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An exploration of the importance of social influence in the decision to start bicycling in England

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ABSTRACT

The purpose of this paper is to gain a better understanding, through qualitative exploration, of the ways in which social influence affects the decision to start bicycling in England. 'Social influence' is defined as the process by which an individual's thoughts and actions are changed by the thoughts and action of others. Its role was investigated at three levels: the immediate family, household members and significant others (direct social influence); the extended family, friends, peers and colleagues (less direct social influence); and the wider cultural context (indirect social influence). Interviews with 61 individuals living in 12 towns and cities across England were analysed. Half of the interviewees were new regular bicyclists and the other half did not bicycle at all, or only occasionally. Social influence was found to be the dominant factor for a minority of the cases where participants started bicycling regularly. It played a role alongside other factors in other cases. It could take the form of direct influence from family, friends and peers or indirect influence from the social and cultural context. The analysis illustrates the difficulty of capturing social influence which is often hidden and emerges incidentally in the course of the interviews and interacts with other contributing factors. The role of social influence found in this research challenges the rational approach to explaining travel decision making that has traditionally dominated transport studies. The paper suggests that social processes could be harnessed to improve the efficacy of bicycling promotion programs.

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1. Introduction

Increasingly the idea that individuals exercise rational decision making with regard to the choice of transport mode based on personal attributes and attributes of the transport system without reference to their social context is being challenged (Axsen and Kurani, 2011). Social and cultural cues are being acknowledged as an important avenue of investigation in travel behaviour (Van Acker et al., 2010; Clarke and Scott, 2013; Heinen et al., 2010). Social network effects are increasingly being considered in travel behaviour studies (Axhausen, 2008; Carrasco and Miller, 2009; Goetzke and Rave, 2010). The powerful influence of social relationships has long been recognised in other fields such as health (Christakis and Fowler, 2007) but what constitutes 'social influence' is hard to define and works in subtle ways, with contradictory theories and multiple definitions arising in different disciplines. It is important that a better understanding is obtained of the role of social influence in

travel behaviour change in order that policy analysis tools such as transport models can incorporate this and ultimately policy formulation can account for it.

The purpose of the paper is to gain a better understanding of the ways in which social influence affects the decision to start bicycling in England where bicycling accounts for only two percent of all trips (DfT, 2011). This level is low relative to other Northern European countries (Pucher and Buehler, 2008), despite a number of policies and investments to promote bicycling (Sherwin, 2010). Recent research in one city in the USA found that three groups of people were frequently mentioned by participants with respect to their bicycling life histories – family members, peers and the broader community (Gordon and Handy, 2012). This suggests that a deeper understanding of the social context of bicycling may assist bicycling policy. Hence this research looks specifically at individuals who recently started bicycling and live in 12 different urban settlements[3] across England to explore the role of social influence.

Social influence works at many different levels and interacts with other influencing factors. A particular difficulty in researching social influence is that individuals are either unaware of the extent to which they are socially influenced or rarely admit to it (Nolan et al., 2008). Therefore 'measuring' social influence by directly asking an interviewee how influential a particular individual was in their present bicycling status would be unlikely to elicit a useful response. This suggested that a broad interpretation of social influence would be most useful and we define it for the purposes of this paper as *the process by which an individual's thoughts and actions are changed by the thoughts and actions of others.*

For the purposes of this exploratory investigation of the role of social influence, it is postulated that social influence occurs at three levels: *direct* social influence through social interaction with partners and families (those living in the same household), *less direct* social influence through peers, friends and colleagues and *indirect* social influence through the wider social and cultural context. This is consistent with the three groups identified by Gordon and Handy (2012). The rationale for this approach is further developed in the following section.

This paper builds on previous work (Chatterjee et al., 2013a,b) investigating the impacts of a £43 million investment program to promote bicycling in 12 urban settlements in England between October 2008 and March 2011. The research involved qualitative interviews conducted across the 12 urban settlements. The analysis by Chatterjee et al. (2013a,b) sought to understand the circumstances and factors that influenced people to start, stop or significantly change their amount of bicycling and showed that life events were usually the trigger for a change in bicycling but other factors such as the physical and social environment played a role. This paper is based on further detailed analysis of a subset of those interviews and focuses on the role of social influence in the decision to start bicycling.

The next section provides a conceptual framework for the role of social influence in travel decision making and specifically the decision to start bicycling. The paper then provides a summary of the methodological approach before examining the three levels of social influence through the analysis of the interviews. The paper concludes with recommendations on taking account of social influence in policy, practice and future research efforts.

2. The impact of social influence on the decision to cycle

The traditional assumption in transport planning is that travel behaviour is the product of deliberate, rational decision making with time and cost the dominant influencing factors. Increasingly this viewpoint is challenged, acknowledging that decision makers may have incomplete information or bounded rationality (Kahneman, 2003) or little actual knowledge or experience of travel alternatives, so that emotions and perceptions become as influential as cost or time in the decision making process (van Exel and Rietveld, 2009; Thaler and Sustein, 2008).

Disciplines outside transport see bicycling in a much broader context, not just as a mode of transport but as an activity that has meanings that are different across urban, gendered, ethnic and class identities (Steinbach et al., 2011), as an activity that has moral significance (Green et al., 2012) or as an activity that affects perceptions of the self in relation to natural and social environments (Aldred, 2010). Others would view bicycling as a 'practice' integrating 'meanings', 'skills' and 'stuff' which evolve over time, de-emphasising the importance of individual decision making and considering the practice of bicycling as the unit of analysis (Shove, 2010; Shove et al., 2012).

This paper follows the traditional way of analysing travel decision making at the individual level but challenges the assumption that decisions are solely rational choices. The conceptual framework introduced in the paper represents the individual as part of a dynamic system where social influence is one important factor.

There is a considerable body of research in psychology that confirms that people rarely engage in rational consideration of the pros and cons of each action but rely on mental short cuts (Tversky and Kahneman, 1974, 1981). An individual's perception of bicycling, and the way that the choice to bicycle is framed by the particular context are crucial factors in determining the choice that will be made (Thaler and Sustein, 2008). Social norms form part of the framing of a decision and have been shown to affect human action systematically and powerfully (Cialdini et al., 1991). Cialdini et al. (1991) defined three types of social norms:

- descriptive norm which guide's one behaviour via the perception of how most others would behave;

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[3] Known as Bicycling Cities and Towns – Blackpool, Bristol, Cambridge, Chester, Colchester, Leighton-Linslade, Shrewsbury, Southend, Southport, Stoke, York and Woking.