

Who encourages us to cycle? A novel approach to researching social influence in UK cycling



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Contents

- Background: the PhD project & iConnect Consortium
- Literature Review
- Research aims
- Methodology
- Early results
- Pros and cons of approach
- Summary/conclusions



The PhD Research Project & iConnect

- Topic: exploratory study to understand gender differences and social influence in cycling
- 3 yr f/t EPSRC (Engineering & Physical Sciences Research Council) funded project (Dec '08 – Nov '11)
- Cross-disciplinary team & fields:
Health: Dr Jane Powell (DoS), Dr Paul Pilkington
Transport: Prof. Graham Parkhurst
- Part of iConnect consortium (www.iconnect.ac.uk) which aims to evaluate the Sustrans' Connect2 programme (www.sustransconnect2.org.uk)

Literature Review 1: Cycling & Gender

- Inequitable distribution of cycling in UK; 30% of trips by women (age & ethnicity)
- Low levels of cycling (UK, USA) = low inclusivity
- High levels of cycling (N. Europe) = cycling for all
- Greater safety concerns (traffic/personal)
- Cycling perceived as a 'dangerous' and/or 'sporty' activity – requiring special/protective clothing.
- Concerns over personal appearance, esp. younger age groups; in London 25's & under who cycle: 2% girls 11% boys
- Wider social norms about culturally 'acceptable' activities for girls and boys (& men and women)



Literature Review 2: Social Influence

- White et al.'s 2009 study of recycling found that the 'visibility' of a behaviour which was being encouraged was important. Wider visibility also important also for female cyclists? Champions/role models.
- Health field - many recent behavioural change programmes i.e. PEACH at University of Bristol (smoking, drug and alcohol abuse, diet, exercise)
- Are there gender differences in how social/peer pressure operates?
- Gatersleben - affective factors relating to car use were gender differentiated, likely to be similar for cycle usage also (Gatersleben, 2007).

Aims

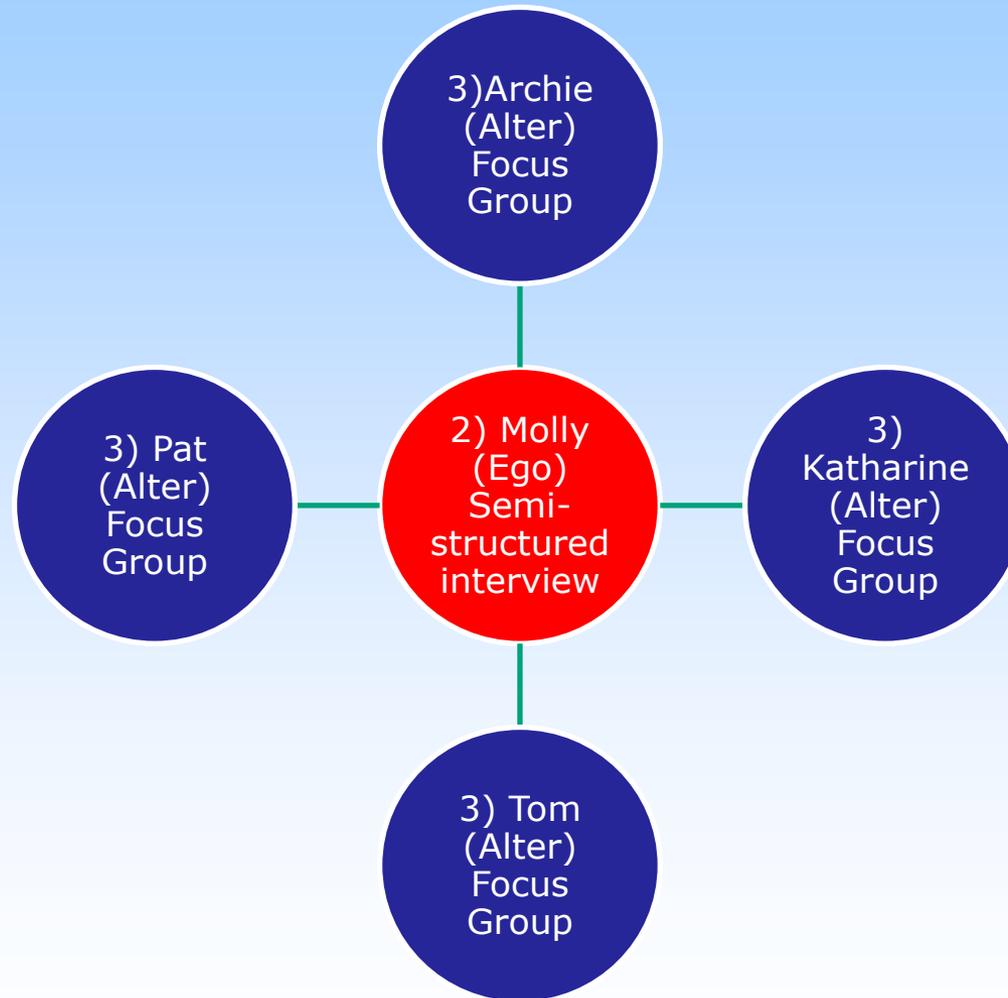
- To investigate gender differences in cycling in the UK and determine the key reasons for the lack of participation in cycling by women.
- To understand the relationships between culture, environment, infrastructure and gender.
- To discover whether social influence is a significant factor in persuading more people (and especially more women) to cycle.



Research Design: why & how?

- Exploratory study: Gap in literature around qualitative perspective on gender, cycling & social influence
- Taking account of other current research work: currently several large-scale projects exploring aspects of walking & cycling
- **Phase 1:** Exploratory pilot study (May – Sept 2010, Bristol)
- **Phase 2:** In-depth interviews with cyclists (novice - exp) 'egos' (SNA (social network analysis) approach & social mapping) Current & childhood cycling patterns, social influence effects, cycling with children, multi-modality, barriers & enablers & gender (Oct '10 – Mar '11, Cardiff)
- **Phase 3:** Social reference focus groups with 'alters'; family, friend/peer & colleague networks (cyclist & non) (image prompts) Perceptions of the ego's cycling behaviour, degree of influence. (Oct '10 – Mar '11, Cardiff)

Data collection/generation process



Research locations

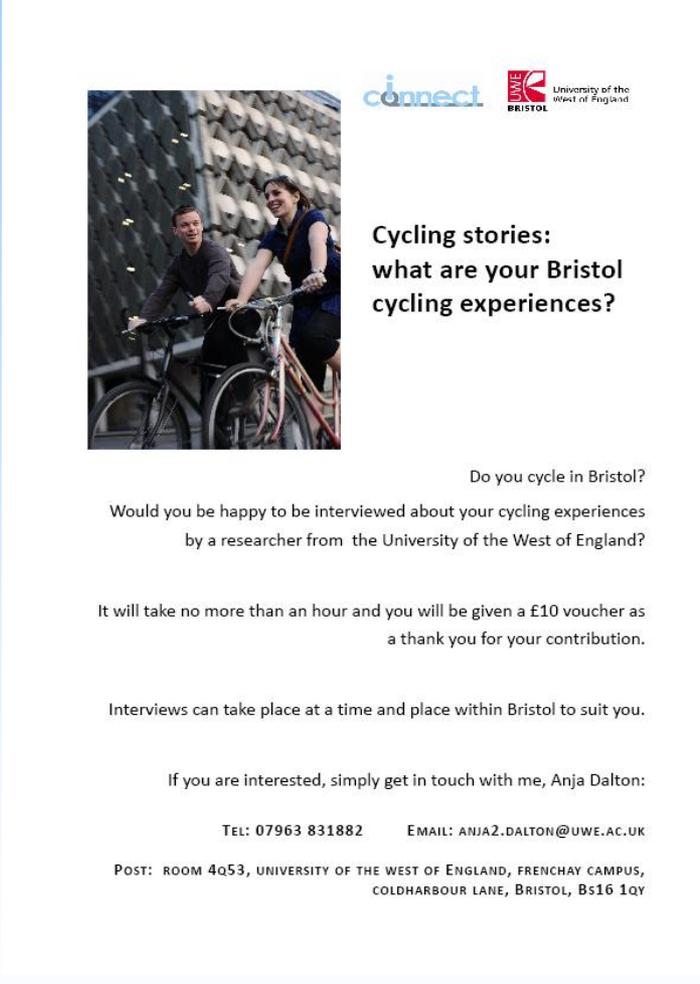
Exploratory study
data collection
phase, Bristol:
April – Sept '10
**8 interviews & 2
focus groups**

Main data collection
phase, Cardiff:
Oct '10 – Mar '11
**34 interviews & 5
focus groups**



Methodology: recruitment strategy

- Purposive sampling: via bike shops & places of work & study
- Paper flyers distributed
- Emails via 'gatekeepers'
- Initial contact from participant:
 - Info sheet (in advance)
 - Consent form
 - Mini Questionnaire
 - Incentives & info pack
- Interview - themed semi-structured questions
- Ask if willing to take part in second stage – contacts asked for & invited to Focus Group



connect  University of the West of England

Cycling stories: what are your Bristol cycling experiences?

Do you cycle in Bristol?

Would you be happy to be interviewed about your cycling experiences by a researcher from the University of the West of England?

It will take no more than an hour and you will be given a £10 voucher as a thank you for your contribution.

Interviews can take place at a time and place within Bristol to suit you.

If you are interested, simply get in touch with me, Anja Dalton:

TEL: 07963 831882 EMAIL: ANJA2.DALTON@UWE.AC.UK

POST: ROOM 4Q53, UNIVERSITY OF THE WEST OF ENGLAND, FRENCHAY CAMPUS, COLDHARBOUR LANE, BRISTOL, BS16 1QY

Research participants by age & gender (I & FG)

Bristol	18 – 29	30 – 49	50 – 69	70+
Female	6	1	5	0
Male	0	3	1	0
Cardiff				
Female	2	12	9	2
Male	4	6	13	0

More difficult to recruit younger (18 – 25) participants.

Results 1: Social influence themes 1 – direct social ties

- **John, 34:** *"One of the immediate stimuluses, was one of the **bosses** in work said, 'Oh, I've cycled in today John' and I was thinking, wait a minute, a fifty year old cycling in, I should be cycling in..."*
- **Toby, 42:** *"So I've had a couple of **university friends** who simultaneously got into cycling as a sport over the last 5 years. And through them we've cycled a lot recreationally...so definitely they have been influential."*
- **Molly, 61:** *"Again, through my **daughter**. She had all this sort of information... that in some ways made it very difficult for me to say no."*
- **Lucy, 26:** *"My **housemates** definitely encouraged me..."*

Results 2: Social influence themes 2 – wider identification

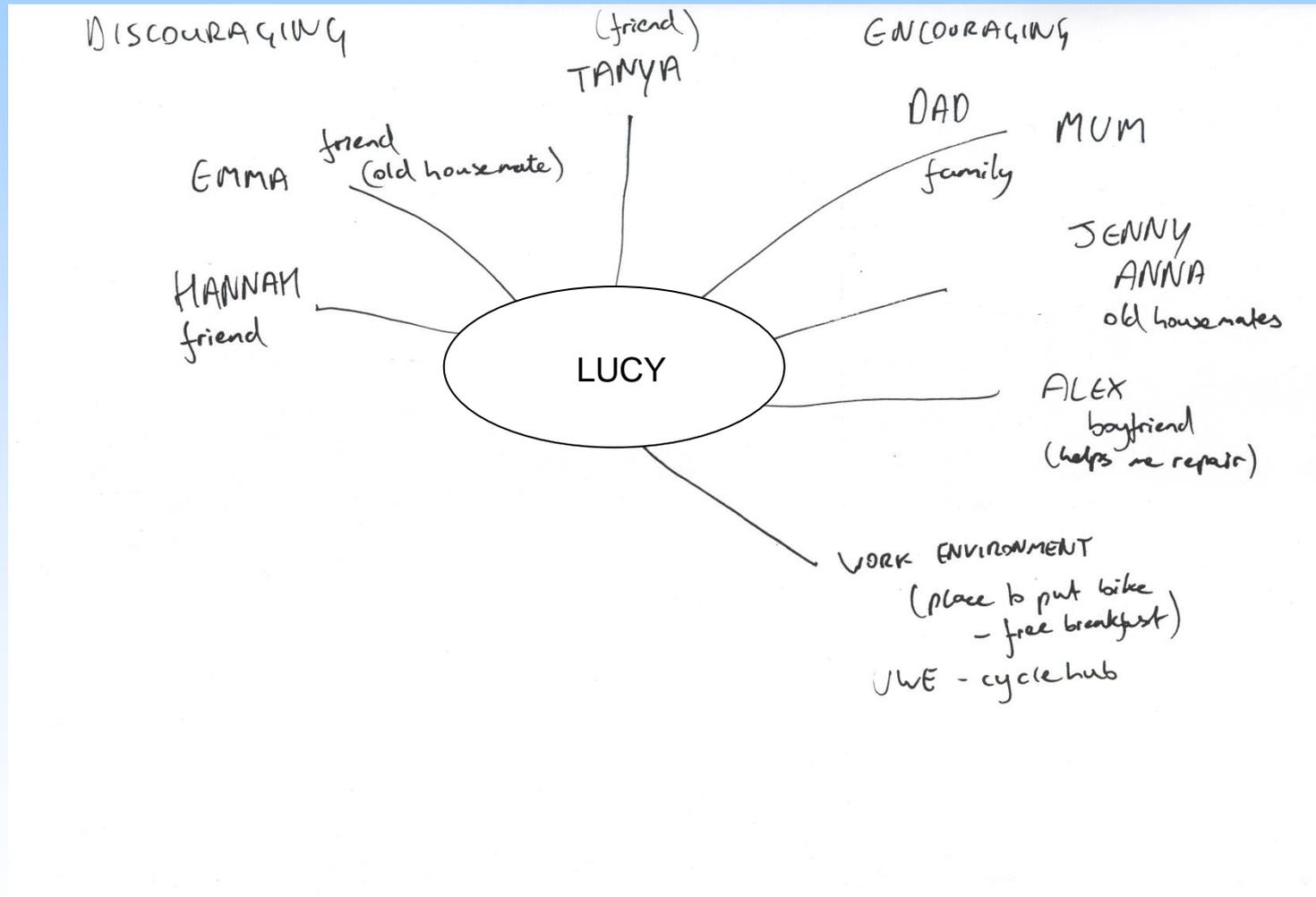
- **Ellen, 55:** *"So, I went up and collected it and bought it there and then because I very much felt I wanted to be identified with that sort of a, you know, **road warrior** kind of thing."*
- **Molly, 61:** *"Yes; my daughter, who is a very keen cyclist and who is very green, and I tried to be **green** too, so she knows it's... So yes, she persuaded me to start cycling."*
- **Tristan, 37:** *"Bike Radar and things like that... kind of sustains you because people share experiences. And that's been really important because it makes you feel part of a wider **community of cyclists**."*

Results 3: Social influence themes 3 – tipping points

- **Kay, 51:** *"I think it was a combination of meeting someone who was into cycling, the idea of then travelling by bicycle and the thing, you know I am 30, it's time to do a bit of exercise."*
- **Tristan, 37:** *"...but I just didn't do any exercise, you know, beer and cigarettes and student life, so. And that lasted for ten years really, so. It's only when you start approaching your late twenties that you suddenly think, hang on, this can't go on forever. (laughs) So you start thinking about getting back on the bike. So that's I guess the process."*
- **John, 34:** *"A fitness thing as well, cos I was getting older and feeling fatter."*

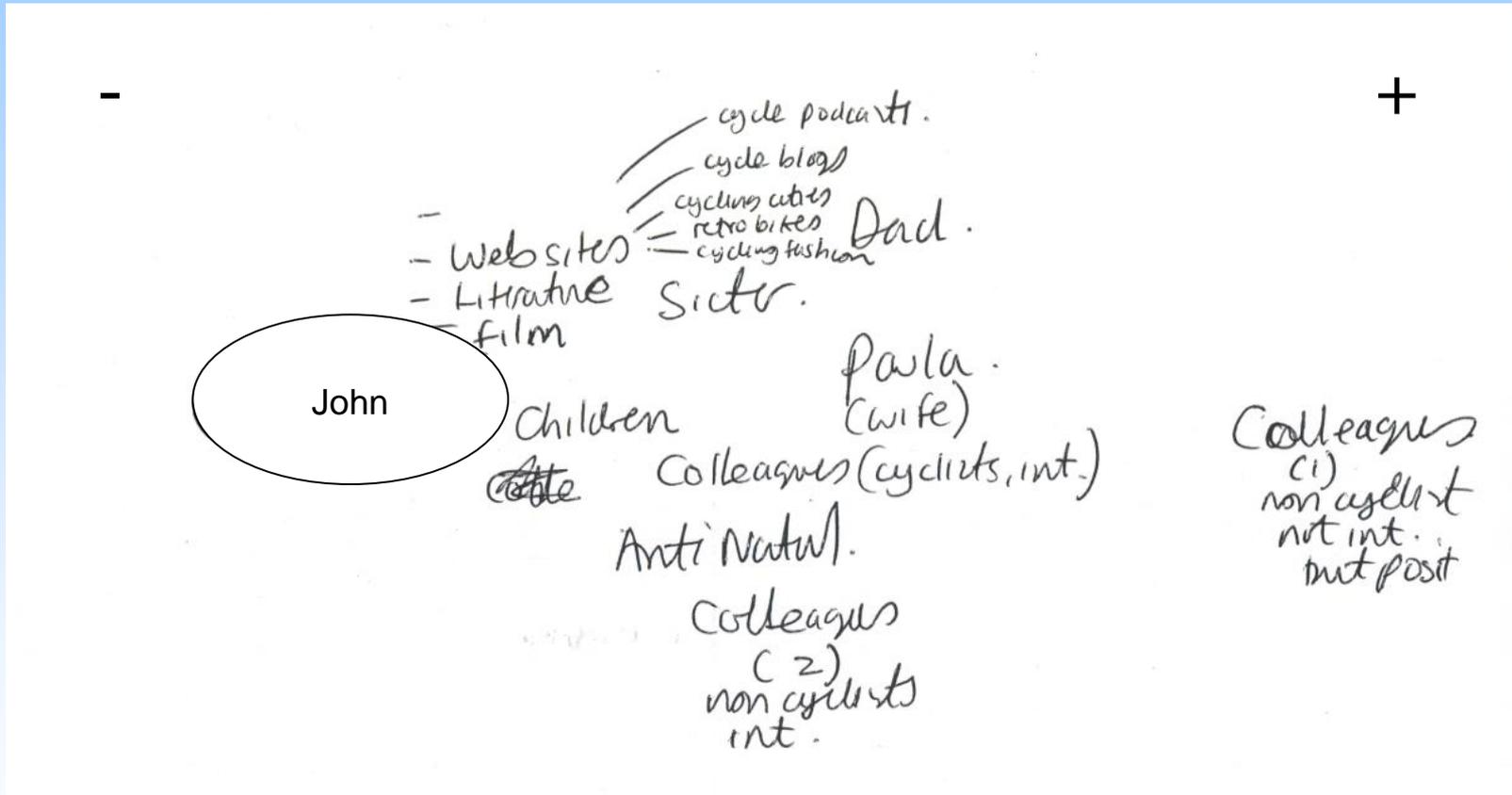
Initial results 4: Social maps

Lucy Minty, 26yr f, June 2010



Initial results 5: Social maps

John Chancer, 34yr m, May 2010



Emerging findings

- People don't have any/many discouraging or negative influences – why?
 1. May selectively remember (cognitive dissonance)
 2. Spend more time on positive things which reinforce our existing behaviour (Kelly – personal construct theory)
 3. Only those who have a pre-disposing social circle of influence / social norms do cycle
 4. Data collection technique / Cialdini (2008) – social influence under-detected

“I like to persuade myself that my approach to cycling is relatively individual and rational” Neil Webster, 6/12/10, Cardiff

Methodology: pro's & con's of approach

- Volume and diversity of data; transcripts, diary notes, social maps – but how best to show such data?
- Flexible/novel design & interview structure enables adaptation & improvement throughout
- Difficulties of moving to FG stage/gaining social contacts
- Reluctance may be due to: Not wanting to be discussed, Not wishing to 'inconvenience' others – psychological risk? Hassle/time/practical difficulties (have captured some of the reasons given)
- Potential ways to increase: using a more pro-active approach on flyers/emails , having smaller groups/paired interviews, asking for contacts at the stage of social mapping

Example contact sheet - Interviewee 7: Ellen Fowler

19

From	To	Date	Format	Contents
EF	AD	08/06/2010	Email	Offering to be interviewed
AD	EF	08/06/2010	Email	Acceptance -suitable dates?
EF	AD	09/06/2010	Email	Next Weds, phone to confirm
AD	EF	11/06/2010	Email & Phone	Attached information sheet Weds no good - Mon/Tues? Phoned but didn't hear for 2 wks
EF	AD	23/06/2010	Email & Phone	30 th June, at participants home.
AD	EF	24/06/2010	Email	Date is fine. Please send address.
EF	AD	24/06/2010	Email	Address sent, confirmed 7.30pm. What drink would I like?
AD	EF	25/06/2010	Email	Confirmation, tea please! Gave mobile no. for any problems.
AD	EF	30/06/2010	Verbal	Interview takes place.
AD	EF	30/06/2010	Email	Thank you for interview. Invitation to 2nd stage.
EF	AD	07/07/2010	Email	Prefer not continue to 2nd stage. Wishes to be sent research results.
AD	EF	11/07/2010	Email	Thank you again for participating. Will send results summary.
AD	EF	Summer 2011	Email	Remember to send results.

Summary / Conclusions

- Gender and social influence do seem to be significant factors in cycling, difficult to detect & define. Need to examine the overlaps of gender & gender and cycling
- Chosen methodology can make a contribution to knowledge in this area but data access is challenging
- Further investigation into cyclists social sphere/social mapping needed
- Social influence mechanisms may have a gender dimension (women influencing women/FG)



Thank you for listening

- Any questions?



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References

- Blair, S.N. (2009) Physical Activity: the Biggest Public Health Problem of the 21st Century. *British Journal of Sports Medicine* 431-2.
- British Heart Foundation (2005) *Factfile - Obesity: Physical Activity (3 of 4)*. London: British Heart Foundation.
- Cycling England, (2008) *Cycling England Annual Report 2007/08*. Cycling England.
- Darnton, P. (2009) The Economic Cycle: Making an Economic Case for Cycling. *Passenger Transport* 22-25.
- Davies, D., Halliday, M. E., Mayes, M. & Pocock, R. L. (1997) Attitudes to Cycling: a Qualitative Study and Conceptual Framework TRL Report 266.
- Davies, D., Gray, S., Gardner, G. & Harland, G. (2001) A Quantitative Study of the Attitudes of Individuals to Cycling TRL Report 481.
- Davis, A., Valsecchi, C. and Fergusson, M., (August 2007) *Unfit for Purpose: How Car Use Fuels Climate Change and Obesity* London: Institute for European Environmental Policy.
- Deegan, B. (2009) What Impact has the London Cycle Network Project had on London's Social Climate? *Cycling & Society Symposium, Bolton 06/09/2009* University of Bolton.
- Defra (2008) A Framework for Pro-Environmental Behaviours London: HMSO.
- Department for Transport, (October 2007) *Towards a Sustainable Transport System: Supporting Economic Growth in a Low Carbon World*. London: Department for Transport.
- Department for Transport (2008) *Transport Statistics Bulletin: National Travel Survey 2008* London: Department for Transport.
- Hillman, M. (1997c) Public Policy on the Green Modes *In: R. Tolley, ed. The Greening of Urban Transport*. Second ed. Chichester: Wiley & Sons.
- Hjortol, R. (2008) Daily Mobility of Men and Women - a Barometer of Gender Equality? *In: T.P. Uteng and T. Cresswell, eds. Gendered Mobilities* Hants: Ashgate.

References

- Jackson, T. (January 2005) *Motivating Sustainable Consumption: a Review of Evidence on Consumer Behaviour and Behavioural Change*. Sustainable Development Research Network (ESRC Sustainable Technologies Programme).
- Ker, I. and Tranter, P. (2003) A Wish Called Wander: Reclaiming Automobility from the Motor Car. In: J. Whitelegg and G. Haq, eds. *The Earthscan Reader on World Transport Policy and Practice* London: Earthscan.
- Killoran, A., Doyle, N., Waller, S., Wohlgemuth, C. & Crombie, H. (2006) *Transport Interventions Promoting Safe Cycling and Walking Evidence Briefing* National Institute for Health and Clinical Excellence, London.
- Ortoleva, S. & Brenman, M. (2004) Chapter 13: Women's Issues in Transportation In: Lucas, K. (Ed.) *Running on Empty: Transport, Social Exclusion and Environmental Justice* Bristol: Policy Press.
- Parkin, J., Wardman, M. & Page, M. (2008) Estimation of the Determinants of Bicycle Mode Share for the Journey to Work Using Census Data *Transportation* 35 (1) 93-109.
- Reidpath, D.D., Burns, C., Garrard, J., Mahoney, M. Townsend, M. (2002) An Ecological Study of the Relationship Between Social and Environmental Determinants of Obesity *Health and Place* 8 141-145.
- White, K.M., Smith, J.R., Terry, D.J., Greenslade, J.H. & McKimmie, B.M. (2009) Social Influence in the Theory of Planned Behaviour: the Role of Descriptive, Injunctive, and In-Group Norms *British Journal of Social Psychology* 48 135-158.
- Women's Design Service (2005) *Cycling for Women: a Best Practice CD-Rom* London: Women's Design Service.
- Zahran, S., Brody, S.D., Maghelal, P., Prelog, A. & Lacy, M. (2008) Cycling and Walking: Explaining the Spatial Distribution of Healthy Modes of Transportation in the United States *Transportation Research Part D* 13 462 - 470.