



*Reflections, Issue 5*

## **THEORISING URBAN SUSTAINABILITY TRANSITIONS THROUGH A CULTURAL LENS**

*Njogu Morgan*

*School of Architecture and Planning, University of the Witwatersrand*

*njogumorgan@gmail.com*

**Abstract:** Behaviour change is a key component of the transition to urban sustainability; this is particularly the case for sustainable transport. Policymakers and scholars are increasingly taking an interest in the role of culture in these transitions – how social meanings, beliefs, values, attitudes and perceptions influence behaviour. This essay provides an introduction to research into bicycle usage and attitudes to cycling; for example, the impact of positive or negative societal perceptions of cycling on its modal share. It concludes by outlining the development of a new framework for analysing the various dimensions of ‘cycling culture’, so as to understand better how and why changes may occur over time in a particular place.

**Keywords:** urban sustainability, cycling cultures, behaviour change, transitions theory.

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Policymakers and scholars are increasingly taking an interest in the role of culture in transitions to urban sustainability (Aldred and Jungnickel 2012; Stoffers 2012). That is, there is interest in exploring how social meanings, beliefs, values, attitudes and perceptions influence behaviour - including transport modal choices and practices (Stoffers *ibid.*). My own research will contribute to this field by looking specifically at bicycle usage and attitudes to cycling in a series of cities around the world. It involves the development of a new framework for analysing the various dimensions of ‘cycling culture’, so as to understand better how and why this may change over time in a particular place.

The cycling literature observes that urban locations with high cycling modal shares generally tend to have positive views on cycling such as is the case in Dutch cities. Here cycling is an everyday activity practised by women as equally as men, by all age groups, and across all income classes (Pucher and Buehler 2008). This has led some researchers to conclude that “for most Dutch, cycling is not remarkable enough to pay a lot of attention to” (Stoffers 2012) or that it is simply “natural” (Pelzer 2010). In contrast, negative social views on cycling appear to deter participation. In contexts such as many African urban areas where cycling is stigmatised as a mode of transportation suitable only for the poor, people are unlikely to take up cycling (Nkurunziza et al. 2012; Sietchiping et al. 2012).

Because of the way in which culture shapes cycling, it is recognised as an important dimension to consider in policy efforts towards everyday cycling. Some argue that in low cycling contexts it might be more vital to focus on cultural development to support any planned infrastructure development (Nkurunziza et al. 2012; Jones and Novo de Azevedo 2013). The assumption here is that it is possible to transform meanings, social norms, and perceptions about different forms of mobility. This assumption is not unique to the cycling agenda. It is resident in the wider policy discourse on transitions to environmental sustainability and as a result “governments have attempted to change the hearts and minds of their populations, and move them away from more polluting, carbon-intensive and wasteful habits of the past...” (Crocker and Lehmann 2013). How do these cultural orientations change?

Within a diverse body of literature in transportation studies (Mitra 2013), mobilities (Urry 2000; Jensen 2009), transitions theory (Tàbara and Ilhan 2008; Rotmans 2005; Loorbach and Rotmans 2006; Lachman 2013; Geels 2010), and cultural sociology (Collins 2004), there is a significant debate as to whether culture can be intentionally transformed and how this might be orchestrated. Some theoretical approaches in transportation studies such as theory of planned behaviour and value-belief-norm theory hold that culture can be purposefully transformed (Ajzen 2011; Jakovcevic Steg 2013). Here the change can be undertaken at an individual level since meanings, values and beliefs are understood as particular properties of autonomous individuals. In making their modal choices, these individuals weigh them primarily based on rational utilitarian use values such as efficiencies in travel or associated economic savings. The mobilities literature, on the other hand, foregrounds the experience of the journey itself as an important factor influencing modal choice (Jensen 2009). In addition, changes in mobility cultures are situated more systemically. Here meanings, beliefs and values are not unique properties of individuals but are related and produced by political, economic, social, material and topographical configurations (Sheller and Urry 2006; Urry 2004; Jensen 2009). However, in the focus on the systemic drivers of cultural change, the role of agents in the production of change is lost.

The focus in the mobilities literature on the auto-poetic nature of change is similar to some versions of transitions theory where changes in culture are seen as autonomous – beyond the

direct agency of actors (Tàbara and Ilhan 2008). Other approaches for theorising and transforming transportation modal choice – such as consumer choice urban planning theories (Schwanen et al. 2012; Mitra 2013) – are close to this position but appear to not entangle themselves directly in this debate. Instead they bypass culture altogether and seek to change practices of mobility by putting in place systems of incentives and disincentives that simply make the use of sustainable mobilities the logical option. However, as will be discussed, the results of such efforts may remain marginal. Culture will rear its head and influence mobility choices in spite of the presence of infrastructure and changes to urban form (Vivanco 2013). Amongst these bodies of literature there is therefore an ongoing debate on the dynamics of change in cultures of mobility.

Meanwhile, empirically, in different urban locations there is evidence of shifts in cultural orientations on different mobility forms. To give a few examples, nowadays in the Netherlands, cycling is completely taken for granted as part of the Dutch national identity (Stoffers 2012). In the 19th century however, cycling was considered as a completely alien practice; as something done by English people (Ibid). In the same period, in China, the social image of the bicycle evolved from alien artefact to the most widespread normal mode of transportation to one currently locked into status battles (Wang 2012).

This study aims to develop a conceptual framework to analyse changes in cultural orientations towards everyday bicycling in urban contexts. The framework is made of four analytical domains drawn from the multilevel perspective in transitions theory, cultural sociology, and the mobilities literature. These are: context; moments of assembly; outcomes of assembly; and experiences of assembly. The first domain (context) will explore how cycling cultures are shaped by sudden or long-term changes and their interrelationships with the activities of cycling advocates, as well as the formal and informal rules governing cycling and other modes of ground transportation. The second and third domains (assembly and their outcomes) will explore how day to-day collective cycling subjectivities are created and sustained. The fourth and final element investigates how sensory experiences in each context shape cycling culture development. The analytical framework will be developed by studying historical changes in everyday cycling in Johannesburg, South Africa, and Chicago, United States. This work will be complemented by document analysis of historical developments in Amsterdam, Netherlands; Beijing, China and Bogota, Columbia.

*Njogu Morgan's doctoral research project is entitled 'Cycling everywhere: An exploration of the development of mobility cultures that embrace cycling for everyday purposes'. It is being supervised by Professor Phillip Harrison (School of Architecture and Planning, University of the Witwatersrand, Johannesburg), and Professor Simon Joss (Department of Politics and International Relations, University of Westminster, London).*

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The paper should be referenced as follows:

Morgan, N. (2014). 'Theorising urban sustainability transitions through a cultural lens', in Joss, S. (ed.), *International Eco-Cities Initiative Reflections Series*, Issue 5. University of Westminster.

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