From university to work life – Jumping behind the wheel? Explaining mode change of students making the transition to professional life

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ABSTRACT

This paper examines the mode use of students before and after starting their working lives and analyses the influencing factors. We aim to improve our understanding of travel behaviour change based on a theoretical framework extending the Theory of Planned Behaviour (ToPB), namely the Requirements, Opportunities, Abilities (ROA) approach, and the concept of habits and key events. The paper focuses on (i) how former university students adjust their travel behaviour when their working life starts and (ii) what are the most important factors explaining these changes.

With a three-wave online panel, we show that indeed many graduate workers start commuting by car and fewer travel by public transport. To explain mode change, we identified classical factors from the ToPB (subjective norm, perceived behavioural control, attitudes) as well as several requirements (more flexibility, dress code), opportunities (changed car availability, parking situation, connection to public transport) and abilities (financial, commuting distance) and, moreover, habits. As a result, we could show influences resulting from changed attitudes, changes in personal requirements as well as changes in mode options. Habit consequently decreases the probability of mode change. We draw some policy implications from the results highlighting the importance of the provision of rail-bound public transport and giving recommendations on travel demand management.

1. Introduction

As recent literature (Chatterjee and Scheiner, 2015; Müggenburg et al., 2015; Zhang, 2017) and this special issue show, research related to life-course approaches and key events is becoming increasingly prominent in the field of transportation research. Despite the broad range of situational and personal factors affecting individual decision making regarding travel modes, daily mode choice is strongly influenced by habits. Different key events in a life course such as the birth of a child or retirement, cause changes in mobility requirements, opportunities and abilities, and therefore trigger changes in travel behaviour and mobility patterns (Lanzendorf, 2003; Scheiner, 2007). Finishing university and starting working life are key events that have only been investigated marginally (Müggenburg et al., 2015). However, as research suggests, this is a phase in life when many new decisions are taken, affecting the subsequent decades of an individual's life to an important degree.

Moreover, researchers in many countries have recently observed changing travel behaviour among young adults, also called Generation Y or Millennials (Institute for Mobility Research, 2011). For Germany, Kuhnimhof et al. (2012a) discovered there has

been a shift away from the car to alternative modes among 18- to 34-year-olds in urban areas since the late 1990s, and hence see evidence for a more multimodal mode choice. Furthermore, decreasing car use arises especially from young men reducing their car use and thereby reducing the gender gap that previously existed. Kuhnimhof et al. (2012b) maintain that decreasing income is a key factor for the reduced car ownership rates but not for reduced car mileage. Moreover, it is argued that young people's adolescence continues for longer nowadays due to the longer period spent in education, entering working life later and accordingly starting a family later (Institute for Mobility Research, 2011). It may therefore seem likely that individual car dependence is postponed. However, not only have financial budgets decreased, adolescence been extended, and new information and communication technologies developed, there is also some evidence that attitudes and underlying values regarding travel options are evolving as well (for an overview, see Berliner et al., 2015; Hopkins and Stephenson, 2014; Schönduwe et al., 2012).

Against this background, it is not too surprising that students in Germany today use relatively sustainable modes for their daily commute to universities. In most cases, they use public transport or non-motorised modes (infas/DLR, 2010). However, this commuting behaviour seems to change when the former students start their daily commute to a workplace. This paper seeks to analyse in further detail (i) how former university students adjust their travel behaviour when working life starts and (ii) what are the most important factors explaining these changes. From this knowledge, we believe policymakers and planners may draw some conclusions about how to motivate students to remain with their previous commuting mode even after graduation and not change to the daily car commute.

The paper is structured as follows. Firstly, we present our theoretical framework with the Requirements, Opportunities and Abilities (ROA) approach and the concept of habit and key events (Section 2) before discussing existing knowledge on the transport of students and young adults starting working life (Section 3). Next, we describe our methodology and data (Section 4): the operationalisation of the research questions, design of the online panel survey and the field work, and compare some key characteristics of our sample with the basic population (Section 4). The results obtained from bi- and multivariate analyses are discussed in Section 5 before we conclude with some policy implications for travel demand measures (Section 6).

2. Theoretical background

2.1. Requirements, Opportunities and Abilities (ROA)

The Theory of Planned Behaviour (ToPB, Ajzen, 1991) is frequently used to explain travel choices from a socio-psychological perspective. However, as situational and spatial factors are only included on a subjective and subsequent level of analysis, they may be underestimated (Harms, 2003; van Acker et al., 2010). The Requirements, Opportunities and Abilities (ROA) approach (Harms, 2003) acknowledges this criticism by adding additional factors like personal life situation and surrounding mobility conditions to the ToPB to explain travel behaviour and therefore enhances use of the model as more determining indicators are given for deriving policy measures.

The ToPB explains behaviour as a result of attitudes, perceived behavioural control (PBC), subjective norm (SN) and intention (see Fig. 1). Derived from the MOA ('motivation', Robben and Poiesz, 1993) and NOA models ('needs', Vlek et al., 1997), Harms (2003) places mobility requirements (R), mobility opportunities (O) and mobility abilities (A) in front of the ToPB elements. Requirements comprise the subjectively perceived mobility demands (Harms, 2003) at the individual level such as time or distance constraints. Mobility opportunities summarise environment-related, external facilitating conditions (Gatersleben and Vlek, 1998; Robben and Poiesz, 1993) such as the availability and accessibility of goods or services. Mobility abilities are the legal, physical or financial means that enable a person to perform a behaviour (Harms, 2003). The ROA components are thus derived from person-related aspects or from (spatial) mobility conditions. These abilities and opportunities influence the PBC, i.e. the subjective belief that it is possible to perform the behaviour in question. The requirements and opportunities affect the attitude towards the behaviour in question, which is also influenced by more general values. To complete the model, the SN encompasses the perception of social pressure to perform (or not perform) the behaviour. For a more detailed account of the theoretical background, see Busch-Geertsema and Lanzendorf (2015).
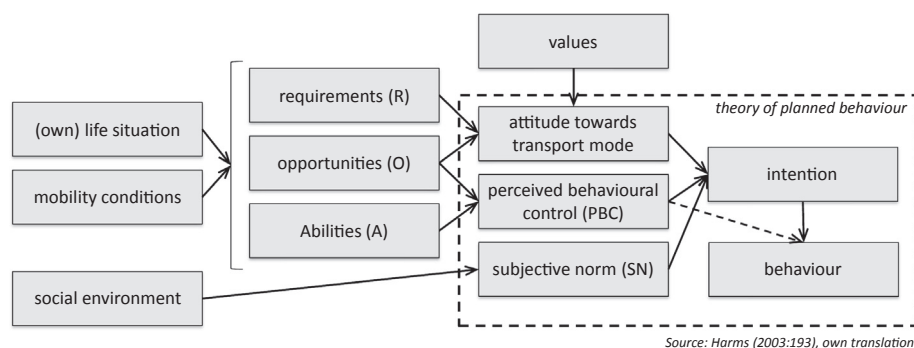

Source: Harms (2003:193), own translation

Fig. 1. The ROA approach (Harms, 2003).