

cycling, place & identity – ongoing research / a work in progress

AUTHOR:

Si Beales

Nottingham Trent University (UK)

Abstract

'In this Place addresses how the importance of place impacts the way in which we generate ideas, create and design. It looks at how we transmit and circulate ideas, ideologies and knowledge between geographical locations, historical moments, objects, images, actions and cultural contexts'.

As cycling journeys have decreased (37% of road journeys in 1949, less than 1% in 2012 in the UK) (Pg 3, Reid, 2015) and subsequently 'car culture' has increased there is a growing public negativity towards cycling, often reinforced by media – both mainstream and social.

In some Western countries, such as the UK and USA, cyclists may be regarded as outsiders or strangers. Yet in other countries, such as Denmark & Holland, cycling is seen as the norm and cyclists are integrated into the transport ecosystem, just as other roads users are. This paper will consider how place and cycling connect and whether innovation (particularly in wearable technology) can be utilised to enable cyclists to occupy space and place more comfortably and safely. This paper is presented as part of the author's continuing research into cycling, identity, fashion and innovation. The objective of this paper (as part of my MA by Registered Project) is to contribute towards advancing cycle safety through an analysis of road user's attitudes to cycle safety equipment, particularly clothing, and the proposed development of a system which utilises wearable technology to deliver improved visibility, whilst also offering functionality and fashionability.

cycling, place & identity – ongoing research / a work in progress

Background

There is overwhelming evidence that the majority of cycling fatalities and accidents involving automobiles are caused by the driver failing to see the cyclist, or failing to give enough space to the cyclist (Transport Research Laboratory, 2010). There is also significant evidence that improved visibility of cycles and cyclists reduces the risk of injury or death (Thornley et al, 2008). Yet many cyclists choose not to use cycle safety equipment to improve their visibility to other road users or to protect themselves in case of an accident (Hagel, 2007).

In a world in which personal safety, and perceptions of personal risk, have become increasingly important to us (MacMichael, 2010), it is paradoxical that cyclists don't always do what is good for them. This may be related to 'fashionability' or perceptions of personal style. Consequently there may be a way in which fashion – through design, wearable technology and marketing – could contribute towards increased safety on the roads, and to ultimately saving lives.

When considering fashionability, there is some evidence that shows that many cyclists refuse to wear safety equipment, most notably helmets but also clothing, as they feel it makes them look stupid, unstylish or affords them unwarranted attention. Many also associate safety equipment with childhood and lack of free choice (Christmas et al, 2010). There are also a certain number of cyclists who refuse to wear safety equipment when they are forced to by legislation (as evidenced by the significant decreases in cycling in areas that have introduced mandatory helmet legislation) (Bluejay, 2013).

In addition there is a strong body of cyclists who believe that by wearing safety equipment they are contributing towards the idea that cycling is unsafe. They question why cyclists should have to dress up and utilise specialist equipment when car drivers don't have to (although, of course motorcyclists do). They point to studies that show that motorists often ignore safety equipment and that its use can make matters more dangerous (Walker, 2006) and they point to countries which have significantly higher cycle usage (The Netherlands and Denmark for example) where most cycle journeys do not involve the use of specialist safety accessories – largely due to the exceptional bicycle infrastructure in these countries. (Bluejay, 2013)

There is some evidence to show that the decision whether to wear safety equipment is situational: there is a significantly higher usage of helmets when it comes to cycling as sporting activity. There is also evidence to show greater usage on major rather than minor roads (Christmas et al, 2010).

Interestingly however, although there is much evidence to show that cyclists don't wear safety equipment, there is very little research into why this is and the importance of personal style and 'fashionability' in safety decision making. This will form the basis of my primary research.

There is also very little written about the desirability or possibility of cyclists being able to control their safety equipment through the use of technology, specifically wearable technology. Could it be, for example, that if visibility clothing were to be controllable in terms of usage, colour, signalling, frequency etc. then it might become more useful but also more 'fashionable'?

With regard to motorists, the majority of research shows that the drivers are, or are reported to be, at fault in cycle/automotive accidents. This, plus perceptions of bad road behaviour and illegality by cyclists, may contribute towards a growing antagonism between motorists and cyclists. This is exemplified by this quote on cyclists from Jeremy Clarkson.

"Trespassers in the motorcars domain, they do not pay road tax and therefore have no right to be on the road, some of them even believe they are going fast enough to not be an obstruction. Run them down to prove them wrong." (Guardian.com, 2015)

The direction of my research suggests that it is not just desirable but incumbent on the cyclist to become more visible and that it is the responsibility of the cyclist to be seen as well as for the driver to see. As most evidence shows that high visibility, retroreflective material and lighting is the most effective in increasing visibility then this may create an imperative for cyclists to become more visible. And as they do so, then naturally a percentage will want to be more fashionable.

There is also significant research which shows that drivers often cite poor visibility of cyclists and lack of correct safety equipment as reasons for their negativity towards cyclists (Walker, 2013). Therefore an uptake in the usage of cycling safety equipment could contribute towards improved relationships between cyclists and drivers.

Cyclists and identity

In attempting to define the 'cyclist' it immediately becomes apparent that cycling is not just a physical practice but a tremendously differentiated variety of characteristics, defined by physical, cultural and social criteria such as age, gender, demographic, ethnicity and journey purpose as well as geographical factors – country, metropolitan, urban, semi-rural, rural etc. and cognitive factors such as attitude, aptitude, experience and risk profile. In addition to these factors there are situational and environmental factors relating to road and cycling infrastructure – protected, semi-protected, open, on road, off-road – that define cycling but that may also enable one person to be defined as more than one type of cyclist. For example, the same cyclist might be a commuting urban professional but display entirely different characteristics and approaches to cycling when participating as a road racing cyclist or 'roadie'. Their attitude to cycling and safety will also be defined by the attitudes and experience of Other Road Users (ORU's) and indeed by the number and type of cyclists they share the road with. Thus the aforementioned cyclist in Denmark or Holland, might approach cycling and ORU's in an utterly different way to a British cyclist, because of those countries societal and cultural attitudes to cycling. As Skinner says, 'Cycling is a modal choice and a process rather than a fixed, finished state. This process involves the continuing interplay of individuals' social location and personal transport experience with the policy context that frames their choices.' (Skinner, 2007, p. 147). Cox (Cox 2013) attempts to reduce this process to Competences i.e. skills and abilities relevant to the activity. Meanings – the range of meanings (symbolic and signficatory) understood by the practitioner and conveyed to the outside world through action. And Materials, which includes technologies, infrastructure and space. However this simple categorisation may simply serve to include a variety of wider interrelated yet not integrated factors relating to cycling.

For example, Cox considers how cycling is composed of a combination of machines, riders and spaces. Each is required to create 'cycling' but within those factors there is whole realm of variables. For example diversity of machinery, which forms part of Materials. To the untrained eye, a bike is a bike. It has wheels, a frame, brakes etc. But to those in the know, there is a huge difference between a £4,000 carbon fibre road bike and a £400 steel touring bike. Each leads to a different approach and identity for the cyclist. Yet an unfit MAMIL (Middle Age Man In Lycra) might possess the £4,000 bike and behave utterly differently to a teenager competing in regular road races, therefore 'diversity of machinery' may have limited relevance with regard to attitude and behaviour. Consequently, it is clear that the bicycle is an object is a socio-technical machine whose meaning and users are shaped through a variety of complexities.

Aldred summarises the complexity of defining cycling and place within cycling context when she talks of meanings, social context and social influence being vital to any sociological perspective on cycling. (Aldred, 2015, p. 104.) In further work by Aldred and Jungnickel, considering cycling cultures their research shows a difference between intent, identity and understanding in 4 different cities in the UK as the table below demonstrates:

| Case study area | Bristol | Cambridge | Hackney | Hull |
|---|---|--|---|--|
| Seen as a cycling place (by interviewees)? | Yes | Yes | Yes | No |
| Established or emerging cycling culture? | Emerging | Established | Emerging | Established |
| Cycling and choice | Cycling as subcultural choice | Cycling as rational, mainstream choice | Cycling as subcultural choice | Cycling as lack of choice (rational choice without alternatives) |
| How is transport cycling associated with class? | Cycling as middle class | Cycling as classless (or weakly associated with affluence) | Cycling as middle class | Cycling as working class |
| 'Classic' local bicycle referred to in interviews | Expensive touring, commuter or mountain bicycle | Shabby shopper bicycle with basket | Trendy 'fixed wheel' bicycle | Cheap mountain bicycle |
| Key local cyclist stereotype(s) referred to in interviews | MAMIL (Middle aged man in Lycra) | Bicycling professor, local eccentric, student | Fashionable young professional or student | Low income cycle commuter |

This research contends that a cyclist in Bristol is different to a cyclist in Hull, though they are both defined by the bland singularity of the term 'cyclist'. For example, In Bristol and Hackney, respondents regard themselves as part of a subculture, whereas in Hull, cycling is a part of a way of life that requires low cost transport. However the limited sample size and the potentially subjective definitions ('subculture, rational etc.) mean that this categorisation is relatively limited. As such, it would be perfect possible for a cyclist in Hull to see cycling as subcultural and in Bristol to see as it necessary through lack of choice.

Consideration of culture and subculture continues in Cox's seminal work on 'cycle cultures' (Cox, 2014), drawing on Williams and Gelder's research. As Cox shows, riding a bike in the Netherlands is to be integrated into a normal, unconsidered, everyday practice. The bicycle is simply a tool for getting around. Whereas in the UK, cycling often represents a lifestyle choice – a deliberate act that involves contesting occupation with other road users. So in the Netherlands, cycling may simply be part of the culture – part of a way of life – whereas in the UK it may be part of a subculture - non-normative and marginal. Furthermore being part of this significant minority may allow UK cyclists to embrace a collective identity which provides solidarity, security and protection, which may not be as important in countries where cycling is part of a wider culture. Cox then considers how cyclist subcultures exhibit multiple fragmentations often only visible to insiders but can be unified through organisations and advocacy against mainstream. As part of this reasoning he considers Queer theory, in which there is much debate about whether activity should not just change social norms but undermine fundamental norms that homogenise society.

Clearly defining cyclists by type is a complicated and potentially simplistic approach and this complexity is even more relevant when considering cycling identity? Identity can be defined as 'personal' i.e. a person's sense of who they are and 'social', i.e. a sense of who they are like and who they are different from and 'cultural i.e., the place that they take within a wider cultural framework.

As to whether cyclists can be said to have an 'identity' which is defined by them being a cyclist Skinner believes that 'both in the perceptions of 'others' and the understanding of 'self', questions of identity loom large in the social practices of cycling' (Skinner, 2007, p. 83). Unfortunately, although there is some work to categorise cyclists – such as that by Davies et al (2001) that draws on a broad population survey to identify nine different social groups with different degrees of sympathy towards cycling – there is little academic primary research on how cyclists define their own identities. Skinner believes that this is a problem. As he comments:

'The apparently practical, concrete issue of cycle commuting is intractable without the apparently esoteric notion of identity.....considerable energy has gone into improving facilities for cyclists, building a cycling infrastructure and promoting the benefits of cycle use, but much of this has rested on largely untested assumptions about individuals' attitudes, needs and behaviour around transport.' (Skinner, 2007, p. 83)

Skinner contributes towards the development of an understanding of identity through his interviews with over 100 cycling commuters in Cambridge. Most interesting is his finding that most cyclists don't differentiate themselves by comparing themselves with drivers - interestingly cycle owners are more likely than non-cycle owners to be car drivers (DOT, 2012) therefore they can have both identities – but rather compare themselves with other cyclists, particularly with regard to dangerous and illegal behaviour. This concurs with other research including that by Winters, Spinney & Cobey that shows the multi-faceted nature of the cyclist. Skinner's principal conclusions are that the relationship between transport and identity should be considered to be: multi-faceted and contingent – never just about cycling or social identity; a process rather than a fixed, finished state; and informed by wider representations of transport users' attitudes and practices but founded upon a far messier reality.

Considering identity, less through empirical research but rather as an academic and cyclist well known in his field, Horton argues that cyclist's identities (in the UK) are often defined by how they are perceived. His belief is that drivers, through the act of being in a protected environment such as a vehicle, can be seen as to retreat from the 'public' world of the city, whereas 'Cycling puts the person back into this fearscape in a much less mediated way' (Horton, 2008, p. 134). As Christmas says, 'the stereotypical cyclist emerges as a character who breaks the fundamental rules of road sharing' (Christmas, 2010, p. 55). And as Horton says 'People don't look out for cyclists but they see their violations' (Horton, 2008, p. 135). Horton goes on to argue that this continual promotion of the cyclist as outsider and lawbreaker, coupled with the idea that cycling is only safe in dedicated places ties in with a wider fear in society and that the stigma, scapegoating and stereotyping of cyclists could tie in with what psychologists might describe as a projection or transference. This is reinforced by Leonard et al whose research shows that 'freedom' is perceived as a key benefit of cycling. This may be an area that merits further study, particularly when compared with the car driver who is 'trapped' in his car and restricted by laws, lights and congestion. Despite the relatively limited research into identity it does seem clear that, as Skinner says: 'For most people, their transport choices permeate their identities not in the sense of them being a 'cyclist' or a 'motorist' to the exclusion of other options, rather transport informs identity through its interaction with other aspects of people's livesanalysis should move from the focus from the circumstances and choices of an archetypal individual towards an understanding of the varied conditions in which differently placed people negotiate transport problems and choices' (Skinner, 2007, p. 91)

Cycling and place

When considering cycling and place it is important to understand what differentiates the cyclist from other users of place. Although cyclists will often be static and congregate in one place – even for a fleeting moment (at traffic lights, for example), the key to cycling is the action of moving from one place to another – travelling through places as part of that process. Being self-powered, the cyclist's experience is affected by far more factors than automotive users.

Wind, weather, gradients, environment, time of day, perceived and actual danger are far more relevant to the cyclist than the car driver. Cycling is also generally a solitary action, so that even if cycling in a group, the cyclist is taking their own path, has no passengers and considers the world in an isolated mental environment.

Because cycles are powered by humans and cyclists are relatively unprotected the senses become far more relevant when cycling as opposed to the 'cocoon' like state of automotive driving. These may mean that cyclists may become more in touch with the places that they travel through and attuned to the space around them. Cyclists are also able to exercise greater independence when navigating place and can under or overtake, mount pavements, run a red light, get off and walk or go off road if they feel the urge. This may contribute towards some of the animosity that drivers feel towards cyclists.

Place in cycling also may depend on the type of bicycle being ridden. For example an urban courier may have an utterly different perspective on place and the action of cycling to the rider of a 'Boris bike'. The numerous types of bicycle – road racing, single speed, tourer, hybrid, mountain, foldable, Dutch etc. – may lend themselves to different experiences of place. There is also a strong feeling amongst the cycling community that cyclists are often challenged in the place that they occupy. Whether by accident or design, Other Road Users can often have a negative, and even deadly, effect on the cyclist's ownership of the space that they are cycling in. At its extreme this can lead to non-cyclists taking action to try to dispel cyclists from occupying places. Most notably this has happened recently in Nottingham and Brighton with the use of drawing pins and suspended wire, designed to deter cyclists from being in a specific place. Cyclists are also unique in that they part of the process of cycling on the road is to regularly occupy the same place as Other Road Users. So that a motorist may, however fleetingly, occupy the same place as a cyclist. Nowhere is this truer than at junctions or roundabouts where the majority of accidents occur (DTI, 2012). This contested space has led to a number of movements and action groups in which cyclists have attempted to reappropriate place for themselves. The most notable of these being the Critical Mass movement and the Naked Bike Rides. It's also important to remember that the average cyclist is doing very little damage to the place that they occupy – environmentally – and to other users of that place in terms of potential damage or destruction.

Spinney contends that the concept of place is theorised in geographical enquiry as being a specific place that is for dwelling, work, sociality etc. He argues that spaces of mobility, i.e. roads and pathways that are being travelled on are generally seen as relatively meaningless or 'non places' but that instead they should be considered as having meaning an embodied and sensory engagement with place. He refers to Ingold (2000, 192) who says 'A place owes its character to the experiences it affords to those who spend time there, to the sights, sounds and indeed smells that constitute its specific ambience. And these in turn, depend on the kind of activities in which inhabitants engage.'

As such experience of place may be defined not by the place you are in but the things that you see. And this interaction is often defined by signs or non-human pointers and instructions.

Future steps

As I enter the next stage of my research - which will include qualitative, quantitative and ethnographic primary research into cyclists, ORU's and their attitudes towards visibility - it is clear that understanding of place in consideration of design and the potential development of a product that utilises wearable technology will be key. My investigations will consider whether a product that is personalisable and situationally sensitive may offer options for improved visibility. Therefore by understanding place and its place in the context of cycling and cyclists, I will endeavour to create a solution that is 'place sensitive' and consequently more personal to the individual cyclist. As Hebdige says, 'Violations of the authorised codes through which the social world is organised and experienced have considerable power to provoke and disturb.' (Hebdige, 1988, p. 223). Therefore if I am able to understand more about the cyclist as 'outsider' and how they may occupy place in a way that seems more individual and appropriate, yet offers greater visibility and safety, then this may lead to the development of a place for cyclists which is more secure and less contested.

References – literature review

- Aldred, R, Woodcock, J. (2015) Reframing safety: An analysis of perceptions of cycle safety clothing *Transport Policy* 4 Pages 103-112.
- Atkinson, J., Hurst, P., Collisions between cyclists and motorists in New Zealand, (1983) *Accident Analysis & Prevention*, Volume 15, Issue 2, , Pages 137-151.
- Berzowska, J. (2005) *Electronic Textiles: Wearable Computers, Reactive Fashion, and Soft Computation*, *TEXTILE*, 3:1, 58-75.
- Cappetta, R. (2006), Convergent designs in fine fashion: An evolutionary model for stylistic innovation, *Research Policy* 35 (2006) 1273–1290.
- Cillo, P., Ponti, A. (2008) Search Styles in Style Searching: Exploring Innovation Strategies in Fashion Firms, *Long Range Planning* Volume 41, Issue 6, December 2008, Pages 650–671.
- Chataway, A., Nielsen, B., Prato C. (2014) Safety perceptions and reported behaviour related to cycling in mixed traffic: A comparison between Brisbane and Copenhagen *Transportation Research Part F* 23 32–43.
- Chaurand, N., Delhomme, P. (2013) Cyclists and drivers in road interactions: A comparison of perceived crash risk, *Accident Analysis and Prevention* 50 1176-1184 Elsevier.
- Clarkson, J (2015) *Clarksonisms*.
- Christmas, Helman, S. (2010) *Road Cycling, Safety and Sharing the Road: Qualitative Research with Cyclists and Other Road Users*, Safety Web Publication No. 17 SHM Productions Ltd, Transport Research Laboratory.
- Cobey, K. (2013) Sex differences in risk taking behaviour amongst Dutch cyclists, *Evolutionary psychology* vol 11(2) 350-364 Elsevier London.
- Cox D. (2007), *Cycling & Society*, Ashgate publishing group, Bristol.
- Dagen J. & Alavosius, (2008) Bicyclist and motorist environments: exploring interlocking behavioural contingencies *Behaviour and Social Issues*, 17, 139-160 University of Nevada, Reno.
- Davies, D. 2001 A quantitative study of attitudes of individuals to cycling TRL report, TRL Crowthorne.
- Fyhri, A., Bjørnskau T., Backer-Grøndahl A. (2012) Bicycle helmets – A case of risk compensation? *Transportation Research Part F* 15 612-624.
- Garrard, 2010, *Cycling injuries in Australia; road safety's blind spot*. *Journal of the Australasian College of Road safety* 21, Pages 37-44.
- Gatersleben, B., Appleton K.M. (2007) Contemplating cycling to work: Attitudes and perceptions in different stages of change *Transportation Research Part A* 41 302–312.
- Gelder, K., *Subcultures: Cultural Histories and Social Practice*, (2007) Routledge, London.
- Hagel, B., Lamy A. (2007) The prevalence and reliability of visibility aid and other risk factor data for uninjured cyclists and pedestrians in Edmonton, Alberta, Canada, *Accident Analysis and Prevention* 39 pp. 284-289 Elsevier.
- Hebdidge, D. (1988) *Subculture: the meaning of style*, London, Routledge.
- Horton, D., *Fear of cycling* (2007), *Cycling & Society*, Ashgate publishing group, Bristol.
- Ingold, (2000) *The perceptions of environment; essays in livelihood, dwelling and enskillment* Routledge, London.
- Jungnickel, K. (Jungnickel, Katrina) [1]; Aldred, R. (Aldred, Rachel (2014) *Cycling's Sensory Strategies: How Cyclists Mediate their Exposure to the Urban Environment*, *MOBILITIES*, Volume: 9, Issue: 2, Pages: 238-255.
- Kidder, J. (2005) A Decoding of Bike Messenger Symbols, *Journal of Contemporary Ethnography*, Vol. 34 No. 2, June 344–367, Sage Publications.
- Mette Møller *, Tove Hels (2008) Cyclists' perception of risk in roundabouts, *Accident Analysis and Prevention* 40 1055–1062 Elsevier London.
- Nævestad, T., Elvebakk, B., Bjørnskau, T. (2014) Traffic safety culture among bicyclists – Results from a Norwegian study, *Safety Science* 70 29-40.
- Noland, R. (1995) Perceived risk and modal choice; risk compensation in transport systems *Accid. Anal. and Prev.*, Vol. 27, No. 4, pp. 503-521, Elsevier London
- Noland, R. (1995) Short-run and long-run policies for increasing bicycle transportation or daily commuter trips, *Transport Policy*, Vol. 2, No. 1, Pages 67-79.
- Quinlan, J. (2015) *Wired Magazine – wired.com*
- Reid, C. (2015) *Roads were not built for cars*, Island Press, London.
- Rogers, E, (2003) *Diffusion of Innovations*, Free Press New York.
- Steele, V. (1997) *Anti-Fashion: the 1970's Fashion theory* Volume 1, Issue 3, Routledge London.
- Stern C (2015) The wearable tech market could reach 385 million people and change how we 'consume and use information' *Business Insider* , July 13, 2015 6:10 PM.
- Skinner, D., Rosen, P. (2007) *Hell is other cyclists: rethinking transport and identity*, *Cycling & society*, Ashgate publishing group, Bristol.
- Spinney, J. (2007) *Cycling the city: Non-place and the sensory construction of meaning in a mobile practice*, *Cycling & Society*, Ashgate publishing group, Bristol.
- Vella, M. (Aug 9, 2012) *Fortune Magazine*, New York – fortune.com
- Williams, A. (2000) *Transport in the new millennium* TRG Newcastle.
- Woods, A., Mountain, L.J., Connors, R.D., Maher, M.J., Ropkins, K. (2013) Updating outdated predictive accident models *Accident Analysis and Prevention* 55 54-66 Elsevier London.
- Woods J., Tyrrell, R., Marszalek, R., Lacherez, P., Carberry, T., Sun Chua, B. (2012) Using reflective clothing to enhance the conspicuity of bicyclists at night, *Accident Analysis and Prevention* 45 726-730 Elsevier London.
- Woods, J., Tyrrell, R., Marszalek, R., Lacherez, P., Carberry, T. (2013) Bicyclists overestimate their own night-time conspicuity and underestimate the benefits of retroreflective markers on the moveable joints, *Accident Analysis and Prevention* 55 48-53, Elsevier London.