

Title: Cycling and the city: a case study of how gendered, ethnic and class identities can shape healthy transport choices

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Keywords: UK; transport; cycling; gender; ethnicity; identity; exercise

Acknowledgements:

Earlier versions of this article were presented at the British Sociological Association Medical Sociology and the American Sociological Association annual conferences. We would like to thank conference participants for their helpful comments. Additionally, we would like to thank anonymous referees for their thoughtful comments on an earlier draft. This research was funded by NHS Camden and Transport for London. We would also like to thank Dale Campbell, Transport for London for providing access to the LATS and LTDS data, and Gemma Phillips and Kate Nolan for conducting some of the fieldwork. Finally, our sincerest thanks to all the employees and residents in London, who took the time to talk to us about their transport choices.

Abstract

As a form of 'active transport', cycling has been encouraged as a route to improving population health. However, in many high income countries, despite being widely seen as a 'healthy' choice, few people do cycle for transport. Further, where cycling is rare, it is not a choice made

equally across the population. In London, for instance, cycling is disproportionately an activity of affluent, White, men. This paper takes London as a case study to explore why the meanings of cycling might resonate differently across urban, gendered, ethnic and class identities.

Drawing on qualitative interview data with 78 individuals, we suggest first that the relative visibility of cycling when few do it means that it is publicly gendered in a way that more normalised modes of transport are not; conversely, the very invisibility of Black and Asian cyclists reduces their opportunities to see cycling as a candidate mode of transport. Second, following Bourdieu, we argue that the affinities different population groups have for cycling may reflect the locally constituted 'accomplishments' contained in cycling. In London, cycling represents the archetypal efficient mode for autonomous individuals to travel in ways that maximise their future health gain, and minimise wasted time and dependence on others. However, it relies on the cultivation of a particular 'assertive' style to defend against the risks of road danger and aggression. While the identities of some professional (largely White) men and women could be bolstered by cycling, the aesthetic and symbolic goals of cycling were less appealing to those with other class, gendered and ethnic identities.

Introduction

Over the last decade or so, transport has become a concern for health policy makers as well as city planners (Cavill, Rutter, & Hill, 2007; Pucher, Dill, & Handy, 2010). Increasing alarm about the threat of an 'obesity epidemic', resulting in part from increasingly sedentary lifestyles in urban settings in high income countries, has focused attention on the potential of 'active transport' as one method for improving the physical and mental health of the population

(Frank, Andresen, & Schmid, 2004; Hamer & Chida, 2008). 'Active transport' includes modes such as cycling and walking, which involve the traveller using their own energy to move from one place to another. Internationally, there are large variations in the use of 'active travel' modes with, for instance, cycling now being an unremarkable transport choice in European cities in Denmark, Germany and the Netherlands, but a relatively rare one in many Australian and North American cities (Pucher & Buehler, 2008). In the UK, recent decades have seen a decline in the proportion of people cycling regularly (Department for Transport, 2006b; Pooley & Turnbull, 2000), to levels similar to those of North America and Australia (Pucher & Buehler, 2008). Although data on cycling rates are contentious, with difficulties in agreeing on how to count both numbers of regular cyclists and individual journeys (Parkin, Ryley, & Jones, 2007), what is clear is that, despite national policy support for active transport (Department for Transport, 2007; House of Commons Health Committee, 2004) there has been little recent change in cycling rates, with around 2% of trips made by bicycle (Department for Transport, 2010). London, the setting of this case study, has a rather different transport system from other parts of the UK, with a well developed public transport infrastructure and local policies that set ambitious targets for increasing cycling levels (Transport for London, 2004). Rates of cycling increased following the introduction of a congestion charge for cars in 2003 and the bombings on the public transport network in July 2005, but remain low (Transport for London, 2009b), with around 2% of London's residents cycling on any given day (Table 1).

[insert table 1 about here]

As Horton and colleagues (Horton, Cox, & Rosen, 2007) note, cycling has a plurality of meanings, and to understand the propensity to choose 'healthier' travel modes it would be useful to understand more about what cycling means to people who do and don't choose to do it. That these choices might, to some extent, be culturally determined is suggested by data from London travel diaries. One-day travel diary data is taken from the 2001 London Area Transport Survey (LATS) and three years (2005-2007) of the London Travel Demand Survey. These show that rates of cycling differ by gender, ethnicity and household income (Table 1). In London, around a third of cyclists are women, in contrast to cities in countries such as the Netherlands and Denmark, where women typically make more journeys by cycle than men (Garrard, 2003). More strikingly, in a city where more than one in three residents belong to a minority ethnic group (Bains & Klodawski, 2007), 86% of male cyclists and 94% of female cyclists identify themselves as White (Green, Steinbach, Datta, & Edwards, 2010). Cyclists are also more likely to come from more affluent social groups, with on average 1.5% of those living in households earning under £15,000 cycling, compared with 2.2% of those living in households earning over £35,000 (Green et al., 2010).

The potential barriers to cycling for women are well documented. They include fear of road danger (Department for Transport, 2003; Garrard, Rose, & Kai Lo, 2008), and the relatively more complicated journeys women may make to incorporate childcare and shopping with work commuting (Dickinson, Kingham, Copsey, & Pearlman Hougie, 2002; Root & Schintler, 1999). However, such barriers are clearly socially and geographically constituted, given that they appear to have been overcome in northern European towns with higher rates of women cyclists

(Garrard, 2003). Transport may be profoundly gendered (Law, 1999; Letherby & Reynolds, 2009), but the implications of that gendering are likely to be locally situated, with the meaning of particular transport modes deriving from how they are understood in relation to such goals as health, safety or transport efficiency in particular times and places. Although there is less literature on how ethnic identities might intersect with transport needs and choices, these are also likely to be shaped by what Jensen (2009) calls 'local mobility cultures', in which the significance of (say) a transport mode, or style of travelling, derives its meaning from the resonances those choices have in context. In principle, as McBeth puts it, 'Cycling transcends class, ethnicity, gender, sexuality and age' (2009:165). However, in practice, at least in one city, it apparently does not. This paper explores why gendered, class or ethnic identities might shape the uptake of one mode of active transport. Why, in London in the early 21st century, are cyclists more likely to be male, affluent and to identify themselves as White? Although we are interested in cycling primarily as transport activity rather than sport, Bourdieu's (1978) analysis of sport and social class provides a pertinent starting point. He argued that, given that desires and tastes to undertake particular sporting activities are not universal, it was necessary first to consider *supply*: what social conditions make possible 'the system' (policy or training institutions, equipment vendors, trainers, etc) that arises to enable (say) cycling to be seen as a field of practice in itself? It would then be necessary to consider demand: how this supply fits into an existing *habitus*, or set of dispositions (choices, attitudes and lifestyle meanings distributed across society). Participation in different sports, argued Bourdieu, depends on economic and cultural capital, but also on: "the affinity between the ethical and aesthetic dispositions characteristic of each class or class faction and the objective potentialities of

ethical or aesthetical accomplishment which are or seem to be contained in each sport” (Bourdieu 1978: 836). This argument can clearly be extended to transport choices, which are also shaped by economic constraints and the built environment, but also potentially by cultural capital, and by particular resonances between the meanings that have come to be embedded in activities such as cycling (compared with travelling by alternative modes) and the desired ethical and aesthetic goals of those in different population groups. To start with economic contexts, access to different transport modes is not uniform across the UK. Living in a household without a car is, for instance, more common in most minority ethnic groups in the UK than it is for those identifying as White British (Department for Transport, 2006a). Gender differences in access to resources both shape travel needs and the ways in which those needs can be met (Law, 1999). There are also economic divisions in car ownership, reflected in a higher proportion of trips by public transport and walking by the poorest quintiles of the population (Department for Transport, 2006a). Cycling, or walking, for transport is no longer a necessity for the middle classes, but may still be for some of the less affluent, for whom it therefore offers fewer opportunities for distinction (Bostock, 2001; Green, 2009). In a context where cycling has become explicitly associated in policy with particular kinds of health and environmental projects (such as ‘addressing the obesity epidemic’), its meanings also extend beyond those narrowly tied to transport requirements. Apart from the economic and cultural capital required for different transport modes, there are, then, likely to be implied symbolic goals of each. To explore whether these meanings could shed light on the population differences observed in cycling in London, we used accounts of people living or working in the city to identify the range of ‘accomplishments’ and symbolic goals that cycling represented.

Methods

To generate accounts of travel in the city, we interviewed a range of those who already cycled for transport, those who were actively considering taking up cycling and those who did not cycle. Participants were recruited from workplaces, a volunteer group and adult cycle training schemes. In depth interviews with 78 individuals and one group focused on: travel into and around London; experiences, benefits and disadvantages of different transport modes; experiences of interactions between road users; and views of different transport mode users. Sampling was purposive, to include those in different circumstances likely to shape their transport choices. We selected workplaces with a mixed workforce in terms of demographic factors (ethnicity, income, age), in contrasting locations in terms of transport links (e.g. distance to underground/train station), and in both the public and private sectors. These included local authority departments, a higher education provider, a charity, an engineering company, an estate agency and a plumbing company. In addition, we interviewed cycle trainers and drew on documentary data (including public blogs and news groups) and the research team's fieldwork diaries. Fieldwork took place between October 2008 and October 2009.

All data were analysed qualitatively, drawing on the constant comparative method (Strauss, 1987) including detailed open coding of early data, the development of conceptual coding schemes and an iterative approach to data generation and analysis in order to generate core

concepts. Methods are described in more detail elsewhere (Green et al., 2010). In quotes from interviews, all names and other potential identifiers have been changed to preserve anonymity.

Ethical approval for this study was granted by the London School of Hygiene and Tropical Medicine's ethics committee.

Findings

Being 'a Cyclist': transport mode as identity

In a city with low rates of cycling, the cycle potentially identifies its user in ways in which other transport choices do not. Many participants could identify 'the kind of person' likely to be a cyclist, summarised by a particular attitudinal style:

somebody who's quite environmentally friendly, probably quite independent, maybe a bit of a leftie, vegetarian. (Michelle)

That 'typical' cyclists could be characterised so readily reflected in part their relative 'strangeness' (Horton, 2007) in London. This 'strangeness' meant those who did cycle could identify themselves as 'a cyclist', rather than just a person who cycled; someone whose dispositions in general were commensurate with cycling as a transport choice. Signalling this identity to others was a matter of not just riding a bicycle, but adopting a particular style, one most evident in recognisable travelling clothing:

...it's quite nice just all waiting at a light. There's an affinity there, like, if you're wearing the gear and, yeah, yeah, you're quite with it. (Caroline)

I've got the kit, I'm a cyclist, yeah. (Elizabeth)

One cyclist, who had previously cycled in a more 'cycle-friendly' city, noted that she had not 'identified' in this way before moving to London:

[There] isn't a very strong sense of identity is it when everyone else is doing it. But here, the moment I heard about the Bike Riders Association [workplace group], it kind of gave a sense of identity. And also I guess the fact that fewer people... cycle and then you meet them, and maybe after all you just have this yeah 'I'm a cyclist', kind of actually yeah. (Sophia)

Where cycling's relative unusualness makes it highly visible, regular cyclists could be proud of their inclusion in a small club, and recognisable as such. In comparison, the everyday commute by most modes had become largely taken for granted – one just did it, rather than considering *how* one should do it, or whether it was appropriate to do it, or whether one is 'the kind of person' who rides a bus or underground. The seductions of inclusion in a small 'cycling club' are, however, offset by the public availability of this 'identity' to others. One aspiring cyclist is open about the predicted discomforts of the unavoidable visibility of cycling's signifiers (such as helmets and clothing):

[You'd need] that kind of thinking, not to be embarrassed to turn up to work with a crash helmet, a cycle helmet, you know, that kind of thinking 'it doesn't matter'... you know, people [in an office] always comment on everything. (Sally)

For Sally, the 'cycling body' is not yet taken for granted, but still, literally, noteworthy. In Bourdieu's (1990) terms, the bodily practices (*doxa*) that enable (able bodied) commuters to utilise buses, underground, or walk the city, are now relatively normalised, involving largely tacit, unremarkable ways of deporting oneself appropriately. Although other modes of transport are presumably still profoundly gendered in terms of how one behaves, the scripts for interaction, and the assumptions about being a woman or man, on this or that transport, they require tacit, rather than explicit, skills. Our participants did not, for instance, discuss the appropriateness of clothing choices or deportment in the performance of being 'a bus passenger' or 'a pedestrian'. In contrast, to cycle entails an inescapable set of choices around how to cycle and, for women in particular, how to cycle as a *gendered* traveller. The most accessible of these choices, often discussed in interviews, centred how to (gender) appropriately clothe the cycling body. Rachel, for instance, a new cyclist, confesses her self-consciousness:

I'm really just coming to cycling I feel a bit, I think I lack a bit of confidence in that kind of thing. I just think, am I dressed right? Do I look, am I doing this right? ... [do I] look a total prat... I swing between, should I go all in Lycra, or should I just go for the more

girlie look or, I can't quite decide on my image. But I think that's quite important.

(Rachel)

The practical challenges of protecting the body from the risks of the weather and impropriety may be issues for both men and women using any transport, but for cycling women these choices are rendered publically accountable. On occasion, the challenges of integrating gendered styles with the practical demands of cycling were enough to eliminate cycling as a choice for those with a 'feminine' gendered identity:

When we [women] wake up in the morning we do our hair and makeup and we're wearing the right clothes, it's not practical to carry high heels and your mini skirt or whatever in the handbag every day, pack it into your bag. What you'll find is the women that do cycle are probably more blokey than feminine, and it's easy for them to take their helmet off and just ruffle the hair and be prepared, they probably don't wear makeup, they are tomboys. (Jasmine)

This elision Jasmine makes of cycling with marginal femininity has been the object of explicit resistance. Blogs such as <http://londoncyclechic.blogspot.com/>, for instance, which addresses the question "Is it possible to cycle in London and look good?" and 'bike belles', a webpage from the charity Sustrans (<http://www.bikebelles.org.uk/>), aimed at women, has sections on 'what to wear' and 'beauty tips'. However, such attempts to frame cycling as compatible with hegemonic femininity have alienated some. Naomi, for instance, in a blog entitled '8 mile cycle'

about her cycling commute, posted about her frustration with a newspaper article on fashion and cycling:

the most ridiculous quote was ... "To keep warm, I wrap myself up in a three-quarter-length Vivienne Westwood coat. If it's raining, I'll just wait for it to stop, but we don't have that many downpours". Clearly this lady has not actually been on her bike very much for the last 6 months... <http://8milecycle.blogspot.com/>

In her blog, Naomi proffers an alternative gendered account, critiquing this feminisation of cycling. For her, for instance, signs of physical exertion are part of the appeal ("I definitely sweat and am proud of it!"). However, for a number of women in this study, although physical exercise was an incentive to cycle, it was important that exertion was achieved while demonstrating adherence to a more orthodox feminine aesthetic:

I quite happily cycle in my jeans and trainers and a jumper and then sometimes change a bit of my outfit. I've got some high heels that I keep in my locker here that I'll wear around work. (Lucy)

And in the summer I could be spotted wearing a very nice light skirt and high heel sandals, and cycling nine miles. (Elena)

Other transport modes did not, apparently, require such overt recourse to conventional signifiers of femininity in order to render the user unambiguously 'female'. They had become, in Bourdieu's (1990) phrase, part of the *hexis*, the embodied modes of socially structured (gendered, for instance) taken-for-granted movement around the city. Cycling is a field with no

such established practices, and therefore required a conscious performance of gender, whether done in hegemonic or (as in Naomi's account) more resistant ways.

The cycling *habitus*

Just as cycling made visible the gendered travelling body, it also made evident the class and ethnic dispositions of transport choice. For many professional White men and women, cycling was a distinctive choice which could unproblematically reflect their broader ethical and aesthetic attitudes. Julia, a young professional, is perhaps more explicit and eloquent than most on these cultural resonances, but the content of her account echoes those of others:

I mean to be fair it does make me feel smug, my friends joke that it's very middle class and they joke that it sort of fits in with the lifestyle of gardening, listening to Radio 4, eating organic food and cycling... 'I'm being fit and I'm not hurting the environment'.
(Julia)

Aligning with projects of personal fitness-as-health and ecological health, cycling here signifies a specifically bourgeois sensibility, with its associated cultural attributes. For many Black and Asian Londoners, cycling had no similar sets of associations. For a few, the very visibility of cycling in itself rendered it inappropriate for people from 'their background', whose bodies could not be so obtrusively in the public sphere:

My mum said I don't want all these people seeing my daughter on a bike... we lived near a mosque so we had loads of people walking past... my mum didn't want people saying,

oh my God, that such and such's daughter is on a bike... it just isn't socially accepted... it would probably be for some of the older generation as bad as seeing a woman smoke.

(Jasmine)

The legitimacy of cycling being a lifestyle 'choice' in the way Julia, above, describes it, was not necessarily taken for granted. Indeed, for the (non-White) professional, whose social status is perhaps more tenuous, the bicycle's bourgeois associations could not be relied upon:

When you've made it, you buy a car not a bicycle. (Leanne)

Marvin, for instance, suggested that being "really poor" might be the one thing that would make him consider cycling; it still had associations for him of low status transport that could be afforded by anyone, rather than the opportunities for recognisable status display afforded by the private car. He added that the cultural associations of cycling might be rather different within Black communities, suggesting a 'fun' or deviant activity for Black youth, who were distinguished from 'commuter' cyclists by not only age but the lack of obvious style signifiers (the 'Lycra'). Status remained more reliably indicated by a particular style of driving:

I'm thinking of the younger, maybe guys under 35, maybe the comfort of their car with their sound system blasting out. I don't know, it's dreadful stereotypes to use, but it's, what I do see... maybe 15 to 25 year olds, I will see them on bikes but not, they won't be in the Lycra, they won't be haring across town to a meeting or to a job or to college, they'd be the guys on these little bikes, these little fun bikes. (Marvin)

Such devalued association of cycling with either poverty or juvenile fun could be defended against by the conspicuous consumption of obviously expensive high status bikes and accessories. Carla describes this as a strategy in her small neighbourhood (described as a “mini-Amsterdam”), where she says cycling is the norm, and where it can therefore provide opportunities for displays of both affluence and (locally) orthodox attitudinal dispositions of ecological awareness:

In [my local area] you can see every model, every colour, it's like saying 'I'm environmentally friendly, but I can afford to pimp my bike'. (Carla)

Such a strategy can only work in cultural milieu in which others can reliably 'read' these cues to status. In settings where few others from your community cycled, cycling carried different meanings. Carla cites the area of London where she grew up, in contrast to her current locality, as somewhere cycling was visible only as part of “boy's gang culture”. If the visibility of cycling is a barrier for women, who must decide, while in the public gaze, how to become a woman cyclist, this *invisibility* of some social bodies among London's cyclists is perhaps the most obvious factor contributing to cycling's ineligibility as a candidate mode of transport for many in London's minority ethnic communities. Many, such as Carla, had not learnt to ride as children: learning to cycle was not recollected as a prized 'milestone' accomplishment and even those with the required physical capital would not see cycling as part of everyday adult transport culture:

a lot of the time it's not like a cultural thing for the Black minority people to be cycling, they're not used to it, so you wouldn't find them really doing it. (Nicole)

Kelly, who described herself as “a cycle freak”, suggested this absence of Black women visible as cyclists was a disincentive:

Black women tend to acknowledge each other when they’re cycling, because there are very few of them... I just think there’s not enough encouragement really. I think Black women need mentors... to say come on to cycle... I don’t think they consider it a way of travelling. (Kelly)

This invisibility, she noted, extended to media representations, with cycling rarely covered in the Black media, and Black cyclists not covered by ‘mainstream’ media (“Radio 4”). Thus, for her, cycling was generally something done by “White middle class men” as “a certain way of living”. These associations of (White) ethnicity and cycling as lifestyle choice were not always so overtly made. Nevertheless, Kelly’s summary underpinned a certain sense of the irrelevancy of cycling for many minority ethnic women. A group of Asian women, for instance, greeted our question “does anyone here cycle?” with laughter, followed by a long list of reasons why the question was “ridiculous”. They animatedly pointed to the many limitations on their ability to cycle; something considered suitable for children, but hardly an appropriate form of transport for grown women:

Shila: So if you’re using the bicycle, what about the children? How are you going to bring them to school? You have, ride the bicycle, and where are the kids? [all laugh]
Where do you put them? So, that’s not a good idea!

Deepa: And another thing is that, because everyone lives in a flat, and there’s not enough space, so where would you put your bike?

Anjali: And it's not useful for us because we, if we wear a jilbab, how are we going to ride a bike?

Modest clothing, the need to carry children or crowded accommodation may be framed as modifiable 'barriers', which could be overcome with appropriate policy interventions. It is of course practically possible to cycle in long garments ('bike belles' suggest using a clothes peg), and technologies exist to carry children on bicycles. However, these women's humorous reactions suggest something more than practical challenges - that cycling is *inherently* inappropriate – indeed, literally laughably so. Why has cycling in London become attached to a particular White, bourgeois (and to some extent, male) sensibility, such that it is then harder work to 'become a cyclist' if one's identity is differently constituted? We turn now to some of the particular implied 'accomplishments' (Bourdieu, 1978) of cycling as a transport mode, to explore why they may have more resonance for some social identities than others.

Autonomy and efficiency

The first set of 'accomplishments' relate to the specific advantages of cycling for quickly transporting individual bodies through the crowded city streets. Almost all participants in this study, however they travelled, described cycling as (potentially) an attractive mode of travel that offered speed, efficiency, the opportunity to get physical exercise and benefits for the environment. Even those who did not cycle themselves described cycling as, in principle, a morally worthy alternative to crowded underground trains, slow buses or expensive private cars. More specifically, cycling epitomized two highly valued criteria for travelling the city: autonomy and efficiency. These were cited by many as its prime attractions:

It's quite satisfying as well when you're whizzing past all the queues of traffic ... I do like that feeling, I'd be like ha, ha, ha. Get a bike. (Rita)

[Y]ou're pretty independent, you don't have to rely on tubes running or buses not breaking down or tube strikes or whatever. You don't have to go anywhere the buses go so, it's flexible, it's transport from your origin to your destination. (Hannah)

Typical of cyclists' accounts of travel were the twin seductions of 'freedom' and 'control'. On a bike, Russ describes himself as "my own person" and "in control". In such accounts, the primary aims of mobility are implied as those of transporting individual, self-contained body-machines, with few belongings or co-travellers, from one city location to another, without the space, people or systems in between impinging. For such mobility, the bicycle was also an aspirational mode in the imaginations, at least, of many non-cyclists:

It's probably liberating to some extent, you're in your own world and you don't have to rely on transport. (Jasmine)

I would cycle, because it gives you a lot more control... It's that independence really and just being able to do your own thing when you want to do it. (Marvin)

However, for those for whom such independence was less fundamental to the travelling self (for instance Shila, above, who talks of travelling with her children), autonomy may be a less salient goal, either practically or symbolically. Accounts of the 'freedom' and 'control' of cycling constitute the bicycle plus rider as an autonomous person-machine which can go anywhere, anytime without (crucially) reference to the needs or desires of other travellers. When transport is framed as a communal, rather than individual, goal, autonomy, as an accomplishment, may be simply less prized than the ability to move several people or things together.

Autonomy was discursively linked to efficiency, a prime consideration for many workers in London, desiring to make journeys not only in the shortest time possible, but also in the most utilitarian way, such that time spent travelling could achieve other outcomes (such as studying on the bus). The bicycle provided the ultimate in efficient travel. Not only faster than other modes in crowded city streets, cycling also utilised travel time in a very specific instrumental way, as time spent enhancing physical fitness:

It's just one way of incorporating exercise into your daily routine... sometimes it's just as hard to fit in the gym around everything else that's going on... whereas cycling I think you can. (Roisin)

This advantage is only self-evident, perhaps, for certain classes, in particular time-poor professionals. For those whose identity is less reliant on the obligation to conserve time, commuting time could be reconfigured as providing other pleasures, such as the intimate knowledge of particular walking or public transport routes many discussed, reminiscent of the smaller, poetic freedoms of de Certeau's (1984) pedestrian or the voyeurism of the *flâneur*. On bus journeys, for instance, the slow pace in itself offered valued possibilities for spectacle, introspection or simply switching off for a time and doing nothing:

[The bus is] much more relaxing, you can see. If it's a nice day, it's great just to enjoy the sun. So it's relatively stress free. (Marvin)

A bus gives you a story, every bus journey's got a story, what couple's doing what, the sights you might see. (Carla)

Even used for utilitarian transport, walking could also be inherently pleasurable. Less frantic than cycling, walking still provided exercise, the satisfaction of 'knowing' the city from intimate experiential encounters, and opportunities for slowly appreciating eventful street scenes.

When cycling has become discursively linked to autonomous, efficient travel, with its excessive necessity for alertness and independence, it may simply be unappealing. Other modes offer

more seductive, or just more taken-for-granted, ways to travel; suggesting a *habitus* in which the propensity to cycle is currently irrelevant:

I just don't have the, I'm not interested in learning to ride... I'd rather walk, I like walking, I grew up walking. I used to walk an hour to school when I was little... So I'm not bothered about learning to ride a bike, got other interests that I like. (Jill)

Maximising and protecting health

The second set of 'accomplishments' contained in cycling relate more directly to health.

'Fitness' was mentioned by both men and women as an incentive to take up cycling. However, men more often cited cycling as *evidence* of physical prowess, while women instead spoke of the contribution cycling would make to an ongoing project of shaping the physical body.

Compare, for example, Fred's and Josh's accounts of cycling accomplishment with those of Julia and Lisa on the potential effects of cycling on physique:

I generally cycle at or faster than the speed of the car, on the open road I'll do 30mph on the flat and away from traffic lights I'm a lot faster than most! (Fred)

Believe it or not it's probably about 70 miles from here to X... me and pal cycled there, ... got back on our bikes and cycled back home. (Josh)

I do feel smug thinking, I'm cycling to work, I'm not going to get fat. (Julia)

[Cyclists are] skinny people, people with very skinny strong looking legs. (Lisa)

Such differences suggest the normative gendered meanings that health projects entail, and their different implications for gendered bodies. As Horton (2007) has noted, for women, the visibility of cycling brings its own risks: not just fear of accident, but also (as we saw, above) fear of embarrassment as cycling renders women's bodies more public. One facet of this is the moral hazard of appearing over-concerned with health or ecological rectitude, leaving women, whose bodies are more available to the public gaze (Horton, 2007; Tonkiss, 2005), particularly vulnerable. These risks are suggested in the moral censure of displays of over-concern with the physical body suggestive of a certain sanctimonious excess:

[cyclists are] people who are fitness fanatics. (Surina)

Sometimes I think they think, they [cyclists] sometimes could have an attitude that, look at me I'm very noble... So sometimes that irritates me slightly because I feel they think they're so holy. (Grace)

The more immediate risks of the road, from the dangers of road traffic injury, were particularly salient for those considering cycling. Although not necessarily objectively greater for female cyclists, the meanings of protecting oneself against such risks were gendered, in terms of whether those risks were acknowledged, welcomed or disavowed. 'Aggression' was a risk associated widely with travel in London. Risk resulted not just from the effects of aggressive behaviour on immediate well-being, but also from the sense in which this aggression was seen as potentially contagious, as Michelle suggests:

there's so much aggression in London... actually whatever form of transport you use, I think people are aggressive and competitive and want to get wherever they've got to get to one second faster. I'm as bad as anybody else, I'm infected by it you know, but, yeah, I think a lot of people have that. (Michelle)

Aggression was particularly associated with cycling, which could therefore potentially jeopardise not only immediate physical health (through road injury) but also, through contagion, one's mental well-being and sense of self:

I do see those people and you can tell they're professional cycle commuters because they adopt the other attitude that I think almost you can see in their faces *they've gone from feeling vulnerable to being aggressive to other people...* that kind of psychological thing, thinking about *that could actually change you to be an aggressive person.* (Abigail, emphasis added)

In some men's accounts, the potential for cycling to be a competitive arena for this experience or display of aggression was welcomed, with the thrills and risks they saw as an inevitable part of London cycling recounted with pleasure or pride:

It's a bit of adrenalin; it's good for a moment... I'm a hardened cyclist, I won't have people just cutting me up... I might consider myself a bit of a, what they might call an urban warrior on a bike. (Russ)

I think a lot of the time I'm cutting cars up rather than the cars cutting me up. (William)

Few women talked of the pleasures of these risks. Those who did not cycle spoke primarily of their vulnerability to risk, and the specific 'dangerousness' of central London's roads. However, for those who did cycle, risks might not be welcomed, but they could be disavowed. Indeed, the very 'riskiness' of cycling could be utilised discursively as part of the presentation of an empowered gendered identity:

Yeah, I definitely, I kind of identify with people who cycle. *I feel slightly warrior like.*

(Katrin, emphasis added)

That cycling can be constituted as 'unfeminine' in its visibility, riskiness, and association with aggressiveness means it can be seen as a resource for constructing autonomous and self-determining identities, sometimes in explicit contrast to the timidity of 'other women':

One of the girls in my office, her boyfriend is afraid of, he sort of is moderately controlling and doesn't want her cycling because he's worried about her but there are two of us who do cycle in the office and we think it's completely ridiculous and silly, but *we're also the sort of people who wouldn't ever let anyone tell us what to do.* (Julia, emphasis added)

Similarly, Kelly describes her reaction to her husband's concerns:

I think men can be a deterrent to women actually, if they don't cycle to work, I don't care, I'm not interested in what [husband] thinks now, I just get on my bike... if I listened to him I wouldn't do it, do you know what I mean? (Kelly)

A female cyclist is someone who can demonstrably weather both the risks of the road and, in these accounts, male disapproval. Immunity from both the immediate threat of road injury and the risk of contagious aggression is provided by the adoption of a style widely seen as essential for managing London's roads: 'assertiveness'. Assertiveness, as a style, derived its meaning from contrasts with both male identified 'aggressive' risk-seeking and with (feminised) vulnerability:

I try to be assertive when I'm cycling, I don't go too near the kerb, I really try to be quite assertive and to be confident, I feel that you have to have a confidence that I'm going to get there, and I try not to take too many risks. (Kelly)

I don't think cycling is dangerous, I think it's an excuse ... I think it's just about being assertive. (Molly)

'Assertiveness' combines the deportment and placing of the body/cycle on the road (not too near the kerb; taking up space) with a cultivated attitude for interacting with others, particularly other bodies/cars (clearly signalling, maintaining eye contact, deporting oneself to suggest 'belonging'). The precision of the style is perhaps most visible in its absence, suggested in this cyclist's complaint about the rising numbers of new cyclists in London who did not possess it, instead being:

people who perhaps aren't so confident or competent, whose bikes perhaps aren't as roadworthy as they might be. So you get people... hesitant, not signalling and then you

get people at the other end of the spectrum who are incredibly aggressive and impatient. (Hannah)

Acquiring assertiveness was a learned accomplishment, and indeed much adult cycle training was orientated towards developing the necessary craft skills. However, while assertiveness and risk-hardiness could bolster some female identities, there were also moral threats in the ambiguous border between aggression and assertion. If immunity against aggression failed, cycling could be both risky and risk producing, rather than healthy, as suggested by these respondents' descriptions of how they saw cyclists:

People wearing a colourful band, and being dangerous to drivers. (Nicole)

Well I usually think of Lycra clad blokes that have all the gear, and that, supposed to be all safe and stuff, and they just really dangerously whiz in and out of traffic. (Elena)

Thus, only one health project was unambiguously maximised by cycling: one that valued future-orientated fitness-as-health over immediate safety. Such a project had a greater appeal to some social identities than others. In particular, it appealed to those, largely professionals, who presented themselves as empowered, autonomous individuals capable (crucially) of demonstrating their immunity from the moral threat of contagious aggression. In Bourdieu's (1990) terms, the *doxa* (the tacit relationship of the body to the *habitus*) required for cycling in this particular city could be acquired by, in theory, anyone. However, we suggest that the enactment of cycling inevitably relates to a socially structured *hexis*, or reproduction of the class (or gender, or ethnic) divisions of society. We have suggested here some of the more and

less explicit ways in which gender, ethnicity and class in particular have become embodied in cycling body-machines in the public sphere. These relate first to the particular sets of cultural signifiers associated (or not) with cycling for transport, and second to the ‘accomplishments’ that are bound up in cycling, which resonate more closely with some social identities than others.

Discussion

There is a small, but growing, literature on gender and transport, and a specific body of work that addresses the gendered meanings that attach to cycling (see e.g. Horton et al., 2007; Mackintosh & Norcliffe, 2007; McBeth, 2009). One implication of this research is that, “there are many different kinds of cycling” (Horton et al., 2007:1), and its meanings are both locally constituted and mutable. Mackintosh and Norcliffe (2007), for instance, describe the shifting gendered geographies of cycling after the invention of the safety bicycle in the 1880s, noting that although women took up cycling in increasing numbers, they did so in a spirit of emancipatory consciousness, evidenced by Susan B. Anthony’s description of a woman on a bicycle as a “picture of free, untrammelled womanhood” (Bly, 1896). It is perhaps rather disheartening that, over a hundred years later, the relative novelty of women cycling in London means that cycling can still be utilised to present particular, empowered, gendered identities and still, apparently, suggest cycling might undermine the claim to more orthodox (female) gendered identities.

Law (1999) maps out the various ways in which mobility is shaped by gendered divisions of labour, access to resources and public space and experiences of embodiment. She suggests that although transport geographies have made substantial inroads to understanding gender and transport, there has been rather less cultural analysis of how gender as symbolic code might shape the *meanings* of mobility. Treating gender as 'cultural category' rather than simply a demographic variable suggests that all transport use is gendered. An example is provided by Letherby and Reynolds, in their autobiographical story of the assumptions made about why they, as women, are travelling by train on a working day (Letherby & Reynolds, 2009: xvii). However, in our data, what was striking was how overt this is in the case of cycling, compared with other modes. Investments in public transport systems in London together with restrictions on private car use have eroded, to some extent, these kinds of publically articulated gendered, class and ethnic associations of more routinised transport choices. Despite large differences between population groups in the *actual* use of other transport modes (Transport for London, 2009a), the cultural associations of walking, public transport and car use in the city are more implicit, and therefore less likely to require travellers to account for themselves as (gendered, for instance,) users of a particular mode. Drawing on Bourdieu (1978, 1990), we have suggested that cycling makes visible the taken-for-granted *hexis* of most travel. The social structure that underpins expectations about, say, choice of travel mode, or bodily deportment on it, is largely invisible. Travelling in general is performed in ways that are not consciously considered as gendered, or ethnic, or representative of particular class segments. In London, one simply prefers to walk, or uses public transport, in ways that can appear natural. That

these dispositions are part of a *habitus* is only visible in the breach, when normalised routines are disrupted, as they are when one considers taking up cycling.

In accounts of everyday travel, we identified a broad consensus around the ‘accomplishments’ that transport cycling encapsulates: autonomous, efficient travel that maximises both the future-orientated health of the individual, and that of the environment. We have suggested that these ‘accomplishments’ have more affinity with some travelling bodies than others. For (White) professionals, cycling can be used explicitly to bolster particular bourgeois identities but, more subtly, the associations of cycling evoke a time-poor, autonomous travelling body that has rather more meaning for them than those with other identities. For some women, for instance, the threat of infectious aggression could potentially undermine feminine identity. This goes beyond the widespread concern with road danger, instilling a fear that cycling could affect one’s psyche. As Tonkiss (2005:95) suggests, the city presents women with the “double edge of visibility and invisibility”, allowing them to disappear in crowded urban streetscapes, but also spatially forming sites of symbolic danger where their bodies are visible in the public domain. Cycling increases the visibility of women’s bodies, and thus increases vulnerability to not just embarrassment (Horton, 2007), but also to the potential infection of ‘aggression’. While professional women could utilise their ability to withstand this threat, and adopt ‘assertiveness’ as part of a valued ‘empowered’ identity, and men could take pride in an ‘aggressive’ style, for other women, particularly those with more orthodox gendered identities, these risks were less easily disavowed.

The cultural meanings of ethnicity and transport are less well explored than those of gender. The participants in this study were not intended to represent the range of ethnic identities Londoners might claim, and indeed many participants did not see 'ethnicity' as a salient part of their commuting identity. We have certainly not attempted to comprehensively unpack ethnicity in terms of how it might shape mobility, or indeed how different mobilities might be used discursively to constitute aspects of ethnicity. However, many of our participants did make reference to their ethnically identified backgrounds as providing insight into cycling, in suggesting that it was inappropriate within their communities, or simply invisible as an adult transport mode. The normative practices that determine the relationships between ethnicity, age and (different kinds of) cycling are likely to be differently enacted in other locations. In Kidder's (2005) ethnography of cycle messengers in New York City, for instance, he notes that although the majority of messengers were black and Hispanic men, the 'lifestyle' messengers (who did not just do a job, but whose entire identity centred on their messenger role) were often female, and largely White. In London, however, Black cyclists, especially women, were aware of their 'unusualness' on London's roads, just as some (White, professional) women were conscious that cycling was congruent with their bourgeois identity. Like gender, ethnicity is also likely to shape mobilities in less obvious ways than those related to access to resources, or opportunities to learn to ride a bicycle. There are hints in these accounts that the body evoked by the autonomous, future-health orientated, efficient cyclist (and perhaps the one evoked by much cycling policy and promotion materials) is simply not the body experienced across all the population. In the laughter of some Asian women's rejection of the bicycle as a possible way to travel, or the complete disinterest of some women in cycling, are suggestions

that the implied question 'why not cycle?' is predicated on assumptions about the requirements or aesthetics of transport that are simply inappropriate. Cycling, in this particular case, was only an obvious candidate choice if mobility was primarily orientated towards transporting a single, separate, alert body/machine from one place to another as efficiently as possible while prioritising future orientated fitness-as-health over immediate physical safety or vulnerability to contagious aggression. Other mobile subjects (both evoked in our data and imaginary) might be: connected to other bodies; responsible for transporting other bodies or things; dawdling, day-dreaming or non-alert; spectacle seeking, particularly vulnerable to road injury or aggression; or simply more likely to be exhausted than energised by the exertion of cycling.

For Bourdieu (1978), explanations of why certain classes in France were associated with certain sports hinged on a field of economic or cultural constraints that might close particular choices to some groups in the population, and on the affinities between what he called the 'accomplishments' assumed in each sport with the dispositions of each class. We have used a similar framing to begin to unpack why cycling, as a transport choice in one particular city, might be associated with some population groups more than others. Currently, in London (and possibly other cities with low rates of cycling), the resonances of cycling reflect its unusualness. It can offer a certain bourgeois distinction to those whose identities are not threatened by the possibility of poverty being the reason for cycling; it can offer the ultimate in autonomous, efficient travel; it can provide a signal of empowered gendered identity. Clearly, if either cycling's cultural associations or the accomplishments bound up in cycling change, then we

might expect to see it becoming a candidate transport mode for a broader range of population groups. In cities where cycling uptake is low, the challenge for healthy public policy is perhaps to de-couple cycling from the rather narrow range of healthy associations it currently has, and provide an infrastructure in which anyone can cycle, rather than just those whose social identities are commensurate with being 'a cyclist'.

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Table 1: Percentage of adults who are cyclists by ethnicity

Ethnicity*	Men		Women	
	2001	2005-7	2001	2005-7
White	3.4%	3.6%	1.3%	1.6%
Black	1.9%	1.4%	0.1%	0.2%
Asian	0.9%	0.8%	0.1%	0.0%
Other/Chinese	2.1%	2.3%	0.7%	0.5%
Total	2.9%	3.0%	1.0%	1.2%

Source: Transport for London, LATS 2001, LTDS 2005-2007

*Aggregated from self-identified UK census categories.