RGS-IBG Annual International Conference 2019

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	Long-distance travel, social change and climate change: troubles ahead? (1)
Affiliation	Transport Geography Research Group
Convenor(s)	Giulio Mattioli (TU Dortmund University, Germany) Joachim Scheiner (TU Dortmund University, Germany) Zia Wadud (University of Leeds, UK)
Chair(s)	Giulio Mattioli (TU Dortmund University, Germany)
Timetable	Thursday 29 August 2019, Session 1 (09:00 - 10:40)
Session abstract	Long distance passenger travel – whether domestic or international – accounts for a small share of trips, but a large share of travel distances, energy use, and carbon emissions. Despite the recent excitement about 'peak car', traffic volumes are growing on motorways, trunk roads and railways in the UK, and CO2 emissions from international aviation in the EU have more than doubled since 1990. Non-work and leisure activities play a big role here, and a number of broad social trends (e.g. transnationalism, migration, ICT, changing nature of work, individualisation, ageing) have a clear bearing on these developments. Yet our understanding of the social, economic and lifestyle drivers of long-distance travel demand is still limited. The session includes theoretical and empirical contributions that help advance our understanding of the link between social change and growing travel demand in the long-distance sector and their potential implications in terms of energy and carbon emissions.
Linked Sessions	Long-distance travel, social change and climate change: troubles ahead? (2)

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A counter-narrative to carbon supremacy: Do leaders who give up flying because of climate change influence the attitudes and behaviour of others?
Steve Westlake (Cardiff University, UK)

This research explores whether people who take a stand to give up flying because of climate change influence the attitudes and behaviour of others, and whether this could contribute to a shift away from unlimited flying as a social norm. A survey (n=380) distributed online and conducted face-to-face (n=32) found that around half of respondents who know someone who has given up flying because of climate change say they fly less because of this example. Furthermore, around three quarters say it has changed their attitudes towards flying and climate change in some way. The effects are increased if it is a high-profile person that is known to have given up flying, with around two thirds saying they fly less because of this person, and only 7% saying it has not affected their attitudes. Semi-structured interviews with people who have been influenced by such 'leaders' highlighted commitment and expertise as the leaders' most significant influential qualities, while interviews with leaders themselves revealed their strategies for bringing about social change. The results of the research suggest that there is an 'appetite for leadership' when it comes to tackling emissions from aviation. Leading by example by giving up flying appears to send a powerful and effective message that, in combination with structural changes in transport provision and different policy signals from government, could contribute to a shift away from unlimited flying as a social norm, as part of a collective effort to reduce carbon emissions.

Are cyclist and PT users more eager to fly?
Toon Zijlstra (Netherlands Institute for Transport Policy Analysis, The Netherlands)
Jaco Berveling (Netherlands Institute for Transport Policy Analysis, the Netherlands)

In this contribution we investigate the frequently discussed association between 'green' daily travel patterns and number of flights. In this study we focus on the Dutch, Belgian and German population. In line with previous research, we expect people with a relatively intensive use of bicycles and public transport to show a higher propensity to fly. Such a relationship would imply that lower emissions on a daily basis are canceled out by more frequent flights.

We use a large-scale CAWI survey from 2016 (n=7,201) about the propensity to fly, airport choice and travel attitudes. The number of flights in the last 12 months are linked to travel profiles of our respondents, controlling for known determinants of the propensity to fly. Via a zero-inflated poisson regression model we make a distinction between whether or not to fly on the one hand and the

number of flights on the other.

The preliminary results indicate that the number of flights is positively correlated with frequent use of public transport. Public transport passengers made an average of 1.43 trips, while motorists made only 1.20 trips. We do no find differences between cyclists and motorists. A far more relevant distinction seems to be the frequency of daily trips. Highly mobile people are also more likely to fly, compared to people with a limited number of daily trips. Many of the control variables appear to be of greater relative importance. Income, educational level and attitudes towards flying are particularly relevant. Making business trips has a huge impact on the number of flights. The paradoxical relationship between more sustainable daily travel patterns and unsustainable flight behavior is not substantiated on the basis of our findings.

This will never fly: Discourses on the reduction of academic air travel
Agnes S Kreil (ETH Zürich, Switzerland)
Michael Stauffacher (ETH Zürich, Switzerland)

Academic air travel is receiving increased attention from academics, student organizations, and the media. Researchers have larger-than-average footprints due to fieldwork, advisory board memberships, conference attendance, and in-person international collaboration, and recent developments in these scientific practices contribute to this trend. Greenhouse gas emissions from business-related air travel make up a large share of universities' carbon footprints (e.g. 63-73% at the University of British Columbia). The scale of these emissions poses a reputation risk for universities and researchers, especially as climate researchers are demanding immediate and radical action in response to climate change. "Walking the talk" becomes thus a key obligation for academics. In reaction, a growing number of universities around the world are looking to reduce their emissions from air travel. Such initiatives bring to the fore understandings and discourses about flying, flight reduction, and the offsetting of travel-related emissions. Using in-depth interviews and participant observation, we analyse these discourses at the Swiss Federal Institute of Technology (ETH) in Zurich. We do so through several analytical lenses. First, we explore how "flying" is constructed as an object and practice. Secondly, we produce a typology of positions on flight reduction and offsetting of air travel emissions, within which we pinpoint the principal arguments mobilised and specific discursive strategies at hand. We notably focus on those strategies employed by individuals to avoid personally being held accountable for their air travel. Throughout, we relate our findings to current practices of 'doing science', both regarding the requirements of scientific careers and the criteria for 'good science'. We conclude by emphasizing the need for increased social research to implement evidence-based policy in this area.

Co-ordinating work and managing travel demand in multinational corporations: the co-evolution of work, ICT and travel
James Faulconbridge (Lancaster University, UK)
Ian Jones (University of Leeds, UK)
Jillian Anable (University of Leeds, UK)
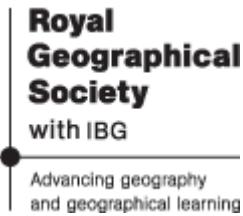*Greg Marsden (University of Leeds, UK)*

In this paper we argue that efforts to reduce demand for business travel require a different perspective to the dominant information communication technology (ICT) substitution agenda. We suggests understanding the co-evolution of work, ICT and travel provides a better account of both dependency on travel and what is required to reduce this dependency. Drawing from interviews with employees from two UK engineering multinational consultancy firms, virtual and corporeal ways of working are shown to have become embedded and normalised from increasing entanglement between work, ICT and travel. Specifically, a co-evolved system of work mobility is identified. This system ties the practice of work to both ICT and travel enabled global reach. Understanding this system leads us to conclude that demand for travel can only be meaningfully reduced by managing it as a product of corporate practices of co-ordination created by a co-evolved system of work mobility; something few travel management interventions have tackled.

Towards a broad discussion of what cultural and socio-material arrangements could mean for decarbonizing the leisure travel demand of older people
Emmet Fox (unaffiliated)

Our research into leisure travel practices amongst older UK citizens identified some trends and future travel ambitions and expectations that are worrying from a Climate Change perspective. Particularly, those that suggest potential growing participation in leisure cruising and long-haul flying – both very high-emitting forms of travel. We examined data from the International Passengers Survey, the Living Costs and Food Survey, and from the 119 interviews of three age cohorts of older leisure travellers in the UK. From this research, we discovered distance-furthering patterns occurring where trips by senior travellers were increasing to destinations beyond Europe and outside the more traditional North America. This development is part of a shifting geographical sense of 'exotic' and 'adventurous' travel which we found to be occurring alongside changes in travel infrastructures, technologies, and service provision and the increasing engagement of UK citizens in foreign travel. Among many participant members we also identified age-related anxieties that contributed to 'travel-while-I-can' sentiments. Coinciding with facilitative changes to the systems of provision and technology (e.g. wheelchair assistance, speedy/priority boarding, wheelie bags), these sentiments and affective changes have potential accelerative and expansive effects in how older travellers seek to negotiate the socio-material relations around foreign travel. This we covered in an article published in Geoforum. Here, however, I seek to open up a loose preliminary analysis - mainly through Practice Theory ideas about social change – as to what this might mean for intervening in senior leisure travel so as to transition to more sustainable patterns. In discussing such a transition, I find it necessary to broaden the topic to related social possibilities hinted at in our research – such as how expectations about older leisure travel, aging and retirement are being co-defined through broader societal arrangements that reproduce dichotomies of labour/leisure, old/young, domestic/foreign, and home/away.

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Chair(s)	Zia Wadud (University of Leeds, UK)
Timetable	Thursday 29 August 2019, Session 2 (11:10 - 12:50)
Session abstract	Long distance passenger travel – whether domestic or international – accounts for a small share of trips, but a large share of travel distances, energy use, and carbon emissions. Despite the recent excitement about 'peak car', traffic volumes are growing on motorways, trunk roads and railways in the UK, and CO_2 emissions from international aviation in the EU have more than doubled since 1990. Non-work and leisure activities play a big role here, and a number of broad social trends (e.g. transnationalism, migration, ICT, changing nature of work, individualisation, ageing) have a clear bearing on these developments. Yet our understanding of the social, economic and lifestyle drivers of long-distance travel demand is still limited. The session includes theoretical and empirical contributions that help advance our understanding of the link between social change and growing travel demand in the long-distance sector and their potential implications in terms of energy and carbon emissions.
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Current long-distance travel in Germany: How to merge distinct data sources into a meaningful and consistent picture

Angelika Schulz (German Aerospace Center, Germany)
Bastian Chlond (Karlsruhe Institute of Technology,Germany)
Miriam Magdolen (Karlsruhe Institute of Technology, Germany)
Katja Koehler (German Aerospace Center, Germany)
Tobias Kuhnimhof (RWTH Aachen, Germany)

In contrast to everyday travel, long-distance passenger travel continues to increase for the German population. Although data are available for some travel segments, there is no up-to-date and consistent overall picture of this specific demand, neither in terms of total transport volumes, nor in terms of socio-demographic characteristics of the corresponding population and the driving forces. A dedicated survey – already carried out in the early 2000s (INVERMO 2002/2003) – revealed that long-distance travel was extremely unevenly distributed among the population: only a small proportion was responsible for the majority of travel volumes. The question is whether this fact has already changed in view of current societal processes, such as an increasing level of education, the conversion to a knowledge-based society, long-term socialisation in terms of travelling to distant destinations, the emergence of multi-local lifestyles or wide-ranging social networks, all of them likely to result in changing travel volumes and a shift between different groups of travellers. Analyses in this respect, however, require a meaningful data framework. An ongoing project on behalf of the German Federal Environment Agency aims to compile relevant data sources (i.e. German National Travel Surveys, tourism surveys, official transport statistics) and to amalgamate them within a 'fusion model'. The challenge is to prepare available data according to a suitable definition of 'long-distance travel' and to close data gaps based on empirically founded assumptions. Results from a survey carried out during the project will complement the data framework providing missing information i.e. on the use of particular transport modes typical for long-distance travel.

The objective of this paper is threefold: First, the challenges of data harmonisation are described against the background of diverging definitions of long-distance travel. Second, the approach of 'data fusion' is presented. Finally, the current picture of long-distance travel in Germany is outlined.

Structuration effects in long-distance mobility: a 'mobility biography' approach

Giulio Mattioli (TU Dortmund University, Germany)
Joachim Scheiner (TU Dortmund University, Germany)

While reducing transport emissions is perhaps the most difficult part of the climate change agenda, long distance passenger travel is a sector where demand is rapidly increasing, with e.g. a doubling of EU international aviation emissions in the last 30 years. This trend is driven by macro-social trends (e.g. globalisation, development of the tourism industry), but there is also evidence of 'structuration effects' – i.e. self-reinforcing dynamics whereby long distance travel in the present facilitates and creates the need for further travel in the future. It has been argued that a 'mobility biography' approach, investigating long distance travel over the life course and across generations, is well suited to capturing these mechanisms. Yet mobility biography research has to date focused mostly on daily travel behaviour, seen as a routinized activity changing due to life course events. In this theoretical paper, we argue that the nature of long distance travel (infrequent, non-habitual, pre-planned, 'break from routine') requires a different perspective. Greater emphasis should be placed on life-long socialisation dynamics, and on the 'mobility links' between long-distance travel and other forms of mobility (e.g. residential relocation, migration, multi-local living). We focus in particular on two mechanisms underlying such links, namely the acquisition of mobility-related skills and competences, and the development of spatially dispersed social networks over the life course. We critically review empirical findings on these mechanisms, bringing together research from a number of fields (e.g. tourism, (trans)migration, multilocality, and social networks). We complement this literature review with initial findings from our own quantitative study of the relationships between migration background, social network dispersion and air travel in the UK (based on 'Understanding Society' survey data). We conclude by discussing future directions for empirical research on this important but neglected topic.

Urban form and leisure mobilities: testing the compensation hypothesis
Sebastien Munafo (6t-bureau de recherche, Switzerland)

Several studies have underlined that residents of city centers tend to travel more, especially by plane, during their leisure time than people living in more peripheral areas, with equal income levels. One hypothesis put forward to explain this phenomenon suggests that suburban residents actually enjoy a more pleasant environment for recreation (for instance for barbecues and garden parties) while central city dwellers are forced to travel more and further to enjoy nature and quiet. Reference to a "compensation effect" or "barbecue effect" is used to describe this hypothesis. Due to the very high level of energy consumption of leisure mobility, this effect would then lead to deeply question the virtues of the compact city in terms of sustainable mobility.

This contribution aims to test the compensation hypothesis in the cases of Geneva and Zurich. Its objective is to finely examine the causal mechanisms of living environments on leisure mobility and verify whether their inclusion is actually able to challenge the compact city as a sustainable urban form. Both quantitative and qualitative data ultimately lead us to reject this hypothesis. Indeed, if the occasional mobility of city center inhabitants is in actual fact very important and largely unknown, it is far from being strictly related solely to nature bound travel and recreational purposes. Furthermore, this study shows that these outings are not related to the idea of compensation either, but they should be seen as an aspiration for diversity as a part of urban lifestyles. Moreover, its energy or CO2 impact is not important enough to actually reverse the sustainability contrasts between compact and suburban form in terms of mobility.

High mobility in China? The impact of high-speed rail on work-related commuting: A case study of Suzhou-based commuters
Chia-Lin Chen (University of Liverpool, UK)
Hyung-Chul Chung (Xi'an Jiaotong-Liverpool University, China)
Roger Vickerman (University of Kent, UK)

The Chinese high-speed rail (HSR) network has revolutionised the time-space perception and potentially restructures social and economic relationship through new spatial and temporal arrangements, which was once unimaginable and unrealisable. "High mobility" refers to work-related forms of long-distance travel (Viry and Kaufmann, 2015). There is an optimistic assumption that HSR will facilitate a new form of long-distance daily commuting patterns in China whereas this claim does not consider other factors such as the commuting time, quality of life, location of the HSR stations, the movement of commuters (implying the concept of reversibility), business relocation vs. near-home job opportunity brought by HSR etc. How will these aspects underlie the high-mobility phenomenon from a commuter's perspective?
Most HSR research has devoted to accessibility studies and spatial-economic impacts while little has been explored from perspectives of commuters: to what extent and how the arrival of HSR has impacted on high mobility practices. This paper intends to bring new insight by bringing concepts of mobility studies into the field of territorial planning to enhance better understanding of social and territorial transformation in the age of HSR.

This paper presents and discusses the findings from a pilot study of the emerging phenomena of Suzhou-based long-distance HSR commuters within the Yangtze River Delta area. An online questionnaire survey of approximately 288 valid answers was conducted to understand their attributes (social groups, spatial-economic patterns of employment and locations) and travel experiences. A further in-depth interview with seven participants of different social-economic characters was used to gain deeper understanding of the factors underlying the socio-economic and spatial patterns. This paper is expected to shed light on HSR-related commuting patterns and social-economic characteristics that could offer valuable policy implications and lessons for HSR-related urban planning practice.

Long distance travel: a comparison between generations to understand future trends
Elena Colli (University of Milan-Bicocca, Italy)

It is known that vehicle transport is responsible for a high amount of GHG emissions and a change towards more sustainable transport system is needed. Nevertheless, technological improvements are not enough to mitigate the environmental impact, and it's emerging the necessity to act on mobility behaviours.

In particular, it's gaining attention the issue of long-distance trips, other than daily and urban trips, since it may account for a small share of trips, but a large share of carbon emissions.

Massive behaviour change is highly dependent on demographic change, and the aim of this paper is to focus on the generational differences of travel behaviour. It will focus on 2 populations in particular: on one hand the protagonist of the "ageing society" ("baby boomers"), which are represented mostly by the newly/upcoming retired, with higher car dependency, wealth and health than their predecessors at the same age; and "millennials", which are experiencing a decrease in car use/ownership and are seen to be more "environmentally minded".

The goal is to analyse their mode choices in long distance trips, comparing the data from 2014 and 2018 of the large European dataset "Travel Survey on demand for innovative transport systems" with info about travel habits, life choices and values & attitudes. The method includes cluster analysis, regression analysis and the use of GIS tools.

The expected outcome is to obtain more information about the choices and trends of two generations which will be crucial to the future of urban mobilities, and give some tools to shape more targeted transport policies & well-informed planning to promote more sustainable behaviours.