Creating City Cyclists

Understanding Why People Start, and Sometimes Stop, Cycling in South London

Peter R.H. Wood

BA(Hons) Geography, MSc (Environment, Science and Society, Research Training)

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Faculty of Social Sciences, The Open University
Abstract

Cycling can be framed as a means of practically re-ordering movement, connection and experience. Drawing upon readings in mobility and urban studies, the thesis addresses deficiencies in practice theory by investigating how to better conceptualise dynamic change, socio-technical multiplicity, and embodied experiences of technology. Investigating people’s experiences of using bicycles to live in a city, it asks how the take up, alteration and divestment of different practices might influence how urban times and spaces are practically ordered.

The study develops disciplinary debates on place and practice by engaging with the theoretical concepts of emergence, encounter and cosmogony. It empirically investigates three sub-questions: how are cycling-journeys experienced in London; how do experiences of cycling the city alter urban practice; and how does cycling influence the practical remaking of urban place? Methodologically, 20 participants were recruited for a year’s fieldwork comprised of 3 methods; ride-along with video-elicitation, diary-interview and focus groups. This iteratively investigated three practices; civility, navigation and placemaking.

Understanding the urban as a means and outcome of systematised contingent ordering - a machinic complex -the study suggests that cycling reconfigures how such ordering occurs. Rather than investigating practices of cycling it investigates how urban practices incorporate experiences of cycling and might bedisseminated, intensified, disrupted, or reconfigured. By decentring cycling and fracturing the study’s focal point, the framework facilitates a conceptualisation of urban practices as traversing an array of contingent situations, via a variety of technologically-mediated engagements.

The findings explore how quotidian mobility creates durable social forms and places through transient, mounted but systematised and repeated meetings in the street. This refines our understanding of the spatial and performative. It argues that creative repairs making modest alterations to elements of skill, meaning and infrastructure might catalyse more radical systemic reconfigurations of their links, or initiate self-perpetuating trajectories of further change.
Dedication

To Catie, Amanda, Nick, and Peggy
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Chapter One: Creating City Cyclists

"But in the past decade, cycling on the Transport for London (TfL) road network has almost trebled. The Thames bridges throng with commuter cyclists, wearing colours not found in nature. In the cooler parts of east London, a bike is the fifth limb for everyone under 30. Hundreds of thousands of people have discovered that their transport future is lying in their garage under a pile of disused barbecue equipment."

(Mayor Boris Johnson, in Greater London Authority [GLA] 2013, p4)

Bicycles have existed, in some form or another, for almost 200 years. As a mode of transport, cycling in the UK peaked during the mid-20th century (Pooley and Turnbull 2000). But cycling in 21st century London seems to be undergoing a renaissance. Citywide estimated levels of cycling-journeys have more than doubled since the turn of millennium, increasing even further in much of the inner city (Goodman 2013; TfL 2010a). In certain locations and times, around half of the road traffic consists of bicycles (London.gov.uk 2013). This is promoted as not just the increased uptake of an efficient transport, but as a change in how London is organised and experienced (TfL 2010d; GLA 2013). However, relatively little is known about these cyclists’ routes, routines and repertoires.

This thesis investigates how a small group of Londoners experience cycling as a part of their life in the city. It studies cycling because the mode of transport involves a relatively exposed and self-aware experience of technology. However, the rider’s bodily manipulation of the bike does not stop at steering the machine itself. It extends to the body-language of their interactions with other people in traffic, and their need to actively work out the route and time of their passage through the street.

City cycling requires the rider to move their own body through technological infrastructures, an act which produces and reconfigures their engagement with the people and places they pass by. These activities occur in relation to the cyclist’s ability to make or imagine making that journey by different modes of transport, or to alternative parts of the city. Through investigating why people start, and sometimes stop, cycling in London, the study aims to better understand how different ways of using a bicycle relate to their riders’ attempts to accomplish different tasks, in different locations and contexts. This speaks to debates questioning how the numerical growth of cycling might be related to systemic socio-technical trends and forms of heterogeneity that pass through cycling but are not confined to it. In turn, I hope to suggest how investigating cycling’s renaissance
might allow us to better understand how cities produce such opportunities for prosperity and inequality, within systems of emancipation and constraint.

Theoretically, Creating City Cyclists proposes to study experiences of cycling via practice theory, contributing to social scientific understandings of technology, embodied knowledge and experiential multiplicity (Bourdieu 1977; Shove and Pantzar 2005; Rose et al. 2010; Thrift 1996). To do this it utilises an analytic framework focused upon what I term urban practices, rather than cycling practices. This formulation supports an investigation into how experiences of transport become incorporated into the practices by which people live in their city, without implying that these practices are encapsulated by the transport. Drawing upon geographical and social theory I will suggest that by decentring and fracturing the idea of “cycling” – framing it primarily as an experience which exists through the performance of “urban” practices - the situation becomes less easily taken-for-granted. I argue that this supports an investigation of how people utilise a mode of transport, but which avoids becoming overwhelmed by or cloyingly predicated upon the mode’s most iconic forms and spokespeople. The iterative process of fieldwork and analysis is then a means of evaluating both the situation-specific and more general theoretical strengths or weaknesses of this proposed formulation. In this respect, the “urban” in “urban practice” is intended as a modifier which situates this backstory. It emphasises that the account does not claim to be a universal description of all cycling, but nor should it be taken to imply a relevancy to all or only cities (cf. Rose 1997). Although located in a city and informed by urban studies, the investigation contributes to an understanding of how human activity practically traverses locations and situations.

As will be introduced, the study’s analytic framework takes experience and practice to be differentiated but mutually constitutive. I propose that when applied in fieldwork and analysis it produces a significant degree of internal tension. This might suggest improvements to theoretical understanding of how experiences relates to the dynamic recreation, propagation or decline of practices (and vice versa). In particular, cycling in the city provides a case study of how personal technologies, large infrastructures and durable societal tendencies can order human activities without determining them. It also suggests how these orderings might be reconfigured from within and in-kind. Explained more empirically, London’s cycling supports an investigation into how relatively minor acquisitions of equipment, infrastructure, inspiration or expertise might reconfigure the stability, evolution and geography of larger or more extensive socio-technical systems.
At first glance, London does not seem to be a particularly hospitable place for cycling. Historically, the population's uptake of cycling has been relatively limited when compared with other parts of the UK (Pooley and Turnbull 2000; see also Parkin 2003; Parkin et al. 2008). Its main roads are the country's most intensely trafficked (TfL 2011a, p4). At 1,572km² in size, many cross-city journeys might be considered too far to cycle (Pucher et al. 2012, p320). However, measured since the year 2000, levels of cycling in London have increased dramatically1. This has occurred alongside significant change in cycling's local socio-economic characteristics: Nationwide, cycling correlates with lower income and higher deprivation, but in census tracts where cycling is commonplace it is correlated with higher income and lower deprivation (Goodman 2013). Alongside cycling's newfound popularity in London, the city's cyclists are now "typically white, male, between 25 to 44 years old, and on a higher than average income" (TfL 2010a, p28). However, cycling's growth is not occurring in isolation. The areas of London in which cycling is most common and fastest increasing are also those central and inner city areas which have been most intensely affected by contemporary inflows of capital, labour and redevelopment (compare for example Hamnett 2003; 2009a; TfL 2010a)2. It is difficult to examine the growth of cycling as a mode of transport without examining its relationships to systemic forms of land use and change in the city.

I argue that a study of cycling in London utilising practice theory might make a contribution to our knowledge of both. As previously stated, I suggest that a better understanding of this situation might be gained if cycling is fractured and displaced from the centre of the analytic framework. Framing the activities occurring in London's streets3 in the terms of urban practice, this treats London as an exemplary case of heterogeneity-in-proximity (Massey 2007). It understands the city's variety and multiplicity in situ as formed through interactions between systems and networks that act to order and traverse a variety of scales: a machinic complex (Thrift 1996 chapter seven; 1  The establishment of TfL in 2000 as the local transport authority with a particular aim to increase public and active transport modes, alongside the compiling of the 2001 census mean that this study's detailed statistical comparisons mainly occur within the 21st century. This is based upon the greater contemporary availability of data, rather than a suggestion that previous years are irrelevant to cycling's growth (see chapter three).

2 This empirical claim will be made more extensively during chapter three.

3 For the sake of brevity I include off-road cycle paths and other locations to which cyclists have access within the term "street", unless otherwise specified.
further informed by Grosz 1992; Latham and McCormack 2004). For individual cyclists to go about their daily business they must learn to weave a path through the city's conditions. Their taking up various iterations of practice acts to prefigure how these individuals find themselves interacting with others. It also orients those interactions as they occur. En mass, the alteration, divestment and proliferation of different practices might radically affect how the city operates.

To take a hypothetical example, when someone starts cycle-commuting they must learn how to interact and communicate with other road users by bike, how to plot a personally-acceptable route and arrive on time by bike, whilst gaining a sense of how different locations might be meaningfully understood and differentiated by bike. Cyclists are not the only people who must learn how to practically do such quotidian tasks, but incorporating a bike into the practice is likely to influence how it occurs and is experienced. Furthermore, the growing number of riders and the construction of new infrastructures to support them means that conditions are changing for cyclists and non-cyclists alike. Long-term riders may have to learn to jostle for space with other riders, not just cars. Employers may alter their plans to consider the logistical and timetabling requests of their bike-borne employees. Traffic calming infrastructures may encourage (certain ways of) cycling, but they might also create streets better suited to outdoor play, relaxation and to pausing at shops en route. Alternatively such changes to how people move through the city may be experienced as creating deserted and fear-inducing side-streets, without particularly improving the main roads for anyone.

Framing cycling experiences as something produced through urban practices resonates with the degree to which cycling is a common experience and pervasive activity far more than it is a central focus of most Londoners' lives. In the 2012 Mayoral elections only 6,633 people pledged their support for a campaign encouraging people to "vote bike"; to vote for the candidate promising the greatest improvements for cycling (Aldred 2013b, p196). An estimated 10,000 rode on the London Cycling Campaign's "Big Ride" to demonstrate their support for cycling as a mayoral priority (London Cycling Campaign 2012). Yet every day over 9,000 bikes cross London Bridge, whilst 10% of the city's over 7 million residents are estimated to cycle at least once a week (respectively London.gov.uk 2013; GLA Economics 2010, p35; TfL 2010a, p46). In response this case study supports an attempt to address critiques of a wide academic tendency which is particularly prevalent within practice theory: a tendency to over-represent the centrality, coherency or primacy of iconic social forms, movement-leading individuals or eponymous elements (Beckmann 2001; Shove 2012; Shove and Southerton 2000). For example, the activities and skills of professional
cycle-couriers, the various types of bicycle or forms of specialist equipment, and the meanings described by committed activists or those who feel that the term "cyclist" is an important part of their sense of self⁴. We still have relatively little understanding of how a more subsidiary interest in cycling influences what the greater number of riders actually do, and why they might start or stop cycling.

To pursue the overarching question in a way that makes a wider contribution to knowledge, the main research topic is framed as an investigation into how experiences of cycling in London affect how people take up, alter and divest themselves of different urban practices. Theoretically, using an analytic framework which differentiates between cycling experience and urban practice acts to foreground the process of their mutual (re)constitution. This addresses debates which suggest that practice theory's usage has become stilted and reifying; producing descriptions of how things are at a given point in time, rather than the processes or tendencies along which they are changing (Benson 2014; Hargreaves 2012; Shove and Pantzar 2007; M. Watson 2012). Creating a tension within the analytic framework militates against it being used in attempts to holistically describe an empirical field. Instead, and as will be evaluated, this formulation should emphasise the contingency of practices' reproduction, their open-ended recombination, and tendencies in their processes of change.

1.2 Reclaiming the Streets

As a contribution to geographical and social scientific knowledge, this study addresses a number of interlinked debates surrounding mobility, situated knowledge and the urban. Their nexus is an interest in practice theory as a means of understanding how socio-technological systems are changed through the acquisition, re-configuration or divestment of different elements. The study draws upon social practice theory and non-representational theory (respectively Shove et al 2012; Anderson and Harrison 2010). Both these strands of thought are practice theories utilised by geographers and developed from a common lineage including Bourdieu. Although non-representational theory is more widespread within contemporary geography it tends towards a somewhat different style of research when compared with study utilising social practice theory

⁴ For relevant examples of such cycling research, not necessarily using practice theory (e.g. Aldred 2013b; Cox 2008; Fincham 2008; Hoffmann 2011; Kidder 2011; Lovejoy and Handy 2012; Lugo 2013b).
(Hargreaves 2011; R. Hitchings 2012; Everts et al 2011; Thrift 1996; 2008). Reading the two in combination supports an attempt to address both disciplinary and interdisciplinary debates.

A number of broader interdisciplinary critiques of tendencies within social scientific thought mediate the core practice theory framework. The study is particularly informed by three areas of interdisciplinary debate, which I engage with in a geographical manner. Firstly, critiques of exhaustive, transparent, Cartesian knowledge. Responding to these critiques requires knowledge claims and descriptions of experiences to be situated in their constituent intersecting social, sensory and technological factors (cf. Pink 2008a; Rose 1993; 1997; Valentine 2007; 2008). Secondly, mobility studies’ critiques of embodiment and place-based (or place-inconsequential) social forms (cf. O. B. Jensen 2009; Massey 1991; 2005; Merriman 2012; Revill 2011; Sheller and Urry 2006; Spinney 2010c; Thrift 1996). This leads on to an exploration of cycling studies. It contributes a detailed literature on cycling to the study but also furthers debates on mobility and geography by drawing significantly on transport, historical and planning (sub-)disciplines, alongside a particular style of engagement with policy, campaigning and activist interests. Thirdly, understandings of the orderings, connections and affects produced through infrastructures, bodily competencies and forms of imagination are developed by looking at particularities associated with urban-situations (cf. Butcher 2011a; Degen et al. 2010; Grosz 1992; Koch and Latham 2012; Latham and McCormack 2004; Thrift 2004b; 2005). The literatures are themselves in dialogue with each other, and in combination they triangulate the practice theory’s application.

The growth of cycling in London demonstrates a number of key concerns in the wider academic literature, particularly forms of change, stability, transience and place. Cyclists are often stereotyped in the media and by certain politicians as being a well-defined group with tribal loyalties and values, often supposing their support for a “war” on motorists (e.g. Clarkson 2013; see academic reviews by Goodwin 2013, p42–45; Fincham 2007a). Given the small proportion of journeys which take place by bike, and their being concentrated in a small number of areas, this view might seem plausible. Nationally, around 2% of journeys take place by bike, rising to 2.7% of journeys in London, of which these are concentrated in the inner city and the centre (Goodwin 2013, p2; TfL 2010a, p28). Yet categorical divides between the users of different modes are more difficult to substantiate; nationwide, 85% of people are thought to have learned to ride a bike, cyclists are slightly more likely to own cars than the average person, and 41.6% of households in London have no car or van (Goodwin 2013, p5; Baker 2011; Office of National Statistics 2012,
Table KS404EW). However, this does not deny the importance that individuals and societies clearly do attach to different modes of transport (Harrington 2010; Urry 2004). Nor does it deny the blend of technocratic or habituated process interspersed with occasional outbursts of emotion and violence which has been said to characterise transport politics and urban infrastructures (Sheller 2004; Thrift 2005). I suggest that by studying cycling through the framework of urban practice, we might move around some of the impasses associated with these debates.

Investigating how cyclists live in the city is, I suggest, a means of understanding how different configurations of quotidian transport influence how people make sense of where they live. This responds to descriptions of the built urban form as a means of organising, prefiguring and reproducing human activity (Grosz 1992; Koch and Latham 2012). But the focus upon transport puts a new spin upon understandings of urban public space as a key and iconic place in which people might encounter or establish social difference (Valentine 2008; S. Watson 2009; Zukin 2010). These accounts have relatively rarely focused upon how traffic, and being a part of traffic, might create affinate senses of place and bonds of (dis)similarity (as critiqued by O. B. Jensen 2009; Katz 1999; Merriman 2004; Sheller and Urry 2000; Thrift 2004b). This is despite the fact that people’s lives are greatly affected by traffic. Residents of London tend to travel for 69 minutes a day (Goodman 2013, p7). Roads “account for 80 per cent of [London’s] public space” (Roads Task Force 2013, p8). In 2007 alone there were 28,000 people injured on London’s roads (Greater London Assembly 2009, p7). The qualitative and quantitative effects of these outcomes are inequitably distributed across different social demographics and modes of transport (Steinbach et al. 2010; Sustainable Development Commission 2011). As such, different experiences of transport, derived from and influencing different configurations of urban practice, would be expected to influence how people understand themselves, others and the city they co-exist within.

New academic study into connection and transience is occurring in tandem with widespread changes to the ways that cities are being built, ordered and lived in. Car use in the UK seems to be declining, whilst the usage of public and non-motorised modes is increasing (Goodman 2013; Goodwin et al. 2002). Numerous trends within city planning involve encouraging people to spend more time in the street, supported by innovative attempts to reconfigure transport networks,

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Non-London residents of England and Wales travel less, at 55-65 minutes a day (Goodman 2013, p7).
discourage car use, and re-invest in outdoor space (Clayden et al. 2006; Gallent and Wong 2009; Sheller 2011). But these changes are often justified by their benefits to real estate, commercially valuable demographics and public health, facilitated by securitisation, surveillance and exclusion, rather than any particular commitment to the urban outdoors as a place of equal access and encounter (MacLeod 2002; Minton 2009; Ward 2007; Zukin 2010).

It has been widely argued that changes in the political economy listed in the previous paragraph create an imperative to better understand how complex transport infrastructures influence and are influenced by the actions of people who move through or around them. However, I omit much of the more macroeconomic debate surrounding urban public space and redevelopment (cf. Hamnett 2003; MacLeod 2011; Slater 2009). Instead the study focuses concertedly upon attempting to understand how different forms of mobility-in-the-city support the re-production of different socio-technical forms, their configurations of transience or stability, and the processes through which people traverse different spaces and social relations. It contributes to debates questioning how inclusive, safe or emancipatory spaces might be designed, and how networks of interconnection might influence their creation.

In order to develop the preceding debates, this study proposes to focus upon three theoretical elements which cross between geographical debate, practice theory, mobility and the urban. These are emergence, encounter and cosmogony. More detail explaining the choice of these elements is provided in chapter two, but to provide initial definitions: Emergence describes a system which is “an ongoing outcome of the interaction between a myriad of small-scale self-organising processes that are not determined by a central controlling or decision-making unit” (Latham and McCormack 2004, p707). Encounters are social interactions between people, understood without the assumption that social forms are epitomised by ongoing, face-to-face, discussions between propinquitous members of a group (Büscher et al. 2010a, p5; Valentine 2008). The term theoretically attempts to avoid pre-defining any particular sort of interaction as the essence of social activity from which others are deviations from or measured against. As such, it supports a more open consideration of human activity. Cosmogony theorises that narrative meanings are mutually constituted through technologically-augmented bodily orientations towards the physical environment (Bourdieu 1977, p115). Also termed a “generative schema” (ibid, p96) this entails that meaning is always emplaced within a partially explicit and partially implicit complex of skills, capacities and infrastructures.
The three theoretical keystones are grounded in empirical investigation of three urban practices, as experienced through cycling. These are civility, navigation and placemaking. The practices were selected via an iterative process whereby they respond to the theoretical debate whilst being recognisable terms and descriptions in the study participants' accounts. This is not intended as a vocabulary-based verisimilitude, but as a form of grounding which militates against tendencies towards making universalising conclusions and over-abstract theorisations (cf. Laurier 2001; Latham 2003a; Rose 1997). Under civility I investigate how participants enacted forms of politeness, and how these could become a means of contesting their treatment by other road users. It explores how riders expressed and produced practical forms of ordering and understanding in traffic. Through navigation I examine how the ways that people imagined their city were related to their practical experiences of wayfinding and logistical management. This explores how their capacity to understand the city as systematised configurations of opportunity and constraint related to their various experiences of moving around it. In placemaking I investigate how people come to feel a sense of place, focusing upon how they practically learn to incorporate different flows of movement through the streets within systems of meaning. For example, how different flows of traffic, and individual cyclists' positions relative to those flows, might reshape the meanings generated in a place (and vice versa). In turn, this questions how places acquire a somewhat durable sense of character at scales beyond the individual user's experience or presence, and how that character might be altered by such transient, recurrent uses.

Applying the key theoretical terms and empirical practices allows the relevancy of London as a fieldsite to be refined. As previously stated, the analytic framework of urban practice and cycling experience is designed to support an investigation into how cycling is produced through a variety of multi-scalar processes which traverse individual sites. A number of specificities within London's traffic conditions particularly support this enquiry. Geographically, the area with the largest concentration of residents-who-cycle is Hackney, in east London. However the highest on-road flows of cyclists (and the most dangerous locations) are found in south London on the main roads approaching the River Thames, especially during peak commuter traffic. Central London has particular dominance as a focus for employment, the remaining employment is concentrated in suburban sub-centres, and their hinterlands are cross-cut by an extensive public transport network (GLA Economics 2010).
London's geography makes for pronounced contrasts in the intensity of traffic on different parts of the road network; the main roads are particularly busy for a British city, but they are surrounded by a relative warren of quieter backstreets which have been built and rebuilt over time (TfL 2011a). A variety of locations are being retrofitted in minor ways to incorporate contemporary innovations in transport management and urban planning. In total, travellers in London are often able to reach their destination via a variety of modes, with different routes taking them through a variety of conditions.

Looking at the influence of mobility in the (re)creation of difference, researchers have called for further investigation into how the inequitable uptake of different transport modes relates to wider systemic inequalities of access to transport, the different logistical requirements of peoples' lives, and their experiences of emancipation or constraint in transit (Cox 2010; Hoffmann and Lugo 2014; McDowell 1999; Rose 1993; Sheller 2011; Shove and Southerton 2000; Sustainable Development Commission 2011). Interpreted via urban practice, cycling is produced through a variety of different configurations of practice. These utilise the transport network's connectivity in different ways, bringing different congregations of people together as they do so. But the existence of a statistically typical cyclist implies that some configurations are more pervasive or recurring than others.

I propose to refine our understanding of how the power incumbent in systems of practice might be confronted, circumvented, disrupted or supported in kind by utilising qualitative methods that evoke how practices are experienced. In relation to emergence, it asks how forms and trajectories of ongoing self-organisation might be altered by the actions of practitioners, who experience and are positioned inside the systems of practice they hope to alter. With respect to encounter, it questions how quotidian experiences of cycling in the city might (re)produce forms of interaction, bond or differentiation that are based upon practices that traverse multiple sites and people. It asks how these bring them into systemic relationships that cut across and reconfigure more sedentary, propinquitous and non-technological understandings of social form, often set against understandings of technology as monolithic and repressive. Addressing cosmogony, it questions how attempts to alter a practice through its enaction could be improved by a better understanding of how practice is experienced, and how this experience is related to the skills, equipments and infrastructures involved in creating their meaning. As such, it particularly asks how minor changes to such a generative schema might more radically alter experience (or vice versa), and how this
responds to critiques of the alleged conservative mechanisms entailed by Bourdieu's practice theory.

In overview, by investigating the creation of city cyclists this study addresses debates in geography surrounding the relationships between practice and experience. It proposes to investigate cycling in London because the mode of transport involves the rider having a relatively exposed and self-aware experience of their passage, whilst the city provides a situation in which people must learn and become accustomed to different ways of traversing socio-technical heterogeneity. However, to investigate the growth of cycling it suggests an analytic framework based upon the dynamic mutual constitution of cycling experiences and urban practices. This hypothesises that decentring cycling from being the sole term defining the focus of the research may have analytic benefits. Doing so might better acknowledge those constituent elements which produce the mode of transport but are less associated with cycling's iconic or eponymous forms. It aims to produce a more situated, open-ended account of what I term urban practice. As situated, this acknowledges that the study is of a city, articulating a theoretical framing of cities as infrastructural and social systems which act to contingently order human activity and experience. But it does not imply that the practices investigated are holistically encapsulated as only urban. Such a nexus also facilitates the investigation of mobility within practice, particularly the considerations of how practices and practitioners traverse and avoid sites as they exist in the city. Therefore, cycling in London can be analysed as a case study through which the socio-technical heterogeneity and multiplicity of practice and experience might be investigated. The analytic framework's application to the fieldsite involves a focus upon the theoretical elements of emergence, encounter and cosmogony, as manifest within practices of civility, navigation and placemaking. To direct the primary fieldwork, the following topic and questions are proposed:

1.3 Research Topic

In order to understand why people start, and sometimes stop, cycling in London, this study proposes the following primary research topic:

"How do experiences of cycling in London affect how people take up, alter and divest themselves of different urban practices?"
The framing is explained with respect to practice theory and interdisciplinary debates surrounding situated knowledge, mobility and the urban in chapter two. It is empirically grounded in the specificities of cycling in London during chapter three. Chapter four introduces the methods used, reflects upon the implications of their being applied via practice theory, and discusses the researcher's positionality during the fieldwork.

The research topic is investigated via three individual research questions. These are addressed in separate empirical chapters, respectively chapters five to seven:

Q1: How are cycling-journeys experienced in London?
   This primarily investigates practices of civility, via ride-along and video-elicitation methods.

Q2: How do people alter their urban practices via their experiences of cycling the city?
   This primarily investigates practices of navigation, using diary-interview methods.

Q3: How does cycling influence the practical re-making of urban place?
   This primarily investigates practices of placemaking, through focus group methods.

Finally, chapter eight reflects upon the wider theoretical, disciplinary and empirical implications of the findings.

The remainder of this chapter provides a more detailed outline of the study.

1.4 Thesis Overview

Chapter two explores current debates within practice theory and develops these into specific questions for primary research, as triangulated via a number of contemporary social scientific concerns. It traces the development of practice theory and Bourdieu's influence within geography (Cresswell 2002; Massey 2005; Thrift 1996; 2008). This leads to a focus upon social practice theory as associated with Shove and a number of associated geographers, as compared with alternative geographical approaches (Anderson and Harrison 2010; Everts et al 2011; Hargreaves 2011; R. Hitchings 2012; Latham 2003a). This introduces practice as "the active integration of materials, meanings and forms of competence" (Shove and Pantzar 2005, p45).
Critiques are presented of the tendency for practice theorists to focus upon the social aspects and stable entities of practice, at the expense of technological aspects and processes of change or reproduction (reading Bourdieu 1977; particularly alongside Anderson and Harrison 2010; Benson 2014; Shove and Pantzar 2005; 2007; Thrift 2008). This introduces the concept of cosmogony. The chapter then critiques and suggests how to avoid attempting universalising, exhaustive accounts of practice and experience, developing the implications for understandings of the (re)production or disruption of power (Rose 1993; 1997; Valentine 2007).

The following section reviews recent research developing situated accounts of mobility and place, introducing the concept of encounter (Büscher et al 2010a; Cresswell 2004; 2006; Latham and McCormack 2004; Massey 1991; 2005; Rose et al 2010; Sheller and Urry 2006; Valentine 2008). The field of cycling studies is then introduced, particularly its attempts to move beyond the tendency for cyclists to be understood as either alike, or as belonging to holistic, parallel social "tribes", categories or sub-cultures. Cycling is framed as a mode of transport which involves the rider having quite self-consciously self-manipulative bodily and sensorial engagements with their immediate surroundings. This produces a technological means of logistically re-ordering and creating new bodily understandings of situations; mutually constituting numerous still-different but less bounded or essentialising social forms (Aldred 2012; Cox 2008; Horton et al. 2007; Furness 2010; Spinney 2007; 2010c). The review then moves to study urban life and the concept of emergence, examining the varied claims, hopes and fears which different authors have voiced as to the city’s ability to systematically (re)produce or mitigate violence, oppression and emancipation (Koch and Latham 2013; Spinney 2010b; Thrift 2004a; 2005). The result of this nexus is the suggestion that an innovative contribution to knowledge might be made by studying the mutually constitutive relationships between peoples' experiences of cycling and their take up, alteration and divestment of different urban practices. The chapter ends by explaining the iterative process used to choose civility, navigation and placemaking as practices of interest, and the proposed analytic technique of backlighting.

Chapter three situates the analytic framework in a review of contemporary London and its cycling. It develops the theoretical topics by applying them to a collated précis of the relevant secondary data. This process constructs a body of empirical knowledge which develops the research questions. It follows Bourdieu’s explanation of practice theory as a means of interpreting how first-hand experiences are related to the durable reproduction of regularities at scales beyond the
individual practitioner, and in forms which those practitioners do not fully or self-consciously understand. As such it highlights the importance of somewhat-calibrated systemic interactions between collections of people. Practice theory emphasises that individual experiences and acts should be analysed with a consideration of how practitioners’ and researchers’ understandings are always partial and situated in their systemic context.

The chapter firstly overviews contemporary trends within cycling's demographics and explores how these might relate to different forms of ordering. It explains that cycling-journeys are growing in number far faster than new cyclists are being recruited, whilst many riders are thought to be stopping cycling. This indicates that cycling in London is changing as well as becoming more popular, which suggests that it might be used to investigate cohort change and the recombination of exogenous components of practice, rather than only endogenous innovation by ongoing, propinquitous groups (Sheller 2012; Shove 2012; Shove and Pantzar 2007; Spinney 2010c). It historically contextualises the heterogeneity of contemporary cycling, whilst highlighting the importance of key contemporary demographics, journey types and their spatial heterogeneity: Cycling is a minority mode in a city which is (for the UK) particularly large, contains some particularly busy streets, and has been redeveloped in piecemeal over multiple centuries. As such, it is explained how heterogeneities within the city's residential and employment socio-economic geography relates to a transport situation in which the automobile is not an overwhelmingly dominant mode of transport. Thirdly, the chapter suggests how the growth of cycling relates to more expansive understandings of “liveable cities” and their particular recombination of trends within sustainable transport infrastructure, transport management and urban design (Sheller 2011; related to Koch and Latham 2013; Thrift 2005; Valentine 2008). The chapter concludes by directly linking this overarching situation to specificities of civility, navigation and placemaking.

Chapter four reviews the methods used. It reflects upon contemporary debates in mobile methods, along with the implications of incorporating a practice theory framework and the fieldsite. It suggests how mobility might be studied without necessarily requiring in-transit data collection, instead utilising tools which support participants' to articulate the knowledges and narrative

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6 Exogenous refers to change caused by influences previously outside a system. Endogenous refers to change generated from within the system.
resources they have developed in practice (Fincham et al. 2010b; Laurier 2001; Latham and McCormack 2009; Merriman 2014b; Rose 2014). This specifies and evaluates various techniques for conducting extended conversations that incorporate visual materials. They are proposed as a means for better understanding the generative schemas through which the participants' practical knowledge is constituted. These prompts evoked a sense of the emergent machinic complex and its constituent encounters in which the practices being discussed were situated.

Specifying the fieldsite, chapter four explains how 20 individuals who frequently cycled in the Borough of Southwark during the summer of 2011 were recruited. Four stages of data production were subsequently held at three month intervals. This evaluates how far the retention of participants fostered a useful ability to compare participants' responses across methods and over time. It also reflects upon how the positionality of the participants vis-a-vis the personalised methods and the researcher influenced the data.

The first 3-monthly meeting utilised the “ride-along with video-elicitation” method (Brown and Spinney 2010; developing Kusenbach 2003). This investigated how cycling-journeys are experienced by individuals who cycle, predominantly addressing question one. Here, a researcher followed each cyclist on a journey whilst wearing a so-called “Point-of-View” (POV) camera. The video was then utilised in personalised interviews discussing the experience, particularly focusing on practices of civility. Utilising this method required a reflexive consideration of how a rider's sensorially immediate movement is experienced, the potential for this experience to be conveyed through in-situ conversation or shared experiences in traffic, to be discussed afterwards when assisted by audio-visual technology, and to be presented in a printed format.

Secondly, participants completed qualitative travel diaries every three months, and after their second and fourth entries took part in personalised “diary-interviews” (Haldrup 2010; Latham 2003a; 2004). These primarily addressed question two by investigating how participants' practices of navigation organised their timetable and location, along with the routes and recurrences of their movement through the city. A key aspect of the interviews involved the participants being unexpectedly presented with a map showing a summary of their diarised journeys. As such it reflexively discusses how participants' different reactions to the maps were influenced by their skill and familiarity with map reading, and in the context of cycling. This produced data on the mutually
constitutive influences of their social position, their logistical considerations, exposure or access to relevant technology, and their ways of conceptualising the unfolding situation.

Thirdly, focusing upon question three, most participants attended one of three focus groups in which they did not previously know the other attendees (Morgan 1997; Hopkins 2007). These groups allowed the participants to discuss the similarities and differences in their understandings of how a place is made, along with how this relates to and influences cycling. Responding to a POV video of a journey through inner London, the group explored a number of different locations containing actual or proposed infrastructural alterations that might be expected or intended to support cycling according to the precepts of liveability. With analysis informed by data from the previous and subsequent stages, this developed an understanding of what the participants anticipated the effects of the pictured changes to be. This included the (un)acceptability of such occurrences, and how their responses seemed to be influenced by their different experiences of living in the city as a cyclist. The chapter ends by explaining and self-critiquing the analytic procedure, its iterative relationship with the fieldwork and its treatment of the visual materials involved with the fieldwork.

In chapter five we visit London's streets and cycle paths to discover how a selection of cycling-journeys were experienced in London, focusing upon practices of civility. It examines how cyclists' expectations for how traffic would emergently flow, organise itself and react to their presence were influenced by their understandings of quotidian (im)polite behaviour in-transit. In other words, how their understandings of urban civility, analysed as generative schemas, were mediated and specified by their on-bike expression. In turn, this includes evaluating how participants practically contested their treatment during these mainly side-on and transient emergent encounters. This particularly explores how the participants' different understandings of civility did not entirely stem from the absolute level of importance they placed upon being civil. Rather, their movements seemed to be influenced by expectations of how other travellers by various modes would sensorially and socially react to their presence. These experiences suggested different ways of civilly engaging with situations to achieve safe passage. Particularly developing the example of gender, it suggests that a better understanding of how peoples' bodily senses are influenced by their social position, and re-configured through their mode of transport might explain why different configurations of civility become disseminated through the city.
Chapter six focuses upon the bicycle as a tool through which people can organise their quotidian timetable, location and movement in the city. It questions how different, more-or-less routinised experiences of doing so might influence how people perceive forms of potential ordering or systematisation in the city’s heterogeneity. Empirically this investigates how people learned and forgot how to practically navigate the city by bike, and the trajectories along which their practices developed. It aims to gain a sense of how their experiences of cycling were prefigured by both their experiences of using other modes of transport and what they defined as their primary logistical considerations. I examine how peoples’ spatial understandings of their city might be understood as a generative schema, built through practical experiences of finding different ways and times to encounter city life, including a consideration of how these self-organised routines changed over time. The analysis focuses upon how participants’ practices of navigation-by-bike were influenced by the logistical situations in which they tried to use a bicycle, and how they incorporated a variety of meanings, skills and equipments that drew upon other modes of transport. This develops an understanding of how velomobilised practices of navigation might not necessarily be considered the varyingly expert or intense performance of an iconic cycling practice, but as a complex of translations, ad hoc repairs and flippant minor changes. Together these processes might radically change how people understand and inhabit the city.

Chapter seven investigates how infrastructures built to encourage cycling might reorder how those sites practically produce, or are incorporated into, a sense of place. As such it defines placemaking as the often contested process by which a location acquires an (often durable) sense of character through the active combination of its material form and the activities of those resident or passing through. Building upon the quite quotidian notion that peoples' actions are influenced by their sense of place, the specific term "placemaking" is routinely used by urban planning professionals and campaign groups in the context of attempts to influence a site's sense of place. It empirically questions how the meanings a cyclist associates with different street layouts might be influenced by their experiences of cycling, and the dynamics, pauses or flows of movement they expect from different locations in the city. This addresses their considerations via the more quotidian framing of people who live in the city (and sometimes ride bikes), rather than reified as "cyclists". In turn, placemaking questions how a sense of place becomes durable at scales beyond the individual user's experience or presence.
The participants were asked to respond to a video-journey through sites which had been retrofitted with minor infrastructures that more radically manipulate mobility, designed to encourage non-motorised outdoor activities in the absence of securitisation. This strategy is part of a wider urban design trend known as “liveability”. The study particularly investigates how and whether such places might emergently self-perpetuate a sense of being inviting to heterogeneous peoples and uses, particularly making areas that would be understood as safe or inviting to cycle through. It examines how places might be experienced very differently by riders with different skills or expertise, travelling for different purposes and making journeys of different lengths. As such, it explores how practices of placemaking generated schematic understandings of locality, normative behaviour, and practical, spatial mechanisms of conflict resolution.

Chapter eight evaluates how this study of cycling in London makes a contribution to knowledge, particularly the discipline of geography. It firstly evaluates the study’s contribution to knowledge on social practice theory, along with cosmogony, encounter and emergence. It then develops at length the implications for geographical thought on place. Finally, it considers the implications for cycling studies, and reflects on how the style and organisation of this sub-field might inform geographical praxis. Finally, it considers how the study’s implications suggest topics for future academic enquiry.
Chapter Two: Practice Theory via Urban Cycling

"As someone who cycles nearly every day I can attest the fact that it is one of the best ways to get around London. The saddle is the ideal place from which to savour London's iconic architecture, myriad backstreet routes, and extensive parks."

(Mayor Boris Johnson, in TfL 2009, p1)

The following chapter introduces current debates within practice theory and suggests how they might be developed through primary research on cycling in a city. It introduces practice theory and related geographical debates, suggesting that societies, technologies, embodiments and experiences are mutually constitutive and performative. The study particularly draws upon the intellectual project of "social practice theory" associated with the environmental sociologist Elisabeth Shove (et al 2012). This draws on Warde (2005) and Reckwitz (2002) to develop work pioneered by Bourdieu (1977) and Giddens (1984). Via Bourdieu it shares a common lineage and retains many commonalities with other forms of practice theory. Comparisons with non-representational theory are particularly explored7. A particular focus of the project associated with Shove has been to investigate how practices incorporate technology and how existing practices or elements of practice might be displaced, reconfigured and replaced with more desirable alternatives (Shove 2012; Shove and Pantzar 2005; 2007).

Amongst geographers, social practice theory is particularly associated with studies of sustainability (M. Watson 2012). It has a wider and integral relevance to disciplinary debates than might be first thought, however, because Bourdieu's influence upon geographical thought is under-recognised (Cresswell 2002; de Certeau 1984; Lorimer 2005; Massey 2005; Thrift 1996). Social practice theory particularly assists in theorising the creation, persistence and reformation of various socio-technical

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7 As Reckwitz highlights, "practice" already implies the social, which means that, strictly speaking, the "social" in "social practice theory" is redundant. The pleonasm exists to mark out a specific academic usage of the word "practice" (2002, p260). Similarly, social practice theory is a non-representational theory, but not the "non-representational theory" associated with a "specific movement within predominantly British Social and Cultural Human Geography" (Anderson and Harrison 2010, p2).
and spatial forms, without prioritising either individual or extra-institutional tactics of resistance from the margins or their binary opposite.

The chapter firstly reviews the influence of Bourdieu and practice theory within geographical thought. This suggests the study's first opportunity to contribute to the literature; an improved understanding of how embodiment and habituation are generative of meaning, drawing upon Bourdieu's concept of "generative schema" (1977, p96) or "cosmogony" (ibid, p155). It secondly explains how contemporary social practice theory develops this understanding, and compares it to alternative contemporary "styles\(^8\) of practice theory in geography and their political or theoretical implications. This particularly compares the influence of research into sustainability, norms and socio-technical change over time seen in social practice theory against alternative geographical interests in resistance, transgression and the ineffable (Anderson and Harrison 2010; Barnett 2008; Thrift 2008). Thirdly, in section 2.4, social practice theory is read via key post-structural, non-universalising understandings of society and academic knowledge, to highlight and critique analogous tendencies or absences. (Massey 2005; Rose 1993; 1997; Valentine 2007). This develops a sensitivity to reconfiguration and multiplicity, but also to affect and its relationship to the built environment.

Section 2.5 moves to develop an understanding of place and social form as influenced by geographical debate on mobility, challenging a "metaphysics of presence" and "sedentarism" in social scientific thought. The resultant problematisation of "encounter" is proposed as the second area in which a contribution to the literature might be made (Büscher et al 2010a; Sheller and Urry 2006). Focusing upon geographical thought, it reviews how understandings of authentic place became critiqued for being essentialist and often reactionary. This led to proposals for a focus on contingent flows and relations, a progressive politics of throwntogetherness and their co-production through machinic complexes (Cresswell 2004; 2008; Massey 1991; 2005; McDowell 1999; Thrift 1996; 2008). Fifthly, cycling is introduced as a growing area of academic research (Furness 2010; Horton et al 2007). It is explained how the heterogeneity of cycling, its being a technologically-

\(^8\) This uses style to mean an aspect of performance which can "exact palpable pressures and set effective limits on experience and action" before they are fully manifest, defined or understood (Williams 1977, p132 in; Thrift 2008, p255).
mounted form of bodily movement, and the particular style of cycling studies might be drawn upon to further the aforementioned debates (Spinney 2010c; 2010b).

The sixth section develops the previous theoretical problematics of mobility, machinic complexes and trajectories of change through a third proposed area of contribution to the literature: emergence (Furlong 2011; Shove and Walker 2007). It introduces framings of the urban as a means and outcome of transient, contingent forms of ordering (Grosz 1992; Latham and McCormack 2004). This explores the relationships between quotidian pro- and anti-social behaviour, transport infrastructures and inequality (Koch and Latham 2013; Thrift 2005; Valentine 2008). It looks to cycling as a mode of transport which allows riders to recombine existing elements of practice in new systems of relations, and whose piecemeal infrastructures have altered cities by reconfiguring their flows rather than by comprehensively altering their built environments. Together this reviews the literature underpinning the study and identifies opportunities for a contribution to knowledge.

2.2 Practice Theory and Geography

The opening section explores how current developments within social practice theory relate to contemporary debates within geography and other strands of practice theory. In this, Bourdieu's under-acknowledged influence within geographical thought is used as a unifying thread (Cresswell 2002; Thrift 1996; 2008).

Merriman has written that: “If there is a foundational and ontological proposition on which many contemporary Anglophone human geographers appear to agree, it is that we should seek to study how social and cultural phenomena unfold in both space and time, with the processual enactments of events co-producing multiple, open space-times or time-spaces.” (2012, p13). Furthermore, it has been suggested that place may well be an “experiential fact of our existence”, a “necessary social construct”, and as such a particularly important phenomena to understand (Cresswell 2004, p32). Such debates have been increasingly complicated by questions as to whether the human is encapsulated by the fleshy body or created through dynamic relationships that cannot be so confined (ibid). But as a starting point for its investigation, space can be understood as more than a passive physical stage to act upon: “We develop ways of incorporating a spatiality into our ways of being in the world... Produced through and embedded in practices, from quotidian negotiations to
global strategising, these implicit engagements of space feed back into and sustain wider understandings of the world.” (Massey 2005, p8). As such, a contribution to geographical debate can be made by investigating how space is an active element within practice and how it is understood by practitioners. The following chapter narrows this down to a manageable theoretical field and a set of applied research questions.

Amongst human geographers a key intellectual movement over the last 20 years has been the questioning of representational ontologies and epistemologies, accompanied by the growing importance of non-representational theories. Anderson and Harrison explain representational theories as characterised by “social constructivism”, which: “looks to how the symbolic orders of the social (or the cultural) realise themselves in the distribution of meaning and value, and thereby reinforce, legitimate and facilitate unequal distributions of goods, opportunities and power... The collective symbolic order is that by which its members make sense of the world, within which they organise their experience and justify their actions.” (2010, p4). There has been significant debate as to how far the power and importance of such symbolic orders should be downplayed, and which representational theories are being rejected or worked with (Lorimer 2005; 2007; 2008). Under a “radically constructivist” position, for example, symbolic orderings might be understood as mutually constituted by materials and skilled bodily performances rather than inscribed upon and determining them (ibid, p10). By contrast, accounts in which symbolic orders seem epiphenomenal or border upon being determined by material environments and biology have been called “anti-representational” (ibid, p19).

Returning to space and time, but given the context of debates over representation and non-representation, how people understand space shapes how they manipulate and apprehend their surroundings. That is; how their understandings differentiate active or passive elements and (dis)continuities in space and time. However, spatial understandings are often highly naturalised and habituated, acting as an “unthought cosmology” with socio-political implications (Massey 2005, p4). Non-representational theories have argued that such cosmologies are related to peoples’ experiences of travelling across, manipulating and being manipulated by elements which are material and symbolic. “[B]asic terms and objects are forged in a manifold of actions and interactions” (Thrift 1996, p6).
In the context of non-representational theories and practice theory, it has been argued that Bourdieu comprises a significant but under-recognised influence upon geography. Therefore, although the thesis mainly utilises contemporary social practice theory and non-representational theory, reviewing Bourdieu's geographical lineage best demonstrates how the two are related. This positions Bourdieu as an already existing influence within geographical debate, rather than an external anthropologist-sociologist to be imported. As such, social practice theory can be utilised to approach geographical debate through an alternative style, rather than from altogether different premises.

Overall, a key aim of Bourdieu's project was to suggest how systems of practice become reproduced and altered without recourse to some determining external influence, natural law, or exhaustive set of social rules (1977). This articulates a theorisation of power which is in-kind and non-teleological. However, "it is Bourdieu's theorisations of the body and its relation to 'society' that are most influential in contemporary human geography" (Cresswell 2002, p380). In particular, that "the body might be theorised as a memory which is not easily obliterated by conscious thought or action," (McDowell 1999, p41). This influence is arguably under-recognised because: "Bourdieu, unlike Foucault, did not leave us with a body of work in which geographical space was central... [As such,] interpretation of Bourdieu's work in geography has not been so instrumental and limited to a few texts" (Cresswell 2002, p380).

Thrift in particular has emphasised the influence of Bourdieu's work on the development of non-representational theory. Building upon "Heidegger, Wittgenstein and Merleau-Ponty", Bourdieu's work prompts and supports attempts at "social, historical and geographical specificity" (Thrift 1996, p14). Furthermore, Cresswell has claimed that Bourdieu is central to his theorising on "transgression... attempts to escape the agency/structure binary [and] everyday life." (2002, p379). Overall, re-reading Bourdieu contextualises a number of the differences and indirect debates between non-representational theory and social practice theory, bringing together the different ways of thinking about habitation, learning and change.

Practice, as defined by Bourdieu, is a means of explaining why people so often interact as if by the "result of an organising action" when none directly exists (1977, p214, also p15-17). Much following theoretical work then focused on developing "habitus"; specific sets of conditions which practitioners become accustomed and calibrated to performing within. Habitus suggests how
improvisations can, and so often do, systemically reproduce relatively stable social forms. It understands that people recognise and are motivated to take up or avoid opportunities through their practical knowledges. These are recursively constituted through systemic regularities which tend towards their own reproduction, and therefore the durable reproduction of the wider systems of which they are a constituent part (ibid, p78).

Although Bourdieu did not extensively theorise space, his early work explicitly describes practical knowledge as involving elements of spatial orientation through meaningful, embodied, active relationships between bodies, technologies and the built or natural environment. Rather than being intentional re-enactments of narrative rites, such practical embodied orientations and knowledges can be understood as a “generative schema” or “cosmogony” (Bourdieu 1977, p96, p155). Taking the example of a weaver, their loom is “intended to serve a technical function. It so happens that, given the symbolic equipment available to her for thinking her own activity - and in particular her language, which constantly refers back to the logic of ploughing - she can only think what she is doing in [a form academically-interpreted as mystical] ” (ibid, p115). Meaning is not re-enacted through embodied practice, but generated through it and altered by the materials involved. Bourdieu applies the same analysis to aspects such as bodily positions within and orientations towards the internal layout of houses, or the outdoors.

For Bourdieu, practice entails mutually constitutive forms of embodiment and understanding, rather than the primacy of representation. But this also emphasises learning, repetition-over-time and bodily “memory”, along with practices’ constitution of and through durable social systems (ibid, p87). This explicitly understands practice to be more-than-representational, not non-representational (cf. R. Hitchings 2012). In this vein, cosmogony will be returned to as a means of contributing to geographical theory. However, it is first necessary to further contextualise Bourdieu’s understanding of how individual bodies relate to places and groups of people.

A given habitus is understood as recursively “inculcated” in one individual by “the aggregate of the individuals endowed with the same dispositions” (ibid, p15). Dispositions are then defined as a “way of being, a habitual state (especially of the body) and, in particular, a predisposition, tendency, propensity or inclination.” (1977, p214 emphasis in original). Both are acquired as people become accustomed to the situations they find themselves within and the practices they learn to enact, whilst becoming so inculcated changes their reflexive and tacit capacity to act. Practice is
thus the combination of habitus and disposition; meaningful bodily enation leading to the practitioner developing expertise in which the mental, physical and social are indivisible.

As an example of habitus, Kidder (2011) describes how experienced cycle-couriers develop increasingly skilled abilities to anticipate traffic movements and control a bicycle. However, this does not solely increase their capacity to self-consciously evaluate these situations. They also learn dispositions resulting in quasi-automatic and qualitatively different responses. For example, an experienced courier might recognise that a car has started turning across them and start moving aside without reflection or planning. Manoeuvring through habit and tacit expertise, they might concentrate on thinking of an appropriate insult. Becoming inculcated by a specific habitus, they acquire related dispositions and perform all manner of practices. At the same time, their doing so relies upon the (re)actions of road-users being systemically predictable-enough for such actions to be contingent whilst still pragmatically replicated.

A greater recognition of the co-development between Bourdieu and geographical thought means that contemporary social practice theory might be better incorporated into contemporary geographical debate. As such, "It is too rarely noted that de Certeau wrote critically on Bourdieu, and the terms of his critique were explicitly spatial... De Certeau praised Bourdieu's ethnological work on the everyday tactical problems of the Kabyle and the Béarnais but he was unable to find the same kind of subtlety in Bourdieu's work closer to home on the French educational system" (Thrift 1996, p15). The 1977 piece by Bourdieu which is heavily drawn upon in this study comes from analysing the Kabyle, forming the core text on practice that precedes his later work on distinction (1984). Bourdieu's later work becomes much more focused upon forms of cultural capital, which has been critiqued for essentially "saying that 'everything people say or do is aimed at measuring their social profit'". However, with regards to developing practice theory "this side of Bourdieu's work can be dispensed with without causing undue harm to concepts like habitus" (Thrift 1996, p47-8).

Of key importance to the wider development of non-representational theories, habitus is contingent rather than pre-determined: "Unlike Merleau-Ponty... Bourdieu does not dislocate the movements of the body in the game from the social, which is always implicated in producing the limits to the game (just as the social is produced by the adherence of the players to the rules and strategies)." (Cresswell 2002, p381). As such, habitus "effectively historicises and politicises phenomenological
accounts of the "background" (Anderson and Harrison 2010, p10). However, de Certeau’s critique was that Bourdieu needed external referents to create the “coherence, stability, unconsciousness, territoriality” required of habitus (de Certeau 1984, p58 in; Thrift 1996, p16). Habitus is, like “many twentieth-century debates in philosophy and social theory”, premised upon “the idea that spatial framing is a way of containing the temporal... [to] analyse its structure [in] cross-section.” (Massey 2005, p36). Although habitus allows innovation and contingency, this has been critiqued via poststructuralism as “synchronic closure... interlocked relations between the constituent elements, but in a closed, completely interlocked way. There is no openness or happenstance to be political with.” (ibid, p39). The openness to indeterminacy and innovation in individual interactions is negated by the overall theoretical premise that habitus is systematically self-preserving.

The result of habitus is descriptions of specified habituses that are de facto essentialising because of their prerequisite bounded understandings of location, socio-economic and/or identity-based categories. For example, studies examining how “middle-class households negotiate their position [to] present their ‘fit’ to the neighbourhood” (as critiqued by Benson 2014, p2; also see urban sociological and geographical examples in Benson and Jackson 2013; Bridge 2006; T. Butler 2002; T. Butler and Lees 2006). The implications are that: “If your habitus does not match up to the available local [situation9], then one option – given access to the right resources – is to move.” (Benson 2014, p5). Habitus is also therefore arguably theoretically predisposed to explaining situations (as) dominated by stasis rather than change (ibid, also Shove et al 2012).

De Certeau’s response to the bounded, interlocking holism of habitus was the theorisation of strategies and tactics: “A strategy is defined as relating to an already-constructed place, static, given a structure. Tactics are the practices of daily life which engage with that structure.” (Massey 2005, p45). “[A] tactic insinuates into the other’s place, fragmentarily, without taking it over in its entirety, without being able to keep it at a distance’ (de Certeau, 1984, pxix in Thrift 1996, p58). However, this binary is problematic, even in its own terms. Strategies and tactics create “a conception of power in society as a monolithic order on the one hand and the tactics of the weak on the other. Not only does this both overestimate the coherence of ‘the powerful’ and the

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9 Benson’s piece studies the interplay of habitus and field, which for reasons of brevity I have omitted. This remains an avenue for further research.
seamlessness with which ‘order’ is produced, it also reduces (whilst trying to do the opposite) the potential power of ‘the weak’ and obscures the implication of ‘the weak’ in ‘power’.” (Massey 2005, p45). Its spatial imagination entails that “the everyday”, change and resistance occur in “the street” and “the margins” (ibid, p47). “At its worst it can resolve into the least politically convincing of situationist capers – getting laddish thrills (one presumes) from rushing about down dark passages, dreaming of labyrinths and so forth.” (ibid, p47). So although strategies and tactics do highlight a problem in habitus, their own use of a spatial framing to contain the temporal is still problematic. In contrast, habitus retains the differentiated complicity of all those involved in systemic processes, and the everyday innovations required to create and maintain power blocs.

A second poststructuralist critique of habitus is the suggestion that its understanding of synchronic closure, of durability despite-and-through contingent-improvisation, requires analyses to be “constantly supplemented by determinate structural logics at the expense of the ‘slight surprise of action’ (Anderson and Harrison 2010, p10, citing; J. Butler 1997). Rather than intentional tactics of resistance, this critique highlights that “what is bodily in speech resists and confounds the very norms by which it is regulated” (J. Butler 1997, p142 in Thrift 2007, p30). As such, action always goes beyond established “conventions” (ibid). “It is only with effort that any such ‘slight surprise’ of action can be turned back into a reproduction of an existing order” (Anderson and Harrison 2010, p20-21). Recognising that durability in practice is ultimately accomplished through the systemic reproduction of micro-social efforts to (self-)regulate each performance, much thought in geography has moved to studies drawing on Goffman and Garfinkel’s ethnomethodology (Thrift 1996, p18). However, practice theory might also be developed by “the dynamisation and dislocation of structuralism’s structures.” (Massey 2005, p42). One attempt at doing so produces social practice theory. In this study, investigating cycling in a city is a means of examining how people perform (or stop performing) practices, how they generate meaning through their engagements with others or their surroundings, and how these relate to more-or-less durable systems of practice.

2.3 Social Practice Theory

The second section describes the form of practice theory associated with Shove and its relationship to geographical debate. This envisages practice as the mutually constitutive, recursively processual, changing-yet-durable “active integration of materials, meanings and forms of competence” (Shove and Pantzar 2005, p45). As a type of non-representational theory, it has
critiqued previous practice theorists for creating "thoroughly social theories in the sense that material artifacts [sic], infrastructures and products feature barely at all" (ibid, p44, specifically critiquing Bourdieu, de Certeau and Giddens). Within geography, social practice theory is commonly associated with those studying sustainability. This section builds to examine how the normative trends and styles of social practice theory in geography compare with non-representational theory.

Contemporary social practice theory entails avoiding the holism and humanism of habitus by refocusing upon practices themselves. Here, practices are not conceptualised as closed or holistic units, rather, any "diffusion" is their "successive, but necessarily localized, (re)invention" (Shove and Pantzar 2005, p43–44). Building upon conceptualisations of the micro-social as always "another first time", this tends towards a greater interest in how wider or more durable systematisations form. As such, practices, as "recognizable entities, are made by and through their routine reproduction" which is "the active integration of materials, meanings and forms of competence" (ibid, p45). This acts to "decentralise the individual, instead placing the practices which constitute individual lives at the centre of analysis" and repositions people as the "carriers" or "hosts" of practice (M. Watson 2012, p490).

Focusing on relations between elements of practice, rather than between unitary, preconstructed people changes the analytic angle. "Rather than holding 'the practice' constant and seeking to understand who does it and why," it is suggested that contemporary work should investigate "how innovations in practice take hold, how new 'carriers' are recruited, why some defect, and with what consequence for the expansion, contraction and careers of emergent and established [practices]." (Shove and Pantzar 2007, p155, p154–155). This prioritises the processes through which practices gain or lose practitioners, and how both are altered through this occurrence. Such proposals for a greater focus on process and a diminished focus upon identity and cultural capital have been supported by Thrift (1996, p47-8 also; 2004a). However, in comparison to non-representational theory, social practice theory's radical constructionism maintains the importance of symbolic orders (cf. Anderson and Harrison 2010, p19; Lorimer 2005). As will be explained in detail, cycling in London provides a heterogeneous empirical situation in which many practices are changing whilst numerous practitioners are defecting or being recruited.
The word practice can mean specified practices, such as civility, navigation or placemaking, but practice can also refer to the process of practicing; being civil, navigating, or placemaking. As an "entity", a practice is a "provisionally durable, temporally unfolding and spatially dispersed nexus of doings and sayings" (Shove and Pantzar 2007, p154, quoting Schatzki 1996, p89). As a "performance", practice is carried out by the enaction of specific doings and sayings (ibid, drawing on Warde 2005, p134). This differentiation is only a heuristic. The entity is recursively held together, altered or destroyed through its reproduction in performance, whilst each performance is prefigured by the entity's established conditions.

Social practice is premised upon the existence, interaction and co-production of systems at a variety of scales. I define systems as a complex of differentiated socio-technical components operating interdependently, to outcomes unachievable through the more-or-less intensive operation of that component in isolation. As such a system is defined by the relations actively occurring between its components, not just the collection of components alone. They are contingent, actively constructed, maintained or dismantled, and prefigure specific ends and means.

Responding to the conservativism and stasis of habitus, much social practice theory has investigated how the initial or historic conditions of a socio-technical system might influence the trajectory of its development, and its discrete or continuous forms of change. This is a key difference from non-representational theory's definitive "presentist" focus upon the slight surprise of action and micro-social (Anderson and Harrison 2010; Thrift 2008). In social practice theory, just as dissemination is a practice's localized reinvention, so persistence is its continual-but-transient reproduction, as practitioners constantly find ways to make new and old "constituent elements fit together." (Shove and Pantzar 2005, p61). For example, even if a given practitioner tries to remain constant their practices are systemically affected by changes occurring around them (e.g. Shove 2012; Shove and Pantzar 2007; Shove and Southerton 2000). For example, someone who has lived and cycled in the same area for many years will have navigated the rise of mass motoring, the internet, economic cycles, and the events of their own personal history.

10 A significant area of debate is the applicability of the Multi-Level Perspective (MLP) as a way of understanding scale, but this is unfortunately beyond the bounds of the thesis (Geels 2012; Shove and Walker 2007; M. Watson 2012).
In turn, as individuals perform a variety of practices they can exchange components between practices and create new configurations. Practices are embedded in, cut-across by and traverse through what seem to be “other” practices. Returning to the cycle-courier example, their spatial-manoeuvring expertise might influence how they jog. One whose mountain biking hobby involves intense bursts of energy may develop different aptitudes to one going endurance road-racing. Furthermore, innovations may proliferate through and reshape the systems in which they are embedded (Shove and Pantzar 2007). A group of skilled metalworkers with an interest in off-road cycling initially created the mountain bike, but mountain biking’s growth reshaped what cycling entails for many people, including in many urban situations (cf. McCullough 2013). Rectifying the under-research of such interchanging is a key aim of Shove’s project.

Within geography, Shove’s work has particularly influenced researchers focusing upon sustainability, consumption and related engagements with the natural or built environment (Everts et al 2011; Hargreaves 2012; Hargreaves et al 2013a; Hargreaves et al 2013b; R. Hitchings 2012; R. Hitchings and Day 2011; Shove et al 2012; M. Watson 2012; M. Watson and Shove 2008). The intellectual milieu incorporates an interdisciplinary-empirical-political project aiming to counter the individualist, rationalist understandings of human behaviour which dominate sustainability policy (Shove 2010; 2011). Such a project somewhat differs from normative emphases within much human geography, concerned with performative understandings of urban situations. That theoretical field, and so the empirical situations studied, tend to more directly oppose conservativism, whilst valorising resistance to power, focused motivations or intent, transgression of norms, and the ineffable slight surprise of action (Barnett 2008; Cresswell 1996).

Much research on sustainability explores indirectness in complex systems, born from repeated findings that peoples’ concerns for sustainability tend to be “marginal (at best)” (Collins 2015, p30; cf. Szerszynski et al 2004). Similarly, technical governmental or industrial framings often have limited intuitive meaning or resonance to non-professionals (e.g. tonnes of waste produced or journeys made). In response, focusing upon practitioners’ experiences and framings can sometimes reveal “surprising links between seemingly unrelated practices... even if they are normally neglected, or even actively bracketed out, in conventional accounts” (Hargreaves 2011, p95). So much research now investigates “the evolution and organisation of social practices which typically have very little to do with ‘the environment’” (Hargreaves 2012, p321).
The attempt to understand norms within change produces a post-structuralist understanding of systemic interaction, growth and scaling-up. "Innovations in a single moment of performance are always incremental... [however] through the accumulation of different performances [the entity] itself shifts over time and across space." (M. Watson 2012, p490). Situated in systems of practices, "[p]rocesses of change, whether to the elements of a practice or to the patterns of recruitment and defection of practitioners to it, are rarely entirely endogenous... [For example, household travel practices] are complex and contingent, emergent from the overall coordination of daily life. A practice can therefore change as neighbouring practices change." (ibid, p491). A practice becoming more diverse and commonplace means that "the possible points of contact through which new practitioners can be recruited are increased" (ibid, p495). Norms are not necessarily undesirable because, if their ends and means are benign and just (however specifically defined), practices becoming "more normal" make "further recruitment more likely" (ibid, p495). However, the implications of innovation as significantly a matter of socio-technical contingency and reconfiguration, rather than endogenous or exogenous change has significant implications for understandings of power, expertise and experience.

2.4 Contesting, Reconfiguring and Multiplying Practice

The following section examines how human experience relates to change, reconfiguration and power in systems of practice, along with the understanding of intentional action this entails. It firstly sets out Bourdieu's understanding of power as the relationship between systemic tendencies' expression in individual situations, alongside the constituent understandings of innovation, contestation and expertise. It then critiques singular and exhaustive understandings of power, competition and situation. The concept of intersectionality is subsequently drawn upon to develop a sensitivity to multiplicity and situated expression (Rose 1993; 1997; Valentine 2007). I use intersectionality to develop a more nuanced understanding of how experience influences contestation and the ability of people to act as nodes through which practices are reconfigured, building upon the previous section's quite technocratic understanding. Finally, the section explores how technologies might be incorporated within such an understanding of practice. This questions the human body's taken-for-granted bounded coherency in more detail, to start developing an understanding of how elements of equipment and the built environment affect experience (Pink 2008a; Sheller 2004; Thrift 2004b).
I draw on intersectionality to develop a nuanced understanding of how contestation can occur by reconfiguring and recombining elements of practice, rather than only through exhaustive, hierarchical understandings of expertise. The concept starts from a theoretical critique of universalistic knowledge, to hold that interactions cannot express all aspects of a person's acquired expertise or position (Rose 1997; Valentine 2007). As such, power is not the synthesis of all the practitioners' expertise and position into a single relative measure. Rather, practice entails highlighting and downplaying different parts. Furthermore, innovative recombination does not necessarily require that moments of genius bring wildly diverse elements together in never-seen combinations. Anyone might reconfigure mundane aspects of practice to novel effect. This "recognises the ways that individuals are actively involved in producing their own lives and so overcomes [determinism]" (Valentine 2007, p14). Extending the underlying premise implies that technological and sensorial differences cannot be understood as discrete add-ons to "social" intersectionality, but are also mutually constitutive in their non-essentialising performance (Sheller 2012; Shove and Walker 2007).

Within practice theory, experience can be understood as an outcome and integral part of practice, based on a combination of reflexive, habitual and embodied practice. This is analogous to the heuristic of practices as entities and performances described in section 2.3. Returning our hypothetical courier, they may experience heavy traffic as enjoyable or disquieting; an outcome. However, joining traffic (by bike) involves integral experiences of sensory perception, in tandem with active sensory engagement through skilled bodily and technological manipulation, combined with the practitioner's sense-of-self and comprehension of meaning (cf. Spinney 2007). Understanding this non-deterministically implies that acquiring expertise should alter experience. This might not just involve people being "better" and reducing their need to concentrate, or increasing their perception of things they were previously oblivious to. Changes in practices and systems of practice can require the practitioner to re-learn or re-calibrate their activities. As Kidder (2011, p131) records, long-term couriers used to being ignored by drivers may need to re-learn how to interact with traffic that reacts to their presence.

In Bourdieu's theorisation of power, practice entails people exchanging "regulated improvisations". The practitioner's uptake and improvisational performance of practice is their lived experience. So if a cyclist sees a pedestrian about to cross the road they might try to feign ignorance, pressuring them to stay on the kerb. The pedestrian might defer or counter. This initiates an impromptu
exchange of manoeuvers, gestures or words which are calibrated towards the specific socio-
technical situation (for an extended empirical example, see O. B. Jensen 2010). Without requiring
an exhaustive conscious understanding of practice the more adept practitioner might often expect
to gain a momentary advantage. For example, having greater familiarity with similar situations, or
by making innovative combinations of practical elements. In the road-crossing example, one party
might stare down the challenge, conspicuously defer to shame the other, or learn to pre-emptively
avoid such interactions in future. Systematically repeated and often institutionalised such contests
create societies’ pervasive, durable, power inequalities. (Empirical examples from cycling in
London will be provided in in chapter three.)

The previous account demonstrates many of the tendencies towards universalistic knowledge that
have been critiqued by feminist, queer and critical race theorists. Without insinuating that Bourdieu
exemplifies these limitations, I suggest that reviewing general critique of such trends in social
scientific knowledge might sensitise the study to their problems. A direct review of the issue is
valuable because its more implicit or fleeting treatment is frequently problematic. Many initial
statements of support for non-essentialising ontologies and critical or progressive politics have
been critiqued for their insufficient enaction in fieldwork and analysis (Mott and Roberts 2014). Of
particular relevance, it has been argued that much non-representational theory is implicitly or
inadvertently “a form of Humanistic Geography... repeating the same mistakes; the centring of a
universal, unmarked, subject shorn of difference” (Anderson and Harrison 2010, p11, citing; Nash
2000; Saldanha 2005; Tolia-Kelly 2006). Alternatively, because extensive empirical detail
describing various combinations of complexity, heterogeneity and multiplicity are difficult to fit into
“a single article”, research “often collapses back to a focus on the experiences of nonprivileged
groups rather than on how privileged or powerful identities are ‘done’ and ‘undone.’” (Valentine
2007, p14).

To briefly, but directly, review the issue: academic studies of power, expertise and lived experience
often entail individualistic descriptions of actors as defined primarily as a “blank” archetypal human
to which individual experiences, learned tactics, resultantly acquired disposition, along with broader
social categories are added as incremental, discrete deviations. Predominantly, such a “base
identity” is implicitly a “white, heterosexual, able-bodied male” (Valentine 2007, p13; Rose 1993;
Shohat 2001). Critiquing “the notion of race, gender, ethnicity, class, and so forth as separate and
essentialist categories”, understandings of “intersectionality” propose that their expression is
mutually constituted in ways that fundamentally pivot around their "interconnections and interdependence" (Valentine 2007, p12). This emphasises that "individual people experience [such categorisations] simultaneously" (ibid, p13). For example the opportunities, expectations and discriminations incumbent within the category "woman" are not just reduced or increased according to class position (etc.) but reconfigured. Victorian middle-class women tended to have relatively great economic opportunity to acquire a bicycle, but greater expectations to use it demurely (Mackintosh and Norcliffe 2007). Intersectionality also de-centres the individual, white, heterosexual, able-bodied male from being the archetypal human, to specify the general position and experience as particular constraints, expectations and privileges, situated and actualised through a variety of institutional or non-categorical social specificities. So, reiterating a non-essentialising understanding of intersectionality, the broad social categories should be seen as hermeneutic prompts rather than absolute axes (Saldanha 2010). The final analysis must incorporate the history and expertise of the person or group, the power incumbent in the institutions or situations they are engaged with, and so their particular (in)ability to reconfigure, highlight and downplay what is practically expressed.

Returning to the charge that Bourdieu and contemporaries created “thoroughly social theories in the sense that material artifacts [sic], infrastructures and products feature barely at all” (Shove and Pantzar 2005, p44), reconfiguring, emphasising or downplaying various aspects of practice does not only entail the self-conscious deployment of social tactics. As authors such as Pink (2007; 2008b), Brown (2012) and Ihde (2009) have argued, people can alter their technological and sensorial engagement with the world. Such theorisation further multiplies the ways that an ostensibly similar position might be practiced and experienced, and so further ties the development of social practice theory into wider geographical debate.

Affect is a key avenue of research into how sensory, bodily and technological elements or styles influence practice and experience. The attempt to understand how bodies influence and are influenced via biological-psychological mechanisms which are more-than-representational is more centrally a concern of non-representational theory than social practice theory11. However, to define

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11 For a wide ranging and informative discussion on affect and emotion which goes somewhat beyond the focus of this study, see: (Curti et al. 2011; Dawney 2011; Mohammad and Sidaway 2012; Pile 2010; 2011).
it, "[a]ffect is not simply emotion, nor is it reducible to the affections or perceptions of an individual subject." (Thrift 2008, p115). Traversing individual bodies and objects, affects bring into question the bounded body as the primary definition of a human. They challenge individualistic understandings of subjectivity and experience as the mental processing of bodily perceptions of an external world. Instead, it suggests that subjectivity is formed via, moulded around and distributed through the materials and milieus that a body is habitually and presently a part of. "In this sense ‘worlds’ are not formed in the mind before they are lived in, rather we come to know and enact a world from inhabiting it, from becoming attuned to its differences, positions and juxtapositions, from a training of our senses, dispositions and expectations and from being able to initiate, imitate and elaborate skilled lines of action.” (Anderson and Harrison 2010, p9).

Although research using social practice theory often avoids such an intense focus upon experience and subjectivity, it shares a post-humanist ontology. Non-representational affects often appear in more instrumental descriptions and capacities, for example, how newly invented D.I.Y. tools mean that “aspects of the competence needed to paint the door have been redistributed between person and technology” (M. Watson and Shove 2008, p78). Alternatively, describing how Smart Meters create new forms of real-time awareness of electricity consumption, these get “‘backgrounded’ within household routines... part of the unthinking practical consciousness rather than something that prompted regular conscious attention or discussion.” (Hargreaves et al 2013b, p129).

Going from handheld and human-sized tools’ interaction with meaning, memory and embodiment, to investigate the analogous affects at larger physical scales informs a wider geographical revaluation of what place is. In a review of recent work on “big things” such as buildings in performative, affective, post-humanist theory, Rose et al have suggested that there is insufficient research into how place is “not given but produced, as various materials are held together in specific assemblages by work of various kinds.” (2010, p334). They highlight that big things’ utility is not just based upon their physical form, but the creation of “a feeling experienced as being ‘inside’ the building” (ibid, p334). Such feelings can be “complex, multiple or ambiguous”, influenced via “reflective judgements” (ibid, p337), the “obduracy of past experiences” (ibid, p345) and their incorporation into practices performed in situ. For example, a shopping centre may be designed to affectively encourage circulation and browsing, but “attentive human relations” such as childcare might “radically diminish” its reception, receding to become “simply an awareness that prevented our research participants from walking into things.” (2010, p344; also Degen and Rose
2012). This begins to create a less individualising understanding of what it is to experience and create a place, without only focusing on the "social" specificities and power dynamics of institutions or localities. To further develop the implications of non-essentialism and practical reconfiguration for place, the chapter turns to recent retheorisations of mobility.

2.5 The Mobilities Turn

Contemporary increases in the speed and frequency of travel, the invention of new communication technologies and the proliferation of their infrastructures have prompted an academic reconsideration of mobility. Previously dominant characterisations of as place has having an absolute potential for meaningful social interaction that is then destroyed by either movement or stillness, and of transport as derivative and instrumentally fulfilling demands for movement "from A to B" have been widely challenged (Cresswell 2006; 2010; J. Lee and Ingold 2006; Merriman 2004; Revill 2011; 2013; Sheller and Urry 2000; 2006; Thrift 1996). The responses increasingly treat mobility as constitutive, after an initial tendency to valorise embodiment, movement and speed (Fincham et al. 2010a; Merriman 2014b; Sheller 2010). They critique both "sedentarism", which "treats as normal stability, meaning, and place", but also "nomadism" and its valorisation of "distance, change, and placelessness" (Sheller and Urry 2006, p208). As such, this general reconsideration of mobility is a part of the changes in practice theory which argue for the better understanding of reconfiguration, rather than premising change as either endogenous or exogenous. To this end, the second key concept that will be developed by this study is "encounter".

Studying mobility does not simply imply investigating socialising-during-transport. Overall the re-evaluation of sedentarism and nomadism entails critiquing a "metaphysics of presence" which commonly underlies social scientific thought (Büscher et al 2010b, p5). This metaphysics understands that "it is the immediate presence of others that is the 'real' basis of social existence" (ibid, p5). It epitomises social activity in "ongoing geographically propinquitous communities based on more or less face-to-face social interactions with those present." (ibid, p4; see reviews by Cresswell 2004; 2006). In other words, it takes the quintessential social form to be reoccurring relationships, between immediately spatially and temporally proximate actors, who cohere because
of some similarity or commonality\textsuperscript{12}. This study takes encounter as a means of investigating socio-technical forms without either the premises of the metaphysics of presence, or their reversal.

Encounter poses fundamental ontological challenges for concepts such as habitus, in which “the history of the individual is never anything other than a certain specification of the collective history of his group or class” (Bourdieu 1977, p86). The premise of a collective history requires the establishment or identification of boundaries which cannot be so singular or exhaustive in practice. However, and not only applying to mobility, acknowledging its fragmented borders then calls into question the coherency of the central epitome (Rose 1993). As such, the mobility turn does not call for greater acknowledgement of the breadth and number of transient meetings, nor a reduction in the importance given to ongoing propinquity-based bonds. Rather, if transient encounters are not a marginal or dilute form of some central, stable sociality, then they must have alternative implications and importance.

Geographical debate over mobility has arguably centred around its implications for time-space and place. Traditionally, within humanistic geography, places have largely been understood as “locations which, through being experienced by ordinary people became full of human significance.” (Rose 1993, p41). However, relational understandings of mobility suggest understandings of place as something other than a series of momentum-free, atomised or discrete snapshots that describe the cumulative sensory inputs and associated meanings of bounded points in space and time (Merriman 2012).

Re-theorisation of mobility in geography is linked to a variety of societal changes in the 1990s. At this time essentialising understandings of place seemed to be behind an upsurge of violent ethnic nationalisms, such as in Northern Ireland and the former Yugoslavia. In parallel, the building anti-globalisation movement’s politics of “militant particularism” became increasingly critiqued for unreflexively defending local specificities, including their questionable aspects, rather than necessarily fighting for alternative visions of a better society (Cresswell 2004, chapter three). Such spatial imaginations furthermore entail conflating movement, technological innovation and capital as socially homogenising. It envisages successful places as “broken into separate spaces or communities, where people feel comfortable in their face-to-face interactions with people like

\textsuperscript{12} Propinquitous can be defined as proximity in time and space, but also a relationship of similarity or kinship.
themselves" (McDowell 1999, p120, specifically speaking of cities). However, this seemingly-benign "desire for social wholeness and identification" also "underlies racism and ethnic chauvinism on the one hand and political sectarianism on the other" (Young 1990, p302 in; McDowell 1999, p120).

Massey's seminal "Global Sense of Place" (1991) set out to craft new, explicitly politically progressive ways to re-imagine place. "In this interpretation, what gives a place its specificity is not some long internalised history but the fact that it is constructed out of a particular constellation of social relations, meeting and weaving together at a particular locus." (ibid, p153). "Places not as points or areas on maps, but as integrations of space and time; as spatio-temporal events" (2005, p5), defined by a sense of "outwardlookingness" and acceptance of their "throwntogetherness" (ibid). This understanding highlights that place is changeable (and changing), but also that people are differently exposed to and able to influence flows of mobility. Beyond "who moves and who doesn't", "some people are more in charge of it than others; some initiate flows and movement, others don't; some are more on the receiving-end of it than others; some are effectively imprisoned by it... Differential mobility can weaken the leverage of the already weak." (1991, p149-150).

Massey's understanding of what places ontologically are implies discarding reactionary justifications for limiting what they can be. As a progressive geographical praxis this entails: "First, that we recognise space as the product of interrelations; as constituted through interactions [at all scales]... Second, that we understand space as the sphere of the possibility of the existence of multiplicity in the sense of contemporaneous plurality; as the sphere in which distinct trajectories coexist; as the sphere therefore of coexisting heterogeneity13... Third, that we recognise space as always under construction...It is never finished; never closed." (2005, p9). This implies that spaces do not have singular social forms; one habitus, one local character. Contemporaneous plurality entails that people can assemble different paths through the same time and location; different people coexisting and interacting via configurations of flow that are always contested and contestable. Subsequently Merriman has suggested that flows are perhaps best understood as variable rhythms of movement-space, rather than time-space (2012).

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13 "By ‘trajectory’... I mean simply to emphasise the process of change in a phenomenon." A means of explaining relative, altering but continuous positions in time and space (Massey 2005, p12)
Massey explicitly differentiates a progressive praxis of place from a romantic valorisation of movement or autonomous individual choice. Instead it requires and should underpin informed democratic negotiation over how place is made. She cautions "against an over-excited celebration of openness, movement and flight (in the sense of escape)" which legitimises the avoiding of responsibilities, individualism, elitism, detachment-as-creativity, and rarely touches upon mass migration (2005, p172-3). Furthermore, general objections to "privatisations and exclusions" should not be universal but based on analyses of how specific injustices relate to wider socio-technical systems. As such, "public space [may] include, sometimes, facing up to the necessities of negotiated exclusion." (ibid, p153). For example, safe spaces for systemically disadvantaged groups as a means of positive-discrimination which challenges those systematic inequalities. Although Massey's progressive sense of place is normative, in the sense of calling for democracy, openness, experimentation and plurality, it is explicitly so. It avoids cryptonormative justifications for absolute understandings of resistance-against-power, or technocratic interventions to displace and replace existing practices or norms (cf. Barnett 2008).

Suggesting a means of incorporating technology into the previous attempts to dislocate and make dynamic "structuralism's structures" (Massey 2005, p42), Thrift has developed the concept of "machinic complexes" (1996, p263). This furthers thought on non-essentialist understandings of mobility by questioning its implications for affect, experience and what it means to be human. It critiques the iconisation of walking as transcendentally natural, un-technological, and therefore always-resistant to attempts at control. Doing so critiques the counterpart that technologies (particularly the built environment) are dehumanising and strategies of control (notably de Certeau 1984, in; Thrift 2004b drawing in Heidegger; cf. Cresswell 2004). Machinic complexes do more than just represent symbolic orders, have instrumental effects or control the embodied practical knowledges and experiences of their inhabitants in a way that might be resisted. Complexes form "a system (or systems) of distributed pre-cognition" (Thrift 2008, p164). This post-phenomenological "background" is "geo-historically specific and generative", "open to intervention, manipulation and innovation." (Anderson and Harrison 2010, p10; Hargreaves et al 2013b). Furthermore, by traversing (and deconstructing) bounded essentialisms, technological innovation or reconfiguration can change what it is to be human, normal or part of a community, just as innovation in social theory or forms of social interaction can.
One implication of machinic complexes is that political movements cannot achieve their goals by only-social means of popularising social forms or recruiting supporters. They must build technological milieus that support their forms of practice and experience (Thrift 1996, p262). In turn, absolutely singular, shared or consensual settlements to societal disagreements may be impossible, especially where people "do not even hold in common shared premises about the world" (Thrift 2005, p135). This suggests that such premises are not simply the result of rational debate between moral or social theories (etc.) but contingent upon their habitual positions in different machinic complexes which influence peoples' practical understanding of how the world works. With regards to sustainable transport policy, similar theorisations underpin Sheller's analysis that many political impasses and stalemates are the result of transport predominantly being "debated and implemented as if the intense feelings, passions and embodied experiences associated with automobility were not relevant." (2004, p222). Secondly, Thrift argues that "movements must forge an ongoing intentionality, rather than a finished political programme." (1996, p262). As any social or technological innovation and its subsequent popularising will alter the forms of practice and experience that made that initial goal imaginable, so movements should expect and support their own transformation, whilst recognising that the transformations they require of others are not solely rational.

The theorisation of machinic complexes provide a useful counterpoint to critiques of tendencies in mobilities research to celebrate embodiment and movement as the essence of experience (Merriman 2014b; Revill 2011; Sheller 2010). In similar veins, researchers have increasingly emphasised the stabilities and immobilities that allow movement, whether that means bodies at rest or the stable infrastructures which allow movement to occur (Bissell 2009; 2011). Furthermore, whilst the essentialism of sedentarism's lifelong "stable place-based communities and networks" can be ontologically critiqued and movement has quantitatively grown, "place-local attachments remain significant. For most of the time, people live quite spatially restricted, geographically bounded lives" (McDowell 1999, p29).

Linked to wider debates about non-representational theory, places are not only kinaesthetic micro-social presents without representational aspects. They contain senses of anticipation, reminiscence and comparison which are both kinaesthetic and representational (Pink 2008a; Rose et al. 2010). Even in Thrift's celebratory, questionable claims of there being a "sheer joy of bodies in movement" (1996, p289), and "that human life is based on and in movement" (2008, p5), he distinguishes this
from choice and control: "[N]ot everything is focused intensity. Embodiment includes tripping, falling over, and a whole host of other such mistakes." (2008, p10).

Overall, this study uses encounter and cosmogony to focus the development of a non-essentialising ontology of mobility and place. It details how practices' reconfiguration does not occur through wholly focused, intentional actions, nor do individuals necessarily act as (or to create) members of coherent groups. A progressive sense of place and machinic complexes contribute an understanding of how built environments affect their inhabitants, and how those inhabitants' might in turn influence the practices occurring in place. In this respect, cycling in London simultaneously includes technologies and skills for moving around, infrastructures which affect people on and off the bike, various forms of social interaction or association, along with numerous associated meanings. The mode of transport's growth includes reconfiguring the city's flows and places, whilst individual cyclists' experiences and practices are changed by their contingent take up, continuing or lessening use of the bicycle.

2.6 Cycling Studies

The last decade has seen a rapid expansion in cycling as a topic of academic investigation. The following section critically describes the contours of this interdisciplinary field of research, focusing upon its social science components. It suggests how cycling might be articulated through social practice theory to develop the aforementioned debates, particularly surrounding cosmogony and encounter.

The semi-coherence of a social scientific field researching cycling is relatively novel. 2004 saw the first "Cycling and the Social Sciences" symposium hosted by Lancaster University's Centre for Mobilities Research. This was prompted by the "lack of much analysis of cycling across the social sciences... the mutual discovery of each other by a number of previously unconnected researchers of cycling and a resulting impatience to push cycling studies firmly onto, and up, the intellectual agenda" (Horton et al 2007, p8–9). It became the Cycling and Society Research Group, who host an online forum14 and annual symposium, which produced the previously cited book (ibid, p8-9). It successfully attracts international contributions from academics and non-academics, whilst a

14 www.jiscmail.ac.uk/lists/cycling-and-society.html
similar North American group and forum was established in 2012 (Bicicultures 2015). Following enquiries by the author to both forums and knowledgeable overseas individuals, there do not seem to be equivalent networks elsewhere in the world.  

Horton et al's collection describes the four main existing areas of cycling research as historical; sociology of sport; engineering, design and planning (primarily cycling as a mode of urban transport or bicycle design); medical and public health. Outside this, "academic interest in cycling feels much more piecemeal and disjointed, with no strong sense of contributing to a wider stock of knowledge" (ibid, p8-9). Despite this, and arguably as a contribution to millennial bicycle politics, the collection is explicitly anti-canonical, rejecting attempting to "impose order" upon the contributors due to "a belief that we need to start thinking about cycling differently, in new ways" (ibid, p9). "Although we often speak of cycling in the singular, there are many different kinds of cycling. The term 'cycling' tends to homogenise a remarkable plurality of lifeworlds, structures and cultures, and a vast range of sometimes parallel and sometimes interwoven activities." (ibid, p1).

In different times and places, cycling has been understood as modern, archaic, sustainable, timeless, resistance, a post-colonial alternative modernity, and more (ibid, p56; cf. Cox 2010; Furness 2010; Lugo 2013a; McCullough 2013; Spinney 2010b; Wilhoit and Kisselburgh 2015). In contemporary Britain, cycling lies at a curious intersection wherein the bicycle is a relatively well-known and banal technology which many people intermittently use but few use frequently (Goodwin 2013). This has fostered a variety of (more-or-less well known) social forms, many of which have few similarities beyond their all being eponymously named after their use of bicycle, and of which their niche but iconic social forms and more active spokespeople have tended to be disproportionately represented within social scientific research (see chapter three). Therefore, cycling supports a study of how thought around non-essentialism might incorporate technology.

A common contemporary approach in academic study and popular culture is to consider cycling in relation to the historical growth or significant contemporary importance of socio-technical forms and complexes premised upon the automobile. Urry terms this the "system of automobility" (2004). Others have specified its more accurate description as a widespread but heterogeneous process of

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\[15\] There do not seem to be comparable Antipodean, European, Sub-saharan African, North or South American-based research-focused networks, either in English or any other language.
self-extending automobilisation, producing a variety of multi-scalar outcomes (Beckmann 2001; cf. Merriman 2009). Cycling is then set as somehow resisting, disturbing or troubling the dominance and taken-for-grantedness of automobility and its places. "[L]ooking at these auto-spaces through the 'wrong lens', as it were, new meanings come into focus" (Spinney 2007, p30). No academic cycling researcher has attempted to define a unified theory of velomobility or velomobilisation comparable to Urry's system of automobility. Furness's (2010) highly influential history of bicycle politics in the USA does not comparably organise the academic field, but is an invaluable account of changing epochs in cycling thought and activity. It contextualises the subtext to much historical and contemporary academic research or non-academic material.

Mobilities research has been critiqued for having an implicit and arguably under-recognised qualitative, ethnographic and social scientific focus, which in geography is predominantly an evolution out of cultural geography (Merriman 2014b). Therefore, a potentially informative feature of cycling studies is its relatively catholic combination of contributions from humanities, transport and planning (sub-)disciplines, alongside historical, textual, interview-based and quantitative methods. The style, within which I include the online and symposia discussions, entails a strong tendency towards engagement with non-academic groups, public academia, progressive-sustainability politics, and policy-amenable or activist-motivating empirical detail. Of concern to many, this can be somewhat incongruent with the requirements of core debates, particularly in cultural sub-disciplines (Bell 2007; Eden 2005; Hamnett 2011; Latham 2003a; 2004; Laurier 2001; Massey 2000; Martin 2001; Pain 2006; Peck 1999; D. Smith et al 2011; Valentine 2008). More empirically, a number of authors have critiqued tendencies to overstate the "the ubiquity and coherence" of contemporary urban change, particularly to when applying findings from the USA to UK contexts (Koch and Latham 2013, p19; Hamnett 2009b; Lees 2013). At the same time, the

16 Although I will not develop the point, this study could inform further critiques of tendencies within transport studies, particularly those using Actor-Network theory, to omit the "multiplicity of contested meanings brought to specific technologies embedded in longer historical trajectories or broader geographical systems" (Divall and Revill 2005, p103.).

17 This includes local or design-history groups and manufacturing industry figures as much as, say, club cyclists or campaigners.

18 For Example: (Aldred 2012; Cox 2010; Furness 2010; Horton et al 2007; Koglin and Rye 2014; Millward 1999; Oddy 2015; Parkin 2012; Pucher and Buehler 2012b; Goodman 2013; Sagaris 2015; Spinney 2010a; Woodcock et al 2013).
alternative requirements and goals of such non-academic publics can mean that engaged work fails to be invigorated by these interactions and instead becomes diluted or falls apart.

The new generation of cycling scholars has made a number of key contributions to the theoretical development of the mobilities turn (see particularly Aldred 2010; Cox 2008; McIlvenny 2014; in O. B. Jensen 2015). However, amongst UK scholars there has arguably been a drift away from the combination of academic-activism and cultural sub-disciplines which aimed to “to think cycling into bright, socially and ecologically liberated futures” (ibid, p17). Recent publications have tended to diverge, with publically engaged bicycle politics becoming more a part of planning or public health scholarship, and cultural research involving bikes being more focused on academic debate (Aldred et al 2015; Fincham et al 2010b; EPSRC 2013; T. Jones et al. 2012; Spinney 2015; Steinbach et al 2011; although see Cox 2015).

The growth of cycling’s cultural cachet in the global north and the construction of supportive infrastructures has prompted increasing research into the inequitable distributions of infrastructure or other forms of support and links with gentrification, particularly by US researchers (Hoffmann 2011; Hoffmann and Lugo 2014; Stehlin 2014; 2015). US qualitative bicycling research also tends to set a greater focus upon politically-radical or socially marginal groups (on bikes), often producing more politically-radical or critical academic results (Furness 2010; Hoffmann and Lugo 2014; McCullough 2013; Stehlin 2015). This has certain parallels to disciplinary debates over the direction and cause of differences between US and UK geography, including their different academic institutional or political economic constraints, but also differing empirical conditions in the societies they study (Amin and Thrift 2005; 2007; Hamnett 2009b; Harvey 2006; Hudson 2006; Slater 2009; N. Smith 2005). As yet, there is no academic evaluation of such differences in cycling studies.

Of particular relevance to this study’s aims, using a bicycle involves a quite pronounced bodily engagement with social heterogeneity in order to use the technology for transport. This relates to the underdevelopment of technology within social practice theory, in particular to cosmogony as a means of understanding how meaning is always emplaced within an explicit or implicit complex of skills, capacities and infrastructures. It also relates to encounter as a prompt to develop new ways of understanding human interaction and association, without the premises of a metaphysics of presence or bounded, essentialising group membership. Narrowing this interest, the bicycle itself
has particular relevancy to critiques of mobility and technology which suggest that beyond the experience of using hand-held tools and seeing (whilst seated) from different modes of transport, relatively little has been said about how non-walking mobile bodies experience different senses of position or orientation (Ingold 2004; J. Lee and Ingold 2006).

Whilst bikes provide an efficient and particular means of making non-timetabled independent end-to-end journeys, this potential is constituted through highly visible, and physically-exposed movement on relatively "normal" streets\(^{19}\) (Mees 2010; Pucher and Buehler 2012b). As such, because people perform and are ascribed heterogeneous social roles, they will be able to utilise and respond to this potential quite differently (Steinbach et al. 2011). Experiences of opportunity, constraint or avoidance when moving by bike through machinic complexes might teach us about how power, conflict and emancipation are spatially and systematically expressed, and how they might be reworked by new transport technologies (Valentine 1989; Merriman 2012; Thrift 2004b).

Cycling's relevancy to cosmogony and encounter can be developed by a number of more specific points. Studies focusing on bodily senses and embodied practical knowledge have recorded cyclists self-consciously manipulating their bodies' engagement with their surroundings in order to "mediate" their sensorial and social experiences of the places they travel through (Jungnickel and Aldred 2013, p238; also Brown 2012; Brown and Dilley 2012; P. Jones 2005). For example, amongst Jungnickel and Aldred's respondents, listening to music whilst cycling could provide "the motivation to commute and exercise instead of taking the 'convenient' car, or it relaxed them in stressful situations [etc.]" (2013, p252). This entailed physical elements such as "riding with one ear [bud] in and one out", with different innovations used in different locations or levels of traffic (ibid, p252). However, these are relatively stable, pre-formulated and instrumental acts.

Spinney has investigated how bicycles might not only allow cyclists to carry out different practices, but affect their practical understandings of a situation's potential:

\(^{19}\) Most segregated cycle routes in northern Europe do not approach the specialisation or segregation of say, train-tracks or motorways. Segregated bike paths in the UK are rare and in those few cities which have an extensive network (mid-20\(^{th}\) century new towns), these were often inadvertently added and have not successfully encouraged mass cycling (cf. T. Jones 2008, p24–27).
"[D]rivers can engage in various practices to pass the time—listening to the stereo, making a phone call [etc...]. The bike-rider however may perceive the affordances of the situation very differently, exhibiting different ways of dealing with time and thereby constructing very different time-spaces." (2010c, p119–20)

Spinney's example mainly concerns itself with how the bike's technical potential alters the in situ experiences and practices performed en route (see also van Duppen and Spierings 2013). I argue that the concept might be applied to people learning to organise and orient their times and locations on other scales, such as across a day, or to create scales analogous to a neighbourhood, developing the tacit, reflexive, physical-mental capacities required to do so (cf. Beckmann 2001, p597–8).

Finally, drawing on cycling examples to engage with geographical debate, Spinney has critiqued theorisations of resistance in which a "preexisting spatial hegemony" to resist is only achieved via "an overemphasis on body-architecture relations, subculture, and specific research methods." (2010b, p2915). This discards the variety of institutional specificities and social or cultural factors to overemphasise the power and singular coherency of the built environment or its designers' intentions. It also focuses upon those practitioners or elements of the practice which can be best narrated as heroic, coherent and intentional resistance whilst excluding more ambivalent, heterogeneous or discontinuous forms and interpretations. Doing so narrates heroic, romanticised, exceptional(ist) figures as the epitome of a form. The diversity of everyday practices and practitioners can be methodologically elided by under-acknowledging the specificity of an ethnographic case-study or by unreflexive historical-textual analysis of boosterish journalistic or advertising tropes. So, for example, some BMX riders may be performing tricks that "misuse" architectural features on private land whilst being intermittently excluded by security guards. However, such riding may be congruent with institution attempts to foster spectacular outdoor vibrancy for profit, and supported by "mainstream" onlookers. Furthermore, the riders may see their intermittent illegality as an inconvenience, may wish to minimise any disruption to the norms of polite public behaviour and value the crowd's being entertained, rather than particularly aim to produce symbolic counter-ordering or kinaesthetic experiences.

Particularly relating to thought on encounter, the heterogeneity and plurality of cycling has produced studies of social forms which attempt to create more progressive communities of and via cycling. These have critiqued trends within cycling-focused social forms as much as within wider society, studied the divergences and links within networks of cyclists, the growth of online networks, various
recurrent but temporary meetings, and on-street forms of ordering or organisation (respectively Hoffmann 2011; Lugo 2013b; Stehlin 2014; Wilhoit and Kisselburgh 2015). The field of cycling studies might be developed by exploring less holistic understandings of cycling, to better incorporate the relational and situation-specific rather than iconic or eponymous elements of practice. As with Spinney’s work, these increasingly highlight the importance of situating analyses of practice in particular systemic contexts and spatial configurations.

2.7 Bodies, Cities and Bicycles

The following section develops and extends the previously described literature on practice, mobility and cycling by articulating it within urban specificities. Rather than categorically defining “The Urban” and studying cycling within it, the study proposes to use cycling as a means of investigating how urban-constitutive practices are taken up, altered and divested. The study proposes to understand the urban as a machinic complex which acts to contingently coordinate the interdependencies of relatively heterogeneous and proximate activities (Latham and McCormack 2004, p707). This produces the third key term of interest: emergence.

The definition of the urban used in this study initially builds from Grosz’s definition that: “[t]he city provides the order and organisation that automatically links otherwise unrelated bodies” but “often in an unintegrated and de facto way” (1992, p243, p244). Incorporating previously described thought on non-essentialism and mobility, this frames the urban as a complex of multi-scalar, mutually constitutive entities and processes which systematically traverse individual people and events. It becomes a means and outcome of dynamically, systemically coordinated heterogeneous elements rather than a self-contained entity, scale or category of analysis. This definition focuses upon cities’ tendencies and abilities to support particularly pronounced forms of differentiation and specialisation in proximity, via economies of scale and scope which are significantly influenced by a high population density (Latham 2003b; Thrift 2004a; cf. Jacobs 1970)20. In this respect I use the term “inhabitants” to imply anyone practically involved with a situation, rather than as a synonym for geographically-local or long-term residence.

20 This tradition draws on a train of thought leading back through Goffman to Simmel (Bourdieu 1977, Shove and Pantzar 2005; 2007; Koch and Latham 2013). My sense of this interdisciplinary history is heavily influenced by Jensen’s account (2006).
The study uses the phrase "urban practice" to imply a practice occurring in an urban situation. This implies a sensitivity to the common inflections of urban situations, rather than a distinct category of solely-but-universally urban practice. Space is defined as a location or physical geography. Built urban forms become viewed as technologies; designed to encourage certain types of usage but heterogeneous, altered over time and often in piecemeal (Hommels 2005). An urban situation is a defined set of conditions, which implies that the social interactions occurring on a given site are mutually constituted by the space (dis)connecting, bringing together, holding apart or somehow organising interactions between potentially anonymous people. For example, it would include the physical shape of the street network, but also the meanings, bodily competencies and activities which explicitly, implicitly or indirectly allow interpersonal connections to occur and persist (drawing on O. B. Jensen 2006, p151). Place is then constituted through practices which imply distributed relationships traversing a variety of sites. Changes to how a place is practically used or experienced would reconfigure the relations between elements of practice as much as physical alterations to an individual or network of spaces. This applies even where reconfigurations attempt to conserve or re-create a previous place, practice or experience (Butcher 2011b, p8).

The final topic of theoretical interest and the third key term is emergence. This narrows the general interest in the urban as a machinic complex, to focus on theorising change. Amongst research framing the urban as durably remade heterogeneity, many have argued that it tends towards a certain type of recombinant coordination: "emergent". Not all emergent situations are urban, and emergent change has been highlighted as an issue which is frequently misunderstood, including by practice theorists (Shove and Walker 2007).

Emergent systems are "an ongoing outcome of the interaction between a myriad of small-scale self-organising processes that are not determined by a central controlling or decision-making unit" (Latham and McCormack 2004, p707). One example would be the morning and evening peak travel period, or "rush hour", during which time many streets become somewhat different places; busier and more transit-focused. This situation changes how they are practically inhabited; the envelope of "personal space" reciprocally expected from co-present travellers is usually smaller in rush hour (whether on-road or in a crowded train). Infrastructure influences this, but also travellers' relative capacities to negotiate the situation; how people treat each other in situ, and their ability to access or avoid it entirely (Butcher 2011a; O. B. Jensen 2006). However, rush hour is not the result of a roughly 9-5 day being mandated from above, occurring by coincidence through autonomous
action from below, or a biologically-natural occurrence. Nor does self-organisation imply an exhaustive (conscious or tacit) understanding of what everyone else is doing. Rather, a variety of heterogeneous but interdependent and calibrated factors have come to systematically reproduce the tendency to work a roughly 9-5 day.

Because a 9-5 day creates particularly large flows of traffic in the immediately preceding and succeeding time-periods, such conditions make qualitatively different actions possible at specific time-spaces. These may be temporary, recurrent confluences of flow rather than permanent features of locations. For example, during downtown rush hour the ability to cycle and weave through traffic may be quite useful in terms of speed, but also a demonstration of skill and status. At times or spaces without dense traffic to move around it becomes impossible to weave, making such demonstrations impossible (cf. Kidder 2011).

I propose to use the urban as a counterpart through which to situate cycling's unequally distributed quotidian enjoyments and abuses, intermittent deaths and injuries. This combination draws suggestions that although relatively high-profile acts and infrastructures of (dis)respect, (in)tolerance, accommodation or confrontation occupy an iconic place in much research and writing on cities, they constitute a relatively small part of urban life (Thrift 2005). As a general point of social theory which is particularly pronounced in cities, life amongst heterogeneous people entails a great volume of minor quotidian acts; courtesies such as holding doors open, giving directions to the lost, and discourtesies or aggressions of comparable intensity (Latham 2003b; Laurier and Brown 2008; Laurier and Philo 2006; S. Watson 2009).

It has been argued that a negligence of how infrastructures and materials influence the aforementioned mundane pro- and anti-social matters has propagated "malaise", "random outbursts and occasional mayhem" (Thrift 2005, p141). However, others have countered that durable, pro-social coexistence might not create a wholly "good" city (however defined), simply a city which disguises its injustices and inequalities with politeness and the means to separate or circumvent problematic situations (Butcher 2011b; Flusty 2001; Valentine 2008). If groups predisposed to receiving violent, malign or otherwise injurious treatment in public become expected to vacate those spaces or cease the activities that prompt reaction, this arguably cedes and reinforces their perception as inappropriate (Valentine 1989). Furthermore, theorisation and
celebration of the urban's potential to support coexistence and diversity has often occurred "without actually spelling out how this is being, or might be, achieved in practice" (Valentine 2008, p324).

An interest in urban quotidian pro- and anti-social behaviour links the specificities of emergence with the wider theoretical interest in reconfiguring elements of practice. Resonant with Spinney's (2010b) previously mentioned analysis of how different activities can rework the affects of the built environment without necessarily resisting them, Furlong has drawn attention to "mediating technologies". These are "small devices that can be added to an infrastructural network with the intention of modifying its performance" (2011 p460). The effects of large and stable infrastructures - her example is the whole system of water supply- might be radically changed by relatively small "additive" alterations at "peripheral nodes" at or close to the point of use (p476). En mass these small changes can technically-managerially and politically-imaginatively alter the system's effects on its users, and destabilise or rework its maintenance. This suggests strategies for the radical and cross-scalar reform of infrastructural systems which are based on reconfiguration, rather than on rejection or opt-out.

Cycling is a particularly interesting example of mediation because it involves a mobile piece of technology being used to reconfigure the rider's interactions with a whole system of infrastructures and fellow travellers. Within the urban outdoors, a significant cause of the neglect of quotidian pro-social matters is argued to be modernist trends in transport planning and outdoor architecture. These aimed to increase safety and efficiency by discouraging lingering in transit-focused spaces, making more physically secure or easily "defensible" architectures, and segregating different modes of transport (in cycling Aldred 2012; more generally Hubbard and Lilley 2004; Norton 2008; McDowell 1999, chapter 3; Shepard and Smithsimon 2011). Looking at contemporary attempts to mitigate existing infrastructures without comprehensive rebuilding, Koch and Latham (2012; 2013) have examined cases in which relatively minor alterations - such as moving outdoor benches, planters and kerblines have encouraged relatively dramatic increases in pro-social activity.

Of particular relevancy to mediation and emergence, cycle planning research has suggested that the cities with the highest cycle-journey rates are those which have been retrospectively and incrementally velomobilised over many years. Although there are no examples of implemented master-plans in which the bike is central from the start of (re)development (T. Jones 2008; Koglin and Rye 2014; Melia et al 2010; Sagaris 2015; in UK policy Department for Transport 2010; 2014;
Sloman et al. 2009; 2014). They demonstrate a variety of forms, constituted by various configurations of supportive materials, meanings and forms of competency rather than a single silver-bullet. Common to the previously reviewed studies of sustainability many are not defined by or focused on the bike itself, being measures such as lower speed limits or intensive traffic-education and land use planning (Pucher and Buehler 2010, p391). This resonates with Beckmann's (2001) theorisation of automobility as the heterogeneous outcome of similarly heterogeneous processes of automobilisation, not a level on a single scale.

From this perspective I suggest that bicycles might be considered a mediating technology with regards to an urban transport system predominantly designed for other modes. Using a bicycle, but also learning different skills and meanings, changes how people experience the street during a journey and how the city can be ordered (Spinney 2010c). Cycling's heterogeneity should support an investigation into how the urban acts as a peopled machinic complex, including the recursive, often-emergent relationship between its being created as an entity and its incorporation into a variety of individual practices. Starting or stopping cycling can change how individual people live in the city, but the growth of cycling also changes what the city is, including the opportunities it presents to people who are not riding bikes. Cycling's uneven growth (and infrastructure provision) is an aspect of the plurality, multiplicity and splintering of urban life, which means that velomobilisation benefits some but passes some people by and inhibits others (Graham and Marvin 2001; Lassen 2009; Lugo 2013b; O. B. Jensen 2007b; Sheller 2011). Theoretically, cycling in London is an opportunity to further understandings of how minor elements of practice can reconfigure their connections or reorient systemic trajectories of development, forming radically different outcomes that belie the strength of their cause.

2.8 Conclusion

The final section of this chapter synthesises the literature review. It firstly describes the iterative procedure by which the theoretical topics prompted the research questions, methods and empirical practices to be investigated. It then it states in clear terms how the proposed areas of investigation might contribute to geographical debate.

The empirical chapters investigate the practices of civility, navigation and placemaking. These practices were chosen through an iterative research procedure. It began with a literature review,
which eventually developed into this chapter. However, conducted in mid-2010 to mid-2011, a majority of the cited research on cycling was not yet published. The initial review identified the core theoretical issues of social practice, cosmogony, encounter and emergence. In response to this, working versions of the research questions, methodologies and methods were formulated. The methods were implemented with the researcher providing relatively ad hoc, wide-ranging but personalised facilitation, grounded in detailed empirical literature on cycling in London. This assisted participants to describe their life in their own terms and frames of interest, accepting quite open or indirect approaches to the questions. The fieldwork produced numerous potential lines of empirical analysis.

Given the collected dataset, it was decided that the theoretical lines of enquiry were best addressed through narrowing the analysis to focus on practices retrospectively termed civility, navigation and placemaking. Extraneous practices were excluded from further analysis. Under civility I investigate how participants enacted forms of politeness whilst on two wheels, and how these could become a means of contesting their immediate treatment by other road users. It explores how riders expressed and produced practical forms of ordering and understanding in traffic. Through navigation I examine how peoples’ ways of imagining their city were related to their practical experiences of wayfinding and logistical management. This explores how their experiences of moving around the city related to different understandings of its systematisations, and how they could be reconfigured. In placemaking I investigate peoples’ conflictual understandings of how a sense of locale becomes created, and how cycling infrastructures or flows of cyclists could influence this.

The study aims to make contributions to three themes of knowledge by investigating cycling in the city. Firstly, I suggest making an analytic differentiation between cycling experiences and urban practices. This is understood as acting to de-centre and fracture cycling, preventing it from being the singular, taken-for-granted centre of the research. It produces a research topic framed as a study of the mutually constitutive relationships between peoples’ experiences of cycling and their take up, alteration and divestment of different urban practices. I hypothesise that this formulation might support a greater focus upon dynamic processes of mutual constitution and reconfiguration,
so developing social practice theory's ability to account for change and incorporate technology. Instrumentally, I suggest applying and so evaluating a technique which I term "backlighting". This avoids overemphasising cycling's most iconic activities, narratives and actors. It uses the concept of urban practices to support a focus on the processes by which various more quotidian, secondary or seemingly-disconnected factors influence the mode of transport's uptake.

Backlighting firstly articulates theoretical critiques of strategies and tactics. It secondly avoids a "sectoral approach" - which would be framings such as cycling's percentage share of journeys or individualised cycle-trip frequencies (Hargreaves 2012, p318). It aims to produce a better understanding of experience and practice. The term is intended to emphasise that a focus upon less iconic elements is still likely to dazzle and omit in other ways, and should not simply be considered a more thorough unveiling of previously hidden foundations. Yet maintaining cycling as an "experience" acknowledges that this is the framing through which many riders (and stakeholders) will perceive the activity. It is a pragmatic attempt to utilise the tension within simultaneous assumptions of cycling's homogeneity and heterogeneity into a productive, theory building outcome.

Secondly, the study aims to develop understandings of cosmogony, encounter and emergence that further geographical debates. In particular, it aims to evaluate how the non-essentialism of encounter, the self-organisation of emergence and the bodily habituation of cosmogony further our understandings of how place is made and practice occurs. This might reconcile critiques of habitus' conservativism and spatial holism, humanist divisions between social and technological factors, and associated binary understandings of power. The result should suggest new forms of progressive politics and trajectories of change which reflexively complement or act as the obverse to more resolutely presentist accounts.

Thirdly, the study hopes to gain a better understanding of why people start and stop cycling, contributing to the emerging field of cycling studies. Developing a form amenable to the ethics of public academia which are a significant part of that field, it aims to create a modest but empirically grounded contribution to an area of academic knowledge, including an understanding of how its findings relate to wider debates. However, given that it is not a study of policy, the potential to make direct interventions into stakeholder-knowledge or public-practice is limited by the format of a thesis. Developing the topics of cosmogony encounter, and emergence, will produce salient
empirical data on the specifics of urban cycling. Reflection on how the research's eventual contribution to cycling studies relates to the field's organisation and style then prompt analogous suggestions for the geographical discipline and research praxis.
Chapter Three: Cycling in London

“Central to our vision is the belief that more cycling will benefit everyone, not just cyclists. A classic cycle ‘permeability’ measure, such as blocking one end of an inner-city residential street to cars, improves life for all who live or walk on that street. It makes children safer when they cross the road. It cuts traffic, noise and pollution. It makes room for new green space, tree-planting or pavement. It may increase property values.”

(GLA 2013, p30)

Chapter three interprets the contemporary state of cycling in London via practice theory. This assembles a body of empirical knowledge that informs the research questions and articulates the theoretical topics. It allows the later fieldwork to be situated in a practical knowledge of London as a machinic complex, and different cycling trends within this. This is a relatively detailed chapter because social practice theory is a framework for understanding how individual experiences relate to and systemically recreate more durable societal tendencies.

According to practice theory, the study participants' actions and accounts should be understood to involve a practical, in-kind, partial understanding of their situated position within wider systems. Therefore, this chapter will be referred to by my analysis, but the information in it indirectly influences the participants themselves. However, I suggest that it is more readable and less repetitive to summarise London's cycling here and subsequently refer back to it. The alternative is to constantly interrupt the flow of the participants' accounts to incrementally add in pieces of practical knowledge that contextualise their statements. The academic literature in this chapter does not expand the scope of the framework explained in chapter two. It develops and grounds it empirically, responding to critiques of geography's contemporary tendency to omit such empirical detail.

Chapter three firstly overviews contemporary trends within cycling's demographics and explores how these might relate to different forms of ordering, developing applied examples of different endogenous and exogenous reconfigurations of practice. Analytic tensions are then drawn out of cycling's historic context, contemporary breadth, and the disproportionate influence of certain journey types and demographic groups. The second section examines how London's
heterogeneous socio-economic geography and transport infrastructure relates to variations in its different cycling rates, flows and confluences. It thirdly evaluates current trends within “liveable” urban design and sustainable transport infrastructure. Finally, with the earlier sections of the chapter having synthesised the secondary data and overall theoretical framework, the last sections apply this to develop the three research questions and the practices of civility, navigation and placemaking.

3.2 London’s Cycling Renaissance

This section presents the overarching state of cycling in London via a practice theory framework. It introduces contemporary London as a city in which increasing numbers of cycle-journeys are being made, but by an almost-unchanged number of people. It describes the potential processes of churn and recombination which might give rise to this, linking them to practice and experience. It then contextualises the current state of cycling against the city’s relatively mixed-mode but busy transport network, and relatively heterogeneous processes of redevelopment.

The recent absolute growth of cycling in London has been widely publicised, however it is the form of this growth which makes it particularly interesting for a study of practice. Between 2000 and 2011 the number of journeys done by bike per year is estimated to have almost doubled, yet cycling still only comprises 2.7% of London’s journeys (TfL 2012, p45, p28 respectively). There are multiple UK cities with higher rates of cycling (Goodwin 2013, p7; Office of National Statistics 2003; 2012). But curiously, cycling’s growth in London seems to have been a “riderless recovery”, produced by “an increase of only 3 per cent in the number of people who ever cycle... but an increase of nearly 50 per cent in the proportion of cyclists who cycled frequently.” (TfL 2010a, p44, covering 2000–08). A significant (unspecified) proportion of this is thought to be “churn”, in which equal numbers of people have started and stopped cycling, but the current cohort cycles more frequently (ibid, p44-5). This suggests cycling’s growth is not simply caused by some homogeneous and unchanging activity called “cycling” becoming more popular, to suddenly attract a larger cohort of practitioners.

The empirical situation underlines the importance of understanding why people take up, alter and divest themselves of different urban practices involving cycling. A nuanced investigation is required to explain why contemporary cyclists are riding so much more than their immediate predecessors.
or than their previous selves, and why so many of their predecessors have stopped. The churn within London's cycling is valuable for the development of practice theory because it relates to critiques that studies of innovation and practice focus disproportionately upon endogenous innovation, rather than exogenous recombination, as critiqued in chapter two.

With regards to how churn might change a practice, Shove and Pantzar (2007) have highlighted how changes to a practice might start to attract practitioners with different dispositions to the current cohort, thus acting as vectors for elements from different practices to form novel recombinations (ibid, p160). These new associations or conditions might furthermore repel existing practitioners, and cease to recruit replacements with similar dispositions (e.g. motivations, skills or materials). Such changes do not require the innovating practitioners to be a member of a protected or coherent group. This adds detail to the section of chapter two discussing how practices can change despite their practitioners attempting to maintain their stable reproduction.

To develop the theme of churn in examples from cycling, in the late 20th century the UK Department of Transport explicitly took the position that cycling was unsafe, ceased to encourage it, and gave less consideration to riders' physical capacities or perceptions of safety during road design procedures (Shove 2012, p370). The culmination of a longer-term decline, this is suggested to have created a situation in which cyclists might feel justified in breaking the road traffic rules "on the grounds of personal safety" (P. Jones 2005, p823). However, "those very same tactics which have enabled cycling to survive [in cities] can also therefore reinforce the cyclist's already stigmatised identity" (Horton 2007, p146). In contrast, the growth of practices which articulate cycling in mass, non-stigmatised and legally-conformist forms may not necessarily resonate with the dispositions of practitioners accustomed to cycling being a minor mode of transport. For example, some practitioners might have explicitly or tacitly felt that cycling signified their being an independent thinker (Skinner et al. 2007). The skills and motivations required of "lone wolves" whose on-road interactions are mainly with cars might be very different to the skills required to coexist with multiple cyclists (term in Lugo 2013b, p204; Kidder 2011). The practices of radical non-hierarchical organising that are incorporated into certain forms of cycling might be almost entirely divorced from the more law-abiding practices and goals of more ascendant, popular forms (Stehlin 2014). Transport-exogenous technological change can also have radical effects, for example the internet has radically changed transport and society (Sheller 2012). In terms of cycling, it has changed how demands for movement are generated, which (for example) has influenced the
business model of cycle couriering without changing the skills required to cycle in city centre traffic (Fincham 2004; Kidder 2011). However, practices do not necessarily change en mass and uniformly.

I argue that cycling’s plurality and London’s heterogeneity might support an investigation into how practices can simultaneously exist in multiple forms, and be experienced in multiple ways, developing thought on machinic complexes. In this vein, London has particular characteristics which should influence its cycling. In comparison with many other British (and European) cities, London is particularly big, old and busy. The Greater London Authority (GLA) covers an area of 1,572km² (Pucher et al. 2012, p320). According to the popular cyclestreets.net online cycle route planner, it would take 3.5 hours of cycling at 12mph to cross the 35 miles east-west across London, and almost the same for the 33 miles north-south22. Continuously inhabited, rebuilt and expanded since at least Roman times, London now contains over 7.2 million residents, with an additional 500,000 people (net) commuting into its boundaries each day (GLA Economics 2010, respectively p35, p39).

80% of journeys within the city are made on the road network, and this traffic is highly concentrated on a small number of main roads: “[T]he busiest five per cent (approximately 580km) of roads in London, [carry] more than 30 per cent of all traffic.” (TfL 2011a, p8). London’s “strategic” roads23 are “around 40 per cent more dense than roads in other major UK conurbations.” (TfL 2011a, p4). Whether busy main routes or quieter side streets, London’s roads “account for 80 per cent of its public space” (Roads Task Force 2013, p8)24.

The current and historical modal split of London’s transport is relatively atypical for the UK. Whilst the city is still growing, its road traffic is falling (TfL 2011c, p3). Significant amounts of road space and traffic capacity have been reallocated from general traffic, going to public and active modes or

22 Harmondsworth in the west to Slade Green in the east, and between Crews Hill in the north to Whyteleafe in the south. See Pucher and Buehler (2012b; particularly Handy et al 2012; Pucher and Buehler 2012a; Pucher et al. 2012) for comparisons with different sized cities.

23 For reference, the Transport for London Road Network (TLRN) and Borough Principal Road Network (BPRN)

24 The Roads Task Force document does not precisely define public space, and this figure is treated indicatively.
non-transport retail, leisure and civic uses (ibid, p100-105; TfL 2011a, p33-34). Historically, car use has been low (Pooley and Turnbull 2000). Today, only 35% of journey stages\textsuperscript{25} are made by car, 21% by foot, 20% by over- or underground rail and 20% by bus (TfL 2011c, p28). In Inner London (figure 1), 56.7% of households have no access to a car or van, 30.7% in Outer London, whilst the (London inclusive) England and Wales rate is 25.6% (Office of National Statistics 2012, Table KS404EW)\textsuperscript{26,27}. In comparison to many UK cities, bus travel is "less clearly associated with marginalised transport users" (Green et al. 2014, p474). In general, UK residents who cycle also have a higher than average rate of car ownership (Baker 2011). Compared to non-cycling London residents, cyclists have relatively high rates of car ownership and of public transport use, particularly train use (Melia et al. 2012; TfL 2010a).

\textsuperscript{25} "A journey stage is therefore a component of a trip using a single mode of transport from one interchange (or from the trip origin) to another (or to the trip destination)." (Transport for London 2011c, p21). For example, driving to a train station, taking the train to a different station and walking the final distance comprises three journey stages. TfL does not estimate the modal share by distance.

\textsuperscript{26} The census is calculated on a household basis. Overall, 42% of the UK population cannot drive or do not hold a full driving licence (National Travel Survey 2009 in Sustainable Development Commission 2011, p15)

\textsuperscript{27} Nationwide, in 2008-9, 83% of cyclists were resident in a household with access to a car or van, slightly above the UK average of 82% (Baker 2011). There are no city-specific figures to my knowledge.
London's traffic conditions and modal split mean that (for the UK) cycling is a minority mode in a city whose busiest roads are extremely busy, and where intra-city journeys can be particularly long, but in which the car is not the overwhelmingly dominant means of transport. This means that London's population has a particularly heterogeneous set of quotidian travel skills and experiences. Firstly, a large proportion of inhabitants have experiences of non-car travel. But secondly, the skills and competencies developed for doing so are spread across a greater variety of social positions.

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Contains Ordnance Survey data © Crown copyright and database rights. For readers' technical purposes: "Central London is an area roughly rectangular in shape, bounded by Regent's Park to the north, Whitechapel to the east, Elephant & Castle and Vauxhall to the south, and Kensington Gardens to the west. It is a larger area than the Central London Congestion Charging zone (excluding the Western Extension), and includes the Inner Ring Road and Paddington, Marylebone, Euston and King's Cross rail stations. It is equivalent (apart from minor boundary differences) to the Central Activities Zone (CAZ) as defined for the London Plan." (TfL 2010a, p50). For a more precise diagram of the CAZ see: (GLA 2011, p47), for a more precise diagram of the Central traffic count cordon and trunk road network see: (TfL Network Performance and Traffic Analysis Centre 2012; TfL 2011a, p8).
and dispositions. This contrasts with the situation in many other cities where, for example, bus travel is associated with marginalised transport users, meaning that the skills and experiences of bus travel are influenced by their predominantly being combined with the time-space geographies of those marginalised demographics (Hubbard and Lilley 2004). Furthermore, as will be described in more detail in the subsequent section, the bicycle is not the only mode of transport used by most cyclists (Baker 2011; TfL 2010a). As such, the heterogeneity of London’s transport situation makes it a valuable case study for an investigation of how urban practices can traverse or be translated into different modes, of how intersecting social and technical factors are mutually constitutive, and the spatial aspects of these issues.

3.3 The Demographics of Cycling in Contemporary London

The following section describes who is cycling in London, how often, and how this can be understood through the practice theory framework. It firstly summarises relevant information from quantitative, highly detailed governmental datasets, examining how various experiences of cycling tend to be commonplace, differentiated or concentrated in certain demographics. This suggests a number of situations which more-or-less successfully integrate cycling, interprets them in terms of “working configurations” of practice, and as different ways of using bicycles to coordinate time and space (see chapter two). Rather than attempting to exhaustively précis different examples of cycling, it historically situates contemporary London cycling within more overarching long-term trends. This develops an understanding of how spatially or temporally diverse elements of urban practice might be renewed, recombined or renovated.

Overall, the ability to cycle is widespread, but only a small minority of people cycle frequently, and they make the majority of journeys. This facilitates a study into how cycling might be emergently integrated into a variety of different practices, creating a variety of encounters, cosmogonically understood in a variety of ways. At its greatest extent, across the UK it is estimated that “85% of people can ride a bike” (Department for Culture, Media and Sport, in Goodwin 2013, p5). Focusing on London: “Approximately 40% of households in London have access to a bike” (TfL 2010c, p10). Still widespread, “around a third of London residents made a cycle trip in the last year”, whilst “one in ten cycles frequently (once a week or more)” (TfL 2010a, p46). They do so for a variety of reasons: in the last period when trip purpose was publically released (2005/6), 53% of journeys
comprised "commuting and in course of work", 5% "education", 18% "shopping and personal business", 24% "leisure and other" (TfL 2007a, p13; see also TfL 2010a, p12).29 

Despite the overall breadth of cycling and cyclists, a small minority of cyclists carry out a disproportionate number of journeys: "around 2% of London residents cycle as their main mode of travel to work, yet this group accounts for around half of all cycle trips made in London." (TfL 2010a, p45). (This does not indicate what other journeys are carried out by commuter-cyclists.) It means that the majority of journeys are carried out by people for whom cycling, and their commute in particular, is a highly quotidian activity. Contrastingly, the majority of people who cycle only do so intermittently and potentially for very different purposes. This variation might facilitate a study of how and why their urban practices differ, why this generates bicycle-use, and how this relates to experience. However, these are not only defined by the bicycle's technical characteristics, nor the amount of time and distance a rider covers on their machine. 

Urban practices and related experiences of cycling would be expected to differ in ways that are influenced by the riders' demographics. Recursively, individuals' practices and experiences are co-produced by their own intersecting social characteristics, whilst the heterogeneous meanings associated with cycling as a mode of transport exist in relation to perceptions of its demographic trends. In overview, the most frequent cyclists are "typically white, male, between 25 to 44 years old, and on a higher than average income" (TfL 2010a, p28). To break this down further, by ethnicity: 78% of cyclists are white, in comparison to 65% of London residents (TfL 2011c, p223). By gender: 67% of people who cycle more than once a week are male (TfL 2010a, p29). Amongst frequent cyclists, men are more likely to cycle more frequently (TfL 2011c, p221). Combining

29 Following 2007, when the "London Travel Reports" were replaced by the "Travel in London" reports, trip purpose broken down by mode is not published.

30 The "typical" cyclist is a composite of the modal category within a number of demographic axes; race, gender, age, income. TfL does not statistically summarise how the frequency of cycling correlates with similarity to the composite "typical" cyclist as a continuous variable. It only states that their categories of cycling frequency (once a week, once a month, never) sequentially become less similar to the "typical" cyclist in each individual category. This is based on data from 2005/6 and 2007/8 (TfL 2010a, p28–31).

31 TfL (2011c, p215–240) analyses the 2010/11 dataset of the survey used to create TfL (2010a).
gender and age, whilst men aged 25 to 44 constitute 19% of the population, "they comprise more than a quarter of cyclists (27 per cent) and account for a third of all cycle journeys." (ibid, p222). By income: “London residents are progressively more likely to cycle as household income rises” (ibid, p224). "One in ten cyclists lives in a household with an income greater than £100,000 (11 per cent), compared to just seven per cent of Londoners. Conversely, 41 per cent of London residents have a household income of less than £20,000, but this group makes up just 28 per cent of those who cycle." (ibid, p224). Although this data does not suggest how the use of a bicycle actually incorporated into specific forms of practice and experience, it does indicate that cycling is neither monopolised by the "typical" cyclist, nor equally distributed across London's population.

The rapid growth of cycling might represent the emergence of working configurations of velomobilised practices which are particularly suited to, and subsequently propagated amongst, the situations systematically occupied by white, younger, higher income, men; particularly their commutes. In this respect the "typical" cyclist is only an informative statistical composite, not a standardised or base character (Valentine 2007, p13). However, remaining mindful of the typical cyclist's statistical existence is a way of addressing Valentine's (ibid, p14) critique that research "often collapses back to a focus on the experiences of nonprivileged groups rather than on how privileged or powerful identities are 'done' and 'undone.'"

Although informing a general understanding of the field, the statistically typical cyclist cannot indicate whether the growth of cycling is driven by the unequal proliferation of one particular working configuration of practice that generates a lot of cycle-trips, or whether a number or working configurations are proliferating in varyingly intense or fractured ways. Put more empirically, the typical cyclist implies that cycle-commuters clearly carry out a large number of journeys. It does not indicate how cycle-commuting supports or destabilises other trips, or the different practices which generate those trips. It does not indicate how or why infrequent cyclists might start cycling more frequently, (or how and why frequent cyclists stop cycling so often). It does not explain how the aggregate demographic tendencies are formed through heterogeneous and multiple urban practices. Nor does it indicate how such urban practices' unequal taken up may involve relationships of mutual exclusivity, creative disruption or symbiosis, not just independently-varying rates of take up.
Studying the establishment, take up, alteration or divestment of different urban practices - such as civility, navigation and placemaking - differs from the attempts of many researchers who have worked to describe sub-types of cycling, (with their particular iconic meanings, internal histories and leading characters). Worldwide, cycling has been practiced in a great variety of ways: as emblematic of affluent middle-class leisure and of pragmatic, thrifty working class commuting (Epperson 2013); as various sports (Berridge 2012; McCullough 2013), as sustainable development (Cox 2010) and as supporting a variety of countercultural lifestyles or politics (Fincham 2006; Hoffmann 2011; Horton 2006; 2009; Lugo 2013b; Spinney 2010b). It has been discussed as a cause, symptom and solution for gentrification (Gibson 2015; Stehlin 2014). It has been incorporated into pragmatic forms of civic politics and localist special-interest socialising (Aldred 2010; 2013b; Batterbury 2003; Bonham and Koth 2010; Carstensen and Ebert 2012; A. Jensen 2013; O. B. Jensen 2007a; Koglin 2011). Yet at the same time, many popular and media narratives imply that cycling implies some commonality of belief or action, even as different narratives imply different commonalities (Cuppies and Ridley 2008; Fincham 2007a; Furness 2010; Gatersleben and Haddad 2010; Horton et al. 2007; Steinbach et al. 2011). This combination and tension between reservoirs of finely-detailed heterogeneity and wide-assumptions of homogeneity provides another potential influence which makes cycling a valuable case study. It indicates that cycling (as a mode of transport) should support a study of how different configurations of urban practice, constituted through emergence, encounters and generative schema, establish themselves on a variety of scales, incorporating various discordances and discontinuities.

Set against cycling's general heterogeneity and homogeneity, its history in London demonstrates a particular expression of these tensions. This somewhat differs from cycling's history in both northern Europe and the USA, two locations which dominate the previously referenced studies and which are the main overseas reference for London's cycle advocacy, government and media efforts (e.g. Goodwin 2013; Greater London Assembly [sic] 2012a; GLA 2013). In the UK, cycling has not always been a minor mode of transport. In the 1940s the bicycle was "the single most important

32 I openly recognise that my understanding of cycling and urbanism is highly focused upon research and researchers from the Global North. Unfortunately, this has to be a matter for future research.

33 For example, Californian cycle advocacy, particularly the "CicLAvia" draws somewhat more explicitly upon South American cycle campaigning (Lugo 2013b).
means of travelling to work for men in urban areas” (Pooley et al. 2010, p447). It is thought to have constituted over 15% of journeys throughout the 20s, 30s and 50s (Pooley and Turnbull 2000, p15). "It was only in the 1960s that the motorcar gained dominance as the main means of travelling to work in most towns." (Pooley et al. 2010, p447). However, rates of cycling in London have historically been relatively low, and this is seemingly the first time that cycling rates in London have risen above those of Britain’s other large cities. Therefore, although substantial parts of cycling’s growth in London are new, it is taking place amidst various salvageable or untouchable relics of historical mass cycling.

The presence of such relics from historical forms of cycling supports an investigation into how existing elements of practice might be recombined or reinvigorated into new, contemporary forms. As Shove (2012) has written, the decline of practice tends to be envisaged as the mirror-image of its growth, if it is considered at all. In fact, elements might be repurposed; persistent remnants might disrupt their successors. Functioning relics might bear limited resemblance to either scaled-down or un-changing versions of the historic mass practice. The processes and trends constituting their re-growth likely differs from those of their original growth. In this respect, it is important to more tightly specify the meanings associated with quotidian cycling in the UK. Summing up the previously-cited body of research, cycling’s recent resurgence follows upon upper class 19th century beginnings, Edwardian middle-class associations, inter-war mass popularity and increasingly working class connotations. By the late 20th century cycling, apart from niche groups of stereotypically-politicised riders, cycling had become a somewhat ubiquitous (but often infrequent) leisure activity and a utility mode of last resort (cf. Sinclair 2011 for an enjoyably vitriolic literary account). This means that the US history of cycling as an always-minor transport is not directly transferrable, because quotidian non-leisure cycling (even by adults) retains a number of positive

34 A number of smaller towns and cities have higher levels of cycling than London and large rates of growth (Aldred and Jungnickel 2012; Department for Transport 2010; Goodman 2013; Goodwin 2013, p7; Sloman et al. 2009). In fact, contemporary London potentially has the city’s highest ever rates of cycling: Using a 1834 person life-history dataset compiled since 1890, the historical zenith of cycling in London was 1940-59, with 5.6% of London commutes taking place by bike. The same methodology returned a 5.8% rate in 1980-98 (Pooley and Turnbull 2000, p16). The 1981, 1991 and 2001 census shows London cycle-commuting rates of roughly 2.5% (Parkin 2003, p300). The 2011 census states 4.4% of journeys as made by bike (Office of National Statistics 2012, Table QS701EW). (In other large cities cycle commuting rates were roughly 18.2% in 1940-59 and 5.3% in 1980-98.)
nostalgic associations in the UK context. But apart from nostalgic narratives, it is arguable that UK urban non-leisure cycling “died” in the 1980s-90s (Shove 2012 developing; de la Bruheze 2000). As such, the re-birth of cycling in London might well be the exogenous incorporation of cycling into urban practices, and the proliferation of these new forms, rather than the growth or amplification of existing cycling-inclusive practices.

Given its history and geography, the re-establishment of cycling as a quotidian form of transport provides an opportunity to investigate processes of dynamic, exogenous recombination as much as endogenous innovation. Focusing on how the dispositions of individuals themselves may influence the dynamic change of practices, Shove (2012) has highlighted that activities narrated as the “return” to “past ways of life” (p364) may attract those individuals who are “least experimental in orientation” (ibid, p373) and who lack the dispositions conducive to pioneering its reinstatement. As such, the growth of cycling in contemporary - even retro - forms may imply that it has been incorporated into new urban practices that pass by or disrupt the practices of long-term cyclists. Furthermore, it may involve individual or groups learning how to transpose elements of practice acquired through experiences of rural or leisure forms cycling and other forms of transport into new cycling contexts. As previously stated, London’s transport is particularly heterogeneous. This makes it a particularly valuable field site for studies of dynamic change in practice and experience, and so for testing “backlighting” as an analytic strategy. Different modes of transport are technologically different, prefiguring different social forms (and vice versa), with their installation incorporating various local idiosyncrasies (cf. Green et al. 2014; O. B. Jensen 2007b; Lassen 2009; Laurier et al. 2008; Thrift 2004b; Watts and Urry 2008; Wilson 2011; Vannini 2011).

Despite general assumptions that cycling is quotidian and well-understood, it involves attempting to apply the premises of niche cycling-groups to new situations where their assumptions are not shared. It entails translating practices with little previous link to cycling into velomobilised forms, and to do so whilst the status quo is in flux and lacking a clear means for articulating a consensus-view of acceptable behaviour. Of particular interest to a geographical study, whilst these social variations are confusing enough already, cycling rates and conditions also show wild variations between different times and spaces in the city.
3.4 The Geography of Cycling in Contemporary London

The following section introduces the intra-city geography of cycling in London. It firstly explains where cycling-journeys take place, setting out how cycling's demographic tendencies compare and combine with London's socio-economic geography. It secondly describes how the growth of cycling relates to changing traffic flows, and how different ways of moving around the city might change how people understand it in terms of place and cosmogony. It finally examines urban design trends within attempts to support cycling and compares these to more general trends within design, mobility and placemaking.

To better understand how people stop and start cycling, as created through urban practices and cycling experiences, it is helpful to understand where, when, and in what context the journeys actually happen. There are no large-scale published surveys of the routes cyclists take, or how cycle routes differ from those of other modes, so these factors must be indirectly estimated (Gordon and Parkin 2012, p104; also TfL Road Network Performance and Research Team 2009). It would be a significant empirical contribution to applied knowledge to better describe cyclists' routes, but in advance of this a number of tendencies can be described.

The city's employment and residential geography a good place to start, because cycle-commuting is the numerically dominant part of cycling in London. "Around one-third of London's jobs are located in Central London" (GLA Economics 2010, p29, cf. this chapter figure 1). Central London is under 2% of the land area. This means that London's geographical centre is a relatively concentrated centre of employment when compared to the degree of centralisation of employment in many other US and European cities (Seagriff 2011). Over half of all cycle journeys start or end in Central London (TfL 2010a, p23). The remaining employment is concentrated within the metropolitan town centres (GLA Economics 2010, p37). These tend to be the historic centres of smaller towns which were swallowed by the expanding city's suburbs, becoming local transport hubs with higher land values, non-residential land uses and denser accommodation (ibid, p25-43; also GLA 2013). Those demographics showing a propensity to cycle are residually concentrated in central and inner London, or around the metropolitan town centres (TfL 2010a, p5). So both current cyclists and demographically similar non-cyclists are relatively concentrated in particular areas of the capital, predominantly living in the metropolitan town centres and inner London whilst travelling to or from central London, with the remaining journeys mostly being within these three
areas (see figure 2). These are the areas of the capital undergoing the greatest socio-economic change (Hamnett 2003; 2009a).

![Long-term trends in cycling across strategic cordons and screenlines in London. 24-hour weekdays, both directions.](image)

Source: TfL Surface Transport.

Figure 2: Long Term Trends in Bicycle Use (TfL2012, p59)35

The confluence of cycle-commuting and London’s economic geography means that the busiest times and spaces for cycling are in Central London (and) during the AM peak36. This means that some of the most important places for cycling only exist intermittently. Understood in this framing, they are quite explicitly produced by newly emergent flows of traffic and transient encounters between travellers, rather than through comprehensive redevelopment of roads. This also alters

35 The Thames screenline measures traffic across the Thames Bridges. To my knowledge, there is no published academic or technical analysis that evaluates whether the fluctuations between the 1987 nadir of trips and the slight rise up to 2001 should be interpreted as a slow take-off for cycling in general, some parallel increase which was surpassed by the 2001 take off, or statistical noise.

36 Seasonally, cycling tends to be highest in summer and lower during winter, lowest during “the Christmas and New Year holidays” (TfL 2012, p57). Small, indicative studies have suggested that cycling levels respond more strongly to seasonal rather than daily fluctuations in weather (TfL Road Network Performance and Research Team 2008).
the way that their inhabitants might be identified; they are not necessarily or wholly the long-term and relatively immobile inhabitants or proximate residents of a site. By 2012, TfL estimated that over a quarter of the vehicles during the morning peak traffic on the roads of Central London were bicycles (London.gov.uk 2013). However, seven of the ten busiest locations for cycling are on arterial roads and key junctions in or immediately south of Central South London, in which cyclists make up 60-30% of road traffic during the morning peak traffic (Beard 2013; The Evening Standard 2013). All ten are within the Central Activities Zone (CAZ, see figure 1), and during the AM peak hour have 700-3000 cyclists passing through them in each direction (11-50 per minute, Gilligan 2013). This demonstrates an under-recognised feature of cycling in London; by larger scales of analysis, the modal share of cycling is may be highest in South London. The east London Borough of Hackney contains areas with the highest density of regularly cycling residents, but the other east London boroughs have particularly low levels of cycling (TfL 2010a, p26; cf. Datashine 2014).

South London's cycling-geography and road network involves cyclists from a large catchment area being funnelled into a small number of very busy arterial roads leading to the bridges over the River Thames. A cyclist in south London encounters a differently laid-out road network to a cyclist in east London, with different flows of motorised and cycle-traffic, potentially leading to very different encounters and ways of understanding the city.

Midway through the fieldwork, cyclists' vulnerability became a relatively active political issue which epitomises the statistical and experiential situation. In brief, during an inquiry into London's most

37 Measured by the numbers of riders passing through the concentric automated screen-count cordons which encircle the city and multiple count-points inside the CAZ.

38 All the statistical means of estimating cycling's prevalence have problematic limitations described in their own reports, but remain informative. Whilst the modal share of cycling in the Inner London boroughs was between 1.5-3% of journeys, Hackney's was 7.7%, (TfL 2010a, p26, its travel-diary based methodology p53). These journeys and individuals are particularly concentrated in West Hackney, around De Beauvoir and Stoke Newington (ibid, p26). The London Cycling Campaign suggests this area to be a leading example of "filtered permeability" road closures to encourage cycling (Greater London Assembly 2012b, p103). The 2011 census records the Londonwide percentage of households cycling to work as growing. Cycle-commuting is most pronounced in Hackney, at 15.4% of residents, but, for example, all three Inner South London Boroughs have levels over the Inner London average of 7.2% (Lambeth 8.5%, Wandsworth 7.9%, Southwark 7.7%, Office of National Statistics 2003, Tables KS17, KS01, KS15; Office of National Statistics 2012, Tables KS404EW, KS101EW, QS701EW). For quantitative critique of the census with regards to cycling, see: (Parkin 2003; Parkin et al 2008).
dangerous junctions for cycling, it emerged that 89 people had been killed or seriously injured at the worst location – Elephant & Castle roundabout – during 2008-2010 (Shawcross 2011). Mayor Johnson responded to this with the subsequently-catalytic phrase: "If you keep your wits about you, Elephant & Castle is perfectly negotiable." (SE1 News 2011). In response, the "Tour du Danger" was organised to ride around (most of) these dangerous junctions, briefly gaining local and national media coverage (cf. Ames 2013; i bike London 2012; Prigg 2011). Five of the ten dangerous junctions are concentrated in a 1.5 by 2 mile area found between Elephant & Castle, Vauxhall, and Oval, which on figure 1 straddles the border of Southwark, Lambeth and the CAZ. Four are also amongst the 10 busiest cycling locations, so a large number of people must have personal experience of travelling through these locations. But furthermore, when south London is publicised in cycling terms it is usually in relation to narratives of deadly and high-traffic road conditions. Contrastingly, Hackney is often emblematic of popular cycling along safe, low-traffic streets, and an allegedly-pronounced "cycle culture" (Aldred and Jungnickel 2012; GLA 2013). Therefore the busyness of roads in south London supports an investigation into how place, particularly danger-in-place, might be incorporated into practice and experience, and the mutual constitution of social and technological aspects within this.

Moving from the geography of traffic flows to a consideration of the equity and justice of such distributions, although certain locations in London's streets are more dangerous than others, the costs and benefits of mobility tend to be inequitably distributed. In general, disadvantaged groups are more likely to be exposed to the negative externalities of mobility and less likely to have or utilise access (O. B. Jensen 2007b). For example, nationally, "children from low-income backgrounds are more likely to live near main roads, more likely to play by or in roads (because they do not have safe places to play) and to walk rather than travel by car" (White et al 2000, in Social Exclusion Unit 2002, p13).

In transport safety, "accidents" are increasingly termed "incidents", in recognition that although they are usually non-intentional, often legal, miscalculations, they are highly statistically and geographically predictable (in cycling Cavill and Davis 2007; Davis 1993; Knowles et al. 2009; TfL 2010b). In cycling, despite popular stereotypes of cyclists as ignoring or actively challenging road laws, relatively few serious incidents result from premeditated illegal manoeuvres by the cyclist, such as crossing a red light (approximately 5% by estimations in TfL 2010b). Although statistics indicate that male cyclists are disproportionately likely to be killed or injured overall, it is relatively
regularly reported in special-interest and local media that deaths in London are disproportionately likely to be left turning heavy-goods vehicles (HGVs), and to be female (for example Tran 2010; often drawing on Knowles et al. 2009; and Transport for London 2010b). That is, although left-turning HGVs are dangerous and disproportionately kill women, the strength of the wider association between femininity and vulnerability in traffic (presented as risk non-avoidance rather than risk-taking per se) in traffic is questionable. This is in addition to the bicycle being a visually and physically exposed form of transport, which intersects with wider ideas and constraints associated with different social characteristics being in the street (race, gender, class etc.), along with the particular technical capabilities and exposures implied by different modes (Hoffmann 2011; Lugo 2013b; Steinbach et al. 2011).

Different intensities and levels of traffic might also influence how people experience and envisage the city, their own encounters, emergent trends, and generative schema which make it comprehensible. For example individuals living closer to the busiest roads might become accustomed to their levels of traffic, find them less alarming and develop the skills with which to use them. Or people living near main roads may be discouraged from cycling more generally by the hazards they associate with the roads outside their home, an analogy to the negative correlation between the rate of traffic moving along a road and the social links between residents on its opposite sides (cf. Appleyard and Lintell 1972).

Instrumental government- or industry-led attempts to influence peoples' encounters and generative schema via transport can be seen in the inner city redevelopment strategy of “urban villages”. These have been used in a variety of London developments and governmental literatures (B. Johnson 2013; Greater London Authority 2013; Roads Task Force 2013). This implies the narrative, social and material creation of a locality with a notable character and constrained connections to its “outside”. The aim is to foster local social interaction by facilitating chance meetings (“organised fortuitousness” Lassen 2009, p183), proximate friendships, employment and retail opportunities “inside” the village. It also involves discouraging connections with the “outside” by encouraging the idea that the place is inaccessible, whilst neglecting or reconfiguring the transport infrastructures and institutions that might facilitate travel to neighbouring areas (Tait and Jensen 2007). Despite urban villages being relatively well connected to their surrounding areas in comparison to more rural locations that are physically distanced from each other, such industrial attempts at placemaking through reconfiguring relatively-marginal or systemic types of
inaccessibility are often quite successful and self-perpetuating (Tait and Jensen 2007). Similar effects can also occur emergently, without being led by developers (Benson and Jackson 2013; Jackson and Benson 2014).

Developing an instrumental understanding of mobility as constitutive, traffic flows can be manipulated to create highly discontinuous socio-technical effects. For example, in a study of New York’s Battery Park City, Smithsimon (2010) has suggested that the multi-lane highway which divides this promontory from the rest of Manhattan island discourages people from visiting the area, which supports local forms of social exclusivity. Furthermore, this more indirect and systemic means of creating exclusivity seems less widely noted or critiqued, in contrast to architectures more visibly and directly focused upon preventing lingering in public squares (Smithsimon 2008b). These examples emphasise that different places socially reproduce certain dispositions, practices and experiences, but highlighting the influence of emergent flows, encounters and generative schema that cross through and between locations, rather than entirely occur in situ.

This introduces the main body of the description of cycling in London. The final section of the chapter returns to the three practices I propose to examine in more detail. It explains how the previously described corpus of knowledge applies to each, and articulates specific theoretical issues relevant to each question.

3.5 Civility

Seeking to better understand why people start and stop cycling, analysed through the cycling experience-urban practice framework, I propose to investigate practices of civility. As such I understand civility as a quotidian practice through which people coordinate, manage and contest their interactions. By investigating civility as experienced through cycling I hope to better understand how the use of different technologies influences the performance of a relatively quotidian practice, and vice versa. Cycling alters civility by the rider being mounted on a bike, but also by their taking part in a variety of end-to-end and side-on interactions, in flows of traffic with varying intensities and combinations of vehicles. I suggest that cycle-journeys require cyclists to order their manoeuvres over a sequence of moments as they and others move through locations. This requires cyclists to reconcile the traffic and street conditions with their ability to draw together a variety of materials, meanings and forms of competency. Attempts to travel to their destination in
the manner of their choosing, might also bear the imprint of their habits, the gaps in their knowledge and variations in how they expect to be treated in the street. Civility's investigation might generate understanding of how cyclists emergently contest and calibrate their encounters with others, and their cosmogonical understanding of the situation.

Bourdieu argues that civility is particularly interesting because, combining embodiment and language; it involves seemingly small details taking on a much greater systematic importance. Civility takes “the seemingly most insignificant details of dress, bearing, physical and verbal manners, [and] treating the body as a memory, [entrusts] to it in abbreviated and practical, i.e. mnemonic, form the fundamental principles of the arbitrary content of the culture.” (ibid, p94, emphasis in original). This is not simply symbolically synechdocial, a self-conscious enaction of a social role or repertoire. It is bodily mnemonic, forming a physical “memory” of various habitual series of actions and experiences. As such this should be a particularly appropriate practice for investigating how the social and technical are mutually constitutive, embodied, and how their reproduction in practice and experience might be influenced in kind. It also provides a way of understanding how the growth of cycling involves practices which are not wholly encapsulated by cycling, but involve translating a variety of more quotidian urban practices into bike-borne forms of experience. Furthermore, a key part of civility's power is that by focusing upon seemingly minor matters, civility “extorts the essential whilst seeming to demand the insignificant... The concessions of politeness always contain political concessions.” (ibid, p95). This implies that practices of civility might be investigated as mechanisms by which cyclists contest their treatment, their outcomes or goals contingent upon their beginnings or initial situation.

Urban cycling can be argued to be a particularly appropriate situation for investigating civility because a wealth of political and journalistic accounts describe or deny the alleged incivilities of cyclists (e.g. Clarkson 2013; Department for Communities and Local Government 2011; GLA 2013; P. Hitchings 2012; Sinclair 2011; academically Fincham 2006). This exists alongside many accounts into the systematic generation of deaths and injuries (which disproportionally afflict the non-motorised) and endemic episodes of “road rage” (Davis 1993; Katz 1999). As such, roads seem to be one of those urban infrastructures which generate outbursts of antagonism, violence and incivility (Thrift 2005). A better understanding of how they do so may suggest ways to improve them.
As a way to understand how the experience of cycling and the changes required to velomobilise civility may affect the practice, it is possible to study how the cyclist's bodily sensation is mediated by their machine. Spinney has suggested that cyclists' posture, unenclosed exposure, and the way that vibrations produced by the wheel running over the road can be sensed proprioceptively (internally) influence riders' experiences (2006; 2007). This links cycling to more general understanding of how, for experienced users, a technology can become "prosthetic", considered tacitly. However, these prosthetics can also alter how people communicate on the road. For example, Katz's extended study of driving - for which there is no cycling-equivalent but which resonates with this study's interests- charts how taking part in traffic requires a knowledge of how to use "body language" within automobilised civility (1999). In his interpretation, on-road interactions lack the breadth, nuance and "symmetrical" give-and-take of face-to-face communication or encounter, however, many vehicles contain communicative components, Horns, indicator-lights and even relative manoeuvres in a flow can be meaningful, such as attempting to intimidate others by driving in excessive-proximity or by conspicuously decelerating. Such actions can influence a driver's sense of self; successful manoeuvring can be satisfying, comparable to deft footwork or a witty put-down, but being out-manoeuvred implies the opposite. Katz suggests that communicative asymmetry, compounded by habitual expectations of face-to-face or verbal communication's ability to confirm meaning, results in miscommunications and confusion that create much of the anger and frustration that is found on the road.

Studying how civility is enacted and experienced whilst cycling might develop our understanding of practice in a number of key ways. As a form of transport, it has been suggested that higher levels of physical effort whilst cycling seem to make reflexive contemplation increasingly difficult, although a moderately paced journey is not exceptionally strenuous (Spinney 2006). In comparison to driving, cycling is more bodily expressive, facilitates vocal interaction and more directly sensory exposure to noise, traffic and surrounding environment (Aldred 2010; Brown 2012; Brown and Dilley 2012; O. B. Jensen 2010; Jungnickel and Aldred 2013). This also involves a potentially acute physical vulnerability and exposure to both mechanised traffic and bystanders. However, the variety of different cyclists' experiences, demographics, and their flows through the city should imply that there is no one velomobilised practice of urban civility. Furthermore, the movements of bodies in traffic are not only influenced by the mode of travel and travellers dispositions, but also the infrastructures they move through, and the fluctuating intensities of traffic flow produced by the
city's socio-economic geography. In this case, an investigation of how cycling-journeys are experienced would allow for an investigation of what different urban practices of civility entail, how these allow and encourage their practitioners to accomplish different types of interaction. It may explain why some cyclists seem to be so incivil.

### 3.6 Navigation

Navigation is the second quotidian urban practice that I propose to investigate. This takes a somewhat expansive definition of navigation, including not only wayfinding, but also logistical planning to coordinate movement. For example, knowing how to plan new routes, but also arrive on time, carrying equipment and in an expected form of attire. Being able to enact such practices includes acquiring the technical capacity to do so, not just learning how to. For example, it requires access to that attire or means of transport. Studying practice it is interested in how established habits and prior experiences influence what people actually do on a day to day basis, rather than what they could do if asked (e.g. map read). As a means of understanding why people start and stop cycling, and of developing the analytic framework, navigation supports an investigation of how people alter their urban practices via their experiences of cycling the city. This implies a particular interest in the trajectory of change over time that practices and practitioners travel along, and the influences that changes in each may have upon the other.

The previous chapter's review of social practice theory highlighted that a practice's growth is often described as a process of diffusion, so failing to capture how practices are altered as they are reintegrated into local situations, changing cohorts of practitioners, and exogenous forms of innovation (Shove and Pantzar 2005; 2007; Shove and Southerton 2000). This is often influenced by an unreflexive focus on practices' eponymous components and iconic activities or spokespeople that obscure broader socio-technological trajectories and more heterogeneous outcomes. For example, it is arguably underappreciated that industrialised urban sprawl originated in and continues to be influenced by public transport expansion, or that automobilisation's overarching trend towards timetable-free "anywhere-to-anywhere" transport might be achieved by other forms of high-tech "smart" transport, or the bicycle (Beckmann 2001; Dennis and Urry 2009; Mees 2010; Pooley 2010).
In the case of cycling, although there is no characteristic bicycle-based urban form or development paradigm comparable to the railway and automobile suburbs, bicycle groups led many of the early campaigns to imagine and create paved, transit-focused roads which would be conducive to through-traffic (Furness 2010, chapter two; Oddy 2015; Norton 2008; Reid 2014). Subsequently, new technologies, skills and meanings somehow involving the bicycle have been developed, such as BMX competitions, road racing, professional couriers, bloggers etc (cf. Cox and Van De Walle 2007). Components can also cross between named-modes. For example, the conversion of in-car navigational aids (such as sat-nav) into forms easily mounted to a bicycle’s handlebars, or the addition of bike-racks to public transport might create new “hybrid” capacities to travel (cf. Thrift 2004b; Pucher and Buehler 2009).

The death and rebirth of cycling in London, combined with the city’s heterogeneous transport patterns presents an opportunity to investigate how different working configurations of practice become established and proliferate, including how individuals’ experiences of cycling are related to competencies built up across multiple modes. Navigation as an urban quotidian practice also supports an investigation of how socio-technical heterogeneity does not just create functional innovations, such as new technologies, skills or meanings. It provides an opportunity to understand the processes by which changing and different experiences of moving through the city create new ways of understanding the city. For example, emergent atmospheres, cosmogonical understandings of place, ways of mediating such understandings by minor additions or reconfigurations, and their formation through different encounters with the city’s inhabitants.

### 3.7 Placemaking

The final quotidian urban practice I propose to investigate is placemaking. I define this as intentional or inadvertent attempts to change or reproduce how elements of practice in a variety of spaces are linked together and experienced as places. Empirically, this proposes to investigate practices of placemaking which can be linked to “liveability”, a planning strategy based around the idea that creating more vibrant and heterogeneous streets would address many contemporary urban problems. Liveability includes a relatively strong emphasis upon managing traffic flow in relatively quotidian locations and minor streets. It therefore suggests a coherent empirical topic through which to investigate how people practically engage with attempts to reconfigure place via peripheral infrastructures and quotidian urban life (Furlong 2011; Pink 2008a; Rose et al 2010). But
rather than focusing only on the interactions occurring in situ, cycling supports an investigation into how systems of flows can link spaces together or force them apart, and how these links between distributed elements of a system might be reconfigured. By evaluating the emergence of different, fractured senses of place, alongside the encounters and generative schemas which support them, this should contribute to an understanding of how practice and experience are socio-technically constituted.

In this study liveability is not a theoretical concept. Rather it is a strategy and ideal that is increasingly being implemented by governments, property developers, and often supported by grassroots campaigners (not only cycle campaigners). Liveability is a relevant case study because it aims to increase cycling, but uses cycling and its infrastructure as one component of a wider program to create vibrant, inclusive urban spaces. It "seeks to encourage the implementation of stable transportation systems and promote shared land use so as to make cities safer, cleaner and more accessible, thanks in particular to a decrease in automobile dependence, the improvement of the pedestrian environment, the creation of bike trails and development of public transportation, dense urban development and the mixing of functions." (Sheller 2012, p122). Yet the greater success of liveability depends upon people practically understanding and actively contributing to the creation of places which are able to "compete with the rural idyll in people’s minds", rather than simply providing dense housing for young adults who use the streets only for (mainly automobile) transport and soon move to the suburbs (Howley et al. 2009, p850; Howley 2010). Aspects of liveability are increasingly becoming professionalised and incorporated into international downtown place-branding strategy (Gehl 2010; Gehl and Gemzoe 2004; Peck 2005; Ward 2007; cf. MacLeod 2002; Zukin 2010). However, there are a substantial corpus of smaller-scale projects in local high streets, residential areas, and as a result of local-residents' organising (e.g. Clayden et al. 2006; Melia et al. 2012; Melia 2012; Movement for Liveable London n.d.).

An aspect of liveability, and its particular form in London, which furthers the investigation's theoretical aims is the importance of making relatively marginal alterations to minor residential streets, small clusters of non-residential buildings, and transit-dominated main roads (GLA 2011; GLA 2013; Greater London Assembly 2013; TfL 2010e, p187–244 and subsequent reports; TfL 2011b). For example, closing minor roads to through-traffic but not preventing access, reducing capacity or speed by narrowing roads, or reserving lanes for public transport and cyclists (Greater London Assembly 2005; GLA 2013; Melia 2012; Melia et al. 2011). The fieldwork was completed in
2011-12, which predates the widespread construction of physically-segregated on-road cycle lanes in inner London, especially in south London\(^{39}\).

A specific infrastructural technique which addresses the theoretical interest in mediating technologies and is empirically widespread enough to warrant detailed study is "filtered permeability". This prevents motorised through-traffic at certain points —"filtering" movement by remaining "permeable" to non-motorised travel (Melia 2012). Filtering is often installed with the expectation that it might increase non-transport uses of the street, not just promote walking and cycling. As such filtered permeability addresses the interests described in chapter two regarding the emergent influences of peripheral nodes and the feel or atmosphere of the street as a "big" infrastructural thing, the interest in traffic flows highlighted by encounters, and in experience as a nexus of meaning, technology and embodiment that is central to cosmogony.

Liveability argues that by developing more pro-social infrastructures the increased presence of bystanders and non-motorised through traffic create "eyes on the street", which should create "natural surveillance". This should informally, emergently engender greater perceptions of safety, which recursively encourages and maintains such levels of outdoor activity (Jacobs 1961; S. Watson 2009). In short, liveability’s promoters hope that its greater consideration could ameliorate the urban "malaise" attributed to "random outbursts and occasional mayhem" (Thrift 2005, p141, see this study chapter two).

Liveability's success as a strategy for changing how a place is practically inhabited has, however, been debated (Clayden et al. 2006; Melia et al. 2012; Koch and Latham 2012). Firstly, increased levels or new types of activity might not be appreciated by all vested interests. Secondly, natural surveillance assumes that the presence of others does actually encourage others to trust in the space, discourage illicit behaviour (however defined), and does not allow prejudice to exclude licit users or uses. Furthermore, the mechanism of natural surveillance does not, by itself, suggest

\(^{39}\) The Borough of Camden has a number of segregated routes, many of which run through the Bloomsbury area that houses a number of universities. As such, these routes may be informally familiar to some readers of this thesis. They are not replicated around the city, their past and future fitness for purpose is highly contested, and they are not held up as a model for future segregated routes (they are conspicuously absent from the various previously referenced TfL and GLA publications that follow GLA 2005). As such they were not seen as a useful case study.
precise designs for encouraging a more diverse and higher density of uses, nor how different users' demands might be reconciled. As such its naïve application can also be critiqued according to Valentine's (2008) warning that vibrant, vivacious street life could disguise a city's injustices. This includes inequitable access to its streets, based on endemic responses to various social categorisations, or the inequitable geographic distribution of more benignly-vibrant streets and infrastructures.

Focusing more clearly upon the role that practitioners themselves play in placemaking, the concept of "shared space" in transport gives an example of liveability’s quandaries. Resonant with natural surveillance, shared space supposes that less prescriptive street infrastructures which aesthetically indicate their intended use should encourage travellers to be more emergently responsive to their surroundings, addressing social and technical factors as mutually constitutive. It supposes that collision rates might be decreased if travellers remain attentive, rather than being lulled into a false sense of predictability by the segregation of modes. Examples would include the removal of kerbs, crossing points, traffic lights and lane markings alongside the introduction of low speed limits. In low traffic residential areas, this might encourage more non-transit uses, in busier locations it might allow more efficient traffic flow (Clayden et al. 2006; Hamilton-Baillie 2008a; 2008b; O. B. Jensen 2010; Moody and Melia 2013). However, the success of the strategy is contingent upon travellers practically recognising what is socially and legally expected of them, and their possessing the skills to do it. For example, trials have suggested that unless road-designs physically prevent high speed and volume traffic, and have high pedestrian activity, they spaces tends to become dominated by motor vehicle flows. Furthermore, vulnerable users may often feel safer in areas which fully exclude vehicles (Department for Transport 2009; Melia 2012; Melia et al. 2011; Moody and Melia 2013).

Liveability provides an opportunity to investigate how different practices of placemaking in situ are linked to different ways of living in the city, producing and requiring different flows through the city, whilst incorporating different cycling experiences. By investigating how cyclists encounter and cosmogonically understand such emergent places we might extend practice theory, and understand why people start or stop cycling. In turn this might suggest how these fractured practices and experiences of everyday spaces entail different ways of smoothing over or avoiding quotidian forms of emancipation, outburst and contestation.
3.8 Conclusion

This chapter examined the contemporary situation of cycling in London, relating it to the theoretical issues of chapter two. It firstly examined how the contemporary growth of cycling in London relates to the city's current and historic traffic patterns. The importance of churn and cohort change was highlighted, indicating that cycling in London may be a situation through which to investigate exogenous and endogenous forms of recombination. These changes were contextualised, describing London as a city which (for the UK) is particularly big, old and busy but which also has a highly heterogeneous mix of transport modes.

The chapter secondly described tensions between the wide breadth of cycling's occurrence and the disproportionate influence of a few key journey types or demographic groups. This developed an understanding of how working configurations of practice might be influenced by demographic intersections, and how historical context influences the contemporary situation. It thirdly explored the detailed geography of London's cycling in relation to the city's socio-economic geography. This summarised how flows of cycling are distributed around the city, highlighting that the highest flows and most dangerous locations are found in central South London. Such conditions were examined with respect to examples of how traffic flows and infrastructures can connect and traverse parts of the city in different ways, with highly heterogeneous, multiple and fractured outcomes.

The final parts of the chapter utilised the assembled corpus of knowledge to describe the three quotidian practices that will be investigated via the research questions. In relation to civility, it examined on-road interactions in urban traffic, particularly drawing on existing research into embodied experiences of driving in urban situations. This defined civility as a quotidian practice through which people coordinate, manage and contest their interactions. It suggested the value of investigating cycling as the experience of practicing civility whilst mounted on a bike. This involves taking part in a variety of end-to-end and side-on interactions, in flows of traffic with varying intensities and combinations of vehicles. It is part of getting practitioners to their destination in the manner of their choosing, but bears the imprint of their habits, the gaps in their knowledge and variations in how they expect to be treated in the street. It then proposed that practices of navigation articulate the interests of question two. Navigation was explained to include wayfinding within a broader practice of logistical planning and coordination, in forms that accomplish relevant but transport-external goals and established habits. This was suggested as a means of
understanding how people alter their urban practices via their experiences of cycling the city, with a particular interest in the trajectory of change over time. Practices of placemaking were introduced as a means of articulating question three. They were defined as the often contested processes by which a location acquires an often durable sense of character through the active combination of its material form and the activities of those resident or passing through. This suggested a focus upon liveability's infrastructures, competencies and idylls. This incorporates cycling within a general approach of using quotidian transport-management to influence a sense of place, which directly speaks to the theoretical interests in emergence, cosmogony and encounter. Overall the chapter has grounded and developed the theoretical framework through a body of applied case studies. These foundations can be used to construct a fieldsite and methodology for primary research.
Chapter Four: Methods

"The Department for Transport (DfT) has been concerned about monitoring mechanisms for some time and accepts that surveys tend to under-record the level of cycling activity nationally, and that the incomplete coverage of surveying of traffic on minor roads, and lack of coverage on traffic-free routes, leads to an under-reporting and a lack of general understanding about the level and type of cycle activity."

(Gordon and Parkin 2012, p104)

The growth of cycling in London has produced a number of empirical situations that, if investigated further, would be expected to develop our understanding of practice. Chapter four proposes a selection of instrumental methods for investigating this situation, including a reflexive consideration of how practice theory influences their application. It firstly explains an overarching rational for using mobile methods in a study of urban practices and cycling experiences, explaining how mobility can be studied without necessarily involving bodily movement in every moment of data collection. The practice theory framework entails assisting participants' to repurpose and re-embed in research situations the narrative resources developed through their experiences of velomobilised urban practice. The result fosters various techniques for conveying practical knowledge through extended conversation, but conversations incorporating a variety of material artefacts and ordering logics.

The methodological framework suggested the fieldsite and recruitment techniques: 20 individuals who, at the time of recruitment in autumn 2011, frequently cycled in the Borough of Southwark. Four stages of data production were held at three month intervals, producing a dataset from which the practices of civility, navigation and placemaking were isolated. Retaining the same participants developed a deeper understanding of how their responses to each method articulated personal consistencies or inconsistencies which traversed the individual methods and urban practices.

The first meeting utilised "ride-along with video-elicitation" (Brown and Spinney 2010). This investigated how cycling-journeys are experienced by individuals who cycle, addressing question one. Here, video filmed by accompanying cyclists on a journey was then utilised in interviews to support a discussion of the experience, analysis focusing upon their practices of civility. Secondly,
participants completed qualitative travel diaries every three months, and after their second and fourth entries took part in "diary-interviews" (Haldrup 2010; Latham 2004). This addressed research question two by investigating bicycle-use within practices of navigation that organised their times and spaces in the city. Addressing question three, the third stage involved participants attending one of three focus groups (Morgan 1997; Hopkins 2007). This used a pre-prepared video to support discussion of how participants' experiences of cycling influenced their practices of placemaking. While each method was designed to focus on a specific aspect of the study, there were areas of overlap. All three methods investigate how different combinations of materials, meanings and forms of competency, in different spatial and temporal configurations, can support different ways of living in the city.

4.2 Mobile Methods for Investigating Urban Practice

The following section explores how the concerns of practice theory can be articulated methodologically. It initially reviews the current state of mobile methods. It then proposes that theorising practice as locally reinvented (not disseminated) requires an understanding of fieldwork as the re-articulation of practice and experience via the research methods 40. It turn, it examines the practicalities of recognising that a practitioner's dispositions do not only influence their actions "in real life" but also their responses to the instrumental methods themselves. This builds to a reflection upon how practice (theory) influences the questions that can be asked about cause and effect, to emphasise trajectories of persistence and change.

The development of mobile methods has been a significant part of the mobilities turn. As Merriman's review critiques, they are often justified as an inevitable or necessary outcome of the contemporary mobility turn in academic thought and contemporary life (2014b). That is, new methods for mobility's investigation are often argued to be an inevitable outcome of this change and necessary for its examination. Secondly, many of these methods claim to (somewhat) apprehend previously elusive aspects of human activity. Thirdly, they often suggest that methodological innovation is itself a political project to expand the range of what is investigable, or

40 i.e. rather than eliciting data from an external position.
to propose "inventive" methods "holding the capacity to change [new] problems as they unfold" (DeLyser and Sui 2013, p294).

It is questionable how far or automatically methodological-techniques or technological innovation makes research pioneering, and whether "traditional" methods have become non-functional or superseded (Merriman 2014b). However, it would be unfair to single out mobilities for these trends (DeLyser and Sui 2014). A wide variety of post-cultural-turn social science has entailed claims of methodological innovation. In response it can be argued that their innovations are more modest than their proponents' claims, including their often occurring within fairly tight and taken-for-granted parameters. With respect to ethnography see Latham (2003a) and Pile (2010). Regarding methods incorporating visual elements, see Rose (2014). Questioning the incentives within academia's political economy to claim the use of "innovative methods" see Travers (2009).

Mobile methodologies, particularly their initial forms, have been critiqued for giving a transcendental, absolutist importance to sensory immediacy, kinaesthetic or proprioceptive non-representational aspects, movement/speed and geographical location. This contrasts with relational forms of embodiment, more-than-representational aspects, (im)mobility and place (Cresswell 2011; 2012; 2014; Laurier 2010b; Merriman 2014b; 2014a; Revill 2011; 2013; Sheller 2010). A seminal icon and early development is the "go-along", derived from arguments that researchers should interview people about their activities whilst physically "being there" at the site of their enaction (Kusenbach 2003). This aims to non-disruptively investigate practitioners' "authentic", technologically-unmediated engagement with a place; to "access some of the transcendent and reflexive aspects of lived experience in situ." (ibid p455, emphasis in original).

The practitioner's journey, task and built environment are expected to create an "immediate relationship" which supports discussion of matters too everyday, inconsequential, unmemorable, fleeting, tacit or taken for granted to discuss in an ex situ interview (Fincham et al 2010a, p4). This tendency has subsequently been critiqued by those emphasising reflexivity and method as "an active form of knowledge production" (Fincham et al 2010b, p170; Murray 2010). However, it is arguable that the mobilities actually investigated still repeatedly demonstrate either "an incessant focus on twenty-first-century high-tech hypermobility characterized by the car, the plane and mobile

41 It also claims to be faster than ethnography, characterised as significantly unspeaking, uninformative observation.
communications devices" (Cresswell 2011, p553) or a rejection informed by residual, tacit and normative humanist assumptions resonant with "able-bodied, heteronormative and typically white masculinity" (Mott and Roberts 2014, p234).

Of those interested in technology, much innovation is responding to the difficulties of "being there" by attempting to achieve comparable effects through other means. Video is particularly often argued to affect viewers in a variety of desirable ways (DeLyser and Sui 2013, p300; in more detail Garrett 2011; Spinney 2009; 2011). Specific examples are developed later in this chapter. However, critiquing an associated risk: "excessive faith in such technologies is in danger of obscuring the many complex (often invisible) social and political practices and relations which co-constitute spaces, events and contexts." (Merriman 2014, p176).

A number of suggestions have been made as to how the lack of research into "transport spaces, infrastructures, and policies" might be addressed methodologically (ibid, p177; Cresswell 2012, p647; D’Andrea et al 2011). Particular suggestions include, firstly, developing methods for understanding and conveying how infrastructures structure practice and experience, such as in Butcher’s ethnographies of the Delhi Metro’s generation of forms of sociality (2011a; in Cresswell 2012, p647). Secondly, considering a wider variety of methods (and empirical objects), particularly those without contemporaneous movement; diaries, technical or policy writings, historical sources etc. (Merriman 2014). Finally, greater attention to logistics. This could investigate the importance of distribution alongside that of production and consumption, but also how logistics is "a process that works through being backgrounded." (Cresswell 2014, p716).

Moving beyond only mobile methods, as a means of reflexively evaluation, I propose to follow Latham and McCormack’s advice to think "about, through, and with" method (2009, p253)42. In this, methods are a tool with which new situations might be accessed or old situations accessed in new ways (cf. Laurier 2010b). But methods are also experienced through as they are integrated into the

42 This responds to wider critiques of methodological development. Firstly, that new technologies are often technically utilised without critical consideration of their theoretical underpinnings (Travers 2009). Secondly, that theoretical development proposing significant changes in how we understand experience or practice but which can be investigated and conveyed via the same old methods might be viewed with suspicion (Latham 2003a; Latham and McCormack 2009; Pile 2010).
researcher's (and participant's) experience. Finally, methods can be reflexively thought about; considering why a given method fails or succeeds at producing useful data in a given situation might grant an improved understanding of that situation⁴³. This provides a means of reflexively recognising that the theoretical framework acts to prefigure the questions that can be asked of a dataset, whilst also avoiding the trap of using the data to doctrinally validate a pre-chosen theory (Laurier 2001; Shove 2010; 2011)⁴⁴.

To reiterate the implications of practice theory, but in a specifically methodological form: practice implies that the first-person experiences of individuals are produced through durable routines which, to a significant extent, they understand in-kind, tacitly, and with only a partial knowledge of the systems or situations they are embedded within (Bourdieu 1977). This implies that self-description of an experience is not a full or accurate description of practice. As Laurier and Philo have written more broadly, "acts of expression" are not "representations" of "inner content" (2006, p359). Furthermore, particularly relevant to understandings of generative schema, practices whose "logic and sense is not ordered through the discursive" may require not-wholly discursive methods of investigation (Latham 2003a, p2001). This includes considering how institutions, infrastructures and systems that "materially support working life... also function as a logic of action." (Lassen et al. 2009, p178) Practitioners' descriptions - whether verbal, interpretative dance, numerical summary or a pencil drawing (etc.) - are translations of embodied experiences into new formats of practice.

The use of a practice theory framework is complicated by the understanding that a practitioner's engagement with the methods is influenced by the same dispositions that co-produce their experience and practice of the topic (e.g. urban cycling). For example, a painter, a statistically-trained technician and a human resources analyst may describe the same situation very differently because of their having different abilities to describe it. However, their experience of that situation is itself influenced by their dispositions, which include their ability to describe it. This means that

⁴³ This is aligned with debates over how applying new methods and creating new types of data might prompt theoretical development (rather than being derived from theoretical development) (cf. Ihde 2009; Latham and McCormack 2009; Thrift 2008).

⁴⁴ This acknowledges that attempting to make the "grand theory" as a more tacit assumption underlying more highly empirical description is probably inadvisable by current "disciplinary standards" (Laurier 2001, p486).
someone's particularly adept ability to respond via a given method cannot simply be compensated for as a technical error or bias. For example, a fast-talking but spatially disoriented person's experiences may focus upon the verbal, which transfers into their interview answers. But this does not necessarily represent a more nuanced description of an untalkative map-lover's experience of time and space. Nor does an interest or aptitude for map-reading and wayfinding necessarily allow them to convey the experiences of getting lost easily.

Analogous relationships are demonstrable in the histories of individuals and groups: if novices' understandings are not yet tacit, not yet "sedimented down into unthinking forms of embodied disposition", they might perhaps be more easily described. But they can only describe their novice understanding of the practice, which is not necessarily a dilute or entry-level version of a single understanding that becomes intensified or developed-over-time by an expert (R. Hitchings 2012, p61). The novice's situation is itself specific, and shot through by other interests and capacities that may change or fail to persist for the expert. Similar issues exist for the lapsed practitioner, the expert losing interest, and all manner of variations. However, it has been suggested that this is not an insurmountable problem, and that there is widespread non-academic acceptance that experience is somewhat indescribable and that being "lost for words" is quite quotidian. Therefore, in terms of practice, it is just as important to investigate how people work around their own limitations and those of language (Barnett 2008; DeLyser and Sui 2014; R. Hitchings 2012; Laurier and Philo 2006; Rose 2014). Overall this emphasises that communication and aporia are simultaneously elements of practice, not just imperfections or limits. Being internal parts of practice then alters how verbal language might be combined with other mediums of communication.

Evaluating what practice theory means for fieldwork, its emphasis upon prefiguration, reconfiguration and trajectories of change does not imply that practitioners are encountered as unthinking automatons from which information about practice might be elicited or observed. The key issue is that practitioners (and researchers) are constantly thinking, calculating and innovating, but calibrated to their position within various systems. This means that what feels like original thought is often relatively incremental or based upon recombining pre-existing factors. Someone's perception of an event or idea as innovative or successful through their own efforts is, to a great extent calibrated to their position in an existing system. Giving the example of people explicitly working to change society, Shove and Walker suggest that successful projects are "likely to reflect the local repair work required to keep things going as [much as] the quality of anticipatory knowledge.
deployed by individuals and organisations that harbour illusions of their own management agency" (2007, p765). Nonetheless, socio-technical change does occur, and practice theory provides a means of understanding how situated experience relates to systemic change. As such the previous chapters built a rather detailed understanding of how the situations a researcher might encounter in fieldwork are systematically reproduced across the city, because this is required to analytically make sense of practice.45

Finally, informing the choice of fieldsite, much of the research previously drawn upon has suggested that the experiences of non-privileged groups, descriptions of stable practices(-as-entities) and iconically exclusionary places have dominated recent research (see chapter two, especially Benson 2014; Koch and Latham 2013; Shove and Pantzar 2007; Thrift 2004a; Valentine 2008). Mobility studies have perhaps had a greater emphasis upon how popular, mass forms of mobility and more powerful mobilities are done, especially automobilities and aeromobilities (Sheller and Urry 2006). Therefore, building upon the disciplinary-theoretical issues described in chapter two and their application in chapter three, this chapter identifies a fieldsite and recruitment strategy that includes the previously detailed, relatively privileged demographics performing relatively numerically unpopular and marginal mobilities, in quotidian circumstances.

4.3 Fieldsite and Recruitment

This section explains how the fieldsite was chosen and study participants recruited. It firstly reiterates the locations in which cycling rates are highest, which suggests a focus upon south London, particularly the Borough of Southwark. Specific local features suggested the precise recruitment strategy, leading to responses by 20 people who cycled in Southwark at least once a week during the summer of 2011. It then summarises the residential and employment geography of the recruited participants, along with their demographics. This is followed by a reflection upon the

45 I see the interest in working out where and why certain situations are systemically reproduced as one of the key differences between this thesis and a more ethnomethodological study (cf. Laurier 2001).

46 Repeatedly devoting significant amounts of time to assisting researchers can also sap the resources and morale of these more iconic groups (Lees 2013, p943). This is not an argument against research with non-privileged groups so much as a highlighting that even where access to a group is offered, the researcher retains an ethical responsibility to evaluate the costs and benefits of their activities (Pratt 2004).
Lessons and limitations of the procedure, highlighting the benefits of repeatedly travelling through the area to recruit and meet participants, but acknowledging that certain groups, industrial sectors and employment types were not picked up by the recruitment.

Summarising the information described in chapter three, cycling in London is performed by a large and variable population. However, it is dominated by journeys between or around central London and inner London, cycle-commutes, people who cycle-commute making other journeys, and a demographic tendency towards white, male, higher income, 25-44 year olds. The highest flows of cycling are clustered in south London, between the inner ring road and the bridges over the River Thames (including the area of central London which is south of the River Thames). These flows occur during the peak periods of travel ("rush hour") when commuter-cyclists from a large residential hinterland concentrate upon or leave workplaces in central London. The residential geography of cyclists is more even, particularly in South London. On this basis it was decided to primarily recruit participants who travelled to and from locations, particularly workplaces, in Inner and Central South London.

Recruitment was narrowed down to organisations in the Borough of Southwark for logistical reasons. The inner London boroughs are geographically small, Southwark is a triangle roughly 5km east-west and 10km north-south (Southwark Council 2014, p14). Many cycle journeys cross these boundaries. However, the borough is a primary unit of local government so focusing recruitment upon a single borough facilitates more straightforward and consistent engagement with various local stakeholders and governmental literatures (cf. Cook and Crang 1995, p14). In retrospect, this assisted in contacting gatekeepers during recruitment to a certain extent, but distinctly supported a detailed understanding of the local conditions for cycling. With cyclists recruited from locations across Southwark their routes often cross and experiences overlap there, but their practices cover a far wider area. The ability to quite directly compare their experiences in a small area of north Southwark was complemented by data explaining how their activities in situ were generated by different practices which traverse, draw together and order elements from a wider expanse of urban milieu.

Cyclists were recruited by distributing flyers to a variety of organisations and locations across Southwark. Given the theoretical framework's formulation of quotidian urban practices and cycling experiences, the overarching intention was to access a wide variety of cyclists but without
emphasising any single organisation or special-interest. It did not recruit from a specific cycle-
campaigning group or cycle-club, for example. The flyers also clearly stated that people did not
need to cycle to work, nor cycle regularly, simply “once a week or more, for a month or more of
2011”. This limitation was primarily intended as a means of attracting people who did not cycle
extremely frequently, and by defining a cyclist as anyone who cycled a low but not inconsiderable
number of trips per month. This was based on the expectation that a recruitment strategy based
around the phrase “cyclists” could fail to attract people who did not strongly think of themselves as
“cyclists”, own a large amount of specialist equipment, or cycle multiple times a week (Aldred
2013a).

Recruiting people who cycle once a week, for a month or more, takes in somewhere between 10-
30% of London residents (TfL 2010a, p46). It recruited individuals who only cycled at or above this
frequency for part of the year. However, it does exclude individuals who cycle less frequently. This
was on the basis that such infrequent cycling could indicate a particularly low level of interest in
cycling, which could leave them more likely to drop out. It was expected that the dropout rate would
be higher than the 15% (3/20) which actually occurred (see following section). Methodologically
and hypothetically, it is relevant to highlight that a non-leisure cyclist might quite easily ride at least
once a week without feeling it to be a significant or onerous activity (e.g. one short, local journey). It
might be a more significant commitment for a more leisure-focused cyclist to put time aside for a
lengthy ride each weekend. More detailed implications of this are discussed in the later chapters as
part of the findings and proposals for future research.

Recruitment proceeded by distributing flyers to a number of locations in Southwark. Paper and
electronic flyers were distributed to a number of workplaces in the Bermondsey, Borough47, and
Camberwell areas of Southwark (Central and Inner London). These organisations were generally
non-industrial small office or workshop spaces, which were accessed via approaching the front
desk and asking if some form of office manager was willing to distribute paper or e-flyers within the
organisation. To access employees from larger, more closed offices in the north of the Borough
(Central London), the travel planning unit of the Business Improvement District “Better Bankside”
agreed to email the electronic flyer to their existing mailing list of volunteer “cycling champions” in

47 The Borough of Southwark contains smaller locations in it which are themselves called “Borough” and “Southwark.”
local businesses. Champions regularly distribute cycling-relevant travel planning information of this type, as did a contact at an employer within area covered by the London Bridge Business Improvement District. Finally, to diversify the recruitment beyond these workplaces, flyers were distributed to attendees at a number of rides promoting cycling for health reasons in Rotherhithe and Dulwich (Inner London). These "healthy rides" were funded by various (non-NHS) government bodies and delivered by subcontracted local cycle campaigning groups. They consisted of an experienced ride-leader or professional instructor leading rides along low-traffic routes, with the purpose of supporting irregular cyclists to gain confidence and expertise (Cycling for Health 2013; London Cycling Campaign 2011) 48.

The overall process recruited 20 people who cycled once a week or more, for a month or more of 2011, from an area exhibiting high flows of cycle journeys. They were predominantly employed (or had previously been employed) in the creative or service sectors. These are the dominant, but not exclusive economic specialisms in the area of London studied (Chapain et al. 2010; GLA Economics 2010; Hamnett 2003; Higgs and Cunningham 2008; D. Smith 2011, especially p220). I have not attempted to valorise these sectors by studying them (cf. Slater 2006).

Recruitment was stopped after 20 cyclists contacted the study, were informed of the full procedure and consented to join. It was clear that a diverse group of individuals had volunteered, that en masse their cycling was comparable to the issues described in the secondary data. The researcher was not previously familiar with any of the participants. Geographically, eight participants were initially employed in Southwark's area of Central London, six in Southwark's area of Inner London. One participant attended the "healthy rides" in Southwark, cycled through Southwark, but was employed in south Camden 49. Five were retired or otherwise unemployed, with all (inadvertently)

48 Evaluating alternative recruitment strategies, it was felt that leafleting passing cyclists would introduce a selection bias based on those cyclists able and willing to stop, and that this was highly impractical based on the importance of cyclists going through the busiest locations at peak hours. Leafleting parked bikes would not access those individuals using inaccessible off-street parking, which for example, would have excluded most of the research participants, most of the time. Finally, given that the rate of bike ownership far outstrips the rate of cycling and the large second hand market, leaving flyers at bike shops would access a narrower segment of cyclists, of unknown characteristics.

49 A number of participants worked at multiple sites. This list records the location of their most regular employment. Some changed employment during the study, and where relevant this is explained during the empirical chapters. The "healthy rider" working and resident outside Southwark was the only woman with children resident at home to volunteer for the study,
Resident in Southwark. Residentially, eight lived in Southwark, four in Lambeth, five in Wandsworth and one in Hackney. One lived in Outer North London and one in Outer South London.

Demographically ten self-identified as male, ten as female. Five were aged 25 to <35, six aged 35 to <45, four aged 45 to <55, three aged 55 to <65, two aged over 65. By ethnicity, ten self-identified as White-British, seven as White-Other and, in their own words, one as "White British and Black African", one as "Chinese-British" and one as "Arab". Detailed income details were not collected, but participants were asked to compare their income to the median 2010 UK gross annual earnings (full time and part time) of £21,000 (Office of National Statistics 2010, p2). 14 earned over this, five earned under and one declined to say. Those five currently unemployed or retired answered relative to their previous employment. Disaggregate descriptions of the individual participants will not be provided as when combined with the later chapters' visual and cartographic data their anonymity would easily be compromised.

In summary, the recruited participants cycled around a variety of areas in south London, included a numerous individuals who were not long-term members of any cycling-focused organisation. En mass their characteristics tended towards the "typical" demographics of London's cyclists, but remained substantially more diverse. They were employed in a number of economic sectors and resident in a number of areas, but tended towards the typical employment and residential locations of London's cycling. This suggested that they might experience cycling and incorporate it into practice in a variety of ways.

Reflexively evaluating the lessons learned through recruitment, the process entailed developing an understanding of the wider context to the participants' practices, including the study's broad omissions. This begins to address suggestions that method, and the researcher's role, should aim at "plugging into (and enabling) respondents' existing narrative resources." (Latham 2003a, p2002). In other words, they should be helping the study participant to combine elements from the practice of interest with the research method. To this end, the process of recruitment began developing a practical knowledge of the local area which assisted in subsequent attempts to understand the participants' use of space. The extensive immersion in governmental data in order to choose the

and was making faltering but concerted attempts to cycle more frequently. It was decided that her general perspective would be valuable, and that attending the healthy rides in Southwark was sufficient.
fieldsite and the period spent physically walking the streets of Southwark whilst flyering continued to be developed through extensive cycling to meet participants’ at the locations they suggested for fieldwork.

The resultant disposition was quite different to that held by the participants. It was not particularly akin to a long-term resident’s or cyclist’s disposition because none of the participants extensively read TfL’s technical documents, nor make the variety of on-bike journeys that I made during the fieldwork. That said, my variety of journeys and readings did not produce an equivalent depth of understanding regarding the conditions on their regular routes, their local and personal-logistical knowledge, nor their personal history and intersectionality. As reviewed by Hitchings (2012), within the terms of practice theory I developed a situation-specific knowledge that supported the formulation of questions in terms that could draw extended, nuanced responses from the participants. As can be seen in the empirical chapters and appendices, the individual meetings with participants were extensively prepared for and highly personalised, but relatively unstructured and improvised within the interview. This supported the participants to build their descriptions out from quite specific examples of events which had happened to them. They brought in a level of personal detail and complexity that went far beyond my own understanding of their situation, but in a format which could then be analytically compared with more systemic or larger scale tendencies recorded in the detailed local governmental (TfL, GLA etc.) secondary data.

4.4 Logistics and Drop-out

The section explains the study’s four-stage procedure, and the rationale behind maintaining the same group of participants across multiple methods. Fieldwork was carried out at three month intervals, starting October 2011. This comprised an initial ride-along with video elicitation stage, which was followed by a diary-interview stage, then a focus group and finally another diary-interview stage. All names are pseudonyms. Funded by ESRC grant number ES/I019790/1, this procedure was pre-approved by the Open University’s Human Research Ethics committee (project HREC/2011/#1056/1).

Of the 20 participants initially recruited, 17 participants remained until the final diary-interview. One left before the first ride-along ("Matthew"), and two after the ride along ("Jack" and "James"). The previously mentioned healthy rider with at-home children ("Chloe") also declined the ride-along, but
was interviewed according to a variation of the ride-along interview schedule (appendix a). This gathered contextual information and ensured that she understood the study’s focus when going into the diary-keeping and interview (appendix b). Only 13 participants were logistically able to attend the focus group stage (appendix c), as 4 were indisposed on all the feasible dates (Charlotte, Daniel, George, Tom). 17 participants attended the final diary-interview.

Table 1: Number of Participants at Each Stage

<table>
<thead>
<tr>
<th>Method</th>
<th>Ride-along with video-elicitation (followed by diary entry 1)</th>
<th>Diary-interview 1 (preceded by diary entry 2)</th>
<th>Focus Group (contemporaneous with diary entry 3)</th>
<th>Diary-interview 2 (preceded by diary entry 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of participants</td>
<td>18</td>
<td>17</td>
<td>13</td>
<td>17</td>
</tr>
</tbody>
</table>

After responding to a flyer participants were emailed a consent form, and comprehension of this was verbally confirmed before starting the ride-along. This clearly stated participants’ option to leave the study and withdraw their data at any time (Hopkins 2007, p533). None of the departing participants withdrew data. All interviews were digitally recorded, acknowledging the risk that this can formalise the conversation but prioritising the fluent delivery of a personalised interview (Cook and Crang 1995, p29). Furthermore, a pen-sized voice-recorder became relatively discrete in the context of interviews involving one or more laptop-displayed videos, paper maps, diary excerpts, videos projected onto a wall and cake, tea or coffee. Participants suggested the interview locations, usually their home, a quiet café, pub, park, or workplace. Those interviewed at their workplaces were able to do so openly, were interviewed in their own time, and in privacy (for particular issues surrounding in-workplace interviews cf. Longhurst 2010, p109–10; McCracken 1988, p10; also Cook and Crang 1995). Overall, the primary ethical requirement that neither side felt physically or socially vulnerable was met.

Evaluating the researcher’s role in the process, practice theory suggests that this does not stop at formulating pertinent questions. Nor is it simply enough to seem like a trustworthy, curious professional, with a genuine interest in the complexities, mundane episodes and incomplete thoughts of everyday life (cf. McCracken 1988, p26). Building upon the general idea that researchers should facilitate participants’ narrative resources, rather than elicit data, Hitchings (2012) has critiqued the default position in which facilitation means creating “critical situations” in
which participants confront their taken-for-granted experiences to reveal their tacit assumptions. Hitchings suggests that confrontation is often interpreted as an implicit accusation of impropriety, which prompts defensive, self-justificatory and formalised responses. He suggests that researchers might utilise alternative forms of comparison, such as evoking participants' gossipy-capabilities (ibid, p64). This is not just a technique for avoiding stilted conversation. Arguably, it might better investigate the practitioners' everyday tensions and techniques developed through making comparisons with their actual peers or acquaintances, rather than generating new reactions to relatively hypothetical or formal stereotypes and academic prompts. Investigating taken-for-granted or mundane matters can present difficulties for researchers if they are considered odd topics for detailed thought. This can include participants being an unwilling to admit that they have put previous thought into the matter. In this case a longer-term study might practically demonstrate the researcher's rejection of this social censure in ways that statements of non-censure do not (Cook and Crang 1995, p46).

A somewhat informal and self-deprecating demeanour was adopted (or emphasised) to support discussion of the more marginal, unsettled, unrehearsed and gossipy aspects of practice. This seemed particularly appropriate for an investigation focused upon inadvertent emergence, encounters taking odd social forms, non-symbolic influences upon meaning, and a somewhat off-kilter focus upon practices of living in the city (by bike). The title of the study as "why people start, and sometimes stop, cycling" was also referenced to highlight that people did not need to emphasise the extent, intensity or (im)propriety of their cycling, and that their limits or misgivings were equally interesting. Reflexively evaluating the costs of this strategy, from general experience of talking to stakeholders and other cyclists, a more "forthright" demeanour would probably be required if participants were explicitly attempting to downplay similarly informal, self-deprecating or indirect dispositions. For example, if participants' had clear, highly discursive understandings of a social form they defined as cycling, or were concertedly attempting to ascend a hierarchy whilst downplaying their limitations, such as trying to lead a cycle campaign group, or compete in a racing league (cf. Coghlan 2012; Skinner et al. 2007; Horton 2006).

Reviewing the described procedure, including a reflexive understanding of the researcher's role, it is arguable that the study could have recruited a new cohort of 15 participants for each stage, acquiring a greater diversity of viewpoints. However, maintaining a single group supported a more intensive "deeper" investigation, and one better suited to investigating how practice changes over
time. In general, the four stages of data collection allowed for comparisons to be made between findings in different stages, with later research informed by the preceding findings (cf. McCracken 1988). In this respect, the methods are mutually influential. However, rather than investigating the same situation in three different ways, the methods build upon each other. The ride-along with video created a number of loose ends which were followed up more directly in the diary-interviews. The understanding of what was important to individual participants and how they had responded to the previous research influenced the precise format of the focus groups. A number of more specific overarching issues can be identified.

Firstly, taking part could encourage participants to engage with cycling more reflexively than they probably would have otherwise. For some this was a motivation for their joining the study (i.e. facilitated reflection sounded interesting), whilst others described it occurring inadvertently (i.e. they had wanted to help and were surprised). However, reflexivity did not necessarily encourage an increased commitment to cycling. For example, some joined the study because they thought that committing to write a diary would self-encourage and remind them to cycle more (e.g. Chloe), or because they wanted to see a video of themselves cycling (most participants). Yet it disrupted the accepted habits of others, such as those who had incrementally or inadvertently arrived at their current state without deeply questioning, justifying or planning their actions. The focus groups also exposed some participants to novel interpretations of cycling or life in the city (e.g. see Lauren, chapters 6 and 7).

Secondly, repeated meetings supported participants to speak relatively freely, in detail, and with rapport. It has been suggested that repeated meetings create particular ways of investigating quotidian experience. Allowing time between meetings for participants to reflect upon taken-for-granted experiences may support their ability to discuss the matter (R. Hitchings 2012, p63). In retrospect, this did not only involve participants giving more or differently meaningful responses in later interviews. Participants also recorded their incorporating different equipments or skills into their cycling, their starting to take new routes, or their personal circumstances changing in a more logistical than meaningful sense, allowing other comparisons to be made.

Thirdly, heightened reflexivity (as an absolute sense or single axis) was not the only aim of the procedure. Because participants were aware that they could build on the knowledge of previous stages, the later stages could include quite nuanced levels of detail without forcing participants into
socially-awkward extended monologues. This also supported the participants to describe a variety of off-hand or seemingly disconnected elements, either by responding to the visual prompts or broadly situating a response in a previously explained context. Doing so militated against participants feeling any expectation to produce a linear narrative. Such an approach fits the theoretical framework and research questions. I would also therefore admit that it probably constrains participants’ opportunities to produce linear narratives.

Fourthly, the depth of the study influenced rates of drop out, but was quite resource intensive. This is particularly relevant to the requirement that a Doctoral thesis demonstrates a candidate’s capacity to conduct independent research, in addition to the quality of the findings themselves. As previously stated, only 3 of the 20 recruited participants left and none after stage 1. In part this was due to the relatively regular contact; meetings were held every three months, but with short meetings outside of this time to hand over the promised DVDs of the ride-along video, to organise meetings, remind people to complete the diary and then collect diaries for pre-interview analysis. I feel that the personalised interviews also generated a fairly high degree of rapport by demonstrating a high level of commitment and interest in the individual participant’s circumstances. However, this required a relatively large investment of time, far more than would be required to interview 20 participants at three points in the year according to standardised interview schedules, and conduct a focus group. It also requires different logistics to say, the stereotypical single site ethnography (Cook and Crang 1995; Kusenbach 2003). Such an ethnography might involve the researcher living “in the field” for longer, but it often contains some key location or event that participants regularly visit and that the researcher can join in with, possibly reducing the need for quite so many timetabling emails and phone calls. The low level of drop out is partially a reflection of the amount of time spent organising the study around the participants.

As a factor to consider when planning further research, the low dropout rate may speak in favour of using this as a technique to study relatively infrequent participants. However, the resource-intensity makes it arguable that recruiting more widely but incorporating lower retention may be a positive strategy for future research, which opens up certain opportunities. To say more requires a consideration of the empirical findings, so occurs in the final chapter. The remainder of this chapter describes and evaluates the individual methods used in each stage.
4.5 Ride-along with Video-elicitation

The ride-along is a method of producing data about practice in-situ, by having the researcher literally ride along with participants during a journey. Recording a video of this trip means that it can be used in a subsequent discussion (Brown and Spinney 2010). I term this video-elicitation (after photo-elicitation, Dodman 2003). The video firstly provides a visual medium of communication which complements language, supporting and prompting participants' to discuss their bodily contortions, manoeuvres and sensorially immediate experiences. The ride and video incorporate different ways of organising attention and narrative flow, which incorporates aspects of both the instrumental method and the phenomena investigated. This method was utilised to investigate velomobilised urban practices of civility, addressing research question one, in chapter five of the thesis.

Logistically, participants were accompanied on a cycle-journey of their choice. The researcher suggested that this could be one which they would be carrying out anyway. 13 participants were accompanied on their commute, five on other journeys, all of which they would have carried out anyway. Most cyclists were interviewed immediately afterwards, all by the end of that working-week. Participants were given a copy of their video afterwards.

The ride-along with video-elicitation was pioneered by Brown and Spinney (2010). The method is largely a technical response to the difficulties and opportunities of on-bike fieldwork, as theoretically informed by the go-along and video-ethnography (respectively Kusenbach 2003; Pink 2006). I particularly draw upon Pink’s proposal that video can create data conveying “multisensory activity” (2007, p244). In some cases part of the “description” conveyed by the video is not just the events depicted on screen. A reflexive consideration of how the camera is moving creates an indication of the camera-holder’s movements or bodily comportment. As Pink writes: “by following [practitioners’] routes and attuning our bodies, rhythms, tastes, ways of seeing and more to theirs, [we] begin to make places that are similar to theirs, and thus feel that we are similarly emplaced” (2008a, p193). However, as Rose (2014) has critiqued, this level of reflexivity and engagement with the medium is infrequent, and visual research methods are often used far more instrumentally.

Both as a technical approach to a problem and as different from accompanying people on foot, the ride-along with video-elicitation is influenced by the empirical specificities of cycling. This also
points to the analytic benefits of thinking in terms of cycling-experiences of various practices (in this case urban practices). Safely sustaining conversation in traffic is difficult, especially in cities, whilst many forms of cycling are relatively low in conversation, solitary, sometimes physically intense and focused upon movement. Therefore, stopping or slowing to talk would fundamentally disrupt the logic and order of these practices (cf. Brown and Spinney 2010, p135; O. B. Jensen 2010; Laurier 2010a). In a similar critique of the alleged inauthenticity of video and authenticity of a researcher's presence, using the example of a car-based ride-along with a dashboard-mounted camera facing the car's passengers, Laurier has surmised that “the unattended camera's presence is quite a bit less distracting than having a chin-rubbing character with a notebook busily scribbling in the passenger seat” (2010a, p110; cf. Sheller 2010). Particularly in Kusenbach's (2003) description of the go-along as “being there”, the researcher's presence and enquiries are considered more as an ephemeral prompt for participants to verbalise their thoughts, rather than a fundamental disruption to both the rhythm of the journey and their thoughts along the way. However, I am more supportive of Kusenbach's general claim that the task and journey through the built environment can prompt the participant to describe their everyday experiences, particularly matters which might be omitted as too inconsequential, unmemorable, fleeting or tacitly-assumed to discuss in an off-site interview. As explained in previous chapters, this entails understanding practice as relational, acknowledging that immediate experience involves remembering ex situ events and applying skills built up elsewhere.

The chosen format involved filming via a head-mounted camera, but recording the "point-of-view" of a following researcher. By recording a video of the journey the participant can carry out their practices with a minimum of disruption, subsequently talking through the experience via the video. This also involves an ethical consideration, as it removes the distraction of either talking to the researcher or independently verbalising their thoughts for a hands-free microphone. The researcher's point-of-view was chosen over the participant's because cycling in traffic involves significant amounts of peripheral vision and hearing, as part of interacting with proximate, approaching and overtaking vehicles (Latham and Wood 2015; Wood 2010a; 2010b). First-person footage, even from a wide angle lens, is highly-constricted in this regard. Third-person footage

50 In-journey conversation is more feasible in situations such as multi-day rides on low-traffic roads, or utility journeys which "naturally" involve pauses (respectively Spinney 2006; 2007, p31–33).
seems to better display how participants' bodily movements relate to their surroundings; their "body/object" relations (Brown and Spinney 2010, p151). Although clearly not their own viewpoint, participants seemed able to understand the video with relative ease, partially because cycling involves comparable experiences of watching and interpreting other cyclists' actions. Video-elicitation also occurred as soon as possible after their journey was recorded, so that their memories of the experience would be more easily remembered for discussion.

Watched back during video-elicitation, the video did seem able to convey the passage of time, manipulation of space and rhythm of activity (Pink 2007, p247). I feel that it was not just used as an aide to memory, and successfully allowed the events depicted to be incorporated into conversation as medium as well as a content of "discursive exchange" (Brown and Spinney 2010, p130). A number of participants noted that they remembered their experiences differently, in particular that time and traffic seemed to pass more slowly in the video, whilst what had felt like high proximity manoeuvring seemed much more distanced (and safer) on video. Pausing or repeating footage also allowed brief moments to be dissected and discussed in ways which would not be possible in situ. As Murray has said, it allows for a "cycle of making and re-making the journey through ascribing new sets of meanings as the video is audenced" (2010, p16). This is, however, a process of translation influenced by participants' personal capacities to meaningfully engage with the video.

The ride-along and video-elicitation was well suited towards being the opening stage of a long-term research relationship. Firstly, as supposed by Kusenbach, the events of the journey often suggested questions which would not have been asked otherwise. It encouraged participants to more directly discuss their experiences and practices in their spatial context, rather than in hypothetical examples. Questions were asked according to an interview schedule of prepared standard themes, which were improvisationally tailored to refer to events depicted in the video. This customisation demonstrated an interest in the individual participant's quotidian practices. It also allowed experiences from this journey to be referred to in later meetings; for example, a specific place was dangerous or beautiful. This ability to refer to shared experience seemed to foster a greater sense of trust and rapport.

With regards to the researcher's demeanour, a number of participants made passing reference to my clothing and riding style, saying that they had expected a cycling researcher to more visibly epitomise "a cyclist" in some way. As I was unsure of either how fast participants would cycle or the
connotations cycling held for them I rode a visibly-inexpensive, scratched and dated but fast road bike, carried equipment in an old backpack, whilst usually wearing skinny jeans, a t-shirt, trainers and a waterproof faux-leather jacket. This seemed a compromise between specialist and non-specialist attire (e.g. between lycra, sports kit and a suit). Some of the highly-equipped riders clearly viewed this as a little ramshackle and sweaty. However, some of the less confident confided that they would have been less forthcoming if I had appeared in head-to-foot lycra, or displayed skills such as "staying on your pedals at traffic lights" (as Jinny called trackstanding), and might have withdrawn entirely.

Finally, to present an example of how the resultant data is used in the empirical chapters, figure 3 contains one panel from an excerpt of George’s ride-along. In many cases the data presented comprises excerpts from the video-elicitation which are not accompanied by images because they are general statements that were prompted by the video. At other points the transcripts refer to single images showing spatial configurations at a specific moment. In a smaller number of cases, multi-panel figures involve a sequence of images showing how the spatial relations between various vehicles and objects change. They are accompanied by contextual data, such as the fact that this is an element of a given participant’s morning commute, and quotations from the interview. When presented side-by-side the images and transcripts form one combined description, rather than an interview involving contextual figures. The images were originally still-frames from the video, but have been edited. Background objects have been made more transparent and the road darkened, making the remainder more clearly distinguishable (Laurier 2014).

George: "I immediately then think about going to the right, since there is a dangerous forking off coming up ahead... [continues]"

Figure 3: Example Video-Elicitation Panel
4.6 Diary-interview

The second and fourth stage of research comprised the diary-interview method. Participants were requested to keep travel diaries covering one week every three months, in which they were asked to recount all travel taking them outside of a building or its attached outside space, such as a garden. The four diaries were used to create maps of the participants’ journeys by different modes, which were used in two in-depth interviews.

The method was designed to understand practices of navigation, and how their development over time was influenced by experiences of cycling the city (or vice versa). Its particular specialism – differentiating it from either the video-elicitation or an interview without a diary and map - was its ability to create an indicative spatial summary of all a participant’s travel during the weeks recorded. This facilitated discussion creating relatively detailed accounts of particular journeys (rather than abstract journeys), the semi-systematic recording of minor journeys that might be otherwise omitted, whilst the map unsettled participants’ usual ways of thinking about their habits.

In their diaries, participants were asked to record each journey, including the route, departure time, mode and any experiences within it that they found relevant. It was emphasised that participants should include anything they felt to be relevant, that the researcher would read as much or as little as they wanted to record, and that any confusion or misunderstanding would be followed up in the interviews. This was justified on the basis that the data did not need to be standardised for statistical analysis and that quantitative travel diaries are notoriously incomplete, particularly for minor and forgettable walking journeys (e.g. short errands) (see Haldrup 2004; 2010; Latham 2003a; 2004; Meth 2003; Spurling 2011). Being an intensive, 20 person qualitative study, the difficulty of understanding the various accounts was not unmanageably time consuming. Furthermore, this study’s emphasis was upon investigating how people understood their practices of navigation in their own terms, so asking them to complete a highly standardised table would be self-defeating.

Each participant was provided with an A5 notebook, but told that their diary could be any combination of writing, drawing, photography or other medium they felt relevant. They were asked to complete a first diary-entry soon after the video-elicitation, and were re-contacted at three month
intervals with a reminder to record a week’s travel and suggest an interview-time. Diaries were collected by hand after entries two and four.

Three participants submitted entirely quantitative lists of their journeys, the remainder wrote narrative accounts, with two including photographs. These were used to develop personalised interview schedules, alongside a map of their journeys. The maps were drawn in permanent marker upon copies of the free TfL maps showing cycle routes. Digital copies of the diaries were made and the originals retained by their authors. This procedure allowed for a relatively direct investigation of how the participants’ practices of navigation and relevant cycling experiences changed over a year, whilst supporting a retrospective atmosphere for asking how more long term trends had influenced their current position.

The diary-interview invokes participants’ established capacity to reflect upon events, as embedded in the specificities of their quotidian activities. Its form would be expected to evoke a different sense of time, space and narrative or logical structure to that of extended solely-verbal interviews, but the structure is also dependent upon the participants’ capacities (Haldrup 2010; Latham 2003a; 2004 also see the discussion of dispositions opening this chapter). However, and as particularly highlighted by Rose (2014), the differences between various visual aids and procedures are not always reflected upon. For example, diary-interviews based on maps would prompt very different senses of space, time, narrative and logic to those incorporating photography (etc.). In total the diary-interview procedure included three different types of reflexivity in participants; the self-directed naturalistic reflections of their diary-writing, their initial expectation that they would be conversationally answering interview questions about their diary, and their more surprised reactions to the maps. Overall, this seemed to facilitate the discussion of a variety of important, constitutive but mundane activities that might well be cut from polite conversation or a solely-verbal interview.

51 The TfL Cycle maps are comparable to the popular A-Z road maps, google maps or openstreetmap.org, but highlight a number of recommended cycle routes. Cyclesstreets.net shows one aspect of this, the ‘London Cycle Network+’ (LCN+). The paper maps also show a number of recommended low traffic routes. The participants had not all seen the TfL cycle maps, but many were aware of their existence. It was felt that drawing on maps in pen would be less imposing than plotting their routes via GIS.
In terms of naturalistically supporting peoples’ capacities to talk and write about practices, navigation can be approached as a relatively quotidian matter. People almost unavoidably have previous experience of telling stories that are more than technical descriptions of their physical location and route: talking to friends, colleagues or family about their attempts to find their way around, to be on time, to learn new routes, and to generally tell stories about how their day went. I expected participants to more briefly note down some core details as prompts for a later interview, but as found by Latham and Haldrup, many participants found the narrative diary quite enjoyable. Recounting a linear narrative of their day seemed to prompt a quite exhaustive recording of their daily movements and experiences. Those submitting quantitative lists seemed more likely to remember previously non-recorded journeys during interviews. However, as only three people submitted lists, that may be a feature of the individuals rather than the method. Furthermore, as a researcher it was fairly simple to ignore excess sections of an exhaustive diary, but difficult to retrospectively anticipate or fill gaps.\(^{52}\)

Less quotidian, the interview also surprised participants with a map of their journeys. Using a map to talk about navigation was a way of investigating how meanings are related to bodily orientations, technologies and spatial configurations. However, map-reading was not treated as an instrumental skill with which participants would be more or less adept. It was incorporated reflexively as a process through which to understand how participants understood their place in the city. Some were quite familiar with plotting or understanding their cycle routes by map, some were technically proficient but rarely did so. As participants were not told that the maps would be made, this itself seemed to elicit a less practiced talk. Some found the whole prospect of maps and wayfinding rather confusing. For those the collaborative process of discussing their experiences of various journeys whilst explaining how these related to its presentation on the map granted a number of insights into how they understood the city. This assisted my attempts — as a researcher — to comparatively understand what it meant to have map reading as a taken-for-granted capacity. Even for those who could more easily map read, none had previously mapped their journeys over a whole week, so prompting new ways of thinking about their travel.

\(^{52}\) The importance of a linear narrative as a prompt towards remembering minor journeys was noticeably more important for individuals describing complicated but unstructured, quotidian travel. For example, multi-site or flexible-time working, and collections of weekend chores.
Reviewing the method's ability to describe change over time, a number of participants mentioned that although diarising everyday life in such high detail was initially interesting and unusual, it became increasingly boring. I expect that participants would have started leaving if they had been asked to diarise their life in high detail for a longer period. Furthermore, their decreasing interest would change the detail and type of data produced. Although the diary-interview facilitated reflexive discussion of change, the participants' diarised journeys did not clearly show temporal differences (i.e. observed difference). This was largely because of the high variability between participants and within participants' lives. For example, participants could try to describe how they had (or hadn't) changed over the year, or how seasonal cycles might involve their completing journeys differently. This was rarely self-evident when comparing maps from different entries.

Reflexively considering the role of the researcher, I would again mention the chosen conversationally-provocative demeanour. Given participants' previously stated assumptions that a "cycling researcher" might epitomise some cycling sub-type or have a serious-minded approach to cycling, an explicit effort was made to act in a way that opened up discussion. One particularly successful tactic involved wearing a cricket jumper (ostensibly because it is well ventilated when cycling), or red trousers (because they are eye-catching). Many participants subsequently mentioned during interviews or in passing conversation that this supported a sense that they could comfortably talk about their aesthetic considerations surrounding "kit" and clothing. A more utilitarian outfit might have discouraged participants from talking about aesthetics, or "admitting" that this was a consideration. Similarly self-deprecatingly and catering for those participants who were somewhat apprehensive of the map-reading, reassurances that map-reading is not a universal skill were supported by the informality of drawing in felt tip pen on TfL's free cycling maps. Rather than being a forced confrontation with their limitations, this seemed to be successfully received as a relatively enjoyable collaborative process that facilitated people to learn about their own route.

The maps presented in chapter six show the trunk road network\textsuperscript{53} and the specific routes taken by participants, generally by all modes. Depicting the trunk roads gives an indicative impression of how the cyclists moved in relation to the busiest roads, along with a general sense of direction and

\begin{footnote}
\textsuperscript{53} Transport for London Route Network, officially called the TLRN.
\end{footnote}
scale. It was felt that showing the full streetplan would comprise an excessive and confusing level of detail. Therefore the maps show the actual routes which the participants took, but winding through "blank" spaces when taking minor roads\textsuperscript{54}. In order to preserve their anonymity, many of the participants' destinations have been slightly altered. Locations only visited along one route have been somewhat shortened, so that the final location is unclear but the majority of the route can be understood. Hub locations, such as homes and offices, have been moved, often to the nearest train station, and indicative replacement walking routes have been included.

4.7 Focus Groups

The final method involved convening a series of focus groups to address question three. This investigated how participants might heterogeneously understand and respond to different senses of place, and how doing so might create, contest or (de)stabilise that place's reproduction. As such it studied how urban practices of placemaking might be influenced by different experiences of cycling (and vice versa). The procedure involved firstly showing each of three groups a pre-recorded point-of-view video depicting a cyclist's journey around Elephant & Castle, south London. This depicted a variety of examples of current streets, but also inserted images of architects' drawings of infrastructural alterations that might be expected to promote cycling. Although it was not explained to the participants as such, these examples were selected on the basis that they addressed ideas of liveability, as described in chapter three. Furthermore, using a video of a cyclist's journey provided a means of indicating how individual locations related to their surrounding areas, and how flows of cyclists or other users might move between them.

The video was used to facilitate a discussion of how the depicted places might (not) create a better city. The video provided a shared repertoire of audio-visual examples to prompt conversation, either through direct engagement with the scenes depicted, or to support the description of analogous and contrasting situations. It did not asking participants to imagine a series of radically-rebuilt cycling utopias. Rather, it asked them to discuss how the existing city's streets might be pragmatically altered by infrastructural change and different ways of acting in place, along with how such changes might be justified. Addressing the three key interwoven theoretical strands of

\textsuperscript{54} For readers requiring additional detail, the open source openstreetmap.com clearly shows the trunk road network, which allows the maps shown here to be easily oriented.
emergence, encounter and cosmogony, the discussions were analysed to understand how different street-uses might interact, were related to flows of traffic, and how this informed a sense of place. It focused upon investigating how different experiences of cycling informed these practices of placemaking, but also how infrastructures to support cycling might influence how such places were experienced by others.

By investigating how practices of placemaking were described and discussed within a group setting, the analysis explores how individuals made sense of place, tried to convey their conceptualisation and attempted to understand others. The previous methods supported the participants to explain their practices and experiences in detail but in parallel. The focus groups produced direct exchanges between people with heterogeneous points of view. Their discussion began to imagine what a cyclised city could be and the forms of ordering it would involve. This was a means of uncovering the more quotidian logics and tactics through which people practically form consensus, convince others or agree to differ as they make the city a place to live in.

The focus groups were convened as the third stage of the project, in the period between the two diary-interview sessions. Each participant was invited to attend a 1.5 hour focus group. Organising times and locations to suit the participants, three groups were held on weekday evenings, renting after-hours space in a café at Elephant & Castle. Unfortunately, due to timetabling constraints only 13 of the remaining 17 participants were able to attend. Logistically, this area is a transport hub that was relatively accessible and somewhat familiar to all the participants, but only home to one. This supported a situation in which many people could talk about the area, but without any unmanageable imbalances of power or authority. Within this, those with the greatest knowledge of the area tended to be the study's more softly-spoken and reticent participants, which helped in encouraging everyone to speak.

The focus group method was chosen because, unlike methods which individually address a series of people, they are designed to "provide direct evidence about similarities and differences in the participants' opinions and experiences as opposed to reaching such conclusions from post hoc analyses of separate statements from each interviewee." (Morgan 1997, p5). In this, the "explicit use of group interaction [produces] data and insights that would be less accessible without the interaction found in a group" (ibid, p2). The participants' conversation revealed many synergies,
discordances and compromises between their alternative practices, and these aspects might not have been revealed through individual interviews.

As Valentine writes, regarding individuals acting differently in different places: "When individual identities are "done" differently in particular temporal moments they rub up against, and so expose, these dominant spatial orderings that define who is in place/out of place, who belongs and who does not". (2007, p19). Applied to practice, I argue that bringing different people into focus groups might reveal different ways of understanding what activities a discussed place might support, and the skills or technologies and infrastructures required to enact the place in this way. For example, a sense of place as made through (and amidst) tasks like shopping, relaxation or passing through (etc.), which in that situation become felt as enjoyable, scary or inconvenient (etc.). This includes different levels of concentration upon or recognition of the practices of others encountered in fact or imagination. It also elicits the different forms of authority or justification which might be invested in various forms of practice. As such, where the previous methods focused more on personal practicalities and private justifications (personal, familial, employment, friendship etc.), the focus group centred upon more civic justifications. For example, what cyclists might collectively or in aggregate deserve or expect from a city, and how this might differ from their personal desires.
Figure 4: Map of the Route Taken in the Focus Group Video, Copyright Openstreetmap.org contributors CC BY-SA (www.creativecommons.org)
The discussion was supported by a video, which provided a shared repertoire of audio-visual examples to prompt and incorporate into conversation. Watched in full at the beginning of the session, this was a 10 minute point-of-view video of an unbroken circular cycle-journey through the area around Elephant & Castle during the morning rush hour (see figures 4, 5 and 6). A number of architects’ publicity images for proposed redevelopments were inserted, and introduced as such (e.g. figure 6). Permission for their use was sought in advance (Dallas Pierce Quintero 2009; Two 2004; for context see London SE1 2004). Using a projector screen that was 2.5m across by 1.4m high, the inserts were over 0.8m by 0.5m. Viewed from a roughly 3m distance, their detail remained legible.

Whilst the video was playing the researcher narrated relevant information about the area being travelled through, mainly explaining how the depicted scene related to the route. For example: “We are now parallel to the busy road seen earlier”. This narration clarified how the insert would alter the existing street layout. For example, the section of film which figure 6 is taken from was accompanied by the researcher physically demonstrating (with a pointer) how the proposed closure of the arm of a roundabout was related to the route travelled. In figure 6 the cyclist’s current route straight forwards would, in future, not be available as the subsequent section of road would have been made into part of the proposed public square shown in the inset. Facilitation involved verbally confirming that participants understood.
The video passes through a variety of built environments, road types and contemporary alterations. The circular journey’s route was chosen to showcase a number of alternative, parallel or comparable routes through a single area. Depicting a number of elements taken from a winding journey through an area gives an indication of how the road network varies across that locality. As such it provides a variety of prompts and examples from which disaggregated, isolated elements could be used within discussion. It did not present a selection of discrete routes to be compared in parallel. The street plan included Georgian terraces and squares, Victorian railway-era terraces, inter-war medium-rise social housing, late 20th century comprehensive redevelopment for estates of high-rise and terraced social housing, interspersed with points of more recent redevelopment. The roads included the extremely busy Elephant & Castle roundabout, sections of the inner ring road, feeder roads of various types, and points at which the original street had been altered to encourage cycling. In combination with the inserts, this allowed change to be discussed as an immediately feasible possibility, rather than as hypothetical.\footnote{Of interest to cycling researchers, it did not include any visualisations of kerb-separated cycle lanes, because at the time of fieldwork (2011-12) none existed nor had been proposed for the area. Elephant and Castle will be the southernmost tip of the North-South cycle superhighway, opening in 2016.}

\begin{figure}
\centering
\includegraphics[width=\textwidth]{figure6.png}
\caption{Entering Elephant & Castle North Roundabout}
\end{figure}
Evaluating the success of the procedure, it is firstly necessary to explain the substantial omission of Elephant & Castle roundabout and the surrounding major roads in chapter seven’s analysis. Firstly, in terms of repetition, similar roads had already been extensively discussed in the ride-along with video-elicitation stages. Secondly, it was difficult to discuss minor infrastructural changes in comparable terms on both large roads with high flows of traffic, (especially Elephant and Castle’s dual roundabout,) and smaller, quieter streets. As seen in chapter seven, the suggested alterations to minor streets could be understood quite intuitively and often from the participants’ personal experience of comparable schemes. Contrastingly, participants engaged with the idea of changing larger infrastructures via a hypothetical (generally positive) understanding of physically segregated cycle lanes. They were unwilling to make more than tentative statements about how changes such as fully segregated cycle lanes or closing the arms of a roundabout might be expected to impact the wider network and be justified. They felt that the consequences, such as the potential for area-wide congestion, were not self-evident, leading to requests for more technical guidance from the researcher. A future study could attempt to compare these differing responses to personal experience and peripheral infrastructural change, as against hypothetical and technical understandings of larger infrastructural change. However, it was decided to focus on discussion of personal experience and intuitive understandings of peripheral infrastructure change.

Secondly, evaluating the heterogeneity and composition of the three groups, the determining factor was the availability of the 13 attending participants. As such, the first group comprised seven women, the second three women and one man, whilst the third contained three men. Within this, the demographics of each group were relatively varied. In certain traditions, this variability might be seen as inappropriate. I would certainly agree that the larger groups had more freely flowing conversation, but their findings remain qualitatively comparable. Furthermore, Hopkins (2007) has strongly critiqued the assumption that focus groups should be internally homogenous, arguing that this is derived from market research’s focus upon consumer segmentations. It might be argued that groups with homogenous dispositions or demographic categorisations may feel some rapport and feel more able to talk openly. However, such homogeneity can stymie investigation into how similar issues affect people differently (Morgan 1997, p35–37). A key feature of these focus groups was their being the third stage of research. Participants were relatively well acquainted with the researcher by this point, which may have been reassuring, and I feel that the diary-interview stage had demonstrated that changes of opinion were fine. Participants were also informed that they had
all experienced the same ride-along and diary-interview procedure. This was expected to create some sense of reassurance and commonality. I take the fact that the focus groups contained moments of both disagreement and consensus as a sign of success.

Chapter seven presents the focus group data in a relatively conventional manner. To give a sense of the atmosphere the excerpts show relatively extended periods of discussion, making reference to intermittent figures. Unlike the ride-along with video-elicitation data, the discussions referred to scenes from the video but did not involve speaking over or through the playback. As such there are no sequences of video presented.

4.8 Analytic Procedure

The following section clarifies how the data was analysed, including the visual and textual materials. The overall research procedure was iterative, each method carried out as a stage that built upon those previous. Each stage comprised a systematic “four-part” analytic procedure with previous findings incorporated into the next (McCracken 1988, p29).

Within the four part analysis, part one involved a literature review supporting the recognition of data with potentially theoretically interesting implications (McCracken 1988, p39). Through repetition this created the main thrust of chapter two. Part two involved hypothesising relevant situations, separating the systematic from the episodic or idiosyncratic (ibid, p40). This produced the eventual research questions, the choice of emergence, encounter and cosmogony as particular interests, the building of chapter three and the methodology. Each part two also included reviewing the “loose-ends” and off-topic remarks generated in previous stages, seeking hints of theoretical issues and means of approaching them that might generally resonate with the participants’ experiences (also see Cook and Crang 1995, p20). Part three entailed formulating specific questions or prompts for with-participant fieldwork. These are recorded in the appendices. Part four focuses on data analysis, informed by Travers’ warning that “most data analysis packages are only suitable for grounded theory, and even then there are only benefits for the analysis of large datasets” (2009, p171). As such, it would be inappropriate to use programs such as Nvivo and atlas.ti.

Part four, the data-analysis, had five points. This adjusted McCracken’s interview-transcript based and theory-building procedure (1988, p42–5). It incorporated visual elements of videos and maps,
drawing on Shove for guidance on systematically analysing recursive relationships between elements of practice (2010; 2011). Firstly, transcripts of audio-recordings generated by the interviews and focus groups were analysed. The conversations were broken down to units describing events or themes, such as itemisations of the components described in answers to a question or in descriptions of an event. This created an “observation”, which was noted digitally via the MSword shortcut Ctrl+Alt+M. In this initial part the visual materials were incorporated as they were referred to in the original speech. In other words, the elements of video reviewed in detail were those intrinsically incorporated into the participants’ verbal descriptions.

Secondly, the observations (including their visual elements) were developed by analysing their relationships with other observations and the preceding theoretical review. This produced second-level keywords. Thirdly, these second-level observations were analysed thematically, with limited direct reference to the transcript. This created draft documents of summary findings. Fourthly, second-level observations were collectively and more rigorously examined to confirm consistencies and contradictions between themes chosen for their theoretical interest. These broadly produce the sections of the empirical chapters.

At the fourth point the method deviates from McCracken’s procedure. It returned to the original data (verbal and visual) to identify and isolate specific exemplary episodes. This included deciding upon a general process for creating anonymised, simplified versions of the visual images that is analogous to the anonymization and simplification of verbal transcripts (Laurier 2014). Doing so acknowledges that presenting the “raw” images from the ride-along video or photographs of the original maps does not holistically convey the experience of cycling (ibid; Rose 2001; Rose 2014). The creation of these images was a key part of the analytic procedure, as it was also a means of reflexively understanding the researcher’s tacit knowledge. That is, the practical act of deciding which visual items were contributing to the overall narrative (and so which might remain) supported a more explicit recognition of their relevancy (Latham and McCormack 2009). Sections 4.5-7 described what was shown in each method’s images and why.

The fifth point entailed examining a shortlist of empirical examples to identify those that best narrated the relationships between overarching tendencies in practice. Within the final selection, this included deciding which specific frames from the video to include. The fifth point emphasises that the methodology did not produce ethnomethodological investigation of participants’ making
sense of their situation. It describes what had been analytically identified as practices. These practices are presented as plural and multiple, as influenced by their practitioner's dispositions. However, via reference to chapter three they are situated in the city's predominant flows and possibilities. Overall, the analytic procedure articulates the theoretical understanding of practice as learned and tacit, constituted through systemic regularities, with research involving the reflexive recognition and presentation of the researcher's practical understandings built up through immersion in fieldwork and analysis.

4.9 Conclusion

Chapter four explained how the data was produced. It reviewed the current state of mobile methods before discussing how understandings of practice as locally reinvented rather than disseminated influenced how the methods might be understood. This envisages methods as the means of translating existing components of practice and experience into new situations. It secondly evaluated how practice theory's emphasis upon trajectories of persistence and change, rather than absolute choice or determinism, influences the methodology. The second section then explained how the fieldsite was chosen, and how 20 individuals who frequently cycled in the Borough of Southwark during the summer of 2011 were recruited. This corresponded to the area in which cycle flows are highest. The recruitment through local employers and two health promotion events successfully attracted a varied cohort of participants which were comparable to the demographics of cycling in London.

Four stages of data production were held at three month intervals, producing a varied and internally comparable dataset, generating significant levels of rapport, and allowing an analysis of change over time. The three methods each reflexively focus upon a different research question, but influenced by the lessons of the preceding stages. The first 3-monthly meeting utilised "ride-along with video-elicitation" (Brown and Spinney 2010). This primarily investigated how cycling-journeys are experienced and conceptualised by individuals who cycle, addressing question one. Here, video was filmed by accompanying cyclists on a journey. This was utilised in interviews to support discussion of embodied experiences of cycling in practices of civility. Secondly, participants completed qualitative travel diaries every three months, and after their second and fourth entries took part in "diary-interviews" (Haldrup 2010; Latham 2004). This addressed question two by investigating how their practices of navigation incorporated bicycles, changed over time and were
influenced by experiences of cycling. In the third stage most participants attended one of three focus groups (Morgan 1997; Hopkins 2007). This used a pre-prepared video to support discussion addressing question three. It explored how participants’ practices of placemaking were influenced by their experiences of cycling, or their experiences of being influenced by cyclists and cycling infrastructure when inhabiting different places. The focus groups produced direct exchanges between people with heterogeneous points of view. This developed an understanding of how quotidian practical tactics for accepting consensus, convincing others or agreeing to differ are used to make the city a place to live in.

The analytic procedure explained how the different stages iteratively built upon each other. It also explains how the varied verbal and visual materials were analysed. Overall, the description and evaluation of the methodology informs the empirical findings by explaining how the theoretical framework was applied, whilst producing a sense of how participation would have been experienced. This allows for a critical, reflexive engagement with the findings.
Chapter Five: Civility on Two Wheels

“You are constantly thinking. I think being on your own and having to process so much, you're so used to thinking funny little thoughts that people would never usually hear, but, shall I try and share them with you?”

Josh, starting his video-elicitation

This chapter takes to the roads and cycle paths of London, to discover how they are used in practice. Primarily through utilising ride-along and video-elicitation methods it investigates the first research sub-question: How are cycling-journeys experienced in London? As described in chapters two and three, civility is a key feature of life in the city. As such, investigating how people take up, alter or divest their practices of civility was identified as a means of better understanding how they coordinate, manage and contest their interactions during quotidian activity. By investigating how experiences of cycling incorporated practices of civility we might better understand how different technologies influence its performance and change.

Studying the participants’ different ways of civilly engaging with the infrastructures and traffic conditions they encountered en route and by bike examines how civility allowed participants to contest their treatment by other road users they encountered, how urban traffic might emergently self-organise such changing conditions, and how civility might produce generative schemas for understanding and ordering travel (by bike). The result questions popular and media stereotypes of cyclists as often having a disregard for others and for polite conduct (cf. Fincham 2007a). It suggests that people experience cycling in traffic differently, which is related to their different collections of meanings, skills and equipment. As such, they understood and enacted civility-by-bike in a variety of ways. Evaluating the result may suggest why people start, and sometimes stop cycling.

The chapter initially introduces participants’ understandings of what the city's trafficked streets were, when considered in terms of civility. This describes their experiences of urban streets as tolerably-safe for the purposes of quotidian transport, but pervaded by a sense of unpredictability, stress and incivility. It secondly explores how riders might politely interact with other cyclists in transit, including the constituent embodied understanding of traffic and the city which makes such actions meaningful. This describes their expectations that encounters would predominantly be
anonymous and transient, but holding the potential to learn from or look towards others for support. Thirdly, the chapter examines how people explained their different manoeuvres, focusing upon descriptions of what they expected their actions to achieve and why. It initially studies an example of cycling which is often stereotyped as highly incivil yet definitive of cycling's growth in London - the allegedly “antisocial”, law-breaking, male, lycra-clad cyclist. This centrality is then questioned by presenting a number of the participants' narratives and counter-narratives linking safety to the intersection of “assertiveness” and masculinity. The concluding sections evaluate how variations between the participants’ sensory experiences of cycling might prompt different practices of civility. Such an analysis may better explain peoples' actions on the road, and their reasons for stopping and starting cycling.

5.2 Civility on the Road

The opening section introduces civility as a velomobilised practice; the terms of its expression during cycling-journeys, and key features in how it is experienced by bike. This focuses upon a sense of melancholy exasperation with London's roads. The participants' narratives described the feeling that cycling in London is acceptably dangerous, rather than safe. A key factor influencing how they accepted cycling's risk was their understanding of how the road's danger might be manageable through practices of civility. For many cyclists these were enacted as a means of managing their own safety and influencing others to act safely towards them. In doing so, the general idea of civility was clearly inflected by its being enacted in urban situations and experiences of cycling.

As participants reviewed the video of their ride-along they were prompted to describe their experiences of cycling in the city. To explain their journey they were invited to narrate the videoed ride, but also to recount any memorable occurrences from other rides which they felt to be worth considering whilst reviewing the events on the video. They had all chosen to cycle, and none described cycling as their only viable means of transport. Of the 19 participants, 12 regularly drove in London, 5 had a current driving licence but rarely drove, whilst only two had no licence (and of these one was about to start learning). All were more or less frequent users of public transport, none used a car daily and only two regularly used a car in the course of business.
Despite their positively choosing to cycle, the riders' descriptions of cycling in London were suffused by a sense of melancholy exasperation with the incivil traffic conditions they encountered. For example, when the video shows a bus driver allowing Lauren to finish overtaking before pulling out, she is prompted to explain that:

"You know, I never expect anything nice from people on the road. So you never get disappointed. So if suddenly something nice happens you must thank them, or you just feel appreciated, that someone actually saw you on the street."

Lauren is a relatively confident and experienced cyclist. Physically fit and in her 30s, most weekdays for the last four years she has cycled some portion of the 17 miles between her home in north London and her studio in Camberwell, inner London. To do so she has to pass through the city centre, and some of the city's busiest locations for traffic. She voices a common complaint: learning how to interact with traffic means learning to take-for-granted that cyclists will not be treated considerately or "appreciated" on the road. Although she feels that the benefits of cycling outweigh the costs, it is the needlessly inconsiderate actions of other road users which particularly annoy her. In a later example, just as she is describing the general problems of "too many crazy unpredictable drivers" the video shows a car accelerating past at high proximity and speed (figure 7). She sighs: "Look how close he got, just to get ahead of [Lauren's words tail off]."

Lauren's exasperation, like that of many others, hinges upon the understanding that road users frequently created significant amounts of danger for themselves and others, but for extremely petty rewards. However, this risk was somehow acceptable to the cyclists, or they would stop cycling. Therefore, as Lauren explained in her diary-interview, she and her friends have discussed how strange it is to be aware of and occasionally complaining about the potentially lethal dangers posed by other road users, but to stop actively worrying about it; "If you did worry, you wouldn't cycle". On a day to day basis, Lauren's focus was to "make sure that you're more careful than you used to

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56 She usually catches the train for some portion, but occasionally cycles the whole way.
be." To understand what being careful and polite in traffic might practically, cosmogonically entail, it is necessary to have a sense of what it feels like to be in the street by bike, and how other travellers might be encountered.

5.3 A Variegated Malaise

If the roads of London were repeatedly described as impolite, this malaise was not spatially uniform or unchanging, nor confined to cyclists' encounters with drivers. Charlotte is a resident of Peckham in her 50s who has cycled extensively for many years. She used to cycle more frequently, particularly whilst employed as a social worker when she used to make her rounds by bike. She explained that:

"The way that people drive these days, people drive a lot faster and without any manners, without waiting, that kind of thing... People used to stop. Now nobody will let you out. A few years ago, if someone saw you as cyclist on the side they would probably stop, flash you, say go ahead. But that doesn't seem to happen nowadays at all."

Charlotte goes on to explain that "road rage" (her term) is not just something that cyclists are exposed to, but has become a part of cycling. Charlotte feels that people have generally changed how they interact with each other and that cyclists are not uniquely incivil:

"[Cyclists] are getting 'bike rage'... You see them going past, banging peoples' cars and stuff. And I think it is, that it is, because cycling once was a very peaceful and relaxing way of travelling, wasn't it? And I want to keep it like that. I don't want to feel like harassed, really, and not enjoying the ride. So even if it takes a little bit longer, I would rather go the long routes."

Charlotte wants to avoid bike rage because she doesn't want to feel "harassed" and she wants to keep cycling as a relaxing experience. To do this she avoids "the big main roads where they are very busy". As such, her words imply that getting bike rage and feeling harassed is simply a part of the way that contemporary traffic interacts on the main roads. She does not feel that it is possible to ride amidst these conditions whilst ignoring the harassment and serenely passing through,
however, she might be able to avoid the situation entirely by taking a longer route down backstreets.

Other riders had a different understanding of the geographical relationship between busyness, risk and civility. James is a man in his twenties, whose commute runs almost directly down the main road between Wimbledon, inner London and his office in Bankside, central London:

"Straight line, you don't have to think a lot... on the main road, people expect to see you, sometimes they are nasty with you, but, but they know you are there. On back roads people do not expect you... it's a nightmare."

Both Charlotte and James reconfigure their use of the city's infrastructure so that they travel through different parts, in different ways, producing different experiences. (How people gained the navigational knowledge required to choose different routes is discussed in chapter six.) Although the intensity and associated incivility of traffic is Charlotte's main consideration, James is more worried about unexpected encounters on quieter roads. In both cases they are not worried about premeditated illegal activities, but about the petty annoyances and lack of attention that occur as people emergently self-organise their interactions. At the same time, the (un)acceptability they ascribe to different types of traffic is more than a reaction to their ability and preferences with regards to co-existing with traffic.

It is not that James is necessarily "better" at cycling in traffic, although he is happier to do so. The riders preferences are influenced by their reasons and desires for the journey: Charlotte focuses upon attentively enjoying the ride and mainly rides in daylight, on local errands which she can travel between along routes with little traffic. James' rides are further and with fewer direct backstreet routes, whilst the main roads are often relatively quiet during his early-morning and/or late-night commutes. But even when travelling in heavy traffic he assumes that cars on main roads will have noticed him, a situation which he finds more calming to interact with than the surprises of backroads. In effect they are mediating the city's transport network by using the bike in different ways, travelling through the parts of the streetplan that best conform to their idea of safety. But their different understandings of what safety is are related to their expectations for how traffic tends to react to their presence.
As London’s main roads and central areas are particularly busy, for a British city, it can be difficult to avoid traffic entirely. But this might not necessarily be a negative constraint upon cyclists. Jessica lives in the extremely highly trafficked area of Elephant & Castle and cycles to work near London Bridge. As she explained, the growth of cycling might not necessarily influence how much other road users like cyclists, but it may force them to become more “accommodating” (cf. Jacobsen 2003; Bhatia and Wier 2011):

“Behaviour has changed because now they [drivers] know that there is an increasing number of cyclists, they have to drive in a way where they have to accommodate cyclists- you know, space for cyclists- and also slow down when there are a few around you.”

In Jessica’s experience it is not just on busy roads that drivers are more likely to notice cyclists, there is also a growing general expectation that cyclists will be on the road. Furthermore, drivers are not just becoming more likely to anticipate and notice individual cyclists; drivers are being forced to develop new ways of manoeuvring that accommodate cyclists’ mass presence. Even if all our cyclists put the same importance upon being polite, James and Jessica assume that heavy traffic is more attentive, (although in different ways,) whilst Charlotte does not, (so finding it better to avoid traffic completely). This radically changes what responses make sense for each rider when they encounter other road users.

Miranda was more ambivalent about other cyclists’ presence and directly states her suspicion that some people must experience cycling differently to the way that she does. Miranda is in her 50s, lives in Nunhead and has cycled for many years, for a variety of reasons, across inner and central London. Watching the video, she expresses confusion at the profusion of self-endangering behaviour and the lack of manners cyclists often seem to display, but wonders if these might be connected to the bike’s technological possibilities. For example, she explained her perception that cyclists rarely give way when approaching narrow points in the road at which one passing vehicle must pause for the other, but where there is no official sign to assign priority. Miranda assumed that other cyclists seem to have a feeling that: “I’m a cyclist I can wiggle through everything.” Continuing, she explains that, speaking as someone with experience of driving; “Um, you can but it’s not always safe.” She wonders:
"Whether it's that they [cyclists] don't understand? Whether they think: 'That's a car, I hate it, so I'm not going to be polite to it.' Or whether they just think 'I can squeeze through,' I don't know. But it does mean that sometimes cyclists appear to behave rudely in a way that a car driver wouldn't have much choice, would be forced to be polite about it."

Miranda also took-for-granted the danger of roads. In this context, she does not see civility as insubstantial, incidental pleasantries and assumes that cyclists might experience their journeys differently. However, she also feels that the actions of cyclists might not be some discrete practice of cycling, with a different set of rules. She wondered if the reason that some cyclists seemed, from her perspective, so impolite was not because they had a particularly malign intent or sense that cycling put them above and outside normal rules of civility. These riders might just be behaving as drivers with thin cars; equally impolite, but practically able to express this differently. As such, it is arguable that changing the mode of transport has radically altered the generative schema through which these riders understand how to be civil, and how this allows them to manage risk.

It is arguable that many urban outbursts of rage and more quotidian annoyance might be mediated by the mode of transport through which they are engendered, not only by the infrastructure itself (cf. Thrift 2005). But at the same time, getting out of the car's enclosure and onto a bike did not necessarily make people more polite, nor automatically entail them becoming fully communicative of their intent and removing all potential for misunderstanding (cf. Katz 1999). In this vein, the riders' encounters in traffic with other cyclists were frequently confusing but still formed an important part of their journey and its traffic conditions. If the participants used their perception of other cyclists as a reference point for evaluating and describing their own actions, it is relevant to gain a better understanding of what their interactions on the road seemed to consist of.

5.4 Encountering Other Cyclists

To enact civility as a practice which coordinates interactions between people, both riders and other road users need to have some assumption of how people will react. As described by James and Charlotte, this would be contingent upon their situation and the different, quite functional possibilities and constraints they expected to encounter in different streets. However, other riders also explained that their understanding of how London might be physically travelled through also
involved understanding how cyclists might, or might not, have sociable encounters in the city. This can be argued to have developed a sense of what the city was more generally. For example, Josh, an artist in his mid-20s who travels by bike between a web of part-time jobs and social engagements, said that:

"Like, London is completely isolating, isn't it? I like the idea of people being more friendly, but I think that going to work and being in the middle of traffic, I'm probably too consumed with that to think about trying to smile at people. I think. But I don't mind it like that."

Participants rarely advocated cycling as a means of fostering chance on-road encounters with acquaintances, neighbours, or networks of cyclists (e.g. contra Aldred 2010; Horton 2006; Kidder 2011). Cycling was not necessarily a way to make the city friendlier or more social in an absolute sense, but it could be a way to refigure how they experienced more quintessentially urban aspects of anonymity and transient connection (cf. O. B. Jensen 2006). Josh was “glad to live in a city” where he could still get lost, but:

"Like, to have been to a pub somewhere, or to have a friend that lives nearby, and suddenly this area doesn't seem so anonymous anymore. Certainly there's not any part of London you're going to cycle into and people are going to be like: ‘Oh hi, how you doing?' But certainly just to have that sort of slight, that slight reference is, is good."

All of the participants did intermittently go cycling with friends; some occasionally went on rides with local cycling organisations. The bike was repeatedly cited as a way to make travel more interesting, to see different parts of the city, and that passing through areas of the city that they had visited off-bike was a reassuring feeling. However, non-leisure journeys in general, and cycle-commutes in particular, were not expected to involve extended encounters with friends. In part, the anonymity that was felt to be a part of life in London became amplified by the difficulties implied by any attempt to have a conversation whilst travelling side-to-side and manoeuvring through traffic. Joe, a

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57 Although the transience and anonymity of the street was highlighted by many participants, a number of less anonymous or transient urban social forms are discussed in chapter 7.
web developer in his mid-twenties, recounted recognising an acquaintance whilst commuting along a busy main road to central London. He attempts to stay incognito:

“She had flown past me as I had come out [of a junction]... I tried the whole way there not to sit at the lights next to her, and then, don't talk to her, don't talk to her. And then I thought I had got away from her. But then I overtook her or something... And at the next set of lights she just pulled up next to me 'Hiiiiii!' Oh No. And then we had that awkward thing where we cycled together for... the last half of my journey, all the way past my office, trying to have a conversation, but you can't have a conversation when you're cycling. Urgh!”

Joe tries hard to avoid letting her see him, attempting a number of bike-specific ways of manipulating his position to pre-emptively avoid initiating the awkwardness of “trying to have a conversation” in traffic. He feels the need to do so because it would apparently be unacceptable to refute her approaches once he is recognised. They are already acquaintances and it is not that he wants to avoid her completely. But he does not know how to explain that he does not feel comfortable having this form of encounter without implying that he is trying to avoid the person themselves.

In essence, Joe seems to be struggling to reconcile the technical abilities of the bike and the constraints of traffic with an acquaintance’s attempts at a social interaction that would usually be attempted on foot, or whilst stationary. Joe argues that this is inappropriate. Others might argue that he could accomplish it by going slower, or by trusting the traffic to avoid him. Tom and George, (who will be introduced later,) in addition to Jessica, mentioned that they were quite happy to talk whilst cycling. In either case, the relevant point is to recognise that Joe seems caught in an attempt to enact practices of civility which he feels to be unsuited to the situation they are in. It is not that he is enacting a diluted form of more sedentary practices; he seems to be struggling to translate these practices at all, and initially puts quite a lot of effort into politely going unseen.

A number of cyclists spoke of developing more successfully transient and indirect encounters which were more suited to the situation of travelling, and of London’s anonymity. These might perhaps be situations in which successful fleeting or insubstantial pro-social encounters are emergent, which might be built upon or supported as a way to support people to start and increase
cycling. A confident cyclist in her twenties, Sophie explained that after changing jobs she improved her new route between Dulwich and her office near London Bridge by observing those around her:

"[If] you are wearing something formal, probably a good chance that we're going in the right direction. I just followed the crowd a little bit, and then worked out a slightly faster route... [I saw some cyclists take a turning,] and because they came out faster than me [up the road], thought that I would try it next time. I was like 'that's not fair, you're not cycling faster than me!'"

Sophie does not actually talk to anyone, but she learns from them. She does this by thinking about their relative spatial orientations which mutually constitute and occur within the flow of traffic. Furthermore, her experience is not solely defined by her being on a bike. Her actions are only possible and informative if she has a sense of where she is in the city and how this relates to the flows of people around her. It involves her learning how to use the built environment differently by looking at not just what other people are physically doing, but at what their appearance might signify about their intent. But at the same time, she learns from the crowd without approaching them and starting conversation, and without their intentionally or directly acting to help. As Joe also said, although having a conversation with cyclists was not what he wanted, it was highly reassuring to see other cyclists on the less highly trafficked sections of his commute. As such, gaining a sense of how cyclists emergently flowed through the city could be a way of learning both technical improvements to a route, but also of gaining a weak sense of camaraderie which encouraged people to continue cycling.

In a very small number of encounters, cyclists might even explicitly try to share their expertise with passers-by. But they did so in very situation-specific forms. Daniel, for example, makes a point of interacting with other cyclists when stopped at a busy junction approaching Westminster Bridge (figure 8, third from left). This is a very wide Y-shaped junction at the south foot of Westminster Bridge where a five lane road meets a seven lane road as it bends around a hotel. Anyone who did not want to cross the river here and who did not know the side roads would expect to turn right. This means curving through the quite large and open space of the junction, which has no lane markings. In figure 8 Daniel can be seen turning left. He then takes the next right, which takes him behind the leftmost building through what could easily be mistaken for a car park, rather than a road. He explains that:
"[This route] is not absolutely clear. I see loads of people going round the right here having to do this horrible roundabout and I join up with them [at the next major junction.] So I tell them all about this route, anyone I see. I have had a lot of grateful people who just don't know it's there. But there's a very good safe cut-through if you are in the right position."

In this case, the danger of the junction alters what he sees as civil and acceptable behaviour, set within a consideration of flow. Daniel does not tell everyone approaching the junction of his safe route. He waits to see if he recognises anyone when he reaches the next junction. With the benefit of hindsight he can work out the route that they must have taken, whilst having seen them twice changes the form of their still-transient relationship. So in this context Daniel is happy to politely approach strangers and give them helpful advice, which at first glance seems quite positive.

Looking again at Daniel's actions through the framework of finding ways to improve the city, Daniel's intervention is a response to danger that might help people to avoid this location in the future. As in Josh, Joe and Sophie's accounts, simply traveling together by bike is not the beginning of a friendship or an impromptu conversation. As such it is arguable that Daniel's encounters are not signs of an emergent sense of trust in the city's heterogeneity and mixing. They are actually a reaction to a sense of danger and fear which is strong enough to that people feel justified in approaching unknown strangers to share survival tips. In a safer situation they would otherwise try to politely avoid acknowledging each other.

A further complication that may arise in encounters premised upon fear and confusion is highlighted by Jinny. She is a retired office worker from Peckham who had initially started cycling for health reasons four years earlier. When watching the video, she recalls once being stopped at

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58 It curves around the circular Park Plaza Hotel, (image centre, ) which looks like (and plausibly once was) a roundabout that subsequently had one arm removed.
traffic lights near to her house⁵⁹ and having a fleeting conversation with an anonymous male cyclist:

"[He] said 'Hello, how are you?' and I said 'Scared!'... Maybe I was looking for reassurance or something. And I don't think he expected that response. And I thought, good for you mate to know that not all of us are confident blokes! ... I think that took the wind out of his sails, to be honest... [But] You get the feeling that men are all terribly confident cycling [pause]. Is that unfair?"

In Jinny's case, this does not seem to have been a moment of enjoyable camaraderie for her fleeting companion, although Jinny did feel slightly reassured by the exchange. Perhaps that was all the stranger intended or expected. Viewed as a practice of civility and a pro-social event this encounter is quite ambivalent and confusing. Perceived by Jinny as a response to her looking in need of reassurance, it successfully leaves her reassured but the stranger somewhat deflated. Again, in a sense this was a supportive emergent reaction to someone's visible fear, but it was prompted by a lack of trust in a situation. As much as it indicates a weak bond felt between cyclists that might be built upon to make the road seem safer and more inviting to cycling, both parties would probably rather that the interaction did not occur at all. The absence of interaction would be a sign of the successful creation of conditions experienced as an anonymously reassuring sense of safety.

Occurring in the course of their journeys, these more transient encounters were not the beginnings of long-term friendships but they did support people to learn new capacities, take up new spatial tactics and divest themselves of old ones (cf. Butcher 2011a; Butcher 2011b). However, confusing and heterogeneous understandings of how cyclists might be civilly approached for advice or transient encounter highlight that it is not immediately obvious how streets might become more encouraging of pro-social practices of civility. It is possible that people could become more likely to initiate social interaction when either they or those around them perceive the situation to be dangerous, and that this might fade as the situation becomes experienced as less risky. To investigate this further, it is perhaps worth investigating those cyclists who are perceived as incivil in more detail.

⁵⁹ The Old Kent Road; see chapter six.
5.5 Antisocial Competencies

To understand how cyclists experience practices of civility, an unavoidable reference point is the “lycra-lout” stereotype. This is often positioned as cycling’s contemporary epitome, tainting all other urban practices involving bicycles as derivatives of this core scofflaw impetus (reviewed by Fincham 2007a; Horton 2007; espoused in the media by Clarkson 2013; Sinclair 2011). The following section examines the other cyclists’ reactions to such a figure, but then gives the rider most closely approaching this stereotype a chance to explain himself.

When trying to work out why other cyclists could be so rude, and if it was something to do with the bike itself, one recurrent issue particularly confused Miranda: “this thing about never stopping.” Cyclists ignoring red lights epitomised, in the action’s undeniable illegality, a wider perceived trend towards impoliteness that some displayed. Bike rage and expecting others to give way have been mentioned previously, but there were many other encounters perceived as excessive and conspicuous demonstrations of haste.

Megan is in her 50s and works at a small creative industries office in Borough. For the past four years she has usually cycled the 4 miles of her commute to work at a leisurely pace, wearing her work clothes. She complained of cyclists who contravene the “etiquette that if you get first to the junction then you get first off.” Instead they will “see what you are wearing, see your bike, go ahead of you, and then take forever to get through their low gears”. She wondered if such rude cyclists were “going onto an aggressive job, or [were they] just competitive?... ‘I have to be the fastest, I have to wear the best kit, I have to have the nicest bike?’” She isn’t sure why they do what they do, but she does not anonymously ignore it and move on, nor reprimand them directly. A particular response Megan quite enjoys is described in her diary as “MAMIL baiting”. She aims to puncture what she assumes to be an overinflated ego by overtaking such rude (and often unfit) Middle Aged Men In Lycra (MAMILs). She makes her point without speaking, but by maintaining an air of calm, keeping pace with them and pointedly stopping alongside them for a series of traffic lights whilst visibly female and wearing office clothes.

As described in the previous sections, not all cyclists aspire to or derive their approach from such behaviour. However, incivil lycra-louts are a central reference point within the contemporary growth of cycling in London, to the extent that the Mayor has published a plan to “de-Lycrafy cycling”
Woodman 2013; cf. GLA 2013). The following section studies how one of the fastest, best-equipped and most frequently rule-breaking participants deals with the specificities of London’s streets, and gives him a platform to explain his actions.

Lycra-clad and riding a high-quality, lightweight road bike at prodigious speed, George far outstrips the stop-start rush hour traffic along his commute between an office in Bankside and his home in Clapham. In his 40s, he is undoubtedly highly fit, highly skilled and highly equipped. He takes pride in the speed and manoeuvrability that he has trained to achieve, and states that: “I try and pride myself that; I think I am relatively courteous, conscious, to other drivers.”

Almost all of George’s 15-20 minute commute occurs on main arterial roads, including parts of “Cycle Superhighway 8”. These “flagship” cycle-routes are advertised as “safe, direct, continuous, well-marked and easily navigable routes along recognised commuter corridors into the centre.” (TfL 2010c, p31). Although sharing the characteristics of London’s “typical” cyclist, he does not always use the road infrastructure as its designers intended.

This excerpt from Georges’ commute occurs just after he reaches York Road (figure 9, panel 1). Here, Cycle Superhighway 8 is a blue-painted section of road, which varies between 1.5 and 2 meters in width. Bordered by an unbroken painted white line, a previous sign states that between 7am-7pm, Monday to Friday, this is a “mandatory cycle lane”. This cannot be legally entered with a motorised vehicle, but cyclists are not required to use it (Department for Transport 2013, Rule 140). Although it is almost 8am, George explains that: “I

60 George cycles in amateur races and estimates his top speed during the straight parts of his commute to be around 25 miles per hour. For reference, within TfL the “average cycle speed is assumed to be 15 kilometres per hour... It is notable that 15km per hour is faster than average peak hour road speeds in central London and only a little lower than peak speeds in inner London (around 18km per hour).” (2010a, p14).

61 Outside of these times the lane is only a navigational aid, and can be entered by anyone.
immediately then think about going to the right, since there is a dangerous forking off coming up ahead

Approaching a T-junction the superhighway becomes the second lane of traffic, bordered by intermittent white lines (panel 2). These indicate that it has become an "advisory cycle lane", which motorists can drive in, but should not "unless it is unavoidable" (Department for Transport 2013, Rule 140). Traffic turning left at the upcoming T-junction cannot avoid moving across the cycle superhighway to access the left-turn lane. Without denying the significant political effort it takes to get such lanes installed, arguably this is quite a peripheral infrastructure. It changes how the road works, but primarily by encouraging people to interact differently, by tweaking the margins of the road for some periods of time and by making wayfinding easier. This could be contrasted with more substantial changes, such as a physically segregated path. For a start, George feels that the best way to avoid this "dangerous" left-turn situation is by completely avoiding the superhighway and cycling in the general traffic lane (Panel 3).

Continuing forwards there are two white lines painted across the carriageway in front of the traffic lights (panel 4). The furthest is the junction's stop line, the closer is an "Advanced Stop Line" (ASL). At a red signal, motor traffic must stop at the ASL, whilst cyclists can legally move ahead to the second. The reservoir between the two is commonly called a "bike box". The usefulness of an ASL is reliant upon motorists leaving the reservoir clear. However, confusingly, motor vehicles can legally stop in the bike box if they move into it during a green light, but have not left before the signal changes
This is unlike a cross-hatched junction, which should not be entered unless it can be exited. This makes for a slightly complicated set of responses, counter-responses, anticipations and meanings established retrospectively.

As George approaches the traffic lights they turn red. He stops pedalling but continues to coast forwards at high speed, and when reviewing the video explains that: “well, the next traffic lights themselves are slightly interesting. They are quite jumpable.” In the video, a silver car is waiting for the green signal to turn across George’s lane (panel 3). As it does so, George explains that:

“You can see here [I’m] going through a check that there is a green light to the pedestrian which means the second half of the junction is relatively safe to cross… The thing to say about that is, there will be motorbikes in the Advanced Stop Line for the bikes and there can often be a greater sense of, um, lack of safety, as traffic and those motorbikes build up in that area. And as I say there is a fork to the left and people come on the inside, motorcyclists come into that box. It’s a bit crowded, it’s a bit unclear as to who is going straight on, who’s going left. So in many ways I actually find it to be safer if I see it clear to go through and just go through, and be well ahead of the pack. Which I do.”

Anticipating that stopping in the bike box means being joined by motorbikes and confused left-turning vehicles, George coasts until the silver car has crossed the junction. Knowing and seeing that all other traffic is now being held, he accelerates through his red light (panel 4).

When George reaches the next junction there are two motorbikes and two cars stopped in the bike box (panel 5). Without slowing, George sees that the traffic is being held for a pedestrian crossing phase and moves “past the motorbikes and cars that are illegally in the ASL”. He sweeps through a

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62 In the UK, traffic cannot turn left (or right) through a red signal.
roughly 4 meter-wide gap between two crossing pedestrians, receiving an annoyed glare from one. Without irony he explains: "it's not the law that bugs me, it's that things are made for a reason."

George quite openly admits to disobeying the law, asserting that his illegality is safer because it allows him to avoid proximate, unpredictable interactions with other vehicles. Considered as a process and constituted by materials, meanings and forms of competency, it is arguable that trying to work out if George is retrospectively justifying his actions or if his preceding understanding suggests his actions is a moot point. Instead, his ability to perform such actions mutually constitutes his justification. Therefore, an alternative response, informed by an understanding of generative schema, is to ask why more people do not do likewise. If cities are produced as their inhabitants emergently coordinate their relationships, this includes steering a line between legality and illegality (Koch and Latham 2013; Zukin 2010). The illegal can often be popularly tolerated, pragmatically overlooked or enacted inconspicuously, whilst legal rights can be perceived as intolerant, misguided, or unjustly denied. Streets are rarely inhabited equally (Valentine 2008; S. Watson 2009). In this vein, George has learned to work with a keen sense of place when controlling his bike.

George combines an understanding of his physical position with a trained anticipation for how traffic acts and reacts in different situations. He does not blindly ignore the signals (also see Fincham 2007a; M. Johnson et al. 2013; P. Jones 2005; Kidder 2011; Horton 2007; Transport for London 2007b). Rather, George adapts his practices so that he passes through the junction whilst it is clear of traffic. This includes him anticipating and checking that other travellers will self-regulate their actions to obey the red lights. But it also responds to an assumption that many will disobey or disrespect the ASL. His feeling that traffic will not behave safely whilst moving and that traffic is more predictable when stationary acts to radically reconfigure how he uses the infrastructure.

The traffic is emergent to the extent that George can travel through these moments of isolation without requiring other travellers to consensually agree with his actions. Rather than being a spontaneous or unthinking response to any empty junction, George is drawing upon his prior experiences. His law-breaking might be best understood as a trained ability to "produce speed" from the infrastructure (Stewart 2004, p154 in Lugo 2013b, p204). His ability to react to traffic as he encounters it is built upon previous journeys spent observing, calculating and remembering how different junctions are practically made "quite jumpable" (George). Analogously to "producing
speed" George feels that he has learned to "produce safety" (my phrase) through his actions, by reorganising how his actions are synchronised with the rhythms of the traffic flow.

George's actions are illegal, not what the road's designers intended, and he cycles past large numbers of people who are being far more law abiding. But he describes himself as civilly making the best of a bad situation. George's accumulated equipment, fitness and expertise allows him to radically re-configure how he practically encounters traffic and manipulates a much more extensive system of infrastructures (Furlong 2011; Thrift 2004b). This understanding of acceptable civil encounter suggests a more explicitly embodied understanding of Bourdieu's theorisation of how necessity is made into a virtue and self-interest into selflessness (1977, p10, 76–78). His practices are more than a self-justification, because even were his descriptions primarily self-validating they are based upon his having learned very particular skills, his being able to enact specific movements, and his experiencing the encounter with trafficked infrastructure in a way that makes his actions feel safe-enough.

Reduced to a simple linear narrative: based on past experience of the traffic, George pre-emptively responds to the danger, confusion and illegality he anticipates in other vehicles. Thus his law-breaking becomes allegedly equivalent to everyone else's. Secondly, given the infrastructure and traffic conditions, he experiences and argues that with his skill, speed and acquired-knowledge it is safer to break the law. Therefore, if the road's primary purpose is to facilitate safe and speedy travel, and this is best achieved by illegal behaviour, so the illegal becomes civil. Thus, aware that many would disagree, George can create a generative schema and chain of logic that plausibly describes himself as a "courteous, conscious" road-user.

In terms of encounters, George has formulated a way to pass through this junction in a way which he feels to be acceptably safe, and which he claims to be safer than obeying the law. In a sense he is pro-socially repairing the gist of civility by going outside a set of laws that would — if he meekly obeyed them- make him an antisocial danger to other road users. Doing so depends upon his both being able to physically perform the manoeuvres he does, but also upon his experiencing the road and its flows of traffic in such a way that he feels assured of doing so. In terms of people starting and stopping cycling, it is questionable whether such practices would be attractive to a large part of London's population, and whether that population would find it beneficial for more cyclists to travel in this way. The other cyclists had numerous thoughts on the matter.
5.6 “Everyone Else is a Lunatic”

The following section investigates how other participants understood the actions of traffic during their interactions with its flows. This explores how they understood the different practices of civility and forms of emergent encounter that they enacted, or saw others enacting around them. It draws upon the earlier sections’ general descriptions of urban traffic, its spatial variability, and the different ways that people expected traffic to respond to their on-bike presence. However, it combines this with section 5.4’s more nuanced understanding of how cyclists might interact with other road users (i.e. Sophie, Daniel and Jinny), and section 5.5’s development of how individuals’ skills might change their generative schema, and thus the meaning they understand their practice having (i.e. Miranda, Megan and George). This has wider theoretical implications for understanding heterogeneity and multiplicity within practice, but concentrates on an empirical frame of reference that the participants particularly highlighted; the relationship between assertiveness and gender. It further develops how people can have very different experiences and expectations for what traffic is likely to do. This means that different practices of civility both result from and create different experiences of what occurs.

As described earlier, although all but two of the participants were licenced drivers there were frequent complaints about the general standard and politeness of driving in London. Sam explained using a particular type of anticipation to guide his interactions with other road users:

“You have got to assume that they are all lunatics, haven’t you!? I am surprised actually by just how reasonable most of them are, but yes, you have always got to be aware that the next one is going to be an idiot.”

Although “most” are “reasonable”, because it would only take one “idiot” to cause Sam significant harm and each encounter is transient, everyone must be treated as a potential lunatic. Similarly James, who previously explained that traffic on main roads was usually expecting the presence of cyclists, suggested that:

“You need to not do stupid things, and avoid stupid people, avoid stupid cars, stupid taxis, stupid buses, you know, stay within your limit, um, you will probably be fine... [said later] Sometimes even cyclists themselves get a bit annoying.”
James indicates again that whilst infrastructure may create the possibility for surprising and idiotic outbursts, its potential is mediated by how people use it.

Molly, a part-time artist in her 50s who has cycled for decades across various parts of inner London, explained that she still gets exasperated with "people doing unexpected, unpredictable things". She claims to feel "quite vulnerable most of the time" and despite progressively gaining expertise, she is feeling increasingly vulnerable as she gets older. (Molly makes the link to age.) Apparently this has not (yet) changed her frequency of cycling, but she is becoming more attentive to pedestrians.

Molly describes recently walking across a pedestrian crossing and becoming aware that an approaching cyclist was not going to stop at the lights:

"I could see the cyclist coming, and I knew what he was going to do and he did. He went right past loads of old people, and I grabbed his handlebars and made him stop, and I said 'What do you think that you're doing? It's a pedestrian crossing!' But he didn't have a notion that he is on the road, and this is kind of sacrosanct, this is where you are supposed to be safe."

In the specific situation where the cyclist has visibly started going through the crossing and past other people, she feels that reaction is acceptable (although she does not usually react). Somewhat like Jinny meeting the anonymous stranger, Molly thinks that it is important for people to understand or be reminded of other peoples’ vulnerability. Whilst it may be possible for pedestrians to restrain cyclists, it is not possible for cyclists to so directly influence other road users. Resonant with Joe’s earlier difficulties in trying to politely avoid an acquaintance, and the attempts by Sophie and Daniel to learn from or help others, a number of cyclists had developed ways of influencing traffic that did not require them to avoid it completely (as Charlotte did) or ignore red lights (as George did). However, they often felt that their abilities to do so were contingent upon their general size and demeanour.

Although people generally felt that traffic was tolerably-unpredictable, they also explained that it responded to how cyclists presented and asserted themselves. James is over 6ft tall, in his 20s, broad-shouldered and regularly challenges himself to outpace other cyclists “not for any reason other than to spend, to expend more effort, make it like a workout.” However, he does not think that
traffic interacts or impinges upon people equally. His advice to avoid “stupid people” continues with
the suggestion that:

“If I was a small girl, a petite girl who wouldn't be able to go fast, and would be
dominated by everyone on the road, I would be worried.”

This practical intersection of gender, considerate behaviour and an assertive disposition was also
recounted by Josh, who said that:

“I go cycling with this girl [name] that I know, and she is just so shaky on her
bike... and I can just see that people aren't considerate... and I think that
actually you're safest obviously if you're not foolish, but if you are like, assertive.
Like. 'I'm here; I'm not moving for you, I'm not going to be nudged out of the way
by you.'”

Lauren’s account responds to this perceived existence of an intersection between gender,
assertiveness and accident rates. She recounts once having to jump off her bike to
avoid a lorry turning left across her. This is described as: “The typical accident that,
mainly, women die in, in England. Statistics show is when they are crushed to the barrier, because they are just too close to something.” As
such, Lauren councils that “if you don’t own the lane they will just push you around.” At Vauxhall she confidently takes the 3rd lane of a 5 lane gyratory rather than use the (much slower) off-road cycle path (figure 10). Although Lauren’s example is more law-abiding than George’s, it carries the
same assumption that less assertive behaviour, typified by supposedly feminine timidity and not
“taking the lane”, was associated with the very real risk of death.

The efficiency and safety of assertiveness was not entirely unchallenged, and again this showed
spatially contingent influences. Emily is in her 30s and over the last 18 months had started cycling
with increasing regularity. Now she tries to cycle to work in Bankside from her home in Putney a
few times a week, taking in a different section of Cycle Superhighway 8 (George, section 5.5),
which goes along the Victoria Embankment (see chapter six). She complains that in her experience
the main source of danger here — and particularly here — is other cyclists. She fears that the people passing her may overestimate their own abilities and the predictability of others:

"guys coming in, who are like regular fast cyclists coming in from [outer south west London]... and so they're going fast, fair play to them for. But they, if I deviate slightly off course I'm super aware that it could all end in tears. So that's what I'm cautious about... [Especially] if you don't hear them coming."

Sophie felt that it was important to be assertive, but felt that weaving could be dangerous for the cyclist because "cars can behave, what I consider to be quite badly, not signal". In turn, she avoids "cycling through traffic when I know that they won't be able to see me." Resonant with Katz's (1999) description of the communicative asymmetries implied by automobile travel, Sophie reflexively considers how the technologically-mediated, experiential specificities of driving should influence her own practices of civility when cycling. Rather than suggesting gender as an explanation for cyclists' different behaviours she wondered if they lacked experience of driving:

"I think that if you've never driven a car you're not aware of where a car's blind spots are, um, and I feel like I am very aware of that, so if I'm coming behind somebody I make sure that they should be able to see me in their mirrors".

Sophie changes where she cycles in order to make sure that she is visible to the car. She preemptively reacts to an assumption that many drivers will not signal or be highly attentive, but then tries to position herself so that she increases her chance of being seen in car mirrors. She assumes that drivers are watching to a great enough extent that she will be safe if she puts herself into a passively visible position within the flow of traffic. This is similar but different to George, who assumes that drivers are not generally watching. So in his previous excerpt he tries to go outside the flow of traffic so that it does not matter. If he has to rely on being visible he has an active understanding of attracting the gaze of drivers. At another point he describes intentionally trying to "make myself visible" by "sort of veering and making a bit of room for myself". Their different understandings of how other people's vision works means that they have very different understandings of how people might be assertive in order to remain visible.

Rather than seeing George and James as being exceptionally assertive in an absolute sense, some cyclists felt that by avoiding such actions they might assert alternative informal claims upon
space. Jessica is an openly timid cyclist in her 30s who started cycling four and a half years ago. She has read up on and accepted the benefits of steadily taking the lane. However, she complained that "hard-core cyclists" who "want to zigzag through the traffic" were not just unpredictable to other road users at the point they went past, they also made motorists "nervous" and "irritated":

"Ideally you should remain on the left, if you can, and if you show up on the right and then you skim through the gap, it is quite annoying. [Staying left] you will still get there quicker than a lot of cars."

However, this insistence on being conspicuously accommodating and polite was not just because she had an absolute dedication for civility or legality. She also felt that politeness should allow her the leeway to occasionally use the pavement when the road felt unsafe. Not everyone she encountered saw this as acceptable:

"I don't go very fast, so ...if there are any incidents then I can jump on the pavement...[At roadworks,] I do that, and if there are other pedestrians walking past then I will stop to let them past because, well... they have the right of way because they are pedestrians. So, but most of them it is fine, but there are a few odd ones. They go, they respond very negatively: "You should be there! [i.e. the road]" But, you know, I respect your opinion, but actually, I'm not on the pavement all the time, I am just trying to take a safer shortcut."

Jessica is trying to reconcile the difficulty of trying to avoid spreading irritation and to defer to more vulnerable groups; but without making herself intolerably vulnerable. This encounters the difficulty of not being able to communicate the difference between an allegedly justified need to use the pavement to avoid a point of danger, and an impermissible disregard for the sacrosanct status of pavements. It also speaks towards a sense of difference over what is impermissible, at what speed, and in what mitigating circumstances. This leads to different understandings of what may annoy or be accepted by other road users.

In analysis, focusing on the heterogeneity of responses, it seems questionable to see the different tactics as simply degrees of "assertion", with a strong binary gender influence. Drawing on critiques of sensory perception, different dispositions should be expected to create different sensory
engagements with the city (Brown 2012; Jungnickel and Aldred 2013; McIlvenny 2015; Rose 1993). In the previous section, different ways of acting "assertively" were based in different tacit and reflexive assumptions of how visibility can be manipulated, and how the viewed can influence the viewer. The implication is that different configurations of infrastructure and advised ways of interacting with traffic may be experienced differently, because of different understandings of how the senses work. This complicates how mediating technologies, whether bicycles or ASLs, might be added to a situation. Their incorporation into urban practice is itself mediated by the skills and meanings held by the population, as articulated through their experience of receiving and enacting interactions with others.

5.7 Conclusion

This chapter has suggested that practices of civility help to explain how people experience their embodied movements, interactions and methods of coordination whilst cycling. The participants described the road as a space of tolerable but pervasive danger, in which politeness was seen as conducive to travelling safely and being treated safely by other road users. Impoliteness, even in quite energetic forms such as road rage, seemed to best capture the sense in which much danger was seen as being created and mitigated through a variety of minor quotidian selfish or selfless transient encounters. Such encounters were understood to be emergent and relatively geographically predictable. On-road civility in London largely did not entail travellers recognising familiar individuals, but was based upon their responding in familiar ways to familiar situations.

Introduced in Charlotte and James’ opening accounts, being influenced by the actions of surrounding traffic in the process of coordinating with and influencing it in return, the importance of calibration and reaction was continued throughout. It was seen in the way that Joe acted with his acquaintance and Sophie’s following others, Jinny’s fear shaking her helpful stranger, and in accounts of how different understandings of assertiveness could influence how traffic flowed around the cyclist. Traffic was also recognised as tending to be busier in certain places, or more dangerous at specific points (such as Lauren and Daniels’ roundabouts). This prompted the creation of various tactics for spatially avoiding undesirable conditions. However, peoples’ experiences of traffic and capabilities in traffic were very different, which entailed cyclists with different practices of civility often finding safety in very different locations.
With overall relevance for why people start and stop cycling, the chapter raises a number of implications. Firstly, although some of the riders were more nervous or less assertive than others, all the cyclists were tolerably worried about their own and others' safety. A significant part of their practices of civility pivoted upon attempts to predict and interact with the actions of traffic. In this, safety and courtesy became somewhat conflated. Numerous cases indicated that a fear for other peoples' safety led to the most direct, verbal interactions, which were explicit attempts to confer expertise or impose a viewpoint on others. This is in fact the opposite of the trustworthy emergent atmosphere that some have hoped would support heterogeneous encounters in cities. In a number of cases, especially when combined with the task of commuting or non-leisure transport, supportive traffic conditions were those which did not force people into vibrant heterogeneity. However, in the cases of Daniel and Sophie, more allegedly appropriate forms of interaction between travellers and the familiar places being travelled through were being developed, based on visual and route-based rather than wholly verbal in situ interaction. The counterside to this is that, whether George, Jinny or Jessica, even people who seem incivil may actually be quite dedicated to the concept, just interpreting it in rather surprising ways.

Developing an understanding of technology, processual change and generative schema, Miranda felt that the actions of other cyclists could not be explained solely by their having a different sense of self-importance or self-confidence, and that they must experience the situation differently. A hypothesis further developed through the chapter, it did seem that riders had different understandings of traffic's predictability and how it could be influenced to see them. Although the effects could be somewhat put into words, they seemed to describe sensory differences in the way that people noticed -and assumed that they would be noticed by- others. Similar effects were replicated in the diverse ways through which people felt that they might have more substantial encounters on the road. Face-to-face conversation was difficult, and being side on or in transit reshaped what interactions meant. Joe had a variety of spatial tactics for trying avoiding friends, but did not have a tactic for refuting conversation once initiated. Molly, whilst on foot, initiated a face-to-face conversation in which the act of literally dragging a cyclist out of their flow delivered an emphasis to her reprimand. Molly's act was itself an attempt to change how the anonymous red-light runner experienced pedestrian crossings. Yet Sophie, Megan and Daniel had invented and translated a variety of manoeuvres which allowed them to encounter others on the road, These were felt to create more appropriate encounters with the people they met on the road; involving
watching other flows of cyclists to initiate an appropriately fleeting verbal or non-verbal interaction based on an assumed knowledge, or to simply learn from their route. This highlights the importance for cyclists of learning how the city can be travelled through via a variety of different routes, for different reasons and at different times, which is the subject of the next chapter.
Chapter Six: Navigation as Personal Logistics

"... I think my diaries will capture it. But what I would want them to capture is my non-work cycling patterns, and habits and preferences, which um, are a fairly important part of my cycling life as well as the commuting. But commuting is the backbone."

"George", closing his video-elicitation

The bicycle can be framed as a tool by which people gain new capacities to organise their movement through the city. However, people use bicycles in a variety of ways; prefigured by and prefiguring different forms of coordination, logic or intensity. Overall, although cycling in London has grown since the millennium, relatively few extra people have started cycling. A large number of Londoners cycle intermittently, a small but growing number of people cycle frequently, and very few (if any) travel solely by bike. Continuing the attempt to better understand why people start and stop cycling by investigating the take up, alteration and divestment of urban practices, this chapter draws upon the diary-interview fieldwork to answer the second research question: How do people alter their urban practices via their experiences of cycling the city? Empirically the diary-interview procedure was used to evoke a sense of the spatial and temporal coordinations which the participants were embedded in (cf. Rose 1993; Haldrup 2010; Latham 2003a). It investigates how people combined bicycles with a variety of materials, meanings and forms of competency in order to practically navigate the city.

The chapter focuses upon practice of navigation. This takes a somewhat expansive definition of navigation, including not only wayfinding ability, but also the ability to logistically plan and coordinate these movements to accomplish certain goals. For example, knowing how to plan new routes, arrive on time, whilst carrying their equipment and dressed in acceptable attire. But urban street networks usually contain multiple different ways of getting between a given A and B. Practices of navigation consist of learning different ways of doing so, with different considerations, to coincide with different events or opportunities. For example, learning to bypass the busiest locations, or to avoid travelling after dark, whilst understanding the constraints and opportunities associated with doing so. Investigating practice, the study takes an interest in how established habits influence their prior or ongoing experiences, to shape what people actually do on a day to day basis. When considering a practitioner’s capacities it does not simply focus upon what they
could do if asked, such as map reading, but investigates what they actually do as a matter of routine. At each stage it considers how the participants' descriptions of their situation might be related to citywide trends. This allows an evaluation of how their own cycling experiences and urban practices were related to the possibilities which they did not know about or they had discarded.

The opening section charts how participants framed cycling as a means of providing prosaically satisfying experiences whilst accomplishing tasks that were not confined to cycling. This was not their only framing of cycling in London, but it was a repeatedly voiced framing, and one which directly addresses urban practices of navigation. Developing the previous chapter's investigation of side-to-side and transient encounters en route, navigation focuses upon how attempts to perform different tasks by bike influence the experiences of cycling. This includes the different potential origins, destinations, routes and times that such tasks would entail. In a variety of combinations, the aforementioned elements might be expected to alter the generative schema through which participants understood the situation and the forms of organisation involved (emergent or otherwise). Secondly, it investigates a number of contrasting trajectories and limits seen in different practices of navigation, and their spread, alteration or decline in participants' lives. This developed an understanding of how cycle experiences and journeys were linked to the situations that cycling was emplaced within. These situations might entail various sorts of (in)stabilities and indirectly relevant skills, meaning and materials. Thirdly, it develops an understanding of how people learn new capacities without the benefit of hindsight and when engaged with the city's milieu in different ways.

A key element of the cycling experience turns out to be the incorporation and translation of expertise derived from non-cycled travel. This influenced how riders experienced, anticipated and repaired their practices of navigation. Focusing upon experiences of learning from individual journeys, it investigates how a task-based practical generative schema for knowing the city might be mediated by different encounters, privileges and forms of constraint, along with the surprising trajectories their combination could entail. The chapter finally studies how practices of navigation are multiscalar. This builds upon the previous section's description of individual journeys and realisations to develop an understanding of how larger-scale or zonal understandings of the city might be built. The final section demonstrates how peripheral change might lead to radical and systemic alterations in peoples' practices of navigating urban space.
6.2 Taking Cycling for Granted

To start with a practical example, before introducing the topic more theoretically, we turn to Chloe. Chloe is trying to return to cycling for the first time in her adult life. She has many reasons for wanting to cycle, such as a loose desire to show her independence, stay healthy and enjoy leisure rides in the park (cf. Steinbach et al. 2011). But an important consideration is her desire to maintain the current emphases of her existing life, whilst reconfiguring it into a more velomobilised form:

"I would like to be proficient, so that I can say "oh, let's go on our bikes" to somebody who is a proper cyclist, that is the thing. To feel like I wouldn't be slowing them down, and being stupid... My friend who cycles everywhere [usually...] she would maybe cycle to where ever we were going and I would usually drive, or get the bus. I would like to be able to say, "Ok, well let's cycle up there together."

Chloe’s primary difficulty is not that she dislikes the idea of cycling, or cannot physically ride a bike. Her problem is that she does not know what sorts of proficiency she requires to velomobilise the life she has already built. Consequentially she experiences her inability to cycle as a feeling of "being stupid". On the other hand, for her friends who have learned and become used to knowing how to do these things by bike: "it is hard for them to imagine why it is such a worry, 'why don't you just do it?'". This situation speaks directly to the attempt to develop our understanding of experience and practice as dynamically, mutually constituted.

Chloe’s words indicate how new experiences of cycling are not necessarily built from scratch as a practice of cycling, but involve preserving continuities with her previous practices of navigation. Moving around by bike would allow her to reconfigure, in a modest way, how she spends time with her friends, family or job, and how she moves around the city as she does so. But the physical act of cycling is only one of many considerations that she must navigate whilst making her way through life in the city.

This opening section introduces a way of understanding cycling experiences within urban practices of navigation, and suggests how such a formulation is visible in peoples’ descriptions of their quotidian activities. As can be seen in Chloe's comments, experiences of cycling are not only determined by the bicycle’s characteristics as a technology. They incorporate each rider’s skilful
ability to interact with the urban form and the travellers or bystanders they encounter upon it. Navigation incorporates riders learning how to acquire, reference, visit and generally manipulate a variety of equipments, meanings or forms of bodily competency. However, cycling in the city does not just mean knowing how to manoeuver through a series of individual situations (such as in chapter five).

To live in the city means learning how to logistically order time and space. People must construct particular routes through the matrix of potential connections and encounters which they might make. Whether travelling with friends or travelling to a more sedentary meeting, to do so by bike requires an understanding of how the city's streets might be navigated. Practice argues that someone's knowledge of how they might do this is always partial. Furthermore, developing greater expertise in using a mode of transport might not only allow the traveller to take advantage of a greater or alternative range of opportunities. Expertise also changes how opportunities and constraints are experienced and perceived (Spinney 2010c). This implies that the generative schema through which someone understands their practices of navigation is always fractured, malleable and partial. Living and learning always changes someone's position, but in a way that is often inadvertent, with the effects and long-term trajectories of their choices often only recognised afterwards.

Although cycling is more than a means of getting from A to B, within the study's investigation of navigation, peoples' rationales for cycling were dominated by its potential to fulfil a pre-given transport demand, combined with particular supplementary benefits associated with doing so by bike\textsuperscript{63}. For example, Miranda started cycling two years earlier as an enjoyable means of getting exercise without sacrificing time (cf. Cavill and Davis 2007):

"It is all part of keeping [your] blood pressure down without taking medication, and actually having an enjoyable experience. Whereas if you cycle on a gym machine then all that happens is that you see a lot of the gym machine."

\textsuperscript{63} The bicycle is not necessarily a means of transport; it could be primarily understood as a means of generating electricity, a machine to be fixed, or a historic artefact to contemplate.
Cycling's potential was also dependent upon the conditions it was incorporated into. This included alternative travel options' technical possibilities, combined with the encounters they engendered (cf. Pucher and Buehler 2012b). As Jessica said:

"Riding on a bike means that you are cutting out the waiting time at a bus stop, the, the journey on the bus, not having to put up with annoying passengers, rude passengers, or whatever. It is actually, in a way, it is a huge advantage, lots of benefits in many ways. It has saved me a lot of money!"

Although a life-long resident of north Southwark, since Jessica started cycling four and a half years ago she has developed new abilities to visit different parts of the city. Although she was not previously being physically barred from areas that she can now access, her new practices of navigation-by-bike reconfigure her potential to move through the city:

"[Previously,] outside of the bus route I wouldn't actually venture out, um, because I wouldn't be familiar with any other routes. With the bike you kind of explore a bit more, tight alleys, new places without fearing."

The new sense of opportunity she derives from using the bike changes how she experiences moving through the city, giving her confidence to experiment further. In turn, having the confidence to explore means that she becomes familiar with traveling more widely.

Jessica is, however, aware that her understanding of cycling is not universal. Whereas Chloe wanted to be able to cycle so that she could travel with friends who already cycle, Jessica's problem is her friends' disinterest in cycling. She explains that navigating the city by bike can be somewhat incompatible with their understandings of status:

"I don't have a lot of friends who cycle. They are mostly married with kids, and they tend to drive. And in my cultural background... It is a status that, if you own a car and a bike then it's fine. It means that you can still afford a car but you enjoy cycling. But if you have a bike but you don't own a car, you kind of give the impression 'poor little you'."

Jessica can describe cycling in the terminology of social categorisation, status and distinction. My analysis does not pretend that they are irrelevant. However, as Jessica goes on to explain what
she personally uses a bike for, she emphasises that the logistical difficulties and relatively minor benefits of owning a car in central London interfere with the generation of the car as a "symbol that you're doing quite well." She lives on a council estate in central London, within walking distance of multiple high streets, a 10 minute bus from large supermarkets, amidst fairly congested roads. Furthermore, car ownership would require a parking permit:

"I don't need a car. And I think that if I do own a car... apart from having to carry heavy stuff, to pop up to the charity shops, or the recycling centre, or buy myself some heavy groceries, it's a waste of money."

To gain status Jessica could move house or get a car anyway. But she argues that cycling best helps her to live the life she wants. This is prefigured by the situation that she has acquired the bodily capacities and equipments that she requires to successfully live without a car, in a part of the city which is not predicated upon access to a car.

Jessica explains that she tries to rework these issues of status by highlighting how easily the bike allows her to run errands for her nearby parents and grandparents, whilst she emphasises this in-kind by actually running those errands. (She describes a number of other ways in which the bike supports her to be successful.) Jessica also makes analogies to the difficulties that Chloe experiences in her attempts to convey what she does not understand about cycling. With little experience of driving Jessica can only think of a few tasks which would be made exceptionally easier by her having a car. I would argue that this demonstrates how generative schemas allow meanings to be altered and (de)stabilised through altering their mutually constitutive materials and competencies. In this case they are forms of logistical coordination.

Chloe, Miranda and Jessica's descriptions introduce a framing of cycling as a mode of transport which focuses upon their developing the capacity to reconfigure their taken-for-granted means of living and moving in the city. However, learning to navigate the city by bike did not entail their taking up new, closed, self-encompassing practices of cycling. Firstly, their accounts emphasised the importance of developing capacities to coordinate their own actions with the possibilities and expectations of the urban milieu. As particularly seen in Jessica's excerpt, the ease of practicing navigation-by-bike seems to be related to both the local transport infrastructure and the individual or group's personal situation in it. This leads to a second point, which is that peoples' immediate navigational concerns are heavily influenced by their existing conditions. On a macro-scale, much
of their situation is undoubtedly not of their choosing. But on a more personal scale, the particular configuration of practice they currently perform is one in which they have assembled from the past options available to them, socially and psychologically invested themselves in, and grown somewhat competent at. Furthermore, it forms the position from which they experience the present and predict their future options. This fundamentally influences how practices might be taken up, altered or divested.

Every cyclist in this study cycled out of choice, but I would argue that cycling was experienced by them as a pervasive form of transport far more than it was experienced as a focal point. This differs from the tendency for social science to study people for whom the bicycle is an explicit interest or central influence; couriers, campaigners, activists (see chapters two and three). No participant was employed, or had ever been employed within a cycling-based industry. When questioned, none had intensively considered cycling when looking for a house or job, instead adapting it to the outcome of more pressing conditions. Everyone regularly used other modes of transport and had other interests, whilst none were dedicated to bicycle-politics. The vast majority of Londoners who cycle seem similarly ambivalent to the idea of cycling being a primary focus of their life (Aldred 2013b).

Whilst participants may experience cycling from a position that is significantly influenced by the events of their personal history, as described in chapter three, the typical London cyclist is a 25-44 year old white man, with a relatively high income, commuting to the city centre. Other modes of transport have their own geo-demographic tendencies, both in terms of their users and their negative or positive externalities. Different industries and forms of employment also tend to demonstrate characteristic transport patterns. As such, to better understand the growth of cycling this thesis has suggested that it is relevant to consider how different participants’ situations influence their practices of navigating the city by bike. A selection of examples of different ways of dealing with different situations might allow us to better understand how different practices of navigation can be taken up, altered and divested, and how the experiences of cycling they produce relate to the city’s systemic tendencies.
6.3 Prosaic Enjoyment

The following section describes more detailed examples of how cycling could be a pervasive part of an individual’s practices of navigation without being primary focus of their life. It describes a number of individuals who initially seem to be highly keen cyclists, who cycle frequently, but who – on further investigation – experience cycling in a far more ambivalent, inadvertent or contingent and fractured manner. As such, it builds an understanding of how such practices can be durable and demonstrate trajectories of growth or decay without being predetermined. It firstly looks at cross-linking, mutually supportive but bounded aspects of Daniel’s cycling within his practices of navigation. Secondly it describes James’ relatively intense but unstable practices of navigation. Lastly it describes Josh’s historically and communally built reservoir of cycling-expertise, which is slowly decaying through its non-renewal. This further develops an understanding of the processes by which cycling become incorporated into different configurations of urban practice, and how this was influenced by their experiences of its occurrence.

Quite inadvertently and incrementally, Daniel has become a quite committed cyclist. Although he learned to cycle in his youth and had intermittently leisure-cycled for many years, his turning point occurred two and a half years ago. When his office relocated to more commuter-cycling amenable premises, his employer held a ballot for access to the “purpose-built cycle storage” and changing rooms. As Daniel says; “I thought, well I’ll put in for a locker and if I get one I’m doing it. And I did!”

The subsequent years somewhat changed how the costs and benefits of commuter-cycling are configured for him. If Daniel does not cycle for some reason - such as after-work drinks - he returns to the train, which he now describes as “almost the complete antithesis of the bicycle. The bicycle, you’ve got tons of space, loads of fresh air, you’re absolutely the master of your own destiny.” The experience of cycling has radically reconfigured how he experiences the train, even though the journey takes him a comparable amount of time. By taking up the bike he has mediated the transport-infrastructure of the city, the main features and locations in his life are similar but now he has accessed many of the benefits that Chloe and Miranda spoke about earlier. However, his experience of cycling has itself continued to change:

“When I first started cycling to work, I just couldn’t believe the – I’d just spent some of the day going for a bike ride! I had this really almost childish-like love of
it. I do find now, late at night, I think 'I've got to cycle home now'. I don't give myself the option [i.e. not to], I do it every day. Sometimes I think "oh God, I could do with not cycling", but I don't really like the alternatives, so by and large, I do it because I really like it. It's no sacrifice."

Although not the heightened fun it was, Daniel usually experiences cycling as a moment of quotidian enjoyment and relaxation. However, as Daniel's experiences and expertise change, this does not just make cycling a bigger part of his life. It also reconfigures how it is incorporated into the routines through which he navigates daily life (Shove and Pantzar 2007). His enjoyment of cycle-commuting led Daniel to start organising regular weekend rides with some existing friends. The group now compete in amateur races as a team. They do this as a good excuse to meet up and socialise as much as they do it for the competition, but the two aims combine well. As such, the meanings Daniel understands change as he changes his skilled and technological engagement with the mode of transport.

As cycling has become a larger part of his life, Daniel has acquired an array of minor equipments which he uses to refine how he deals with different situations:

"I've got much more expensive cycling stuff, for [weekends], like road training gear, but that's just purely for pose value!... I've got a top that we chose to wear as a team so that we all looked the same... [But that is too expensive for my normal commute. On that] I've got a fluorescent coat that I wear in winter, which is waterproof, and I've got, just a fluorescent vest type thing which I wear in the summer ... I think that [commuting is] just much more about being practical and being seen."

Acquiring small pieces of equipment allows Daniel to integrate cycling into urban practices of navigation with very different goals and content. These entail encounters that are given particular form by their context- the racing creates an excuse for him to see friends but in which he uses certain pieces of equipment to help him coordinate and symbolise a moment of friendship and camaraderie. Other pieces of equipment facilitate a journey to work with different emphases; commuting is a more prosaic quotidian fun in which safety is a higher concern. It also allows him to physically and mentally prepare for the evening's encounters. As he explains in the ride-along:
"I've had a long day at work, I have commuted hard home [which is invigorating, but the last mile] I'm thinking about, you know, I am a husband and a father as well, I need to be slightly more chilled, [Laughter]!"

These peripheral aspects mediate a core web of cross-linked and dynamically changing, mutually re-constitutive skills, meanings and materials. Almost-always cycling to work allows him to cancel an expensive public transport pass, which justifies his buying the high-quality bike that he commutes and races on. Cycle-commuting allows him to exercise without spending time in the gym, and as the weekend rides make Daniel faster still his commuting becomes less arduous. He is also willing and interested to expand the number of situations into which he incorporates cycling. For example, he uses public hire bikes when the journey would be convenient, and has bought a small messenger bag so that more journeys are convenient. By prefiguring its own intensification, Daniel's life seems to exhibit a velomobile form of the "spiral" development described for automobilisation by Beckmann (2001, p593). However, cycling's incursion into Daniel's life has relatively firm borders.

Figure 11: Daniel's Travel in Diary-interview 1

Cycling constitutes the majority of Daniel's journeys because most of his journeys are commutes. However, as can be clearly seen in figure 11, he makes a number of journeys by other modes. His diary and interview explain that the train is mainly used for work travel. However, his car-use mainly occurs at evenings and weekends. It supports the complex logistics of ferrying his children around,
or of travelling with a wife who is not interested in non-leisure cycling. Similarly, when travelling for work in a group it is often more convenient to travel by public transport or in a taxi, rather than rent a fleet of hire bikes (even assuming that everyone present would cycle). The usefulness of being able to navigate by bike is contingent upon the requirements of the situation and the encounters it involves, in which case it can be difficult to cycle if the other parties are unwilling or unable to synchronise themselves to a common, emergent practice of navigation. A key part of cycling's meaning as generated through his quotidian practices of navigation is that cycling is rarely important enough to justify Daniel's travelling independently, unless he would be doing so anyway.

Even when Daniel does have the need or opportunity to travel by himself, it is relatively inconvenient to use his main bike for journeys other than his commute, whether personal errands or work outside his office. The bike's cost means that he prefers secure parking locations, whilst his pedals require specialist cycling-shoes that are awkward to walk in. At the time of fieldwork public hire bikes did not extend to Daniel's home, meaning that they were of no use for local errands. Therefore, the specialisation which so heightens cycling's benefits in one cluster of Daniel's navigational practices also constrains its expansion through his wider system. In terms of working configurations, Daniel's account suggests one example of why people with caring responsibilities may cycle less, why the repetitive nature of the cycle-commute can generate so many journeys.

Daniel feels little desire to concertedly extend cycling any further through his life, or to divest himself of those practices which cannot be enacted by bike. In the similar case of Harry, his electronic travel card records that the train from his office Christmas party was the first commute in three months that he didn't cycle. However he rarely cycles at weekends because it is easier to drive or take public transport with his family. Both describe cycle-commuting as increasingly accepted and commonplace, whilst public hire bikes are even "cool" (Daniel). But they feel no normative expectation to cycle beyond the point that it feels like "no sacrifice" (Daniel). As such, this contrasts with the idea of "coercive flexibility" which Urry (2006, p19) identifies as an aspect of mobility systems (such as automobility). Although the more he utilises the bicycle the greater the benefits he gets from it, he is not really tied to doing so because he does not let himself become dependent upon the bicycle, and London does not force him to. This changes the way that his practices are emergently (un)stable. More widely this sort of working configuration – relatively unstable but enthusiastic practices of navigation may be associated with people with a relatively
large amount of flexibility or change, such as recent divorcees or younger people without care-provision responsibilities.

Cycling could be highly unstable as a component of practices of navigation, despite being taken-for-granted as an acceptable, pervasive but non-mandatory mode of transport. During James’s ride-along he seemed to be a relatively keen cyclist. He cycle-commuted between his house in Wimbledon and his job in Bankside approximately 3 times a week and had cycle-commuted more-or-less regularly for approximately 10 years. Relaxing and exercising on a full-suspension mountain bike he described as like "riding a sofa", this journey took the same amount of time via public transport. At weekends he occasionally enjoyed meeting people on leisure rides run by local cycling groups, whilst he had bought a high-quality racing bike for training rides to the hills outside London.

By our second meeting James only cycles if he needs to be in the office particularly early. Since he began training for a marathon: “it’s started to be a lot easier to sometimes come [to work] using the tube and run home, or run here. Because it is just a lot more time efficient... But, cycling is always there, certainly. Mainly commuting and just exercising, I don’t see myself competing in a cycling world.” He does not dislike cycling, but takes its existence and acceptability for granted. He does not feel that it particularly defines or centres his understanding of himself or the city. Furthermore, he does not see this lack of visceral or focused commitment to cycling as unusual: “if it is nice weather, then, you know, people cycle, and if it's not then people will take public transport.” He experiences the removal of cycling from his practices of navigation as an un-noteworthy reconfiguration of his transport. At least initially, introducing marathon-training is more self-defining.

The decline of James’ cycling is not, in the moment of doing it, experienced as the symmetrical opposite of his taking up running because he remains able, willing and equipped to cycle (Shove 2012). This suggests a potential reason why almost-equal numbers of people are stopping as are starting cycling (Transport for London 2010a, p44). Because James’ urban situation contains multiple alternative modes of transport with comparable speeds but differently configured costs and

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64 This interview was held in lieu of the first diary-interview. James then left the study because he had stopped cycling, but was happy to first explain why.
benefits, his taking cycling as acceptable but not noteworthy or mandatory makes for its highly unstable incorporation into practices of navigation. Like Jessica in the previous section, his understanding of cycling is defined by its relationship to the easy availability of alternative modes. This is not to say that transport is meaningless or meaningful, but that some—even quotidian—journeys can become imbued with more meaning than others depending upon how they are incorporated into generative schemas. And how they do so is influenced by their emergent relationships with a variety of practical elements that are not encapsulated by the mode of transport.

Logistical instability and social ephemerality were not the preserve of lycra-clad or sporty commuters. Josh’s travel was widely pervaded by cycling, admittedly in less intentionally-specialised configurations, but in ways which would seem to be a core aspect of his personality and social scene. Nonetheless, the way that cycling has grown—and ebbed—as an element within his practices of navigation seems to be influenced by his situation as much as any firm or iconic belief in what cycling should entail.

During the ride-along Josh repeatedly described enjoying how the bike allowed him to discover new parts of the city whilst saving time and money. A freelance artist, his timetable and transport needs are erratic, but he does not change clothes to cycle and will lock his bike up anywhere. At the beginning of the study he is cycling multiple times a week to a job in Camberwell, to carry out errands and to visit a variety of friends. So although cycling is quite a pervasive presence in all of Josh’s tasks (unlike for Daniel), it is sometimes an intermittent presence; he often gets public transport when hungover or through bad weather. To make wider comparisons, Josh’s variability might not be simply associated with freelance artists, but the variability and variety associated with caregiving, childcare, shopping for quotidian provisions, or unstable employment.

When winter arrives, Josh starts cycling less. Getting less exercise his cruising speed slows; travelling by bike becomes decreasingly enjoyable or time-competitive. Then during March he buckles a wheel by hitting the kerb whilst distracted by the view from London Bridge. He gets a friend to pick him up in a car and doesn’t collect his bike from their house until late May. In his August diary, although the bike is back in his house it is still not fixed. He says that:

“I suppose, if I’m used to riding my bike every day, I get off my bike thinking about it and if I haven’t ridden it for a while then it doesn’t really cross my mind to.”
For Josh, the technical convenience and repetition of cycling is linked to how he remembers or forgets it. In the short term, Josh’s cycling has become somewhat disengaged from his practices of navigating the city without him ever choosing to reject it. When cycling is a regular part of his practices of navigation it does not necessarily become something that he concentrates on – it never really becomes a central focus or hobby which defines him- but it does seem to permeate his thoughts and habits. It might be put as generating a schema forming an atmosphere for cycling, and which –rather like walking through fog - will permeate his practices and change how he performs them, but it disperses he quickly adjusts and does not viscerally feel its absence in the way that Chloe is viscerally confused by cycling, or Jessica is by driving.

The foundations of Josh’s cycling may actually have been decaying for some time. I present this as linked to but acting on a different scale to the moment at which Josh seems to almost-completely stop cycling. His habit and capacity to move around London by bike was initially acquired when at university in Camberwell. He and his friends regularly cycled, making it an unexceptional transport and a feasible way to move as a group. This incrementally taught him a number of enjoyable routes across the south and east of the city, without requiring him to make any sacrifices. But now his
friends live further from each other they more rarely travel together by bicycle. He is also working in Camberwell less, and has stopped almost entirely by August. By his first diary-interview Josh has a job in central London which he cycles to by following the route of the 73 bus along the types of congested roads that he previously described trying to avoid, and he is increasingly getting public transport (figure 12a, b).

Asked why he follows the 73, he explains that:

"I suppose that I am not quite as familiar with the [central] area of London as I am with south London. And I think that also, like, I can be taking new routes but if I have just finished work I just want to go home."

With little focused desire to travel by bike and a variety of convenient alternatives, Josh’s practices of navigation increasingly become disentangled from the bicycle. Without concertedly rejecting cycling, his velomobile skills, equipment, and even thoughts fall into disrepair or go out-of-date. This trend self-amplifies as individual journeys then require a greater expenditure of time, preparation and physical effort. However this is a different type of instability and trajectory to Daniel’s or James’ tight cluster of navigational practices. The less specialised and less structured way that cycling is incorporated into Josh’s urban practices makes its subsidence a less noticeable change of habit.

Josh built his repertoire and routine when in a situation conducive to cycling. He utilised his accumulated historic expertise for some time. But the subsequent decline is less James’ self-aware take up of jogging. It seems more a somewhat inadvertent non-renewal, and prompted by his life changing to a form which less strongly prefigures cycling as a convenient way of practically navigating the city. He might be able to change this –the absolute distance is easily cycleable. But to re-assemble the self-perpetuating and unconcerted routine would probably take an intentional attempt to make his cycling faster, itself potentially underlain by a desire to get fitter that was not motivated by cycling (such as Miranda’s opening description to this chapter). Alternatively, more inadvertently, there may be some emergent reason for his friends and colleagues to drift closer together, or which unavoidably and accidentally gives him a reason to improve his wayfinding ability in central London.
The previous section described cycling as something that people adapted to fit around the more pressing considerations of their life, rather than being a central interest that their life was built around. However, none of the participants treated cycling entirely passively. The emphasis lay upon the degree to which the long-term trajectories of their practices of navigation – and so the extent to which they started and stopped cycling – could be influenced by relatively flippant decisions. As such it may be informative to know how they did attempt to learn new routes and skills.

6.4 Intentionally Trying to Learn

The previous section showed people who seemed to be quite proficient, dedicated cyclists. It suggested that their practices of navigation were highly contingent. Changes were often based upon inadvertent and flippant reconfiguration, repair and mediation which becomes sedimented, as much as any great intent to reach a pre-specified end-goal. However, this is not to say that people learn to navigate the city in an entirely accidental manner. The following section studies how participants more concertedly attempted to improve their experiences of cycling and increase their capacity to navigate the city by bike. It follows Jinny as she makes a particularly concerted attempt to improve her navigational abilities, whilst comparing the practices of other participants with different experiences of moving around the city. Doing so reveals that riders' experiences of travelling by other modes could inform their velomobilised practices of navigation, but might also link to wider geo-demographic trends.

Before the interview has even started, Jinny is keen to recount an “exciting experience” from her diary in more detail. She used to work in an office in central London, but has now retired and lives in Peckham. She started cycling four years ago as a way to lose weight. Yet despite living in London for decades she struggles to navigate by bike. She has rote learned a number of routes to and from local parks, her church and a regular volunteering position. However, she complains that these routes are becoming repetitive, which is a problem for someone who originally started cycling because she became bored of repetitive swimming: “[o]f beating up and down the pool, because you’re not discovering anything new.” So as part of an attempt to build cycling into her life, Jinny sets herself a pragmatic challenge:
"Well, you know that my repertoire of cycling is very limited?... Having learned that I was wearing the wrong glasses for a year, I thought that it was a priority to go and pick up the new ones! ... But the problem was that [the opticians] was at Tottenham Court Road. Now as you know, I live south of the river, and most of my [cycle] journeys were south of the river, so it was quite a challenge to get up [north] to Tottenham Court Road.

To a certain extent, building upon the previous section, in trying to grow her cycling trips in an ad hoc manner she is being limited by similar problems to those which were causing Josh's cycling to decline. To address this she is willing to invest time in learning how to ride to the opticians, as it would provide her with a "spine route" (my term) to a part of central London she often visits. She hopes that, with slight alterations, it would subsequently enable her to cycle to a variety of the shops, museums and social events that she currently accesses by public transport. Much of the same procedure could be followed by someone looking to assemble a daily commute, although the regularity of a route's use would be an important consideration when deciding how much effort to put into a route's formulation.

Jinny’s usual route north involves walking to the Old Kent Road and catching a bus to Elephant & Castle, a public transport interchange. As a main arterial route into central London from the southeast, this is extremely busy with cars, buses and large lorries. She particularly emphasises that: "It is quite scary, going via Elephant & Castle and then Waterloo." These are key junctions both dominated by a series of 3-4 lane, signal-controlled, 30 mph roundabouts. Alternatively she could travel through quieter streets, but she struggles to navigate through the areas off her bus routes, even in areas quite close to her home. However, today Jinny is trying to build her repertoire, so she uses Transport for London's online journey planner to prepare a quieter backstreet route. Figure 13 shows the probable suggested route, the main road route Jinny wants to avoid, and the route she subsequently takes. To better evoke the feeling of Jinny's navigational confusion, this map is shown after the extended narrative.

Jinny firstly explains that she finds map-reading difficult but essential:

"[When cycling] certainly I do think in terms of must live on the map, you know, not that I will necessarily find my way from A to B...So I started off quite, heading off, I looked at the map, because I trust the TfL map, and I started off by heading
towards Burgess Park, thinking that I could navigate up to Elephant that way. But of course I had forgotten that they had major works going on. So I sailed along to Burgess Park, and then I ended up in Peckham, which is obviously of no use at all."

With the park inadvertently shut for renovation, Jinny’s pre-prepared route becomes impossible. Disoriented, she takes an off-road cycle-route leading her in the opposite direction, which she only realises when she arrives in Peckham town centre. Considering the built urban form as a means of coordinating and facilitating practice, although it contains the potential to provide Jinny with a backstreet cycling route, such a use requires Jinny to assemble a fitting sort of wayfinding expertise. She is not barred by any absolute barriers, but because the minor street network is confusing and she struggles to interpret it.

Cyclists who were more willing to use main roads — often the younger and more assertive participants, such as Sophie — could subsist on much less navigational expertise. Sophie’s daily cycle-commute passes through a rote learned web of low-traffic backstreets, which includes the path Jinny has just got lost on, whilst in chapter five she described improving her route through watching other cyclists. However, in unfamiliar places Sophie has tricks for reducing the complexity of her route, so making it more easily memorable:

"If I can stick to the main roads then I know I’ll be more or less alright. [Also,] I don’t tend to cycle anywhere that’s more than maybe an hour and ten minutes away, so that also restricts the number of right-hand, left-hand turns."

As described in chapter two, the urban built form is not just a physical constraint upon practice. It also actively encourages other sorts of use whilst being mediated by different congregations of people and their collections of equipment, meaning and skill (cf. Degen et al. 2010; Furlong 2011; Latham 2003b). New technologies, such as sat-nav, might produce new ways of thinking about or experiencing the city (Thrift 2004b). The cycle superhighways shown in chapter five demonstrate more low-tech ways of making an easy to follow route from the suburbs to the centre. Creating

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65 This is the Canal Path that appears in chapter seven.
cities on a grid-system may make them easier for wayfinding, but also reduce the existence of low-traffic backstreets.

In Sophie’s case, by developing the physical and mental capacity to join with the traffic on main roads, she can more easily add new journeys to her repertoire as she has cause to visit new locations. If she returns regularly she can incrementally improve the route in memorable chunks. Jinny is doubly constrained. Firstly, when trying to avoid main roads she has to compose complex routes that would be more difficult for any cyclist to remember. But then because she is not a particularly proficient map reader she cannot easily use the map to teach her new ways of understanding the city’s potential for movement. Nonetheless, whilst map reading is a quite recognisable aid to navigation, Jinny is ready to try out a number of other capacities and tricks that she has learned through experiencing other modes of transport.

Recognising Peckham, Jinny does not give up but turns around and tries again. She gets lost, but eventually finds herself on the Walworth Road and tries a second navigational tactic that draws upon her expertise of navigating by bus. Although she has never cycled to the Walworth Road, she often gets the bus from Peckham to Camberwell and then up the Walworth Road to Elephant & Castle. She has a fairly good knowledge of bus travel in the area. Having lived around Peckham for many years, she maintains a network of friends and community groups by knowing a complicated web of bus routes going to and from local high street interchanges. Miranda lives nearby and has a similar level of detail developed through similar activities, but also taking her (now-grown) children to local schools, Freelance artists like Josh and Molly developed a similar repertoire because they travel to a variety of locations and suppliers. So although Jinny is anxious because this is a busier road than she would have liked, she decides to follow the bus-route. Translating her existing capacities for navigation-by-bus into velomobile forms, she just about repairs her journey, even if the experience is somewhat nerve-wracking.

Experiences acquired via different modes of transport often influenced how people incorporated cycling into their practices of navigation. As a means of learning routes through the city, Molly quite positively described sitting in the front upstairs seat of buses so that she could watch and remember the route for next time, whilst Josh tolerates his habit of following the 73 bus route. However, Jessica explained that knowing bus routes does not necessarily help:
“I get the bus if I can’t get to a place by bike. For example, I went to the opera at the Royal Albert Hall on Thursday... it is quite a bit of a distance, and I, there is no safe route that I can think of. So I popped on and off the bus, and as I was on the bus I kind of watched the traffic. Marble Arch and Hyde Park Corner; I cannot imagine that I would ever go on those roads, because I can’t work out how to go round those roundabouts.”

Although there are relatively low-traffic routes to and bypassing these locations, Jessica does not see them from the bus. A conceptualisation of the city dominated by bus routes might give an unrepresentative impression of the city’s roads as busier than the majority are. Furthermore, Chloe and Charlotte explained that watching cyclists through the top-deck bus window had discouraged them from cycling on main roads; the raised vantage point and the fact of their being on a bus emphasised how relatively small and vulnerable cyclists are. So in comparison to someone who, say, commutes by train and more usually experiences main roads by car or at the weekend, they may have a relatively different understanding of what it would mean to cycle on a main road in the first place.

When Jinny reaches Elephant & Castle she would usually get off the bus and transfer to the underground. However, by bike she must remain on the surface, which prompts her to try some more pedestrian-inspired navigational tactics that would perhaps not be universally attractive. But she is still absolutely determined to get her glasses by bike. Firstly Jinny descends into an underpass to avoid the roundabout, a route which many might try to avoid late at night. She then starts cycling a little way, getting a little lost, asking a bystander for directions and then carrying on. Approaching strangers to inform them that you are lost, especially whilst bodily exposed on a bike, is not something that everyone would feel safe doing, particularly at night (cf. Valentine 1989). Or if they might expect their visible appearance to trigger an erroneously violent reaction in those they approach, as might be a particular consideration for black and minority ethnic men in the global north (C. Lee 2012). This introduces another constraint which takes effort to circumvent.

Although Jinny is perhaps particularly willing to ask for directions, getting lost to this extent is less exceptional. Research has indicated that Londoners regularly lack medium-distance navigational expertise, whilst their recurrent misconceptions of Cartesian direction and distance quite clearly show the influence of the topological maps displayed on rail services (AIG 2006; Kaika 2010). This
can end with people taking quite indirect routes if they navigate on the surface by cycling along their "usual" route between train stations. Although Jinny gets lost, she is still trying to find a more direct route by asking people the way.

Demonstrating a more successful example of someone trying to assemble an efficiently velomobilised commute, when Daniel stopped getting the train to work he discovered that the simplest, most direct route actually ran along main roads some miles away from his train (figure 11). He subsequently enjoyed planning improvements to the route (such as the roundabout bypass in chapter five). He now cycles along minor roads most of the way, apart from a central section of the riverside Embankment. This is a very busy 4-6 lane Riverside road, but he enjoys the view and its simplicity (similar to James’ account in chapter five)66. However, his ability and willingness to create spine routes is arguably not just based upon his interest in cycling. In contrast to both Jinny’s difficulty with map reading, but also Josh’s willingness to follow the bus, Daniel’s cycling benefits from the fact that he enjoys planning improvements for a variety of reasons:

“I spent quite a lot of time with these very same maps when I first [started commuting], working out my route...But you get very familiar with it. And you get very familiar with a few routes, and I really like that, I like that kind of connection with the place that I live.”

If people do not want to feel a connection with the place that they live, either because they experience being in the street as a sense of vulnerability more than freedom, or because they do not wish to dwell upon the associations and presumed implications of the areas they frequent, then cycling may not be as attractive an experience (Blokland 2008; Rose 1993, chapter three).

Eventually Jinny finds herself on the east end of the Embankment. Knowing that it goes west along the riverbank she gains reassurance by secretly following “an elderly man that was with a young woman”. Again, this tactic might be considered somewhat more suspicious and impractical if not enacted in the middle of the afternoon by a flustered, retired lady in a high-visibility jacket. When

66 The Embankment is a slightly odd road to précis. As a Riverside route, although it is very busy the traffic is relatively predictable because there are relatively few junctions, most of these are signal controlled, the route is flat, there are a lot of cyclists and the view can be quite beautiful. It is relatively difficult to transfer participants’ responses to the Embankment to other main roads of a comparable width and traffic intensity.
Jinny reaches a part of central London that she recognises, she mentions to the man that she has been following him for 10 minutes\(^{67}\), turns off and threads her way to the opticians, sometimes walking the “wrong way” up one-way streets to stay on the route that she knows on foot. The whole escapade has taken about 2.5 hours, when according to the Transport for London journey planner it should have taken closer to 35 minutes.

![Jinny's Route](image)

**Figure 13: Jinny Riding from Peckham to Boots on Tottenham Court Road**

Jinny’s journey shows someone putting significant effort into learning how to navigate the city by bike. She refuses to give up, collects her glasses and feels proud for having done so. But it is easy to understand why others might not bother. To recap, it is arguable that, to a certain extent, putting effort into learning new routes is a phase that many “novice” cyclists have to go through, and that a good proportion of Jinny’s problems would be solved by her being a more fluent map-reader. However, the comparisons between the cyclists demonstrate that each individual’s practices of navigation were influenced by a variety of different factors, with their demographic characteristics and personal experience prefiguring different ways of acquiring expertise. Furthermore, Jinny’s

\(^{67}\) He was apparently quite surprised.
difficulties came in mutually reinforcing clusters. She tries to avoid the busy main roads that she knows, which means trying to memorise, and then getting lost on a more complicated route. She then follows a bus route to the most dangerous roundabout in London. She repeatedly gets lost in an area she usually passes underneath by tube, but is willing to ask strangers for directions until she finds out where she is. Although Jinny had not created the spine route that would allow her to easily cycle to that part of central London in future, her struggle demonstrates a number of ways in which experiences of using other modes of transport suggest practices of navigation that she can then velomobilise. A number of other riders' more successful and routine attempts to velomobilise their practices of navigation were described, whilst the taken-for-granted, universally benign or achievable association of cycling with other competencies and tactics was destabilised. At each step this highlighted the mutual constitution of social and technological factors, along with their performer's personal history or experience.

If we acknowledge that the expertise individuals draw upon to practice navigation is not confined to single modes, then this raises the importance of considering how the experiences of different modes affect each other, and the encounters they create. This initially seems somewhat obvious; of course habitually getting the bus and habitually cycling will generate different understandings of the city. However, to actually consider how one mode of transport might be altered to take account of how it influences experiences by another mode of transport — to consider what cycling looks like from the bus, and how people might learn cycle-routes whilst getting the bus — radically alters how transportation might be analysed. It implies that experiences of the city are significantly more heterogeneous and hybrid than the single-mode focus of much mobility and transport studies (e.g. Lassen 2009; O. B. Jensen 2007b; Sheller 2011; Urry 2006).

In terms of urban practice, advocating a greater focus upon the transmodal components of navigational practices resonates with Sheller and Shove's suggestions that many debates within sustainability are limited by the premises underlying rational choice models of human behaviour (respectively 2004; 2010). In this example, as cycling mediates inhabitants' previously-developed capacities to interface with the city, it re-articulates rather than replaces practices developed through the use of other modes. For example, cyclists' with particular expertise of navigating by

68 See the descriptions of Charlotte, Chloe, Jessica and Molly's bus rides.
bus seemed to bring a particularly bus-based understanding of the city to their cycling; a focus upon busier streets and more bus-like navigational strategies. As almost no-one only ever cycles and few only ever travel by one mode, most peoples' practices of navigating and understanding the city will be transmodal. This is particularly relevant to cities with transportation milieus as diverse as that found in London. So this section has suggested how people might practically learn new single routes in ways that re-configure their existing expertise during their having new experiences. However the chapter has yet to suggest how to approach that transmodal understanding of the city as a place they could practically navigate.

6.5 Zoning the City

The final section of this chapter attempts to better understand how the cyclists' practical abilities to navigate London (by various modes of transport) influenced how they experienced their position in the city at scales larger than the individual journey. This leads to the question of whether and how it might be interpreted as a generative schema that could be worked upon, or how their practices of navigation influence (and rely upon) the encounters which make the city's active milieu. The previous sections' data was created through talking about the participants' journeys whilst often using a map as a prompt to conversation. The following section more frequently involves the participants directly talking about how the map's depiction of their navigation compared to their own experiences of making the journey-patterns, being organised by and encountering the city in such a fashion. In turn they were asked how such experiences influenced how they would consider altering their practices of navigation, and vice versa. Responding to the interest in emergence, it particularly focuses upon investigating how forms of stability are sustained, and how novel experiences of moving around the city might prompt people to radically reconfigure their practices of navigation.

Asking cyclists to recount a number of journeys through the city - rather than to précis their opinion of cycling - often elicited a very different type of spatial knowledge. For example, initially asking

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For example, train riders switching to cycling may have to explicitely plan their initial routes, but more quickly develop efficient or quiet routes as they have no pre-existing surface (bus) route to rely on. Hypothetically, car driving might support more orbital or unstructured travel. Cyclists might become particularly intolerant of crowded carriages, or be fitter find walking convenient.
Emily how she decides whether or not to cycle, she replies by giving her summary opinion of the mode:

"I would try and cycle as one of my first options. Unless there was some reason that I had to walk, cycling would probably be my first choice because it's quicker and more enjoyable, but often because it is quicker."

But looking in more detail at the map of her journeys in the first and second weeks of her diary, she rarely cycles east of her home in Putney unless commuting (figure 14). She lives with her boyfriend, who also cycles, and they have no children or local relatives that they are expected to care for. This means that their practices of navigation are not constrained in the same way that Daniel's were in section 6.3. Asking Emily if she is aware of the geographic divide, after a moment's consideration she suggests that:

"I suppose [going west], the roads are quieter and sort of, it is more easy to enjoy it. ...Even Clapham Junction feels like going into the city... just beyond Sloane Square it just starts feeling like the city again... Busier, more manic, doesn't feel like you are doing something for enjoyment... I would cycle there because I needed to get there, and then by the time you get Sloane Square way then it is quicker to just get the tube. The quick thing wins over all."
So Emily expects, like many others do, that traffic intensity increases towards the centre of the city, and that as it does so cycling becomes increasingly unpleasant and slow. Technically, cycling tends to become increasingly competitive as traffic intensity increases (TfL 2010a)\(^70\). It could be that her anxiety makes the journey feel longer; however in her ride along Emily explained that she rarely weaves through busy traffic, so it may well be faster to take the train. Either way, she has become discouraged from developing or thinking of cycling as a means of visiting central London.

Emily’s practical understanding of cycling does not simply involve the roads becoming busier towards the city centre. Discussing the map further, she realises that Notting Hill, which she frequently visits by “terrible” public transport, is much closer to her home than she assumed. She says that although she vaguely assumed that she could cycle there, she had never got round to investigating the route. Asked why, she explains that:

“I like the area around Notting Hill to cycle, and I like the area around Putney and Fulham to cycle. But I know, but there is this area around old Brompton Road, Earls Court Way that I know is just really horrible for bikes. The roads are disgusting and there is just a lot of traffic, and it is almost like the obstacle. If that was not there, and it was just [minor roads] all the way through. I would be more inclined... There is something that stops me from thinking of it as an obvious choice.”

It is not that Emily has a blank space in her mental map of the city; rather she anticipates that the area she does not know is akin to the busy roads which she knows and tries to avoid. Despite being a confident map reader who enjoys exploring minor roads and is incrementally adjusting her commute, her assumption that there are no safe routes pre-emptively dissuades her from trying to investigate one in this location. This maintains her lack of expertise.

Megan was particularly aware that different collections of equipment and expertise might encourage and constrain peoples’ velomobile navigation of the city in very different ways. At one point she describes London as only conducive for long-distance cycling if the rider treats cycling as

\(^70\) The distance between train stations decreases with proximity to the city centre whilst more passengers board or alight. This means that although rail congestion manifests itself differently, city centre services are often still slower.
a highly-equipped “project” (somewhat comparable to Daniel’s concerted effort). In contrast, she has cycled intermittently for errands and leisure since childhood and has regularly cycled to work for approximately three years, but unless going on a long leisure ride she cycles in her “regular clothes” (her words). Confident on main roads but seeking out parallel minor roads where convenient (figure 15), she describes people like herself as “just cycling from A to B”:

“I just imagine that they’re just doing it in their local environment... they’re not going from pockets of London. And that could be the size of the city, or it could be the way the cycle lanes, or lack of knowledge. [Or] if I’m having a drink or anything, then I don’t cycle, so. It depends on your lifestyle, what you do in your spare time, I guess.”

Figure 15: Megan’s Journeys in Diary-interview 1

Previously to Megan visiting Colombia Road market on foot via Spitalfields, she suggests that she would usually have walked from Old Street station. The route is shown in broken red.

So Megan’s description expresses a sense that peoples’ wayfinding abilities are actively influenced by their lifestyle, because that influences their knowledge of and capacity to move around the city. In terms of practices of navigation, activities influencing why people acquire capacities to travel in
the city also influence the trajectory of their navigational practices’ development. This can be seen in Megan’s continuing description of “pockets’:

“Well, obviously there are local pockets [i.e. near her home], and they are much easier, and you tend to know the linking up... I know bits around Spitalfields, around Liverpool Street, but say then linking them up with, I [recently, for the first time,] walked with friends between [Spitalfields] and Columbia Road... And I think that people who say, run, are always really good at knowing their way from pocket to pocket... [Making these links,] sometimes it is a complete revelation; you just think “My god, it’s so close to there.” Because you look on the underground and the stations, and some of the stations are so close together. And also I suppose I use the tube more than buses, [but] buses are another good way of just linking up the pockets.”

Megan envisages the city as pockets she knows well, interspersed with absences she does not. But although Megan can map read fluently, the experience of physically travelling through an unknown space and linking up pockets seems to grant a distinct sense of familiarity and reassurance. Her pockets can end quite abruptly, with little sense of how close their borders might be, whilst the experience of linking pockets for the first time can be quite revelatory61. First-hand experience also creates understandings of space which are not captured by road maps. For example, Megan explains that (on foot) she cannot seem to rote learn the warren-like layout of the Barbican Estate’s brutalist internal walkways. So when she visits she tries to hypothesise the “mentality, maybe, of the architects” in order to intuitively understand where different paths lead.

Further challenging the idea of navigation as a purely technical issue, Megan assumes that cycling longer distances would not only take more effort to plan and physically travel, but would interfere with her reasons for travelling. When we hypothetically discuss whether she would be interested in developing a safe route through central London to Camden, which she regularly visits to listen to live music, she anticipates that the practice would be self-defeating (figure 15). She says that the effort and kit required to cycle the physical distance, worrying about her bike being stolen and staying sober for the return journey would disrupt her primary motivation for visiting in the first

61 Jinny’s long journey might be seen as an attempt to link her home pocket to her central London pocket.
place. In this respect, her pockets convey not only wayfinding knowledge, but also a task-based sense of how she might practically visit the area and what she might do there. This sense of task-based navigability is returned to in chapter seven, but again it emphasises that her practices of navigation are not determined by her physical ability alone. She is easily able to cycle the 35 minutes from Clapham to Camden, and the train takes just as long. Relevant to encounters, cosmogony and emergence, were her sense of safety, sobriety or exertion to change, and whether that change occurred through infrastructural alterations, widespread social change or more individual reconfigurations, she might well find that a whole variety of journeys become more manageable.

Further studying how pockets might create a stable form of constraint which dissuades people from gaining expertise, Charlotte also feels constrained by the roads in her local area. She lives near to Jinny and will happily cycle the short distance to Peckham High Street, but she avoids main roads because she thinks that they are unsafe and generate "bike rage" in others (chapter five). When she was a social worker she used to cycle extensively on her rounds near Sloane Square (see figure 14, Emily's map). But she would not consider cycling to central London from her house:

"I used to take the bike on the train in the morning and cycle from there, so I don't mind the distance at all. It is just the main roads... maybe I should at least give it a go, you know, because otherwise you are kind of stuck in an area and you can't get out without going on the main road. Because I would, I would cycle for miles."

Charlotte does not emphasise the complexity of the minor road network as a problem (unlike Jinny's long journey). Instead, whilst examining the map, Charlotte explains how she feels constrained by the busy roads bordering Peckham:

"Any time I go further afield, I would go on the bus you know. I just don't like the Old Kent Road. I don't like cycling on the road, and that is the only way really of getting to [gestures around north Southwark]. There is probably a way, I'd come up that sort of direction and go the long way round. [Points south of the Old Kent Road.] I suppose if. What. [She studies the map.] You're still going along main roads aren't you?"
This section of the Old Kent Road runs through a large area of warehousing, distribution centres, retail parks and a gas storage facility (figure 13). There are relatively few minor through-roads, meaning that local journeys must either include sections of busy roads or significant detours. On a day to day basis, Charlotte does not experience this as particularly limiting because she has come to understand cycling as a leisure activity, happily travels by bus, and has no first-hand experience of how she could live differently if she cycled further afield (see also chapter seven). I would suggest that this resonates with Megan’s point that physically travelling a new route and linking or extending pockets is a very different feeling to abstractly knowing that there may be benefits.

From Charlotte’s perspective, because her experiences of cycling further than Peckham High Street are dominated by her view from the bus, she does not think of cycling as a competitive mode of transport for travelling further than Peckham High Street. I would suggest that the high intensity of traffic and the difficulty of avoiding it in her local area has influenced her to re-conceive cycling as generally producing dangerous, aggressive encounters that she has no wish to be part of. As such, the busy roads surrounding Peckham do not just discourage Charlotte from cycling along their own length, they also imaginatively block out whole areas of the city as places she cannot cycle and (like Emily) she becomes discouraged from investigating a backstreet route. So even though she is physically able to cycle, when she left her job as social worker and significantly re-organised her life, the trajectory she initiated when rebuilding her practices of navigation did not incorporate cycling. Relatively stable in the long term, she takes-for-granted that she cannot cycle north of Peckham and pre-emptively avoids the expense of trying, which reproduces and stabilises her inability to navigate to the north of Peckham by bike.

Although all the participants had their own set of limits and taken-for-granted ways of understanding how, where and when they could cycle in the city, this was not always put in terms of limitation. As seen in the previous sections, the participants had various practices of navigation-by-bike routines which they might either extend somewhat flippantly (section two) or by concerted effort (section three). Furthermore, and of particular relevance to the concept of pockets, some participants described experiencing moments of relatively radical realisations that changed how they understood cycling’s role in their practices of navigation. In Lauren’s case, she explains that people often ask her why, considering her commute is 17 miles long, she does not try to cycle faster than she does. She explains that she initially used to, but that over time she realised that it was simply unenjoyable for her to concentrate on high-speed manoeuvring for an hour and a half.
Her practice is now slower and calmer, which feels more satisfying, but she has only learned to do this through long-term experience:

"If you don't do your longer distances or you haven't done it ever, you kind of don't understand. Yeah, at the beginning I had the hope that I can get home faster. Now I thought, 'No I've lost that'... I've become realistic about it."

Over time, although Lauren has maintained a similar route, she has reconfigured her practices of navigation so that they produce new experiences, but she was prompted to do so by the experience of repeatedly cycling and realising how she could alter her actions. Furthermore, somewhat resonantly with James, by the end of the study she was starting to try a commute based around long-distance running to a train station mid-way along the route. Cycling had provided her with the initial fitness and wayfinding ability to travel and keep fit in this way, whilst she was starting to work out which of the existing non-cycle journeys that she made around her home and office would remain logistically feasible as enjoyable cycle rides.

Chloe also described an epiphany she experienced which radically reconfigured how she thought about navigating the city. One evening her sister quite flippantly suggested that they cycle to a local cinema. Living nearby, the sister shows Chloe a route which avoids the main roads which would compose her route by car or bus. Somewhat comparably to Jinny but even less experienced, Chloe has only previously cycled to or from parks and by setting time aside for exercise. At the opening of the chapter she was explaining how confusing it felt not even being able to explain what she found confusing about cycling. As such, the experience of physically cycling to the cinema is a revelation:

"What I hadn't thought was, of course you can just go round the back!... So going out for the evening, that was like a whole new world. I had never, it might seem ridiculous to you, I had just never thought that you can cycle to where ever you want to go, and then cycle home again. It's fantastic!"

The experience prompts Chloe to start imagining all the other journeys that she could make by bike, and the next diary entries record her cycling a number of longer journeys. This includes occasionally commuting by bike, a task which she had initially expected to require a couple of years' expertise. Although the reasons prompting Chloe to leave her house have not significantly changed, she has learned to practically navigate by bike, which included learning how to imagine
herself accomplishing tasks and moving through different areas by bike. A quite ephemeral suggestion by her sister meant that they carried out a journey that subsequently mediated her practical understanding of how the city might be coordinated, giving her new abilities to make a life in it.

6.6 Conclusion

This chapter investigated how practices of navigation allowed the participants to coordinate contingent forms of ordering out of the city's possibilities available to them. It studied how the riders' different experiences of cycling supported them to understand (and) travel in the city in different ways. However, this also recognised that their experiences of cycling were influenced by forms of expertise that they acquired through using other modes of transport. These were influenced by the competing prosaic opportunities for travel that those modes provided. In turn, the various possibilities presented by different modes were prefigured by the riders' personal situation and societal position. For example, their personal caring responsibilities, instabilities in their life, the times and spaces comprising their non-cycling interests, and the reactions their demographic characteristics might be expected to catalyse. In terms of understanding why people start and stop cycling, this meant that the cyclists' practices of navigating the city by bike did not seem to be the varyingly frequent or intense performance of a small number of iconic cycling practices. It seems highly productive to analyse the take up, alteration or divestment of cycling as the result of heterogeneous, highly ad hoc attempts to repair practices of navigation within the course of an existing life. In particular this seems to be of great relevance to understanding processes of churn, but it does correspondingly lack a nuanced account of how people attempted to learn or integrate (what they perceived as) an iconic form of cycling into their practices of navigation.

Firstly, and of particular relevance to understandings of generative schema, the chapter described that although perceived benefits might motivate people to start cycling, it could be difficult to practically understand the bodily skills and planning capabilities that would be required to velomobilise practices of navigation. It could be difficult for cyclists to explain these skills in encounters with non-cyclists: their experiences were already predicated upon their having the skills and equipments with which to accomplish their routines. As was shown in the second section, routines and reservoirs of expertise, equipment and meaning were significantly changed by the cumulative impacts and trajectories initiated by relatively flippant decisions. This gave examples
such as: cycling every workday becoming initiated by the decision to ballot for a locker, but without affecting the perception of a car's usefulness for childcare; the decision to swap 10 years of cycle commuting for marathon training because cycling's main draw was only ever its convenience; the decline of cycling through non-renewal of expertise acquired as a student with different geographic and logistical situation, and by losing the routine. As shown in the third section, even the trajectories of intentionally learning how to velomobilise practices of navigation were greatly influenced by ad hoc repairs applied in situ, incremental improvements and influences which are more external to cycling than usually acknowledged: People attempted to prevent the failure of a cycle journey by drawing upon forms of expertise developed by using other modes. Such repairs could be routinized as reliably successful even if somewhat inefficient. The benign and quintessential nature of activities such as map-reading, asking directions or wanting to feel a sense of belonging was suggested to be far more socially contingent than often acknowledged.

The chapter finally built a description of how practical navigational understandings of the city could be described and assembled as non-Cartesian, transmodal "pockets". Pertinent to cosmogony, the absences dividing pockets seemed to be envisaged in ways which could discourage their exploration via quotidian travel. Furthermore, and particularly relevant to emergence, relatively minor acts of physically travelling between pockets in new ways appear to mediate and overwrite or otherwise radically reconfigure how they felt capable of navigating and making a life for themselves in the city. The importance of considering navigation as more than wayfinding also has implications for understandings of encounter. Navigation includes the ability to think about the possibilities to go through different places, for different purposes, engaging with the same urban milieu in different ways because of the skills and technologies used to do so. A following question is to wonder how peoples' capacities for making and moving through the city recursively remade its places.
Chapter Seven: Placemaking a Cycling, Friendly City

“In general listening to other people, how they treat cycling, how they think about cycling and what they want to get from cycling and. It felt like I was the one that ... is thinking about cycling differently. So I just started to listen to other people. And it, it made me aware that you know, we are not on the road on our own and you know, there are other people living with different ideas about cycling. So I suppose just that made me think differently.”

“Lauren”, recounting her experience of the focus group

The final empirical chapter investigates how changing the ways that people pass through the city might alter how they understand its spaces as a meaningful collection of places. In particular, how they experience it as places in which people might start or stop cycling. Focusing upon how different senses of place influence and are influenced by experiences of cycling, it studies how people take up, alter and divest themselves of different practices of placemaking. This defines placemaking as the often contested process by which a location acquires an often durable sense of character, through the active combination of its material form and the activities of those resident or passing through.

Building upon the quite quotidian notion that peoples’ actions are influenced by their sense of place, the specific term “placemaking” is routinely used by urban planning professionals and campaign groups in the context of attempts to intentionally influence a site’s sense of place. As such, it is relatively widely agreed that the actions of those inhabiting the site are a key element which constitutes its sense of place; whether that is vibrancy, desolation or relaxing uniformity. The potential and need for cycling infrastructure to create “better places for everyone” has subsequently become a key formal consideration for funding its construction (GLA 2013, pp30–32). However, the degree to which a sense of place and the actions of its inhabitants can be influenced by design and infrastructure is hotly debated.

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72 Lauren said this in the final diary-interview session.
This chapter extends practice theory by investigating how shared standards and communal expectations for transient encounters between dissimilar individuals might be understood, decided upon and enacted. It contrasts with the previous chapters' more individualised focus upon how riders' adapted their own practices to emergent situations. Addressing research question three, it predominantly draws upon the focus group data, which produced direct exchanges between people with heterogeneous points of view. Cycling is expected to be a theoretically productive topic because it allows for an investigation of how practices traverse individual locations and how the encounters and cosmogonies they generate can be emergently self-perpetuating or recurrent. This is despite the places being experienced and practiced in multiple ways by different people at different times (cf. Koch and Latham 2012; Pink 2008a). As such it builds upon the previous empirical chapters' understanding of how the participants practiced civility, and how they navigated through or avoided particular times and spaces in the city. It adds to this a study of how they reacted to different hypothetical and existing examples of placemaking when in a deliberative group situation.

Firstly, the chapter introduces how, in the context of being asked to describe their experiences to other cyclists, the participants described their engagements with place whilst cycling. It explores how the experience of travelling through a site related to the activities, congregations and contestations encountered there (cf. Degen et al. 2010; Spinney 2010b). It secondly looks at how different intensities of flow might not be uniformly conducive or unconducive to cycling. It therefore studies different configurations of flow in more detail, looking at how riders with different forms of competency and travelling to complete different tasks might experience and practically make place differently. This begins to draw out how practices of placemaking incorporate generative schemas which convey understandings of territoriality, appropriateness and conflict (cf. Bourdieu 1977; Sheller 2004; Thrift 2005; Valentine 2008). Thirdly, the chapter studies how areas with heavy foot traffic might interact and compare with more deserted areas or intensely motor-trafficked roads. By examining how variation and contrast between an area's streets can be incorporated into practices which traverse sites, this suggests how a sense of place includes a sense of flows between locations. Fourthly, it explores how change might be contested, revealing the participants' agreement that "local" people's wishes should be prioritised. However, the groups' descriptions of how localities might be engaged with by those passing through simultaneously complicate how
local might be understood. Finally, the chapter explores how this local prerogative was expected to spatially resolve conflicts between discordant practices of placemaking.

7.2 Busy, Inviting, Open

The opening section investigates how different flows of movement through a site influenced how it was practically made, particularly focusing on how experiences of cycling in the street could be influenced by the introduction of filtered permeability infrastructure. As described in chapters two and three, recent alterations to London's streets that aim to support the growth of cycling have tended to be piecemeal, peripheral and have not tended to create heavily securitized urban outdoor spaces. In many cases, cycle-supportive infrastructure has been installed as part of a number of alterations intended to more generally discourage motorised through-traffic whilst encouraging walking, cycling and non-transport activities.

The focus group was asked to discuss their responses to a variety of locations which had been altered in ways resonant with liveability principles and mediating infrastructure. They were introduced to the locations via a POV video of a cyclist's journey, but without any reference to the concept of liveability. They were told that the following questions would focus upon spaces altered to support cycling, but that their discussions did not have to solely evaluate the benefit to cyclists. Rather, as “people who cycle” they could respond more broadly to considerations of "whether or not you think that they are good ideas, how you think they would work, and whether everyone would find them equally useful or welcome." (Appendix C, they were also told that everyone had completed the same ride-along and diary-interview procedure). This choice responded to the theoretical framework and the findings of previous stages. Both indicated that asking the groups to self-consciously respond as “cyclists” or to focus only upon cycling would not necessarily resonate with how they thought of themselves or the quotidian practices of placemaking they enacted as they travelled the city.

To introduce the format and main themes which emerged in the groups' conversation, the first location discussed was the square outside the Roebuck pub (figure 16). The video shows the square when it is empty, with the rider using the cycle path that goes between Great Dover Street and Trinity Street. This clearly shows that a number of bollards prevent cars from doing likewise.
The inset photograph shows the square busy with patrons of the Roebuck pub. In group one, Jessica initially describes this as a place where: “You can certainly just stop and grab a beer, sit outside and watch other cyclists go past, you know, people watch.” She continues to explain that:

“It is always busy when I cycle past there, always busy. People are always hanging outside, it feels safe and, um, you know, very sociable, very well lit. You have a busy road on the side but most people feel that they can just stop walking, and there is no other busy road or motorist to contend with. Very attractive to cyclists, I have to say.”

Figure 16: The Roebuck

Excerpted frame from the focus group video. The Roebuck pub is the central building, with Great Dover Street to the right of it and Trinity Street to the left, running off the square. The inset image shows a group of people gathered here on warm evening. The video shows the cyclist turning left onto the cycle path crossing the square.

The square does not only influence people stopping there. Responding to Jessica’s reaction the group have a fairly detailed conversation about the benefits of filtering and calming the traffic in this way. Without focusing exclusively upon cycling they make comparisons with places they have visited, the feeling that such places promote and how this is contingent upon the actions of others. Sophie explains that existing speed humps near her home don’t “necessarily solve the problem” of traffic. Harry agrees that humps can simply create “loud, slow-moving cars and trucks”. Like

73 Jessica, Harry, Molly, Sophie.
Jessica, he approves of the square being “removed slightly from the road edge” as “a bit more comfort to people with kids.” Suspecting that this space will be “drawing in more people”, Molly wonders if this has “backed the parking up any further up the road, for all the cars”. Parking problems, or being “noisy at night... could be very unattractive to the local residents.” Following Molly, Sophie also worries whether “as a cyclist going through there, is a drunk person going to stumble into my way?” Although Harry and Jessica doubt it would be a problem, considering how wide the square is.”

Interpreted in the terms of practice theory, and the emergent encounters the square supports, Jessica describes cyclists as beneficially contributing busyness and visual-stimulation to a place as they pass through. This also makes the place enjoyable for pausing in. For Jessica, busy motor traffic does not have the same enjoyable effect. As Harry emphasises, the square has a feeling of comfort, quiet and safety that belies the proximity of the much busier road. If anything, their worry is that the square could make the adjacent pub too popular, making the place once again feel loud, congested and dangerous for cyclists. However, the constituent flows of movement, the ways that they would be dangerous, and the distribution of costs and benefits would be substantially reconfigured. All this by filtering, resurfacing and installing benches at the junction between two roads.

Although building the square reconfigures how a variety of people might contribute to making and being affected by the place outside the Roebuck, experiencing the place via cycling also mediates its effects. In group two, Emily’s comments resonate with Jessica’s previous description of finding it easy to pause at the square whilst cycling, and Sophie’s worry is that she would have to watch out for drunk people. Emily explains how she feels that cycling supports attentive ways of engaging with place:

“It is being aware of your environment... In some ways I do think that cycling is the new walking, [because people] are not actually walking the way that people walked five or 10 years ago, where, you know, “Hi”, “hi”, “oh! Cute dog!” Nobody

74 For direct evaluation of such concerns see: (Melia 2012; Melia et al 2010; 2011; 2012).

75 Chloe, Emily, Jinny, Lauren, Megan, Miranda.
does that any more... very few people do it because they are on their phones, or they have earphones in [or they are reading etc.] And they may as well be in a car for all of the engagement that they are having with the outside world. Whereas if you are riding, hopefully you're not wearing earphones! ... Noticing that things that are happening and noticing pedestrians, and noticing shops looking tatty and. It is not even cycling specifically for me, it is fostering a connection."

For Emily, the bicycle is neither a technological encumbrance, nor just a tool which mediates her sensory experience and physical ability. In fact, it gives her a justifiable excuse to be alert, attentive and to foster a connection with her environment and its inhabitants (cf. Aldred 2010; Jungnickel and Aldred 2013). I would term this a prime example of placemaking as a practice; she has learned to incorporate certain forms of bike-use into the practical performances through which she creates and experiences place. The danger created by traffic becomes a reason and excuse for engaging with the “outside world” rather than reading or listening to music. Similar sentiments can be seen in chapter six, when Daniel talks about enjoying map reading because it makes him feel connected to the city, or when Josh describes in chapter five how he likes having a “slight reference” and personal association with the places he goes.

Emily’s description links to a recurrent feature of the wider study; the encounters she describes are generated by her transiently “noticing” things. For Emily, actively noticing things is a significant element of her personal engagement with the urban milieu (especially by bike), but people actively noticing each other is a significant element of what makes a place pleasant. This puts a positive spin on the road danger that means she would not even think of cycling with earphones in. However, she does not feel like part of a bike movement or use the commonality of being on a bike in the street to try and initiate serendipitous on-road friendships with other cyclists (cf. Lassen 2009; confirmed in her ride-along and diary-interviews). The encounters she values are with the street's sensory stimulations and the typical, anonymous, emergent congregations of people (and dogs) she passes, not specific individuals. Emily’s speech presents a prime example of how a sense of a place might be mediated by different ways of moving through it. Many of the participants were far more ambivalent about the street, finding its confusion and danger to be less positive attributes. This led them to develop very different ways of engaging with it to make a sense of place.
Group three’s immediate reaction to the square in figure 16 is scepticism and an emphasis upon how variable and contingent such places can be. Firstly, they can be variable in time: Josh starts by saying that he “went there once on a nice evening... [and it was] brilliant to have other people outside, as well as just people going to the pub.” However, “for most of the year no-one’s really going to do it, are they?” As Joe agrees, such places are “all well and good if the weather’s nice, but usually it’s just foul”. Secondly, emergent, contingent mobilities can produce durable places. As Sam says, unless there are “a lot of people, all the time, whatever the weather” such squares can become “an absolute no-go area” which people then conspicuously avoid. Joe agrees, but then emphasises that the opposite can also occur when somewhere is not deserted; referring to a nearby market “you do get a lot of people hanging around... at night, it would become quite a shady place”.

Seemingly seeking to reiterate that his ambivalence and reservations were not intended as outright rejection of places like that in figure 16, Josh (without prompting) gives an example of a successful location; Gillett Square in Hackney. Their following discussion resonates with the previous discussion by group one, as they discuss how Gillett Square’s sense of place is influenced by the site’s relationship to mobility through the wider area.

Josh: “It has got like a few cafés there. Some people who skate and BMX there, and, um, they’re not told to go away, and people are getting drunk there, young people as well as down and outs, but I don’t see that as a problem. Doesn’t sort of dominate.

Sam: You actually need something in it, like a pop-up café or that sort of thing.

Joe: There needs to be some sort of reason for you to go there, that isn’t just sitting around. Like cafés, local businesses.

Josh: I agree with that.

76 Sam, Joe and Josh.

77 www.gillettsquare.org.uk
Joe: Like markets are good, I suppose, but markets are quite often like once a week.

[pause]

PW: ... [So] what is it in Gillett Square that makes that work?

Josh: Um, I think that it is an area, it is an area where lots of people want to be, so it has lots of people coming to the area. Plus people wanting to be around there. There is like a music venue there, and there is a radio show broadcast from there. Cafés. And it is just off the high street as well, it is literally, so it is quite easy to just wander on to, I think. Yeah.

PW: [OK, and] how far could just a pub with just a road closure go? How much, other, things do you need?

Joe: The good thing about that one as well is, it's not a square that is enclosed. It is like a thoroughfare still. I have cycled through there quite a few times, and people do pass through it quite regularly. Going somewhere that is a bit more of a thoroughfare is quite good. People sort of. If it is enclosed, kind of, one way in, you know, "oh, I don't want to go in there, I can't get out".  

All three agree that squares like this can be enjoyable places if they support an interesting mix of practices in which no one group of users dominate. This allows the square to successfully host congregations of people which might often be seen as problematic; alcohol-drinking youths and "down-and-outs" (Koch and Latham 2012; Spinney 2010b; Zukin 2010). How problematic such groups actually are is a moot point. But the conversation also shows that the sense of place in Gillett Square is explicitly premised upon its having an open relationship with the surrounding area. This contrasts with the problematic internal openness of the previous failed spaces. Rather than considering the site in isolation, the conversation suggests that the sense of being able to emergently host a variety of activities is built through numerous different configurations of mobility. It contains a variety of draws that motivate people to travel and visit it at different times, the site is

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78 I am unsure which square Joe is referring to, but they are both comparable in the respects he is talking about.
easily accessible from the surrounding area for more aimless movement, whilst clearly visible exits creates a sense of non-enclosure that reassures people to enter.

By focusing upon experiences of cycling and the locations created through infrastructures to encourage cycling, the groups indicated a number of links between transient movement through a site and the durable formation of a sense of place. Yet the discussions were not confined to cycling. I argue that this looser focus allowed the groups to speak more naturalistically about the sense of place created in these locations. This more general sense of place is an essential consideration when understanding why people might move through or visit by bike, especially in the context that hosting a variety of activities was what made places well received.

The accounts indicate that people did not need to be self-consciously performing "practices of placemaking" for their actions to emergently, practically influence and be influenced by the establishment of a sense of place. This sense could be highly variable, depending upon how the site drew in people or was accessible. One implication is that the activities of a space's inhabitants are contingent upon, but not determined by, its in situ and unvarying infrastructure. However, it also demonstrated that relatively small changes to a site's infrastructure could radically change how people moved through a site by different modes of transport. The following section further considers how a street might convey different feelings of openness, and how experiencing them via cycling in different ways might produce different practices of placemaking (and vice versa).

7.3 Cycling Through Crowds

The second section starts to describe how flows of people traversing spaces in different ways might discordantly interact in situ. It describes how their emergent practices of placemaking might be prefigured and mediated by infrastructure, but also how practitioners can influence and disrupt how the sense of a place is remade. The initial focus is on places where crowds gather and how that affects cyclists passing through. This moves to investigate how travellers might experience different senses of territoriality. Finally, it begins to indicate how the city might be thought of as spatially differentiated on scales larger than individual squares and understood in forms akin to the pockets described in chapter six.

We return to group two and their discussion of the square on Trinity Street. Paralleling the other groups' discussion of reassuring and worrying places, group two agrees that people could pause
here without seeming to be “lurking” (Emily) because the pub and street furniture clearly indicate “designated” places to “start a conversation” (Chloe). However, less interested in whether this is a pleasant place to cycle to, Lauren describes her scepticism of it being a good place to cycle through.

Lauren apprehensively compares the square to what she calls “gathering places”, such as the streets around large railway stations at rush hour. She explains how pedestrians seem to regularly step into the road without waiting for a gap in the traffic or a walk-signal on the pedestrian crossing. She describes this as both a technical inconvenience and a dispiriting incivility: “You’re not being respected on your bike because people are just flooding through.” Emily agrees and emphasises that the cycle path (in figure 16) is quite unclear, which might inadvertently encourage people to stand on it. Megan, Chloe and Jinny suggest a collection of similar personal bugbears that can be problematic when busy; the streets around Waterloo Station, outside pubs, schools, theatres and bus stops. Miranda quietly interjects that there is no “consistency” for cycle lanes. In chapter five, civility was analysed as it emerged in moment-by-moment competitions for space within flows of traffic. Here civility appears again, but the conversation quickly turns to discuss how asserting or building for a perceived right to the street might redefine peoples’ understanding of it as a place:

Lauren (regretfully): “I feel that I have to become so aggressive [at these] bits of my journey... I am not even worried about buses, I'm not even worried about taxies, I'm worried about pedestrians. And I should be in the stronger position, and I don't feel that way. I feel that then they will be very upset with me if I'm crossing... [and I have to shout at them.]

[Miranda and Emily try to speak, Miranda quietly concedes]

Emily: I personally feel that any way of making the journey shorter for people [including walking] will lead people to take up that mode of transport. So putting that [points at figure 16] in, I think that everyone around there starts to think that rather than having to drive or get a bus down there, 'I may as well just walk because it will be quicker.' [Outside train stations,] if you give them an underpass which is quicker than waiting for the lights, then maybe they will use the underpass instead of cutting across the road. You kind of have to put in the obstacles in there.
Miranda: But the other thing that is, in really crowded situations with lots of pedestrians, cars have to stop as well.

Emily: True!

Miranda (increasingly agitated): Actually I feel a bit uncomfortable when you [i.e. Lauren] say that; 'I have to get really aggressive at these pedestrians.'... I don't think that you should be getting aggressive with these pedestrians because, you know, because pedestrians are the most vulnerable people on the road, and we are not supposed to hit them.

Emily: But they shouldn't be on the road though!

Miranda (quite emotional): No, they can be on the road! They can be on the road!

Lauren: Where there is a red light for pedestrians, I'm talking about zebra crossings, traffic lights, where I have got a green light and they have got a red light.

Miranda: You have no right of way. You have no right to hit a pedestrian.

Lauren: Oh, I never hit pedestrians! But what I am saying is that it is just not comfortable for me to ride in the middle-

Miranda (interrupting): Then you should get comfortable! You know, with people trying to cross the road...

Megan: But it's not very safe, if you walk.

Miranda: But it should be safe

Lauren: But then cycling, but then there is no point... if I was to stop for every person that is wandering on the road, it would take me half a day to cycle to work."

Lauren later clarifies that:
"I don't go too fast, because you [indicates Peter] were following me, and I, I don't jump traffic lights [because] I think that it is dangerous...I will respect the road, and hopefully I will get the same in return, which doesn't always work, but I will try."

Firstly, somewhat lost in the ensuing exchange, Emily voices the opinion that peoples' behaviour might be altered quite radically by minor infrastructural changes. A square like that on Trinity Street, or an underpass, might not just make people act differently in situ. It might well encourage people to start travelling by a different mode of transport entirely. This resonates with chapter six's description of people who maintained how long they spent in transit, or the origin and destination of their journeys, but radically changed their experience of the journey and its supplementary costs or benefits (section 6.2). In this case, Emily is quite happy to be encouraged to change mode by the addition, removal or reconfiguration of minor obstacles and supports.

Later they return to the discussion, wondering whether a vertical "dip" would make a "clear cycle path" (Emily) that people could not accidentally wander over, and whether this would stop it being a "shared space" (Miranda). The worry that people will accidentally wander into traffic is a common complaint of kerb-removal schemes (Hamilton-Baillie 2008a). Similar tactics are often used by designers aiming to disperse and discourage people from lingering in outdoor spaces, and doing so architecturally is often critiqued as a type of subterfuge (Barnett 2008; SmithSimon 2008b; Zukin 2010). However, the focus groups were very aware that designers might try to influence their behaviour through the built environment. They started suggesting a number of ideas for doing so. Their concern focused upon whether the end-result was justifiable.

Secondly, after this heated exchange it took the group some time settle down. Both Lauren and Miranda recalled it in the following diary-interview session, saying that they had been shocked because they had expected other cyclists to be more similar. In fact, the quotation from Lauren which opens this chapter is her description of how disorienting it was to be accused of being a lycra-lout by another cyclist, and for expressing exasperation with people walking out in front of her. (Her actions in the ride-along were physically calm). Furthermore, her long-term response is that

79 Jinny, Miranda, Sophie and Harry all complain about similar types of confusion on a cycle path on Peckham's main shopping street (Rye Lane).
captured in the closing lines of chapter six; she questions whether the exasperation of long-distance cycling is really worth it, and starts trying to enjoy cycling again. Of concern to a transport planner, this means that she starts cycling less. However, it is highly resonant with Sheller’s (2004) and Thrift’s (2005) suggestions that quotidian transport can be highly, surprisingly emotive. Unfortunately, this was the only moment in which the members of any focus group had such divergent opinions. In this respect it was unfortunate that the most assertive male riders of chapter five were unable to attend the focus groups. So although the energy of this exchange can only be treated as an isolated incident, its general themes were discussed by a number of groups.

Returning to the experience of cycling through pedestrians and the sense of place that this creates, it is Lauren who terms her actions “aggressive”. However, by acting as if she will not stop and audibly warning people of her approach, she pre-emptively encourages pedestrians to move aside (see similar in O. B. Jensen 2010). The subsequent exchange of words produces a more extensive discussion of what the road is as a place. Lauren is in effect trying to make pedestrians give her a mobile clear envelope which allows her continuous passage, (George’s more radical envelope was discussed in chapter five). As Lauren then explains, if the road is a place in which people can expect to “wander” then it stops being a place for continuous transit. This makes cycling between her inner south London workplace and her outer north London home unfeasible (see chapters five and six). Contrastingly, Miranda states that roads are places in which cyclists should be more deferential towards pedestrians, just as she thinks that cars should be. If the experience is uncomfortable people should “get comfortable”. (Miranda’s ride-along involved her explaining similar beliefs.) The wider-area consequences of this are returned to subsequently.

Despite taking opposite sides, both Lauren and Miranda are strongly emphasising that peoples’ actions in situ are not only a response to the infrastructure. They also involve learning and routinizing ways of encountering people in the street, which emergently influences how (and even if) they attempt to use the street in the same way in future. Where Emily would be encouraged to

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80 Miranda is presumably paraphrasing an interpretation of rule 7 of the Highway Code. Although UK law allows pedestrians to cross at any point along the road, it also suggests that they wait for a break in the traffic. Nonetheless, they are not legally required to do so. Similarly, rules 146, 152 and 205-210 instruct vehicle users, particularly in “residential areas”, to travel in anticipation of pedestrians crossing (Driving Standards Agency 2007).
walk by the building of squares and underpasses, Lauren would be discouraged from cycling long distances if people started feeling that the road was a place they could freely walk in.

In group three Sam, Joe and Josh also discuss various disagreements they have with aggression and inequality on the road, and how it alters the road's sense of place. In this excerpt, and resonant with Emily's description of cycling being the new walking, Joe has just tried to convey how more "territorial" professional drivers differ from cyclists; he mimes a cyclist leaning back and smiling as they attentively look around. When asked if everyone else feels "easy-going" when cycling (my words), this image breaks down somewhat. Josh suggests that cyclists "can't help but be pushed around a bit", which Joe sees as prompting them to feel "oppressed, I don't know, by the, it gets a bit like a battle, you know". Sam agrees, saying that "It gets to be like a hierarchy on the road, you've got trucks and buses, then you've got cars, then you've got cyclists, then you've got pedestrians. And the cyclist goes off and bullies the pedestrian!" Their general discussion then becomes grounded in specific examples of how cyclists can influence and disturb a sense of place:

Sam: "As an example, there is the canal route going up from Peckham, and, um, there is a real problem there with the lycra-clad speeders going up there and scattering everybody out of the way as they go! (Sam's emphasis)

[General chuckles]

Joe (conceding): "Yeah, you do find certain kinds of cyclist who probably live on their bikes, and just want to get from A to B really fast, just flying through junctions and traffic lights and things like that, cutting everyone else up. Yeah!

Josh: "[I don't know about city centres] but I think that, more as you get out of town, larger lorries, larger roads, I just really like the idea of there being cycle paths isolated from roads and pavements, where there doesn't have to be any silly, elbows-out. Where you can just cycle."

[Joe and Sam agree, complaining that these paths have not been built.]

Similar to group one's discussion of cyclist-pedestrian interaction, group three are not only considering technical safety. They also consider the sense of what a place is for and how people should expect and self-organise themselves to encounter each other in the city. Specifically, the
"canal path" is a roughly one kilometre long linear park following the north-south route of the filled-in Grand Surrey Canal. The park is generally less than 20m wide, containing an undulating 4m wide tarmac path that allows cyclists to avoid the motor-traffic of adjacent roads. Individual cyclists can use speed to encourage other users to pre-emptively move aside. Yet as Sam highlights, this is a regular occurrence which he generalises as the characteristic of lycra-clad cyclists. Sam considers the "scattering" an illegitimate use of a space which is a park and shared-use path.

In Joe's opinion such cyclists' antisocial speed and their consequential disruption (scattering) of more pro-social activity is a response to their having no interest in the people or places that they encounter. This differs from the more usual understanding of speed as dissolving a sense of place (as widely critiqued cf. Merriman 2004; Spinney 2007). Furthermore, Josh conflates interactions with pedestrians and interactions with motorists as different but equally unwanted types of "silly, elbows-out" interaction. Removing them would facilitate a purer experience "just" cycling – but this is not a blank absence of a sense of place because he specifically locates it outside of city centres. This cosmogonical understanding of cycling is far from the valorisation of harmonious or dynamic on-street encounters, chance meetings with friends, or elective social forms such as the "bike movement" that dominate much of the literature (cf. Aldred 2010; Carlsson, Elliott, and Camarena 2012; Horton 2006; Lugo 2013b; Fincham 2007b). However, it is clearly an understanding that cyclists' effects upon practices of placemaking are not uniform. Simultaneously their on-bike experiences of place are not simply determined by their mode of transport, but also influenced by the skills that they have and the experiences they desire. This may involve them cycling differently in different locations, avoiding some entirely, and hoping for the construction of infrastructures that will allow them to enact their desired sense of place.

Overall, the two excerpts seem to convey a wider consensus in terms of mutual recognition, deference and a right to the street. Although people had different understandings of what was appropriate or aspirational, there was a resigned acceptance to the idea that –at least in terms of transport choices- it was important to "get comfortable" with difference, even when perceived as injustice. Interpreted bluntly, this could be interpreted as self-limiting deference to established

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81 It is the route between Burgess Park and Peckham that Jinny uses it in chapter 6, figure 13. Sophie also refers to later in this chapter.
norms of automobile-dominance (cf. Stehlin 2014). As Joe later paraphrases it to general agreement: “Probably not the best thing, to be cycling in London if you hate cars.” However, I suggest that their discussion implies a more nuanced expectation, that cyclists should develop ways to contest space and resist oppression that do not themselves rely on “bullying” and injustice. As Megan phrases it at another point in group one, although she supports cycling, “my only worry about this big thing about cycling now is that somehow cyclists will feel so special, that they have more of a right on the roads than anyone else, and in my view that’s not right.” This primary condition of urban legitimacy pervades their cycle-specific actions in place: where cyclists disrespect fundamental urban contract of unaggressive and unmolested passage through the street (especially around vulnerable pedestrians, however rude), they invalidate their claims to urban space. As will be returned to in section 7.5, this does not prevent people from agitating for cyclists’ better treatment. However, understanding more indirect forms of contestation first requires a more detailed grounding in how flows of traffic bring collections of locations and distributed elements of practice together.

7.4 Adjacent Spaces, Places of Flows

The following section examines how senses of place might be made in forms other than at individual sites. In particular it investigates how places involve practically making a sense of relationship or disconnection between adjacent or parallel sections of street. It investigates how variations in the levels and types of activity occurring at different points in a locality’s road network might influence how a linked set of streets become understood as a place integrating a collection of smaller locations. In turn, this questions how different peripheral infrastructures and other changes might practically influence how a place is made.

Returning to the square on Trinity Street, group one are discussing how it influences the adjacent area:

Jessica: “I have cycled there in the evenings before, quite a lot of times, and, the path is rather nice and well lit. You have people from the pub, so it feels quite safe that you have people immediately there. [Turning left...] it is a lot darker. And where it is brighter [i.e. straight on], although the road both sides are lined with residents' parking it feels a lot safer [than turning left]. Sometimes when it is
very late I kinda have this fear in my head that someone is going to jump out from in between a car. And how fast can I pedal, as a reaction, and, yeah.

Harry: All very understandable fears, don’t worry.

Jessica: ... [Straight on] gives me a sense of, a nice safe feeling. It is quieter, you don’t expect any dodgy people, the roads are wider and you can see in between cars, and I think that it is better lit as well.

Sophie: I think that the lighting thing is important, because when you take away a road sometimes you take, people sometimes think that you take away the need for light.... This bit is well lit, but also there are quite a lot of people on it.

Jessica: If there are a lot of people then you feel safer.

PW: ... Do they have to come together, like light and people, or could you have people but a bit of darkness?

Harry: Well I think that if it is intrusive light then people will not want to be there [on the square] too much, but obviously with light comes a sense of safety and also people will, on a [hot and dry] night like tonight... people can sit outside and enjoy the furniture outside."

This discussion highlights how relatively minor changes to the street – an extra metre or two of width, adjusting the lighting or providing furniture - can radically alter how it practically makes a sense that the location supports cycling. This is also contingent upon the actions of non-cyclists; whether they will want to congregate in the square. So changing any one of these elements could quite radically mediate the overall effect of the street’s infrastructure. This would in turn prompt its users to reconfigure their own actions. However, as Sophie points out, reducing automobile traffic might be interpreted as reducing the street’s level of use and so its requirement for lighting (cf. Cox and Van De Walle 2007; Urry 2004). Therefore, Sophie highlights that reducing the street’s actual or potential flow of automobile traffic may subsequently require explicit work to justify the maintenance of resources which encourage the space’s remaining and replacement uses.
Focusing upon the relationship between gathering and transit-focused spaces, the square does not just filter motorised through-traffic in situ and reduce traffic; it also reconfigures how the adjacent areas co-produce their respective senses of place. The furnished, encouraged, comprehensible, "designated" (Chloe) presence of people on the square means that people incomprehensibly waiting between cars on transit-focused streets become a cause for alarm. Secondly, the presence of people on the nearby square means that if anything untoward were to happen, there are people "immediately" (Jessica) on hand. The greater benign presence of people in the street creates a feeling of safety, even (perhaps especially) if it is not a constant and uniform presence. Those present did not need to explicitly state their intentions towards others they encountered. But by ambiently utilising street furniture in a comprehensible manner, they might emergently generate a meaningful sense of place. This changes how the wider network becomes accommodating to different types of inhabitation, such as cycling.

The sense of place is arguably influenced by everyone passing through, but not experienced uniformly. When Jessica says that she fears people hiding behind cars and Sophie voices similar sentiments, Harry recognises their fear but does not mention feeling the same. Looking back to previous stages, Jessica described in chapter six that cycling allows her to explore areas she would never visit on foot. Sophie's commute mostly winds through quiet warehousing and residential areas and crosses a few highly trafficked roads. But on her ride-along she says that her only moment of heightened fear comes on the Canal Path to Peckham, although this is made manageable by her being on a bike: "when it has been very very dark, [late at night...] I was a bit worried to cycle through there, because I thought that it might be a bit of a dodgy place. But it hasn't seemed to be... And I know that I'm on wheels, and that I'm going relatively fast, but I think that I'd be more worried about that than I would be about traffic." In contrast, Harry's commute also involves cycling through a different park. He greatly enjoys it as a moment of quiet and leafy isolation. Its only problem for him is a small bridge that gets icy in winter. During the video-elicitation he explained (unprompted) that: "The ice part, it's not too bad. The real problem that would stop women using it or cycling there is the fact that it is pitch black at night. Now, roughly, now I always carry [multiple lights] so I am not that worried about it. But that's me, a 6 foot 4 man, I'm not worried, I'm not scared by most things."

For Jessica and Sophie the bike allows them to travel through locations that they would otherwise avoid, in particular the dangers presented by other people are mediated by the bike's speed into a
form that they have more control over. Harry experiences the park’s isolation as an outright positive experience which he lingers in, including the enjoyable familiarity of a regular dog walker who he has never spoken to. To him this experience is an effect of his gender and size as mediated by the bike, rather than a feature of bikes alone. This again emphasises that practices of placemaking are socio-technical, and that bikes might mediate the effects and experience of a place but not determine it.

Group two were more focused upon how crowded places deleteriously affected their adjacent spaces. Moving on from the earlier disagreement about how to engage with pedestrians in extremely busy places, they return to talking about Trinity Street and are discussing the vertically differentiated cycle path mentioned earlier. At this point, Chloe asks if the problem is more a matter of scale and route:

Chloe: I am just wondering if, whether, obviously you [indicates Lauren] have an awfully long way to go, and you need to get there in a certain amount of time. So, you know, you are going from A to B really fast. Not everyone will be cycling like that all the time. So it could be that you, you go the route that is with the main traffic, and then people who might be able to slow down for those bits will be able go that way [i.e. Trinity Street].

Lauren: [Today...] I have learned that there are two types of cyclist, and I have got a longer journey [although I still “respect the road”...] And then there are people who just cycle, leisurely as well. They are not in a hurry as much, or just want to get from A to B, and that is the kind of route that I would take, if I had a few kilometres, a few miles.

Emily: That is what I would do to get off the road, the good route.

Lauren: Yes but there is no route like that on my way home. [I looked, but] it is just too long a journey... and sometimes you are better off just being with the [main] traffic, because at least they tailor the lights to go with the flow of traffic."

The group recognises that Lauren’s more long-distance commuting makes different requirements of the street. Adding detail to this, Lauren agrees that scattering pedestrians or being given a path
through the square is somewhat irrelevant; past experience makes her expect that the roads around the square would only offer circuitous long-distance routes. In Lauren’s first diary-interview she describes having grown tired of the conditions shown in her ride-along and attempts to develop a new commute along quieter roads. When she tries taking minor roads that run parallel to her existing commute she finds that the traffic is still quite bad, because unlike in Trinity Street the cars are trying to do the same thing. (This may inform Charlotte and James’ differing opinion of main and minor roads in chapter five). Furthermore, once she gets past the inner area of London dominated by Victorian terraces, she has to re-join her old route anyway. So instead Lauren tries an online journey planner. This suggests a route which is multiple miles from her current one and cannot be learned by incremental improvements (as Sophie’s and Daniel’s comments in chapter six suggest). She ends up quite lost and, like Josh following the 73 bus in chapter six, she decides to stay with the route she knows.

Although the main road is busy, its transit-focus and easier long-distance wayfinding makes it more conducive to the demands Lauren makes of a cycle-route. The group generally agrees with splitting the city’s streets into places for long-distance, main road, pedestrian-free cycling and other places for short-distance, minor-road, cycling. However, and somewhat disrupting many arguments against automobility based on the car’s being disruptive of local social interaction across the width of roads, the group is very clear that they see these main roads as remaining places for through-traffic (cf. Appleyard and Lintell 1972; Fotsch 1999; Sheller 2011; Smithsimon 2008a). This entails building infrastructures that removes the need for cyclists to compete for space with wither other road users or milling pedestrians. However, it does not explain how the argument for their construction might be made, what they expected the knock-on effects to be, or the spatial components of these issues.

7.5 A Local Prerogative

The focus groups keenly recognised, both in their own experiences of cycling and their own engagement with practices of placemaking, that people used spaces heterogeneously and experienced them in multiple ways. Many activities seemed to be incompatible with or disruptive of

82 The logical conclusion of such approaches is the creation of flyovers for the bicycle, which has recently been suggested by quite high-profile groups (GLA 2013; Space Syntax 2013).
certain senses of place. The following section investigates the riders' suggestions for deciding between mutually exclusive outcomes, and to reconcile tensions between practices of placemaking. The groups' tended to suggest that "local" people had the prerogative to decide how urban outdoor spaces were designed and inhabited. This meant that different parts of the city might have characteristic concerns or ways of wanting their streets to be organised, but it does not immediately suggest what forms of flow and infrastructure this would entail.

As Sam, Joe and Joshua continue talking about busy streets they like to visit (section 7.3), they start discussing Soho, in Central London. They approvingly discuss how the police now allow the patrons of pubs on low-traffic streets to stand in the road —so long as they move aside for intermittent traffic\[83\]. Discussing why they like these places, Josh explains that: "I think that it is just a very British way, to be removed from everyone. I think that it is good to encourage communal living." To which Sam agrees, saying that "as long as no one is blocking the road. I think that is quite nice, in some of those narrow streets..." However, beginning to describe the overarching generative schema through which they understand how the city's places are differentiated, they wonder if these traffic-calming gathering places would be welcomed everywhere:

Joe: "Soho is always rammed with people... Tourists just coming out of the theatre, coming through, the people who work round there, the people who go out there. That's why Soho is quite an interesting place. [Sounds of general agreement.] It is a destination for a lot of people to go to. But then in a more residential area like [Trinity Street]?... And then, I wonder how much the people living in those flats there, are they ever sat outside?

Sam: How much do they appreciate everybody outside the pub?

Joe: Noisy. But then, I suppose, I don't know if they have got gardens or whatever, those flats... I live in a first floor flat, and I don't have any outdoor space. I think that maybe, if it was a nice night, to go out there and have a drink, it would be quite nice."

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\[83\] Under UK law enforcement the open drinking of alcoholic beverages in outdoor areas is commonly permitted. Tolerance for standing in the road is more noteworthy.
They continue quite positively. Eventually moving to compare figures 16 and 17, Sam advocates similar examples of filtering motorised through-traffic in residential areas that he has been through, whilst Joe tries to hypothetically work out if such infrastructures would successfully transfer to his own road.

Figure 17: lliffe Street.

The main image shows a yellow brick rumble-strip on the left, which slows traffic. On the right a build out narrowed the road to one lane through adding a bollard, young tree and a bench. The inset shows the original designs for this alteration, which involved closing the whole road to motorised traffic, comparable to a more radical figure 16 (Dallas Pierce Quintero 2009).

In group three’s discussion they describe Soho as particularly vibrant, heterogeneous and busy (“rammed”). They support Soho’s existence. However, they also agree that similar places might not be acceptable everywhere, especially if the people who lived close enough to be affected had limited participation in their activities. I term the idea that places must primarily be acceptable to nearby residents the "local prerogative".

Group two are similarly discussing how cycling could co-exist with attempts to make places which better supported non-transport uses. Responding to figure 17, which shows where the road has been narrowed and a bench installed outside some Victorian tenements, Harry says that it could be improved by being made a “pedestrians’ priority” area. This would have a low speed limit and the expectation that: "If there is a kid in front of you, you must stop." By discussing how cyclists would be expected to act, Harry explains what the concept of “priority” would practically entail:
Jessica: "like a pedestrian zone.

Harry: Yes, you can use it, but, you are, you have to pass through safely without getting in the way of people.

Molly: ... It would be much better to make it a one car width, and then you couldn't get two cars, and you would have priority one way or the other.

Jessica: And simply because cyclists can just zoom past it as one of the traffic going through, it shouldn't really slow down cyclists at all.

Harry: But the thing is, obviously, the cyclists are still part of the same law, that pedestrians have priority. And obviously if it is built in such a way that the cyclists, when they hit it, will be uncomfortable as well, that would make a big difference.

[Everyone agrees]

Jessica: And yeah, I think a bit of signage is useful. Um, so that particular section.

Sophie (interrupting): I don't think that would happen where I live. I live off a main road with a lot of shopping streets and I feel that, well one thing is parking, that a lot of residents have two cars. And the other thing is, this is a residential area, it is not extending a shopping area. I think that when you have a space like that, the use, where the idea is that it is supposed to be for local residents, for them to use. You don't want to put it somewhere actually that loads of other people are potentially going to come in and use it, and abuse it."

Group two are somewhat divided and ambivalent on the potential role of such infrastructures in creating a place for residents to gather. Jessica's support for a design that would not slow cyclists is tempered by Harry's belief that cyclists sometimes need slowing, which the whole group then agrees upon. They all support the installation of infrastructure of which cycling is only one part, but Sophie's worry highlights that adjacent spaces will influence how a site is used and made as a place. It would be problematic if this location became subsumed by an adjacent high street. In fact,
when compared to group three's previous description of what made Gillett Square good – non-enclosure, easy to drift on to, a variety of reasons to visit - the hypothetical "figure 17 but next to a high street" would meet this criteria. But because it is a residential area, drawing people in would not make it a "successful" place. This is itself similar to group three's scepticism that Soho-levels of activity would be appreciated in most other residential areas.

The idea of rejecting what initially seem like improvements to a site because of the effects created by their interaction with flows across the area is somewhat akin to Smithsimon's (2010) account of local residents campaigning to preserve nearby multi-lane inner city highways because they discourage tourists. It also resonates with Tait and Jensen's (2007) account of so-called "urban villages". As such it reinforces understandings of traffic as a means of intentionally preventing some and creating other encounters, not just of destroying a place's absolute potential for meaning and social interaction (Beckmann 2001; Sheller and Urry 2000). In Sophie's case, the constant potential for traffic outside her house is an essential part of its practically being a quiet residential place. The potential traffic emergently discourages people from gathering, and (at least in Sophie's opinion) such gatherings would dissuade many of the current residents from living there.

This section has explained how the focus groups felt that a level or type of activity that could be welcomed in one area of the city might not be so appreciated in another. It initially focused upon examples of participants' hesitancy to encourage vibrancy in residential areas outside of the city's very centre. This developed an understanding of how participants felt that a city's local, adjacent, affected residents should have the prerogative to decide how "their" streets were rebuilt and used. However, this did not so much entail the preservation of a place's potential for meaningful social interaction by excluding traffic. It implied actively managing traffic flows with infrastructures and associated social norms, to create spaces which emergently foster site-specific forms of encounter. This could involve inhibiting more intense forms of outdoor vibrancy achieved by drawing in a large number of people, to encourage more quotidian forms of placemaking by local residents. Having laid out the premises of this generative schema, the final section examines how the framework of a local prerogative might understand the reconfigured traffic flows and new forms of encounter generated by the growth of cycling, and so how it can be incorporated into practices of placemaking.
7.6 Bypassing Conflict

The understanding of a local prerogative gives residents a primary authority in discussing what occurs in areas adjacent to them. However the practices of placemaking which gave individual locations a sense of place were formed through flows of movement and stability that organised connections between and traversed multiple sites. The following section studies how the focus groups expected different localities' residents' desires for place to be spatially variable, and how this sense of place was related to the flows of movement that were expected of different areas' residents.

Focusing on how experiences of cycling informed practices of placemaking, the findings describe perceptions of an overarching contrast between inner and outer London. The nuance of this contrast is developed through examinations of counter-examples. This builds to a "spatial fix" through which the city might be expected to support heterogeneity through spatial differentiation. Analysing the result via theorisations of generative schema evaluates how far the quite normative, bounded terms of the places' discussion are immanently disrupted by flows of traffic, and practices involving elements distributed through multiple sites.

Discussing Iliffe Street (figure 17), Lauren describes her personal support for the unbuilt design depicted by the inset. However, she assumes that there would be limited support for such changes in her own street. Although she considers the speed and dangers of through-traffic "crazy" she expects that her neighbours would oppose the alterations as disruptive to their established routines and desires.

Lauren: "If you do own a car and you live in houses like that, you are not going to be very happy. I have to say that I live on the residential street which doesn't even have that high blocks, so there is a less amount of people, and yet, people manage to have two or three cars per family. [People build driveways on their gardens].

[Surprised sounds]

Emily: That's outside central London?

Lauren: [explains precisely where she lives within Outer London]
Chloe: But if, if cycling was easier and safer. I think that people would have less cars, if there was more cycling.

Jinny: Yes.

Emily: Particularly in that area [i.e. figure 17]. Was. The reason I ask, because. You just think that, unless they are working out or visiting out, surely you should be able to live in central, effectively, central London and walk, or public transport, or ride. Even if there wasn’t cycling you would hope there was something, or another way.

Lauren: I think that there are a lot of people who just want cars.

Emily (thoughtfully): Yeah

Lauren: The convenience of cars. And I just can’t understand that, because, you know they go five minutes to the shop to buy stuff.

Chloe: And yes, but can you change their attitude?

[They briefly discuss travel disruption during the Olympic Games and cars as status symbols, before returning to how attitudes might be changed]

Emily: I think maybe parents with young kids, as well. It is a struggle if you lived further out.

Jinny: I suppose that is true.

Lauren: I imagine, I know people who have got small kids and they have to get to school by car because it is so far [to walk]. And if you take buses, it will be three buses, so that will take you an hour and a half, which makes the logistics just really complicated. That is why people have got cars.

Jinny: One of the reasons, yes.

Lauren: Well, one
Chloe: We used to go to our local school. We walked to school.

Miranda: Primary schools are pretty well covered.

Apart from Lauren, group one all lived in inner London. As explained in previous chapters, all but two of the study’s participants could drive, and only two (including Lauren) lived in outer London. When Lauren presents the status and unavoidability of cars as taken-for-granted by most people, the rest of the group does not challenge the car as a status symbol. (cf. Urry 2004). Their disagreement displays a format of argument in which practical experiences of organising a life without a car immanently undercut the narrative’s ability to be a common sense description of how cities are. Building machinic complexes that create working counter examples supports the formation of cosmogonies in which car-dependency becomes a specific way of choosing and building to live.

The conversation disputes the car’s unavoidability and suggests existing examples of places where it is inessential: inner city areas well served by public transport and areas with a high density of local primary schools. Disrupting the claim that the car is an essential utilitarian tool likewise disrupts it being taken-for-granted that automobility should be extensively catered for (Illich 1974; Shove 2012)84. This simultaneously destabilises narratives which validate the status-symbol aspects of automobility as benign or epiphenomenal components, rather than ostentatious luxuries. The validity of the counter-claim is not just rhetorical but also based in empirical examples and personal experiences of living in London without a car. Furthermore, they do not universally challenge the automobile’s unavoidability; they put forward specific alternative places that successfully function without its dominance. These are not simply geographic zones and their discussion does not focus on specifying borders. Instead they are expressed in terms of how people would practically and logistically live in such places, and indirectly the types of encounters this would entail. As such this develops understanding on how practices of placemaking incorporate a generative schema through which meaning is mutually constituted by specific materials and forms of competency. Their discussion do not directly counter the status of cars, it

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84 Questioning the assertion that car use is simply utilitarian reverses an increasingly common narrative which emphasises the current and potential number of non-leisure cycling journeys, rather than levels of support for leisure riding (Aldred 2013b).
destabilises the practical basis of the universalising rhetoric by demonstrating the existence of alternatives.

A second key feature of the discussion, and another example of situated contestation in-kind, is the way that Lauren explicitly distances herself from her neighbours' presumed understandings of car-use as an essential convenience. Whilst everyone broadly agrees with Emily's suggestion that the car's unavoidability does not apply to Inner London, Lauren still argues strongly for her neighbours' need to use a car. A number of others agree with this argument. Lauren does own a car but explicitly tries to avoid using it, and is highly aware that many people (even other bike-users) would not want to cycle the distance of her commute. For her, cycling requires relatively pronounced logistical efforts. Although she does not attempt to acquire status within the group by bringing this into conversation, it does seem that she experiences cycling as relatively individuating and outside the established norms of outer London.

Figure 18: The Rockingham Estate.

There is a small paved area surrounding the trees, which is divided from the car parking by raised planting. Other parts of the estate shown in the video include similar configurations of roadside car parking flanking open spaces, a children's play area, a ball games cage and raised flower beds.

A contrasting example illuminating how cycling might be incorporated into practices of placemaking that create a sense of inner London are discussed by group two. The video-journey at one point
passes through the Rockingham Estate (figure 18). Jessica lives on an architecturally similar estate nearby. Harry has previously explained that he lives in Outer London, and starts talking about “a block of flats very similar”:

Harry: [The one I know, parking is] permits only because it's close to South Wimbledon Tube. So you can't park there unless you actually live there, and there's only a certain number of spaces. So that only encourages one vehicle per dwelling in there and that is a real problem. I know that where I am people don't actually have front gardens, they have four cars. And you just think “that's lunacy”.

Jessica: If you give them parking space, they will definitely buy a car, that's it.

Harry: They used to have a big thing of, you know; if you had a certain type of dwelling then you weren't able to have a car. And the closer into London, obviously the centre, it is harder.

Jessica: I mean, because it's local [i.e. figure 18 is in central London, close to the focus group venue] a lot of people don't really need cars unless they use their car for business, or have lots of children to ferry around.

Harry: McDonald's and shopping.

Jessica: Shopping, whatever, but public transport could be even easier.

Harry: [And online shopping]

Sophie: I think that you [Jessica, previously] picked up on the bike parking, because that's definitely a big issue. Yes, just having that outside space. Because it doesn't have to take up a ridiculous amount of space. There are some very intelligent ways of people doing it.

Jessica: [On my estate...] they were asking for residents to suggest places for bike lockers. [I suggested somewhere] they put it there and I got first choice, I rented it straight away... and then every, my neighbours started seeing me, they
were looking at my bike, and they keep asking me: ‘How do you get, how do you rent one?’”

Their description does not create inner London as radically or extravagantly anti-car, pro-cycling or pro-public transport. Apparently it “obviously” becomes harder to have cars in areas closer to central London, and public transport is taken-for-granted there as much as people “definitely” buy cars in outer London. In this respect Harry is, like Lauren, a car-owning, cycle-commuting resident of outer London who finds it “lunacy” that people have so many cars. However, Sophie and Jessica explain how the removal of cars creates space for cycling infrastructures, such as some well-received secure parking (cf. Aldred and Jungnickel 2013). In contrast to Lauren’s feeling of her cycling being idiosyncratic and somewhat exceptional for her residential area, group two described a sense of inner London as incorporating a normative understanding of cycling as a way of practically ordering and generating of joining encounters in the city. This cosmogony of cycling as appropriate, taken-for-granted and not requiring pronounced effort was emergently contingent upon the required infrastructures being made available, and residents having the right skills for the streets available.

The previous excerpts in this section have explained how inner and outer London were felt to differ according to an overarching trend, but also how alternative configurations of materials, forms of competency and meanings might form within the larger machinic complex. Near public transport interchanges in outer London people could be less dependent upon cars and more supportive of alternatives. Inner London areas could have less public transport or greater support for cycling. Individuals could always act outside their local norm.

Further consideration of the local prerogative, however, shows its limits. Its end-point is relatively coherent and consistent: to normatively justify the creation of streets which reflect the wishes of their local inhabitants. However, it does not contain clear mechanisms for getting there. This is not criticising the groups for not suggesting governmental mechanisms. It simply recognises that the various senses of place they described were defined in terms of how they assisted the emergent self-organising of practices of placemaking, but without containing an iconic means of arriving at this end point or gauging progress.

When asked how they expected the spaces in the figures to have been built, the groups’ answers were generally unsure, varied but sceptical that local inhabitants would mobilise themselves to
support such measures. As Sam said: "[To] get people out on the street with banners saying 'please close this off', the only time you will is when some kid gets killed." The previous excerpts have all described the local prerogative within terms that aspire towards conflict-free places made through consensual uses of space. As group three summarise it:

Josh: "I like the idea... that, like, London would be better if there were fewer cars, and the congestion zone was a good start. I don't know... Let me think of a city where they just, sometimes you just go places and no one seems to really drive much, no one seems to really want to.

Joe: Paris is a bit like that.

Josh: Yeah, Paris is.

Joe: It's weird, you used to see a lot of cars on the big streets, but there are a lot of side streets that are really, really quiet."

This exchange envisages the ideal velomobilised city as one in which "no one really wants to" drive, rather than one in which people are being prevented from driving. I suggest that the idea of deference to a local prerogative implies the existence of some consensus or compromise around what that is. The logical conclusion is for a spatial fix in which the residents with different understandings of city living have become consensually resident in different areas. Those activities more commonly practiced are then more intensely facilitated.

The limit of the spatial fix, as described here, is that it does not incorporate any mechanism for preventing the re-production of inequality, disadvantage and forms of less benign segregation, rather than just mutual differentiation. It does not suggest any means of arbitrating or working through the inevitable conflicts which would occur between people disagreeing upon what makes a desirable place. In fact, within those examples of conflicts that did occur- Lauren and Harry's living in areas of outer London where they felt that other people's levels of car ownership were incomprehensible- it was felt that their minority opinion was tolerated but not expected to be catered for more widely. Furthermore, it has nothing to say about what it would take to become local apart from living or working in the local area. This did involve shying away from explicitly political positions on the practice of placemaking. However, through backlighting it is possible to
understanding of how a sense of place might be changed in-kind, through altering the materials and skills available in place, to indirectly change the flows and encounters emergently taking place, along with the meanings cosmogonically generated.

7.7 Conclusions

Chapter seven brought the study's cyclists together to discuss urban practices of placemaking. In response to both the theoretical framework and the results of the previous chapters, they were asked to respond as themselves - people who lived in London and cycled - not only as cyclists. The findings suggest how people might be influenced to start, stop and change their cycling through marginal alterations to how spaces are built and furnished, along with how they might influence and be influenced by others in doing so. But it also highlighted that acquiring new skills could change their understandings of what cycling and the city materially entailed, to recalibrate their practices of placemaking to create different experiences of cycling (and vice versa).

The first section explained how a radically different sense of place might be made in a traffic-calmed square that was formed by only minor physical changes to the original street. It was explained how a sense of place could be made that belied its physical proximity to a main road. This resonated with positive imaginings of cycling as a form of transport whose physical vulnerabilities could be turned into a means of experiencing enjoyable encounters with the city's residents and built form. In turn, it developed an understanding of how places might develop a capacity to host and attract heterogeneous activities that are often seen as problematic. This suggested that a durable, self-sustaining feeling of trust in a street and in being on that street might be engendered by: drawing people in for a variety of activities, being easily accessible via adjacent spaces and more aimless movements, and containing highly visible points of egress (to create a feeling of openness that encouraged entry). This was contrasted with deserted places' with feelings of external enclosure and internal openness, which did not encourage through travel by bike.

Having introduced the idea of placemaking for and via transport, the second section investigated how different practices of navigation-by-bike might jar with different senses of place. Cycling at speed could disrupt and scatter the practices of placemaking premised upon less transit-oriented uses. However, this was not argued to produce the absence of a sense of place. Rather it actively produced a sense of being a transit place. This could be experienced as more amenable for long-
distance cycling where it supported cyclists to more calmly engage with the built environment and other people. This was set against either requiring cyclists to intensively contest others for space to move, or creating conflict by combining too-contrasting uses of space in one location.

Overall, the first half of the chapter suggested that a focus on cycling to the exclusion of other matters might produce the erroneous conclusion that the cyclists supported and deferred to the status quo. The focus upon urban practice more clearly indicated that deference occurred as a situated response. The participants asserted that cycling is a supplementary consideration, and that their self-interest should defer to a primary focus upon not oppressing more vulnerable others and contributing to the establishment of a good city (however defined). Taken from three focus groups I do not present this as a definitive statement of cycling or urban practice. Rather it is an example of how changing the analytic frame by backlighting alters how such statements can be understood in the context of their cosmogonical material and skilful underpinnings.

The multiple senses of place that could be experienced by reconfiguring how people flow through make relationships between heterogeneous spaces were analysed in section 7.4. Developing an understanding of how cyclists might experience safety and enjoyment differently, comparisons were made between isolated and deserted paths in parks, relatively quiet streets interspersed with busier gathering places for short distance journeys, and roads predictably dominated by transit for longer distance travel. As such, it was suggested that cycling does not necessarily support non-transport senses of place.

The final sections of the chapter developed this understanding of flow and reconfiguration to investigate how the participants felt that placemaking could prioritise some issues over others. Via discussions of “busyness” the “local prerogative was investigated. This occurred through discussions of the participants’ worries that encouraging in situ social interaction and drawing people in might disrupt the practices of placemaking that existing local inhabitants appreciated, and how the outcome of placemaking was expected to differ across London, particularly with respect to transport mode. This described a fairly consensual understanding of cycling in outer London as a self-acknowledged minority-mode of transport, with cycling becoming more normative and taken-for-granted with proximity to the centre. To a great extent the normative understanding was generated by increasing population density and public transport access practically reducing car dependency, not just popular and infrastructural support for cycling.
Overall, the local prerogative might be understood as attempting a spatial fix which practically attempts to avoid conflict or imposition by imagining London as segmented into localities which are inhabited by similar people. Its aspiration is that local consensuses might practically circumvent conflicts over street use and intensify the degree to which local residents are supported in their chosen practices. However it did so through a mechanism whose logical conclusion is consensual segregation according to interest, by people who claimed (and whose ride-alongs and diary-interviews displayed) a practical interest in the city’s heterogeneous places and ways of life. As such, studying on practices of placemaking demonstrated that reorganising street infrastructures or gaining new skills can change the generative schemas through which people understand their practices, and the emergent encounters that they create. This may create places whose existence practitioners practically support through their actions, but in advance of their having trained or entirely congruent justifications for doing so. This raises a number of wider questions for final evaluation.
Chapter Eight: Conclusions and Further Research

"The thing about cycling is that there are so many people who cycle from all over the place, from all walks of life... I don't think that cycling is associated with a certain kind of, type of person. You know, people cycling everywhere, from all ages, from different groups, from, I would be surprised if you told me that cyclists are usually are white men in their twenties. I think that everybody cycles, um. It would be interesting to see any statistics, but, I don't know. And that's why I don't think that you can bring stereotypes...I think that it is perceived as a healthy thing to do, but not a centre of conversation, really."

"James"

The study has developed debate on practice, experience and place by investigating how cyclists incorporate themselves into — and so change - a city's potential for systematised action. It investigated the technologies and social techniques that people incorporated into practical interactions in transit, including how these generated dynamic configurations of space, flow, congregation and avoidance. The findings showed that a cyclist in a city builds an understanding of its streets which is quite different to an imaginary map of the road network. With respect to transportation, the use of a bike was not the sole or defining factor of cyclists' mobility in the city. Furthermore, there was no singular optimal means by which various times and routes, peoples and locations might be approached or avoided. Instead London could be understood as socio-technical, machinic complex to be practically interpreted, assimilated and inhabited in many ways. Studying civility, navigation and placemaking demonstrated how practices can radically mediate a social and technical milieu. Experiences of cycling demonstrated how a technology can be incorporated into practice in a variety of ways, as recombined with the rider's embodied, skilled, social and partially habitual capacities.

Emphasising the importance of mediation developed a nuanced theorisation of how places in the city became expressed. Through this, practices did not just create each individual's particular "slant" on a place. That is, the fieldwork did not describe exhaustive expressions of a location's pre-existing contents or affects, as resisted or steered by the capacities of those individuals passing through. Nor did cyclists' behaviour indicate that the growth of cycling involved the increased membership of a coherent, singular group identity. Rather the findings described practices and
places as mutually constitutive. This theorises place and practice as created through elements of practice in systems of relations. Both could be altered through new elements being brought in, old elements separated off, or the relations between elements being reoriented. Such reworking could occur as people learned or applied different capacities with which to incorporate themselves into, and express themselves via, selected aspects of the urban, understood as a machinic complex. Such incorporation and expression entails the creation of corresponding absences, avoidances or inactivities. This could be in terms of individuals' practical knowledge of the urban, or with respect to more extensive systemisations of elements that are not centred on individuals. For example, different numbers of cyclists flowing through various locations, and associated expectations for this occurrence, would influence the forms of practice and experience taking place. In turn, the materials and forms of competency available in place can be seen to alter the meanings cosmogonically generated, the encounters supported and the emergent processes through which practices (re)form, stabilise or fall apart.

The final chapter suggests conclusions and evaluates the study. In response to the structure and questions laid out in the conclusion to chapter two, it groups the contribution to knowledge into four key areas. For each area the findings are summarised, their implications made explicit and critically evaluated, before being used to inform subsequent discussion.

The conclusion's first section clarifies the fieldwork's implications for social practice theory and its geographical praxis. It evaluates the procedure of backlighting, in the context of the attempt to develop understandings of emergence, encounter and cosmogony. The results develop understandings of trajectories in practice, particularly how elements-of-interest become more or less pervasive and integral to systems of practice, (rather than marginal or central). It then proposes the concept of creative repair as an alternative to strategies and resistance. This develops social practice theory's understanding of quotidian repetition, habit, and technology. It suggests how repair which directly reconfigures the relationships between a sub-set of elements of practice can then begin to mediate much more extensive systems, and how this incorporates dynamic, fluctuating flows rather than stable conditions.

The second section discusses the study's implications for understandings of place, again focusing upon emergence, encounter and cosmogony. This firstly draws out the particularly spatial aspects of repair, mediation and reconfiguration. In particular it develops an understanding of how
technologies can reorient how a city is inhabited. The velomobilisation of practices creates new stabilities, coherencies, instabilities and absences. These affect and are accessible to different people in different ways. The section goes on to discuss practical knowledges and the difficulties encountered in attempts to directly describe them. This evaluates the relationship between difficulties stemming from the novelty and unfamiliarity of the matters under discussion, as against more fundamental difficulties in representation. It questions how far practical knowledge might be indirectly incorporated into conversation, and practitioners' reflexive awareness of representations' limitations, absences and fortes. Secondly it applies these conclusions on practice to explore how spatial skills do and could develop forms of emergent and non-essentialising multiplicity in place. Thirdly, it posits the potential consequences for infrastructure design, with particular relevancy for processes of creative repair and attempts to support the mass uptake of an activity (such as urban cycling) without doing so in an unachievably prescriptive or unsustainable form.

The third section develops the study's implications for cycling studies, and reflects on how this speaks to geographical debate. It specifies how the practice theory findings suggest new ways for understanding bicycle-use as a heterogeneous and non-central part of individual people's lives, but an (increasingly) pervasive part of many urban systems. The development of a less socially or technologically essentialising understanding of cycling, one which focuses on configurations and intensities rather than levels, arguably supports better analyses of justice and more efficient attempts at cycle-promotion. It then reflexively evaluates some problems and opportunities of the publically engaged and empirically grounded approach that characterises much cycling studies.

The final section explores how the study's contribution to knowledge opens up further questions. This focuses on the findings' implications for scale, intensity, and the potential methodological developments that would make their future study possible.

8.2 Social Practice Theory

To review the success of backlighting in relation to the main research question, the findings emphasise the importance of reconfiguring the relationships between elements of practice, so altering how those elements are expressed. The fieldwork found that the riders' experiences tended to be oriented within a framework of meaning whereby their explicit interest in cycling was relatively limited. With respect to encounter, participants only lightly and somewhat tangentially
took on a sense of cycling-based group identity or related forms of focused status-seeking. Instead, their actions might be better described as attempting to find ways of incorporating bike-use into their existing practices. The interactions of on-road encounters clearly influenced and were generated through their practices, but as an intermittent and more-or-less supportive milieu to co-exist with, rather than as a group to feel belonging with or aspire to status within. With respect to emergence, their actions often initially seemed quite ad hoc, incremental, or flippant. That is their actions were influenced by their intentions and open to reflection, rather than determined by their surroundings, but also significantly reacting to happenstance and the situations in which the cyclists came to find themselves. There was little sense of anyone having an overarching cycling-focused or pre-determined plan. Analysing cycling experiences of velomobilised urban practices clearly demonstrated the systematic trajectories, logics and momentums which produced the participants' actions. With respect to cosmogony, their use of bikes clearly entailed people reworking and translating into velomobile forms the practical knowledges they had built up—and continued to build - through experiences of living in the city that were not confined to those involving bike-use.

Overall, the ways in which people used bikes were not accidental, random or insignificant parts of their lives. However, cycling was never a fundamental or quasi-primordial point of origin in any participants' sense of self. It was a qualified part of their life, articulated through relations to elements of expertise, meaning, equipment and environment85 that are not primarily encapsulated by "cycle culture", "The Bike Movement" or the mode of transport. Their usage of a bike and experiences of cycling were contingent upon their ability to accomplish more primary concerns or tasks. As such the riders' creation of velomobilised practices of civility, navigation and placemaking significantly involved their recalibrating and reconfiguring off-bike capacities.

The findings in all three empirical chapters challenged theorisations of practices as taken up or divested en mass, or as categorically different entities. Small changes had the potential to radically reconfigure how collections of elements were brought into and then expressed within more extensive systems of practice. I would argue that backlighting was ultimately a successful analytic instrument for disrupting the academic reproduction of taken-for-granted, implicitly exhaustive and

85 I.e. materials, meanings and forms of competency (Shove and Pantzar 2005, p45).
homogeneous understandings of cycling. Not only destabilising, it supported the creation of a dynamic understanding as to how reconfiguring the technological elements of practice could influence experience. This articulates how experience involves reconfiguring elements of practice in ways that are not varyingly expert iterations of a practice, nor contests between practitioners analysable in terms of a single relative measurement of power. Rather experience can suggest qualitatively different reconfigurations or entities to the practitioner, and initiate new long-term or self-sustaining trajectories of change.

Experience’s role in reconfiguring or initiating trajectories in the development of practice could be seen in chapter five, where the participants expressed very different understandings of how civility might be combined with legality and safety when using a bike on London’s streets. They did not just express different levels of regard for others. Their descriptions of how they expected others to behave seemed to show different understandings of how people practically sensed and were accustomed to moving through the world, not just social understandings and justifications. These differences, and their limited (but not entirely absent) expectation suggests that a significant degree of the incivility perceived in on road encounters stems from their translating off-bike “common sense” forms of civility to velomobile forms in misunderstood or conflicting ways, compounded by adverse infrastructure and traffic conditions. In turn, many of these sensory differences seem generated through the systematically, habitually different treatment meted out to different people as related to their intersecting social characteristics, rather than aspiring to an archetypal form of cycling, which supports a relational rather than essentialising understanding of technology in practice. Furthermore, many current forms of civility between cyclists were responses to fear and perceived danger which might be diminished by safety improvements, rather than being benign practices that could be intensified by the growth of cycling.

In chapter six, different configurations of navigational expertise and opportunity (or constraint) could create highly different patterns and trajectories of transport demand and occupation of space. These differences emerged without practitioners having a specific intention to build such a particular velomobilised practice or a particularly detailed awareness of how their practices differed from other peoples’. Although many did assume that there was a significant divide between those with lycra and those without, upon further investigation it was difficult to substantiate such a defining binary difference. More salient were peoples’ different social responsibilities, opportunities and constraints. These shaped how their cosmogonical understandings of the city were formed,
how they could join or learn from encounters with others, and how they could emergently build new competencies or mediate existing practices through new experiences.

In chapter seven, the participants' broad expectation that they would cycle in similar ways, for similar reasons, quite quickly broke down. Instead they began to discuss how different configuration of spaces, infrastructures and flows of people might draw together elements of practice to make a sense of place. Relatively complex relationships formed emergent encounters in different built environments, between congregations of people bringing different distributed elements of practice together. Reconfiguring the relations between elements of skill and technology could recursively change how the places and their practices cosmogonically became meaningful.

The tendency for riders to describe their form of cycling as one that happened to best accomplish a more primary concern or task prompts responses to critiques of Bourdieu's practice theory as conservative and humanistic. I suggest that it may be useful to understand the trajectories of the participants' urban practices as significantly constituted by processes of creative repair, maintenance and disrepair. That is, the empirical findings depict the creative repair of urban practices, but theoretically repair is a mechanism that might be applied to any practice. This combines understandings of practical orientations as generative but habituated cosmogenies, the self-organising dynamic and importance of trajectory seen in emergence, and the non-essentialism of encounter. It can be seen in those acts of civility which aimed to pragmatically find a way to cycle through situations seen as unsatisfactory for legal cycling (chapter five), and in fleeting attempts to help others on the road without expecting this to be the beginning of any longer interaction (chapters five to seven). It influences practitioners' attempts to find a cycleable means of making journeys and accomplishing tasks without re-organising their life around cycling (chapters six and seven). It includes attempts to make a place and its flows congruent based on a loose presumption of what this entails but highly situation-specific responses, rather than an explicit and coherent working through of a model form (chapter seven).

In terms of developing progressive geographical theory, repair might initially seem to be a problematic and reactionary concept. However, I would argue that it need not be understood as essentialising or positivistic. Instead, repair might be re-interpreted as a counterpart to the slight

86 Or attempts to avoid applying more sedentary norms of interaction to chance meetings in transit.
surprise of action; a means of apprehending or supporting change, openness and multiplicity via negative-definitions. It suggests affinate mechanisms of practice that translate or traverse between distributed elements of practice in emergent, cosmogonical encounters. The negative definition acknowledges that change is not only approached through propositional, heroic or singular attempts to strive for something. It also entails habitual reactions against some things, including asynchronous or non-contiguous attempts to proceed which seem unfocused because they are working on distributed elements of complex systems. Perhaps not particularly inspiring, it acknowledges the impossibility of giving focused attention to everything, all the time. As such it suggests mechanisms by which quotidian aspects of practice might be addressed and "improved" (however defined) in their own repetitive terms, gists and trajectories, not only through moments of focused intentionality.

A negative definition of repair does not deny the existence of positive definitions or propositional aspirations, but recognises that obverse mechanisms may exist, and that these are different to positively-defined features being passively absent (cf. Shove 2012). Repair’s negativity is contingent, transient and open-ended through being intrinsically constituted through systems of relations. Addressing emergence, this, I would argue, can articulate a more practical sense of the calibrations, intensities and active absences distributed across and constituted through systems of practice. With respect to cosmogony, practices become held together by moments of iterative re-calibration that do not require their practitioners’ full or linguistically articulable understanding. Repair nonetheless suggests how extensive change and trajectories of change might be caused by minor, quotidian, systemic re-adjustments that negatively disrupt or differentially ease the reproduction of certain practices. However, developing understandings of encounters that are not based upon a metaphysics of presence, rather than returning to an essential state, this differential reproduction actively builds new configurations of practice through minor, asynchronous changes distributed across systems and between elements.

Repair creates a theoretical space to explore how a progressive openness to plurality and multiplicity might be achieved via attempts to (re)create relatively benign configurations of practice (however defined). It incorporates an openness to change by acknowledging that configurations will always alter. However, a better understanding of change’s quotidian processes might support attempts to maintain an enduringly-progressive trajectory, and across a broad base of otherwise neglected aspects. With respect to emergence it allows new links to be made by individuals who
are inside a system, not only above it, outside it, or in its margins. Via theories of encounter this means that communities of propinquitous individuals and their implied norms do not need to be either iconically valorised or castigated. Instead it imagines more manageable, piecemeal and iterative forms of social change, related to social forms defined by their flows of moments of interaction and absence, rather than by exclusion. With respect to cosmogony, it suggests a way of accepting that bodily habit, expertise and established socio-technical configurations entail forms of inertia, but that their form might be changed by their momentum being diverted along a new trajectory, not only opposed front on.\footnote{Inertia is not the absence of momentum. Inertia describes how, in the absence of any opposing force or resistance, a body continues to act according to its initial momentum. Stationary objects remain stationary, but moving objects continue to move.}

A key mechanism of repair can be identified as mediating skills and meanings. This extends previous geographical research on mediating technologies (cf. Furlong 2011). As was seen empirically, relatively small changes to the kerb-line, road markings, disruptions to a routine or modal-filtering could trigger people and practices to start developing along very different trajectories, to take up or divest themselves of an array of elements, to reconstitute very different practices. This also develops responses to critiques that research into the practice and experience of heterogeneous flows of bodily movement and their incorporation of near- or larger-than-body sized technologies and infrastructures is rare, whilst handheld tool-use, comprehensive urban rebuilding or the avoidance of technology have been quite widely researched (Hommels 2000; Ingold 2004; Koch and Latham 2012; Rose et al 2010; Thrift 2004b).

Mediation firstly resists the potential for emergence to be interpreted as an ultimately deterministic account of distributed practice. That is, it prevents emergence being a reworking of point-location based essentialism into an essentialism that naturalises forms of systematic distribution. For example, I do not denounce idealised, unitary conceptualisations of cycling, urban, place or practice, only to promote equally essentialised network-based ideals. Repair entails an understanding of how the relationships between elements in a system are dynamically changing, and so how even circumspect alterations generate ripple effects. However, these are not uniform. For example, as was seen in chapters five and seven, the growth of cycling made some areas, to some people, feel oppressively full of cyclists whilst others felt safer. In chapter six the acquisition
of one minor element of skill or new equipment could radically change how people travelled, even though the times and locations they travelled between stayed quite similar.

A key feature of quotidian repair – as a mechanism – is the relationship between practical change and its explicitly reflexive recognition. Via mediation, people seemed quite willing to significantly reconfigure their quotidian practice, and to accept or discard relatively significant parts. A key threshold tended to be when their sense of primary task and personal orientation (spatial or otherwise) was significantly troubled. This implies that although the participants' practices often entailed highly emergent and transient forms of coherency, they were not necessarily ad hoc or makeshift. Without requiring a hyper-coherent project of aspiring to become an ideal cyclist, they could still spend significant amounts of time trying to plan or iteratively improve their experiences and practices. However, they might be quite provisional, relying on trial and error to find and improve their working configurations.

The conceptualisation of creative repair should not be taken to imply that people are never motivated to pursue or avoid ideal forms. The interesting discovery was just how greatly practices might change along trajectories that were flippantly established, routinized, and intensified. These changes were often not really noticed until something disruptively "failed". In this respect failure could be quite specific and instrumental, such as feeling safe or arriving on time. Alternatively, it could involve recognising an inability to understand or explain a way of living in the city. For example, the focus groups demonstrated how quickly the previously-unspoken, taken-for-granted implications of organising a life by a given mode of transport (and its local or personal availability) could be recognised as less clear cut. The example of navigation showed how the views and routes experienced through non-bike travel were significant influences upon their velomobilised practices of navigation. Difficulties with regards to civility were often particularly pronounced when people attempted to incorporate specific perspectives, norms and expectations into on-road behaviour, but had limited ability to explain their following actions to anyone who misunderstood.

Developing mediation as a mechanism of repair includes building a sensitivity to how flows of traffic and practice fluctuate across time and space. As such, repair suggests new ways in which power-geometries might be reconfigured through encounters that only occur in certain ephemeral or transient confluences, divergences or absences in practice. This contrasts with binary interpretations of power found in resistance, a cumulative acquisition of linear expertise, and
numerical recruitment to a subculture or social movement. For example - as reviewed city-wide in chapter three and described from individuals' perspectives or scales of repetition in chapters five to seven - individual events and innovations in practice systemically spread, stabilise or become disrupted. For example, Daniel explaining where the safe short-cut was in chapter five, Josh losing the habit of cycling in chapter six, and chapter seven's discussions of how streams of fast cyclists could alter how people treated the canal path park. The participants' relatively minor, unstable, or flippantly different "levels" of assertion, navigational changes, or ways of describing and visiting place could recombine to initiate quite significant systemic changes in how people oriented and incorporated themselves within urban machinic complexes. Considering repair and mediation's incorporation of flow suggests further implications for place.

8.3 Place

The following section focuses on the study's implication for theories of place and geographical praxis. It firstly suggests that the tensions between practical knowledges and representations of place demonstrate a need for related popular and academic analytic skills. Secondly, it explores how practical spatial skills develop new forms of emergent and non-essentialising multiplicity in place. Thirdly, it posits the implications for infrastructure provision.

The fieldwork repeatedly entailed participants describing and enacting engagements with the city and its inhabitants in quite ambivalent, fleeting and intermittent, but also systemically recurrent and negatively-defined forms. Yet in questioning a metaphysics of presence, the findings did not imply trading an ontology of sedentarism for nomadism, and instead developed thought on encounter, cosmogony and emergence. Analysis engaged with the immediate bodily orientations of cycling in traffic; being mounted, en route and often side-on. It expressed the riders' incorporation into recurrent but fluctuating flows at various personal, group, institutional and spatial scales. In turn, the flows and recombinations recorded were more than simply the extent and means by which practitioners entered or avoided certain locations, or to which they took on and discarded different identities. The findings demonstrate various mechanisms and techniques by which the processual relationships that combined different elements could be combined and their outcome changed.

Places were formed and changed as cyclists learned to re-orient their own technologically-augmented bodily inhabitation of the city, or as minor-but-pivotal alterations to the city altered how
bodies might flow through it. This did not only include the formation of somewhat coherent or stable practices, but also of absences and vacuums. For example, comparing the different aptitudes developed for getting through the heterogeneous situations described in chapter five, some cyclists came to prefer the types of traffic conditions on main roads that others worked to avoid. This could involve avoiding particular times and congregations, not just particular locations. Alternatively, various cyclists came to sudden realisations about how “pockets” of the city and ways of knowing it fit together, as in chapter six. Place further appeared in the focus groups’ exploration of how different infrastructures and peopled milieus could be reconciled with different ways of systematically moving through the city.

The heterogeneity and multiplicity of urban practices and practitioners means that they are not identically or equally-easily velomobilised. This has analogous manifestations in terms of place. People attempting to re-interpret or reconfigure their existing social and technical competencies so that they better fitted the opportunities and constraints of the bicycle recursively occurred as incremental alterations to more extensive dynamic systems. The outcome includes influential trends such as the high cycling flow at rush hour on routes leading to or from the city centre. These flows could be worked with, or around, in different ways by different cyclists, including by avoiding cycling at these places. Although the greater or lesser presence of other cyclists en route altered how individuals felt practically able to act, many riders felt little focused commonality with other cyclists, as seen in all three empirical chapters. Their experiences of these places were influenced by their carrying out different tasks and routines, along different routes, via various modes of transport and including more-or-less fleeting, side-on or incivil interactions in traffic.

A first point regarding place is the importance of developing popular and academic analytic skills with which to recognise how people make practical relations between locations. This relates to contemporary debates over the importance of “being there”, in situ, when discussing practice, and the potential for experience to be discussed or represented (Anderson and Harrison 2010; Fincham, McGuinness, and Murray 2010b; R. Hitchings 2012). The fieldwork demonstrated practitioners’ abilities to generate or join into a bodily-meaningful sense of place. However, this was in tension with descriptions that fell back upon localities as a patchwork of differing in situ essences, immediately presentist contemporary characteristics, or current groups of residents.
As seen in the videos, maps and in the focus group debates, participants were well aware of how different elements of practice affect the inhabitation of a space. Theoretically, such capacities might be said to extend beyond the individual or feature, becoming an emergent sense of place. On-road talking could feel distracting for people who wanted to concentrate on traffic (chapter five), make spaces approachable for the uncertain or lost (chapter six), or disrupt people trying to inhabit the space differently (chapter seven). As such, socially or technically ordering and becoming ordered by the city's distributed flows does not necessarily require people to take momentous, relatively weighty decisions, to take up membership of an essentialist, doctrinaire group or ideal, or corresponding engagements with place. The participants descriptions of what it meant to be a cyclist were subject to extensive qualifying or extenuating factors, and only peripherally involved seeking out or heeding identifiable gatekeepers for definitions of a local social form or identity. Yet the ideals they had were produced, permeated and shot through by practices that they practically understood. As such, a sense of place is arguably significantly generated by people becoming habituated to acting within various systematisations. This contributes to their systemic recreation, including the re-creation and evolution of significant multiplicity or heterogeneity; skipping the lights because it works and feels safer (chapter five), keeping to established routes unless prompted not to (chapter six), cycling in a way that translates their personal situation into the city's existing flows and road layouts whilst limiting the requirement to discard existing or acquire new skills, equipments or meanings (chapters six and seven).

A problem for participants' attempts to explain their actions in place arguably stemmed from how quotidian day-to-day moving around by bike did not often involve people justifying their actions in the street. As such, I would suggest that initial interpretations of style as a largely epiphenomenal or personal matter - rather than a fundamental constituent part of practice and the generation of cycle trips - demonstrates the importance of popularly developing ways to talk about such matters. However, it also seems important to not overstate the difficulty of doing so (Barnett 2008; R. Hitchings 2012; Laurier and Philo 2006). As seen particularly explicitly in chapter seven, and indirectly in chapters five and six, people could work towards explaining their actions. Given a reason to concentrate on discussing the subject, they quickly recognised that what seemed to be personal fashion or choice was influenced by a variety of practical elements, and that these both articulated and built different ways of understanding how the world worked and acting within it.
The participants’ recognition of the partiality or idiosyncrasy of their own experience informed their descriptions. In effect, their awareness of the not-wholly-describable made it an implied, active part of the conversation rather than a passive absence. Chapter seven in particular described the assumptions (or aspirations) that city life should simultaneously: allow different ways of life to occur in parallel according to the choices of those who lived nearby and allow the development of personally-appropriate routes through the city, but also an awareness that many activities could be mutually exclusive in practice. In this respect, the discussion oscillated. Aspirations that the city might be separated into a pluralistic patchwork which did not deleteriously impact anyone - so long as they knew where to live – swung against upfront awareness that such separations were difficult to practically specify or live within and their own actions were often similarly misunderstood or unanticipated.

Although the spatial fix initially seems to be problematic for a progressive politics, the preceding empirical chapters hint that this may be an issue of reification rather than intent. The tension between stereotypical ideal forms and reality was something that the participants could usefully work through in conversation. This was assisted by the provision and successful inclusion of counterpart non-verbal practical knowledges; relatively commonplace items such as diaries, maps and videos. These did not seem to have a verisimilitude or high-tech unfamiliarity which “dazzled” people into being unreflective (cf. Travers 2009). As such, the discussions showed how the participants’ practices were built around finding or building segments of parallel routes, fracturing and recombining their practices through a mixture of preparation and experiential epiphany. Their discussion showed a great practical awareness of how a variety of minor or trifling fashions, often constituted by elements of practice spread across a variety of locations, could systematically amount to distinct changes in what theory terms a machinic complex.

As a second, following contribution to geographical debate, I suggest the importance of better understanding the presence or proliferation of spatial skills through a population. Developing the understanding of emergence, encounter and cosmogony, the implications theoretically challenge what it means to be a skilled practitioner, especially definitions based on skill as an acute sensitivity or aptitude to the situations that constitute a given place (cf. Rose 1993, chapter three). As spatial skills are a part of practitioners’ practices, so therefore they are a part of place.
Cycling in London involves large numbers of new practitioners being self-taught or taught informally, and not necessarily according to a well-defined canon with a single upwards trajectory of skill acquisition. As such, the adept urban cyclist may be an artefact of descriptions presuming its existence far more than it is a useful way of thinking about living in or designing cities. This is more than simply saying that the non-adept may constitute a large part of an activity's enaction, and links back to questions of intersectionality. All the participants were competently skilled at being urbanites, in some way or another, (although this does not imply that one was best at being urban). Analysis of how they velomobilised their practices emphasised the importance of spatial skills and their acquisition through a variety of on and off-bike experiences. Spatial skills allowed the riders to create, utilise or disrupt links between elements of practice, to create new places through the opportunities open to them.

A third point with regards to placemaking builds the non-essentialising, non-linear understanding of skill to further question how places and their inhabitants change. This has relevance to theories of place as a machinic complex and the incorporation of technologies (particularly "big things") into understandings of practice. The findings suggest that infrastructures aiming to support the mass growth or repair of an activity, such as a mode of transport, might need to be designed with a consideration for how the commonly existing skills and experiences of non- or intermittent users might be mediated by their using it. Users will not necessarily become more adept over time, their initial skills may deteriorate, or they may be recombined with new combinations rather than finessed.

An understanding of repair supports an understanding of place being made through the sedimentation and erosion of elements in emergent systems of relations, encounters and habituated cosmogenies. For practitioners, placemaking includes trajectories of reskilling, learning and alteration. But this includes displacing or preventing the renewal of some elements (human and non-human), whilst supporting the increasing pervasion, premised-inclusion or importance of others (cf. Beckmann 2001; M. Watson 2012). The propagation of skills amongst large numbers of individuals is a factor in the successful formation of groups or flows of multiple individuals. This would be the manifestation for skill that is analogous to the socio-cultural propagation of the valorisation of timetable-free and increased distance travel within trajectories of automobilisation. As such, skill can be understood as something that is not entirely personal, with manifestations that traverse individuals, altering how a given set of elements might be systematised as practice. By
emphasising that people might be able to alter place quite radically by mediating it through equipment, meaning and skill, this may more widely assist in attempts to understand the unexplained growth or cessation of an activity in areas or amongst groups.

A relatively policy-relevant implication of this understanding of placemaking is that, given the level of effort required to gain expertise, followed by the ease with which it could be forgotten or fall into disrepair, building infrastructures and institutions aimed at less-adept users may well provide long-term benefits for those who would be immediately inconvenienced by their construction. This firstly emphasises that expertise is not simply acquired, but must be continually maintained and updated if it is to remain useful for the changing conditions of a practitioner's life. As such, even the currently adept might well benefit from the construction of infrastructures and systems of meaning that make it easier to sustain their practice. This might be extended to imply the benefits of creating places that expect and so allow for inhabitants to change over time without suddenly finding themselves unable to apply their previous expertise, and so finding themselves excluded from a place in which they are established. In so doing, it extends the nuance of attempts to build non-essentialising understandings of infrastructure. It also suggests new ways of geographically managing, supporting or discouraging various societal issues.

8.4 Cycling Studies

The following section makes a thematic contribution to the literature on cycling. The study has described how quotidian processes were able to build, alter, stabilise, and erode co-productive configurations of urban practice and cycling experience. An overarching emphasis of the findings was that people did not travel by bike as a last resort. However, their positively chosen reasons for cycling were not clear cut, and did not tend to be of primary importance. In effect people velomobilised their practices by pragmatically patching distributed, asynchronous elements of cycling in to their urban practices through processes of creative repair. Minor additions or subtractions could mediate and radically reconfigure the systems of relations between elements of practice, and initiate trajectories of further change. Empirically, this is why people started, and sometimes stopped, cycling in south London.

As a contribution to debate within cycling studies, the findings support the proposal that decentring cycling's iconic forms supports innovative analyses of transport justice, experience, promotion and
planning. Introducing urban situations as a counterpart and disturbance, backlighting supported an investigation of cycling – as a mode of transport- without a presumption that riders' practices and experiences would be homogeneous, or that their differences would be derived from attempts to emulate particular stereotypical sub-forms, or "tribes" of cycling. This challenged analyses framing differences as the velomobilised expression of essentialised socio-cultural categories. Instead it drew upon theories of intersectionality to suggest how theories of practice and place might better incorporate technologies and skilled bodily-sensory capacities in a non-essentialising manner.

The findings suggest that to understand cycling, frames of analysis focusing on configurations and intensities are often more useful than those of absolute levels. As with civility in question one, it is perhaps not enough to celebrate (or censure) levels of (dis)respect for the law and others. Nor is it sufficient to bemoan a lack of commitment to learning routes and going riding frequently, as seen in question two and navigation. Question three's study of placemaking challenged assumptions that there is some social communality between cyclists, or a corollary single ideal place or experience. Instead, in all chapters the findings emphasise the depth and breadth of influences upon bike use: how people encounter traffic differently (and vice versa), how habituated experiences of those encounters influence how people cosmogonically understand their opportunities and status. Neither are they uniformly distributed, but variations in opportunity and status are often self-organising and stabilising. Such findings clarify how seemingly subjective differences or personal choices are relationally constituted through confluences of systemic tendencies and habituated bodily response. It suggests how recursively, iteratively changing practices of civility, navigation and placemaking might be better altered in future.

Given the diversity of practice and experience, the research suggests that efforts to increase cycling might aim to introduce cycle-supporting elements of practice that draw in further elements of existing systems, including those not directly understood to be part of cycling. This could involve attempting to focus on changes which either intensify themselves as they are repeated and habituated, such as taking up daily commuter-cycling. Alternatively, learning how to avoid or campaigning to rebuild an individually problematic junction could open access to new hinterlands, allowing established urban practices to be translated en mass into more velomobile forms. Another option would be to support people to experience bringing new elements of practice together, such as led rides and temporary street closures which help people to find their way through a new area for the first time without fear of traffic, or to experimentally perform a different sort of civility. This
contrasts with incremental or unitary framings in which barriers to cycling are dismantled and
cycling practices assembled, set against relatively static understandings of pre-existing demand,
such as a geo-demographic pre-dispensation to cycle, or individualistic focuses on personal choice
(Gatersleben and Haddad 2010; Leonard et al 2012; TfL 2010a; resonant with Shove 2010; 2011).
Within urban planning for cycling, this would be contrasted against interventions (including
individuals’ attempts at self-improvement) that intentionally or unintentionally aim at the
comprehensive redevelopment of infrastructure, or behavioural changes analogous to
comprehensive redevelopment; resource-intensive to establish, initially sterile, with significant
chances of failure, instability or long-term decay if self-sustaining trajectories fail to become

Successful projects to support cycling might be designed, installed, or promoted with the
expectation that their uptake will be amplified if the resources are amenable towards being non-
prescriptively incorporated into practice. That is, due to the actual heterogeneity of cyclists and
velomobilised practice, the results of projects built upon expectations that cyclists are highly similar
and proceed on a linear career path from novice to elite may be highly erratic or hit an
unexpectedly low ceiling. Approaches which support practitioners to rearrange the links between
elements of their existing practices, incorporating cycling via creative repair, may have wider or
longer-term success. With respect to infrastructure, the findings on practice and place would entail
recognising the patterns of already existing practices in a local area and working to make their
velomobilisation easier. This stands as an alternative to planning the “optimum” cycling city and
imposing its infrastructure upon an area (cf. Koglin 2014). It also differs from what might be called
“rising tide” attempts to start building bike-related infrastructures based on a geography of either
least opposition, or frames of unitary localities and their demand (Greater London Assembly 2005;
TfL 2010a).

Developing the geographical concept of place as flows of relations, all three empirical chapters
demonstrated the literal and allegorical importance of re-routing. The experiences of cycling in (or
avoiding) one location, the numbers of riders doing so and the practices giving rise to them were
significantly influenced by many factors. A point’s integration into the socio-technical potential for
cyclists to flow across the road network recursively influenced how the actual flow was generated,
producing a relational, systemic articulation of amenability. For instance, relatively unexceptional
locations could be well-received when enrolled into a route that was conducive to the rider’s
practices. Individually problematic points (whether confusing or understood as dangerous) might be accepted if they were difficult to avoid, or if supportive flows of cyclists were present (within limits). Seemingly unproblematic points could become unworkable if their immediate hinterland made them difficult to access, difficult to incorporate into longer-distance flows, or because they were not widely known about or visible.

The fieldwork challenges the somewhat essentialist understanding of cycling as almost-innately environmentally-friendly, physically-exposed and socially-open in situ. This develops and applies analyses of practice as mutually constituted by social and technical aspects, and attempts to build progressive places. The findings showed examples of how cycling occurs through relationships distributed across inequitable socio-technical systems. As such, its valuable aspects are not equally accessible to all, nor necessarily wholly benign. Many allegedly-problematic elements are constitutive, not epiphenomenal. This was particularly clear where (seemingly) incivil behaviour was linked to a perceived need to be assertive to be safe. One potential response for analyses of cycling is to better acknowledge that the continued growth of cycling may have to involve reflexive democratic choices over whether and how to discourage or disrupt certain configurations of velomobilised but undesirable practice, and to work out how their occurrence is linked to socio-technical configurations of practice which extend beyond cycling, to constitute the city at large as a machinic complex.

Reflecting upon the research’s direct application in attempts to make a velomobilised city, an empirical limitation stems from the cyclists being predominantly recruited from (or last employed in) the creative and service sectors. As the study’s focus is upon debates within geography and practice theory, it was not supposed to be empirically exhaustive or to produce detailed suggestions for cycle policy, promotion and campaigning. It did avoid the existing examples of cycling which form a minority of journeys and riders but dominate the literature, such as identity-focused campaigners, anti-consumerist or anti-employment radicals and couriers (Aldred 2013b; Carlsson and Manning 2010; Kidder 2011; Fincham 2008). However, given the subsequent importance of individuals’ jobs on their practices of navigation, it seems relevant to again highlight that no participants were employed in large, centralised manufacturing units (i.e. “factories”), high street retail, nor core public sector bodies such as local councils, schools, police or the health sector. Their differing institutional norms and spatial configurations would be expected to attract and produce people with somewhat different dispositions.
Discussing the aims and omissions of the study introduces a final evaluation of the relationships between the empirical topic, the field of cycling studies (including its constituent non-academic elements), and the requirements of a geographical thesis. Overall, it is arguable that the study's treatment of cycling could have been more tightly focused upon an initially defined theoretical, geographical question. The study began with extremely limited social science research into cycling and significant societal demand for it. As such, it drew widely and iteratively on the empirical aspects of academic cycling studies from many disciplines, non-academic (popular, governmental and civil society) writings, and extensive fieldwork. A significantly simpler study could entail: a narrower and more exclusively disciplinary or social theoretical problematic, a pre-established rather than iterative study design, a more mature field of secondary data with existing summaries of local conditions, questions requiring less empirical situating, or fewer methods. At the same time, as Laurier has critiqued for contemporary geography, this "efficiency" comes at the cost of an ever more fragmentary understanding of the experiences and practices which the findings claim to represent (2001, p487). As originally motivated Bourdieu to outline a theory of practice (1977, cf. Cresswell 2002), an increasingly tight focus on academic debates also implies a diminishing ability to return academically-rigorous contributions to the situations, processes and struggles being studied.

Self-critically reviewing how the highly empirical and publically engaged tendencies of cycling studies meet the requirement for a doctoral thesis, the two do not entirely sit well together. The following reflection is partially a contribution to the sub-field, but also addresses the thesis requirement that candidates demonstrate the reflexive maturity and the capacity for independent research. In retrospect, a different approach to chapter three could have developed it as a piece of historical and textual research which contributed to disciplinary and theoretical knowledge in its own right (e.g. Thrift 1996, chapter seven). Instead it remained as a means of contextualising the events of later chapters. Given the amount of data collected but subsequently omitted from analysis, developing chapter three alongside the data of any one method could have produced a more straightforward but still theoretically and methodologically innovative contribution to knowledge (cf. Cresswell 2014; Merriman 2014b; Rose 2014).

As a contribution to social and cultural geography, I would argue that the findings demonstrate both the value and the difficulties of a study grounded in practical knowledge of a fieldsite and contemporary debate in campaigning and policy spheres. The study aimed to articulate
knowledges on cycling that are embedded in and utilisable by the institutions or publics drawn upon. Although it did not explicitly review or critique a field of cycling policy or non-academic thought, its pervasion by non-academic knowledges makes it an indirect intervention into these fields. However, the indirect nature of the contribution required by the constraints of a thesis has confused many policymakers and campaigners I have encountered during the study. This is not because the power and resources for public engagement associated with transport and planning (sub-)disciplines make their academic debates more widely accepted as non-esoteric contributions to knowledge. Amongst those I have met, from transport planners working on demand management and social marketing, local politicians doing practical case work, campaigners looking to describe why a well-intended infrastructure is not working, and anyone involved with statutory public consultation, the importance of qualitative data and social or cultural approaches has been easily accepted. It is the absence of social scientists which is more commonly noted.

There have been many suggestions within geography that contemporary disciplinary norms are wilfully over-theoretical and fail to meet an ethical or pragmatic imperative for public engagement and non-academic consequence (cf. Hamnett 2011; Latham 2003a; 2004; Laurier 2001; Massey 2000; Peck 1999; D. Smith et al 2011). I would argue that, truncated though they are, the study's empirical findings begin to show rather than state the importance of plurality, multiplicity and their experience with regards to cycling in cities. Developing this work in formats more amenable to being directly acted upon might contribute to the long fight for social and cultural approaches to be recognised as a legitimate form of knowledge. As such the forms of interdisciplinary organisation and investigation grounded in a catholic use of secondary data that is practiced in cycling studies might inform the discipline's development.

8.5 Final Reflections, Suggestions for Future Research

As a contribution to geographical thought and praxis, the final section suggests avenues for further research based on the questions opened up by the study's findings. This focuses upon a need to reconsider how scale is expressed within practice theory. Particular questions include understanding more initial and less intensive forms of change, along with more indirect effects of carriers and of rerouted flows.
Overall, it is arguable that this study of open-ended (in)stability and trajectory ends at the point of considering scale. It did not investigate how situations might entail a meaningful sense of "different scales" in time and space, or practical step-changes. This is a core theme of geographical study (McDowell 1999). Greater understanding of scale would support more targeted and nuanced analysis of how repair and mediation, along with emergence, cosmogony or encounter, might entail or require different approaches or interventions. Expressed in the terms of urban cycling, this could entail asking whether, when and for how long a transport's growth might be supported through mechanisms addressing different scales of change. For example, whether there is a point at which mediation stops because the previously-minor change is now comprehensive. Furthermore, such scales might be in terms of intensity, pervasiveness or connectedness, not just big and small, short or long term. For example, varyingly pervasive, intensive or long-term attempts to teach new skills, along with assorted lengths and network configurations of cycle infrastructure. Alternatively, comparisons might be made between individually-isolated changes, their citywide repetition, and pockets of intensely concentrated or interconnected webs of infrastructure.

A major part of the findings involved investigating forms of flow and trajectory, attempting to disentangle recurrent fluctuation from lasting change. This involved how practices were always being locally reinvented through recombination with more extensive systems of practice, rather than disseminated in unitary forms (respectively Thrift 1996, p18; Shove and Pantzar 2005, p43-44). It analysed how encounters took place and emerged without presuming a metaphysics of presence, to discover how relatively minor and flippant changes (rather than focused, extensively and singularly planned changes) could build to significant, pervasive and durable effect. However it did this by investigating people who were already weekly cyclists. This does not indicate how the earliest, most minor, least intentional or most indirect beginnings build to greater heights, plateaus, stalls and reversals.

Further research could valuably investigate the precursors or indicators that predate an individual's more frequent cycling, or self-consciously experiencing a greater interest. For example, the study attempted to limit drop-out by excluding individuals who never rode more than once a week for a month. This meant excluding people who may have subsequently increased their cycling frequency. The previous methods would be inappropriate because they would entail a resource

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88 A "mini-Holland" in an "urban village" (cf. GLA 2013).
intensive study of numerous people who neither initially cycled frequently nor subsequently changed. Such a study would be equally resource-intensive, but with relatively fewer analytically-useful episodes. A potential response with valuable theoretical, methodological and empirical implications could be the development of methods utilising mobile computing (possibly including geo-location) to produce "background" forms of participation, and relatively pervasive but long-term and low intensity forms of social and cultural data. Less high tech work might examine how practitioners accrete and discard various elements of kit - from bags, clothing and fashion, to sat-nav, apps and social networking - and how this alters the trajectory of their practices.

Finally, the study's emphasis upon systems was a response to study arguing for the utility of moving past holistic, unitary understandings of cycling, to better recognise its absences and constitutive relations with other elements of practice. Beyond the recruitment criteria entailing that the participants cycle and work in inner London, the participants had few unifying features. The findings described how individuals might be particularly committed to learning and improving their own velomobilised practices, or to helping others, but without being particularly "elite" cyclists. This has numerous analogies to Shove's (2012) scepticism towards assumptions that the dispositions leading people to preserve relic (elements of) practices are the dispositions suited to their subsequent re-popularisation. A next step could be to investigate how significant road infrastructural changes - such as the physically segregated bike tracks being built in London - create shocks and learning experiences for those who already cycle, not just new recruits.

This study set out to ask why people start, and sometimes stop, cycling in London. It suggested that this was a window through which to better understand how people make a life in contemporary cities. The findings on repair indicated that we sometimes ascribe an inappropriate form of intentionality and coherency to peoples' actions. They developed non-essentialising understandings of society, technology and place, furthering academic theory on encounter, emergence and cosmogony. This described how radical forms of mediation and trajectories of change could be initiated by initially minor alterations to materials, meanings and forms of competency. Such changes occurred within systems of relations between distributed elements of practice, using negatively-defined understandings of creative repair. The result indicates how the flows of traffic and distributed elements of practice that constitute cities might be reconfigured to make a better future, and that acquiring more practical knowledge might allow the academy to better support progressive change.

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Bibliography


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Appendices

Appendix A: Video-elicitation Final Schedule

The video-elicitation was primarily structured to facilitate and prompt participants' to respond to the events shown in the video. Therefore, the interview schedule was used more as a checklist of topics to be covered and personalised during the session. The order was dictated by the events occurring on the screen, if possible allowing the participant to suggest the topic, the researcher suggesting topics more forcefully during the latter part of the video. As the rides had been conducted in advance of the interview, it was possible to somewhat-anticipate the flow of the interview, which helped in the process of making academically-relevant spontaneous responses to the participants' conversation.

<table>
<thead>
<tr>
<th>Weaving through traffic</th>
<th>There's a knack to it</th>
<th>Copying others</th>
<th>Appropriate behaviour at an Advanced Stop Line</th>
<th>You/they go through because you/they can</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fun</td>
<td>A sense of flow</td>
<td>Thoughts/ concentrate/unwind/think of work</td>
<td>Habit</td>
<td>Weather</td>
</tr>
<tr>
<td>Bike infrastructure</td>
<td>Differences between main roads, backstreets, off-road</td>
<td>Comparisons to other transports</td>
<td>How do you learn/improve your route</td>
<td>Distance cycled</td>
</tr>
<tr>
<td>The law</td>
<td>The road</td>
<td>Thoughts on different road-users</td>
<td>Predictability</td>
<td></td>
</tr>
<tr>
<td>Belonging</td>
<td>Sense of misanthropy</td>
<td>Camaraderie</td>
<td>Status of cycling in society, at work, amongst friends and family</td>
<td>Clothes and bike</td>
</tr>
<tr>
<td>Safety</td>
<td>Satisfaction when cycling</td>
<td>Enjoyable risk</td>
<td>Injuries</td>
<td>Why do you cycle?</td>
</tr>
</tbody>
</table>
Appendix B: Diary-interview Schedule 1 (Emily)

Personalised schedules were printed in a small type, to fit a single A4 page. They firstly showed a summary of the participant's journeys from their previously submitted diary, presented in the form of a continuous chain of their movements and relevant comments from the diary. This provided an overview of their journeys and a quasi-index for looking up their original diary descriptions, if required. The second half contained questions chosen from a master sheet, personalised to refer to events described in the diary. In all cases the schedule was written the morning or day before the interview, meaning that the very short notes could prompt quite extended personalised spontaneous conversation. The following schedule is an anonymised précis of Emily's first diary-interview.

Journeys done:

**Saturday** 12/11 home to Putney Station (bike, quiet traffic, pleasurable) - Waterloo (train, fast, not sweaty) - Southbank centre (foot) – return to waterloo train to Putney. Food shop (Boyfriend on bike, carrying too much, clarify which shops) - home (bike) - restaurant (with b/f both on foot)

**Sunday**- 40min walk along river, Sunday lunch

**Monday**- home - Putney Station (foot, no bike as raining, heavy chain bad for short trip, proper bike stand) - (allows surprise non-return to Putney station) - Waterloo (train) Office (bus, drizzle, irregular bus!)- Choir (walk-bus-walk) - home ([near choir tube] to Putney bridge, slower than Waterloo train but avoids walk in Putney), no bus as too cold to wait.

Etc...

Clarifications from diary to complete map: What route from Waterloo to work, same by bus, bike, foot?

Which way home on commute?

Walk on same route as cycled to Putney?

Questions in response to diary and map:
How have you been? How typical were these weeks? How did you find the procedure?

Any big notable changes to your cycling since we last met?

What makes it likely that you'll cycle? (commute, for-business, shop, going out, weekends, places)

What factors make it likely that you will not cycle?

You use a lot of different forms of transport – can you explain how you decide which to use? Diary says that you do quite a lot of walking until it gets cold, but now try to make bus more efficient by using apps and walk when you can?

Your journeys involve a lot of transfers.

You often mention being late. How often "late" by bad planning, how often because a hectic work/life?

You don't cycle if you're doing anything important?

Once a week you cycle all the way in, but quite regular train?

How do you decide which mornings to cycle and which ones to get the train?

(Hypothesis: Emily cycles when the right things are in alignment than default?)

What would it take to stop getting a season ticket oyster card?

During our last conversation I asked what you do when cycling, you said that it was me time and a bit of quiet relaxation. What are your motivations for the bus and tube?

If you were cycling to work, do you think that you'd cycle to the after work places, or would you end up leaving the bike at the office?

What is it about weekends which means that you can cycle so much more?

Why did you move to Putney, and how is this different to where you were before?

Cycling around Putney- what types of trips do you cycle?
More cycling, but also more South West at weekends generally?

What is the limit of your cycling, is it a distance/place thing or something else?

You have been cycling for x years, how has your travel changed since you started cycling?

Repeat q, since moving to Putney.

Shopping- what do you walk to, what do you cycle to? Specific shops?

Is there an occasional large shopping trip outside this diary?

(Don't cycle to stuff after work, but do linked errands at weekend)

Different friends nearby? How does cycling/Putney affect your social life, do your Richmond friends cycle, do they cycle in a diff way to co-workers?

Boyfriend cycles, what does he do, what does that mean? He has similar thoughts/experience?

Being visible- on the road- do you dress up for the cycle, to have any specific appearance?

Health- you do quite a bit of sport, but cycling is more, conscious of need- occasional extra walks

You are feeling fitter?

You have bought better kit?

Could you put a heavy chain at work, if it is a pain? But quite happy to leave bike at stations.

Trailer as can't carry too much?

Smartphone cycling apps, like your bus one?

Weather- Bus is warm even with wait, cycle is cold?

Do you find that cycling gives you a special way of knowing the city that other people don't get?
Appendix C: Focus Group Schedule

Introductory script read aloud:

During our previous meetings we have talked in a lot of detail about what you think could be done to improve existing cycling conditions in London. This focus group is to investigate how you think that creating spaces for cycling would improve London, and who is going to benefit from the city becoming more cycle friendly. I have videoed a cycle through an area of Southwark, and into the video I've inserted a number of actual improvements that city planners and architects have suggested or built. We are going to look at these and discuss whether you think they are good ideas, how they are expected to work and whether everyone will find them equally useful or welcome.

There are three key ideas within this- firstly, I am only a moderator, not an interviewer talking to each person in order. I will have some questions, but the key reason that you're here in a group is so that you can talk to each other. If you disagree with what someone else thinks, then tell them, try to make them understand why you disagree. Is it about how they cycle, or something else like gender, age, local knowledge or lifestyle? We don't need to all agree, just make sure that everyone understands where everyone else is coming from. Talk to each other, take the responsibility to ensure that everyone has the time to speak, and don't just talk until I tell you to stop.

The second point: what we're going to be talking about: will these proposed changes create better spaces for cycling. This has two aspects: would the changes benefit cycling and why, but are these appropriate changes to the city? Even though you are all people who cycle, that doesn't mean that you necessarily support the creation of places which only benefit cycling, or all types of cyclist. Do bring in ideas from outside the group and the video- the video shows the areas around Elephant & Castle but this is only a prompt. If your comment is relevant to experiences, events or people that you're more likely to find in New Cross, Clapham or Wandsworth that is exactly what is important.

The final point: Although you're responding to a video of certain places, try to think about how they might affect things which are off-camera. For example, for Elephant & Castle, it's asking whether you're happy to use the roundabout or visit the shopping centre themselves. I'm also wondering how these places interact with what isn't shown: does the roundabout make the entire local area dangerous for cycling? Though the side streets and smaller shops exist nearby, could you live and
travel in this area without ever visiting the roundabout? The video is supposed to give you an idea of the area, not just show you a quiet alternative route to the main road.

So- whilst we're going along particularly look out for-

-What is currently wrong with the streets, both as destinations and as through-roads.

-Do the new designs address this?

-Do these places particularly appeal to some people and disadvantage, ignore or exclude others?

Moderator's reminders and set questions:

Whenever someone says anything interesting, ask them to build on it.

How does that happen? How does that work?

Where are you coming from when you say that?

Is this likely to be felt equally by everyone? Is everyone going to want that? What might other people want? Who would agree with you?

Is there something special about cycling/cyclists in that respect?

Could everyone come here?

Would you want this on the road/corner/local centre where you live?

Questions:

1. [Moderator focus- ensure that the conversation is covering the right issues] Starting at the pub, which used to be quite a busy road, what do you think of this? How do you think that it would affect the area?

-Who uses it? Why?

-Could you do a similar thing in many places, or other businesses? What about the pub on the New Kent Road?
2. Another example of re-prioritising motor traffic is Iliffe Street. The original plan proposed removing motor traffic access on this street, including parking. You can see in the picture that people are standing around and children are playing. What happened is that it got traffic calming and street furniture like benches, but motorists still have full access. What do you think about that? Would this work on roads in further out places like Harrow, Cheam, Streatham and Putney?

3. In contrast to Iliffe Street, an important feature of a lot of housing estates is that they are more inward looking. At Whitworth House the main road was empty of both traffic and parked cars. Inside the estate cars can move through slowly, the balconies look inwards, and there are some spaces for people to congregate. With respect to what we just discussed at Iliffe Street, how would the problems and opportunities of cycling be different?

4. Now moving onto Amelia street, this was lighting the bridge, improving visibility and trying to entice people off the high street to the cafe and the workshops, and a cycle route which links up to a rather specialist cycling workshop at the end of Crampton Street.

-So what do you think about these things being a focus of an area's improvements?

-What would that mean for the high streets? Would these ideas work on High Streets, complement them, or draw people away?

5. Finally, the previous examples have all involved measures which would mainly affect local employees, residents or visitors. In the Elephant & Castle peninsula idea this would involve a large amount of space for through-traffic being removed, in order to make these supposedly safer and vibrant spaces. Who is this going to affect? Is this acceptable? (Is this a space of city-wide importance?)
Appendix D: Diary-interview Schedule 2 (Megan)

The second interview schedule was written with a similar format to schedule one. It directly focused both upon reviewing the year, but used this retrospective atmosphere to review change over time in general. It was significantly shorter than diary-interview one. The section markings were used to break the interview into three equal length parts and themes, which introduced a brief pause every 15-20 minutes.

(Review of journeys omitted, see appendix b for format)

Section One: How has cycling changed for you over the year? [Habit, tacit, sense of self?]

You only cycled twice last week? Can you just briefly remember your week?

So, what is MAMIL baiting?

In terms of what you do on the road, do you think that you've changed the way that you act?

Has your attitude changed? (Still finding it enjoyable, apart from the parking?)

You got knocked off your bike? What?! Where, when, worse than before?

Do you act differently now that you have more skill, confidence and experience?

Both how you act when alone and when interacting with other road-users?

Are you cycling for the same reasons that you were cycling for in November? Or

Is cycling still the same “project” (Megan’s words) for you that it was in November?

You joined the London Cycling Campaign? Lambeth ride around the borough, and Southwark Cyclists Woolwich ferry?

You found the study “useful”?

Section Two: Has where you go by bike changed? How have you managed these changes?

[Paraphrase and pick out quotes from previous interview, juxtapose with excerpts from new diary]
You are cycling more, people are cycling more- but not a "major event full of special clothes and equipment"? (You wear a helmet since your first accident?)

Parking- what could be done to improve parking? Is it safety or hassle?

Want to learn maintenance classes? "It's about time I learned to change a tyre, change brakepads etc."

"Until people just get on a bike to get from A-B London won't really be a true cycling city. Barclays bikes have been a great introduction though" Discuss...

Do you have any habits or activities that you probably only have because you cycle?

It's the summer! You mentioned that once the weather improved you might like to do a bit more cycling. Has that happened? (Are you cycling leisure more, but commuting and little trips less, e.g. shops, gym, coffee?)

Amongst your friends, family and colleagues, do you sense that cycling has changed since the Autumn?

Amongst "cyclists"? Towards cyclists from "others"- on the road? In society?

[re: acceptability, not "just" "fashion"]

[Has anything changed this summer/year/in the media/with the Olympics/with the Tour De France?]

You seemed to have mixed feelings about whether or not cyclists had anything in common because of cycling. What do you think now? What do cyclists have in common, if anything? Does it say something about someone's personality?

Everyone can act like an idiot, but "some cyclists make themselves out to be more worthy somehow"?

Section Three: Do you feel that London has changed for cycling since last Autumn? (You seem to take a lot of notice of your surroundings)
Where do you try to go by bike, where do you try to avoid by bike? More about places which you associate with certain notable feelings when you go by bike, rather than a list of places that you physically visit.

In this vein, one of the most important features of cycling, after safety in traffic, which we have already discussed, is the possibility of getting lost and navigating the city. What do you think about this?

You really want cycle sat-nav - just say again why?

Just for example, you've been doing a lot more cycling with the LCC, how has this helped and why isn't it enough?

You mentioned people trying to avoid Council Estates when cycling. Do you?

Does cycling give you an understanding of London that other people don't get?