ARGnote

Symbolic and affective choices in transport– aligning the 'head' and the 'heart'

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Overview

People's transport decisions aren't totally based on measurable things such as time and money. There are also hidden aspects to transport choice. Some people are highly sensitive to the image they present to others (symbolism); others concern themselves with how their choices make them feel (affective motivation). It may be useful to understand how these aspects of choice vary between similar social groups across different national cultures. This will help to develop tailored solutions to transport problems, rather than use a 'one size fits all' approach.

Aims & Objectives

To introduce symbolic and affective motivation, and the role they play in transport choice.

Background

The issue of how people make decisions in transport is critical for public policy. It allows Governments to formulate policies that facilitate mobility and economic activity, but also minimise the negative aspects of transport such as congestion. Therefore, over preceding decades, the science of how people make transport choices has evolved extensively but it still *tends* to revolve around things which are quantifiable.

Key Findings
- Symbolic and affective choices are key in transport
- Neither are well understood; nor is how they might vary across groups or nations

Discussion

Measureable aspects of choice include things like time and money. Yet, work in the neurosciences is showing that when making choices people don't just compare *quantifiable* things, but go with a 'gut feeling'. In effective decision making the 'head' must align with the 'heart' or the body will signal something is wrong by creating anxiety[1]. 'Going with the gut', however, can lead people to make decisions that might may not appear rational to others. People who own cars may refuse to travel by bus even if for a token trip, and when it's more convenient [2]. Others may buy hybrid cars when they don't seem to make financial sense[3]. People may get into debt to buy sports cars when they live in congested areas where driving at speed is impossible.

Transport forecasting has traditionally dealt with such seemingly irrational, unmeasurable, aspects of choice, by 'bundling' then into a single lump 'cost', that shows how much someone dislikes one transport choice *relative* to another. Whilst this 'bundling' allows forecasting tools to replicate observed outcomes, even some experts agree [4] that they are only partially explaining what is happening within the decision making process. In recent years therefore there has been an increase in research into seemingly intangible aspects of transport choice. Practitioners are now acknowledging the existence of hidden or 'latent' variables[5][6] and agreeing that transport forecasting would benefit from a greater understanding of these.

Relatively recent research in transport psychology, has highlighted the importance of 'symbolic' and 'affective' aspects of transport

choice[7]. Symbolic choice deals with how people think others see and judge them. For example some people won't use buses because they are worried others will assume they can't afford a car[8]. Affective motivation is concerned with feelings: for example, a sports utility vehicle (SUV) can make some people feel powerful[10].

A good example of symbolic and affective motivation is buying a hybrid car. The decision seemingly makes little sense as the extra purchase cost above a conventional car is never recouped through fuel savings. But a segment of the population *do* buy hybrids and research shows it isn't just because they *care* about the environment. More importantly they want *to be seen to care* about the environment. Environmentally friendly products that aren't visible to others don't sell well. Research shows being *seen to be green* is crucial when buying a hybrid. The hybrid makes people feel that others will see them as concerned, clever, well educated, citizens [9], perhaps more sophisticated than those 'petrol heads' who 'pollute with gas guzzling SUVs'. For this feeling they are seemingly willing to pay a premium.

But knowing that symbolic and affective aspects of choice matter is one thing; measuring them is another. They can be very difficult to 'tease out' of people, especially symbolic motivation as it links to the sensitive topic of social status. People may not be able to clearly explain, or be ashamed or, their symbolic motives. Not many people are likely to admit that they drive a sports utility vehicle because it makes them feel powerful[10]. Furthermore, what transport forecasting has shown when analysing different groups' choice considerations, is that the 'lump cost' described earlier, the thing that shows how much someone dislikes one transport choice *relative* to another for unmeasurable reasons, *differs* between groups. Symbolism *isn't* the same across the social and income spectrum. We might call this social division, *vertical* difference. It illustrates why when formulating transport policies *within* a country it's not helpful to 'lump' everyone together, as we lose what's happening in the different groups' choice process.

But what if a forecasting tool developed in one country, is to be transferred to another [11], perhaps an industrialising one, where car ownership and mobility levels are increasing rapidly, but resources to fix the problems caused are scarce? Surely then it would be important to understand if symbolic and affective aspects of transport choice differ at a '*horizontal*' level, i.e. *between* individuals of similar socio economic characteristics across different nations and cultures? An understanding of this would help in the development of tailored, local, predictive tools, and assist those developing sustainable solutions in emergent economies.

The relatively recent academic discipline of *cross cultural studies* deals with how values differ between similar social groups across different national cultures. The science is not without controversy but if applied carefully could be extremely useful when examining the emotive aspects of transport choice.

Conclusion

When looking at symbolic choices in transport and how they might differ *across* similar social groups in different cultures cross cultural studies may prove useful. Therefore, the next ARG note in this series (Vol 2, No. 3) will introduce, at a high level, the value dimensions of the major cross cultural theorists.

Future Research Areas

1. Symbolic transport choices between similar individuals in different cultures.

Endnotes:

1. Antonio R. Damasio. Descartes' error : emotion, reason, and the human brain. Vintage; 2006. **2**. M. Scherer, K. Dziekan. Bus or rail: an approach to explain the psychological rail factor. J Public Transp, Vol. 15 No. 1 (2012) **3**.Heffner RR, Kurani KS, Turrentine TS. Symbolism in California's early market for hybrid electric vehicles. Transp Res PART -Transp Environ. 2007;12(6). **4**. Koppelman FS, Chandra Bhat. A Self Instructing Course in Mode Choice Modeling: Multinomial and Nested Logit Models, U.S. Department of Transportation, Federal Transit Administration. **5**. Hess S, Hensher DA. Making use of respondent reported processing information to understand attribute importance: a latent variable scaling approach. Transportation. 2013 Feb 1;40(2):397–412. **6**. Dirk Temme, Marcel Paulssen, Till Dannewald. Incorporating Latent Variables into Discrete Choice Models, BuR Bus Res. 2008;1(2). **7**. Steg L. Car use: lust and must. Instrumental, symbolic and affective motives for car use. Transp Res Part Policy Pract. 2005;39(2-3). **8**. Guiver JW. Modal talk: Discourse analysis of how people talk about bus and car travel. Transp Res Part A. 2007;41(3):233–48. **9**. W Y Chua, A Lee, S Sadeque. Why do people buy hybrid cars? Proc Soc Mark Forum Univ West Aust Ed Cowan Univ Churchlands WA Pp 1-13. **10**. Choo S, Mokhtarian PL. What type of vehicle do people drive? The role of attitude and lifestyle in influencing vehicle type choice. Transp Res Part Policy Pract. 2004;38(3). **11**. Koppelman FS, Wilmot CG. Transferability analysis of disaggregate choice models. Transp Res Rec, (895). 1982