Using Biographical Interviews to Understand Low Levels of Cycling in Older Age in Great Britain

Dr Kiron Chatterjee and Dr Heather Jones

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Motivation

- Cycling in older age is very uncommon in GB
- Nearly a half of adults aged between 65 and 74 in GB do not meet physical activity guidelines
- Wish to find out why older people give up cycling and what potential there is for more cycling in older age

Outline

- Statistical context - cycling in older age in GB
- Method – biographical interviews
- Results - cycling trajectories in mid to later life
- Implications

Cycling across age groups

**Bicycle share of trips (%) in England, 2013**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Share of Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-14</td>
<td>2.27</td>
</tr>
<tr>
<td>15-29</td>
<td>2.56</td>
</tr>
<tr>
<td>30-39</td>
<td>2.46</td>
</tr>
<tr>
<td>40-49</td>
<td>1.83</td>
</tr>
<tr>
<td>50-59</td>
<td>1.84</td>
</tr>
<tr>
<td>60-69</td>
<td>1.21</td>
</tr>
<tr>
<td>70+</td>
<td>0.99</td>
</tr>
</tbody>
</table>

Period: 2013
Source: NTS (England)

Drops off sharply after 40-49.

DIFFERENT STORY ELSEWHERE

Cycling is an important method of transport in older age in other parts of Northern Europe.

Share of journeys by people aged 65+

- **UK** 1%
- **DENMARK** 15%
- **NETHERLANDS** 23%
- **GERMANY** 9%
Bicycle ownership and self reported bicycle use

Period: 2008-10
Source: NTS (GB)

Under-utilisation of bicycles across all age groups. Large potential for more cycling!

Bicycle trips recorded in 7-day diaries

While 27% of 60-69 year olds own a bicycle, only 3% (1 in 9) report using bicycle in diary week.

Profile of older cyclists (60-69)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Own bike</th>
<th>Report bike trip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Across all aged 60-69</td>
<td>27%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Live in Metro area</td>
<td>16%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Live in rural area</td>
<td>38%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Live in purpose-built flat</td>
<td>12%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Live in detached home</td>
<td>37%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Own 0 cars</td>
<td>14%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Own 2 cars</td>
<td>36%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Lowest income quintile</td>
<td>22%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Highest income quintile</td>
<td>41%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Female</td>
<td>20%</td>
<td>1.9%</td>
</tr>
<tr>
<td>Male</td>
<td>34%</td>
<td>4.3%</td>
</tr>
<tr>
<td>Non-white</td>
<td>7%</td>
<td>1.6%</td>
</tr>
<tr>
<td>White</td>
<td>28%</td>
<td>3.1%</td>
</tr>
</tbody>
</table>

Built environment and bicycling

<table>
<thead>
<tr>
<th>Settlement type</th>
<th>16-59</th>
<th>60+</th>
</tr>
</thead>
<tbody>
<tr>
<td>London</td>
<td>5.9%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Metro</td>
<td>3.9%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Other urban over 250k</td>
<td>6.6%</td>
<td>2.7%</td>
</tr>
<tr>
<td>Urban 25k to 250k</td>
<td>6.0%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Urban 10k to 25k</td>
<td>5.5%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Urban 5k to 10k</td>
<td>5.0%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Rural</td>
<td>5.4%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Overall</td>
<td>5.6%</td>
<td>2.3%</td>
</tr>
</tbody>
</table>

Indicator: Any bicycle trips reported in diary

Period: 2008-10
Source: NTS (GB)

60+ relatively more likely to cycle in smaller settlements (than 16-59)

Attitudes to cycling

<table>
<thead>
<tr>
<th>Agreement with statement</th>
<th>16-59</th>
<th>60+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disability/health making it difficult to cycle</td>
<td>6%</td>
<td>48%</td>
</tr>
<tr>
<td>Not kind of person who rides bicycle</td>
<td>30%</td>
<td>48%</td>
</tr>
<tr>
<td>Confident cycling on roads</td>
<td>41%</td>
<td>22%</td>
</tr>
<tr>
<td>Too dangerous for me to cycle on roads</td>
<td>57%</td>
<td>72%</td>
</tr>
<tr>
<td>Cycle more if more dedicated cycle paths</td>
<td>55%</td>
<td>42%</td>
</tr>
<tr>
<td>Rather cycle than use public transport</td>
<td>40%</td>
<td>18%</td>
</tr>
<tr>
<td>I (would) enjoy cycling as a leisure activity</td>
<td>72%</td>
<td>45%</td>
</tr>
</tbody>
</table>

Gap

- Older people who cycle – what enables them to continue cycling?
- Older people who do not cycle – when do they give up and why?
Method: Cycle Boom project

Research call for studies on ageing, mobility, built environment and technologies

One of eight 3-year funded projects, only one on cycling

A study to understand cycling amongst the older population in the UK and how this affects independence, health and wellbeing

(Oct 2013 – Sep 2016)

Project team

Urban designers and architects - worked on ageing issues
Geographers - governance | mobility and affect
Transport planners – understanding travel behaviour
Neuropsychologists – effect of physical activity on ageing brain

Role of biographical interviews

To understand engagement with cycling over the life course, revealing change and continuity in cycling in relation to life transitions and events and evolving social and physical settings

Narrative biographical interviews have been used in some other recent studies (Frandsberg, 2006; Lanzendorf, 2010; Chatterjee et al, 2013; Jones et al, 2014)

Research approach - life course perspective

Cycling status in mid and later life viewed “dynamically as the consequence of past experience and future expectation as well as the integration of internal motive and external constraint”

(Giele and Elder, 1998)

Biographical interviews

• Narrative life history describing and explaining changes and continuities in cycling
• Techniques
  – Life history grid
  – Semi-structured interview
  – Maps and panoramic street view
  – Schematic cycling timeline
• View bicycle(s), bicycle storage, local context
• Followed by accompanied cycle ride (not focus of this presentation)
Interview structure

- Semi-structured interview
  - Current cycling
  - Future outlook
  - Past residential contexts and cycling
  - Ageing and cycling

Life history grid

Google Street View and residential biography

Research participants

- Bristol
- Cardiff
- Oxford
- Reading

Each city:
- Gender balance
- Age balance (50s | 60s | 70+)
- 30 still cycling
- 30 no longer cycling
- Spatial diversity

Data processing

- Life history: recordings, grid, photos
- Ride: recordings, GPS
- Post ride interview: recordings
- Case summary: ‘gist’
- Clips, memo
- 30 x 30
- 30

Results
Interview sample for Bristol in 2014

<table>
<thead>
<tr>
<th>Bristol (N=18)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>8</td>
</tr>
<tr>
<td>Female</td>
<td>10</td>
</tr>
<tr>
<td>Age Band</td>
<td></td>
</tr>
<tr>
<td>50-59</td>
<td>7</td>
</tr>
<tr>
<td>60-69</td>
<td>13</td>
</tr>
<tr>
<td>70+</td>
<td>9</td>
</tr>
<tr>
<td>IMD quintile</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

Typology of cycling trajectories through mid and later life

- Continuing
- Expanded
- Diminished
- Restored
- New
- Curtailed
- Absent

Continuing – example summary biography

Jerry was an electrician who had spent most of his adult life living in a housing estate on the edge of the city. He had been employed at various sites around the urban fringe through his career; he had cycled to work even after changing employment location. He was a competent cyclist and generally unimpressed by road conditions. Jerry often cycled when he travelled somewhere on his own but would usually drive if travelling with his wife or daughter. Jerry had a group of retired friends who had been cycling for leisure on a weekly basis since retirement. Jerry would join them when he was available. [Bristol, 58, IMD=2]

“If it’s only me... if its only me and I’m going into town I don’t think nothing of cycling into town.”

Expanded – example summary biography

Juan, a retired engineer, had had a long hiatus in cycling between his teenage years and a second phase beginning in his fifties. For much of his adult life he lived and worked in the urban fringe; although living close to work, he considered that the route along a dual carriageway was too unpleasant to cycle. Reengagement with cycling followed back surgery. It was initially about rehabilitation and eventually general exercise and pleasure. Once he retired he joined an ‘old timers’ cycling group who rode with twice a week. Juan saw a distinction between his current cycling which was about “leisure, enjoyment and fitness” and his early cycling which had been to get about. He now lived in a village beyond the city limits and would cycle out into the country; it was rare that he would ride in to the city. [Bristol, 67, IMD=1]

“I cycle more now because I’ve got a lot more time. I also cycle with a group now which I didn’t used to do.”

Continuing

- Largely continuous cycling through mid and later adulthood
- Does not mean cycling unchanged, but there was some continuity in engagement with cycling
- Generally an expectation to continue
- Some noted changes in type of cycling they were doing

Expanded

- Increased engagement with cycling (in last five years)
- Cycling featured relatively consistently throughout adulthood

Curtailed

- Cycling
- Not cycling

New

- Cycling
- Not cycling

Restored

- Cycling
- Not cycling

Diminished

- Cycling
- Not cycling

Absent

- Cycling
- Not cycling
**Diminished**

- Some recognition of reduced cycling by the participant

**Diminished – example summary biography**

Edith worked as a therapist. She started using a bike as means of transport in her twenties. From this point onwards she had always had access to and made use of a bike in some way. In the last ten years she had moved to live more centrally in Bristol following separation from her partner and changed careers. Her new work entailed travelling to different sites within the city. For local trips she quite often chose to walk, considering it too short a journey to warrant getting her bike through the house. Edith wasn’t currently using her bike as much as she’d like or thought she ought to. She found that she wobbled on steep inclines and often got off and pushed. She rejected the proposition of a power-assisted cycle, declaring she was “not there yet”. She thought her sense of vulnerability as a cyclist had grown noting that she avoided cycling in rush hour, after dark and when it might be slippery or icy. Edith wanted to do some recreational cycling but didn’t feel she had anyone to do this with. [Bristol, 60, IMD=4]

**Restored**

- A re-engagement with cycling following some hiatus
- Variation in the precipitating events and purpose of renewed cycling

**Restored – example summary biography**

Leona worked full time as a personal assistant. When she moved to the edge of Bristol she commuted into the centre by car for a short time. She then changed jobs to work in a business park on the edge of the city. The offices had good facilities for cyclists and there are measures to promote cycling amongst the workforce, many of who cycle. Leona started cycling a couple of times a week using a segregated cycle path parallel to the ring road. She was motivated by awareness that her job is largely sedentary and valued her ride as a time to think over things. Leona didn’t cycle after the clocks had changed because the path was until. She was soon to move house and was uncertain about whether this would disrupt her cycling. [Bristol, 53, IMD=1]

"as a child fairly light, then a big step while I was at uni, then started again and then there was another stop and then since I’ve had this new bike its probably grown and as I say I probably cycle more now than I ever have done in my life. Yeah I probably do, I cycle more now than I ever have done."

**New**

- Only one case in Bristol so far
- Very limited cycling experience (in childhood)
- Illustrates challenge of starting cycling in later life

**New – example summary biography**

Cindy was a technician who for much of her life held the impression that she possessed insufficient balance and co-ordination two-wheeled bike safety. She started riding a tricycle in her fifties following only a brief attempt to try cycling as a child. A non-driver, Cindy took up cycling to get to work and help her reduce her spending on transport. Cindy had moved a few years ago into the city centre to improve her access for cultural activities. She planned her routes carefully to avoid physical obstacles and interaction with traffic which she found stressful. There was a general sense of stoicism and accomplishment about her cycling and an acceptance that journeys could be lengthy. She made the time to travel in this way and preferred to be unhurried. She had recently invested in a powered tricycle following the onset of some health issues preventing her from cycling. [Bristol, 57, IMD=3]
Curtailed

- Stopped cycling in the last five years
- Some uncertainty whether cessation was permanent
- Ambivalence or positive inclination towards prospect of cycling again

Curtailed – example summary biography

Gareth worked part-time in consultancy. He had a couple of periods during his career when he had commuted by bike. A later phase emerged when work was once again a convenient distance from home; Gareth had considered this had a more positive choice to cycle for fitness. As he became more senior in work Gareth found cycling was often displaced by the need to travel for meetings. Cycle commuting then stopped altogether when he changed jobs for one which meant travelling beyond Bristol, his cycling then became about occasional local trips. Aside from commuting Gareth had ridden with friends on an irregular basis doing some leisure and organised rides over the years. Gareth hadn’t ridden his bike since a road collision whilst driving a few years earlier. He made a full recovery and liked the idea of doing another social ride but suspected he would feel quite vulnerable on a bike. [Bristol, 64, IMD=1]

Absent

- Not cycled in the last five years
- Viewed cycling as behind them

Absent – example summary biography

Yasmeen was a retired admin assistant. She had cycled for a few years in her late fifties and early sixties. This followed a short period of using a bike occasionally in her thirties for getting about. Her second bout of cycling was initiated by her borrowing a bike to cycle to a local event. At the time she had been finding it more difficult to park in the city centre for work and so she accepted a bike from a colleague and cycled to work for a few years. She stopped cycling when she fractured her hip (not whilst cycling) and was subsequently diagnosed with osteoporosis. She then stopped cycling, considering it too risky and irresponsible. [Bristol, 74, IMD=4]

Snapshot of cyclists masks myriad of pathways

<table>
<thead>
<tr>
<th>Cycling State</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continued</td>
<td></td>
</tr>
<tr>
<td>Expanded</td>
<td></td>
</tr>
<tr>
<td>Curtailed</td>
<td></td>
</tr>
<tr>
<td>New</td>
<td></td>
</tr>
</tbody>
</table>

Influence of later life transitions on cycling

<table>
<thead>
<tr>
<th>Type of life event/ transition</th>
<th>Examples</th>
<th>Implications for cycling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retirement/ home work</td>
<td>Down-sizing, down-shifting</td>
<td>Physical domain: Distances, infrastructure, safety, aesthetics</td>
</tr>
<tr>
<td>Roles</td>
<td>Retirement/ down shift in work</td>
<td>Time</td>
</tr>
<tr>
<td>Relationships</td>
<td>Caring</td>
<td>Social support</td>
</tr>
<tr>
<td>Relationships</td>
<td>New/dissolution, evolving relationships with (adult) children</td>
<td></td>
</tr>
<tr>
<td>Health</td>
<td>Loss of fitness, flexibility, sensory and motor abilities</td>
<td>Capacity and comfort</td>
</tr>
<tr>
<td></td>
<td>Need for rehabilitation, management</td>
<td>Motivation</td>
</tr>
</tbody>
</table>

2/15/2016
Development of cycling through mid/later life

Life course

Relocations, Relationships, Roles, Resources

Contexts

Intrinsic motivations/expectations of ageing
Perception of capacity for cycling

Continuity or change in cycling

Antecedent cycling experiences

Later life cycling outcome

Implications

• Trajectories allow longitudinal distinction of behaviour types
• Identifies larger potential market of possible cyclists than snapshot survey
• Boundaries between groups are somewhat fuzzy
• Each group is not homogeneous, but mechanisms can be explored for each group and differences revealed
• Ultimately, this can enable better targeted policy interventions

www.cycleboom.org
Kiron.Chatterjee@uwe.ac.uk

ABSENCE OF OLDER PEOPLE CYCLING IS GETTING NOTICED

Public figures are starting to draw attention to the unequal distribution of cycling amongst the population.

“At the moment cycling is disproportionately young and male and that's because of the conditions. I suppose those are the people who feel able to cycle...What I want to see from these changes, and I think we will see, is far more women doing it, far more older people doing it”.

London's Cycling Commissioner Andrew Gilligan discussing the Mayor of London's plans for cycling in the capital.