An Ideal Journey: Making bus travel desirable

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Abstract

This paper explores the ways in which people use their travel-time on local buses, and explains how this knowledge can assist with efforts in many 'auto-centric' societies to make bus travel more attractive and encourage a shift away from excessive private car use. Framing the discussion around the concept of an 'ideal bus journey', this paper examines whether travel-time activities on-board the bus give subjective value to the journey experience. Particular attention is given to emergent mobile ICT technologies, which are rapidly reconfiguring the ways in which we can inhabit and use mobile spaces such as the bus.

This paper reports a novel mixed-methodology, creating a synthesised analysis of online discussions, focus groups, and a large-scale questionnaire survey of 840 bus users in Bristol, UK. The findings demonstrate that the bus is a very active space, with high levels of travel-time activity. The most popular activities on the bus are those related to relaxation and personal benefit, such as reading, listening to music, and browsing the internet. It is the passengers themselves that are largely in control of their in-vehicle experience, being able to craft a range of different positive journey experiences through travel-time activity. However, negative experiences are very common, and there is a need to challenge unfavourable public perception and media representations of bus travel to create a more positive cultural construction of the bus which would allow for the concept of an 'ideal journey' to be more easily realised.

Passengers are the main creators of their travel-time experience, however there is much that can be done by bus operators to facilitate different types of activity and encourage a desirable public space. The overarching message is that there is a distinct opportunity to unlock travel-time activity as a 'Unique Selling Point' of the bus. Creating a perception of the bus journey as a desirable piece of time will allow local bus services to compete with the car on their own terms, and assist with international efforts to encourage people out of their cars and onto public transport for some trips.

Keywords

Travel time use; journey experience; bus; ICT; passenger

1. Introduction

The image of local bus travel in many societies across the globe has suffered for a long period of time - the social status and journey experience being compared unfavorably with that of the car and the train. Such a perception of the bus is prevalent in the UK where this study is focused, and there are important implications internationally for those countries with high levels of car ownership as well as those which are experiencing growth in car ownership alongside economic development.

This article examines the framing of the bus journey experience by the general public and popular media with a view to assessing its broadly negative construction, and explores the idea that there is an '*ideal bus journey*' which might in fact be desirable to passengers (Stradling *et al.*, 2007). To this end it draws upon research that considered the potential of travel-time activity and mobile technology in the creation of an ideal bus journey. It is argued that such activities could make the bus journey experience much more enjoyable and attractive to travellers and increase patronage, in the same way that, under suitable conditions, train travel is valued by travelers as productive time (Mokhtarian & Salomon, 2001; Mokhtarian et al., 2001; Watts & Urry, 2008; Lyons & Urry, 2005; Lyons et al., 2007, 2013; Watts, 2008; Holley et al., 2008; Ohmori & Harata, 2008). Hence, the premise of this paper is that if the *subjective value* of in-bus time to existing passengers can be better understood, such findings can be used to promote bus travel to occasional or non-users, so creating a transport policy benefit in terms of increasing public transport use over growth in private car use. The findings presented here therefore have international significance for transport practitioners and other authorities seeking to increase local bus patronage on both existing networks and new systems.

It is important to note here that a bus journey in its entirety is comprised of not only the in-vehicle time, but also the other stages of the journey, such as waiting at the bus stop. Existing studies have explored the experience of waiting at the bus stop (e.g. Dalvi, 1978; Webster & Bly, 1980), however this paper focusses specifically on the on-board experience.

In considering the relevance and usefulness of the concept of an ideal bus journey, the paper connects Stradling *et al.*'s (2007) psychological investigation of affect and bus travel with debates about travel-time use (Jain, 2009; Lyons et al., 2007, 2013; Watts & Lyons, 2010) and accounts of comfort and travel (Bissell 2008). The paper peels back the layers that shape bus travel to demonstrate that basic service provision needs to underpin any added extras associated with comfort or activities conducted on the move. It also questions changing experiences of bus travel with each generation; notably how mobile technological devices are changing the nature of interaction within the bus and the impact this has on the experience, and what might constitute an ideal bus journey for different people. Evidence is drawn from a mixed-methods approach that quantifies activities undertaken while travelling and opinions of the experience of bus travel.

The paper contextualises the bus and journey experience in existing research before setting out the methodological approach and key themes. This is followed by a presentation and discussion of the mixed-methods approach designed for this study. The conclusion draws together these evidence-based themes to explore whether an ideal bus journey is a concept worth pursuing, and what the implications of this are for encouraging greater use of the bus.

2. Unpacking the concept of an 'ideal' bus journey

The bus has the potential to be a sustainable alternative mode to the car for commuting, other utility trips, accessing leisure or social activities, and in some cases business travel. In general (and when well-utilised), public transport modes such as the bus have been found to be more environmentally sustainable than private car transport in respects of both CO_2 emissions (e.g. Chapman, 2007; Waterson et al., 2003; Kennedy, 2002; Nijkamp et al., 1995) and overall energy consumption per

passenger km (Kennedy, 2002). Successful examples of congestion charging from Singapore and London have demonstrated that reductions in traffic congestion of 30-40% have been accompanied by an increase in public bus use (provided congestion charging is supported by a concurrent increase in bus provision) (Chapman, 2007; WBCSD, 2001; Beevers & Carslaw, 2005).

Internationally, efforts are underway to improve and promote bus travel via a range of different measures. As examples, in Europe the European Union funded CIVITAS project (which encompasses over 200 European cities) has implemented bus improvement measures including high-quality bus corridors, improved ticketing systems, new Park and Ride networks, and upgraded travel information provision (CIVITAS, 2013). In Australia there has been a concerted program of bus network improvement in recent decades, with new Bus Rapid Transit (BRT) corridors, service restructuring, and measures to increase in service frequency (Currie & Wallis, 2008). Indeed, Bus Rapid Transit systems have been increasing in popularity worldwide, and particularly in South America and more recently Southeast Asia (Cervero & Kang, 2011; Deng & Nelson, 2010; Hensher & Golob, 2008).

Focusing on the UK context, transport policy in the last 20 years has sought to re-invigorate local bus services, particularly in urban areas, to attend to environmental and social issues of air pollution[1], greenhouse gas emissions, and urban traffic congestion (DfT, 2011). Nonetheless, despite a multitude of initiatives to install bus lanes, improve bus priority, upgrade vehicle fleets, improve ticketing, and provide better travel information, currently in Great Britain bus travel only accounts for a relatively small proportion of daily travel when compared to the car. In England in 2013 for example, private car travel accounted for 64% of all trips made and 77% of the distance travelled by all modes; local buses accounted for just 7% of trips made and 5% of distance travelled (DfT, 2014).

One of the main challenges to be overcome when promoting the bus as a viable alternative to the car is changing popular public perception about what the bus offers (Ten Percent Club, 2006). The car is the principal icon of contemporary experiences of mobility, embodying freedom, control, privacy, and convenience (Miller, 2001; Sheller, 2004), and to a greater extent it has created its own culture in many societies the world over (Urry, 2004). In contrast buses have increasingly become seen as a 'mode of last resort', or 'second class transport', fit only for those who do not have access to a car because of the perceived lack of flexibility, privacy, and personal control when compared to the car (Guiver, 2007). An important feature of this issue is that negative perceptions of bus travel are strongest amongst people who either have no experience of bus travel, or who have not traveled by bus for a number of years (Beirão & Cabral, 2007).

So in what ways might bus patronage be increased? One option is to consider how the bus journey can be made more attractive to a cross section of society, thus weakening the social stigma attached to the mode and boosting its image as a *culturally desirable alternative* to the car (Knowles & Abrantes, 2008). Understanding what might constitute an ideal bus journey may enable a re-visioning of what the bus has to offer, *on its own terms*. Recent research exploring considering the psychological and physiological experiences of travelling and the potential of time use for a range of activities on public transport demonstrate the opportunity for moving the debates of an 'ideal' bus journey in new directions. This approach would support a move in the bus industry that has begun to recognise that in order to improve the perceived attractiveness of bus travel, it is not sufficient to focus solely on instrumental aspects of service delivery to encourage such a shift in public perception (Ten Percent Club, 2006; Robson, 2009).

There is evidence from a number of disciplinary fields which point to an understanding of journey experience beyond being simply a mechanism for connecting locations. Few studies have focused on the bus itself, but insights from broader research into the qualitative nature of travelling (on public

[1] Whilst improvements to air quality are a suggested policy outcome from the promotion of bus travel, there is evidence to demonstrate that with specific reference to oxides of nitrogen (NOx), increased bus travel has in many cases led to a *worsening* of air quality in urban areas due to the dominance of diesel as the fuel type used in the majority of bus fleets (Parkhurst, 2004).

transport) elucidate the problem. The concept of there being an 'ideal bus journey' was promoted by Stradling *et al.* (2007) as an outcome from a psychology-oriented investigation into bus travellers' experiences. This *experiential* focus explored how bus passengers perceived the journey, whether unsatisfactory or ideal, and encompassed a number of different affective states of being.

Here a key concern for Stradling *et al.* (2007) is that the journey should be *affectively pleasant*, i.e. the passenger feels comfortable in his or her surroundings. The predominant desire amongst bus passengers is for a relaxing, switched-off, calm journey, whilst others desire a more social, activated experience (Ibid; Mann & Abraham, 2006; Beirão & Cabral, 2007). Thus, this pleasant experience is suggested to lie at a point on the continuum from more active to less active affective states at the pleasurable end of the 'circumplex model of affect' (see: Russell, 2003). Different points on this continuum can be argued to provide the same positive affect within the bus, and the findings suggest a certain state of 'tranquility', which is not necessarily an experience of calm/quiet, but one in which a passenger feels *affectively comfortable* and is not subject to negative experiences of boredom or stress.

However, evidence indicates that the bus is an 'intensely public' space that results in what Stradling *et al.* (2007) describe as social discomfort (i.e. the discomfort resulting from being in close proximity to others) and where passengers may be prone to negative affective experiences of boredom and stress (Guiver, 2007; Jain, 2011). Yet passengers themselves often have strategies for creating comfort and finding ways to relieve boredom and reduce stress through activities and technologies to shape the journey into more of an ideal experience. Thus passengers, arguably, can *create* an individualised ideal journey based on experience and need.

Indeed, travel-time in general has been conceptualised as a 'gift' to the passenger (Jain and Lyons, 2008). Having this time has been found to provide the public transport traveller with an opportunity for 'time-out' (i.e. time to relax and 'switch off') during an otherwise busy routine; it might be valued as a piece of 'transition time', in which the passenger has the opportunity to mentally 'shift gears' between the different spaces and social spheres of departure and destination (e.g. work and home); or it might be a piece of 'time-for', which provides the opportunity for personal tasks such as organising work and home life.

The potential of travel-time as time to do something (or do nothing) opens up the idea considered in this article that the bus passenger might take an *active role* in creating his or her ideal journey. Travel-time use research has demonstrated how travel-time is used for a range of activities across modes, and that mobile technologies, along with other carried objects, are deployed in different ways to shape the journey experience (Lyons *et al.*, 2013, Russell *et al.*, 2011; Ohmori and Harata, 2008; Laurier, 2004; Jain, 2011). To-date however, bus travel has largely been omitted from travel-time debates (with the exception of Jain, 2009), and existing research into travel-time use and the journey experience has focussed predominantly on the train. Survey evidence from rail passengers concludes that *doing something* (including looking out of the window) reduces the sense that travel-time is wasted time (Lyons *et al.,* 2007, 2013).

When provided with the opportunity to do something on the move, rail passengers are able to *craft* their experience of travel-time (Watts, 2008). Passengers' subjective experiences of travel-time are shaped and constructed by their mobile routines and activities. Individual perceived travel times are relative to travel-time activity, passengers on the train craft their experiences of duration through activity and the use of carried objects and mobile technologies on a journey (Watts and Lyons, 2010). Passengers are able to compress and stretch their experiences of time by engaging in different activities, and this suggests that passengers on the bus might also be able to control their experience of travel-time in similar ways.

The things that people carry with them on-the-move change the ways in which they are able to interact with the different travel spaces encountered along a journey, and thus carried objects are

important 'tools' for passengers in crafting their journey experiences. There are many objects which are familiar to travel: newspapers, novels, briefcases, coffees, sandwiches, travel games, decks of cards, and a multitude more. Using the objects of travel to shape journey experience is nothing new, train passengers have 'hidden' themselves away from each other in books and newspapers since the advent of passenger rail travel (Schivelbusch, 1980). Over the past three decades, personal listening devices (such as Walkmans and iPods) have allowed passengers to assert control over their aural experiences of the travel environment, creating a shield against some of the perceived negative social affects of the journey (Bull, 2005). These technologies are popular; the use of personal music players on trains in the UK doubled over the period 2004-2010 (Lyons *et al.*, 2013). More recently, personal Information and Communications Technologies (ICTs) have become a common sight in train carriages and on buses (Line *et al.*, 2011). Phone conversations now form a part of the background chatter in the spaces of public transport, and emailing, texting, and web browsing have all become a normalised part of the experience of being on the move (Jain, 2009), and this has developed its own etiquette (Laurier, 2001). These technologies are becoming increasingly popular during travel, and they facilitate a growing range of activities, for example: watching videos, checking emails, making phone-calls, accessing the internet, sending text messages, reading, using mobile apps, playing games, and many more (Lyons *et al.*, 2013; Schwieterman *et al.*, 2013). By equipping themselves with items, passengers are able to control their journey experience, and manage the negative affective experiences of waiting and boredom, which are identified as a particular menace to the ill-equipped or under-stimulated passenger (Gardner and Abraham, 2007; Bissell, 2009).

While activities appear to impact on the sense that travel-time can be *useful*, there is other evidence to suggest that doing things on the move is less beneficial to a passenger's journey experience. A recent study by Ettema *et al.* (2012) into travel-time activities in relation to levels of subjective well-being on public transport in Sweden has challenged the underlying perspective that a good journey is connected to its positive utility. They found that productive activities such as working or studying, entertainment activities such as reading and listening to music, and the use of ICTs during the journey had no positive effect upon passengers' *satisfaction* with the journey. Ettema *et al.* (2012) explain that the fact that travel-time is 'useful' does not necessarily have to mean that it is therefore also enjoyable, attractive, pleasant, or 'fun'. Indeed, it is suggested that travel-time activity might often simply be an indicator of a boring, negative journey experience as opposed to the creator of specifically positive experiences. This suggests a more complex relationship between travel-time use and journey experience. When following a utility-centric approach alone, it is problematic to draw a distinction as to whether passengers are actually experiencing their journey positively, or simply productively. The relationship between travel-time activity and the experience of the journey is not straightforward (Ettema *et al.*, 2012). There is a great deal of contextuality and subjectivity in travel-time use, and a number of qualitative studies have explored how travel-time is experienced by different passengers, at different times, in different settings.

The social context of the journey has also been found to be particularly important in shaping passengers' experiences (Jain and Lyons 2008). The spaces of public transport by their nature require passengers to travel in the company of others, often strangers, and this intense social environment can have a strong influence on both people's activities and their experiences during travel (Bissell, 2009). Bissell (2009) has explored the impacts of different *socialities* on the train, and suggests that 'affective atmospheres' which emerge in the different spaces of travel can predispose passengers to different uses of travel-time. Thus, there is a question as to what kind of sociality a bus environment might engender. The local bus is most often a homogenous and open space in which the passenger is afforded little by way of personal space or privacy, there are no separate zones, no quiet carriages; there is no real environmental choice for the bus passenger other than front and back, upstairs or downstairs. Bissell's (2009) research suggests that this might predispose bus passengers to particular journey experiences and activities within this egalitarian and unshielded social space. Therefore, what constitutes an ideal journey on the bus might be very different to an ideal journey on the train.

There have been a range of perspectives from which travel-time has been considered more generally, some of which specifically focus upon the bus but none of which have explored the relationship between travel-time activity and the components of an ideal experience on this mode. The studies discussed above are all useful in developing the findings in this paper, which address this lack of research into the specific relationship between travel-time activity and journey experience on the bus, and how such research might be deployed to address the international challenge of increasing bus patronage on both existing and new bus networks.

3. Methodology

The challenge of capturing the 'essence' of journey experience (practices, affect, and the sensory) has prompted new and experimental mobile methodologies (e.g. Büscher & Urry, 2009, 2011; Ricketts Hein *et al*., 2008; Ross *et al*., 2009; Laurier, 2010). Given that there are few studies that provide in-depth evidence about the journey experience on the bus, and these are limited to more general ethnographic observations (Jain, 2009) and observational counts (Russell *et al.*, 2011) this research needed to generate an evidence base specific to bus travel. Thus, the research presented in this paper took a mixed-method approach in order to gain exploratory understanding of the journey experience from which a vocabulary for bus travel and activities could be developed for the design of a questionnaire survey of bus passengers. This section outlines the three phases of the data generation, of which phases one and three have methodological novelty.

Qualitative data

The initial phase utilised an online Social Networking Site (SNS), Facebook®, as a platform for exploring bus users' perspectives on their travel experiences and activities undertaken while travelling, over a six week period. A discussion forum was created on the site and participants recruited to the group using Respondent Driven Sampling (RDS). RDS operates on the notion of 'snowball sampling', in which a relatively small number of 'seed participants' are recruited, who then go on to contact further potential participants within their own social networks (Wejnert & Heckathorn, 2008). The seed participants for this study were university students who had invitations sent to them via Facebook's messaging system, with a request that they join the discussion group and then pass on the invitation. One hundred and forty six individuals joined the discussion group, and of these, 27 actively participated in the discussions (comprising of 16 female and 11 male participants aged 18-30). The researcher prompted discussion around the bus journey experience and activities undertaken on the bus that produced written accounts and asynchronous comments from participants. These accounts and comments were subjected to thematic analysis, and this provided preliminary themes about passengers' journey experiences and use of time whilst on the bus.

The second phase utilized two focus groups, one group run with regular bus users and one with regular car drivers, to explore the emergent themes from the online discussion in greater depth and to understand what might constitute an 'ideal' journey from a travel-time activity perspective. The groups included 14 participants in total, who were recruited after responding to posters and leaflets advertising the study at the University of the West of England, Bristol, UK. The bus user focus group included five female participants and three male participants aged 18-30. The car driver group consisted of four male participants and two female participants, also aged 18-30. The focus groups were designed to develop ideas and concepts around the themes produced through the online discussion, providing insight into the language used and types of activities undertaken on the bus and informing the design of the quantitative survey.

It should be noted that as a result of the convenience sampling used in the qualitative phases, all of the qualitative responses were generated by individuals aged 30 or under. As later discussion of the survey data explains, this age group appear to be particularly susceptible to experiences of boredom

and also more likely to be using ICTs than their older counterparts. This does not invalidate the participants' discourses, however it is important to explicate this bias in order that the observed effects of age on experience and activity can be kept in mind when considering the qualitative data presented in the following section.

Quantitative data

The final phase consisted of a large-scale on-board survey of 840 bus passengers sampled on five urban and rural-urban bus routes in and around the city of Bristol, UK. Bristol is a regional city with a population of approximately 617,000 in the 2011 census (BCC, 2014), where most local public transport journeys are made by bus, as there are no other significant suburban rail or light rail networks. The self-completion survey followed a random sampling protocol with all passengers on surveyed routes approached and asked to participate, as described below. The survey approach generated a broader spectrum of participants in terms of age and gender compared to the online discussion group and focus groups. Sample characteristics of survey participants are presented in Table 1.

Variable	Categories	N		%
		Per category	Total	
Age	*16-24*	460	804	57.2
	25-34	116		16.3
	35-44	42		7.5
	45-54	51		8.8
	55-64	60		10.9
	65+	75		13.3
Gender	*Male*	335	802	44.3
	Female	447		55.7
Journey Purpose	*Education*	270	803	33.6
	Work	208		25.9
	Shopping	101		12.6
	Leisure	59		7.3
	Business	52		6.5
	Visit friends/family	51		6.4
	Personal business	41		5.1
	Other	21		2.6
Car availability for current trip	*Car available*	157	768	20.4
	Car not available	611		79.6

Table 1 - Sample characteristics

Survey design and administration

The insights gained from the qualitative discourses generated in the previous phases were used to inform the design of the survey. The survey contained questions related to four main themes: general perceptions of the bus, travel-time activity and the use of carried objects, current and typical journey experiences, and attitudes towards the social environment on the bus.

A key element of the survey was to provoke passengers to reflect on the actual journey being undertaken *in situ*. The aim was for the survey to record an accurate account of activity and experience on a specific journey, and avoid recollections/reconstructions after the fact. Thus it was necessary to ensure that bus passengers had had the opportunity to engage in travel-time activities

and experienced a 'normal journey' for a suitable amount of time before being offered a survey form. To achieve this, a novel administration protocol was developed: levels of patronage along a route were plotted graphically during a series of initial pilot journeys, and these were used to plan appropriate administration points at which the largest proportion of passengers were available for survey. To qualify for participation, passengers would have been on the bus for at least 10 minutes (during which time they would conduct travel-time activity and experience their journey as normal). At this point they would be given a survey form and asked to answer questions on their current activity and experience. In this way the survey recorded the immediate experience of the bus journey for the passenger.

Regression analysis

To further investigate the relationship between travel-time activity and journey experience an ordinal regression analysis was employed to explain the influence of independent variables upon passengers' perceptions and experiences of the bus. Regression analysis is a statistical method for measuring the relationships between variables. When there is a dataset which consists of a large number of variables, regression analysis is useful because it can be used to understand which of the independent variables have a relationship with the dependent variable, and which are unrelated. Regression analysis has been employed in this study to help understand which of the many aspects of the journey (for example: travel-time use, demographic characteristics, social disposition) are related to passengers' perceptions and experiences of the bus, and which are not related.

To achieve this this, all of the potential variables were entered into a regression model, and tested to understand which had an association to the dependent variable under investigation. Related variables were identified as 'statistically significant' ($p < 0.05$[2]). Five separate models were constructed, using the experience and perception indices presented in Table 2 as the dependent variables. All models were significant to $p < 0.01$. The independent variables initially included in the models were: travel-time activities, carried objects, social comfort[3], punctuality, gender, age, car availability, time of day, and journey purpose. The intent of these analyses was to ascertain the significance of the association of different independent variables to passenger perceptions and journey experiences, and the independent variables identified as significant ($p < 0.05$) in each case are presented below. It should be noted that whilst an aim of the ordinal regression analysis was to identify predicator variables, the scope of the dataset was restrictive to the models' predictive capabilities. The primary function of these analyses was to further explore the relationships between the variables, as opposed to forecasting future outcomes. In the models, there were several other variables which displayed consistent significant associations with perceptions and experiences, these are: punctuality, age, and social comfort within the bus.

The regression results are presented thematically throughout the subsequent sections.

Geographic context

Experiences of bus travel will be contextual to the geographic location, in this case Bristol (UK), and the cultural construction of bus services will vary at local, regional, and national scales. It is recognised that the knowledge on travel-time use and experience generated from the empirical data is relevant to the wider bus user population, whilst accepting that it is not wholly representative of it. Thus, whilst this paper holds that the findings are relevant to bus travel more generally, there will be idiosyncratic differences observed in the nature of these in different areas.

[2] A p value lower than 0.05 indicates that there is 95% confidence that the variables are related. This is generally taken as the acceptable level of statistical significance in analyses of this type.

[3] This was explored through a question which asked passengers to rate on a Likert scale how comfortable they felt with the potential for social interaction with strangers that the bus journey presents

The results and discussion set out in the next session explore evidence drawn from all three data sources, and for this paper question how travel-time use and mobile technologies might take a role in shaping the ideal bus journey. In particular, it notes the tensions that can arise from bringing together evidence generated through different methodological approaches.

4. Results and discussion, travel-time activity and journey experience

Existing evidence indicates that travel-time use impacts on the journey experience, therefore the interpretation of the data presented from this study explores how an ideal journey is shaped through the interplay of activities, carried objects and other passengers. Here evidence from the three phases of data collection demonstrates the complexity of these multiple interactions in shaping the contextual experience. The data from the mixed-methods are brought together and presented thematically.

The qualitative discourses show that travel-time activities, and the carried objects that passengers have, are important tools in an individual's efforts to attain and maintain a pleasant affective experience. However at the same time, the quantitative findings demonstrate that other factors such as punctuality, age, and a person's social disposition all have a significant role in the creation of service perceptions and journey experiences. Travel-time activity is just one facet of the journey experience, however arguably it is the one over which a passenger has the most control, and this is relevant in considering the notion of a passenger *creating* an ideal bus journey.

The findings presented in this paper highlight the similarities and differences between an ideal journey on the bus and an ideal journey on the train, and help to illuminate the specific challenges faced by bus passengers in crafting a positive experience of their travel-time. Participants discussed how travel-time activity on the bus enables them to control their journey experience (see: Watts, 2008) primarily in one of three ways: through 'time-out/time-for' (relaxation or personal time) activities; through activities for distraction/displacement (i.e. tools for 'killing time', Zerubavel, 1981) and lessening the negative experiences of the journey, boredom, social discomfort, and stress); and through social activities.

Service perception and journey experience

The survey used Likert-scale questions to explore the passenger experience and service perception on the surveyed routes; the results are presented in Table 2.

Question: 'How do you feel about riding the bus in general?' [Perception]						
Response	**(%)**	**Response**	**(%)**	**Response**	**(%)**	**(n)**
I like it	32.7	I neither like nor dislike it	47.7	I dislike it	19.6	826
Question: 'My time on this bus today has been...' [Experience]						
Enjoyable	20.7	Neither enjoyable nor dull	32.9	Boring	46.3	753
Relaxing	42.6	Neither relaxing nor stressful	30.7	Stressful	26.7	765
Comfortable	43.6	Neither comfy nor uncomfy	25.8	Uncomfortable	30.6	791
Useful	53.2	Neither useful not wasted	21.1	Wasted	25.7	759

Table 2 - Journey perceptions and experiences on the bus

The data demonstrate that generally, a higher proportion of participants experienced their bus

journey as boring/dull than found it enjoyable. Despite this negative perception other responses give a more positive perspective on journey experience. Higher proportions of participants experienced their travel-time as relaxing, comfortable, and useful compared to those who found it stressful, uncomfortable, and wasted time. However it should also be noted also that high proportions of passengers were apparently indifferent to the experience. In terms of perception of the bus, higher proportions of passengers liked riding the bus than disliked it, however here the majority were indifferent. Guiver (2007) has discussed the ways in which people conceptualise the bus in relation to the car, and explains that the bus is often discussed as the 'mode of last resort' in comparison to the 'ideal' of the car.

Data from the survey showed that 79.6% of respondents did not have a car available to them for the trip, which suggests that a proportion of passengers are using the mode out of necessity, as opposed to choice. However from this survey it was not possible to ascertain with any certainty how participants position their 'ideal' journey in relation to the car.

As discussed, passenger perception and experience were explored using the regression analysis described in the methodology. The strongest influence on passengers' satisfaction with the journey was found to be the punctuality of the bus. Passengers on buses that were punctual were more likely to report significantly better perceptions of the bus in general, and furthermore to report their travel-time as more enjoyable, more relaxing, more comfortable, and more useful than those passengers on buses that were late[4]. This is perhaps to be expected, and is an important finding that goes to the very core of bus service provision. It demonstrates the significance of the instrumental aspects of service delivery, and suggests that these are of primary concern to passengers. The evidence from this research supports the need for the basic factors such as punctuality to be in place as a fundamental part of the journey experience. Put simply, if a bus is running late, it will create a bad perception and experience which is not easily remedied by other positive aspects of the journey such as travel-time activity.

Model 1 - Service perception index: like/dislike(1)			
Category	***Variable***	***Coeff.***	***Sig.(A)***
Social disposition	More comfortable	.147	**
Punctuality	Bus late	-.639	***
Age	16-24	-2.185	***
	25-34	-1.858	***
	35-44	-1.934	***
	45-54	-1.717	**
Travel-time activity	Window-gazing	.587	***
	Being bored	-.668	***
Model 2 - Journey experience index: enjoyable/boring(2)			
Category	***Variable***	***Coeff.***	***Sig.***
Social disposition	More comfortable	.208	***
Punctuality	Bus late	-.549	***
Age	16-24	-.772	***
	25-34	-.514	**
Travel-time activity	Caring for another passenger	.751	**

[4] By 5 minutes or more from scheduled time of departure

Model 3 - Journey experience index: relaxing/stressful[3]			
Category	***Variable***	***Coeff.***	***Sig.***
Social disposition	More comfortable	.198	***
Punctuality	Bus late	-.628	***
Age	16-24	-.779	***
	25-34	-.625	***
Travel-time activity	Used MP3 player	.302	**
Model 4 - Journey experience index: comfortable/uncomfortable[4]			
Category	***Variable***	***Coeff.***	***Sig.***
Social disposition	More comfortable	.130	***
Punctuality	Bus late	-.509	***
Travel-time activity	Electronic game	-1.263	***
	Using PDA	1.972	***
	Being bored	-.541	***
Model 5 - Journey experience index: useful/wasted[5]			
Category	***Variable***	***Coeff.***	***Sig.***
Social disposition	More comfortable	.102	**
Punctuality	Bus late	-.441	***
Age	16-24	-.561	***
	25-35	-.477	**
	35-44	-.670	*
Travel-time activity	Window-gazing	.399	***
	Listening to music	.361	**
	Sending emails	.468	**
	Being bored	-.503	***

[A] Significance level denoted by: [*** p < 0.01] [** p < 0.05] [* p < 0.1]

[1] Model χ^2 (10df) = 78.116, p = 0.00
The reference category for the dependent variable in this analysis is 'Perception (neutral / +ve)'.

[2] Modelχ^2 (5df) = 67.274, p = 0.00
The reference category for the dependent variable in this analysis is 'Experience (+++ve)'

[3] Model χ^2 (5df) = 66.773, p = 0.00
The reference category for the dependent variable in this analysis is 'Experience (+++ve)'

[4] Model χ^2 (5df) = 53.070, p = 0.00
The reference category for the dependent variable in this analysis is 'Experience (+++ve)'

[5] Model χ^2 (9df) = 54.766, p = 0.00
The reference category for the dependent variable in this analysis is 'Experience (+++ve)'

Table 3 - Ordinal regression models for passenger perception and experience

Travel-time activities, carried objects, and mobile technology

The journey experience, while shaped by service functionality, is also dependent on the individual traveller's response to the bus environment and sense of time. Existing evidence points to having an activity as altering an individual's experience of time, compressing or speeding up time; whereas

having nothing to do can cause time to appear to stretch out or slow down (Watts and Lyons, 2010). However, where train passengers spent most of their journey looking out of the window or at other passenger, only a small proportion (13%) indicated that their overall experience was that travel-time was wasted time (Lyons, *et al.* 2013). What constitutes 'activity' and its impact on the journey experience therefore is a bit more complex than assuming that using time productively (numbers of pages read or emails sent) as having a beneficial effect, and expectations of what can be accomplished on the bus may be very different to train travel. The data and discussion below explores how travel-time and the journey experience come together through the qualitative and quantitative research.

Following from these findings, Table 4 presents the travel-time activities in which over 10% of passengers engaged. The results show that there are a range of travel-time activities in which a high proportion of passengers are engaging on the bus, and indeed the level and range of activity occurring is approximately equivalent to that recorded on the train, whilst the specific types of activity that are more popular in each environment are different (see: Lyons *et al.*, 2013). Less than 10% (8.3%) of passengers had engaged in working and studying activities. The nature of the trips that participants were making, with only 6.5% of passengers travelling for the purposes of business, and also the restricted nature of the bus interior which can limit the opportunities for working (i.e. having space to use laptops and paperwork) will have impacted on this figure. It is important also to note that despite large proportions of passengers engaging in activities such as reading, listening to music, and using their mobile phones, almost half of the passengers surveyed had experienced a boring journey (Table 2).

Table 5 shows the proportions of participants (n = 840) that reported carrying and using different items and mobile technologies during their journey. There are only a few carried objects that a high proportion of participants used during their journeys. Mobile phone use is particularly high, with more than one in every two passengers using a mobile phone at some point during their journey. The Metro newspaper and personal music players are also popular items, with approximately one third of passengers using these. Besides these, only food/drink and reading books were used by any large number of participants.

Activity	(%)	Activity	(%)
Window-gazing/people watching	62.0	Reading for leisure (incl. 'Metro')	48.9
Thinking/contemplating	47.1	Daydreaming	46.0
Making personal phone-calls	42.0	Listening to music	38.7
Talking to others	23.5	Accessing the internet	21.3
Accessing social network sites	16.4	Eating/drinking	11.3
Making work-related phone-calls	11.1		

Table 4 - Travel-time activities on the bus

The small number of carried objects used by higher proportions of passengers contrasts against the broad range of activities occurring. This finding demonstrates that the activities in which passengers engage either do not require the use of carried objects (for example daydreaming, window-gazing, or chatting), or that the items passengers use are able to facilitate several different activities. This latter point is particularly relevant to the mobile technologies and ICTs that passengers carry, here the mobile phone. It is evident that mobile technologies are enabling passengers to engage in several different activities using only one device; for example, mobile phones, and in particular smartphones, allow people to engage in telephone calls, text messaging, internet surfing, emailing, music, watching videos, and more besides.

Item	Proportion that used (%)	Proportion that had to hand (%)
Mobile phone	52.7	74.5
Metro newspaper	35.2	45.8
Personal music player/radio	33.3	42.5
Food/drink	9.9	20.7
Reading book	7.7	15.2
Paperwork	1.5	12.3
Textbook	3.7	12.1
Electronic game	1.9	4.8
Other newspaper	1.8	4.4
Laptop	0.5	4.4
Magazine	1.4	4.0
PDA	1.0	1.7

Table 5 - Carried objects and mobile technologies

The regression analyses (Table 3) demonstrate several cases in which travel-time activities displayed a significant association with perception and experience. People who window-gazed were more likely to have a positive perception of the bus, and also to have found their travel-time more useful. Listening to music was conducive to experiences of relaxation and the usefulness of travel-time. Finally, 'caring for someone on the bus' was found to have a positive association with experiences of enjoyment. Checking emails was associated with how useful passengers found their travel-time. The majority of travel-time activities however are notable in this analysis by their absence. No other activities or objects were found to have a significant association with experiences and perceptions.

The following section brings in the qualitative data to explore these findings in greater depth, and create a discussion around passengers' experiences of travel-time and activity.

Relaxation, time-out, and time-for

The argument for re-examining the value of travel-time as a productive time as opposed to wasted time has necessitated a focus on activities that have an output measure or *quantifiable utility* (i.e. activities that constitute work) (Lyons and Urry, 2007). However, evidence from a range of studies suggest that travel also offers a time and space to escape the demands of work or home, with this sense of 'time out' or 'me time' being important enough to individuals that they value their travel-time (see for example: Jain and Lyons, 2008; Holley *et al.*2008.) 'Time out' may be associated with doing nothing, but often it can be time for an activity that is associated with relaxation. On the train, Lyons *et al.* (2007) classify activities such as reading and listening to music as secondary to more productive activities such as working, whereas on the bus this research demonstrates that these are *primary activities*. For many passengers this time-out is a valuable aspect of their journey experience, and the bus, as counterintuitive as it might seem, can be a valued space for relaxation.

Evidence from the qualitative data supports this claim. Several participants articulated the positive benefits of periods of 'time-out' and 'time-for' stating it was a unique piece of free time during their day, within which they were able to relax:

> *'I value my time on the bus either to have some time to relax before work and read or something. Or to unwind after work after being on my feet all day. Time on the bus is time when I can't be doing uni work or anything so I can relax without feeling guilty.'* (Female: Online

Discussion)

> *'The bus journey is a time to reflect, to think and to enjoy the tranquilness(sic) before or after work.'* (Female: Online Discussion)

The journey legitimises an alternative 'non-productive' space, making it an attractive time, which occasionally travellers would like to extend, especially if it is associated with an activity that may be squeezed out of the rest of the day (e.g. Bull [2005] on listening to music).

> *'For me it's time to relax especially after a busy day at work. Sometimes I feel like the journey could last a little longer, especially when I am at a good point in my book!'* (Female: Online Discussion)

The idea of 'excess' travel-time has been noted by Redmond and Mokhtarian (2001), and Jain and Lyons (2008) also found people would prefer a 10-15 minute commute over a shorter one. While it is unlikely that many people purposefully seek public transport journeys for relaxation (compared to more active modes or driving), arguably commuting affords this opportunity. As indicated by the quote above it is often an activity like reading or listening to music that takes on a supporting role.

On the bus, books, newspapers, and personal music players were often used by participants to facilitate experiences of time-out in the context of relaxation:

> *'I quite enjoy that half an hour of actually switching off and just listening to music, you know, I quite enjoy that period before I get to uni, because I know it's going to be a day of study…'* (Male: Online discussion)

> *'For me the time on the bus is a time of relaxation before starting my day at work. I am really using it reading the newspaper or listening to music.'* (Male: Online discussion)

Some passengers also used their bus journey as personal time in which they could organise or complete personal or work-related tasks:

> *'I usually read the Metro[5] paper, if there are any left, or else I will get on with some uni reading which uses the time more productively. I also often use the time to write lists of work and other bits and pieces that I need to get done.'* (Female: Online Discussion)

These participants demonstrate the ways in which the journey is articulated as a positive experience of personal time

For other participants however, and even for the same participants at other times, travel-time activities served simply as a means of killing time and speeding up the journey, and were articulated as attempts to counteract experiences of boredom that the bus journey was seen to engender:

> *'I normally read on the bus, sometimes listening to music at the same time. Or I will just listen to music. If I have neither a book or my iPod I generally find someone to ring just to have something to do. I think doing things like this on the bus make the journey seem a lot quicker and more enjoyable.'* (Female: Online Discussion)

The carried items and mobile technologies that people carry with them are often essential for participant to be *able* to kill time on the bus, serving as a distraction from the duration of the journey. In particular, personal music players played an integral part in many participants' efforts to mediate their journey experiences:

> *'An iPod makes the journey go quicker. If you're listening to something, you just sort of sit there and you're at your stop quicker than if you're just sitting there looking at the scenery that you see every day.'* (Female: Focus group)

[5] Free daily newspaper made available on public transport in a number of cities in the UK.

For some participants, the mobile technologies they carry with them are essential pieces of 'bus kit', allowing them to control the experience of duration. Negative journey experiences could be created simply by the absence of an essential object:

> *'If I didn't have my phone or my iPod or whatever, well then, and the journey was a bit crappy, and the weather was a bit miserable, then it's just going to bring your whole kind of mood right down.'* (Male: Online discussion)

> *'If my iPod runs out on the bus, it will lead to a bad journey, and I'll just be annoyed that it's run out.'* (Female: Focus group)

The activities in which participants engaged and the items carried with them mediated the flow of the journey, and somewhat mitigated the negative experiences of duration such as boredom, as Watts (2008) and Watts and Lyons (2010) have noted with rail travel. The compression and stretching of the experience of time is shaped by activity (Watts & Lyons, 2010), and also occurs on the bus, where boredom can be diffuse. As Jain (2011, p. 1021) has noted: *'A comfortable journey suggests a journey where time does not lag and boredom does not overpower'*.

The Technological Bus

Buses journeys are typically much shorter than train journeys, thus there are greater limitations in both the time *and* space available to passengers to unpack objects for undertake activities. However, the development of mobile technologies such as smartphones and tablet computers is radically changing the possibility for activity in even the most constrained of spaces. At the time of this research few buses offered free Wi-Fi, but in Bristol and other cities this is now being offered, and this point will be returned to in the conclusion. Thus, in contrast to Stradling *et al*.'s (2007) study which focussed on the *disruptive* nature of other peoples' mobile phone calls on the general passenger experience, this research focused on the potential of mobile technologies to the individual traveller in shaping the their own experiences.

It is evident that ICTs are being used with increasing prevalence in the spaces of public transport (Schwieterman *et al.*, 2013), and those of the bus were no exception. As Table 5 shows, the most popular carried object on the bus was the mobile phone, with over half of passengers (52.7%) using theirs during the journey; one in three passengers (33.3%) has used a personal music player. The discussion above has highlighted that these new digital technologies expand the range of travel-time activities in which a passenger can engage, with mobile phones in particular now providing the opportunity for a large number of different activities. Participants' discourses have demonstrated how these devices are being used as tools for relaxation (music, reading, playing games), and also as a way of using time productively (emailing, making phone calls, etc…).

However there is also evidence that ICT use is an indicator of a negative experience, with music being used to speed up travel-time, or to shut out the bus environment and shield from social interaction. Ettema *et al.* (2012) noted this issue in their study into public transport use in Sweden. The findings in this paper demonstrate that there is a complex relationship between the use of technology and the actual experience of the journey, and suggest that digital technologies, whilst sometimes supporting or facilitating a positive experience, do not *in-and-of themselves* form a core aspect of what might create an ideal bus journey for the passenger. In other words, using technology will not necessarily create a positive or ideal journey experience.

The qualitative data demonstrate the subjectivity of journey experience and travel-time use: activities on the bus, and the carried objects or mobile technologies used by passengers, can perform different experiential functions dependent upon the individual and the context in which they are engaged. Therefore the way in which people *fundamentally perceive and conceptualise what their travel-time is* (and thus what it can be put to use for) affects their experience of the journey and subsequently

their motivations for engaging in a specific activity. To provide an example, the data below illustrate several different functions of the same activity, listening to music. Some participants reported listening to music to feel relaxed during time-out on the bus:

> *'Like sometimes it's good just to zone out, and to just… well I use my music to zone out, and just sit there and forget about everything…'* (Female: Online Discussion)

> *'Yeah, it's just going on the same point of listening to music on the bus. Because usually I just have it on in the background, but then when I'm on the bus I can just really chill out to it and listen to it.'* (Male: Online discussion)

Another participant reported using music during travel-time to 'enliven' him at the start of the day, and to unwind on the way home:

> *'If you're feeling a bit knackered and you need to wake up you can listen to something really lively, but if you've had a long day and just want to relax you can just put something really chilled on, so it's actually going to affect your mood when you get off the bus and throughout the duration of your journey.'* (Male: Focus group)

As discussed previously, several passengers used music to compress their experience of travel-time:

> *'I listen to music on my iPod on the bus. I also sometimes use my mobile to talk or text. I do these things to make the journey seem quicker.'* (Female: Online discussion)

Other participants listened to music specifically to avoid the negative intrusions of the sociality into their space:

> *'I'd have said I'm more likely to use music if it's busier. Because there are more people around you, so kind of to compensate for that.'* (Male: Focus group)

So travel-time activities on the bus are not exclusive to either creating positive experiences of time-out or mitigating negative experiences. An important aspect of the creation of an ideal experience is *what passengers perceive their time on the bus to be*. If the journey is seen as a piece of personal time then reading, listening to music, texting, chatting, and browsing the internet help facilitate this experience; if it is a boring chore that must simply be endured then these same activities serve as a means of displacing some of the negative affect that is experienced as a result; if it is a piece of social time then these activities are forgone in favour of talking to others.

> *'I suppose it's very much a circumstantial thing as to what I get up to as I said before. If I'm stressed out then I find that my journey feels a lot longer and the opposite when I'm not. This I imagine can be related to all sorts of different activities.'* (Male: Online Discussion)

This paper demonstrates the significance of the subjectivity of the passenger and their personal experiences, perceptions, and attributions of travel-time in influencing journey experiences and service perceptions. This finding is important as it links back to one of the key themes from sections one and two, where the general negative cultural construction of bus travel was discussed. Having a negative cultural construction of the bus will mean that a high proportion of the general public view the bus negatively, and by extension a bus journey is therefore more likely to be viewed as being a chore than an opportunity for relaxation and reflection. Changing negative cultural views on what bus travel is and who it is for could help to unlock the potential in the bus journey itself being conceptualised more positively from an experiential perspective.

This point is expanded when the results are disaggregated by age. In the regression analyses (Table 3), age was a very significant factor in how participants perceived and experienced the bus. Older passengers were significantly more likely than younger passengers to perceive the bus more favourably, and furthermore, older passengers were more likely to have experienced their travel-time as more enjoyable, relaxing, and useful than their younger counterparts.

In a specific analysis on the relationship between age, travel-time activity, and journey experiences, the data show that younger passengers are engaging in a wider range of travel-time activities than their older counterparts, and in particular are putting to use emergent mobile technologies and ICTs in high numbers during their bus journey. Table six presents the data for travel-time activities in which 15% or more of passengers in a particular age group engaged. Passengers aged 55 and above spend most of their travel-time reading, talking, window-gazing, daydreaming, and thinking. Those aged 16-24 however spend this time reading, talking, daydreaming, window-gazing, thinking, listening to music, texting, making phone-calls, eating and drinking, browsing the internet, and using SNSs.

16 -24	**(%)**	**25-54**	**(%)**	**55+**	**(%)**
Reading for leisure	43.2	Reading for leisure	61.3	Reading for leisure	48.9
Talking	26.1	Talking	16.3	Talking	28.1
Daydreaming	54.6	Daydreaming	40.2	Daydreaming	27.2
Window-gazing	61.5	Window-gazing	59.3	Window-gazing	69.6
Thinking/contemplating	50.4	Thinking/contemplating	45.9	Thinking/contemplating	38.5
Music/radio	54.6	Music/radio	27.3		
Text/phone-call	60.2	Text/phone-call	28.7		
Eating/drinking	15.0				
Browsing the internet	31.5				
Social networking	25.7				

Table 6 - Travel-time activities by age

It is evident that there is a trend in mobile technology and ICT use from younger to older, with substantially higher proportions of the youngest participants engaging in activities which require the use of mobile technologies and ICTs, particularly personal music players, mobile phones, and smartphone devices which enable access to the internet on-the-move.

Following a hypothesis that activity and technology use create a more enjoyable or positive journey experience, one would expect from these results for the younger passengers to be more satisfied than the older passengers. However, the results from the survey deny consistent significant associations between the use of ICTs (and indeed most carried objects and travel-time activities) and a distinctly positive experience of the journey, and indeed the findings demonstrate that the younger passengers who account for the greatest use of ICTs and a broader range of travel-time activities on the bus are in fact reporting *more negative* experiences of the journey than their older counterparts that are engaging in simpler, 'less active' activities during their journey. Ettema *et al.* (2012) have observed a similar age disparity in their results for public transport commuters returning from work, with the younger age group reporting lower positive activation, lower positive deactivation, and lower cognitive evaluations of their journeys than their older fellow passengers. What this suggests is that older passengers are adept in creating an ideal journey experience for themselves, and it is one which involves a simpler, less-active use of travel time. For younger passengers, their more frantic flitting between activities suggests that they may still be searching for their own ideal experience each journey, and move from one activity to the next in doing so.

In trying to explain this finding, there is evidence to show that there is a generational gap between perceptions of boredom amongst older and younger people, with younger people regularly reporting being more bored than older people (Conrad, 1997). Furthermore, Widerberg (2006) suggests that in the context of modern communicative technology and media, younger people in particular have greater socially derived expectations (of instantaneous connection, entertainment, stimulation, etc.) and are therefore more likely to be dissatisfied when they must endure a relatively restrictive (or

"boring") environment such as the bus.

The issue of age in relation to the experience of public transport is an area which merits further research, and is of particular relevance when considering how bus travel might be made more attractive to potential users. Younger people can be seen as an important demographic for bus operators seeking to expand and bolster patronage on their services. Younger people are the potential 'passengers of the future', and understanding why this group have significantly more negative perceptions and experiences of the bus than older passengers presents the opportunity to inform future efforts to attract and retain younger passengers.

Sociability

Besides mitigating negative experiences of boredom, travel-time activity on the bus is also important to passengers in mediating their experiences of the social environment. Bissell (2009) has noted that the spaces of public transport are often intensely social. However the intrusion of other passengers, particularly strangers, into one's own personal space is often seen as unwanted, and shatters the 'reverie' of a tranquil affective experience (Stradling *et al.*2007). In the qualitative data participants discussed the creation of personal space through the use of music players and books, which can 'shut them off' to a degree from the rest of the bus and so provides a measure of control over the environment, which is perceived to be potentially disruptive. This concept of creating a private space is not new; books and newspapers have acted as 'shields' in the train carriage since the Victorian era (Schivelbusch 1980), and personal music players are a more contemporary tool that allow people to create their own sense of private space through controlling their sensory environment (Bull 2005). The findings demonstrate that participants are using technologies and carried objects in exactly the same way on the bus, and that this is often able to mitigate negative intrusions into personal space in the intensely public spaces of the bus:

> *'I like to listen to my iPod so I don't have to talk to any of the weirdoes on the bus'* (Female: Online Discussion)
>
> *'I use an MP3 player a lot of the time, it gives you an excuse not to interact with anyone.'* (Male: Focus Group)
>
> *'This thing about the bus, the issue of limited control over your senses compared to other modes of transport, you can control it by putting your iPod in.'* (Female: Focus group)
>
> *'Because you can, if you've got a book or your music, then you can escape into that.'* (Female: Focus group)

Young people may be leading the way in personal technology use, personal music players are being increasingly adopted as a coping resource to be used in stressful situations (Skånland, 2011). A number of participants used travel-time activity and their carried objects to disengage from the social spaces of the bus. However, whilst for some participants the social environment was perceived as intense and intrusive, for other the bus journey provides a distinct opportunity to socialise:

> *'I just chat to people. I feel more relaxed if I'm talking to someone, even if it's just at the bus stop. Even if you just compliment someone on the bus then they feel so much better about the journey anyway.'* (Female: Focus group)
>
> *'Ideally I like to socialise. Often (…) I speak to the person sitting next to me. Provides a fantastic opportunity to meet new people.'* (Male: Online discussion)
>
> *'I'd rather talk to someone than just sit there and listen to my iPod.'* (Female: Focus group)

Beirão and Cabral (2007) have noted this dichotomous aspect of the social environment on public transport; some passengers enjoy the opportunity that public transport provides for socialising with

acquaintances and other passengers, whilst others prefer not to socialise and enjoy the journey as time to oneself. There is a tension on the bus between those who enjoy the opportunity for social interaction, and those who find the experience of limited personal space and the presence of strangers intrusive.

The findings from the quantitative survey provide support for this, and suggest that a person's social disposition is a significant factor in their experience of the journey. Passengers who felt more comfortable engaging in the social environment of the bus also reported significantly better perceptions of the bus, and also more enjoyable, relaxing, comfortable, and useful experiences of travel-time than those who felt social discomfort.

This finding is interesting as it suggests that passengers are predisposed to certain experiences of bus travel dependent on their social disposition. This has implications for vehicle design and bus operations more generally, in considering how the social environment of the bus might be engineered or managed so as to cater to the passengers' competing desires for sociability and personal space.

5. Conclusions

This paper has considered whether the notion of the notion of an 'ideal bus journey' is useful in ongoing efforts to increase bus patronage in many countries across the world, and discussed the relevance of travel-time activity and emergent ICTs to helping people achieve such an ideal.

Passengers are engaging in a relatively broad range of activities during their bus journeys, and these activities are mainly related to relaxation, socialising, and personal tasks, all of which are *primary* activities on the bus. The bus is an active space with a comparable range and level of activity occurring as has been observed on the train (see: Lyons *et al.*, 2007, 2013). Importantly, the bus journey *legitimises free time*, and provides a space for meaningful (in)activity which people might not otherwise have in their busy schedules. There is an opportunity here for bus operators to actively promote travel-time as a positive aspect of the bus, and frame it as free time for the passenger in which a range of things are possible. This could help to challenge the pervasive negative cultural construction of bus travel as the mode of last resort, only for those unable to use the car.

From the data it is evident that there is no singular 'ideal' bus journey experience. There are a set of common *types* of ideal journey experience that passengers report as being valuable to them (relaxing, social, useful, etc…), however there is a great deal of subjectivity within the specific compositions of these experiences for different individuals. Travel-time activity and mobile technology use can often play a role in helping people to create enjoyable, useful, and positive experiences, however the analysis of data from passengers of different ages has demonstrated that these do not *in-and-of* themselves create a pleasant or positive experience. Younger passengers reported more negative experiences of their journeys whilst engaging in far higher levels of activity than their older counterparts. There may be generational differences between older and younger passengers which can help to explain this finding, and there is a question as-to whether this finding is particular to the current cohort of younger and older passengers, or whether it is something which repeats across the generations. Will the journey experiences of the younger passengers in this study improve as they get older, or are their more negative experiences related to societal and cultural norms within this specific temporal frame? Further in-depth qualitative research is needed to specifically compare the experiences of older and younger passengers and shed further light on this issue, which is arguably of critical importance in efforts to attract and secure the 'next generation' of bus users.

Travel-time activity on the bus should always be considered within the context of the significant influence of instrumental service provision factors such as punctuality, which in turn are compounded by individual characteristics of age and social disposition. Several travel-time activities were positively

associated with journey experience or service perception in the ordinal regression analysis and the qualitative findings demonstrate that travel-time activity is an integral aspect of the bus journey which at times can have a positive value for the passenger or help to create a more pleasant travel experience. However at the same time, punctuality, age, and social disposition were all strongly associated with journey experience and service perception and the findings also suggest a *hierarchical* structuring of the different factors associated to journey experience, with travel-time activity being of lesser concern than other more primary factors such as punctuality, social disposition, and age. Passengers on buses that were late had consistently worse experience and perceptions of the bus than passengers whose buses were on time. Similarly, those passengers who felt more comfortable in the social environment of the bus had better experiences and perceptions than those who felt less comfortable. This reflects the findings of existing studies into social relations in public transport spaces (see: Bissell, 2009; Stradling *et al.*, 2007), and highlights the importance of understanding the social environment within the bus, particularly within the context of improving vehicle design.

This raises a number of implications with respects to travel-time activity as an aspect of an ideal bus journey. For bus operators, there is a clear message that travel-time activity during bus journeys is often of value, but that the value of the experience can be easily negated or subsumed by other more dominant factors (particularly service-related factors such as punctuality). Therefore travel-time can be argued to be of relevance *only* when the core aspects of the service are operating to a high standard of quality. This research suggests that the best approach to creating a positive perception of the bus and a desirable journey experience is to first focus on providing a satisfactory service and then once this is achieved to consider what opportunities there are to support different types of ideal experience within the limited confines of the bus environment.

There is a question of responsibility raised here: beyond their core service outcomes of getting someone to their destination on time, are bus operators also responsible for providing passengers with a relaxing, positive journey experience? Regardless of responsibility, it is clear that operators could benefit from providing such an experience. This research has shown that in the larger part is the passengers themselves who play the most active role in creating any kind of ideal experience for themselves through the activities in which they choose to engage; however, there is a distinct opportunity for operators to *facilitate* an ideal journey through the design of some of the more basic aspects of the in-bus environment. From the more recent emergence of experiential improvements and provisions such as free Wi-Fi it is evident that that operators are already beginning down this path, however the findings presented here suggest there is a deal more that could potentially be done to unlock the full value of travel-time to the passenger, and create an environment which can cater to several different types of ideal experience.

There are a range of different ideal bus journeys, and the composition and experience of these vary for different people in different contexts. Whilst at the current time the bus environment is often far from ideal for passengers, this research has demonstrated that there is a distinct opportunity for bus operators and public transport authorities to utilise, facilitate, and market travel-time and the potential for activity in encouraging greater use of the bus to help mitigate the pressing environmental and social concerns that face societies with excessive levels of private car use.

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