Geographies of urban cycling:

Investigating the relations between body, technology and space



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Abstract

Recent geographical studies have examined the body as a space of research and its relations with technology. Conceptualising the hybrid assemblages between bodies and technology has been facilitated by relatively novel theories and methods in human geography, from actor network and non-representational theories, to emotional and affective geographies. Studies of kinaesthetic embodiment have noted the entanglement of agency within such hybrids, yet often the resultant experiential geographies have been overlooked. In mobility practice this is manifested in the content of the line between A → B, where movement and mobility have come to mean far more than just getting from A to B. This dissertation examines such experiential spaces produced by the kinaesthetic activity of fixed wheel riding, drawing together a range of discourses in an empirical context, and examining hybridity between body and bike in the production of embodied rhythms and kinaesthetic sensations.

The investigation is driven by three central research questions:

(i) Why do people ride 'fixies' and what kind of experiential geographies are produced by such kinaesthetic assemblages?
(ii) How can the kinaesthetic activity of fixed wheel riding be researched and accounted for in written text, making methodological sense of these spaces?
(iii) What might investigating the experiential spaces of the fixie tell us about the contemporary spaces of urban cycling more generally?

Using Oxford as a site of study, the manufacturer Fellia producing 'CREATE' fixies is employed as a case study of the commodification of technology, affective experience and identity. Prior to data collection, the origins of fixed wheel bikes and their growth from a marginal sub-culture to a widespread urban fashion are accounted for. Acknowledging the limitations of conventional research methodologies, 'ride-along' interviews and video ethnography are used to explore the interplay of experimental and experiential spaces framed by hybridity. The value of micro-geographies in visual, verbal and textual data is noted, through the nuanced role of participatory methods. Running throughout this discussion is the theme of mobility as a relational assemblage, animated by the fragile entanglements of simplicity and complexity. Circularity is also central, as linear modes of urban transport are critiqued in view of sustainable forms across three perpetual dialogues, engaging kinaesthetic activity, experiential complexity and the aestheticisation of functionality. Ultimately, 'fixies' are deemed distinctive, inventive and intrinsically relational, engaging with both people and the environment.

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Chapter 1. Introduction

> *'I still feel that variable gears are only for people over forty-five. Isn't it better to triumph by the strength of your muscles than by the artifice of a derailleur? We are getting soft... As for me, give me a fixed gear!' (Henri Desgrange, L'équipe article of 1902)*

Our understanding of modernity is often framed in terms of increasing degrees of technological complexity. Geography has always been fascinated by the implications of such complexity for our experience of space, time and place. Much of human geographical research is concerned with theorizing and investigating this complexity. Much less attention has been paid to the counter tendencies within modernity that valorise simplicity, particularly with respect to geographies of everyday life. How, then, can one make sense of counter movements that challenge the complexity of contemporary life, by reaffirming the simplistic. Furthermore, what kind of experiential space-times do they produce?

This dissertation investigates the space-times of technological simplicity by focusing on the experience of particular kinds of contemporary cycling. Cycling is something which many of us have a direct experience of, for work, leisure or competition. I am no different; in 2009 I began using a 'fixie'. Commuting daily from the library to college on my 'fixie' seemed innocent to begin with; how did the ephemeral emotions and kinaesthetic elements of riding have anything to do with my studies? As I read more into the studies of contemporary human geography, the connection became transparent. From actor network theory (Latour 2005), emotional and affective geographies (Spinney 2006), non-representational theories (Thrift 2008) and studies of kinaesthetic embodiment (McCormack 1999), the hybrid assemblages formed between bodies and technology, within which both forms of agency are entangled, is being conceptualised.

Clearly the fixed wheel bike, or colloquially 'fixie', synthesises many of these themes. Defined as a single speed bicycle, without the ability to freewheel, where the pedals always move in motion when the bicycle is moving, it is the pinnacle of mechanical efficiency, with a simple, pure style. The subtle differences between a fixie, as illustrated on the title page with merely 'one bike, one gear' (Redbubble, 2010), and a traditional bicycle, engages interest at numerous levels, from hybridity to riding style and identity. For clarification

purposes, the key external differences between geared, freewheel bicycles and fixed wheel bikes are noted (Fig.2).

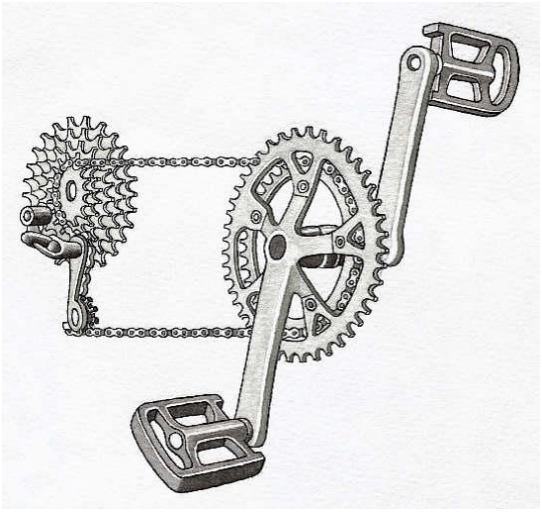
Freewheel, geared bicycle	**Fixed wheel bicycle**
 http://www.brothersbakery.com/ Images/Road_Bicycle_700c_.jpg	 http://www.rscycle.com/Tommaso-#Augusta-Down-Dirty-Track-Bike
1900s Chain Driver invented	1880s Track bikes (‘safety bikes’)
Multiple cogs with ratchet mechanism	Sprocket screwed directly onto hub
Gear mechanisms	Single gear
Ability to freewheel and coast	Constant motion in pedals when rear wheel moving
Front and rear brake levers	Optional front only brake lever
Complex mechanics and multiple cables	Simple mechanics and absence of cables
Technological complexity	**Technological simplicity**
 http://www.dkimages.com/discover/ previews/941/734349.JPG	 http://theinquisition.eu/wordpress/wp-content/uploads/2008/12/fixie_main.jpg

Fig.2 – Technological differences between traditional bicycles and ‘fixies’

The fixie provides a fresh and meaningful way of engaging with mobility, synthesising highlighting the relations between body, technology and space. Their emergence offers an opportunity to examine such relationships in urban spaces, with experiential and embodied qualities which have often been overlooked in studies of mobility practices. Non-representational theories (e.g. Thrift 2008; Lorimer 2005) are invaluable in exploring such affective experiences and the limitations of language. Drawing upon these theories, this dissertation seeks to challenge the hegemony of verbal methodologies, investigating relatively novel methods with performative potential, such as video ethnography and participation.

1.1 Key research questions

The key objective of this research is to examine the relationship between body, technology and space, articulated through the practice of riding a fixie. More specifically, three questions guide the research.

1. Why do people ride 'fixies' and what kind of experiential geographies are produced by such kinaesthetic assemblages?
2. How can the kinaesthetic activity of fixed wheel riding be researched and accounted for in written text, making methodological sense of these spaces?
3. What might investigating the experiential spaces of the fixie tell us about the contemporary spaces of urban cycling more generally?

Chapter 2. Literature review

> *The study of things moving will at least take us a step along the right road, for, as compared with static distribution, movement implies three essentials – origin, destination, and an effective will to move. Movement does not take place in a vacuum, it is effected upon the surface of the earth and it is very largely through movement that Mankind becomes conscious of its geography.*
>
> *(Crowe, 1938:14)*

Recent geographical enquiry has expressed a renewed interest in mobility. This review seeks to provide a systematic exploration of the key themes surrounding mobile practices, in a wider context and focusing on bicycling, prior to examining fixed wheel bikes.

2.1 Geographies of mobility

Whilst the mobilities literature is impressive (Cresswell, 2006; Urry, 2007; Adey, 2010), the recent revolution by the New Mobilities Paradigm (Sheller and Urry, 2006) demands a contemporary look at how, why and where people move (Knowles, 2009). This examines not only mobility, as the 'act of moving between locations' (Cresswell, 2006:2), but also 'motility', the potential for movement (Kaufmann, 2002). At the heart of geographies of mobility is the 'basic signifier of mobility – getting from point A to point B' (Cresswell, 2006:2).

A ----------> B

Yet social enquiry has now accepted that mobility is much more than just getting from A to B. Our mobile practices are constructed by identities (Cresswell, 1999), reproduced through power (Bourdieu, 1977) and enacted through embodied claims to space (Spinney, 2006). Mobile embodiments encompass a variety of transport modes, uses of spaces and sensory engagements, which are constructed, conferred and contested (Aldred, 2010).

Within this context, our experience of mobility has developed into an embodied relationship with mobility. Transport has become more than a mode of mobility from A to B, rather a complex co-constitutive association between multiple affective, embodied and socio-technical practices (Sheller and Urry, 2006). Embodiment here refers to the performance of mobility, engaging sensual geographies which are felt and experienced prior to being rendered meaningful, through processes of reflective interpretation and linguistic explanation (Rogers, 2010). Understanding such embodied characteristics requires sensitivity to the nature of mobility, encompassing various spatial practices and performances (Adey, 2010). Mobility as an 'entanglement of movement, meaning and practice' (Cresswell, 2008:2) foregrounds the notion of 'constellations of mobility' (ibid.), signifying three key parts (Fig.3).

Mobility (adapted from Cresswell, 2008:5)	
Movement	Fact of physical movement – getting from A to B
Meaning	Discourses, narratives and stories about the fact of movement
Practice	The experienced and embodied practice of movement

Fig.3 – Cresswell on mobility

Adopting a holistic view of all three facets sets mobilities studies apart from the ongoing research into geographies of movement, particularly transport geography (Cresswell, 2008). In this sense, the geographies of mobility pay attention to process and circulation (Crowe, 1938), since 'mobility is practiced, and practice is often conflated with mobility' (Cresswell and Merriman, 2008:5). 'Constellations of mobility' address such interrelationships, firstly connecting 'movement with narratives and practices' (Cresswell, 2008:28) as well as viewing movements within a 'space of relationalities' (Adey, 2010:122). Far from a static, isolated understanding of mobility, these insights underpin mobility as a fragile entanglement (Cresswell, 2008), providing the framework for this investigation with regard to assemblages, relationalities and space-times (Adey, 2010).

2.2 Bodily experiences of mobility

'The 'immaterial' embodied and sensory aspects of mobility' (Spinney, 2009:817) have long been neglected. However, human geography has recently paid increasing attention to the study of affect and emotions, particularly the 'experienced and embodied practice of movement' (Cresswell, 2008:5). Affect is the 'interstitial' (Anderson, 2006) 'force of intensive relationality' (Latham and McCormack, 2004:706) by which humans experience their entanglement with materials. This sensual ontology is detected in that 'small space of time' (Thrift, 2004:67) before bodily experience becomes meaningful and personal, informed by embodied encounters and understood through the 'sociolinguistic fixing' of consciousness (Massumi, 2002:28). As an immaterial, relational space, affectivity is 'felt, but not as a specific sensation, nor as a specific feeling' (Rubidge, 2006), rather it 'mediates between the individual and the preindividual, the personal and the impersonal' (Sheller, 2006:170).

Understandings of affect have gained attention in the context of mobility alongside networks and flows (e.g. McCormack, 1999; Massumi, 2002; Hubbard, 2005; Spinney, 2006; 2009). Yet few studies have incorporated affectivity with a kinaesthetic activity creating embodied and experiential spaces, given the problem of how to understand, analyse and illustrate assemblages without foregrounding human agency. Embodied performances engage sensual geographies which are felt and experienced prior to reflective interpretation, which, as this study notes, places the emphasis on the *emergence* of experiential geographies rather than their ontological *purity* (McCormack, 1999). Such practices experienced by embodied actors are technically arbitrated, evident only in the ephemeral space of affect (Sheller, 2006). Appreciating the entangled assemblage of affectivity necessitates an awareness of the differentiated agencies enacted in mobility. This study notes the value of a hybridised understanding between body and technology, here articulated through rider and bicycle. The interaction with non-human elements dispels twofold concepts of 'body and space or body and machine' (Sheller, 2006:109), favouring rather a hybrid assemblage where affectivity is interpolated in the complex of relations between actants, both human and non-human (Whatmore, 2002). Hence, embodied knowledge engages interplay between experimental forms of understanding, which are cognitively mediated and termed 'sociolinguistic fixings' (McCormack, 2003), and

experiential or affective aspects, 'carved out the half-second delay' between bodily sensation and cognitive interpretation (Thrift, 2004:67).

2.3 Technological hybrids

In the context of geographies of mobility and bodily experience, technology has driven change over the past two centuries. Technology shapes our experience of mobile space-times (Adey, 2010), founded on its centrality in Western culture and the increasing banality of technical embodiment (Sheller, 2006). Integrating our understanding of body-technology relationships provides scope for investigating hybrid assemblages, which refers to a 'fluid set of processes that are both generated and contested through complex relations of power' (Mikula, 2008:90). In this sense, the coming together of body and technology is a modern day example of 'body-object articulation' (Foucault, 1977). Hence the influence of mobile technologies, from cars to planes, trains and bikes, configures embodied performances. Furthermore, kinaesthetic activities, such as bicycling, generate embodied and experiential spaces with multiple kinaesthetic actors, including a bicycle's technology with 'numerous components, the shape and function of which consist of circles' (Perry, 1995:3). Circularity, here, becomes central to the hybrid assemblage, as the body enacts circular pedalling motions whilst the bicycle itself operates through circular components, including the cogs and wheels. The ethereal space-times produced by the entangled assemblage of bodies and technology constitute an affective and *emergent* ontology of being with the world, energising such relationalities.

Hybrid assemblages of bodies and technology underpin our global epoch of movement, characterised by transport and communication, both real and virtual (Urry, 2007). In this sense, movement defines us, as truly as 'transportation is civilisation' (Ezra Pound 1917 in Urry, 2007:17). Yet the notion of meta-theories encompassing all aspects of such mobility overlooks the nuanced role of individual human agency. In particular, body-technology hybrids generate opportunities for inventiveness. This capacity for invention is demonstrated by recent approaches to the cityscape, such as 'parkour running' (Adey, 2010), where urban space is viewed as a spatial problem to solve. The active production of space underpins many such (post)modern activities, which seek to 'manipulate and subvert ideological inscriptions' (Adey, 2010:125), by challenging the complexity of modern society.

These counter tendencies, often framed within the context of quotidian life, both engage with technology whilst also emphasising the simplistic, providing new, intriguing space-times.

2.4 Mobile practices

The context of mobility studies rest on a variety of spatial practices and performances, exploring mobile bodies, technologies and experiences. The technological implications of road and rail travel are well documented (e.g. Urry, 2004), alongside a growing literature on air travel (e.g. Adey et al., 2007), seen as an 'enabler of globalization' within a 'space of flows' (ibid.). Equally, corporeal mobility has been investigated, such as the seeming fascination of numerous cultural geographers with dance (e.g. McCormack, 2008), arguing for a politics of the body within Western cultural thought. They note the multiple ways in which bodies move; 'spatio-temporally, kinaesthetically, affectively, collectively, politically and imaginatively' (McCormack, 2008:1) and the potential to generate other spaces, reinforcing the agency of hybrid assemblages, be it a body-object articulation or body-body hybrid.

Within the realm of cycling as a mobile practice, the void between academic viewpoints and policy perspectives is marked. Whilst many have researched why and how people move on bikes (e.g. Rietveld and Daniel, 2004), few have engaged with the embodied, sensory aspects of this mobile practice (Spinney, 2009). The recent cycling renaissance has gathered momentum from significant investments, most notably Mayor Boris Johnson's £111 million in London this year (TfL, 2010), constructing twelve blue 'cycle superhighways' and providing 'Boris Bikes' for public hire. Transport literature has responded to the growing presence of bicycles in towns and cities, exploring the virtues of cycling (e.g. Peters, 2006; Böhm et al., 2006) and unique position of the cyclist in traffic (Fig.4).

> 'The cyclist is driver, equilibrist and power-plant all at the same time...muscle power, for example, functions as a natural speed limiter, while at the same time a certain speed is indispensable in giving the bike stability. Also, on the one hand a bicycle is vulnerable, and on the other hand manoeuvrable and very flexible in traffic. According to the Highway Code bicycles are classed with slow-moving traffic, but in towns they are among the quickest modes of transport
>
> (Ploeger, 1993:13)

Fig.4 – The multiple roles of the cyclist

These understandings of urban mobility often emphasise the potential for sustainable, active modes of transport in the city, reminding us that the 'first lesson we have to learn is that the city exists, not for the facile passage of motorcars, but for the care and culture of men' (Mumford, 1968:107). Here, the tension between cars and bicycles is stark; whilst the 'unfettered auto city dream soon becomes a nightmare of traffic' (Newman and Kenworthy, 1999:59), such as the 11mph average motoring speed in London (Böhm et al. 2006), the 'rationale for cycling in the city is speed and efficiency, as well as subsequent health and environmental benefits' (Böhm et al., 2006:208). The complexities of urban transport are noted, emulating Urry's understanding of automobility in a double sense, 'both of the humanist self as in the notion of autobiography, and of objects or machines that possess a capacity for movement, as in automatic and automaton' (Urry, 2004:26). Yet perhaps true auto-mobility engages an embodied communion between rider and machine, energised by the reciprocal connection of such a hybrid assemblage.

2.5 The 'fixie'

A fixed wheel bicycle encapsulates this exact theme, emphasising the hybrid assemblage within complex multi-scalar, multi-actant networks (Adey, 2010). The 'fixie' is a single speed bicycle without the ability to freewheel, where the pedals always move in motion when the bicycle is moving, as defined in Figure 5.

> *"A fixed gear bicycle (fixer, fixie, fix) is a bicycle that does not have a freewheel mechanism. A freewheel is a ratcheting device that allows the rear wheel to roll forward without moving the cranks. Without this component, if the wheel is moving, the pedals are moving, and vice versa. You cannot coast, and you cannot rotate the pedals without rotating the wheel in the same direction. The pedals are literally chained to the wheel. They usually only have one gear."*
>
> (Everything, 2005)

Fig.5 – The 'fixie' definition

Fixed gear bikes originated in the 1880s as track bikes. Used solely in velodromes, these bikes were designed for speed – lightweight with fixed hubs and no brakes – the principle being to incessantly move faster without stopping. The invention of a chain driver in the 1900s permitted bicycles to freewheel, leading to the development of geared bikes and specialisations in bicycles genres. Yet throughout this time, messengers continued to use fixies for mobility in gridlocked cities, given their simplicity and low maintenance. Notable marginal subcultures existed since the 1950s in New York, San Francisco, Boston and Chicago. Yet today, the media report that 'the fixed has gone way beyond that [courier] subculture now' (Seaton, 2006), from localised marginal groups in North America to a global presence in numerous Western cities, including London, Paris and Barcelona.

From a policy perspective, their entrance into the urban scene has got more 'bums on saddles' (Spinney, 2010 pers.comm.), yet the unique nature of riding fixed in the context of the movement, meaning and practice of mobility has been left relatively dormant (except studies by Spinney 2009; Fincham 2006). The fixie provides an excellent platform for synthesising multiple discourses, given the deterministic nature of riding, whereby effort expended correlates directly to speed attained, ensuring the immediacy of the hybrid. Given the increasing discursive distance between bodies and technology, determinism has faded out as a school of thought. Yet the 'causal relationships of an assemblage of phenomena that are mutually co-ordinated' (Holt-Jensen, 2009:66) secure geography's unique place in academia, as a spatial-chorological discipline examining time-space activities. At the level of the fixie, this causal relationship suggests a hybridity between body and bike, indicating the kinaesthetic nature of this activity and creation of embodied and experiential spaces.

Moreover, the technological simplicity of the fixie – where the sprocket screws directly onto the hub limiting the bicycle to a single gear – is accentuated through the aesthetic purity of the bike; straight lines and edges portraying a minimalistic style.

Whilst research has investigated the range of representations and meanings circulating around such cultures (Mackenzie, 2003; Urry, 2004), the emotional and affective realms of geographical study (e.g. McCormack, 2003; Thrift, 2004) have often distanced the body from technology. By using the body-bike hybrid as the centrepiece of this investigation, distinctions between the natural and social are seen as crude (Thrift, 1996), advocating rather an assemblage of actants (Whatmore, 2002). Indeed, research into such a transhuman assemblage contributes to recent studies, reconceptualising the body-technology relationship, reducing the discursive distance between the two, and addressing their experiential and embodied facets (Sheller, 2006).

Few have integrated social theory, mobilities and an understanding of technology and innovation to promote 'travelling as a journey that is a goal in itself' (Peters, 2006:5). The fixie addresses the often forgotten subject of the experiential geographies of journeying, concurring with McNeill's argument that feeling 'are inseparable from their gestural and muscular expression' (1995:152). This provides an opening to bridge the gap between policy and the academic literature of hybrid geographies. In particular, the fragile entanglement of movement, meaning and practice (Cresswell, 2008) is reflected in the convolutions of technology, identity and experience with reference to the fixie. The commodification of these three aspects, since the release of the Specialized Langstar in 2006, the first non-track bike fixie to be sold in shops, underpins such a constellation of mobility (Fig.6).

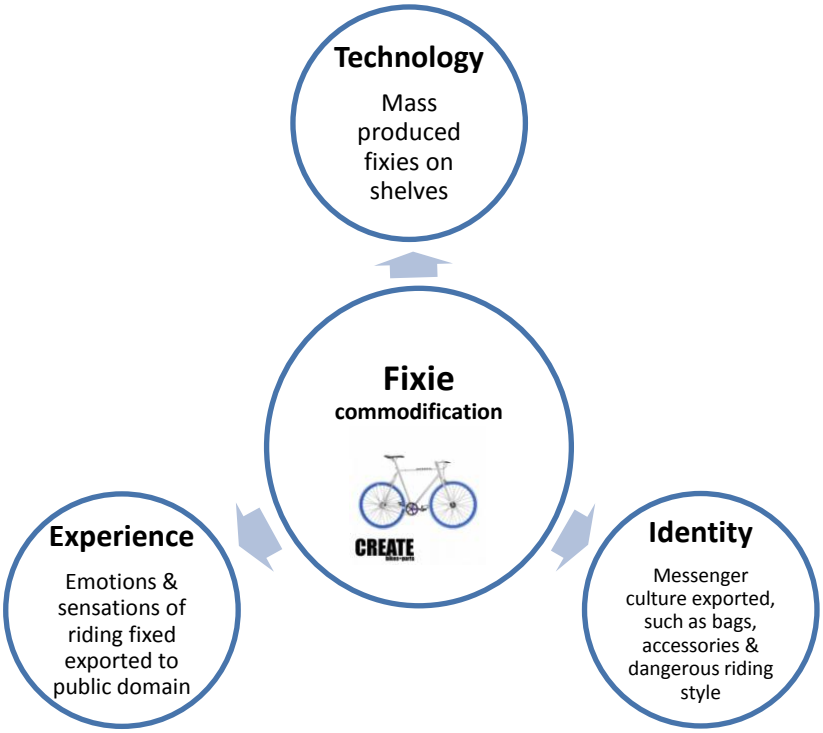


Fig.6 – Commodification of the fixie

With the intention of continuous movement, fixies demonstrate the 'devolution' of technology reconfiguring the meanings associated with it (Spinney, 2009). The representations of aesthetic style and purity of experience emphasise the fixie as an actant, initially within the network of messengering but now bound up in urban culture. This perpetual evolution and becoming frames the fixies encounter with urban spaces. From their emergence to active engineering and experience, the evolution of fixed wheel bikes reflects a style of mobility born out of the deviant courier cultures of New York. A degree of imitation (Thrift, 2004) has trickled down through the chains and networks, although their original identity may have been 'lost in translation', as most messengers are today accounted for as riding geared bikes (Kidder, 2005). Nonetheless, research has on the whole ignored the consequences of this widespread trend, even if media has accounted for it as 'Fixamotosis: fixies are a plague' (The search MTB, 2008). Given their recent ascent into mainstream urban cycling culture, much of the literature surrounding this topic is already outmoded, necessitating the use of up-to-date media reports, blogs and manufacturers.

At the conceptual level, the problem of investigating affective hybrid assemblages provides an opportunity to pioneer relatively novel methodologies (Brown, 2007; Spinney, 2009), notably video ethnography and participation, given their spatial sensitivity. The aim of this investigation is to analyse 'fixies' in a set spatial location using a case study method, facilitating a nuanced account of their popularity, the experience of riding fixed and relations with urban cycling more generally. Whilst representations are the primary means by which experiential geographies are communicated across time and space, this dissertation will pay close attention to both their role and the limitations of language in foregrounding affective experience.

'Non-representational theory' (Thrift, 1996; 2008) may be of some use in exploring and understanding such kinaesthetic geographies, demanding a new emphasis for geographical enquiry, away from the de-constructing of representations, towards the presentation of actions; from study to practice, past to present, and universal to particular. Equally, units of analyses are employed throughout this examination, particularly rhythm. Cresswell emphasises the role of motive force, speed, rhythm, route, experience and friction in mobile practices (2008), building on Lefebvre's 'rhythmanalysis' (2004). This dissertation adheres to such an understanding, employing these notions to investigate the rhythms of riding a fixie for the individual and wider cycling culture.

Figure 7 notes the key themes of the literature drawn on so far, suggesting potential avenues for further enquiry, which frame the aims of this dissertation.

Literature	**Research aims**
Affective and embodied geographies	Experiential geographies
NRT and active research	Video ethnography and participation
Actor Network Theory	Hybridity of body and bike
New Mobilities Paradigm	Consequences of fixies on urban cycling

Fig.7 – Gaps in the literature

Chapter 3. Research Methodology

'There is more in the action than meets the eye'
(Evans-Pritchard, 1956:231)

The recent focus of geography on mobility and movement challenges traditional methods practiced by human geographers. This investigation into the kinaesthetic activity of riding fixed generates experiential spaces created through the entanglement of affective hybrid assemblages. The spatial expression of riding fixed demands methods with spatial sensitivity, in order to analyse and examine its effects on geographical circulation and mobility. For this reason, a mixed method approach is adopted, reflecting the resurgence of space in contemporary research (Thrift, 2004). A dynamic understanding of a dynamic concept requires data with quantitative roots and qualitative layers, acting in synergy and co-operation. This approach is based on numerous contemporary studies of kinaesthetic practice (Spinney, 2006; 2009; McCormack, 1999; 2003), emotional and affective geographies (Katz, 2003; Kindon, 2003), and actor-network theory (Latour, 2005; Law and Mol, 2007), reiterating the interplay between the experiential and experimental in embodied experiences.

Employing Whatmore's model of 'co-fabrication' (2003:90), the research process is informed by how 'life takes shape and gains expression in shared experiences, everyday routines, fleeting encounters, embodied movements, precognitive triggers, practical skills, affective intensities, enduring urges, unexceptional interactions and sensuous dispositions' (Lorimer, 2005:84). A systematic research design hopes to stay true to the respondents and the complexity and contingency of the complex phenomena under study. The concurrent nature of the methods and analysis underlines the iterative character of this research, employing video ethnography, interviews, online surveys and content analysis for rigour and validity.

Furthermore, the use of a case study approach (Yin, 2003), in both geographic and cultural settings, gives a structure and framework to the research. A linear yet concomitant process is used (Whatmore, 2003), ensuring dialogue between theory and research throughout, with the expectation that 'creative insight often arises from juxtaposition of

contradictory or paradoxical evidence' (Eisenhardt, 1989:546). The site of study is Oxford in Oxfordshire, England – selected for its existent cycling culture which sees 22,000 cyclists enter and leave the city per day (Oxford Council, 2010). The diversity and performance of cycling facilitates an in-depth study of the fixie subculture, observing the vibrancy of urban fashion at the encounter of local markets with global forces. Whilst the national average of commuting by bike is 3%, in Oxford 17% of people employ this mode, aiding access to fixie riders, which are particularly prevalent in the student culture, of which 30,000 study in the historic city (ibid). Perhaps more mundanely, yet of equal significance, is the presence of 3,000 bicycle parking spaces in Oxford, aiding access to bikes in the research process.

A cultural case study is also employed at the manufacturer level, prescribing selection criteria for fixie respondents. Given the urban dwelling of the fixie culture, Oxford is in tune with the London scene, aided by its geographical proximity. The overspill of influences and styles echoes the 'tunnel effects' of 'hub and spoke' infrastructural networks (Adey, 2010:98), adding a further dimension to the role of scale in geographical analysis, with local-global interactions. The manufacturer Fellia, building Create fixies, is selected; a 'London based bicycle company which work competitively, creatively and on an international level' (CREATE, 2010). From technological space to bodily space, the presence of Create fixies in Oxford provides a case study linkage between their production and consumption. This case study provides manageable scope for this investigation as well as 'enough information about a particular person, social setting, event, or group to permit the researcher to effectively understand how the subject operates and functions' (Berg, 2007:283). Two pilot studies were conducted prior to data collection, testing and validating the methods below.

3.1 Ride-along method

Recent studies of kinaesthetic assemblages have taken note of the experiential dimensions of practiced and performed activities. Scholarship has moved the 'emphasis from representation and interpretation to practice and mobility' (Hubbard et al., 2004:348), acknowledging that the 'body, in this sense, [has] to become much more physically present' (Parr, 1998:31-32). The practice of riding fixed reinforces the sense that 'words expressing feelings, emotions, sentiments or certain mental and spiritual states will but touch the

fringe of the inner responses which the shapes and rhythms of bodily action are capable of evoking' (Laban, 1960:62). The intense embodied facets to riding fixed demand a corporeal presence, whereby a ride-along method serves as one of many 'experimental practices that amplify other sensory, bodily and affective registers' (Whatmore, 2006:607).

The very nature of riding fixed is kinaesthetic at heart, from the active experiences of speed and sensations to the corporeal realities of balance, anticipation and participation. By accompanying fixie riders on a ride, their realm of experience, nuances of a habitual activity and micro-geographies of movement are best engaged (Jones, 2010 pers.comm.). Observations of style, speed, riding position, mentality and attitude towards safety, laws and pedestrians framed the 10 minute 'ride-along' (see appendices for attached DVD). As a researcher, analysing this enmeshed activity demanded a strong theoretical position, provided by experiential ethnography and individual subjectivity (Spinney, 2009). Csordas asked 'whether it is sufficient to attend to the body or whether one must in addition attend with the body, now understood as a tool for research' (1999:149). In response, the 'ride-along' method (Spinney, 2006) has become a tool in examinations of geographies of mobility, employed in this dissertation to engage with experience, affectivity and performativity.

The marrying of practice with theory reinforces the iterative nature of this research, employing the 'different voices of people to inform theory and uses their knowledge to transform practice' (Shurmer-Smith, 2002:139) through an abductive rather than inductive or deductive process (Law and Mol, 2007). Using Create riders in Oxford as a case study, the investigator's 'deep familiarity' (Lofland, 1996:44) with the subject area promoted the entanglement of the subjectivities of the researched and researcher, forming a space of betweeness (Katz, 1994) or 'interworld' (Crossley, 1996:3). The danger of this method for the researcher within the subculture of fixie riders lay in the balance between going native (Thornton, 1998), and reducing the sense of otherness (Said, 1979), also known in 'methods' research as the insider-outsider complex, whilst not over-identifying or being uncritical, rather remaining 'reflexive and critical' (Coffey, 1999:71).

Furthermore, the researcher remained attentive to the 'Hawthorne effect' (Roethlisberger and Dickson, 1939), since 'when subjects know they are subjects in a

research study, they will alter their usual behaviour' (Berg, 2007:187), which is particularly likely with riding style. Nonetheless, the participation of the 'organism, sensibility, and incarnate intelligence' (Wacquant, 2004:viii) of the Create riders supports the non-probability sampling method of a case study approach (Yin, 2003), with continuity between production and consumption of Create fixies not only mirroring continuity in mobilities, but also a sense of 'following-the-thing' (Cook, 2004 in Adey, 2010:53) as a methodological practice. If indeed fixity is illusion and mobility truth (Adey 2010), the ride-along method adheres to the idea that 'every space is in constant motion' (Thrift, 2006:140), through the lens of participant observation as 'both taking part and observing' (Shurmer-Smith, 2002:140).

3.2 Video ethnography

Exploring the question of why people ride fixies and the nature of the experiential geographies produced by this kinaesthetic assemblage demands both observation of and involvement in the practice. The conundrum of representation is faced, as 'how does one give a word to a wordless movement without stifling the life of that movement?' (McCormack, 2002:470). The participatory use of video in a ride-along produces rich data with regard to the geographical experience of space and urban mobility, particularly in the context of kinaesthetic embodiment. Without the use of video ethnography, the richness of data to be analysed would be reduced to the researcher's memory, rather than promoting a mixed method approach of 'co-fabrication' (Whatmore, 2003:90) by coding the non-verbal experiences of video with interview responses.

Just as Wacquant noted the challenge of portraying a 'practice that is so intensely corporeal, a culture that is thoroughly kinetic, a universe in which the most essential is transmitted, acquired, and deployed beneath language and consciousness' (2004:xi), this research reflects popular culture which lives in the 'age of the screen' (Lorimer, 2010:239), entangled in the production, circulation and consumption of moving imagery (Thrift, 2008). Videos of riding fixed are prevalent on film websites, such as YouTube, which visually demonstrate a subversive approach to space (Cresswell, 1996). Hence, the analysis of complex spatial episodes is facilitated by the meanings elicited in freeze framing ride-along videos, exploring the value of the sensory, experiential and technological facets to this

practice (Brown, 2007; Mausner, 2008). The richness of such data indicated to the researcher the point of data saturation (Bowen, 2008), deeming five Create riders to be sufficient for both a ride-along and an in-depth interview.

Despite the financial limitations of this research, a Gorilla tripod was purchased and used to attach a video camera to the handlebars of the researcher's fixie (Fig.8).

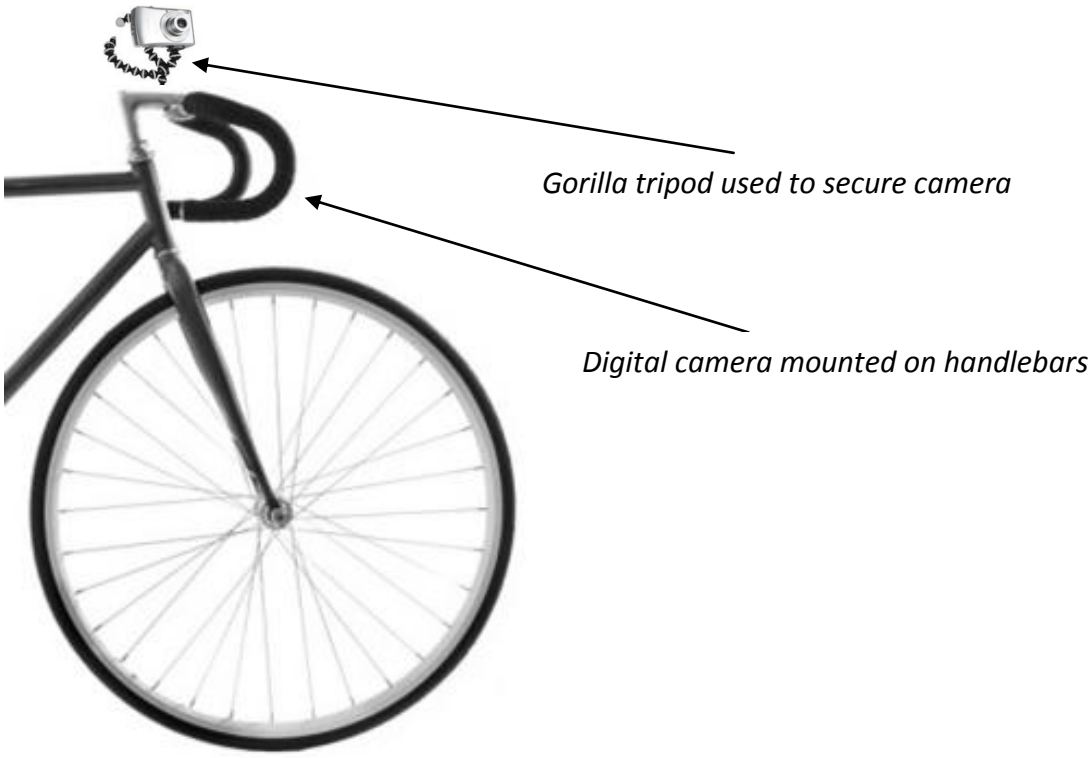


Fig.8 – Handlebar mounted camera

Whilst a seemingly unusual choice as a form of vision, this view is employed in many cycling cultures, whereby video can 'represent and communicate particular aspects of their practices' (Spinney, 2009:828). This resonates with the 'new mobilities paradigm', emphasising the role of mobile methods in the 'recentring of the corporeal body as an affective vehicle through which we sense place and movement, and construct emotional geographies' (Sheller and Urry, 2006:216). The participation in 'patterns of movement while conducting ethnographic research' (Hein et al., 2008:1270), is central to this use of video ethnography; a mobile technology 'retaining and evoking some of the context and detail of the practices under scrutiny' (Brown and Spinney, 2010:136).

Indeed, the fixity of photography and written text are overcome in the ability of video to evoke movement and fluidity, even with freeze frames employed in analysis, following playback with participants to allow the recounting or further exploration of practices. Ultimately, with a practice as highly mobile and physically demanding as riding fixed, video representations of the experiences 'allow richer and more nuanced accounts of the mobile, embodied practices of participants than would otherwise be possible' (Brown and Spinney, 2010:149).

3.3 Interviews

The use of in-depth interviews with the five Create riders provided another layer of qualitative depth to complement the visual data obtained. The entwining of video and language reflects the cultural context of this investigation (Fig.9).

> 'transient and momentary entanglements of bodies, technologies, senses, feelings, expressions and motions with particular places that constitute the performance of cycling practices often preclude the researcher gaining 'access' to, and the participant's articulation of, these times and spaces using discursive, observational or auto-ethnographic techniques alone' (Brown and Spinney, 2010:149).

Fig.9 – Key methods to use in cycling practices

Hence, as well as video ethnography employed as part of a ride-along method, an in-depth interview was conducted, supporting the need for various methodologies to reflect the diverse corporeal economies of riding fixed. The setup is noted (Fig.10) and accounted for in the appendices.

Structure	**Timings (approx.)**
Ride-along with video	15 minutes
Questionnaire	5 minutes
In-depth interview	30 – 40 minutes

Fig.10 – Ride-along and interview setup

The in-depth interview facilitated a narrative of the sensory experiences of riding. In order to avoid a lack of focus, the interview adopted a semi-structured format, surrounding three themes (Fig.11), building on ideas from the literature review.

Relations	Commodification	Interview themes
Technology	Fixies	Paces
Body	Experiences	Performance
Space	Identity	Perceptions

Fig.11 – Three themes for data collection

In order to coherently participate in, observe and examine the field of study, the visual accounts of the ride-along where replicated by video-elicitation and supplemented by oral means, as the respondents detailed experiences on video and more generally. No specific questions were set; rather the themes of paces, performance and perceptions were explored, such that the encounters created a 'space of thoughtfulness' (Thrift, 2003:114) for the participants. Given the non-probability sample of respondents, the five Create riders were deemed adequate in illuminating the decisions (Schramm, 1971) of fixie riders in general, as a 'contemporary phenomenon within its real-life context' (Yin, 2003:13), with 4 males and 1 female interviewed, all aged between 19 and 25. For the purpose of anonymity (Grinyer, 2002), pseudonyms are also employed throughout (Fig.12).

Ride-along and in-depth interview participants			
Participant	**Pseudonym**	**Gender**	**Age**
Create rider #1	Dave	Male	19 years
Create rider #2	Tim	Male	20 years
Create rider #3	Josh	Male	25 years
Create rider #4	Toby	Male	22 years
Create rider #5	Char	Female	20 years

Fig.12 – Participants

As noted in the pilot studies, the knowledge of fixie riders is often tacit, requiring an informal and convivial interview tone. Furthermore, the often illicit behaviour of fixie riders required sensitivity, demanding a familiar choice of interview setting for the participant (e.g.

their college or department). The decision to not record the interviews was in line with this colloquial setting, necessitating an air of openness given the use of bad language and reference to illegal riding, which creates the fabric of the subculture. In order to avoid any fear of being 'on the record', the interviews were conducted without a dictaphone; testing, instead, the speed and ability of the researcher

The ethics of this participatory means of data collection were rigorously maintained, confirming the willingness of respondents to be filmed whilst riding and anonymity of data collected. Furthermore, the gender skew towards males should not be confused as a limitation of this study; rather, the unique riding style, skill set and physical demands of fixies somewhat limit their suitability for the general public, revealing why a marginal subculture initiated their usage and predominantly young males continue to ride fixed. As opposed to making this research obsolete, such distinctive qualities generate intriguing spatial relations with inherent geographical interest, given their engagement with technology, the body and space.

3.4 Online surveys

The in-depth interviewees were asked to complete a short questionnaire of 10 questions after the ride-along (see appendices). These were extended to form the basis of an online survey using the website 'Survey Monkey'. A set of 10 open- and closed-ended questions were asked, under five themes (Fig.13), with a simple website link (http://www.surveymonkey.com/s/9XHLR3R) providing access for fixie riders in Oxford.

Survey Monkey: Oxford fixie riders	
Key theme	**Number of questions**
Bike details	2
Fashion or practicality?	2
Riding experience	3
Riding styles and attitudes	2
Concluding remark	1

Fig.13 – Online survey questions

The survey required a range of answers, including ranking, rating, tick box selection and longer prose answers, whereby the fleeting attention span of internet users (Pryke et al., 2003) limited the survey to 10 questions, alongside financial restrictions. The convenience of the survey and ease of access to the website through email or leaflet (see appendices) provided a platform for accessibility to fixie riders of different ages, genders, occupations and geographical locations in Oxford. Clustering was employed as the sampling method, with Oxford forming the geographic cluster, leaving space for randomness within. Data saturation was surpassed with over 50 respondents, as answers became repetitive, ensured by a further 7 respondents.

3.5 Content analysis

The adoption of a non-representational stance in this research does not dismiss representations altogether. Rather, as McCormack argues, they can be 'reanimated as active and affective interventions in a world of relations and movements' (2005:122). Aside from one simple diagrammatic representation, this dissertation principally employs freeze frames and cinematic strips to convey the patterns and themes arising in geographies of mobility. Whilst the deeply visual experience of a fixie rider can be somewhat communicated through the 'photovoice' (Berg, 2007:150) of visual analysis, content analysis provides another performative means of knowledge production (McCormack, 2005), defined as the 'careful, detailed, systematic examination and interpretation of a body of material to find patterns, themes, biases, and meanings' (Berg, 2007:303).

Contemporarily, text has gone 'beyond print on paper to apply to anything with a degree of permanence that communicates meaning' (Shurmer-Smith, 2002:123). Adhering to the etymology of text, from the Latin *textere* meaning 'to weave', it is something crafted, a fabric, with a multiplicity of meanings. It is this polysemy requiring a subtlety of study that demands the use of the modern software program Wordle, creating 'beautiful word clouds' (Feinberg, 2009). Imitating the fragile entanglements of riding fixed, Wordles reveal the layers of meaning interwoven in texts, by adjusting the font of a word according to its frequency within a dataset. Hence, their concurrent use with interview and survey data aids in shedding light on 'shared values and behaviours relating to the geographer's concerns of space, place and environment' (Shurmer-Smith, 2002:97).

Chapter 4. The experience of riding fixed

The methods undertaken emphasised the perpetual thesis of riding fixed; the simplicity of the fixie belies the complexity of riding fixed. In navigating spaces, the bike's technology remains simple and deterministic, whilst the techniques employed by fixie riders are complex and skilful; as one respondent noted (Fig.14).

> 'I like my body to be the variable, not the bike – so instead of changing gears, I have to change my tempo'

Fig.14 – Body and bike quotation

In this sense, the geography of fixed wheel mobility is a constellation of simplicity in technological framework, connection with bike and communion with road, yet complexity in the experiences and identities of fixie riders. At the outset, this entanglement is well illustrated by Figure 15.



Fig.15 – Wordle of the individual significance of words used by participants to describe their relation with their fixie

The Wordle[1] sets the tone for this analysis; a nuanced account of a web of meanings constructed by fixie riders across Oxford, each with subjective significance. Meanings range from the pragmatics of a 'bike', requiring 'maintenance' yet with 'simplicity' of gears, to the riding experience as 'fun', 'enjoyable' and 'pleasing'. Three key themes emerged from the data collected; connection, fluidity and rhythms.

[1] The repetition of certain words (e.g. practical) is a computational software sensitivity to lower/upper case

4.1 A stripped down connection and engagement

Josh perceptively stated (Fig.16) that,

> 'The fixie is a no nonsense bike, it's just simple and functional...like a bike which has been boiled down to just its basic components. This thing is just slipstreamed down...it's so minimal'

Fig.16 – Simplicity of the fixie quotation

The notion of simplicity described by Josh emphasises the key attributes of riding fixed; it's simple but not simplistic. At first, this is expressed in the entanglement between fashion and function, whereby Josh articulated that 'the fixie is a platform for both cool looks and efficiency, I guess it's both stylish and practical'. The stripped down nature is first implicated at the technological level, with a single gear providing the driving mechanism. Josh shared the value of this simplicity; 'it's a pure feeling, you know that there is less technology on the bike so all your power is coming from your legs...there are no unnecessary gears or rubber so I feel directly connected to the road'. This nostalgia for 'no unnecessary gears or rubber' frames the first frenzy of fixie riders; that of raw and pure connection. Often manifested in a fixie's outward appearance, this crude sense is displayed in metallic handlebars, with no handlebar tape or rubber for comfort, rather mere flesh on metal (Fig.17).



Fig.17 – CREATE fixie pictured in Oxford with metallic handlebars

This modified fixie is reminiscent of a track bike; vivid colours attract attention and metallic handlebars give a streamlined look. Nonetheless, the presence of a front brake reinforces the entanglement of fashion and function; the rider is evidently conscious of safety and legality.

Josh identified the sense of engagement between bike and rider, drawing on a parallel of car driving (Fig.18). This connection emphasises relationality at the heart of this geography of mobility, as the discursive distance between body and technology is reduced on the fixie.

> 'riding a fixie over a normal freewheel bike is like moving from an automatic to a manual car, it's challenging at first but rewarding afterwards, you have far better control...it's hard to describe, but I get a raw, simple experience when I ride...nothing separates me and the road'

Fig.18 – Connection quotation

The evidence for connection is clear, resting on the immediacy of the body-bike relationship; the engagement of the fixie with the road gives the rider confidence and better control to execute seemingly risky manoeuvres. Josh stated; 'my riding has got bolder and more confident...I have a stronger connection with the road and better control so I can blitz through lights and go faster than cars'. This emphasis on speed and power underlies his style of riding, finding gaps in traffic (Fig.19), where confidence stems from control.



Fig.19 – Josh weaving through traffic on Beaumont St and Magdalen St

Naturally, this connection with the bike extends to an engagement with the context of riding. For Josh this meant a perpetual engagement with his surroundings (Fig.20).

> 'You can't disconnect like on a freewheel bike...you're perpetually engaged. Riding a fixie means I engage with the surroundings more, like people, traffic, routes, spaces... you can't freewheel or coast so you are always responsible...you can't get complacent'

Fig.20 – Responsibility of riding fixed quotation

This direct engagement with the environment reinforces visual geographies, given that 'our sight is the most perfect...of our senses' (Rodaway, 1994:117). In this sense, landscape is indeed 'everything I see and sense when I am out of doors' (Relph, 1981:26), yet to the fixie rider 'everything' seems a generalisation for the minutiae of detail that form their way of seeing. The micro-geographies of quick looks and checks to ensure awareness (Fig.21) accentuated the sense of responsibility needed for riding fixed; a contest against complacency.



Fig.21 – Josh glances on Magdalen St and Walton St

This engagement is almost exclusive to the technique of riding fixed. Josh articulated; 'I don't like disengaging from the bike so trackstand[2] at lights...that way I'm always moving and never off the pedals'. Reinforcing the complexities of fixies, executing this movement can be 'a difficult skill to master' (Spinney, 2009: vii) at first, yet appear simple and habitual once gained.

The communion with bike and road is consolidated by the silent hub of fixies, generating a virtually mute soundscape, allowing for heightened engagement with the surroundings. Dave noted; 'when my bike is silent, I know it's a healthy bike' highlighting his assertion that 'the fixie is a functional machine...it's the height of simplicity'. Tim also emphasised that 'the silent hub of my fixie shows it's a well tuned and well oiled bike with no drag. I know that everything I put down on the bike goes into the road. It's this constant

[2] This manoeuvre entails rocking back and forth on the pedals so as to balance and not put a foot down, ensuring continual engagement

and direct transmission'. This aspect of the bike's soundscape is a microcosm of the visceral nature of riding fixed; a raw engagement with deterministic technology. The tangible riding experience furthers this claim, as Toby expressed (Fig.22).

> 'Control is the main attraction of fixies. Riding fixed gives me loads of control; I get feedback so I know what the bike is doing at all times...I create the motion on my fixie with my legs, so I have a direct connection to the road giving me lots of feedback, lots of control and lots of speed'

Fig.22 – Control quotation

Evidently, the result of technology removing the ability to freewheel, which Spinney noted for its 'inflexibility as a tool' (2009:310), provides the Create riders interviewed with a heightened sense of control and confidence. Spinney was certainly accurate in detailing the 'nuanced process of hybridisation...where the bike and rider evolve together in the practice of movement' (2009:315), but perhaps overlooked the threshold of control delivered by fixies in urban spaces, as Toby articulated (Fig.23).

> 'Feedback is the biggest thing for me, the feel for the bike you get through the pedals gives you control so you know exactly what is happening and where, making it a better riding style and [you] more aware...on a fixie you have a higher threshold of control...so I guess for others it looks like we're mad but really we're quite safe'

Fig.23 – Feedback quotation

The skills and techniques exhibited by fixie riders are therefore often enacted as a result of the bike's technology, providing a public expression of the complex hybrid assemblage. This understanding of connection frames the affective experience of 'mystical moments', an insight Toby shared 'about finding those spaces, those good moments, where you get the short term desire, pulling off the perfect trick or trackstand' (Fig.24).



Fig.24 – The one-footed skid stop, shortly followed by a smile of satisfaction

This reinforces the kinaesthetic thesis of riding fixed, bound up in the hybrid assemblage of body and machine. The hybrid sensations of riding, from a connection with the bicycle, people and place, to the freedom and autonomy of performance, necessitate a nuanced analysis. The micro-geographies of riding a bike which cannot coast are often non-verbal, even non-visual, creating 'an almost mystical connection' (CREATE, 2010 – Fig.25).

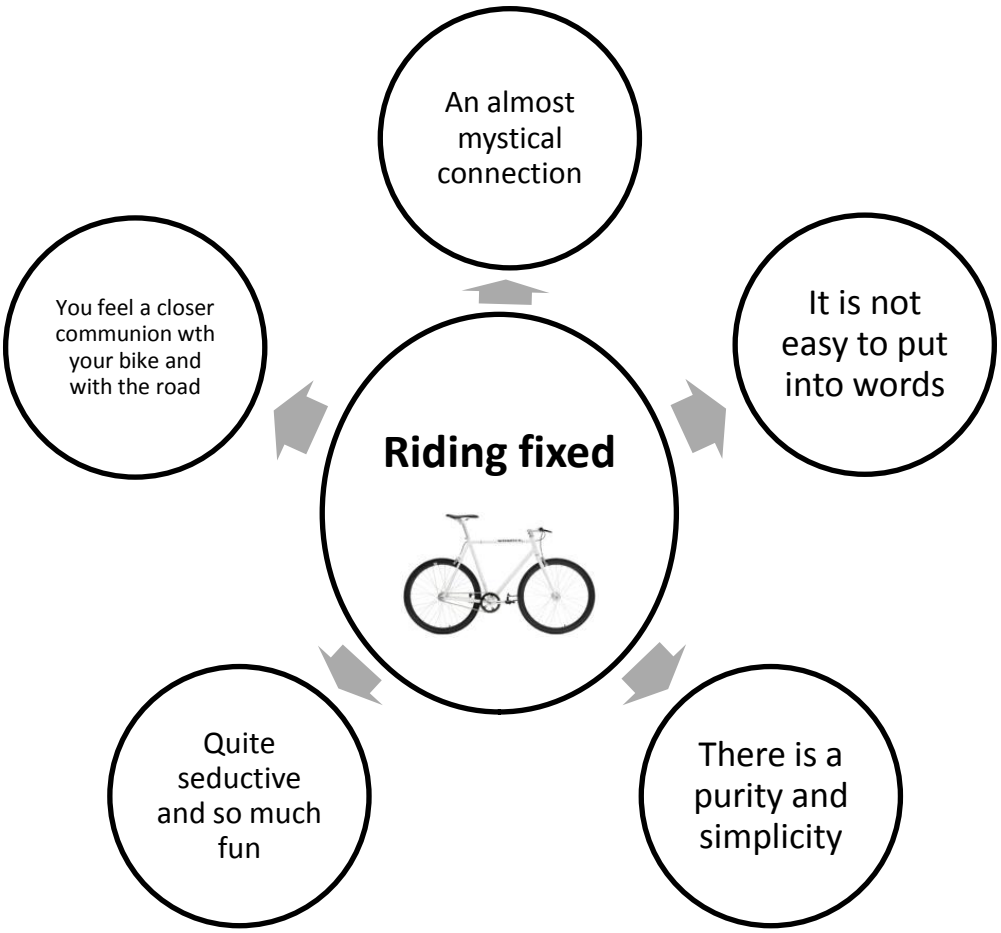


Fig.25 – The experience of riding fixed (adapted from CREATE, 2010)

4.2 Fluidity

The Create respondents shared unanimously the intrinsic theme of fluidity when riding fixed. Notions of 'flowing and continuous movement' (Spinney, 2009:310) have already been hinted at, as well as the feelings of flow (Ford and Brown, 2006); a 'form of peak experience which is characterised by a high level of confidence and control' (Brown and Spinney, 2010:151). This flow is equated 'with a sense of being on "auto-pilot", free and absorbed in the moment' (Ford and Brown, 2006:159), which parallels with surfing, 'communicating feelings of fluidity, gliding, being in the present, rhythmicity and unconsciousness of flow' (Brown and Spinney, 2010:139). Tim shared similar insights (Fig.26).

> 'My confidence in the fixie lies in the speed of the fixie - in the city you feel like a fast pedestrian, you can access anything and anywhere the fastest. The control and understanding is what fixie riding is all about and why so many people want to ride one...you have to ride it to experience it'

Fig.26 – Access like a pedestrian quotation

Tim revealed the deeply kinaesthetic and embodied facets of riding fixed, emphasising the simplicity of this hybridised practice, in both the deterministic nature of control and fluidity at speed. However, as Tim hints, only *riding* will result in *experiencing* this belief; no matter the length or depth of textual or visual analysis, the performative nature is hard to represent, only *practice* discloses full meaning.

Josh also used the metaphor of an urban pedestrian to describe riding fixed, with access to 'anything and anywhere' (Fig.27).

> 'when I ride through the city I feel like I'm flying or running through it, like a fast pedestrian I just zip through...it's a fun feeling. I have the same freedom as a pedestrian just much faster'

Fig.27 – Freedom quotation

The fluidity inherent in the practice of walking, at both a kinaesthetic level and for urban accessibility, is here equated to being on a fixie. Josh notes issues of transport permeability, built on in the interview, with access to particular shortcuts and alleyways (e.g. Lamb and

Flag passage in Oxford, point A on the map below), in addition to the speed of the practice. The freeze frame exhibits these traits (Fig.28), gliding between pedestrians on Catte Street (point B below).

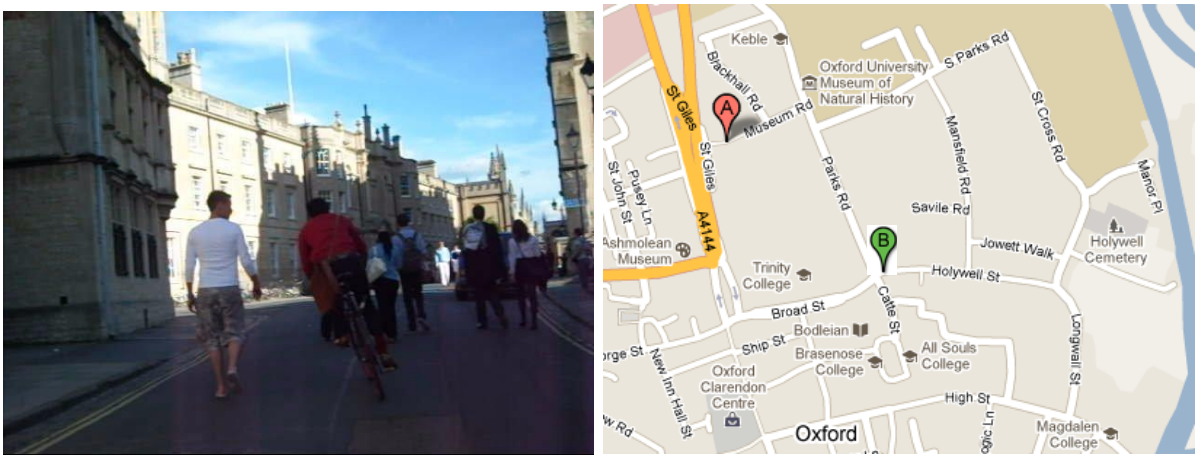


Fig.28 – Josh using Catte St as a cut through

Perhaps even more convincing for fluidity, is the practice of weaving, custom to the style of many fixies. Tim attempted to put into words this sense of freedom and fluidity, recounting his ride down St.Giles in Oxford, a wide street facilitating overtaking (Fig.29).



Fig.29 – Tim weaving on St.Giles

He noted; 'the short handlebars give me control so I can just thrash it about and know that the fixie will cling on for me', hinting at a technological peculiarity of the fixie, which translates into the functional ability to overtake cars and weave through gaps in traffic.

The in-depth interviews uncovered the respondents' total acclaim to the synergy of speeds when riding fixed. Just as Ford and Brown likened the sense of flow to 'being on "auto-pilot"' (2006:159), Char mentioned the deterministic feel of the fixie translating into everything blurring at pace. This is reminiscent of John Ruskin's statement; 'no changing of place at a hundred miles an hour will make us one whit stronger, happier or wiser...the really precious things are thoughts and sight, not pace' (cited in Botton, 2002:222). Perhaps riding fixed in the city can offer all three, as a reflective, visual and efficient mode of urban transport, challenging modern-day mobility. It captures the double sense of riding fixed; a practice both characterised by its speed and efficiency, with complex techniques, yet also deeply kinaesthetic and embodied, with a sense of fluidity and purity in its simplicity. Char shared this thought (Fig.30), suggesting a dynamic tension between the kinaesthetic aspects to this embodied form of mobility and the feeling of Zen, or purity amidst chaos.

'You don't have to heave to ride fast, you just keep on going, it's constant...at full speed everything blurs so I don't think about anything else other than just riding'



Fig.30 – Blurring quotation and image on Parks Road

This tension echoes Brown and Spinney's thoughts on the 'unconsciousness of flow' (2010:139), whereby the actor is at once perceptive to the passing landscape, whilst also entirely captive to the practice undertaken. For the fixie rider, this is manifested in a duality of focus; both wholly on the bike and the cityscape.

The microcosm of trackstanding illustrated this double sense or synergy for many of the riders. The shift from virtual standstill to exorbitant sprint imparts the flexible nature of the fixie's technology, whilst also reinforcing the causal nature of riding; leg power expended correlates directly to speed attained. Tim expressed these nuances; 'at the lights I trackstand, I feel poised like I'm on a track'. Equally, Toby articulated the micro-geographies engaged (Fig.31).

> 'I trackstand and build up pressure, then rock back on amber, so bham I'm away when it's green and ragging it at full speed'

Fig.31 – Trackstand quotation

Fundamentally, the fluidity of riding returns to the connectedness of the body-bike hybrid. Even when trackstanding, the minute bodily gestures to maintain balance and poise, with the rider rocking back and forth on the pedals, result in movements of mere millimetres (Fig.32).



Fig.32 – Josh trackstanding on St Aldates

As Spinney notes, the 'prostheticised body' (2006:712) is best demonstrated by 'the intimate nature of the relationship between bike and rider...[through] the pedal' (2006:719), a key component to Toby. These micro-gestures animate the argument for non-representational methods, with minute adjustments characterising the style of riding. Tim also highlighted St.Aldates as a street representing the synergy of speeds, from the trackstand at the red light to acceleration up the hill. He underlines this fluidity; 'I work my legs hard on my fixie and they're getting stronger. Once you accelerate hard you can't just stop - it's the pain I love' (Fig.33).



Fig.33 – Tim trackstanding then accelerating up St Aldates

4.3 Rhythms and cycles

Circularity is also a key part of the fixie as a techno-kinaesthetic assemblage. With regard to transport modes, the seemingly linear journey from A to B has often produced discordant results. Cycling however is an intrinsically circular practice (Fig.34).

> '...at the heart of the bicycle is a circle. Numerous components, the shape and function of which consist of circles, come together to from the bicycle. Riding a bike is a cyclical exercise that activates the body's circulatory systems' (Perry, 1995:3)

Fig.34 – Circularity as a central feature of the bicycle

Paradoxically, fixie riders speak of picking a 'line' on the road, which goes beyond lines of logic, according rather with Latour's conception of 'circulating reference' (1999:40). Hybridising the lines and flows of movement, the geography of fixed wheel mobility adheres to a linear-circular complex; riding fixed is extrinsically linear, in terms of expression on the road, yet intrinsically circular, with spherical technologies and techniques. Spinney's emphasis on the pedal as the cornerstone component fusing body and bike (2006:719) stems from Lefebvre's notion of rhythmic embodiment; 'everywhere where there is

interaction between a place, a time and an expenditure of energy, there is rhythm' (2004:15). Likewise, Game's description of the value of rhythm to horse riding, where 'maintaining connection and rhythm...requires a mindfully embodied way of being' (2001:8), resonates with the rhythms of riding fixed. Thus, perhaps a linear-circular complex synthesises the complexities of riding fixed, whereby the pedal is a key actant, and the constellation differs according to the view of the fixie (Fig.35).

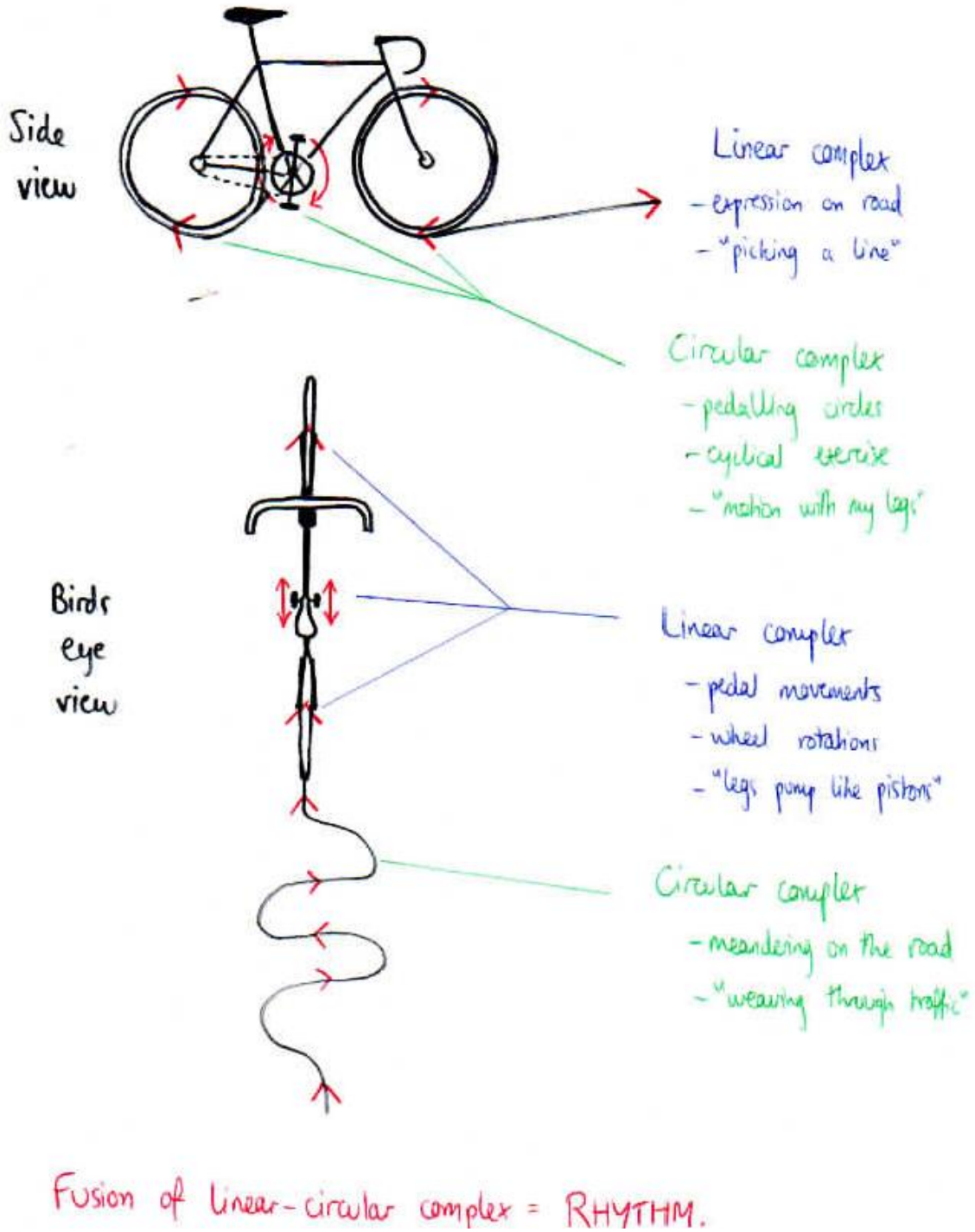


Fig.35 – Diagrammatic illustration of the linear-circular complex

Whilst providing a simplistic image of this complex, the diagrams echo age-old attempts to resolve and explain, such as da Vinci's Vitruvian Man, solving the riddle of the square and circle in Vitruvius (Schott 1992). For the fixie, it is a synthesis of the utility of non-representational methods alongside traditional representations, as portrayed here from video ethnography to diagrammatic illustration. The duality of the complex reinforces the intricacies of riding fixed and its exclusivity to fixed wheel bikes, given the perpetual motion in the pedals.

Fellia, the manufacturer of Create fixies, speak of this rhythm in terms of a 'mystical connection', observed as the '*souplesse* of the legs' (English 2010, pers.comm.). The perpetual spinning of the pedal cranks, often at a cadence above other cyclists, marks fixie riders apart, as Tim noted (Fig.36).

> 'The momentum of my legs means I pedal less due to residual work, so I can maintain my speed longer...I feel controlled but after a certain threshold you question whether the bike is in control over you which is scary...I lean round the corners but as your legs are still spinning it's quite dangerous and I often think of the disaster involved'

Fig.36 – Fixie spinning quotation

Alluding to the tempo of riding, the fixie articulates hybrid body-bike rhythms, denoted by Tim as a 'scary' threshold of control. Merleau-Ponty suggests that we inhabit rhythm, proposing that 'a movement is learned when the body has understood it' (1973:139). Notably, noncognitive rhythms allow us to inhabit and produce space, for which Spinney argues that 'effortless pedalling requires endless practice' (2006:718). Arguably, the effortless spinning when riding fixed challenges this tension, resonating with the 'melting of self into action' (Le Breton, 2000:3), as kinetic simplicity overcomes physical complexity.

Toby mentions a similar theme, reinforcing the causal nature of riding; 'my bike is very deterministic, I know the leg power I put in is what I get out, plus you have the whole balance and skills for control'. Echoed by Char, stating; 'I know that the effort I put in to my bike is what I feel in the speed, it's directly proportional', this causality supports the technological simplicity of the body-bike hybrid. However, the perpetual fear of losing then

regaining control detailed by Tim complicates this simple relationship. Whilst 'the fixed *is* a back to basics bike', the pure aesthetics mask the complexities of technique, as Toby shared (Fig.37).

> 'The whole leg thing is like the engine in a car, your legs pump like pistons setting the rhythm to your ride...it's funny; the fixie is simpler yet harder than any other bike'

Fig.37 – Paradox quotation

This dynamic tension between simple and hard, pure and chaotic characterises the fixie. For Toby, your legs are 'like pistons', establishing the tempo, certifying Spinney's conclusion that 'it is through rhythm that riding is inhabited' (2006:718). However, in this space of mobility, rhythm is not merely felt or alluded to; rather it translates directly into a style of riding which is more perceptible and aware then conventional modes of cycling. Through the inhabitation of rhythm, at a high cadence, fixies travel with speed, and yet as Char suggests, '...because I ride faster, I anticipate and think ahead so I think I'm also safer'. This is echoed by both Tim, stating that 'riding fixed has definitely made me a better cyclist...I think. I look at people and predict their actions and the traffic but I don't take silly risks', as well as Toby, drawing on another parallel of car driving (Fig.38).

> 'Riding a fixie makes you more in tune, you view things differently, like checking things out and looking at people's eyes...you're more perceptible...[it] is a bit like driving a car, you anticipate a lot earlier...'

Fig.38 – Perceptibility quotation

Reminiscent of Singel's example of planning and anticipation, whereby riding fixed 'makes you far more aware' (2005:1), the Create riders interviewed confirmed this statement. Indeed, with Toby (Fig.39), rhythm set the beat for a high tempo ride.





Fig.39 – Toby's rhythm and riding style on St Aldates and St Giles

Mentioning the value of observation, Toby said 'I often stand up on my pedals so I'm aware and can plan ahead – either [to] weave, brake or pump the bike', verifying both the pivotal role of pedals and central tenet of rhythm. He also stated that 'riding a fixie confirms your confidence as a cyclist, you're in tune with the bike', alluding to both the perceptibility of riding fixed and rhythmic associations, when you 'pump the bike', as displayed, sprinting down St.Giles past the traffic.

Chapter 5. Creating new cycling spaces

Whilst the simplicity of the fixie's technology masks the complexity of riding techniques, the simple functionality of the bike also conceals the complex opportunities for inventiveness. The respondents noted numerous twofold tensions associated with riding fixed, such as the individual meaning of 'Create'; both creating or finding space in the city and creating a personalised, bespoke bike. As endorsed by the fixie brand, the word carried value in both senses, emulating the words of Ligeti, stating; 'I create neither for an audience nor for myself. I create for solutions' (cited in Thrift, 2008:447). This conception of creativity raised three notable themes; the play on words 'CREATE', a retro style and pride in performance and perception.

5.1 CREATE

Primarily, the fixie respondents in Oxford noted the practicality of riding fixed. As Dave stated bluntly, 'after all, it's just a bike'. The manufacturer Fellia concede this point, as stated on another website (Fig.40), whilst also romanticising about fashion.

> 'At the end of the day a bicycle is designed to get you from A to B and from our experience a CREATE bike will help you do just that in style and without breaking the bank'
>
> (Fixed Gear Frenzy, 2010)

Fig.40 – functionality of CREATE bikes

Dave emphasised this functionality, confirming a 'purely pragmatic relationship, I use it out of necessity 'cos of its responsiveness and practicality'. The 57 respondents to the online survey agree unanimously, whereby 'bike' is certainly prominent, along with more emotive words such as 'love', 'close' and 'one' (Fig.41).



Fig.41 – Wordle of fixie riders sharing one word to sum up their relation with their fixie

Yet as previously explored, the fixie is more than 'just a bike'. Josh spoke of the audacity attached with fixie riding; 'to me CREATE is also about boldly finding your own path and space in the city...picking different lines to other cyclists'. Riding down Broad Street, this choice of *different* lines is apparent (Fig.42).



Fig.42 – Josh picking different lines on Broad St

For the fixie rider, the approach to the city is much like that of a parkour expressionist, taking hold of space in 'powerful forms of contestation by way of their embodied negotiation of urban spheres and environments' (Adey, 2010:125). This post-modern take on the city evokes futuristic films such as Bladerunner, the Matrix and

Inception, whereby the city is viewed as a playground; a set of obstacles to overcome and spatial problems to solve. Whilst verticity may not be a characteristic movement of fixies, as in Parkour, the sense of 'moving for play and creative engagements with cities and built architecture' (Adey, 2010:127) certainly parallels. Toby noted the control he has of his fixie heightens his experience of space, giving agency to inanimate objects such as road markings (Fig.43).

> 'I weave around the parking lines on roads like they're a slalom course...riding for me is about having a laugh, it's fun - I always look forward to riding my bike. I love my bike; it's manoeuvrable, nippy & quick to react'



Fig.43 – Weaving quotation and slaloming up St Aldates

The opportunistic behaviour this riding style evokes the thoughts of Alliez, musing that 'to pose the problem is to invent and not only to dis-cover; it is to create, in the same movement, both the problem and its solution' (cited in Thrift, 2008:5). As Toby remarks, 'for me the make CREATE is a bit wannabee, they want to create an image or let you create your own world with different shapes, movements, artwork', clearly suggesting an innovative sense to the meaning of Create, expressed in spatial terms.

This decisively individualistic approach to the city confirms Kuehne's argument that we live in an age of 'unfettered individualism and freedom' (2009:45). Insofar as Apple Inc applied the prefix 'i' to their products and Kuehne mimics this with the 'iWorld', riding fixed could equally be the 'iFixie'. The malleable nature of identity in the 21st Century is a case in point of Nietzsche's philosophy of the 'will to power' (Kuehne, 2009:59). The 'unbridled individualism' (2009:63) which marks our society is a 'will to power' over space, much like the 'kind of corporeal subversive politics' (Lewis, 2000:65) describing extreme sports. Of the 57 fixie respondents, the survey noted that 75% of riders viewed their identity as individual (Fig.44).

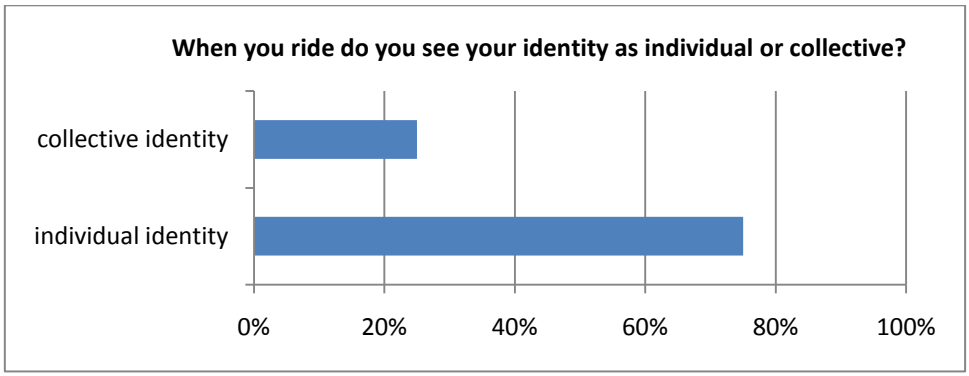


Fig.44 – Bar chart of collective versus individual identity

Furthermore, when asked to summarise their experience of riding fixed in one word, respondents gave answers with clear individual value. As Figure 45 depicts, each word is ascribed particular meaning by each rider, and interestingly 'fun' is noticeable, reinforcing the appeal of this spatial practice alongside the 'simple beauty' of riding fixed.



Fig.45 – Wordle of rider's experience of riding fixed in one word

The intensity of emotions and experiences listed draws strong parallels with other extreme sports, as Toby notes; 'fixie riding is like other extreme sports, it's the speed...but you get the safety too'. This duality between speed and safety highlights the perpetual tensions associated with riding fixed, where binaries are too crude, given the seeming simplicity of tensions which mask undercurrents of complexity and nuance.

The legality of riding fixed also raises questions with regard to contemporary spaces of urban cycling and motorised traffic. As Brown and Spinney note with other forms of cycling, 'the destination is usually unimportant...place is made and remade through grounded yet dynamic 'feelings' and seeings' (2010:149). Just as Toby spoke about seeking those 'mystical moments' on a ride, the multiplicity of destinations enmeshed in the line from A to B emphasises the intrinsic value of mobility, in and of itself. Arguably space as well as place is 'constituted through the sensory and affective sensations of doing as well as arriving' (Brown and Spinney, 2010:149), placing great importance on the transient and momentary experiences of riding. Hence, the riding style adopted, often subversive and opportunistic, emphasises the 'thrills and spills' of cycling. This entanglement is illustrated in the verbs Josh used (Fig.46).

> 'when I ride through the city I feel like I'm flying or running through it, like a fast pedestrian I just zip through...it's a fun feeling. My riding has got bolder and more confident...I have a stronger connection with the road and better control so I can blitz through lights and go faster than cars'

Fig.46 – Opportunistic behaviour quotation

Clearly 'flying', 'running', 'zip' and 'blitz' linguistically convey the speed of travel. Whilst providing an argument regarding connection and engagement, whereby confidence stems from control, the bold nature of Josh is underlined in the practice of illegal manoeuvres; 'I can blitz through lights'.

This running of red lights was a theme expanded on in the general survey; 46.2% of respondents claimed to 'jump red lights'. This significant proportion of riders is well demonstrated visually by the list of subversive practices (Fig.47).

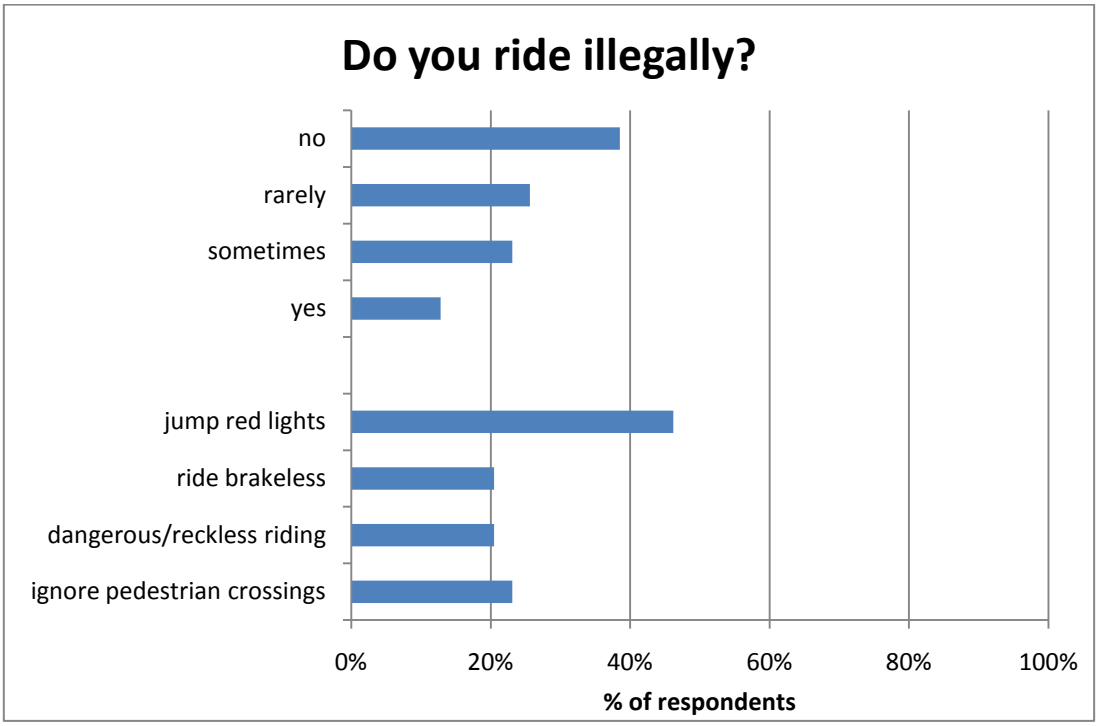


Fig.47 – Bar chart of illegal riding practices

Whilst not statistically representative of the illegal nature of riding fixed, such data would be of concern to legal authorities. Indeed, as the newspapers report, the growth in popularity of riding fixed and associated practices, such as alleycats, may 'threaten to colour public opinion of the growing urban cyclist subculture' (Fisher, 2008:1). Similarly, a retort is gaining momentum, as a survey respondent noted; 'I think we've already seen the first wave of the backlash in the Metropolitan Police's decision to crack down on cyclists who jump red lights'. The police call this 'the lemming effect – if one cyclist crosses on a red, others tend to follow' (Walker, 2010:1), indicating their intolerance of such behaviour. Yet the feeling of 'total control over everything' (Singel, 2005:1) when riding fixed improves a rider's anticipation, providing continuous movement so as to 'float through the chaos' (ibid.). Arguably, Tim demonstrated this, running red lights when it was safe to do so, in accordance with his statement that 'riding a fixie has teased out my dangerous side' (Fig.48).



Fig.48 – Tim running red lights on the High St and Hythe Bridge St

Nonetheless, Tim notes, 'I'm a safe fixie rider, with helmet, gloves, hi-vis, lights but lots of people give fixies a bad name, trying to ride like couriers'. Clearly the tensions of riding fixed persist, with themes such as imitation, as alluded to in the attempts of some riders to emulate messengers.

5.2 Rise of the retro

This sense of creativity is reflected in our modern-techno culture's nostalgia for the retro. The rise of the vintage, in clothing, arts and cultural technologies, establishes an entanglement between old and new. As reflected in the fixie subculture, a 21st Century craze, 58% of the respondents stated having built or bought their fixie since 2009 (Fig.49).

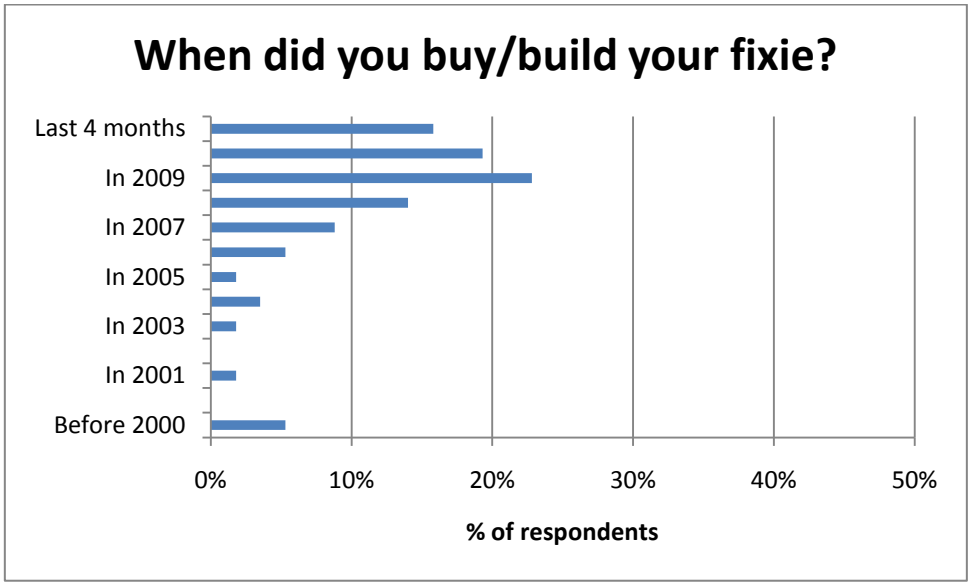


Fig.49 – Bar chart of when respondents bought or built their fixie

The yearning for the traditional in a modern society is a highly geographical subject, in which fixies contribute but a small part. Tim spoke in length of the individuality attached with riding fixed, supporting the argument for the distinctiveness of the fixie. Indeed, a modern, minimalist fixie adorned with a traditional, leather Brooks saddle indicates another fixie frenzy (Fig.50).

'Riding fix is like the 'new thing' so you feel different and individual when riding your own unique bike...each bike has its own personality, but the fixie especially as it is so different to other bikes - you need to learn and understand this first'



Fig.50 – Individuality quotation and Tim's Brooks saddle

Such individuality is keeping in line with the motto of Create, as Char noted; 'CREATE makes bikes with all different colours, they're really bespoke and individual'. Josh shared similar thoughts; 'I guess they called the bikes CREATE 'cos they're like a blank canvas for you to modify and individualise'. Indeed, the manufacturer concurred (Fig.51).

> 'The vision is to allow people to 'Create' and customize their bike online before they buy' (Tarr, 2010 pers.comm.)

Fig.51 – CREATE's vision

This notion of providing a 'blank canvas' to modify and customize demonstrates another effort to reduce the discursive distance between body and bike; in this sense consumer and product. The expression of oneself through a bespoke bike cements this 'spirit of unfettered individualism' (Kuehne, 2009:45), confirming that 'from a postmodern perspective, however, humans are encouraged to discover or *create* their own identities, because their 'given' identity is simply culturally imposed' (2009:59). Yet the tensions created resonate at two levels. Primarily, at the particular level, the gain of individual freedom is at the cost of a sense of collective politics, which may result in conflicting liberties. Furthermore, the macro scale implications provide a conundrum for mass market production; by making fixies more 'accessible and affordable' (CREATE, 2010) customizations will be enacted at the consumer rather than producer level. Hence, a grassroots politics establishes, displayed by the majority of fixie respondents riding personalised or personal built bikes (Fig.52).

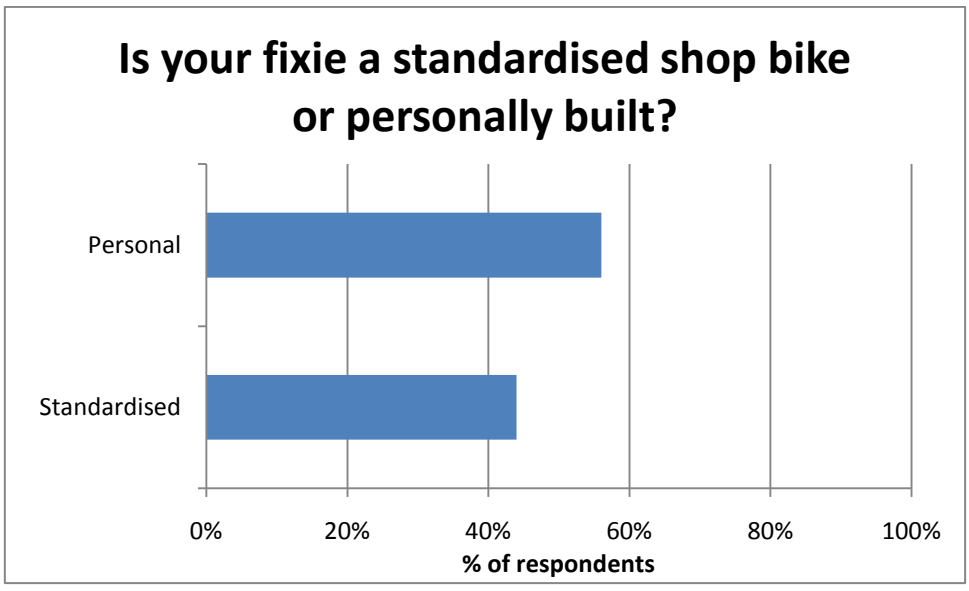


Fig.52 – Bar chart of respondents riding standardised versus personalised fixies

5.3 Pride

The fragile entanglement between old and new, traditional and modern, is reflected on an identity basis, between the individual and collective. Seemingly, the conclusions of such examinations seem adequately condensed into the emotion of pride, as Tim exhorts; 'I get loads of pride from riding my fixie, mainly cos it's a different bike so lots of people look at it'. This individuality characterises riding fixed across the board, from the technologies and techniques involved to practices and performances enacted. Dave displayed a small microcosm of this entanglement of fashion and function, using an indicating style which is quirky, but nonetheless purposeful (Fig.53).

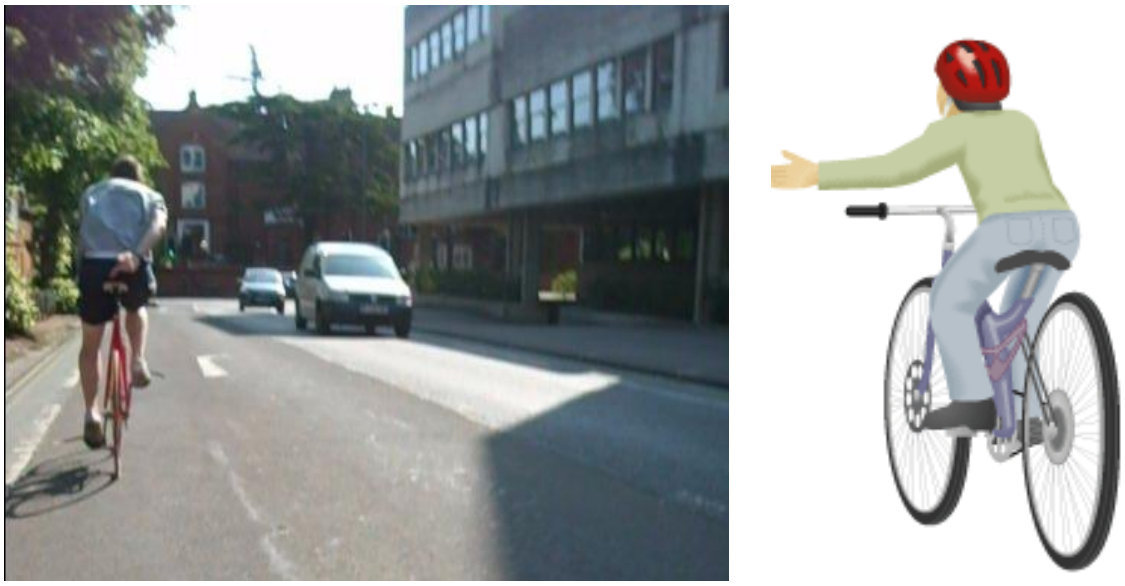


Fig.53 – Dave's quirky style of indicating on South Parks road (left) versus the traditional mode of indication

Illustrating on a small scale how fixies bridge the gap between style and practicality, this means of signalling a left turn may appear naive, yet similar instances persist throughout. The statement by Toby (Fig.54) regarding his bike colour reinforces this proposition.

> 'My bike's lime green so yeah it stands out and is visible, but it's also pretty stylish...I wish they did it in glow in the dark! You get the two sides to fixies, their looks, which are stylish and visible, but then the whole speed aspect too, you're aware so ride fast but safer'

Fig.54 – Two sides to fixies quotation

Clearly, such a statement alludes to the existence of dynamic tensions at the heart of riding fixed, here between visibility, style and speed; a perpetual theme.

The identity of riding fixed illustrates such blurred boundaries between twofold tensions. The survey responses confirm the presence of a subculture (Fig.55), yet quantitative statistics conceal significant nuances.

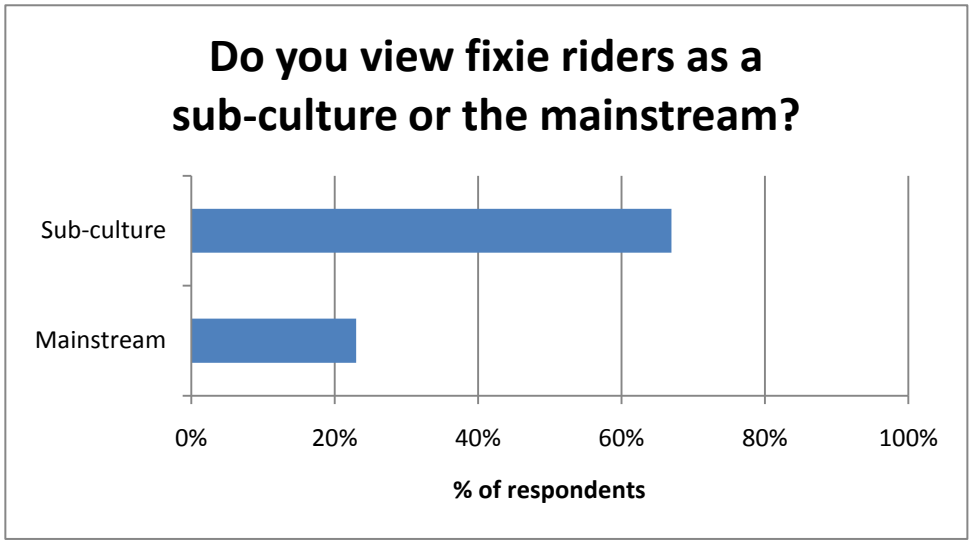


Fig.55 – Bar chart of respondent's views on fixie riders

Whilst 67% of riders in Oxford consider themselves to be part of a subculture, their identity on the whole remains individual; 75% as previously revealed. Perhaps this dynamic tension is the trademark of this subculture; certainly the definition of 'customs, practices, cultural preferences and lifestyles distinct from, but interconnected to, those widely held in mainstream culture' (Mikula, 2008:193) suits, yet more is at stake. As Hebdige argues, 'subcultures...challenged mainstream society through style, rather than through explicitly ideological articulations' (1979 in Mikula, 2008:194). In the case of fixie riders, the 'spatial acting out of place in order to manipulate and subvert ideological inscriptions' (Adey, 2010:125) suggests a more nuanced account. Nonetheless, style and fashion prevail, indicating distinctiveness clothed in individuality. Interestingly, this extends to their influences, whereby 83% of survey respondents claim to have no courier influence. This gauges the individuality of fixie riders, clearly rarely appreciating the origins of fixies from couriers, as one participant noted (Fig.56).

> 'My riding is not influenced by couriers, though I'm aware they were the first to use fixies and so inevitably an influence, if indirectly'

Fig.56 – Indirect influence of couriers quotation

Only 4 of 57 respondents showed awareness of an indirect influence, emphasising the notion of the 'iFixie'.

The emotion of pride itself also displays a dynamic tension, between performance and perception. Immense pride is derived from the looks of a fixie, even when parked, whilst the rider also feels proud when cycling, given the aestheticisation of functionality with fixies, as described by one survey respondent (Fig.57).

> 'I'd have to say [riding a fixie is] more for the looks than the practicality of it, as it's hard to justify the lack of brake or ability to coast...I feel eyes on my back when I ride by and I often like to display it a little when locking it up - hang it on a fence or in the middle of the road'



Fig.57 – Twofold pride quotation with fixie pictured hung up on a fence in Catte St

The tendency to 'hang it on a fence' marks another fixie trend; visibility is twofold. Locking it in a noticeable place not only ensures plenty of looks and personal pride, but also security against attempted theft, illuminating the entanglement of fashion and function again. After all, as another respondent noted, the fixie is 'theft proof (hysterical watching someone try to nick it and ride it off!)'. Hence, pride is attained in both parking and riding, as Toby echoed; 'I get plenty of stares due to the unique look of my bike, I love the pride'. In this sense, agency extends not only to space but also the inanimate object of the fixie, animated in the practice of riding, through the body-bike hybrid.

Individuality is well demonstrated in the example of overtaking, as Toby shared (Fig.58).

> You get those mystical moments with flushed gaps or sneaky overtakes, I love it, it's the best thing in the world to show off... when I overtake other bikes I feel stronger and better'

Fig.58 – One-upmanship quotation

This reference to 'mystical moments' highlights the pleasure of riding fixed, a nuance often hidden in the micro-geographies of performance (Fig.59).



Fig.59 – Mystical moment captured on Banbury Road as Toby overtakes

Equally, Char suggested a gender difference in this pride; 'I guess fixies come across as a bit annoying, they're faster than normal bikes!'. Her comparison to 'normal bikes' appears to place fixies up on a pedestal. Tim shared this view of superiority, seeking no pity from other motorists; 'I don't want cars or buses to look out for me with pity - I want to be up there with them and even the best transport out there'. Likewise, Dave mentioned the theme of one-upmanship; 'using a car in the city is a stupid idea, I like weaving through traffic to get one up on them'. Clearly the entanglement of perception and practice generates numerous tensions of interest, yet ultimately true agency is only acquired by the interaction of technology, body and space when riding. As one survey respondent suggested, the fixie is 'as much a part of my identity as clothing - I'm one with it when I'm on it, and it's just an object when I'm off'. This reinforces the function of the bike, placing greater emphasis on functionality than fashion in the established entanglement. The conclusion of the survey supports this thesis, whereby on a scale of 0 (practical) – 10 (fashion), 3 was the median and 3.9 the mean, indicating the purposeful nature of riding fixed (Fig.60).

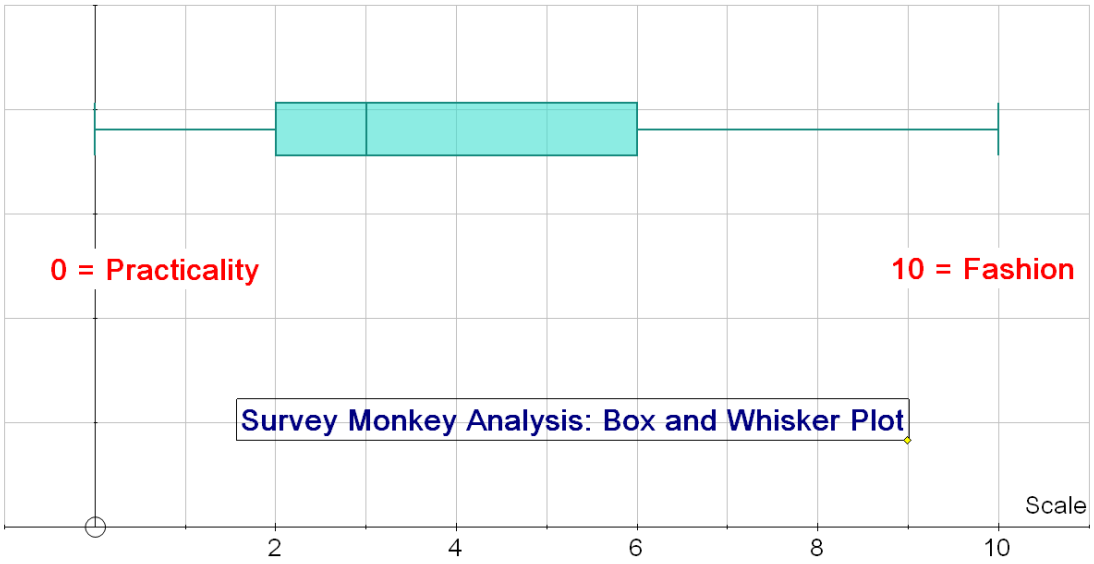


Fig.60 – Box and whisker plot of survey scale between practicality and fashion

Ultimately, the entanglement of fashion and function is hard to resolve, and meaningfully so. The importance of each is ascribed to each rider, creating a body-bike assemblage with subjective value. In this sense, distinctiveness is the common trait of the fixie subculture, in both performative practice and public perception. So perhaps the sense of superiority is somewhat warranted, as one participant remarked (Fig.61).

> 'I think fellow cyclists perceive me with envy; motorists with indifference if not disdain; pedestrians with awe'

Fig.61 – Superiority quotation

Hence, mobility involves a 'politics of hierarchy, of inclusion and exclusion' (Cresswell, 2008:27), enacted between road users in this mobile practice. This is echoed in the media arena, particularly with online blogs and fan pages, reinforcing a sense of camaraderie and a subversive style for fixie riders (Fig.62).

> 'Ride Free, Ride Fast, Ride Fixed'
> (Fixed Gear Biking, 2010)

Fig.62 – Online forum slogan

Chapter 6. Discussion and conclusion

'Bicyclists are the 'kinetic emblems of an enlightened state'
(August Kleinzahler in Bergmann and Sager, 2008:3)

The intrinsic qualities of riding fixed which have been investigated advocate the fact that extrinsic simplicity often belies inner complexity and nuances. Perhaps this is the crux of the mobility argument. At once a movement from A to B yet also a more-than-representational (Lorimer, 2005) displacement engaging motility and affect, mobility is more than it is first conceived to be. Indeed 'there is more in the action than meets the eye' (Evans-Pritchard, 1956:231).

6.1 Mobility as relational

The relationality of mobility seems to underlie such a thesis, emphasising key interplays at the heart of riding fixed. For instance, experience depicts the 'constellations of mobility' (Cresswell, 2008:2), entangled with practices and performances that evoke numerous ways of 'having a relation to, engaging with and understanding the world' (Adey, 2010:xviii). For the fixie, these develop along both conventional lines of logic and circular constitutions of movement, given the linear-circular complex which is exclusive to the bike, due to the perpetual motion in the pedals and high cadence. The practice of riding fixed is deterministic, connected and simple, generating a distinctive mobility which extends beyond the individual in the context of the urban space, as the relationalities of mobility are enacted.

Two distinct relationalities seem to exist with regard to the perceptions, performances and paces of fixie riders. Primarily the nature of riding fixed, as explored, denotes a perpetual engagement with the environment, through the rhythms and cycles of pedalling as well as the experience of connection and communion with bike and road. This understanding stems from a hybridised viewpoint of subject and object in mobility, namely the body-bike hybrid. Unlike many other modes of urban transport, which feature a disengagement or distanciation from the environment, the fixie promotes a deeper engagement with the city, emphasising its attraction to a select audience of riders.

Secondly, the nature of riding fixed generates a relational engagement with people. Despite their individuality, fixie riders engage with others in their subculture; their mutual connection generates a sense of camaraderie. Furthermore, given their association with messengers, representations of their identity spark interest from other road users, including motorists, cyclists and pedestrians, creating perhaps more subtle relationalities between people and objects (Adey 2010). This in turn forms a relational knife-edge, with positive interactions within the subculture of riders, yet often negative relations with other road users, given the battle for road space, colloquially between the 'cult of the car and the lycra-clad vanguard' (Turner, 2009:1).

6.2 The fixie as distinctive

As an object of analysis, the fixie is therefore highly distinctive, not only experientially, given the embodied experience of riding, but also aesthetically, influenced by style and fashion. This dialogue between kinaesthetic activity, experiential complexity and the aestheticisation of functionality marks the city as a space of inventiveness. Interestingly, whilst the fixie is noted as a counter tendency to current trends of increasing technological complexity, the extrinsic simplicity of this quotidian activity belies intrinsic complexity. In particular, the bike's simple technology masks complex techniques, as well as its simple functionality concealing complex opportunities for inventiveness, in both performative practice and public perception. Such interactions reflect Plato's words; 'beauty of style and harmony and grace and good rhythm depend on simplicity' (Oxford Student, 2010).

Riding a fixie demands greater skill, strength and concentration than traditional bicycles; however it is this very need for technique and control which reinforces the unique identity of riders. Such complexities, tensions and fragile entanglements at the heart of this mobile practice persist in other cycling cultures, supporting the theme that simplicity can belie complexity. Distinctiveness in this case is often accentuated, creating a noticeable community, which for fixies started with couriers and has now grown into the public realm. Hence, fixies are symbolic of a modern techno-culture, the pinnacle of modern mobility, with an aesthetic purity, mechanical simplicity and urban style. Fixies also provide new spaces for inventiveness, with creativity revealed in the personalisation of individual bikes, spatial performance in the city and community of riders with online blogospheres.

6.3 Methodological insights

This investigation explored relatively novel methodological innovations for the study of mobilities. The use of video ethnography coupled with in-depth interviews and participant observation facilitated a nuanced analysis of riding fixed, endorsing a new focus for human geography within the New Mobilities Paradigm. The recent turn towards exploring habitudinal movements is in line with this dissertation, examining the daily activity of urban cycling. In particular, the use of video and visual analysis reflects the contemporary cycling culture, living in the 'age of the screen' (Lorimer, 2010:239). The value of a mixed method approach also imitates the multiple layers of subjective value in the data collected, with both quantitative and qualitative means of analysis reflecting multiplicity of meaning in the visual, verbal and textual data.

The interplay of agency within the assemblage of the body-bike hybrid generates intriguing spatial patterns, particularly in performance. This investigation paid close notice to the communion between rider, fixie and road, indicating unique relations between body, technology and space. These complex relations demand new methods with spatial sensitivity in order to pay credence to the value of subjectivity and micro-geographies, such as the 'ride-along'. As explored, the focus on the particular and individual scale of action and affect demands a new localised scale of enquiry, correctly conceptualising the place of the individual within their assemblage. It is with this lens of enquiry that the embodied aspects of mobility are engaged with, framing the nuanced complexities of mobile practices.

6.4 Hybrid spaces

The experimental and experiential spaces of riding fixed support Foucault's thesis that we are in the 'epoch of space' (1986:22). The battle for road space becomes the habitus of riding fixed, with bodily movements, practices and routines repeated and internalised (Adey 2010), through both cognitive and affective ways of knowing. Hence, space is highly politicised; once 'treated as the dead, the fixed, the undialectical, the immobile' (Foucault, 1980:70), its resurgence in contemporary academia has perhaps superseded time as 'richness, fecundity, life, dialectic' (ibid.). This is inherently geographical, challenging both the methodological toolkit of geographers and approach to spatial problems.

Interaction between space and place illuminates new sophisticated understandings of hybrids. In mobile practices, these are often manifested in twofold dynamic tensions, such as that between pride in performative practice and public perception, or the ongoing entanglement between fashion and function of fixies. The value of a hybridised understanding of body-bike and experiential complexity has been invaluable to this investigation, building on recent attempts to reconceptualise dualisms (Whatmore 2002; Thrift 2004; 2006). In particular, a number of key fragile assemblages have been noted (Fig.63).

The experience of riding fixed	
Simple	Complex
Function	Fashion
Technology	Technique
Macro geography	Micro geography
Creating new spaces	
CREATE fixies	CREATE space
Pride in performance	Pride in perception
Old	New
Thematic tensions	
Kinaesthetic	Zen
Purity	Chaos
Linear	Circular
Fixed	Fluid

Fig.63 – Table of tensions associated with riding fixed

6.5 Paradoxical by nature

Circularity has certainly been central to this investigation, suggesting new active, sustainable forms of mobility, demanding new means and units of analysis, such as 'rhythmanalysis' (Lefebvre, 2004). However, linearity also defines a rider's experience, according to the linear-circular complex, creating a paradox. Likewise, the seeming simplicity of the commodification of affective experience, technology and identity, has uncovered complexity within the relations between body, bike and space. The conundrum

continues; as we are in the 'epoch of space' yet also the 'epoch of simultaneity, the epoch of near and far, of the side by side, of the dispersed' (Foucault, 1986:22). It is this understanding which frames the very paradoxes of riding fixed; an entanglement of fashion and function, circularity and linearity, fixity and flux, and so much more besides. These dynamic tensions set the tone of postmodern sarcasm, since after all, the fixed wheel bike is far from a static experience of the city; no, rather a fluid one. So, 'if you're scratching you're head, know that riding one makes instant sense of it all' (Buckheit, 2009:1). As Tim articulated; 'you have to ride it to experience it' – indeed, only *practice* discloses full meaning.



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List of Participants

The 5 Create riders who participated in the ride-along method, video ethnography and interview, each with pseudonyms:

Create rider #1 (Dave)



Create rider #2 (Tim)



Create rider #3 (Josh)



Create rider #4 (Toby)



Create rider #5 (Char)



Appendices

Ride-along method (DVD attached with ride-along videos for each rider)

15 minute ride-along = favourite place in Oxford (eg. Woodstock road)

Examine performance of cycling

- Style
- Speed
- Riding position
- Mentality
- Attitude to safety
- Attitude to laws
- Attitude to pedestrian

In-depth interview

Name:

Would you like to remain anonymous?
Do you ride a fixie?
Do you ride a CREATE fixie?
Where did you buy your fixie? (e.g. shop/internet/eBay)
When did you buy your fixie & for how long have you been riding it?
Is Oxford your main riding site?
If yes, why is this so?
Where is your favourite place to cycle in Oxford & why?
How could you describe your relationship with your fixie?
Could you list & explain 3 meanings your fixie carries:

3 aims of interview

Perceptions = tension of style/fashion vs. comfort/practicality

Performance = connection with bike & relationship between body/technology

Paces = tension of beauty of speed vs. thrill of the still (conflict or synergy?)

Interview themes

1. **PERCEPTIONS**

What is your relationship with your fixie – is it unique?

Where do you lie on the scale of riding your fixie: 10 (fashion) ---- 0 (practicality) – has this changed?

When you ride your fixie do you see your identity as individual or collective?

When you lock your bike up do you make it visible? If so for safety or pride?

2. PERFORMANCE

What connection do you have with your fixie when riding?

Does this communion extend to the the road? If so is this pure & simple or just fun or both?

What ratio is your fixie & do you know the tech specs? E.g. colour/size/parts (bike photo if possible!)

When riding what emotions do you feel? Any of the following: a mystical connection (hard to express with words), souplesse of the legs, fleeting emotions, embodied rhythms...

What skills are you able to perform on your fixie? Can you balance/skidstop/ride backwards etc.

Has riding a fixie improved your road awareness & made you plan ahead?

Is your fixie virtually silent to ride & if so what does this mean to you?

3. **PACES**

Where is your favourite place to cycling in Oxford & why?

Do you like riding in the city & in traffic? If so why – is it freedom/autonomy/weaving etc...

Do you see the different speeds of a fixie in conflict or synergy? (eg. trackstand → sprint)

Do you ever compete on your fixie – if so with who & how? In your head or in reality?

What are the interactions between pace, thought & sight for you, when riding?

Is there 1 word or theme which sums up your fixie riding experience?

4. **FURTHER QUESTIONS**

Do you think fixie riders are a subculture or mainstream?

Fixie riders often emulate dangerous courier style riding – what consequences do you think this may have on urban cycling in general & public perceptions of cyclists?

Fellia named their bikes CREATE – does this word have any significant meaning for you?

Do you know other fixie riders who may be willing to answer some questions – if so could you note down their details.

Many thanks for your time!

Online survey

BIKE DETAILS

1. When and why did you buy/build your fixie?
2. Is your fixie a standardised shop bike or personally built? What make is it or what personalised touches have you made and why?

FASHION OR PRACTICALITY?

3. Where do you lie on the scale of riding for fashion (10) or practicality (0)
4. When you ride do you see your identity as individual or collective? Do you view fixie riders as a sub-culture or the mainstream?

RIDING EXPERIENCE

5. How often and how far do you normally ride your fixie - is Oxford your main riding site or elsewhere? (please specify)
6. How would you describe the experience of riding a fixie?
7. How would you describe your relation with your fixie and could you list & explain 3 meanings the bike holds for you?

RIDING STYLE & ATTITUDES

8. Do you ride illegally? (please specify) – no/rarely/sometimes/yes & jump red lights/ride brakeless/dangerous/reckless riding/ignore pedestrian crossings/other
9. Is your riding influenced by couriers at all? (e.g. videos, blogs, word of mouth...) & how do you think others perceive you as a fixie rider? (e.g. other cyclists, pedestrians & motorists)

CONCLUDING REMARK

10. Is there one word or theme which sums up your fixie riding experience?

Unless you wish to remain anonymous, please also leave your name. Thanks for your time!

Online survey leaflet

Hi fixie rider,

I'm conducting some research into fixed gear bikes in Oxford and having seen your sweet bike I wondered if you'd be willing to fill in a short questionnaire.

If so, please go to the survey on this link - http://www.surveymonkey.com/s/9XHLR3R

Cheers and enjoy riding!

