager, Vermont Agency of Transportation, saw "women in skirts and heels and guys in business suits" on bicycles. Anthony Fernandez, Project Engineer, City Engineering, City of Madison shared that "biking can be as ordinary as driving a car. People of all ages, athletic abilities, genders, and economic statuses will get on a bike as just an ordinary thing to do … whereas here I tend to associate it with a little bit more committed group of people who are quite aware that they are swimming against the stream". Participants saw people of all ages, sexes, and socio-economic classes riding bikes as a normal way of getting around.

Policy

Conscious and Balanced Approach Toward Transportation System Planning Another common theme was a realization that cities achieved high rates of bicycle commuting through conscious policy decisions. Dave Cieslewicz, former Mayor, City of Madison, recognizes that people in the US assume that the Netherlands has high rates of bicycling "because the price of gas is so high and the land is flat". He acknowledges that the Netherlands "does have some built in advantages", but that it achieved high rates of cycling "by making conscious decisions about bicycle infrastructure and policies".

Participants also observed that the cities take a balanced approach towards transportation system planning. Jon Kaplan noted that bicycle transportation was not "a stand-alone program" overseen by one or two bike planners. Rather, all city engineers and planners integrated bicycling into their overall transportation work. Dan McCormick, Traffic Operations Engineer, City of Madison Traffic Engineering Division, commented, "the bicycle was a third feature on every street and at every intersection". Germany and the Netherlands provide traffic signals not only for motorists and pedestrians, but also cyclists. He contrasted that with US streets, which are "ambiguous about bicycles". Participants learned that bicycling is not a preexisting part of the culture, but has been promoted through conscious policy decisions and a balanced approach towards transportation system planning.

Infrastructure

Complete Bicycle Networks Participants learned that the cities visited are committed to building complete networks of bicycle facilities rather than project-by-project bicycle enhancements. David Henderson, Bicycle/Pedestrian Coordinator, Miami-Dade County Metropolitan Planning Organization, noticed these cities were committed to "connect(ing) origins and destinations and build(ing) a robust network" for bicyclists. Dan McCormick explained, "there was never a facility that

was built but not connected". He contrasted the "contiguous" bicycle networks he saw in Europe with the "scatter shot of projects" in Madison that are "not connected in a strong way".

On-street Separated Facilities Participants noted the importance of separating automobiles from bicyclists on high-volume, high-speed streets. Peter Bock expressed, "Segregat(ing) the bike lane with a curb or having it slightly elevated, right next to the road" provides a sense of security to cyclists. Cindy Engelhart, Northern Virginia District Bicycle/Pedestrian Coordinator, learned about cycle track intersection design from Copenhagen. Cycle tracks in Copenhagen are "raised about four inches (above the roadway), but four inches below the sidewalk". Copenhagen found a reduction in the crashes on cycle tracks after dropping them down to the road level at intersections so automobiles could merge into the cycle track. This lesson resonated with Ms. Engelhart because she is hearing more discussion about cycle tracks among US transportation professionals.

Colored Pavement Participants frequently referred to the use of colored pavement to delineate bicycle facilities. Peter Bock described that cyclists sense that colored pavement is their "territory" and drivers are "very aware that it is a different surface". Bridget Smith noticed how color "functioned to brand the bike space", creating a "visually intuitive" system that is "easily understood by all of the users".

Bike Parking The third infrastructural element that arose as a common theme is bike parking. Anthony Fernandez learned that "bike parking needs to keep pace with bike usage, particularly with an emphasis on preventing theft". Fernandez "never thought of bike parking as a huge issue", but he realized that "as the number of bikers goes up it clearly is".

Soft measures

Marketing/Encouragement Although participants mentioned a wide range of soft measures for promoting bicycle transportation, such as education, evaluation, and providing access to bicycles equipped for everyday activities, only marketing arose as a common theme across multiple participants. Participants realized the cities visited actively encourage bicycle transportation with techniques such as incentives for cycling and advertising campaigns. Dan McCormick expressed that European cities market bicycling as "trendy and normal", which seems to both encourage a wide array of users and provide reinforcement to those already cycling.

Experiential Learning Successes: Lessons Implemented

Ultimately, the purpose of these study tours is to influence the professional work back home to increase the safety, comfort, and ultimately the number of people who use a bicycle for some of their daily trips. Participants most commonly implemented infrastructure improvements upon returning home, perhaps because of the direct, firsthand experience with complete networks of low-stress bicycling routes on the study tours.

Colored Pavement

Participants on both FHWA and Bikes Belong tours experienced the benefit of colored pavement in communicating to all road users where people on bikes should be. Upon return, participants from Madison used colored pavement to delineate a separate crossing for bikes adjacent to an existing crosswalk in a complicated intersection. After this redesign the City received "great feedback from bikers that suddenly they understand the intersection".

Bridget Smith explained that San Francisco had been using some colored pavement before receiving permission from the federal government. She was forced to convince one of San Francisco's engineers that color was "decorative". The City had been "locked in a discussion with the state traffic control device committee," which said color was an experimental traffic control device, and the City would be limited in the way it could use color. Now that colored pavement is allowed by FHWA as a temporary provision, it is easier to implement. After experiencing the extensive use of color in the study tour locations and with fewer regulatory barriers, San Francisco started to use color to "alert bicyclists to weaving situations with cars" upon return.

The shift in federal standards on colored pavement was due in part to lessons implemented by FHWA study tour participants. Participants identified infrastructure innovations, such as colored pavement for bicycle facilities, which would require changes to the Manual on Uniform Traffic Control Devices (MUTCD) to be approved in the US. Now colored pavement is allowed as a temporary provision for cities and states nationwide.

Hope to Implement

Firsthand experience with the use of colored pavement in Europe helped tour participants to implement these facilities in the US. That said, colored pavement may have been easier to implement than other infrastructure innovations because it is relatively inexpensive compared to other facilities and is a reasonable step forward from current US practice of striping bike lanes for on-street bicycle facilities, which involves little else than paint on the road, but participants experienced a greater range of facilities and more comprehensive systems and thus were interested in doing more than using color at potential modal conflict points.

Cycle Tracks

Of all the experiences participants had, cycle tracks were overwhelmingly mentioned as the key for future implementation and eventual success in increasing the number of trips by bike. Dan McCormick explained that Madison has "type A cyclists who will ride in any conditions" and other people who feel safe only on off-street paths. McCormick suggests that ridership will not increase dramatically until the City builds cycle tracks. Similarly David Henderson suggested that even if US cities "fully implemented the kinds of facilities that are commonly applied in the US", they would appeal to less than 20% of the population. Striping complete networks of bike lanes would result in a six to eight percent mode shift. Developing facilities with broader appeal" such as "buffered bike lanes, cycle tracks, and protected bike lanes" is more challenging.

Guided partly by her experience on a study tour, Cindy Engelhart is working with a team to create national guidance for cycle track design, which she says goes hand-in-hand with bicycle signals. As of 2012, though, the American Association of State Highway and Transportation Officials (AASHTO) Guide for the Development of Bicycle Facilities does not contain finalized guidance on cycle tracks and the MUTCD does not contain finalized guidance on bicycle signals, despite the successful use of this infrastructure in the study tour cities for decades.

Barriers to Greater Implementation

Participants were also asked about barriers to implementing some of their lessons from the tour and what would help them to overcome these barriers. Four barriers arose commonly: lack of funding for bicycle projects, regulations that allow innovative facilities, expertise on bicycle facility design, and public acceptance.

Funding

Multiple participants mentioned lack of funding for bicycle projects as a barrier. Dave Cieslewicz hopes for long-term, consistent, dedicated federal funding for bicycle transportation. "It could be a small fraction of the money spent on highways but a little bit … would go a long way". With the new transportation act, Cieslewicz was hoping the federal government would establish a new program for bicycle transportation with enough funding "to make some real changes".

Peter Bock described the challenge of securing government funding for cycling when America is "so in love with automobiles", prioritizing them over bicycles and pedestrians. "We have the resources", he says, but "we prioritize building roads and highways and things to benefit vehicular traffic." Although Madison is "more progressive than other places" in terms of spending on bicycle infrastructure, the City does not have sufficient resources to "designate as many bike paths or lanes as (it) would like."

Ed Reiskin, San Francisco Municipal Transportation Agency's Director of Transportation, believes that better data on cycling's benefits to the economy, business, traffic, and health would generate greater political support and subsequently more funding for bicycle transportation. "Sometimes cycling can be hard to sell here," he ex-

plains, "because it seems like you're trying to spend scarce transportation dollars to appease a very small portion of the population who tend to be very strong advocates that people see as on the fringe". If people do not understand the benefits of bicycle transportation, they "tend to see these investments as narrowly benefiting a small constituency rather than (contributing to) the large benefits that we get when people are on bicycles instead of in cars taking up space and polluting the air".

Regulations

Regulatory barriers also arose as a common deterrent to greater implementation of lessons from the study tours. Jon Kaplan mentioned the difficulty of implementing innovations like bicycle-specific traffic signals because "it's hard to find something that complies with the MUTCD". Despite such signals being used with success in the study tour locations, U.S. transportation officials are reluctant to use infrastructure not explicitly approved within the MUTCD or the AASHTO guide. "Until the MUTCD adopts interim approval of more (facilities) or goes through another revision", there will be very little experimentation with bicycle-specific innovations.

Anthony Fernandez suggests that "proven standards" could help transportation professionals implement unconventional cross-sections such as "bicycle boulevards, bike preferential streets, and contra-flow lanes. Engineers are conservative by nature", he explains, "and don't want to go out on a limb on anything that's not tested or in a manual". He considers the National Association of City Transportation Officials' (NACTO) urban bikeway design guide to be "a good step in that direction". Fernandez says, "Anything that helps develop some standards like the CROW manual gives designers a place to stand so it doesn't look like they're inventing it as they go along". CROW, the Dutch national information and technology platform for infrastructure, traffic, transport, and public space, produces a design manual for bicycle traffic in the Netherlands (Groot, 2007).

Design Expertise

According to participants, peer-to-peer exchange would also help transportation professionals gain design expertise for innovative bicycle facilities. David Henderson cited how roundabouts "spread like wildfire" because the "technical evaluation and standards development …were translated very effectively…through the engineering community". He emphasized, "Recommendations that come from outside the engineering community don't have nearly the same level of acceptance, rapid implementation, and buy-in from the professional community as those coming from within". Perhaps increasing the number of traffic engineers who experience the variety of bicycle facilities visited on the tours could be one strategy for accelerating the approval and adoption of such facilities throughout more US cities.

Public Acceptance

Another common barrier was the lack of public support for bicycle transportation. Dan McCormick expressed that Madison gets "backlash" for spending money on bicycling. "If we compare the numbers," he says, "it's unbalanced", and "bike space is only taking up five percent or less of the pavement" but "people feel like bikes don't pay for anything".

Bridget Smith suggested "getting some really great facilities on the ground" as a strategy for increasing public acceptance for bicycling. Smith described how the buffered bicycle lane on Market Street, the very facility that violates California state traffic code, garnered community support: A couple of people told me that the first time they rode through it, they cried because it was such a transformative experience. They felt so much more dignified, … like they had a space of their own, and … much safer. The people who didn't bicycle regularly said, 'if you could get more of these, I would start biking because … they don't feel safe riding with auto traffic anywhere near them.

Smith thinks that building more on-street separated facilities will improve public acceptance of cycling.

Discussion

Kolb and Fry's model of experiential learning provides a solid theoretical foundation to explain tour participants' reflections and subsequent actions. The tours provided concrete experience in cities where bicycle transportation systems have been consciously and deliberately created through policy and infrastructure design. Participants' vision for transportation expanded and their approach toward their work shifted through reflective observation and abstract conceptualization during the tours. Participants carried lessons about colored pavement through the entire experiential learning cycle to the active experimentation phase, with other treatments still being worked on.

Why Concrete Experience is Important

Zach Vanderkooy, International Programs Manager, Bikes Belong Foundation says the motivation behind the study tours was to provide concrete experiences in a "living, 3D, functioning example of world-class transportation systems that are about connecting people to places and are multi-modal". Tour participants confirmed that traveling to Europe is key because North America does not yet have examples of world-class bicycle transportation systems. David Chiu explained:

> Until I went (on the tour), it was an intellectual concept to see on a piece of paper that Dutch cities have mode shares of 40 to 50 percent … It's one thing to hear it as numbers and it's another thing to actually see it on the street. It's one thing to look at pictures of traffic signals and segregated bikeways and it's another thing to actually be in a segregated bike lane and feel safer …That real tangible experience opened my eyes, made me a better advocate and allowed me to really speak about (bicycle transportation) with much more authority when I articulate a vision for the city.

Study tours to Europe give participants firsthand experience in cities with rates of bicycling that are unparalleled in North America.

Engaging In Reflective Observation and Abstract Conceptualization

Study tours allowed participants to speak with local counterparts and meet amongst themselves to discuss their experiences, prompting reflective observation and abstract conceptualization. In these stages of the experiential learning cycle, participants often changed their vision for transportation and approach towards their work.

Peter Bock's vision for transportation expanded as a result of the study tour. He admitted he was a "bike snob", who only rode for recreation. After seeing bicycle commuting as "commonplace" on the tour, he realized it is a legitimate form of transportation, and also started commuting by bike.

Anthony Fernandez shared that until local hosts emphasized the importance of bicycles equipped for commuting, he "never really thought of the equipment as an important issue". Fernandez' vision has expanded. He believes providing access to upright bikes with built-in fenders, lights, chain guards, and skirt guards, is an important aspect of promoting bicycle transportation.

In addition to changing participants' visions for transportation, tours can alter the way they approach their work. Ed Reiskin noticed that European hosts "never talked about cycling as a standalone", but as "one component of the transportation system". As a result, Reiskin now relates how cycling "fits into the overall transportation system" in San Francisco.

For Bridget Smith, the tour reframed her approach towards marketing. Previously, San Francisco had launched campaigns about safe riding with messages such as "don't ride in the door zone". European hosts encouraged tour participants, "Tap into people's memory that biking is fun". Now San Francisco is developing a "joy of biking" campaign.

Active Experimentation

Individual participants experimented with the following lessons upon return to the US: bike boxes, buffered bike lanes, contra-flow lanes, bike signals, bike boule-

vards, bike parking, goals of achieving a particular bike mode share, goals of prioritizing certain streets for certain modes, issuing policy summaries, marketing, education, bike count programs, bike share, and integrating bike facilities with transit. Participants from all three tours have used colored pavement to delineate space for bicycles on the roadway. They were able to experiment with colored facilities because of their firsthand experiences on the tours and the relatively small regulatory and financial barriers involved. After FHWA tour participants saw the widespread use of colored pavement in Europe, they encouraged FHWA to grant interim approval for colored facilities, making it is easier for cities and states to install. Subsequently, Jon Kaplan applied for approval for municipalities in the state of Vermont to use colored pavement, and both Madison and San Francisco installed colored pavement.

Recommendations

While this research made clear the value of study tours and experiential learning when it comes to advancing the understanding of what is possible within bicycle transportation planning in American cities for the participating professional, it also identified a disconnect between some lessons that participants learned abroad and what they were hoping to implement more readily in the US. Although participants carried colored pavement through the entire experiential learning cycle, for other lessons, full carry through to implementation was more difficult. As mentioned previously, part of the barriers toward implementation could be due to the lack of federal standards and funding and a lack of local community support to try new approaches to allocating roadway space, but it could also be that the study tours themselves could better serve participants' needs.

We have six key recommendations for future study tours to help participants more quickly translate their experiences into tangible change.

Cycle Track Specific Tour

Based on participants' responses, a tour focused on cycle tracks could be valuable. Such a tour would allow professionals to have more in-depth experience of cycle tracks, talk with the designers, consider how they function within the bicycle network, and learn how to retrofit US streets to include cycle tracks. While cities across the US are starting to experiment with on-street, separated facilities, no North American city has a complete system of cycle tracks on high volume streets where many people feel unsafe riding a bike directly adjacent to moving vehicles. A cycle track specific study tour would be especially valuable because participants could experience cities with complete bicycle networks that include a variety of cycle track designs.

Since the FHWA bicycle technical committee is currently drafting guidance for cycle track design, FHWA would be the logical agency to host the tour. If the FHWA were able to draft design guidance and provide interim approval for cycle tracks as a result of the tour, it would help to remove the regulatory barriers for cities that hope to build these facilities. Unfortunately, FHWA's International Technology Scanning Program has been suspended. It is unknown if or when it will be reinstated.

Concrete Experience of Policy Formation and Soft Measures

Program organizers should consider developing tours that provide more concrete experience of policy formation and the implementation of soft measures because participants were most successful in implementing lessons that they were able to see and experience firsthand.

For the next five years, tours should continue to provide a general overview of the comprehensive package of infrastructure, policies, and programs that support bicycle transportation. After that, certain cities that have participated in general tours should be prepared to explore bicycle-supportive policies and soft measures at greater depth.

Starting in 2017, program organizers could select a policy or soft measure focus of the year, identify the cities or agencies that are primed to participate, and lead in-depth tours on the focal area. For example, if bicycle education for school-aged children were the soft measure focus of the year, the tour could include discussions with local professionals who are responsible for

coordinating education programs; visits to local schools; meetings with administrators, teachers, parents, and students; observations of bicycle safety courses; and bike rides to school with parents and children. Other policy focal areas could include financial incentives for cycling, legal interventions, and cycle-friendly land use planning. Other soft measure focal areas could include encouragement programs, evaluation, and bicycle access.

Peer-to-peer Information Sharing

Participants suggested peer-to-peer information sharing as a way to help US transportation professionals develop design expertise and share best practices. Professionals could learn how to implement facilities that tour participants observed, such as colored pavement, cycle tracks, bicycle signals, and bicycle preferential streets. David Henderson suggested that a national organization should be responsible for coordinating peer-to-peer information sharing because "professionals at the local level are taking their cues from national professional organizations and national regulatory agencies".

Readjustment Assistance

Readjustment assistance could address questions or barriers that arise when participants return to work with a new approach or try implementing lessons from the tour. ThinkBike workshops offered by the Dutch Cycling Embassy are one possible resource for such support. These workshops bring Dutch transportation professionals to US cities to help them "develop strategies for increase(ing) bike ridership" and redesign priority routes for bicycle transportation ("Sustainable Transportation," n.d.). San Francisco participated in a ThinkBike workshop as a follow-up to its Bikes Belong study tour. Bridget Smith found the workshop valuable because Dutch professionals examined transportation issues specific to San Francisco and were able to both adjust design recommendations to the San Francisco context and also help expand the types of conversations community participants could engage in.

Encouragingly, both of these latter methods of support are actually being introduced in a new 2012 program organized by the Bikes Belong Foundation - The Green Lane Project. The Green Lane Project will take representatives from six cities on study tours. Participants will have opportunities for peer-to-peer information sharing with counterparts from two other US cities participating on study tours to either Denmark or the Netherlands ("Project Events," 2012). The Project staff will facilitate communication between the focus cities to help them develop a "forum for information sharing and joint problem solving" ("Focus Cities," 2012). Participants will have opportunities for readjustment assistance through workshops, including the North American City Transportation Officials (NACTO) Cities for Cycling Road Shows and Dutch ThinkBike Workshops ("Project Events," 2012). In addition to these two forms of support, "Bikes Belong will dedicate 70% of its annual grants budget to support the focus cities in their efforts to improve and promote bicycling in their communities" ("Grants," 2012). The Green Lane Project is an interesting evolution of the experiential learning program it previously supported, and future research can provide insight into whether these additional approaches yield better results.

Study Tour Composition

In addition to highlighting the type of support and in-depth experience that tour participants need, interviews provided insight into the cities that the tours should visit and the types of professionals that should participate. Study tours that focus on integrating bicycling into the transportation system should visit the countries that have made the greatest advances in the field: the Netherlands, Denmark, and Germany. The specific cities can vary according to the participants' cities of origin, but they should include a mix of cities that have achieved the highest mode share and built the most robust networks of infrastructure and cities with systems that seem more achievable in the short term.

Each tour should include a politician, engineer, planner, and community leader from the same city because each plays a unique and vital role in implementation. Politicians communicate the vision for transportation to the public and make decisions about policies and funding. Engineers are direct-

ly responsible for implementing infrastructure and have the power to approve the use of innovative facilities. Planners consider how bicycle networks function within the transportation system and how to create supportive policies and programs. Community leaders garner public support and excitement for bicycling. Politicians, engineers, planners, and community leaders from two to three cities can participate in the same tour to begin the process of peer-to-peer information sharing.

Future Research

Long Term Impacts

Future tours should integrate research into the process to help assess the long-term impacts of study tours. Such research could involve interviews with participants before, during, and at several points after they return to the US. Pre-tour interviews will allow researchers to gauge the change in participants' vision for transportation and approach towards their work.

Interviews during the tour would allow the program organizers and local hosts to determine which lessons participants found most memorable. The content and delivery of the presentations and discussions can be altered for future groups to resolve any disparities between lessons learned and lessons that local hosts hoped to convey. Feedback during tours can also lead to customized, post-tour readjustment assistance.

Post-tour interviews can record lessons that participants implement within one, three, five, and ten years of the tour. Are participants better able to implement lessons sooner or later? Do participants who move to new agencies carry the lessons with them? Do organizations develop institutional support for the lessons learned on the study tour, or do the tour participants act as individual champions for the lessons within the organization? These are all questions that could be addressed by long-term research on study tours.

Impetus for Change

The purpose of this research was not to determine if study tours are a necessary prerequisite for creating world-class cycling cities in the US. It is clear that there are many paths to innovation and adoption, and in fact the volume of U.S. cities experimenting with building bicycle infrastructure is growing. Future research should evaluate study tours as they compare to other techniques that spur cities to embrace cycling. Cities such as Minneapolis, Minnesota and New York City, New York seem to have made as great or perhaps greater strides towards becoming world-class cycling cities compared to the cities researched here without participating in formal study tours. What was the impetus for change in cities like these? Did their transportation professionals read the voluminous works of John Pucher and watch video clips of cycling in European best practice cities? Did their mayor visit Amsterdam, the Netherlands for a family vacation and return inspired? Did an international consultant begin working with the city to institute transformative change? Researching the variety of techniques that have encouraged US cities to embrace cycling would be informative for other cities and national organizations that promote cycling as they are faced with making decisions about how to use limited resources to instigate change.

Understanding when each educational approach is most effective will also allow resources to be used wisely. For anyone who has ridden a bike in a city like Copenhagen or Amsterdam, where more than 35% of all trips are taken by bike, the experience alters what one thinks is possible in terms of bike use. Understanding when that experiential opportunity can serve as a catalyst for action, or to reinforce some bicycle experimentation, is important to know. Moreover, fully understanding who and how many people from any given city is optimal for sustainable success after an experiential study tour, would further ensure that such study tours are used for maximum effect.

Conclusions

The research suggests that experiential learning of robust transportation systems through study tours provide significant value for professionals' vision for transportation and approach towards their work. The study also revealed that participants were able to carry some experiences through to implementation (i.e. colored bicycle facilities). Other aspects have proven difficult

such as implementing cycle tracks, bicycle supportive policies, and soft measures, despite clear evidence of their critical nature within bicycle transportation planning.

We recommend that such experiential learning opportunities continue in the future with some modifications so that the impact of the experiential learning on practice can be strengthened. In addition, perhaps in the near future, US transportation professionals and politicians may be able to engage in domestic study tours as San Francisco, Madison, and Portland, continue to expand their bicycle infrastructure in an attempt to make complete networks of low-stress bicycle facilities, integrated seamlessly into well-balanced, multi-modal transportation systems. That said, we believe, based on the interviews of past study tour participants, that study tours to top European cities for cycling are highly effective means of helping US professionals see what is truly possible within the realm of complete, multi-modal transportation systems.

Author details:
Cortney Mild (corresponding author)
University of Oregon
Planning, Public Policy & Management (PPPM)
University of Oregon
1209 University of Oregon
University of Oregon
Eugene, OR, USA 97403-1209

956-501-6633
541-346-2040 (fax)
cmild@uoregon.edu

Marc Schlossberg, PhD
University of Oregon
Planning, Public Policy & Management (PPPM)
University of Oregon
1209 University of Oregon
University of Oregon
Eugene, OR, USA 97403-1209

schlossb@uoregon.edu
541-346-2046
541-346-2040 (fax)

References:

Bikes Belong. (2011). Bicycle Transportation Leadership Study Tour the Netherlands.

Bikes Belong. (2012). Green Lane Focus Cities. Retrieved from http://www.bikesbelong.org/bikes-belong-foundation/green-lane-project/green-lane-focus-cities/

Bikes Belong. (2012). Green Lane Grants. Retrieved from http://www.bikesbelong.org/bikes-belong-foundation/green-lane-project/grants/

Bikes Belong. (2012). Green Lane Project Events. Retrieved from http://www.bikesbelong.org/bikes-belong-foundation/green-lane-project/events/

Bikes Belong. (2012). What We Do. Retrieved from http://www.bikesbelong.org/what-we-do/

Dewey, J. (1938). Experience and education. New York: Macmillan.

Federal Highway Administration. (n.d.). About FHWA. Retrieved from http://www.fhwa.dot.gov/about/

Fischer, E.L., Rousseau, G.K., Turner, S.M., Blais, E.J., Engelhart, C.L., Henderson, D.R., … Zegeer, C.V. (2010). Pedestrian and Bicyclist Safety and Mobility in Europe. (Federal Highway Administration. Report No. DTFH61-99-C-005).

Groot, R. (2007). Design manual for bicycle traffic. Ede: CROW.

Jacobsen, P. L. (2003). Safety in numbers: more walkers and bicyclists, safer walking and bicycling. Injury prevention : journal of the International Society for Child and Adolescent Injury Prevention, 9(3), 205-209.

Kingdom of the Netherlands. (n.d.). Sustainable Transportation. Retrieved from http://dc.the-netherlands.org/key-topics/energy--climate/sustainable-transportation

Kolb, D. A. & Fry, R. (1975). Toward an applied theory of experiential learning. In C. Cooper (Ed.), Theories of group processes. London: John Wiley & Sons.

Mezirow, J. (1998). 'Transformative Learning and Social Action: A Response to Inglis'. Adult Education Quarterly, 49(1), 70-71.

Pucher, J. (2008). 'Making cycling irresistible: Lessons from the Netherlands, Denmark and Germany'. Transport Reviews, 28(4), 495 - 528.

Pucher, J., & Buehler, R. (2007). 'At the Frontiers of Cycling: Policy Innovations in the Netherlands, Denmark, & Germany'. World Transport Policy and Practice, 13(3), 8 - 56.

Pucher, J., Dill, J., & Handy, S. (2010). 'Infrastructure, programs, and policies to increase bicycling: An international review'. Preventive Medicine, 50, S106-S125.

Pucher, J., Buehler, R., & Seinen, M. (2011). 'Bicycling renaissance in North America? An update and re-appraisal of cycling trends and policies'. Transportation Research Part A, 45(6), 451 - 475.

Revans, R. W. (1998). Sketches of Action Learning. Performance Improvement Quarterly, 11(1), 23-27.

USDOC, 1980–2000. United States Census. US Census Bureau, Washington, DC.

USDOC, 2009. American Community Survey. US Census Bureau, Washington, DC.

USDOC, 2010. American Community Survey. US Census Bureau, Washington, DC.

USDOT, 2004. Summary of Travel Trends. US Department of Transportation, Federal Highway Administration, Washington, DC.

USDOT, 2010a. National Household Travel Survey 2009. Version 2.0/2010. US Department of Transportation, Federal Highway Administration, Washington, DC.

USDOT, 2010b. Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations. US Department of Transportation, Federal Highway Administration, Washington, DC.

Review of: City Cycling, edited by John Pucher and Ralph Buehler

2012, The MIT Press, Cambridge, MA & London; ISBN: 978-0-262-51781-2; UK price: £19.95

A tricky balance has to be struck in thinking about cycling's prospects as an ordinary mode of urban transport. On the one hand, it's good not to be all doom-and-gloom, but to offer hope that the urban world should and could make most of its daily trips beyond walking length by bicycle. But on the other hand it's important to emphasize that cycling as a mass mode of planetary mobility isn't inevitable and that making it happen requires ambition, commitment and work.

Overall, this book gets that balance right. Sure, there is easy talk of 'cycling's renaissance' across cities such as London, Paris and New York, talk which seems too premature, too uncritical and rather naïve. But then it is more important to show things can change, even if they are changing far too slowly, than to lose hope that cycling will ever effectively be centred in our political institutions, towns, cities, and everyday lives.

No one has done more than John Pucher and Ralph Buehler to popularise the cause and possibility of city cycling, using what is elsewhere to advocate what could be at home – in north America, but also Australia, New Zealand and the UK. Over the past decade and more, Pucher and Buehler have argued that the English-speaking world should follow the Netherlands, Denmark and Germany in becoming cycle-friendly; and they have investigated and shown how it can be done.

City Cycling continues this project in an impressive way. It is academic, drawing together an international, cross-disciplinary collection of researchers who set out what needs to change for cycling to become mainstream. But it is unquestionably advocacy too. The case for cycling has already been made but it needs making again and again, and it is made persuasively here. It is glib but true to say that if every politician, policy-maker and practitioner with any responsibility for the organisation of urban life read and acted upon this book, we could move rapidly and radically towards a socially and environmentally much brighter future.

Overall the book argues for cycling to be systematically embedded into global economy and society in the same way as driving a car has over the past half-century been systematically embedded within north American, Australian and much of European economy and society. Of course this 'centering' of cycling must be at the car's expense, and here it sometimes feels like the ambition of City Cycling's lead editor and chief contributor, Professor Pucher, is ahead of some of the book's other contributors.

For example, there is some but on the whole too little interrogation of the role of the car's continuing dominance – ideologically, structurally, spatially – in impeding cycling. Cycling visions, strategies and actions never take place in a vacuum; they emerge from and are shaped by the context of car domination. Much current action in the name of cycling - because it is insufficient for the job of mainstreaming cycling - therefore risks merely perpetuating cycling as a marginal mode of mobility and cyclists as a sub-cultural 'out-group'. Minor support for cycling reproduces cycling as a minority mode, and is not good enough. Only major resource re-allocation away from the car and towards the bicycle can break cycling out from its current marginalisation at the car's expense. The better chapters here make clear that cycling thrives in places where driving is not just 'civilised' but more importantly deterred.
But there is no 'magic bullet'. City Cycling argues effectively that consistent, coherent support for cycling across all sectors of society is required in order to develop a bicycle system which makes cycling, not driving, the obvious mode of short-distance urban travel. Countries such as the Netherlands, Denmark and Germany are well advanced over north America and Australia in every important respect – from allocation of transport spending on cycling, to development of cycling infrastructure, to land use and planning rules, to driver awareness and cycling education. Nevertheless and for good reason, issues of infrastructure loom large. It now seems

evident to the point of obviousness that new city cycling cannot be produced without the provision of a dedicated network of cycling routes of a quality sufficient to appeal to everyone. Pucher and Buehler's previous research demonstrates this as the key difference between countries with high and low levels of cycling. So whilst its message is undoubtedly broader, City Cycling's biggest impact might be in pushing us closer to consensus (a consensus which is I think established across the scientific community, but lagging across advocacy) that the two main means of mainstreaming cycling are infrastructural; first, the taming of motorised traffic to speeds which make cycling plausible even for those (the vast majority of people) nervous about sharing space with it; and second, wherever that is not (for transient reasons of political will) done (most likely on bigger and busier roads) cycling's separation from and prioritisation over motorised traffic.

Whilst the contrasts between cycle-friendly northern Europe and car-centric Anglophone countries might seem to cry out for strong critique of the latter, the book is unfailingly polite in tone. Given much of its intended readership needs to be persuaded rather than offended, this is probably good diplomacy. It does sometimes feel, however, that the passion which surely animates advocacy of more cycling – and which helps to explain that advocacy - has gone AWOL. So one cost of diplomacy is a certain tediousness in both description ("the Netherlands is like this, the US is like this …") and analysis ("the Dutch prioritise cycling, but north Americans don't …"). The book's impetus to convince more than explain also leaves some questions unasked ("But why do the Dutch prioritise cycling, whilst north Americans don't? What are the ideological and institutional blocks and barriers, and how might they best be overcome?"). For similarly understandable reasons the book is generally upbeat ("look how cycling is growing, and look how easy it is to grow it faster!"), yet we know this is only one side of the story. There are certainly good news stories, but let us not be blind to the fact that across most of the world levels of cycling are either negligible and static, or else quite high but rapidly declining (and in those places cycling needs rescuing, not promoting).
City Cycling belongs to an emerging shift from a paradigm of cities built for and around the car, towards one which sees cars as inappropriate and bicycles as far more appropriate vehicles for cities. There is material useful to this transition here. It's good to see Kristin Lovejoy and Susan Handy's exploration of cycles and cycle accessories, for example. We know that many bicycles are not really fit for the purpose of city cycling, and it's refreshing to see that recognised.

Also good are the three chapters exploring cycling in different sized cities – the small, medium and mega. Cycling is sometimes dismissed by critics as more appropriate to smaller than to bigger cities, whose populations (they say) should travel by transit not bike. So it's a neat bit of advocacy as well as analysis to break cities down by size, and discuss prospects and strategies for cycling at each scale.

The most fascinating glimpse into cycling is provided by the penultimate chapter exploring cycling in four 'mega cities', London, New York, Paris and Tokyo. The first three have seen much pro-cycling hype (and sometimes hysteria) and large increases in cycling, albeit from very low bases. In contrast cycling in Tokyo seems prey to benign neglect, yet it is by far the most successful 'cycling mega city', with relatively high modal share (16.5% of all trips we are told), demographically relatively evenly spread.

This chapter correspondingly begs the more detailed kind of cultural investigation which is necessarily absent from the book, but which is nonetheless well worth pursuing. One of the book's big policy pushes is towards dedicated cycling infrastructure, something now being pursued in London, Paris and New York but not Tokyo. So that using Tokyo as a model of best practice in this chapter might almost undermine the main advocacy push of the book as a whole. (It would be a shame, but unsurprising, if the case of Tokyo were used by opponents of dedicated cycling infrastructure.)

Tokyo's apparent 'success' suggests the importance of closer study of how cycling

is actually practised – how do people cycle there? How fast do they tend to go? We know quite a lot about cycling policy and practice in north America, Australia and Europe, but what about cycling policies and practices elsewhere, including Japan about which it seems we know too little? Furthermore the book is silent on the two countries which arguably matter most for the future both of city cycling and our planet – China and India. This is fair enough - City Cycling makes no claims to inclusivity or universality. But the more global perspective which the case of Tokyo provokes raises potentially disturbing questions; 'just what is cycling?'; and 'what do we want it to become?'.

City Cycling's desire to persuade more than explain is both its biggest strength and its greatest shortcoming. Thus my hope is that it'll be read more by people who need persuading of the case for cycling than those seeking to understand it. But even were that to be the case, I have some concerns.

In its rush to show how cycling's promotion is compatible with a range of bureaucratic policies, and how inserting cycling effectively into the city is mainly about technocratic expertise and practice, there's an evacuation of politics from City Cycling. There are two elements to this evacuation of the political: first, it prevents the book asking some tough questions (to do with continuing neo-liberal capitalism) about why cycling continues to be so marginalised despite it making so much sense; and second, what disappears from most chapters is what I would assume is the authors' beliefs in the bicycle's capacity to make the world a better place.

To finish let's look briefly at each of these in turn.

First, if cycling is so good, why aren't we all cycling yet? If the arguments are so strong and persuasive, what's stopping us? Answering such questions requires political, economic, social and cultural analyses both of continuing car (and oil) dependency and of cycling's continuing marginality. Across the USA, Australia and UK it remains the case that the advocacy of cycling is tolerated, and demands for greater investments in cycling are granted, only so long as they don't threaten the car's centrality to everyday life and/or they fit with emergent neo-liberal discourses around livable (for the white, affluent, middle-classes) cities. So only outrageous, extraordinary demands for cycling – demands which test the limits of the car system - have hope of breaking us (even cycling's advocates) out of unwittingly reproducing cycling's marginality. Until we learn how to do this, mass city cycling – cycling as the main vehicular means of urban transport – remains a pipe-dream. Second, should cycling promotion become a technocratic exercise, simply about inserting more cycling into the city-as-it-is for the latest, most fashionable set of policy reasons? Is cycling's main contribution to make our bodies, businesses, streets and economies more 'effective' and efficient? Is more cycling enough, or do we want something more? I don't know about you, but I want something more. Cycling, and thus the bicycle, is not 'merely' a bureaucratic and technocratic insertion into the city as it is, with all its injustices and inequalities (to do with class, gender, race, age, ability, locality and so on). Cycling, and thus the bicycle, is also potentially, at least in part, a disruption to that city, and so something which enables the city to be re-made in more socially and ecologically just ways. So demands for city cycling should not only be ridiculously bold but also unapologetically critical. Who are we encouraging to cycle? White, male, middle-aged commuters? Not good enough! What about – for example - kids, people who need to ride wider-than-average machines specifically adapted to their needs, people travelling as a group (who've every right to travel as sociably as people within a car)? I think people advocate for cycling because they recognise its capacity to improve the world in a strong, qualitative way; I agree; and I think that we shouldn't sell either ourselves or cycling short.

All this is perhaps less a criticism of the book than a critique of what cycling might become if left purely to the work of books such as this. This book is important, but it's not enough. It can form only part of a broader struggle.

City Cycling should push city cycling, and is to be very highly commended for that, but it raises more questions than it answers for future cycling research. This is no bad thing; cycling research, much like cycling advocacy, is part of the cycling system we need to establish and maintain in order to first make and then keep cycling normal.

Dave Horton
Sociologist and writer;
thinkingaboutcycling.wordpress.com

Review of: Lucius Burckhardt Writings. Re-thinking man-made environments. Politics, Landscape and Design

By Jesko Fezer and Martin Schmitz (eds)

Springer, Vienna and New York
ISBN 978-3-7091-1256-4
288 pages
2012
http://link.springer.com/book/10.1007/978-3-7091-1257-1/page/1

Lucius Burckhardt (1925-2003) is not well known in the English speaking world. His prolific output over many years has achieved a very rare fusion of politics, landscape and design and his understanding of urban processes and the importance of place distinctiveness is as relevant and vital today as it was 4 decades ago. This book is a selection of his writings and should be compulsory reading for anyone involved in shaping cities, enriching the lives of ordinary people and seeking to prevent cities drowning in cars, pollution and destroying landscape and nature.

As a student in Basel (Switzerland) in 1949 he wrote an article drawing attention to the grandiose and destructive plans of that city to make space for cars. The so-called Basel "Correction Plan" detailed how narrow streets should be "re-structured" to cope with more cars and entire rows of houses would be demolished so roads could be widened. His October 1949 article "Historic Center in Peril" alerted everyone to the madness of what was proposed (he called it "traffic psychosis") and argued that we had to put destruction on hold until "good taste has got back on its feet, until value judgements have been revised". At a very early stage in European consciousness of quality of life in cities and the importance of streets for social and community life Burckhardt recognised the important links between architecture, planning, value systems and social change and worked to deepen understanding and combat mass motorisation. His work helped to save Basel but the destructive march of the traffic psychosis continued and continues and Glasgow's efforts to create a motorway dominated urban desert stand as a monument to failed value systems that would confirm all Burckhardt's worst fears when he wrote his 1949 article

Burckhardt was an early example of active, interventionist academic activity. He made civic engagement the basis of his life's work and in his work and writing always emphasised the importance of engaging with members of the public, resisting so-called expert opinion when it led inexorably to the detriment of citizens and explaining how we can understand cities more deeply and clearly through the method he invented "strollology" i.e. walking around a city and experiencing its texture, meaning and feelings:

> *"to take a stroll is the most basic means to perceive the world"*

And

> *"strollology –the science of walking- was quick to develop a notion of architecture and urbanism, planning and building for the globalized world. It proved useful as an instrument with which to render visible hidden aspects of the man-made environment and to challenge conventional modes of perception" (page 25)*

It is this "challenge conventional modes of perception" that lies at the heart of challenging mass motorisation and the task that must be done to convert our streets from the traffic sewers they have become into places for people, community activity and social interaction.

Burckhardt's many writings include "Who plans the planning" (pp85-101) in which he eloquently describes how planners might know how to plan but the "how" is a small part of a bigger story in which planning is determined by wider political and social forces. This results in a planning system that works within a prevailing ideology and delivers results that run counter to what many might expect of planning… "deterioration of the environment is also a consequence of planning" (page 85). The

discussion of planning reports (page 90) is especially perceptive where he describes two parts to the report. The first part is detailed statistics, analysis, surveys, data etc and the second is "a solution". Burckhardt shows that the links between the two parts are very weak and the solution part "rests therefore at best on intuition, at worst on something whispered in his ear by a third party". Anyone who has sat through a planning meeting or attempted to take part in public "consultation" knows that this is the case and knows that planning is an elaborate smokescreen for delivering projects that meet the objectives of more shopping, more traffic, more building and more jobs and is not about creating and promoting liveable communities and accommodating the wishes and preferences of local residents.

Burckhardt describes the planning of the Doerfle district of Karlsruhe in Germany.."a misconceived bypass road isolated the district, and its roadside margins became inhospitable slums. The city believed it had to intervene to purchase and tear down everything along the roadside. In consequence the next row of buildings became a slum, and so, was purchased until there was a gaping hole in the inner city. Neither local planners nor politicians were prepared to admit that they personally had created the problem they were so busily attempting to solve" (page 100).

Burckhardt's originality shines through many of his essays. In "Dirt" published in 1980 (pp 166-169) he summarises most eloquently the problem many of us have had for several decades in promoting the bicycle as real traffic, real transport, healthy and affordable transport …"but cyclists are dirt as far as traffic engineers are concerned: a remainder that somehow refuses to disappear" (page 168)

In "The Sermon" published in 1994 (pp 232-238) Burckhardt could have been writing about many road building projects in Britain…"to redress a problem always leads to a bigger problem. It is clear, moreover, that a neat solution doesn't deliver a real solution, for this is not at all possible- it merely redistributes the problems. The engineer thus never manages to turn misfortune into good fortune but only to allocate benefits and disadvantages to different people than before" (page 234).

This collection of writings is truly excellent and delivers profound insights into the problems and issues routinely covered in the journal World Transport Policy and Practice. It does not go as far as suggesting a way of reforming the polluted planning and urban design systems that replicate transport problems faster than they can be put right. It does, however, shine a very bright light on the need for de-emphasising technocratic planning and the role of the professional planner and engineer and upgrading the role of the modest, quiet observer strolling through the urban environment and through this intimate engagement realising what must be protected and how the future can be shaped.

John Whitelegg