Exploring unfamiliar public transport travel using a journey planner web survey

Lorelei Schmitt[1], Graham Currie[1], Alexa Delbosc[1]

[1] Department of Civil Engineering, Monash University, VIC 3800, Australia

Email for correspondence: lorelei.schmitt@monash.edu

Abstract

Attracting and retaining public transport ridership is fundamental to a number of land use and transport policy objectives which seek to reduce single-occupant vehicle travel. However there are a number of unknowns about the psychological processes underlying travel behaviour. Previous research examined one potentially important process, 'the primacy effect', which suggests that first impressions of public transport have an important influence on attitudes and behaviour. This paper further explores unfamiliar transit travel through the use of a travel planning website survey. The survey obtained 'before and after' travel attitudinal data to explore the circumstances of unfamiliar travel, travel experiences and the impact of these experiences on attitudes and behaviour. A total of 3,537 'before' responses and 658 eligible 'after' surveys were obtained including 152 unfamiliar transit journeys. Compared with familiar travel, unfamiliar travel was more commonly associated with the following: life transitions, less time living in Melbourne, travel companionship, visiting new locations, and non-work-related trip purposes. Unfamiliar travel experiences were rated more negatively for navigation and level of anxiety and more positively for 'expected vs actual travel time' and 'level of comfort'. Analysis of trip attribute ratings and intention to re-patronise services indicated that there was a significant relationship between positive trip experiences and intention to re-patronise services, particularly in the case of unfamiliar transit travel.

Keywords: travel planning websites, unfamiliar travel, first trips, life events, transit passenger information website, primacy effect

1. Introduction

There is much interest in growing public transport markets as a means of reducing automobile dependence. However, research suggests that there are a number of barriers to growing public transport markets. A potential barrier to mode shift is that most travel is undertaken habitually (e.g.Verplanken and Aarts 1999; Thøgersen 2009). Habits occur when behaviour is repeatedly partnered with favourable outcomes until eventually the behaviour becomes automated (Aarts et al. 1997; Verplanken and Orbell 2003; Thøgersen 2009). A new behaviour (in this case, a new public transport trip) must take place for an old habit to be broken. In this context, gaining a better understanding of the experience and characteristics of new public transit travel would be fundamental to understanding travel attitudes and behaviour generally and perhaps to retaining new public transport users. Indeed, it has been argued that transport policy measures that account for users' capabilities and perceptions will be more successful than those that do not (Gehlert et al. 2013).

Previous research by our study team indicated that compared to familiar public transport journeys, unfamiliar journeys were associated with more negative experiences than familiar travel, particularly in terms of 'ease of navigation' (wayfinding), 'emotional state' (level of anxiety), 'ease of navigating transfer', and 'ease of ticketing' (Schmitt et al. 2012; Schmitt et al. 2013). This research also indicated that first trip impressions influence overall attitudes

about services. This finding is consistent with numerous psychology studies examining the 'primacy effect', which have shown that first impressions tend to exhibit a disproportionate influence on attitudes (e.g. Asch 1946; Mower-White 1982; Tetlock 1983; Taylor et al. 1997; Forgas 2011).

However this previous research was limited to the context of travel to a university and relied on respondents recalling first trips, many of which occurred several years earlier. The present research engages public transit users before and after public transport (PT) travel. It also includes a wider variety of journeys and explores other variables that may be important to unfamiliar transit travel. In the context of this study, a new public transport trip, or 'unfamiliar journey', refers to use a transit service that a subject has not used before, for example a train line that has not previously been used by the survey respondent.

The present paper explores three research questions:
- how *prevalent* are first trips and under what *circumstances* do unfamiliar trips occur?
- what *experiences* are associated with unfamiliar trips: in contrast to familiar trips, between different interpersonal attributes and for different transit modes?
- do unfamiliar trips *impact attitudes and behaviour* related to modal choice?

The paper begins by presenting the research context pertinent to the study. This is followed by a description of how the study was conducted. Then the results are presented which is followed by a discussion of the findings and implications of the research.

2. Research context

There is limited research literature focusing specifically on unfamiliar transit travel. Much of the research concerning unfamiliar transit travel touches upon it only indirectly. Therefore this literature review incorporates studies from the broader transport and psychology fields. It begins with a review of circumstances surrounding unfamiliar transit travel, and then discusses the experiential characteristics of unfamiliar travel. Next, research related to the potential impacts of unfamiliar travel on attitudes and subsequent transit usage is offered. Finally the aims of the present study are discussed.

2.1 Circumstances surrounding unfamiliar travel

Given that travel behaviour is often habitual (Chorus et al. 2007), a number of studies suggest that one of the most opportune times for travel behaviour change to occur is during an important life event. Life events are occasions associated with major changes to one's lifestyle, such as moving homes or cities, starting university, starting a new job or workplace relocations, obtaining a driver's license, switching schools, changed physical mobility and having children (Davidov 2007; Sharples 2009; Van Exel and Rietveld 2009). Life events can inadvertently serve as a prompt for people to reconsider their travel patterns, often due to a change in origin, destination or available travel options (Goodwin et al. 2004; Davidov 2007; Verplanken et al. 2008). Due to evidence suggesting that life events may prompt new travel behaviours, the present study has incorporated questions around life events into the survey and the associated analysis.

2.2 The experience of unfamiliar travel

Numerous studies investigate a variety of aspects of the travel experience (e.g. Friman and Edvardsson 2003; Gatersleben and Uzzell 2007; Friman et al. 2013). However, little research focuses on the experience of unfamiliar PT trips. Being non-habitual travel, it would seem plausible that unfamiliar transit travel may be associated with a different experience than automated travel. Indeed, studies suggests that there is a propensity to

devote more attention to unknown environments, such as when visiting a foreign country (Nahemow 1971; Kimble 1990). Similarly, unfamiliar travel may require a process of information searching and decision-making thereby demanding increased cognitive effort (Aarts et al. 1997; Van Exel and Rietveld 2001; Klockner and Matthies 2004; Chorus et al. 2007; Klöckner and Friedrichsmeier 2011). Dziekan and Dicke-Ogenia (2010) discuss how travelling by public transport in an unknown environment can be challenging and stressful due to a perceived lack of control, a lack of information and a process of updating one's 'cognitive map'. Stradling (2002) describes how unfamiliar travel may be associated with mistakes like waiting in the wrong place, catching the wrong service or missing a service, causing embarrassment, frustration and regret. Such potential issues for unfamiliar 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 the actual experiences of new transit trips, and their importance in shaping attitudes in subsequent travel behaviours has attracted little research attention.

2.3 The importance of unfamiliar travel in shaping attitudes and travel decision-making

There are three main research areas that suggest the potential importance of unfamiliar travel on shaping attitudes and thus potentially subsequent travel behaviour: the Theory of Planned Behaviour, information acquisition of travellers, and the primacy effect

One of the most widely-supported and accepted frameworks used to understand the psychology of travel behaviour is the Theory of Planned Behaviour (TPB) posed by Ajzen (e.g. 1991). It states that intention, which precedes behaviour, is determined by people's attitudes (or evaluations of) performing that behaviour, perceived social pressure, and perceived behavioural control (Mann and Abraham 2006). Despite the prominence of the TPB, Ajzen (1991) notes that it does not sufficiently account for the inclusion of past behaviour.

Some transport research mentions the role of learning experience in influencing attitudes about travel (e.g. Ergün et al. 1999), and in particular, critical incidents (Pedersen et al. 2011). Dziekan and Dicke-Ogenia (2010) discuss how the uncertainty associated with public transport in an unknown environment may cause uncertainty and negative attitudes toward public transport. For unfamiliar travel, Farag and Lyons (2012) found that PT transit users were less likely to consult information than frequent PT users and that 43% of respondents never consulted information to compare modes. Chorus et al (2007) found that destination familiarity was important to both transit users and car drivers, both of whom felt more resourceful and perceived that they could more reliably estimate travel times and costs when travelling to frequently visited destinations compared to unfamiliar destinations.

A concept that suggests first trips are particularly worthy of study is the 'primacy effect'. In psychology, first impressions of novel stimuli have been repeatedly shown to disproportionately influence subsequent attitudes, 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). First impressions have been shown to be one of the most robust and reliable factors which distort judgements (Forgas 2011), with neurobiological-scientific studies even indicating that first presentations of stimulus are processed differently in the brain than subsequent exposures (Tulving et al. 1994; DiGirolamo and Hintzman 1997; Miller et al. 2004). However, most studies have not focused on environmental interactions, but rather, impressions of people, lists and objects (Nahemow 1971). The present research focuses on the transport environment; therefore whether or not the primacy effect will occur

is unknown and difficult to test. However, given the important context of the primacy effect, it seems unfamiliar trips are particularly important to examine.

In conclusion, there is only limited research about unfamiliar travel, and what research exists tends to address the issue indirectly rather than explicitly focus on it. However, existing research suggests that the topic is important and worthy of further consideration. Our past research also suggests the topic is important, but it was limited in terms of context. Thus the present paper is intended to explore unfamiliar public transport travel including further investigating wider factors, such as circumstances surrounding unfamiliar travel, especially in relation to life events.

3. Method

The research used a self-response web survey administered in two steps: an initial poll before a journey and a follow-up survey after the journey (Figure 1).
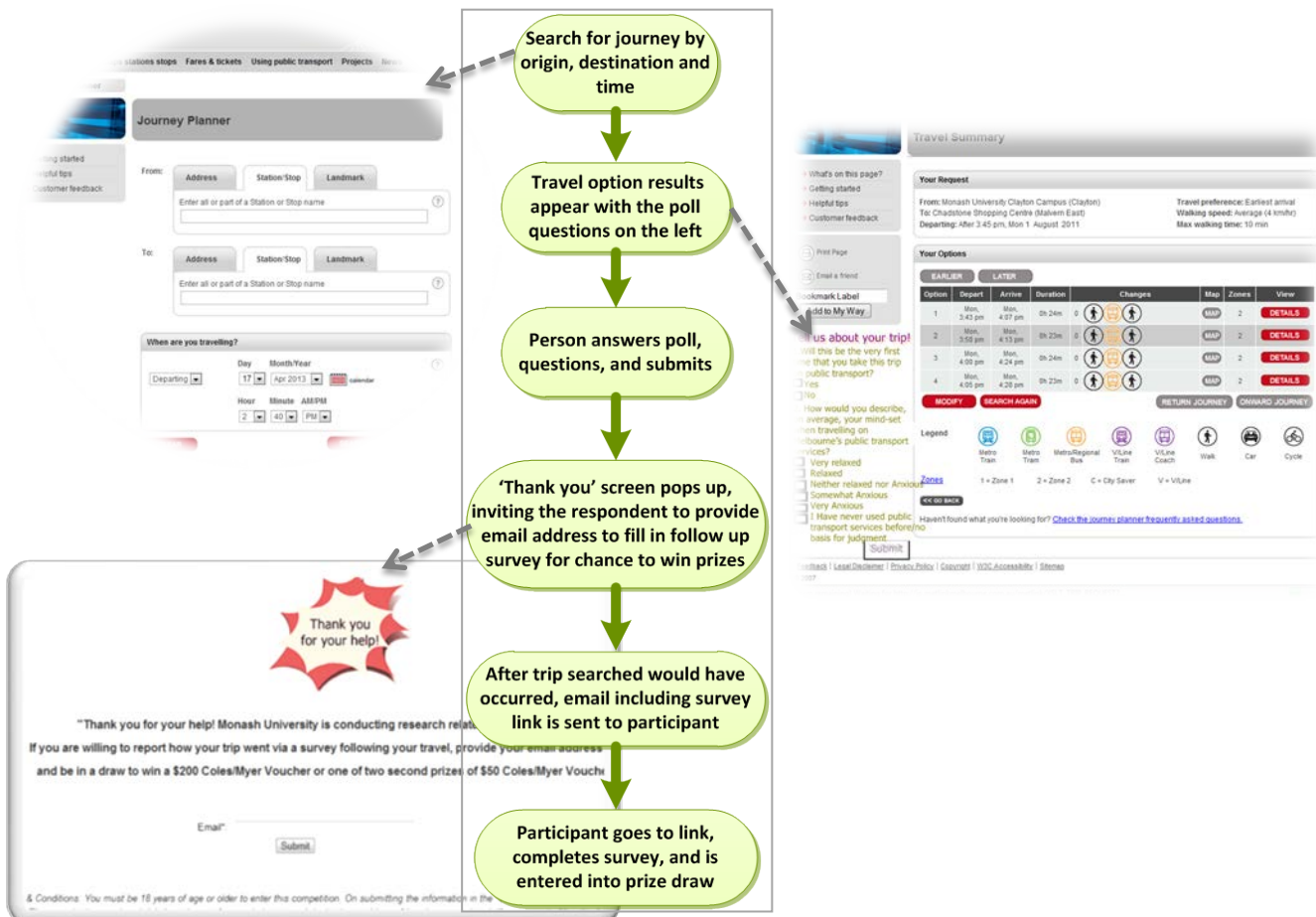

Figure 1: Research process from the perspective of a participant

The poll and follow-up survey were administered through a popular travel planning website, or 'Transit Passenger Information Website' (TPIWS) in Melbourne. Melbourne's TPIWS is managed by Public Transport Victoria (PTV) and offers timetables and route maps for transit services across the state of Victoria, a journey-planning tool, and a variety of other transit-related information. During the study period, October and November 2012, the PTV website had approximately 4.8 million visits (Nielsen NetRatings 2013) including 2.2 million visits to

the journey planner section of the website and 3.7 million journeys planned (Nielsen NetRatings 2013; PTV Journey Planner 2013).

Public transit services in Melbourne include trains, trams, buses, and special late night bus services ('NightRider'). Outside of the metropolitan area, there are regional trains ('v/Line'), regional coaches ('v/Line'), and regional bus services.

3.1. Participants and procedure

The data was collected over a period of six weeks during October 2012 – December 2012[1] using a journey planner website that Public Transport Victoria (PTV) administers. The journey planner is used by inputting an origin, destination and desired time of travel. An overview of the research process, from the participant's perspective, is depicted in Figure 1.

3.2. Journey planner poll (the 'before survey')

A two-question poll was first presented to a random sample[2] of journey planner users when their search results were provided; one question asked whether it would be the person's first time taking the trip on PT and the second question was an attitudinal question: "to what extent does your experience of public transport, on average, meet your expectations of Melbourne's public transport?" Respondents could select from one of the following six options:

  a. My expectations are often greatly exceeded
  b. My expectations are sometimes exceeded
  c. My expectations are typically met
  d. My experience sometimes falls short of my expectations.
  e. My experience often falls well short of my expectations
  f. No basis for judgement/have never used public transport in Melbourne before

If a person opted to fill in the poll, upon pressing the 'submit' button, their answers to the poll questions along with their journey planner search were saved and a new browser window appeared[3]. The new browser window thanked the respondent and invited the person to provide their email address to complete a post-travel follow-up survey in exchange for the chance to win a prize. One day after their searched journey would have occurred, those that provided their email addresses were sent a link to the follow-up survey, which was followed by one reminder email. The initial poll could be filled in by anyone but in order to fill in the follow-up survey one had to be 18 years of age or older.

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1 The journeys primarily occurred in October (53%) and November (46%), with another only five (1%) occurring in December, thus it is unlikely that the journeys were impacted by holiday.

2 During the study period, every fourth journey planner searcher was offered the poll, and if completed, a JavaScript cookie was sent to the associated computer so that the person would not be offered the poll again.

3 It is surmised that in many instances this window would have been blocked by 'pop-up blockers'. Hence in order for the new browser to appear for many participants, they would have had to notice the blocked pop-up, and manually instruct their browser to allow the new window.

3.3. Follow-up questionnaire (the 'after' survey)

The follow-up survey was prefaced with an explanatory statement and then asked questions about demographics, usual travel habits, the participants' recent trip experience, and whether the participants will use PT for that journey again. The second poll question was also asked again. Characteristics of the trip experience were explored through Likert-style rating scales (1-5 scale) to explore the attributes depicted in **Table 1**.

Table 1: PT experience attributes measured[4]

Attribute	Likert Scale	
Ease of navigation (wayfinding on public transit)	1. Extremely difficult to understand	5. Very easy to understand
Ease of ticketing (purchasing)	1. Extremely difficult to understand	5. Very easy to understand
Emotional state during the trip	1. Very anxious	5. Very relaxed
Expected vs actual travel time	1. Much longer than expected	5. Much quicker than expected
Concern about being late	1. Very concerned about being late	5. Not worried about being late at all
Comfort	1. Very uncomfortable	5. Very comfortable
Ease of transfer (e.g. finding next service)	1. Very confusing	5. Not at all confusing5
Appearance of stations/ stops	1. Very unattractive	5. Very attractive
Sense of security while travelling	1. Very unsafe	5. Very safe
Sense of security while waiting	1. Very unsafe	5. Very safe
Overall convenience	1. Very inconvenient	5. Very convenient
Overall satisfaction	1. Very unsatisfied	5. Very satisfied

4. Results

4.1. Sample size

The initial poll attracted 3,537 responses and 658 participants who were aged 18 years or older completed enough of the follow-up survey questions to have their responses retained for analysis. Due to participants' occasional inability to recall experiences, sample sizes for individual analyses varied, but were generally in the vicinity of 600 participants.

Demographically, the sample consisted of 300 males and 350 females with 61% of respondents aged 30 years or younger. Consistent with the young age group, quite a large proportion of the sample either lived at home with parents (25%) or with friends or flatmates (24%), with less households being couple with no children living at home (19%), couple with children at home (14%), single person household (12%) or other (6%). Most of the respondents were working either full time (43%), part time (17%) or studying full time (29%). More details about the demographic characteristics of the sample are available in Schmitt and Harris (2013).

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[4] For first trips all attribute ratings included a 'don't recall' option and for 'transfer' a 'did not have to transfer' option could also be selected.

4.2. Circumstances of unfamiliar travel

4.2.1 Prevalence of unfamiliar travel

Both the poll and follow-up survey asked participants whether or not their journey was new to them[6]. In the poll, 23% of the 3,537 respondents reported taking trips for the first time, suggesting that among users of internet-based trip planning sites, approximately 1/5 are undertaking a journey where some of all of the trip is unfamiliar. The proportion of unfamiliar versus familiar trips was similar between the poll and follow-up survey. The three possible responses in the follow-up survey question were:

- "Yes all of the routes were unfamiliar to me (e.g. I had never used that bus route or train line before)"
- "I had already used some of the routes, but not all of them (e.g. I had used the train service before but not the bus)"
- "No, none of the routes were new to me".

Some 75% (n=447) of journeys undertaken did not include any new routes, 20% (n=119) of journeys included a familiar leg as well as one 'new' leg and 5% (n=33) of journeys were comprised of solely 'new' legs. For the remainder of the paper, unless stated otherwise, first trips are defined as the 25% who were unfamiliar with some, or all, of their journey.

4.1.3 Characteristics of unfamiliar travel

In order to better understand the circumstances surrounding unfamiliar trips, characteristics associated with unfamiliar travel are presented in this section.

Participants were asked if any major life events had occurred within the last six weeks and then if their travel was related to the life transitions (Table 2). The percentage of unfamiliar users who stated that their travel was related to a life event (18%) was much higher than for familiar users (9%), with the most commonly identified life event being beginning or switching jobs. These results suggest that there is a tendency for life events to prompt unfamiliar public transport travel, though the majority of unfamiliar travel was not related to a life event.

Table 2: Recent life events related to travel

Life event	All %Total	Related to travel undertaken		
		%Total (n=599)	%Familiar (n=447)	%Unfamiliar (n=152)
Moved home recently	9%	2%	3%	1%
Began/switched jobs recently	13%	5%	4%	8%
Began educational/switched programme	4%	1%	0%	3%
Required healthcare (or someone significant required healthcare)	5%	1%	1%	3%
Changed family status (e.g. moved in with partner, had child, etc.)	1%	0%	0%	0%
Other	2%	1%	1%	3%
% of population selecting any of the life events		**10% (n=68)**	**9% (n=40)**	**18% (n=28)**
None	64%	Not Applicable		

Note: respondents could select more than one life event

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[6] Participants had two opportunities to state whether or not the trips they were planning were new: during the poll and in the follow-up survey. There were some small inconsistencies between these two responses.

It was also expected that more unfamiliar PT trips would occur for those who had more recently moved to Melbourne. Figure 3 shows the length of time people had lived in Melbourne by travel familiarity. From this figure it is apparent that unfamiliar travellers tended to be newer to Melbourne than familiar travellers, although the majority of all travellers had lived in Melbourne for more than ten years. Chi-square tests indicate that time in Melbourne was significantly related to whether or not a respondent was undertaking unfamiliar travel, $x^2(5, N=599) = 37.1\ p<.01$.
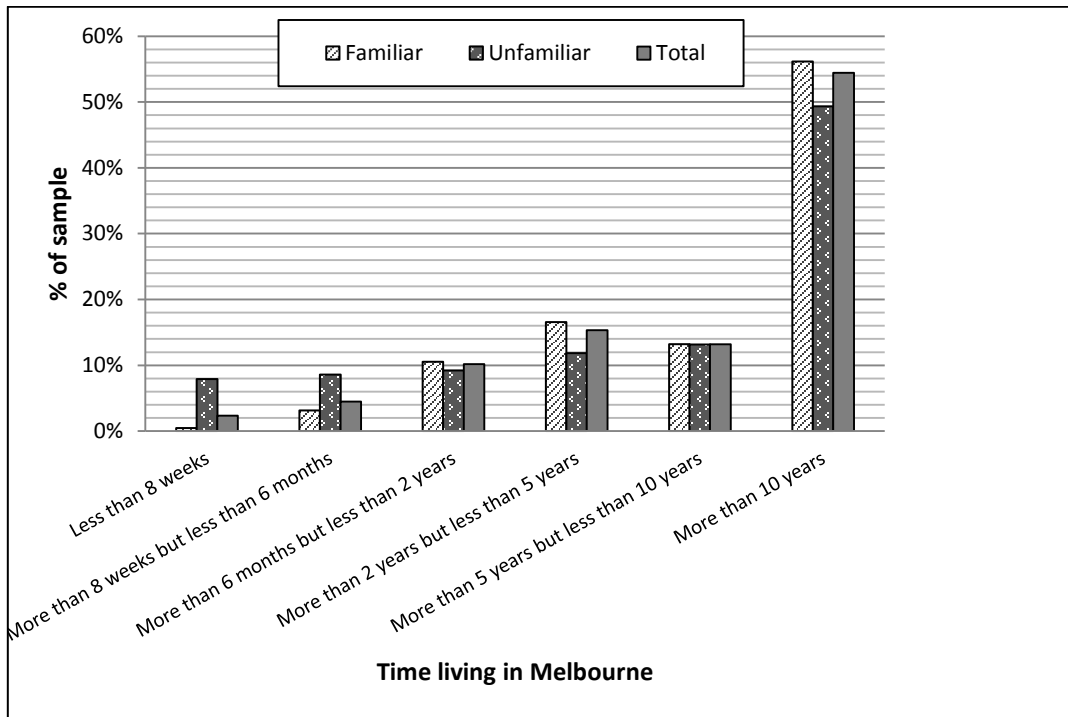
Figure 2: Percentage of respondents selecting each length of time for having lived in Melbourne

Table 3 explores how familiar and unfamiliar trips, in this study, differed by time of trip, companionship, and trip purpose. The time of trips, as captured when the survey participants undertook their initial search on journey planner, was grouped into 'peak' and 'off-peak' trips.[7] This indicates an approximately equal proportion of peak and off-peak journeys between the two groups. Unfamiliar travellers were more likely to have a travelling companion and most companions had also not undertaken public transport for the trip before (9%). Unfamiliar travel was also associated with a larger proportion of trips related to 'Leisure/Errands/Shopping/Fitness-Related' (35%) and less likely for employment (27%) than for familiar travellers (20%, 38% respectively).

Another factor which would have the potential to influence unfamiliar experiences of public transport is whether or not someone has travelled to a location before (possibly by other means). As also indicated in Table 3, 37% of unfamiliar travellers had never been to the destination before, 36% had been a few times, and 27% had been many times before. Thus, a fairly large proportion were familiar with the destination which may have positively impacted wayfinding, making it easier to find one's way at the end of the public transit trip.

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[7] The peak and off-peak grouping has been somewhat simplistic in that it has not taken into account direction of travel; so counter-peak trips during peak time would still be categorised as peak.

Table 3: Trip characteristics (by percentage of respondents)

Characteristic	%Total	%Familiar	%Unfamiliar
Time of day			
Peak (Monday –Friday either 7:30 -9:30 or 3:30 – 6:30)	42%	41%	43%
Off-peak	58%	59%	57%
Travel companionship			
No, I was travelling by myself	90%	92%	84%
Yes, I was travelling with someone who HAD NOT taken public transport for this trip before	3%	1%	9%
Yes, I was travelling with someone, but I DO NOT KNOW whether or not they had taken the trip before	1%	0%	1%
Yes, I was travelling with someone who HAD taken public transport for this trip before	7%	7%	7%
Trip purpose			
Employment	35%	38%	27%
Leisure/Errands/Shopping/Fitness-Related	24%	20%	35%
Education	19%	20%	15%
Visiting Friends and Relatives	12%	12%	11%
Other	6%	7%	5%
Healthcare (for self or other)	4%	4%	3%
On holiday/Visiting Melbourne	1%	0%	3%
Previously been to location by other travel means			
Never (my first time travelling to this destination was this trip on public transport)	13%	5%	37%
A few times (1 - 3 times)	18%	12%	36%
Many times (4 or more times)	69%	84%	27%

4.3. Experiences of unfamiliar travel

Participants were asked to rate their trips in terms of several attributes (Figure 4).
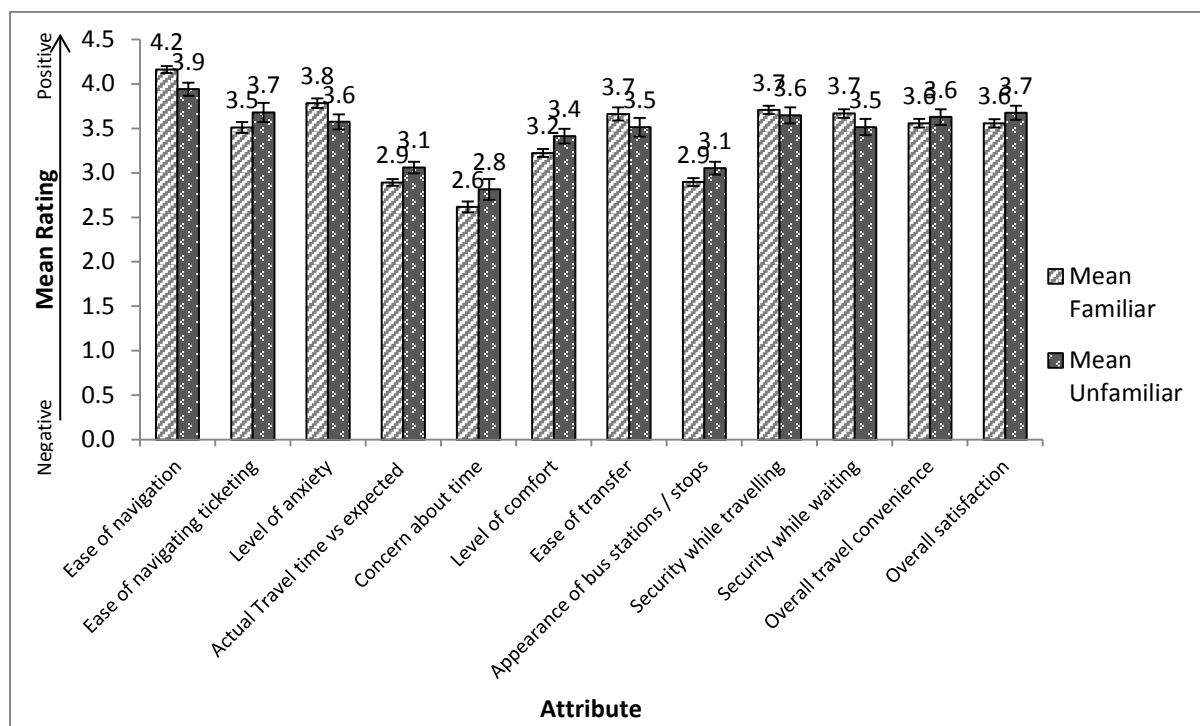
Figure 3: Mean attribute ratings, by familiarity

An independent samples t-test was undertaken between the familiar and unfamiliar groups for each of these attributes. Their experiential results of this analysis are presented in Table 4 and indicate that unfamiliar users rated 'navigation (wayfinding on public transport)' significantly lower than familiar users did, t(595) = 2.78 at the p<.01 level and 'emotional state during the trip' (level of anxiety) significantly lower than familiar users, t(590) = 2.03 at the p<.05 level. Conversely, unfamiliar users rated 'expected vs actual travel time' significantly higher, t(584) = -2.28 at the p<.05 level; and 'level of comfort' higher, t(594) = -2.11 at the p<.05 level.

Table 4: PT experience, by familiarity measured[8]

	Familiar		Unfamiliar		
Attribute	Mean	SD	Mean	SD	Result
Navigation (wayfinding on public transport)	4.2	0.82	3.9	0.91	t(595) = 2.78**
Ease of ticketing (purchasing)	3.5	1.23	3.7	1.23	t(530) = -1.35
Emotional state during the trip	3.8	1.11	3.6	1.03	t(590) = 2.03*
Expected vs actual travel time	2.9	0.77	3.1	0.80	t(584) = -2.28*
Concern about being late	2.6	1.31	2.8	1.42	t(594) = -1.55
Level of comfort	3.2	0.94	3.4	1.02	t(594) = -2.11*
Ease of transfer (e.g. finding next service)	3.7	1.16	3.5	1.15	t(371) = 1.16
Appearance of stations/stops	2.9	0.92	3.1	0.88	t(591) = -1.82
Sense of security while travelling[9]	3.7	0.98	3.6	1.09	t(234) = 0.60
Sense of security while waiting	3.7	1.04	3.5	1.12	t(592) = 1.53
Overall convenience of the travel	3.6	1.01	3.6	1.08	t(595) = -0.72
Overall satisfaction with the journey	3.6	0.99	3.7	0.97	t(595) = -1.25

Note: **p<0.01 and *p<0.05

4.4. Effect of travel on attitudes and behaviour

4.4.1 Effect of unfamiliar travel on attitudes

In the previous sections the circumstances surrounding unfamiliar travel and unfamiliar travel experiences were explored. In this section, the impact of the travel experience in shaping attitudes is examined. One of the key advantages of the research design for this study was that it incorporated a question about travel expectations prior to travel (refer to section 3.2) and then asked the same question after travel to see if there was a shift in attitudes. A new variable was created to show the change in rating by subtracting the poll rating from the follow-up survey rating; thus a positive value indicated that the respondent's attitude had improved after their experience whereas a negative value indicated that it had worsened.

Before and after attitudes were significantly correlated (r(650) =.72, p<.01), indicating that pre-trip attitudes seemed to influence after-trip ratings. However, a paired samples t-test suggested that the shift in attitude in the sample as a whole was significant (M = -0.08, SD=0.73, p<.01), suggesting that the travel experience significantly affected the subsequent attitude, with the dominant trend being a small increase in the mean attitudinal rating.

When disaggregated by familiarity, the results of this analysis (**Figure 5**) graphically depict that familiar travellers were less likely to have their attitudes shift in either direction than

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[8] All 'don't recall' option and 'did not have to transfer' responses have been excluded.
[9] The relatively small sample size associated with this variable is because Levene's Test for Equality of Variances was significant, so statistics for "equal variances not assumed" is presented.

unfamiliar travellers, who seem to be split in terms of whether their attitudes shifted positively or negatively. However, chi-square tests indicated that this trend was not statistically significant, x^2(1, N=594) = 1.98 p=0.16.
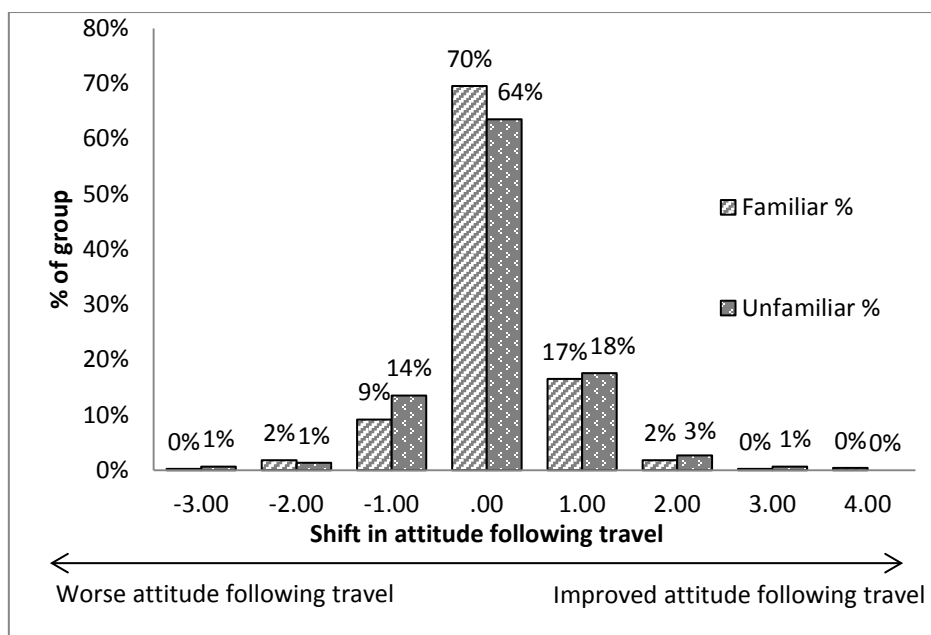

Figure 4: Shift in attitude following travel

4.4.2 The impact of first trips on behaviour

This section explores the results associated with whether unfamiliar trips impact *behaviour* related to modal choice.

Most travellers (97% of familiar travellers and 75% of unfamiliar travellers) said they would use PT for their trip again. In order better ascertain how travel experiences impacted intention to use services again, independent samples t-tests were undertaken to determine whether people who had more positive travel experiences were more likely to say they would use public transport again (Table 5). In general, attribute ratings were higher for travellers who stated that they intended to use services again, and this trend was especially evident for unfamiliar travellers. For unfamiliar travellers, t-tests indicated ratings of 'emotional state during the trip', 'comfort', 'ease of ticketing (purchasing)' and 'overall satisfaction' were all significantly more positive for those who said they would use the service again. In contrast, for familiar travellers only 'overall satisfaction' ratings differed between those who would use the service again and those who would not. This suggests that the trip experience has a greater impact on future behaviour for unfamiliar travellers than for familiar travellers.

Interestingly, 'soft' variables such as comfort and emotional state were more influential than expected travel time and concern about being late. However for this analysis, there were very few travellers who reported that they would be unlikely to use services again so the results should be interpreted with some caution.

Table 5: Mean trip attribute ratings based on intention to use service again, by familiarity[10]

Attribute	Familiar		Unfamiliar	
	Yes (n=429)	No (n=3)	Yes (n=113)	No (n=9)
Ease of Navigation (wayfinding on public transit)	4.2	3.3	4.0	3.8
Ease of Ticketing (purchasing)	3.5	2.5	3.8*	2.8*
Emotional State during the trip	3.8	4.3	3.7**	2.8**
Expected vs Actual Travel Time	2.9	3.0	3.1	2.7
Concern about being late	2.6	3.0	2.8	2.8
Comfort	3.2	3.3	3.5**	2.6**
Ease of transfer (e.g. finding next service)	3.7	3.0	3.5	3.2
Appearance of stations/ stops	2.9	2.7	3.1	2.8
Sense of security while travelling	3.7	4.3	3.6	3.1
Sense of security while waiting	3.7	4.0	3.5*	2.7*
Overall convenience	3.6	2.7	3.7	3.0
Overall satisfaction	3.6*	2.3*	3.8*	2.8*

Note: **$p=<0.01$ and *$p<0.05$

5. Discussion and Conclusions

This study involved using a popular travel planning website to conduct research by offering a poll before a journey and then a follow-up survey after travel was undertaken. The results from this study suggest that approximately one-fifth of the participants surveyed were undertaking an unfamiliar transit trip, which is relatively high given the amount of literature suggesting that most travel is habitual. In terms of the circumstances surrounding unfamiliar travel the study established that unfamiliar travel was commonly associated with:

- life events, particularly beginning/switching jobs
- having lived in Melbourne for less time
- travelling with another person, whom were also unfamiliar with the subject transit services
- leisure/errands/shopping/fitness instead of employment
- not having previously been to a destination.

Trip attributes that were more negative for unfamiliar travellers than familiar travellers were 'navigation (wayfinding on public transport)' and 'emotional state during the trip' (level of anxiety). Conversely the trips ratings for 'expected vs actual travel time' and 'level of comfort' were higher than for familiar travellers. The former two findings are consistent with previous research (e.g. Dziekan and Dicke-Ogenia 2010). However our own previous research did not find any of the mean first trip ratings to be significantly higher for unfamiliar travellers whereas the present study did. Further research is clearly needed to see if this is a result of the research method used, or whether other characteristics of the trips are influencing these experiences. For example, trips to work (which are more common for familiar travellers) may be less comfortable due to crowding and workers may be more sensitive to travel time than travel for leisure/shopping (which is more common for unfamiliar travellers).

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[10] Participants who said that they would not be using transit again for that journey because they were unlikely to be travelling to that destination again were excluded from this analysis. Also those who responded "do not know" to their likelihood of re-using a service have been excluded.

The present study also found a significant correlation between the pre-trip attitudinal rating and the post-travel attitudinal rating (suggesting the persistence of attitudes), however it also found the difference between the two to be significant. The latter finding suggests that the travel experience may be important to the attitudinal shifts. While it appeared unfamiliar travel was associated with higher rates of changed attitude ratings following the travel (50%) than for familiar travellers (30%) the relationship was not found to be significant. Thus, it may be that unfamiliarity is associated with more pliable travel attitudes in relation to recent experiences, but this requires further investigation. It is also worth noting that the wording of the attitudinal question, which was preferred by the research partner (PTV), was not straight-forward as it measured expectations rather than satisfaction. Further research using different question wording is recommended.

The finding that attribute ratings were higher for travellers who stated that they intended to use services again than those who did not, suggests that positive trip experiences impact intention to re-patron services, particularly in the case of unfamiliar transit travel. The key attributes where this was most evident included 'emotional state during the trip', 'comfort', 'ease of ticketing (purchasing)', and 'overall satisfaction'. This provides support for the hypothesis that experiences during unfamiliar travel can have an impact on intention to use a service again, highlighting the importance of improving the travel experience of unfamiliar travellers.

There are also some research limitations to consider. Although the number of survey responses is quite high, the sample is self-selected and demographically included a very high representation of young participants. The issue of selection bias may be also exacerbated by research suggesting that people are more likely to use travel planning information if they are frequent transit users (Farag and Lyons 2012). Moreover, while the research was designed to evaluate a great variety of travel types and geographies across Victoria, this also meant that there were a large number of variables that could be impacting experiences in addition to trip familiarity. Further analyses will be undertaken in the future to investigate this.

Despite these limitations, the research offers important information that could contribute to the success of travel behaviour change campaigns and the design of transit systems. It shows that life transition events, such as changing jobs, provide a unique opportunity to engage with unfamiliar public transport users. It highlights that some aspects of travel are more negative for unfamiliar travellers and that negative experiences can discourage them from using public transport services again. In particular it suggests that 'soft' factors such as comfort, understanding the ticketing system and being at ease while travelling may be more important to unfamiliar users than traditional metrics such as expected travel time and concern about being late.

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