

Book Review:

Hani S. Mahmassani (Ed.)

***In Perpetual Motion. Travel behaviour research opportunities and application challenges*¹**

Jean-Pierre Orfeuil

Centre de Recherche sur l'Espace, les Transports, l'Environnement et les Institutions Locales

Université Paris XII

Creteil

France

orfeuil@univ-paris12.fr

EJTIR, 2, no. 2, (2002), pp. 145 – 148

Received: November 2002

Accepted: November 2002

General scope, origin and structure of the book

This book is based on the Eighth meeting of the International Association for Travel Behavior Research, held in Austin, Texas, in September 1997. IATBR is an active and joined together community² focused on the improvement of methods aimed at measuring, representing, modelling and forecasting travel behaviour. This community developed in the seventies in reaction to aggregate models and their caveats. In that period, an impetus has been given in three directions: disaggregate approaches, with the project to capture the essence of individual rationality through more and more sophisticated models based on revealed or stated preferences; activity-based approaches, which have clearly demonstrated that analysing travel demand needs to go from trip-based approaches to tour-based and day-based approaches and put on the agenda such questions as the interrelations among persons (of a common

¹ Hani S. Mahmassani (Ed.)

In Perpetual Motion. Travel behaviour research opportunities and application challenges

Amsterdam, Pergamon

2002

ISBN 0-08-044044-4

592 pages

² The absence of the affiliation of the contributors is a sign of that 'community' approach.

household), the need to consider in-home as well as out-of-home activities and to improve dramatically the methods of data collection and mobility measurement; dynamic approaches, with a central message that the focus of the analysis should shift from the state of behaviour to changes in behaviour, with a specific attention to the speed of adjustments; If the three of them have now joined the same community, the book deals only at the margin with the second direction, the dynamic approach, even though a section is devoted to very short term behavioural response in the framework of ITS developments.

This association acts as a home for dissemination and cross fertilization of ideas produced in the field of travel behavior by such disciplines as economics, psychology, sociology, urban planning, geography and transport engineering. This position ‘across the boundary lines’ is reflected in the diversity of the areas of interest.

Reviewing a six-hundred page, twenty-eight chapter book is always a hard task, not only because choosing between themes and authors is difficult and necessarily unfair, but because the book may also have different audiences, with different interests. Let’s consider, in that respect, what this book *is not*, and what this book *is* dealing with.

What the book is not

The main scope of the book is not travel behaviour, with real world analysis on how and why people move and react to policies. There are of course some exceptions, mainly with the papers of Peter Jones (response to new transport alternatives and policies), Kenneth Kurani and Thomas Turrentine (Household adaptation to new personal transport options) Patricia Mokhtarian and Ilan Salomon (Emerging travel patterns: do telecommunications make a difference?) Dirk Zumkeller (Transport and telecommunications: first comprehensive surveys and simulation approaches) or R Gorham (Comparing neighbourhood travel analysis). For that reason, the reader will not find papers on these «real world laboratories» that are places where major changes occurred in the decade (for example Eastern Europe or South East Asia) or on new concerns (mobility schemes and constraints of poor people in the developed world, the explosion of long distance travel, to take two examples only)

The main scope of the book is Travel Behaviour *Research*, with a strong focus on methodological advances. Again, some quite active research fields are not dealt with, such as the linkage between the evolution of social values and mobility schemes, or the consequences of the ageing of the population as regards mobility, or the increasing need for each of us to build by ourselves a diversified social capital, which requires some kind of travel.

What the book is and deals with

It is time now to say what the book is, deals with, and why it is of major interest for some readers. The book itself is not a Proceedings collection in the traditional sense. It intends to provide an assessment of accomplishments, current trends and future directions to reflect emerging trends, areas of future opportunity and growing professional interest as regards methodologies used in Travel behaviour research. It is well structured in nine sections. The themes of the sections are: Response to new transport alternatives and policies; Dynamics and

ITS response; Telecommunication-travel interaction; Travel behaviour-land use interaction; Time use; Travel behaviour measurement; Methodological developments; Forecasting; Microsimulation of travel activities in networks. Each of them is introduced by one or two resource chapters prepared by the best-known scholars in their field of research, which form the backbone of the volume. In addition, one or two examples of best or most innovative research presented at the Austin conference have been selected. Finally, each section is concluded by a workshop report aimed at identifying key challenges facing research in the next decade.

Most of the resource chapters provide not only a good insight on the major advances on each topic (with a rich set of references, despite generally ignoring papers not available in English) but also derives the consequences in terms of new conceptual frameworks. Among these resource papers, let's select Peter Jones (Chapter 1) for the clarity of the links he establishes between new policies and research needs and agenda; Reginald Golledge (Chapter 5) on behavioural responses to information available from ATIS for the extent of the review, the quality of the classification on this ten years only topic; Patricia Mokhtarian and Ilan Salomon (Chapter 7) for the clarity, seriousness and soundness of their analysis and conceptual framework in a context where conclusions from science fiction and commentaries are frequently taken for granted. Eric Miller and Paul Salvani (Chapter 26) on microsimulation frameworks and Pia Koskenodja and the late Eric Pas (Chapter 28) for their contribution to the elaboration of new directions in modelling based on complexity approach. We are less happy, by contrast, with the synthesis on travel behaviour-land use interactions (Chapter 10) which considers only the directional link between land use and mobility, and ignores the reverse link between the ease of travel and land use evolution, or the synthesis on emerging developments in time use and mobility (Chapter 14), where time is mainly treated as a quantity, ignoring such key questions such as rhythms and links and articulations between activities (for example work and leisure).

Most of the selected research papers are of the high interest. Again it is a pleasure to quote Andrew Daly (Chapter 2) on the continuous adaptation of modelling to real world demands, Kenneth Kurani and Thomas Turrentine (Chapter 3) for their in-depth exploration of what households can do with a vehicle which is intermediate from the point of view of its basic properties between a bike and a classical car (an electric vehicle), Dirk Zumkeller (Chapter 8) for the presentation of the scope and the results of a comprehensive survey on mobility and telecontacts, Peter Bonsall (Chapter 18) on the advantages and problems associated to motivating the respondents by economic incentives, and Charles Raux (Chapter 24) for the presentation of simple, flexible, pedagogical (avoiding the blackbox effect) models to deal with the medium term effect of short term decisions.

The workshop reports provide interesting insights on what has been recently achieved and what is the research agenda for the future. In that respect, these reports should be of a high interest for young researchers. We can only regret (but this is a very difficult and demanding task) the lack of an attempt to select the priorities for a research community which is not extensible *ad libitum* and define a realistic agenda for the next ten years.

To conclude

In a previous conference, the late lamented Eric Pas asked whether travel demand analysis and modelling was in the doldrums. This stimulating book proves it is not. Major advances have been achieved on such topics as transport-telecommunications-ITS, data collection and modelling. Microsimulations are promising. On the other hand, some key questions seem to be insufficiently dealt with, and we shall take three examples only: in the central framework of travel behaviour research, the link between short term adaptations and long term ones (a key question for sustainability which could benefit from longitudinal surveys and dynamic approaches) should receive more attention. Exploring the links between «routine behaviour» (daily mobility) and «break» trips (long distance trips, with nights out of home, which are not usually captured by traditional surveys) should also be of increasing interest, in relation to the specific growth of long distance trips and could help to reformulate in a more realistic way the sustainability stakes. Less central to the field but of the highest interest would be studies on the role of mobility aptitudes in facing the social risks and attitudes towards security and safety in the transportation modes.