Out-of-home activities, daily travel, and subjective well-being

Dick Ettema, Utrecht University
Margareta Friman, Karlstad University
Lars Olsson and Tommy Gärling, University of Gothenburg

Abstract
In transport behaviour research, utility maximisation theory has been the dominant description of how travel decisions such as trip generation, destination choice mode choice and time allocation are made. Also when assessing how favourable travel is to travellers (e.g. in the context of cost-benefit analyses), it is usually assumed that the outcome of a trip or activity can be assessed in terms of utility, which is subsequently expressed in monetary terms. A problem when applying the concept of utility for the appraisal of policies, or for investigating the consequences of people's travel choices in general, is that it is an implicit concept that cannot be directly measured, but is derived from observed behaviour. It is questionable, however, whether utility derived from observed choices is a valid measure of the benefit that travellers experience, since choices are often made under constraints and lack of complete information.

As an alternative to measure user benefits, subjective well-being (SWB) has been proposed in a number of domains. SWB expresses individuals' cognitive and emotional well-being, applying well-defined psychometric measurement scales, that have been shown to give consistent results throughout a variety of contexts. SWB is concerned with general levels of satisfaction that go beyond, but implicitly include, domains such as work, family relations, etc. At the same time, there is an increasing interest in investigating how context-specific factors, such as daily hassles and health changes, combined with personality traits, account for fluctuations in SWB. A relevant research question in this respect is therefore how changes in travel context (e.g. a change of travel mode, a change in the level-of-service) might lead to changes in SWB. If it is possible to find relationships between travel context and SWB, SWB would be a potentially powerful tool for policy appraisal.

This paper aims at providing an overview of theoretical and measurement issues in the context of SWB, and proposes a framework for the application of SWB in the context of transportation. The paper will first review theoretical foundations of SWB. Concepts such as life satisfaction, affect and happiness that are closely related to SWB will be discussed, also reviewing empirical findings in these domains. Next the paper will discuss measurement issues related to both cognitive and affective SWB. Existing measurement techniques will be reviewed in terms of their reliability and validity. Particular attention will be devoted to the measurement of SWB relating to different time scales, in specific contexts and to the measurement of variations in SWB.

Based on these overviews, a theoretical framework will be outlined of how changes in the travel context may influence SWB. Based on the existing literature, the role that activities play in realising personal projects, the degree of control over the execution of activities and stress experienced due to time pressure and unforeseen events are considered crucial elements in this framework. The framework will define the relationships between these elements, and will discuss measurement issues related to these concepts.

Based on the theoretical framework, we will discuss a number of policies, such as improvements in public transport, modal shift policies and flexible work hours, to identify how they may impact on the
realisation of personal project, degree of control an stress level and eventually on SWB.
A data collection procedure for measuring changes in SWB in the context of modal shift is currently
developed and data collection is planned for early 2009. If possible, empirical tests of the framework will
be carried out and reported in the paper.