



# Measuring the impact of unfamiliar transit travel using a university access survey



Lorelei Schmitt<sup>1</sup>, Graham Currie<sup>\*</sup>, Alexa Delbosc<sup>2</sup>

Public Transport Research Group, Institute of Transport Studies, Department of Civil Engineering, Building 60, Monash University, Clayton, Victoria 3800, Australia

## ARTICLE INFO

Available online 22 October 2013

### Keywords:

Public transport  
Wayfinding  
Primacy effect  
Unfamiliar trips

## ABSTRACT

A number of campaigns, policy initiatives, and research studies target promoting travel behaviour change in an effort to reduce automobile dependency. However there is scant, if any, research about the actual experience of new travel behaviours and their potential importance. Yet research in psychology has shown first impressions to be integral to all attitude development due to a phenomenon referred to as the 'primacy effect'. However the 'primacy effect' concept has never been explored in the context of urban transit, one of the key modes targeted for individuals to use in place of cars.

This paper explores the experience of unfamiliar travel and its potential importance by comparing first trip experiences (which in this study context refers to individuals' first time using public transport to travel to a university campus) with perceptions of overall trip experiences through a university access survey. The results show that unfamiliar travel by transit tended to be more negative experience than familiar travel. 'Ease of navigation' (wayfinding), 'emotional state', 'ease of navigating transfer', and 'ease of ticketing' were particularly negative aspects of first trips. Unfamiliar travel was found to be significantly correlated with overall ratings of transit suggesting a strong basis for the 'primacy effect' in public transport. Results also suggest that first trip experiences are significantly correlated with subsequent transit usage but only for 'choice travellers' i.e. those with access to a car and not for 'captive' transit users.

This is a novel research area with important implications for travel behaviour and user attitude research. Suggestions are offered for future research and practical applications for transport practitioners and organisations with an interest in reducing automobile reliance.

© 2013 Elsevier Ltd. All rights reserved.

## 1. Introduction

Research in psychology suggests that first impressions are fundamentally important to people's attitudes, a phenomenon known as the 'primacy effect' (Asch, 1946; Underwood, 1973; Mower-White, 1982; Tetlock, 1983; Taylor et al., 1997; Miller et al., 2004; Forgas, 2011). First impressions have been found to have a disproportionate influence on subsequent experiences, which suggests that user experiences on unfamiliar transit trips may have a strong impact on their impressions of that journey. However no research in transport to date has examined the 'primacy effect' and how this may impact attitudes.

Understanding the influence of first trips may be important because they could be a deterrent or facilitator to growth of public

transport travel. Growth in transit markets is considered important to reduce dependence on the automobile, reduce greenhouse gas emissions and other harmful pollutants, reduce reliance on oil, reduce congestion, make transit services more efficient and competitive, reduce obesity and improve communities (e.g. Knowles, 1996; Tertoolen et al., 1998; Klockner and Matthies, 2004; Vredin Johansson et al., 2006; Klöckner and Friedrichsmeier, 2011). However, attracting and retaining transit ridership is challenging as it often requires people to break travel habits; new users must be attracted and retained. It is generally understood that travel patterns and particularly the processes underlying travel decision-making require further exploration (e.g. Venezia, 2009). Gehlert et al. (2013) argues transport policy measures that account for users' capacity and perceptions will be more successful than those that do not. Examining first impressions of public transit services may provide a clearer understanding of the interface between habitual travel and the experience and characteristics of new public transit travel; thus improving our understanding of travel attitudes and behaviour.

This paper aims to address this gap in research by comparing the experience of unfamiliar travel and familiar travel in accessing university campuses in the state of Victoria, Australia using a

<sup>\*</sup> Corresponding author. Tel.: +61 3 9905 5574; fax: +61 3 9905 4944.

E-mail addresses: [lorelei.schmitt@monash.edu](mailto:lorelei.schmitt@monash.edu) (L. Schmitt), [graham.currie@monash.edu](mailto:graham.currie@monash.edu), [graham.currie@eng.monash.edu.au](mailto:graham.currie@eng.monash.edu.au) (G. Currie), [alexa.delbosc@monash.edu](mailto:alexa.delbosc@monash.edu) (A. Delbosc).

<sup>1</sup> Tel.: +61 3 9905 1848; fax: +61 3 9905 4944.

<sup>2</sup> Tel.: +61 3 9905 5568; fax: +61 3 9905 4944.

university survey. In the context of this paper ‘unfamiliar transit travel’ or ‘first trips’ refers specifically to the first time ever travelling to the university campus by transit. However aspects of the findings may be applicable to other types of unfamiliar public transit travel such as use of a different section of an already familiar public transit service (e.g. a different part of a train route than one usually uses) use of a public transport service that one has not used for many decades or even a public transit service one has only used once ever before. It is accepted that there is likely to be interpersonal heterogeneity regarding how ‘new’ use of a transit service is, particularly between frequent and infrequent public transit travellers.

The paper starts with a short review of relevant literature on what is known about unfamiliar transit travel, the primacy effect and travel decision making. This is followed by a description of the case study context and the research methods employed. The results are then presented and the implications discussed. Finally a discussion details the limitations of the study, practical applications of the research, and suggestions for the direction of future research in this area.

## 2. Review of literature

There is *no* direct research literature focusing specifically on unfamiliar transit travel. Therefore this literature review has drawn from broad travel behaviour research and research in psychology concerning the ‘primacy effect’. It begins with a review of experiential characteristics of unfamiliar travel. Next, research related to the potential impacts of unfamiliar travel on attitudes and subsequent transit usage is offered including a discussion of the ‘primacy effect’.

### 2.1. The first trip experience

While transportation literature includes a number of studies examining aspects of travel experience (e.g. Friman and Edvardsson, 2003; Gatersleben and Uzzell, 2007; Friman et al., 2013), there appears to be a lack of research focused on examining the experience of new public transport trips. Most travel is executed habitually; an issue which is considered by many to be a great barrier to mode shift (e.g. Verplanken and Aarts, 1999; Thøgersen, 2009). Habits occur when repetition of behaviour is repeatedly partnered with favourable outcomes until eventually the behaviour becomes automated (Aarts et al., 1997; Verplanken and Orbell, 2003; Thøgersen, 2009). First trips therefore represent a potential window of transition from habitual travel to establishment of new travel behaviours and thus deserve adequate consideration.

In addition, as a travel behaviour which is not automated, first trips are likely to be associated with a different experience than one which is automated. Research suggests that there is a tendency to devote more attention to an unusual or unknown environment, such as when visiting a foreign country (Nahemow, 1971; Kimble, 1990). Moreover more cognitive effort may be required for the process of information searching and decision-making needed for unfamiliar travel (Aarts et al., 1997; Van Exel and Rietveld, 2001; Klockner and Matthies, 2004; Klöckner and Friedrichsmeier, 2011). This additional cognitive effort associated with first trips suggests they may be more taxing on travellers than habitual travel.

Some research focussed on other topics which do contain peripheral information about issues relevant to the experience of new public transport trips. For example Dziekan and Dicke-Ogenia (2010) discuss how a lack of information may cause uncertainty and negative attitudes toward public transport. Stradling (2002, p.

26–27) describes the potential for embarrassment, frustration and regret associated with public transit travel: ‘waiting in the wrong place at an interchange makes you vulnerable to ridicule as well as to the possibility of missing the right bus or catching the wrong one’. Such potential issues for first trips would seem to be of importance for behaviour change campaigns and transit marketing which often assume that use of public transport will result in more favourable attitudes about the mode (Thøgersen, 2009), yet there is little documentation about the actual experiences of new transit trips that shape attitudes.

### 2.2. The impacts of first trips on attitudes and travel behaviour

In addition to the gap in research about the experience of unfamiliar travel, there is also limited information about the impact of unfamiliar travel on shaping attitudes and thus potentially subsequent travel behaviour.

Transport research contains numerous theories aimed to provide an understanding of the psychology of travel behaviour. One of the most prominent, the Theory of Planned Behaviour (TPB) posed by Ajzen (1991) provides a common foundational framework for denoting individuals’ influences to travel mode choices. The TPB poses that attitudes, subjective norms and perceived behavioural control interact concurrently to influence behavioural intention, which in turn influences behaviour. In other words, intention, which precedes behaviour, is determined by people’s attitudes (or evaluations of) performing a behaviour, perceived social pressure, and perceived behavioural control (Mann and Abraham, 2006). The TPB is widely recognised and has been supported by a number of studies (e.g. Vredin Johansson et al., 2006).

Some transport research mentions of the role of learning experience in affecting attitudes about travel (e.g. Ergün et al., 1999), and in particular, critical incidents (Pedersen et al., 2011). Psychological research has repeatedly shown that first impressions are important to attitude development through a phenomenon called the ‘primacy effect’ (Asch, 1946; Underwood, 1973; Mower-White, 1982; Tetlock, 1983; Taylor et al., 1997; Miller et al., 2004; Forgas, 2011). The ‘primacy effect’ is ‘the tendency to use an initial impression to organise and interpret subsequent information’ (Taylor et al., 1997, p. 471). First impressions have been shown to be one of the most robust and reliable factors which distort judgements (Forgas, 2011). In fact, the neurobiological-scientific perspective even indicates that first presentations of a stimulus are processed differently in the brain than subsequent exposures (Tulving et al., 1994; DiGirolamo and Hintzman, 1997; Miller et al., 2004). However, the study of primacy has historically concentrated on interactions with people and objects rather than environments (Nahemow, 1971). The focus of the present research is the transport environment and unlike objects or people the environment surrounds a person. This means that there is always peripheral and central information present and more information than can be processed by an individual.

While the discipline of psychology offers a solid foundation that ‘first impressions’ are integral to attitude development, the explicit application of the primacy effect to travel choices has never been explored through transport research. It is surmised that if the primacy effect is applicable to transit trips, and that they are important to attitude development, then in accordance with the Theory of Planned Behaviour (TPB), the attitude might impact intention and subsequent travel mode decision-making (e.g. Ajzen, 1991).

In conclusion there is a lack of research about unfamiliar travel in terms of when it occurs, what the experiences are like, and its role in impacting travel behaviour. The primacy effect has been shown to demonstrate that for a number of stimuli, first

Download English Version:

<https://daneshyari.com/en/article/7498198>

Download Persian Version:

<https://daneshyari.com/article/7498198>

[Daneshyari.com](https://daneshyari.com)