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The influence of social structure on individual travel decisions

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1 Travel decisions and the influence of social contacts

Approaches in transport planning use different variables to explain the variance of actors’ travel decisions. Common components are the distributions of activity opportunities and the generalised costs on the available infrastructure to reach these opportunities under personal needs and restrictions. In recent years another explanation has become prominent: The actors’ social environment. The growing interest in social contacts’ influence is based on two findings:

First the interest is connected with the increasing amount of leisure travel and the need for transport planning to explain this phenomenon. Focusing on trip share and the share of travelled distances, leisure travel has been the fastest growing segment of travel recently. Empirical research has shown that leisure travel is in most cases socially motivated travel as only a small share of activities at the destination is done solitary (Axhausen, 2005).

The second impulse comes from the field of social science. Here the importance of the theory of social capital has been increasing during the last decades. Social capital can be described as benefits that actors are enjoying and that are generated by persons and their social contacts (Portes, 1998). These resources cannot be generated by a single actor, only by being connected with others and engaged in joint activities.

The influence of a person’s social environment is not only important when focusing on leisure travel. It is also of importance for every other location choice and most travel decisions because the ability to profit from the benefits of social capital is strongly correlated with the ability to constitute and maintain social contacts (Frei and Axhausen, 2007).

2 Combining social networks, location choices and travel decisions

Developing an explanatory approach dealing with the influence of actors’ social environment upon mobility decisions requires a closer look at the link between social networks, location choices and travel decisions. Combining these aspects creates a challenge for designing a data
The influence of social structure on individual travel decisions

collection instrument (Axhausen, 2008). The IVT of ETH Zurich has been designing such an instrument by combining an egocentric network approach with an activity based travel diary.

The egocentric network questionnaire collects data on the respondents’ socio-demographics and its social contacts. Using the name generator technique, it focuses on contacts that respondents are spending time with and that are of high emotional importance to them. To look behind egocentric networks the survey uses an ascending sampling method, by taking a snowball sample, in which egocentric networks are combined in an iterative way. This method means not only to ask one person to provide information about its social contacts but also ask these contacts to provide information about their social contacts and so on. In this way large linked networks can be sampled (Scott, 2007). The egocentric questionnaire concentrates on information towards the characteristics of the sampled persons and their contacts, the way that people are related to each other and the modes of establishing and maintaining social relations.

The eight day activity based travel diary records the daily activities of the respondents during this period. In addition to `normal´ travel related questions such as which mode the respondents used to travel to an activity and how long the trip took, it provides information towards the share of joint activities, the share of routine or innovative activities and by whom these activities have been planned.

3 Contribution to the paper

The survey instrument is designed and tested as a paper and pencil version. An electronic version is being added. In the next two months a new pre-testing phase will be conducted to see how the instrument as a mixed mode survey works. The main survey will start at the beginning of 2009 and will last approximately four to six months.

The paper will present detailed information about the design of the survey instrument and the survey process. As the main study will start in early 2009 there will also be first empirical results dealing with transport related questions. By using an instrument for data collection that implies an egocentric network approach and a travel diary there will be detailed information about the influence of the social network structure on individual travel decisions.
Analyses on the network level will deal with the correlation between the personal networks’ sizes and the amount of travel. Taking the actors’ socio-demographics into account, it will be investigated if homogenous network structures lead to a higher amount of joint activities compared to heterogeneous structures. It will also be possible to see what kinds of groups prefer which transport mode. All relevant information, for example the home and working locations are going to be geo-coded as well as all places of social interactions. This makes it possible to calculate spatial distributions of social networks’ structures and the actors’ activities. In addition to physical travel the study also measures different other communication means, such as phoning, texting, mailing and chatting to make and maintain social contact and coordinate face to face meetings. Differentiating between means of social contact also provides the possibility to observe to what extent they are complementary or substitutional to each other.

Looking at the individual level there will be information about the share of socially motivated trips. By sampling the process of activity planning there will be information showing who is influenced by whom.

By the time IATBR will take place the surveying process will be finished, so that the result of further analysis can be reported.
4 Literature


