

Understanding Cycling: Practices and Experiences in Sydney



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Photos, left to right: (1) cyclist rides toward the CBD, Park Street, Sydney, (2) two cyclists on a shared pedestrian-cycleway in the Domain, Sydney, and (3) a cyclist stops to check a map, Bourke Street, Surry Hills. These photos and all others included in the thesis, unless otherwise stated, are my own.

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Summary

Cycling in highly-automobilised cities is perceived as a marginal mode of travel. Whilst it has well-documented health, environmental, economic and social benefits, little is known about how cycling is practiced, the content and meaning of the journey, and made a part of everyday life. Utilising the lenses of practice, emotion and affect, the study explores the qualitative experience of cycling in Australia's largest city, Sydney. This includes the way in which cycling is enacted, performed, and sustained by people who cycle, and the way in which people who cycle make meaning through their cycling. I employ a hybrid methodology to record highly personal narratives of cycling, with a focus on the everyday journeys of people who practice cycling(s).

The study has two key findings. Firstly, that cycling can be considered as a social practice but is also more-than a practice. The study finds that cycling practices are dynamic, flexible, enfolded into other/multiple social practices, and that people who cycle are not fixed in their cycling practices. Cycling practices develop from an active bundling of materials, meanings and competences that are not wholly related to mobility. Instead, cycling practices shift as they are enfolded into sporting/exercise practices, childcare practices, shopping practices, and working/study practices – serving multiple and overlapping functions.

The second key finding relates to the emotional geographies of cycling, as the study finds that the multifaceted emotional and affectual experiences of cycling are embodied, relational, and extend beyond the journey itself. The study uncovers the way in which cycling becomes embedded in the way people navigate the city, but also the way in which they navigate relationships and make sense of their place in the world. Together, these findings contribute to a new understanding of cycling as a relational process of becoming. This notion of becoming with poses a significant challenge to conventional understandings of transport, and reimagines how mobilities and cycling are conceived of.

Statement of Originality

This work has not previously been submitted for a degree or diploma in any university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

(Signed) N. McNamara Date: 08/01/2018
Nicole Kate McNamara

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Acronyms and Abbreviations

ABC	Australian Bicycle Council
ABS	Australian Bureau of Statistics
ASC	Australian Sports Commission
BNSW	Bicycle New South Wales
BUG	Bike User Group
CNSW	Cycling New South Wales
COS	City of Sydney Council
ERASS	National Exercise, Recreation and Sport Survey
GCCSD	Greater Capital City Statistical Division
GPS	Global Positioning System
HTS	Household Travel Survey
LGA	Local Government Area
MAMIL	Middle Aged Man in Lycra
MAWIL	Middle Aged Woman in Lycra (a subversion of MAMIL)
NSW	New South Wales
RMS	Roads and Maritime Service

Glossary of Terms

BMX: A small-framed bicycle that commonly has 20-inch diameter wheels. BMX generally stands for bicycle motocross. A BMX is generally used for off-road technical cycling, such as jumps and at skate parks, and is popular amongst younger riders.

Big ring: The largest chain ring on that bike - see also Chain ring(s).

Brompton: A common brand of folding bicycle – see also fold-up bike.

Bonking: Originating from professional cycle racing, ‘bonking’ means to run out of bodily energy.

Similarly ‘bonked’, ‘hitting the wall’, ‘hunger flat’ or ‘blowing’.

Bunch: A group of cyclists.

Cargo bike: A more robust cycle designed for carrying cargo of varying kinds, including human passengers, items such as shopping, and animals. Different types of cargo bikes have storage in different locations on the front or rear of the cycle.

Chain: A metal roller chain that loops around the chain ring and a toothed ring or a set of rings (cluster or cassette) attached to the rear wheel to transmit the power that drives the wheel of the bike around.

Chain ring(s): A round metal-toothed ring attached to the pedals and cranks, see also chain.

Commuter bike: A bike specifically designed for riding to and from work. Usually capable of being ridden with ordinary clothes rather than cycle specific clothing. The riding position is more upright to enable better rider vision and lower saddle to facilitate stability when stopping in traffic. Often has mudguards and a luggage rack or carrier.

Cyclist: A person who cycles.

Cyclocross: A form of bike racing on modified road bikes on varying terrain and surfaces.

Derailleur: A mechanical device that changes the gearing of the rear wheel by moving the chain from one toothed ring to another of a different size on the rear wheel. See also chain.

Drop bars: Also called ‘D bars’ because of the shape of the handle bar. Drop bars are often found on road bikes, single speed bikes, and fixed gear bikes. Drop bars are most common in racing

bikes. They enable the rider to manoeuvre the body into a tucked position so that the rider is more streamlined and there is less resistance when undertaking a hill descent.

Dutch bike: Refers to the style of bike commonly ridden in the Netherlands, with an upright seating position, swept back handlebars, and a downward sloping top tube on the frame for ease of mounting and dismounting.

E-bike: An electric bike that has a motor that also drives the chain ring as well as pedals.

Fixie/Fixed gear bike: A bike with one gear that has the pedals, chain and rear wheel directly connected so that speed and direction of motion is directly related to pedal rotation.

Flat bars: Handlebars that are generally straight across the bike. Flat bars also enable a rider to sit upright on the cycle.

Fold up bike: A bike capable of being collapsed or folded for travel or storage purposes, usually with a hinged frame and smaller wheels than on most bikes.

Gearing: Selection of the correct gear for the current riding conditions.

Hunger flat: To run out of energy due to failing to eat or drink during a ride. See also Bonking.

Mountain bike: A bike for off road riding usually with a stronger frame, larger tyres, lower gears for climbing steep inclines and often front and rear wheel suspension systems.

Panniers: A type of luggage designed for a cycle. Panniers are affixed to a front or rear rack that sits above the wheel, so that the pannier/s sit astride the wheel.

Peloton: A term used in professional cycle racing to describe the main bunch of riders. Cyclists often ride in a peloton

Road bike: A bike that is designed to be ridden on the road and at speed. A road bike is often quite light in weight, having lighter components and a lightweight frame.

Single-speed bike: Similar to a fixed gear bike, the single speed bike has one gear ratio. A single speed bike has less moving parts than a standard bike and is a common choice for people who commute as there is less maintenance involved. Any type of bicycle can be converted into a single speed bike.

Strava: A social networking application (web-based or mobile device) used to track (via satellite) athletic performance, including distance, speed, and cadence. Strava members can record and share trips, and compete with others via the platform.

Tag-along: An attachment to join a child's cycle to an adult's cycle. It creates a tandem bike.

Towed: When a cyclist sits in the slipstream of another cyclist to gain an aerodynamic advantage.

Tricycle: A three-wheeled bike.

Preamble

Bikes have been a big part of my life and it is with a full heart that I proclaim, I am a cyclist and I come from a family of cyclists. My childhood is filled with memories of cycling (as evidenced in Figure 1 below). I can recall my dad spray-painting an old black BMX that had belonged to a cousin pale pink for me when I was probably four years old – he got his nice white road bike frame with some of the paint too – and years later my sisters and I would use the old BMX handlebars to make the world's best bush flying fox. But one of my earliest memories related to bikes is waking up on Christmas morning and sneaking out to see what Santa had left for us. I saw two pink and white bikes with baskets, flowers, and handlebar streamers on them sitting in the front entrance way. These were my older twin sisters' 'big-girl' bikes and I ran into their bedroom yelling 'wake up, you got bikes, you got bikes!' – I may have ruined the surprise, however we had so much fun with those bikes that it hardly mattered.



Figure 1: Cycling home from the fruit shop in 1992 with my sisters on their 'Big Girl' bikes (Image courtesy of P. & L. McNamara)

I close my eyes and remember how it felt to be doubled by my sisters on those pink and white 'big girl' bikes (they were complete with rear racks and those racks were my seats). I also recall falling off them quite a lot. We'd cycle up the driveway to next-door's orchard to get the paper or milk for our parents, and the orchardists would give us old pears to feed the other neighbour's pony on our

way back home. We'd race around the property on our bikes pretending that one of us was a bank robber on the run from the cops, and the others were the police – our very own car chase on pink and white bikes. Or one of us (generally me) would fake a bike crash and the others would be the ambulance coming to the rescue.

Almost every summer holiday for as long as I can remember was spent somewhere down the south coast of NSW camping and riding our bikes around. The thrill of cycling on holidays far outweighed the stress of packing the car, loading all five bikes onto the back, and driving for five hours to get away. When we were all old enough to ride mountain bikes we'd ride in the Murramarang National Park on holidays. On these rides sometimes Dad would give whoever was trailing behind a push up the hardest of the hills – holding on to the seat to help one of us kids along.

I also remember going away with my parents when they went on 48-hour orienteering mountain bike rides, or overnight endurance rides with friends who had nicknames like Mad Eyes. They would return triumphant with mud often splattered all over themselves and their bikes. As a seven year-old I thought that my parents and their cycling friends were so heroic! And I still think this today! I remember being given Mum's first mountain bike, a maroon Malvern Star, as a hand-me-down one-year. I loved that bike so darn much! It had the classic Malvern star metal badge, and I got to choose new handlebar grips so of course I chose World Wildlife Fund grips with the WWF logo and frogs on them from a bike shop on holidays. It might have been the same year that Mum stacked it going down a suburban street whilst on holidays and still has the gravel in her knee as a souvenir.

I can recall riding my bike (I can't remember which one) one morning before my 9th or 10th birthday party up the driveway (it was half a kilometre long) to tie balloons to the letterbox, and pedalling as fast as I could back down the driveway (wheeeeeeeee) then flying over the handlebars into the sandstone garden edging near the front door and escaping with only a few scrapes to my knees and hands. In fact, most cycling memories involve a stack of some description!

I kept cycling through high school too. Mostly to a friend's house not far from us, but there were always the summer holiday rides as a family, or rides with my sisters around South Durras to get ice creams. When I started University though I stopped cycling as much. I went on the occasional

weekend ride or weekday afternoon ride with Mum, just around home and out into the then State Park, because she would always want to train for her weekend rides with her friends and it was really nice to have that mother/daughter time.

As a 19-almost 20-year old I moved to the city in 2007 and walked everywhere so bikes took a back-seat: making new friends, going out, shopping, studying and working all took precedence. It was my sisters that got me back on a bike in earnest though. They befriended someone who worked in a BMX shop so before I turned 21 we all had BMXs that lived in our tiny inner-city terrace rental and we'd ride to the park, or the pub and I rode to university too. An old friend gifted me a beat up old silver bike for my 21st birthday (I called it Ziggy) but it was lacking brakes and sat in the courtyard where it gathered cobwebs. Later, I borrowed my sisters' bikes when they moved to Melbourne and I cycled around the inner city suburbs with them, as it was the most convenient way of getting between their homes and to the Victoria Markets for groceries.

In 2011 I went to Portland as part of a longer great American road trip holiday and hired a charming red road bike in the Rose Quarter. In 14-degree Celsius temps I explored Portland by bike with my travelling companion and I loved it. Cycling in Portland's leafy suburbs brought back all those childhood and teenage memories of cycling around my childhood home and away on holidays. My body remembered EXACTLY what to do. When I got home I bought my own version of a 'big girl' bike – a lovely navy blue aluminium framed step-through with swept-back handlebars and a rear rack – and called her Patti-Pearl after two of my favourite musicians, Patti Smith and Janis Joplin. This bike was rather nostalgic and beautiful, if a little heavy to ride on longer trips, and I don't think I've looked back since then. I rode Patti-Pearl in the 2012 Sydney Spring Cycle from North Sydney all the way to Homebush Bay with Mum, which was a rather large feat given the weight of the bike! I have clocked up the Ks along the Cooks River share path, airport share path, and all around the cycling friendly (and not so friendly) streets of the inner-west on Patti-Pearl. I was sad to sell her at the start of 2017, but am so happy that she's gone to a new home with an owner who can make the most of her solid construction and rear rack to whizz around with a toddler.

Somewhere between 2011 and 2013 I upgraded to another of Mum's hand-me-downs – a perfectly light and fast road bike (I call her Hilly or The Hill Billy), and bought a stationary bike stand for rainy day spins inside. For a good 6 months there in 2012 I rode on Hilly with Mum and her Saturday morning bike group for 50 or so Ks around Sydney's peri-urban fringe, which included the dreaded Mount Razorback. It was never the uphill that I feared, but the downhill (years later it is still daunting when I ride down Razorback with the muscle women). I learnt to wear Lycra and to tuck into the drops in my handlebars when going downhill during those early Saturday rides.

The difference between riding a heavy aluminium-framed step-through commuter bike and a lightweight carbon fibre road bike with D-bars was incredible. It was at once familiar and also incredibly alien. I had to learn how to position myself as I rode down Mount Razorback (something I had not had to do since I was a teenager on mountain biking holidays in the bush), and how to clip in and out of the pedals without gauging my leg on the chain ring. I got up before sunrise, learnt the group's hand-signals and learnt how to ride in a peloton. These were all behaviours that I had witnessed many times as I watched both of my parents fall in love with road cycling and all that came with it from an early age. I had always been on the fringes, but now I was part of the cycling crew – coffee, outfit, fast bike, the works! During the short time that I participated in these early morning rides I adopted a different cycling identity. I was no longer a casual commuter cyclist/bike enthusiast (because commuting was now a car-train-bus affair) but I was not a MAMIL/MAWIL either. I was (and still am) a twenty-something feminist with a really cool road bike, wearing my Lycra with pride, enjoying time spent in the saddle with my family and friends.

Although I don't use Hilly as regularly as I would like to, I know that I can slip into a commuter routine with her easily enough and she's in my shed waiting to be ridden as I type. Now I ride around Sydney with my partner (fancy a trip to LaPeruse or around the Bay Run on Sunday darling?), and we've got a car big enough to take our bikes on holidays with us (Dad, can we borrow your old bike rack please when we get a tow ball? – love from Nicole and Grant) so all our adventures together can include cycling together too. At the start of 2017 we cycled around New York on CitiBikes (the NYC bike share scheme bikes) and took to the city's cycleways with gusto – see Figure 2 over the page –

and I cannot wait to get out there and ride somewhere new! I've been watching the dock-less share bikes appear all over Sydney with great interest since October of this year and rode one home from the train station – heavy and cumbersome but still enjoyable. I have great hopes they won't become the 21st century equivalent of shopping trolleys – abandoned and defaced in strange places in the city – only time will tell.



**Figure 2: The researcher cycling in New York City in April, 2017
(Image courtesy of G. Hoffman)**

Cycling has become a part of my identity. Whether I am cycling regularly or not, I am a cyclist. Indeed, having access to a cycle is normal for me and the times when I haven't owned my own cycle I have felt somewhat less me. I love my fast and light road bike, just as I loved my old blue Dutch-style bike, and am sure that I will love the next bike I get too. My own experiences of cycling have naturally influenced my theoretical approach to researching cycling. Because of my own connections to cycling and bikes, I am interested in how emotions inform mobility and in the role of the bike as a material object. Moreover, because of my own experiences of switching between different kinds of cycling

(weekend riding in Lycra/commuting/transportation/recreational rides along the river or to the beach) and cycling in different locations both in Australia and overseas, I am interested in the way that cycling is assembled and the way that people switch between different cyclings.

Returning to the notion of the 'cyclist', I am a cyclist because I have access to a cycle, places to cycle to/along, people to cycle with, and I find meaning/attach meaning to the physical act of cycling and to the myriad of personal, social, environmental, and economic benefits it affords. However, this only became apparent as I embarked upon fieldwork. The further along the research path(cycle)way that I travelled, the more I realised how much I loved cycling, and I became a cyclist-researcher rather than just a cyclist and just a researcher.

1

Approaching Cycling Research

1.1 Introduction

This thesis brings the lenses of practice, emotion and affect together to explore the qualitative experience of cycling in Australia's largest city, Sydney. Cycling has been gaining prevalence in Sydney as local and state governments increasingly plan for and fund cycling infrastructure in an effort to create more liveable cities.¹ As cycling infrastructure is developed, more people are cycling in congested areas of Sydney's inner and outer suburbs for everyday travel and recreation. The rise in the number of cyclists is matched by the growing visibility of the material object of the cycle.² This is occurring through cycling awareness campaigns, greater regulation of cyclists, and the recent emergence of cycling-based food delivery services and dock-less share bikes across Sydney that present constraints and opportunities for cycling as a mobility form in Sydney. Within this context, cycling represents an alternative and affordable mode of transport to the private car, as well as a recreational mobility form that has multiple health, economic, social, and environmental benefits. The cycle is seemingly everywhere and cyclists and cycling is as controversial and contested, as it is visible.

Cycling is normally viewed from a transport planning or transport geography perspective, with much attention given to cycling infrastructure, including design and use (Pucher and Buehler 2012b). As such, cycling tends to be treated as linear, with cyclists often treated as fixed. In this sense, cycling is often separated into distinct parts or binary ideas (i.e. utility/transport or recreation, road cycling

¹ Refer to Table A.1 in Appendix A for an overview of government plans and policies pertaining to cycling in NSW and to section 4.3 in Chapter Four for a discussion of Sydney's current cycling governance.

² Here I use the term 'cycle' inclusively. It is intended to encompass the range of different types of cycles, including bicycles, tricycles, unicycles, tandem bicycles and so on, that people ride and are appearing across the city in real estate and clothing shop windows, on street cycle parking facilities, and through public share bike schemes.

or mountain biking, male or female), treated as a progression from one point to another along a predetermined path, as a process that unfolds along a set trajectory (i.e. planning and building infrastructure that cyclists then gravitate toward), and as unchanging (i.e. cyclists are one thing or another). As a result, the 'hectic bonds' that Whatmore (2002, 3) describes as being the things 'through which people and plants; devices and creatures; documents and elements take and hold their shape in relation to each other' are often overlooked.

The dominant, binary understandings of cycling are problematic as they favour infrastructure use and interventions at the expense of the messy, complicated, and highly qualitative experiences of cycling. As such, the way(s) in which people enact, perform, and experience multiple forms of cycling, are under-researched and a detailed understanding of the lived experience of cycling is missing from cycling research. Such an understanding would challenge the aforementioned static notions of cycling and provide much needed valuable insights into ways of being mobile that are not dependent on the private car. Moreover, I suggest that reflecting on what takes place when people cycle (including in the lead up to and after a cycle journey), what is it about cycling that keeps people who cycle hooked, what takes place when people cycle through the city, and reflecting upon how these experiences of cycling change, or stay with, people who cycle, can uncover a 'sense of the real' (Thrift 1996, 7) – a view from the saddle and beyond. A more nuanced understanding of the lived experience of cycling will extend mobilities scholarship that views mobility forms as 'affectively satisfying and emotionally meaningful' (Cass and Faulconbridge 2017, 98) and can contribute to a reimagining of the role(s) of mobility in everyday life.

I suggest that a new understanding of cycling is needed, one that reimagines the relationships between Whatmore's (2002, 3) 'hectic bonds' and remains sensitive to the heterogeneity and fluidity of cycling. The relationships between the experience of cycling and its imagined and material elements are not well understood and the experience of cycling needs to be rethought. It is my contention that there is value in exploring the qualitative experience of cycling through the lenses of practice (after Shove, Pantzer and Watson 2012), and emotion and affect (see Cass and Faulconbridge 2017, and Waitt, Harada and Duffy 2017 for examples of emotion/affect within the

field of mobilities), as these theoretical lenses can provide a detailed and more nuanced understanding of cycling.³ Taken together, ideas concerned with practice, emotions and affect generate a nuanced understanding of the myriad ways in which people cycle, embed cycling in their everyday lives, and make meaning through their cycling. This depth of understanding is arguably lacking within mobilities studies and practice discourse with regard to cycling (see Faulconbridge & Hui, 2016). In particular, I am concerned with unveiling the way(s) in which cyclists are operating within car-dominated environments, and draw on emerging discourse that probes the content and meaning of the journey (see for example Cook, Shaw and Simpson 2015, Jenson 2009, and Spinney 2009) and brings practices into conversation with emotion and affect literatures (see Reckwitz 2017, Weenink & Spaargaren 2016, and Wallenborn 2013).

I begin this chapter by outlining the conceptual, theoretical and practical contexts for researching cycling, and creating a new understanding of cycling by utilising theories and methods that are not usually used to view cycling. I then set out the research aims and research questions, before outlining the key contributions of the research, and providing an overview of the thesis structure.

1.2 Positioning Cycling: Conceptual, theoretical, & practical contexts

In the previous section, I proposed that we need to rethink the way in which cycling and cyclists are imagined. This is particularly pertinent for Sydney, as state and local governments continue to retrofit the existing car-centric infrastructure to accommodate cyclists and direct significant public funds toward cycling infrastructure (McNamara 2013a & b). A different understanding of cycling, one that illuminates the way(s) in which people who cycle practice and experience their diverse cyclings within such contested spaces as Sydney, can provide insights into how to better accommodate, plan for, and support diverse cyclings into the future, as '[t]he city is for everybody and all have the right to be in the city' (Koglin 2011, 225). More importantly, by reimagining cycling through the lenses of

³ See Chapter Two for a more detailed discussion of the term 'lens'. I consider it as a way of viewing or way of seeing cycling through particular theoretical entry points.

practice, emotion and affect, this thesis can extend mobilities scholarship concerned with linking ways of being mobile to different ways of being in the world.

Mobility 'is everywhere' (Cresswell 2006, 1) and at the most basic level it 'involves a displacement ... between locations' (Cresswell 2006, 2) – point A and B. With regard to transportation, contemporary cities are overflowing with mobility choice – one can cycle, catch public transport (there are often multiple public transport modes within any one city), walk, jog, drive, car-share, bike-share, or hire private transport. Indeed, our ways of being mobile are diverse. While not denying the importance of tracing the flow of objects and subjects across time and space, mobilities scholars are increasingly interested in investigating and reframing the displacement act; the line between points A and B (Cass and Faulconbridge 2017, Sheller and Urry 2016), and in questioning what sits outside of linear mobilities, the shape(s) that mobility takes (see Cook et al. 2015), and questioning what it means to be mobile in contemporary cities (Aldred, 2015; Spinney, 2009). It is within this growing body of mobilities scholarship that I situate this thesis – to centre enquiry on understanding the practices (the ways in which cycling is enacted and performed) and experiences (the content and meaning – the emotional and affectual aspects) of cycling in Sydney, Australia.

In the broad field of scholarship concerned with cycling, greater attention to date has been paid to understanding cycling from quantitative perspectives, and on rational understandings of cycling (Spinney 2009). This is because cycling, according to Spinney (2009, 818), 'lends ... [itself] poorly to either apprehension or representation by methodological and intellectual techniques that rely on fixed locations and language in order to evoke ... [its] character.' Cycling data such as cycle counts and cycling journeys-to-work are important for understanding cycling trends over time (Pucher and Buehler, 2012b, 9-10). Mobilities scholarship sits alongside this and provides a theoretical grounding to explore the more qualitative experiences of cycling. For example, qualitative studies that examine individuals' cycling preferences (see for example Broach et al., 2012; & McNamara, 2013b), behaviour and motivations (Aldred and Jungnickel, 2014; Chatterjee et al., 2013; Spotswood et al., 2015), identity and embodied experiences (see Aldred, 2010; McIlvenny, 2015a; & Spinney, 2006),

and cycling trajectories through the life-course (see Bonham and Wilson, 2012) provide much greater insights into why and how people cycle, as well as what takes place whilst cycling. This literature on the qualitative aspects of cycling sheds much needed light on what it means to cycle, and I contribute to this literature in my research by drawing on the lenses of practice and emotion and affect, to further explore the qualitative experience of cycling and the way(s) in which cycling is practiced.

As previously mentioned, there is increasing interest in exploring and understanding how mobilities are performed, in understanding people's mobility preferences, behaviour, motivations, identity politics, and the manifold experiences of cyclists that cannot be extrapolated from cycling data. I suggest that approaches to social practice theory are one means of exploring mobilities in greater depth (see Sheller and Urry 2016 and Nijhuis 2013). Mobilities research influenced by practice-theoretical work has shed light on the importance of the material and social aspects (i.e. elements) of practice, and the relationships between elements, to the continuation of different mobility practices (see for example Cochoy et al. 2017, Larsen 2017b, Rau and Sattlegger 2017, Greene and Rau 2016, Spotswood et al. 2015, Heisserer and Rau 2015). Indeed, the popularity of social practice theory within mobilities has seen a growing number of studies that engage with notions of practice to examine the way in which mobility forms are integrated into people's everyday lives and are supported through broader social processes, including planning and regulatory systems (see Kent and Dowling 2016). For example, Larsen (2017b) recently examined cycling practices in Copenhagen through Shove et al.'s elements of practice. For Larsen (2017b), this model usefully highlights the materials, meanings and competences for individual cyclist-practitioner/carriers ('user practices') and the planning practice at the municipality level. Indeed, Larsen's (2017b, 888) study shows 'why, and how, cycling practices are continually (re)produced and attract so many practitioners in Copenhagen', a city well-known for its long history of cycling friendly policy and infrastructure. Practice-theoretical approaches to mobilities commonly assert the importance of 'the dialectic interplay between human actions and systemic structures' (Rau and Sattlegger 2017, 17), however they also draw attention to the highly contextualised nature of mobilities practices (Larsen 2017b), and more research effort is needed to understand different mobility practices in different

social and geographical contexts. By utilising a practice lens to view cycling, I aim to contribute to the small body of practice discourse that examines the way(s) in which cycling is enacted and performed by practitioner-cyclists, and further extend understandings of practice as dynamic and fluid.

Another major theme within mobilities studies is an effort to engage with the affectual and emotional experiences of mobile bodies in motion (Cass and Faulconbridge 2017). Parallel to this, is an increased emphasis on understanding how the often-slippery aspects of mobility forms (i.e. the emotional, affective, embodied and discursive aspects) inform ways of being in the world (Kent 2015). For example, recent work by Justin Spinney (2006), Paul McIlvenny (2015a), Simon Cook et al. (2015) Jane Middleton (2009), and David Bissell (2014 & 2011) among others, examine mobile bodies in motion; focusing on the embodied experiences, joy, and the temporalities of movement. These researchers unpack different forms of mobility, including walking (Middleton, 2009), jogging (Cook et al. 2015) commuting by public transport (Bissell, 2014), and cycling (McIlvenny, 2015a; Spinney, 2006), to explore previously unanswered questions about the role(s), multi-faceted experiences of, and shape of contemporary mobility practices. Through examining what takes place whilst on the move, I suggest that this growing body of literature challenges what it means to be mobile in contemporary urban environments, and prompts a reimagining of 'our understanding of bodies ... as dynamic and emergent multiplicities' (Bissell, 2011: 2649). By employing the lens of emotion and affect to view cycling, I add to this literature and shed light on the ways in which people experience and make meaning through their cycling.

Another aspect of the growing influence of emotion and affect, and to a lesser extent practices, within mobilities work (including cycling research), is the increasing interest in the content and meaning of the journey. In particular, internationally mobilities scholars are increasingly focused on the content and meaning of the journey as opposed to much transportation research which has focused on infrastructure provision (Larsen 2017a). Such research moves beyond viewing cycling as a form of transportation, and instead focuses on 'the intangible and ephemeral, the meanings that accrue in the context of the journey itself ... [as well as] the sensory, kinaesthetic and symbolic aspects of cycling' (Spinney 2009, 821). Recent work by McIlvenny (2015a), Spinney (2011 & 2006),

Aldred (2015 & 2013b), and Aldred and Jungnickel (2014a & b) explores the meaning and context of the cycling journey, yet this enquiry is lacking within an Australian urban context.

Australian cycling scholarship has been predominately concerned with quantitative studies. Indeed, much Australian cycling scholarship has tended to focus on understanding cyclists' motivations, the barriers and opportunities to cycling, perceptions of safety, and quantifying and tracing movement between locations (see for example Bauman, Rissel, Garrard, Ker, Speidel and Fishman 2008, Bonham and Suh 2008, Buehler and Pucher 2012, Johnson and Rose 2013, Heesh, Sahlqvist and Garrard 2012). Australian research has also focused on the purposes for cycling, be it to commute, for recreation, social trips, or for shopping (Pucher, Garrard and Greaves 2011b). This scholarship is pertinent to creating a better understanding of the way in which Australian cities can transition to more sustainable futures, and is representative of the imperative to shift away from the private car. Indeed, understanding people's motivations, purposes, and frequency (quantifying and tracing movement) of cycling helps in 'determining why and how people move around' (Spinney 2009, 821), however these studies rationalise cycling and overlook the lived experience of mobility. This is a significant omission given that overall cycling participation rates in Australia have stagnated in recent years, and have decreased in the Sydney region as a whole (Austroads 2017b). I argue that it is necessary to gain a more nuanced understanding of the way in which cycling is practiced and experienced in urban Australia in order to successfully encourage greater cycling, and create more normative and convivial cycling environments.

By exploring the opportunities that these two dominant lenses afford for understanding cycling, my research contributes to and expands practice-theoretical understandings of cycling, enriches understandings of the experience of cycling in urban environments, and furthers mobilities literature concerned with everyday experiences of mobility that are affective, emotional, embodied and discursive. In addition, I propose that bringing different ways of knowing and methods into proximity with one another assists in creating a new understanding of cycling as dynamic and fluid. In doing so, I respond to the lack of enquiry into the qualitative aspects of cycling, both on and off the machine of the cycle, and shed light on people's everyday cycling practices and experiences. I suggest that such

an in-depth understanding of cycling (developed through the lens of practice and emotion and affect) enables a more nuanced understanding of cycling as more-than practice and as a relational process of becoming.

1.3 Research Aim and Questions

The overarching aim of this thesis is to gain a detailed understanding of the qualitative experience of cycling by examining cycling through the lenses of practice, emotion and affect. This aim is intended to i) remedy the lack of attention paid to understandings of cycling within practice discourses, ii) contribute to a better understanding of the qualitative experience of a diversity of cyclings within mobilities discourses, and iii) shed light on the multi-faceted (emotional, embodied, affectual, sensuous, and fleeting) experiences of a diversity of cyclings. In order to explore this aim I focus on the following two research questions:

- 1) How is cycling practiced?
 - a) What materials, meanings and competences do cycling practitioners bundle together in order to perform cycling?; and
 - b) What are the similarities and differences between these bundles of elements for different forms of cycling?

This question interrogates cycling through the lens of practice. I focus on how practitioner-cyclists enact and perform their diverse cyclings by disassembling cycling according to the elements of practice (materials, meanings and competences). Through this question I also examine the way(s) in which cyclist-practitioners bundle different elements together for different cyclings, and draw attention to the similarities and differences between element bundles.⁴ The question prompts discussion of the malleability of practice and a consideration of ideas around how practices are defined.

⁴ I use the term 'bundle' to refer to the combination of elements that people pick up and put down in order to perform or enact a cycling practice. It is used both as a verb (to describe the way in which elements are combined) and as a subject (to describe an actual combination of elements). It is important to note that Shove, Pantzer and Watson (2012) use the term 'bundle' as a noun. My use of the term is not intended to confuse those familiar with the work of Shove et al. (2012).

- 2) How does the practice of cycling/cycling practices shape emotions?
 - a) How and in what ways do the experiences of cycling shift over the duration of the journey and extend beyond the journey itself?
 - b) What is the role of cycling in participants' lives?

This question prompts a deeper exploration of both the emotional and affectual experiences of cycling (on and off the machine of the cycle) and in how meaning is made through cycling. I explore the emotional and affectual aspects of cycling, including embodiment, connections and attachments (to cycling/cycles/communities), and identity formation. Attention is drawn to the ways in which cycling disrupts conceptions of clock-time, engenders multiple temporalities, and the ways in which cycling impacts upon the everyday lives of practitioner-cyclists in multiple ways – through a sense of self/belonging, individual health and wellbeing, and through relationships with the self, the city and with human and non-human others. This question also stimulates discussion of the important role(s) that cycling plays within people's everyday lives, and the ways in which people's mobility decisions have impact beyond the journey itself.

In order to answer these research questions and reimagine cycling, I develop a hybrid methodology. The hybrid methodology (after Whatmore 2002 and Nightingale 2016) brings different ways of knowing and associated methods into proximity to look anew at the same research problem. The process of answering the above questions allows for a detailed exploration of the opportunities afforded by each lens to understand cycling in nuanced ways. I argue that by viewing cycling through these two lenses, my research enhances understandings of the role(s) of the cycle in everyday life, and draws attention to the inherent dynamism of cycling practices, and the multifaceted, contingent, and shifting nature of cycling experiences. This in turn reveals the malleability of practice, and the important and often highly emotional role(s) that cycling plays in people's everyday lives. I address each research question separately in the two empirical findings chapters and bring the lenses together in the discussion chapter, and these are summarised in the following section where I outline the thesis structure.

1.4 Thesis Structure

The overall thesis is divided into three sections; i) theoretical and conceptual grounding, ii) methodology and findings, and iii) research discussion and implications. I begin section one of this thesis by positioning the research project within cycling and mobilities discourses, drawing on and reviewing these literatures. I also introduce and review two prevalent concepts that direct much mobilities work: practices and emotion/affect. In section one I also identify the research aims and questions, and outline my theoretical position. In the second section of the thesis I explore the development and implementation of the hybrid methodology for understanding cycling, as well as the contextual background for studying cycling in Sydney. In this section I also present the research findings over the course of two empirical findings chapters. Finally, in section three I reflect on the findings as they relate to the research questions, explore the implications of the research project for theory and methods, provide recommendations for cycling governance, identify opportunities for further research and the limitations of the study. I now elaborate upon the content and structure of each chapter and highlight how they contribute to the overarching aim of the thesis.

Chapter Two offers a conceptual framing of the thesis argument and reviews literature relevant to the study. It explores the principal theoretical approaches to cycling and mobilities as they relate to active mobility forms. It focuses on the influence of social practice theory and emotion and affect within mobilities and cycling discourses, to present an argument for multiple theoretical entry points into cycling. The first part of this chapter identifies the dominant ways in which cycling has been approached within geography, before examining how the experience of active forms of mobility, such as cycling, are treated by mobilities scholars. The chapter then examines how mobile bodies in motion are increasingly viewed through either the lens of practice or the lens of emotion and affect. The chapter draws attention to the strengths and weaknesses of these dominant lenses, before concluding with a theoretical synthesis of the lenses, threading ideas already woven into mobilities studies such as performance and the more-than representational, and insights from feminist geographies, to highlight the need for a more nuanced, and multi-faceted, approach to research cycling.

Chapter Three outlines my methodological approach to researching cycling in Sydney. In this chapter I explore the methodological and theoretical challenges of researching cycling using multiple theoretical entry points, and propose a methodological hybrid. I first outline the methodological debates within mobilities discourses that focus on how to research mobile subjects, namely the pervasiveness of binary conceptions of mobile and non-mobile methods for mobilities research, before exploring the turn to methodological pluralism, experimentation and reinvigoration within human geographic methods as a means of avoiding methodological sedentarism. I then introduce the notion of a methodological hybrid, outline the design of the methodological hybrid and its application including participant recruitment and selection, data collection, and data analysis processes.

Chapter Four, the context chapter, sets the scene for the study. I first justify the selection of Sydney as a site from which to study cycling. I then provide an overview of the quantitative data collected over the course of the fieldwork process. The quantitative data illustrates that respondents cycled frequently and performed a diversity of cyclings. This is crucial for supporting the qualitative findings in Chapter Five that relate to the dynamic nature of cycling. I then introduce the study participants, including their socio-economic status, household structure, and mobility patterns as a primer for the following two empirical findings chapters.

Chapter Five is the first of two empirical findings chapters. In this chapter I examine cycling through the lens of practice, and centre analysis on the practice itself rather than on the participant engaged in performing the practice. I use Shove, Pantzer and Watson's (2012) conception of a practice to interrogate how my participants' practice cycling. This conception of practice describes a practice as being construed of three interconnected elements: materials, meanings, and competences. I disassemble and reassemble participants' cycling practices according to these three elements to address the first research question and its sub-questions. I begin the chapter by identifying the materials, meanings and competences required to perform different cyclings and assesses their relative importance. I then move to reassemble participants' cycling practices and highlight the commonalities between different bundles of elements for different cyclings through a

series of vignettes. The chapter finds that participants use cycling for a diverse range of purposes, perform multiple cycling practices (assembling different elements at different times), and simultaneously enfold cycling practices into other social practices. These findings challenge how mobility practices have been conceived of, draw attention to the interconnections between cycling and other practices, and reveal the malleability of practice both as a theoretical construct, and as an analytical tool. From these findings, I argue that cycling should be conceived of as more-than a practice and as multiple practices.

Chapter Six, the second empirical findings chapter, contributes a greater depth of knowledge to understandings of mobile bodies in motion, as I examine participants' experiences of cycling through the lens of emotion and affect. This chapter addresses the second research question and its sub-questions, and focuses attention on participants' articulations, expressions, and representations of emotion and affect. I examine the experience(s) of the cycling journey itself (the act of moving from point A to point B – 'journeying') through the concepts of encounters, interactions, and connections and attachments. Still maintaining this core focus, I then examine the experiences that sit outside of the physical act of cycling and contribute to notions of mobility that extend beyond the journey itself. I then turn attention to examine the role(s) that cycling plays in participants' lives. In this chapter, I find that the experiences of mobility transcend the journey itself and permeate daily life beyond the act of being mobile. I highlight the ways in which cycling is made meaningful for participants, and the ways that cycling's myriad emotional and affectual experiences (on and off the bike) shape people's relationships with the city, the self and with others. From these findings I argue that emotions are integral to the endurance of cycling practices. More importantly, I propose that cycling is a relational process of becoming, in which the cyclist, cycle, and the environment are engaged in shaping and reshaping relations with the city, the self and human and non-human others. This proposition destabilises the dominant narrative of the city whereby cycling has been 'framed in policy circles along narrow lines of environment and health' (Spinney 2009, 818), and I discuss this notion (as a finding and theoretical contribution) in Chapter Seven.

Chapter Seven serves as a discussion chapter and brings the findings outlined in Chapters Five and Six into direct contact with the literature. In this chapter I reflect upon the thesis' overarching contributions to existing literature, consider the implications of the findings for theory and methods within the context of existing literature, and argue that viewing cycling as a relational process of becoming is the key theoretical contribution from my thesis. I begin this chapter by addressing my research questions and explain how my study has answered each question in turn through the lenses of practice, emotion and affect. I then explore the implications of bringing the lenses of practice and emotion and affect into proximity, to further consider the implications of the findings through three frames: cycling identities, cycling materialities and cycling temporalities. Taking the findings from each lens (separately and together), I then explore how cycling can be considered as a relational process of becoming, and contemplate the implications that this overarching contribution has for theory.

Chapter Eight concludes the thesis by considering the wider implications of the research. In this chapter I first provide a summary of the thesis' findings. This is followed by a discussion of the broader implications of my study for cycling policy and planning, including recommendations for creating more normative and convivial cycling environments. I also suggest directions for future research and outline the study's limitations. The chapter concludes with a final reflection on cycling practices and experiences in Sydney.

2

Situating Cycling: Mobilities, Practices, Emotions

... we are surrounded by cycling[,]... cycling's universality is also one reason for its very complexity, diversity and, therefore, mystery. (Horton, Cox and Rosen 2007, 1)

2.1 Introduction

This thesis is conceptually situated within the field of mobilities and brings together different ways of knowing from social practice theories, emotional geographies, more-than-human geographies, feminist geographies, and social/cultural geographies to explore the qualitative experience of, and ways of practicing, cycling in Australia's largest city, Sydney. Cycling has been conceptualised, especially in Australia, either as a recreational activity or as a mode of transport (Pucher and Buehler 2012a), thus producing fixed understandings of people who cycle and linear conceptions of cycling mobilities (Spinney 2009). For example, cycling has been counted and observed, and our perceptions of the activity have been investigated (see Garrard et al. 2008, Pucher and Buehler 2012a). We know how many bicycles are sold per year (see Radbone 2013); how many cyclists use certain routes (see Broach, Dill and Gliebe 2012); the particular types of infrastructure that are preferred (see Koorey 2016 and Garrard et al. 2008); and how cycling is portrayed to, or by, the non-cycling public (see Nielsen and Bonham 2016, and Osborne and Grant-Smith 2016). The health, economic, and social benefits are also well known (see Davison and Curl 2014, and Rissel 2016). As a result, multiple actors at planning/governance levels in Australia and the United Kingdom (UK) in particular, have attempted to encourage cycling within the community by targeting policy, and as such promotion and infrastructure provision, at the 'normative cyclist' (Osborne and Grant-Smith 2016, 45); the privileged, white, middle-aged man in Lycra (MAMIL) (Osborne and Grant-Smith 2016, Aldred 2015).

However, the personal experiences of cycling (the view from the saddle), what actually happens when people cycle (the affective, emotional, and embodied experiences of cycling), and the way(s) in which cycling is enacted, performed, and made a part of everyday life is less well understood (Spinney 2009). This is because those who practice cycling are engaged in negotiating multiple aspects of dwelling – ‘being-in-the world’ through sensing/spacing and inter(re)acting with the world as one cycles (see Jones 2009, 266-72⁵) – through the physical act of cycling. The personal experience of cycling has not been taken seriously until quite recently, with studies beginning to engage with what takes place on the move (see for example Cook and Edensor 2014, Jones 2005, McIlvenny 2015, and Spinney 2006). These studies highlight the embodied (Spinney 2006), emotional (McIlvenny 2015), and multi-sensorial (Cook and Edensor 2014) aspects of cycling in motion. However, I contend that in order to successfully navigate the complexity and mystery that Horton, Cox and Rosen (2007, 1) ascribe to cycling, multiple theoretical perspectives are needed to better make sense of cycling’s multiplicity from both the perspectives of social practice theory and emotional geographies.

By exploring cycling through the lenses of practice, and emotion and affect, I suggest that we are better placed to take seriously the messiness and complexities of the mobility form, and indeed of everyday life (Law 2004). Here, I use the term ‘lens’ as a way of approaching cycling from specific ways of knowing. Kent and Dowling (2013b, 87) proposed the use of ‘a practice lens ... through which to view the emergence and endurance of carsharing’, and found it a useful metaphor for seeing mobility through practices (see also Corradi, Gherardi and Verzelloni 2010 for a discussion of the term ‘lens’ in practice research). I contend that understanding the way(s) in which cycling is enacted, performed, made a part of everyday lives, and experienced (through emotional, affectual, discursive, and embodied dimensions) creates an alternative understanding of cycling as individual, dynamic, open to change, and transformative. Reimagining cycling in this way will challenge conventional conceptions of transport, disrupt understandings of cycling(s) as linear or fixed, highlight the important role(s) that cycling plays in people’s everyday lives, and inform ways of intervening in

⁵ Here, Jones is referring to post-Heideggerian conceptions of dwelling within geographies. I understand ‘dwelling’ as ‘the basic capacity to achieve a spiritual union between humans and the material world. ... [It] allows us to construct place places, to give them meanings that are depended and qualified over time with multiple nuances’ (Knox and Pinch 2010, 194).

practice that can assist with transitioning toward a more sustainable, less car-dependent future. The purpose of this chapter is to provide the theoretical background necessary for thinking through cycling in ways that take into account the complexity and diversity inherent within.

I begin this chapter by reviewing contemporary cycling research, including more conventional approaches to cycling from transport geography, planning, cultural geography, and mobilities perspectives. The discussion then moves to position the study firmly within mobilities scholarship as I discuss key concerns within mobilities and explore how mobilities approaches to examining mobile bodies in motion reveal interesting insights into the multifaceted experiences of practicing mobility. From this literature, I establish the need for a more nuanced understanding of cycling, subsequently suggesting that two dominant theoretical influences within mobilities research, that of practices and emotions and affect, offer scope to advance cycling research. I examine these theoretical approaches in turn and draw on literature and research from mobilities and other relevant fields of study that investigate mobility forms including walking, cycling, jogging and driving. This chapter concludes by proposing that these two approaches, although seemingly incommensurable, can offer much-needed insights into the practices and experiences of cycling. These conceptions illuminate the details of doing cycling, the ways in which cycling is enacted, performed, and made a part of everyday life, as well as the role(s) cycling plays in everyday lives and the ways in which people make meaning through cycling.

2.2 Understanding Cycling: Dominant approaches

2.2.1 Introduction

The current popularity of cycling, which has been described as a ‘cycling renaissance underway in most of the western, industrialized world’ (Pucher and Buehler 2012c, 2), is generally attributed to the well-documented environmental, economic, health, and social benefits cycling presents, and the urgent need to address ‘problems associated with car-dependent societies’ (Jones et al. 2012, 1407). It makes sense that in an era of anthropogenic climate change and peak oil that alternative modes of transportation have flourished. It is fitting then, that there has been a rise in knowledge about cycling

and those who cycle. We now know why and how people cycle (Spinney 2009), and about the challenges cyclists face (both perceived and real - see for example Bauman et al. 2008, Garrard, Rose and Lo 2008, Handy, van Wee and Kroesen 2014, McNamara 2013). However, as illuminated in the following literature reviewed, there is a wealth of cycling research that is focussed on built environment outcomes and takes cues from the disciplines of transport geography and planning.

In this section, I explore some of the more conventional approaches to cycling within the fields of transport geography, transport planning, cultural geography and mobilities (see for example Bonham and Johnson 2016, Horton, Rosen and Cox 2007b, and Pucher and Buehler 2012b) to progress the argument that cycling needs to be understood in a more nuanced manner, and redress the focus on built environment outcomes. These well-established approaches illuminate how many people cycle, why and where people cycle, and have a heavy focus on physical cycling infrastructure and cycling governance (Hunt and Abraham 2007). For example, Caulfield (2014) and Zander, Rissel and Bauman (2012) both examined census data in Dublin and Australia respectively, over a period of five years, to determine the relative impact that cycling policy and infrastructure provision had on cycling participation. Studies such as these demonstrate the connections between good cycling planning and policy, and also highlight where/when cycling participation rates change. Similarly, large survey-based studies of cycling populations by Damant-Sirois and El-Geneidy (2015), Dill and McNeil (2013), and Kroesen and Handy (2013), amongst many others, place emphasis on identifying factors that influence cycling participation and frequently point to land use planning measures to encourage greater uptake. I do not discount the importance of planning for cycling (see Koglin's [2011] plea for the inclusion of cycling in planning discourses). However, I do suggest these dominant ways of approaching cycling also get caught up in 'cycling's universality' (Horton et al. 2007, 1), homogenising cycling through an insistence on quantifying and/or understanding the aspects of cycling that lend themselves to international comparison. This is in part due to the lack of reliable data on cycling in countries such as the UK (Aldred, Woodcock and Goodman 2016) and Australia (Fishman 2016) in comparison to other modes of transport. Yet significant academic interest from these dominant approaches has been paid to what Spinney (2009, 818) has termed 'either [as] transport ... or a

particular form of scenic leisure activity’ – leaving room for more nuanced understandings of cycling to necessarily emerge.

I contend that a prevailing emphasis on the universal, rational, and utilitarian aspects of cycling has meant that cycling researchers frequently box cycling and cyclists into qualitative expressions that miss the complexity and heterogeneity of cycling. By characterising cycling/cyclists as one thing or another (i.e. ‘hardened fast commuters’ [Aldred 2015, 690] or ‘the fearful and the slow’ [Aldred 2015, 692]), rather than as dynamic, diverse, and open to change, transport geographic/planning cycling scholarship perpetuates dominant narratives of cycling/cyclists as fixed. Osborne and Grant-smith (2016, 45-6) suggest that these dominant narratives work to exclude marginalised groups, such as women, older people, and urban-fringe dwellers at a policy level. Similarly, Aldred (2015) sees these more limiting constructions of cyclists as influencing policy. More recent interest in cycling from cultural geographic and mobilities perspectives has begun to focus on understanding different forms of cycling, and aspects of cycling that are often difficult to make sense of (see for example Bicknell 2010 & 2011 and Bonham and Wilson 2012). This includes the details of *doing* cycling, the multi-faceted and multi-sensory experience of cycling (be it emotional, embodied, affective, or discursive), the multiplicity of cycling/cyclists, and in generating understandings that take the mess of social life seriously (see for example Aldred 2010, Fincham 2007, Horton 2007, McIlvenny 2015, and Spinney 2006, 2009).

The growth in popularity of cycling over the course of the past decade (see Ferrero-Regis 2018, Fishman 2016, and Radbone 2013) has occurred in parallel with the emergence of the new mobilities and post-new mobilities turns within cultural geography. As such, there has been increasing academic interest in understanding cycling from cultural geographic and mobilities perspectives. Indeed, in recent years cycling scholarship has begun to break down preconceived ideas about what a cyclist is or ‘*should be*’, and what cycling is or ‘*could be*’ (Spinney 2009, 818, emphasis in original). This research has emerged from within the new mobilities and post-new mobilities turns (Cass and Faulconbridge 2017, and Sheller and Urry 2016), and has seen greater attention turned toward some previously less-explored aspects of cycling, including embodiment (see Spinney 2006), emotions (see

McIlvenny 2015), and identity politics (see Aldred 2010, 2013a & b), among others. It is within this growing body of work that I situate my thesis to focus attention on the practices and experiences of a range of cyclists. In order to rethink the way in which cycling is understood and remain sensitive to the messiness of everyday life (Law 2004) however, it is first prudent to explore how cycling has typically been conceived of, and attention now turns to this task.

2.2.2 Counting, observing, tracing cycling

Cycling scholarship has predominately been concerned with the more quantitative aspects of cycling (Simpson 2017). Understanding how many people cycle, and who is cycling, has been the focus of much research aimed at improving cycle planning and infrastructure provision. Much of this work has been influenced by transport geography and planning (Spinney 2009, 820). For example, studies that count how many cyclists there are in a given locality often seek to justify cycling policy and cycling infrastructure provision, with extensive effort given to understanding and improving the cycling built environment (Heinen, van Wee and Maat 2010), and has focussed great effort on the planning and promotion of cycling in cities (Bell and Ferretti 2015). This work has been influenced by a 'build it and they will come' mentality (Nelson and Allen 2007), whereby the top-down provision of cycling infrastructure, including traffic-separated paths, on-road lanes, and off-road cycleways is intended to spark public interest in cycling. As cities around the world continue to retrofit existing automobile-centric cities to better support cycling, the number of people cycling appears to be increasing (Radbone 2013).

Cycle counts and participation surveys in car-dominated Western countries typically reveal that cycling is a marginal mode of travel, women cycle less than men, and that cycling is more popular in inner-urban areas of cities with more traffic-separated cycle lanes, and better-connected cycling routes (Pucher and Buehler. 2012a). For example, in Australia, 'males have higher levels of cycling participation than females across all age groups' (Austroads 2017c, 11), with male participation almost double that of female participation across most time-scales (see Table A.2 in Appendix B for a summary of the gender disparity from 2011-2017). Despite increased government interest in cycling, cycling remains a marginal mode of travel in Australia, with approximately 1% of people in capital

cities cycling for daily travel (Pucher and Buehler 2012a & c). This figure is similar to cities in the UK, the United States, and Canada, however it is in stark contrast to cycling participation rates in Northern European cities⁶ where there is a much smaller gender disparity (ibid.). Importantly, where women cycle at comparative rates to men, participation is attributed to being ‘a product of local cultures and contexts’ (Osborne and Grant-Smith 2016, 45). Australia’s low cycling participation rates and significant gender disparity are assumed to be a product of our highly-automobilised culture and local planning decisions that have prioritised the private car (Mees 2010).

The rise in cycling-friendly transport policies and a dedicated agenda of cycling infrastructure provision within Australia and other automobilised western countries has given rise to cycling research that is concerned with the role(s) of infrastructure in encouraging cycling (see for example Garrard et al. 2008, Hull and O’Holleran 2014). One aspect of this research is a focus on examining place-based cycle counts and person-based data on participation. These data are generally collected by government or public agencies over long periods of time (Handy et al. 2014) and are useful for understanding trends in participation and infrastructure use. These two main data sources assist in determining how many cyclists use particular routes (for example a place-based count will tell researchers how many cyclists move through any given point over a given time period), and in determining how many people reported that they had cycled in a given time period (for example the number of times a surveyed population had cycled in the past week, past month, or past year – see Radbone, 2013). Cycling participation rates highlight the growth or decline of cycling in particular locations, and are useful for understanding which types of cycling infrastructures are more popular than others. However, they do little to illuminate the lived experience of cycling.

The influence of conventional, positivist approaches to cycling scholarship is evident in the foci of research on more rational decision-making aspects of cycling, which starts to elucidate the more qualitative aspects of cycling in small ways. This includes studies that engage with cyclists’ route or mode choice, frequency of journeying, and is also evident in research that examines the role of infrastructure or the urban form in encouraging cycling in cities (see for example Broach, Dill, and

⁶ Cycling accounts for 26% and 18% of everyday trips in the Netherlands and Denmark respectively (Pucher and Buehler 2012c, 10).

Gilebe 2012, Heesh et al. 2012, Jacobsen and Rutter 2012, Winters, Teschke, Grant, Setton and Brauer 2011). Transport geographic approaches to cycling are predominately concerned with rational decision-making processes that, in turn, influence the movement from point A to point B. In such readings 'the content of the [cycling] journey is reduced to distance [or purpose] and the meaning of the journey is derived from whatever is at point B (work, shopping etc.)' (Spinney 2009, 820). Scholarship concerned with rational decision-making processes highlights where interventions in infrastructure can be made, however it tends to overlook the ways in which people cycle, which is further explored in the next section.

2.2.3 Motivations, trip purposes and types of cycling

The motivating factors and purposes for cycling are harder for researchers to quantify as they are often subjective, overlap, and are open to interpretation, so have therefore been subject to more qualitative modes of research. However, cycling researchers have developed travel survey methods that aim to accurately measure motivational factors across larger cycling populations (see Willis, Manaugh, and El-Geneidy 2013, Winters, Brauer, Setton, Teschke 2010, Winters et al. 2011). Motivations can encompass, but are not limited to, health or fitness reasons, environmental concerns, fun or enjoyment, and practical motivations such as time and cost (see Tranter 2012). Moreover, motivations are not fixed. Whilst they vary enormously, research effort has focussed primarily on understanding motivations tied up with 'physical and mental health, fitness, sustainability and affordability' (Bonham and Koth 2010, 95), and 'time and pleasure' (Bonham and Koth 2010, 99). Understanding what motivates people to cycle, or rather why people cycle, can assist in the development of programs aimed at encouraging greater cycling uptake that targets specific community concerns such as health (see for example Miskell, Xu and Rissel 2010, Rissel 2016).

In addition to understanding motivating factors for cycling, researchers are also interested in understanding purposes of cycling. Purposes are commonly grouped into one of three typologies; these are utilitarian, sport, and recreational uses (see Lovejoy and Handy 2012). These are umbrella terms that encompass different and overlapping purposes as well as motivations, and type of bicycle(s) used. Much cycling scholarship has focussed on only one of these three typologies at a

time, be it to commute, for recreation, or work (see for example Pucher, Buehler and Seinen 2011a, Bicknell 2010, Pucher et al. 2011b). Understanding the motivations and purposes of cycling trips helps in 'determining why and how people move around' (Spinney 2009, 821) and assists in informing transitions to less car-dependent futures (Watson 2012). However, although these studies have made excellent progress toward understanding the role of cycling in transitioning to a more sustainable future, this scholarship has only partially acknowledged the flexibility of the cycle and diversity of people who cycle. As Aldred (2015) and Osborne and Grant-Smith (2016) point out, partially addressing the diversity of cycling has dangers for how cycling is perceived by planners and policy makers, thus leading to less-inclusive cycling environments. I suggest that this opens up avenues for further research, where greater attention can be given to the diverse ways in which people cycle, shifting trip purposes and motivations over time.

Cycling scholarship has also tended to homogenise cyclist by grouping people who cycle according to their frequency and type of cycling. For example, cycling scholars also often describe cyclists in terms of how frequently one cycles, using terms such as 'non-riders, occasional riders and regular riders' (Daley and Rissel 2011, 215) or experience level (competent/not competent or regular/occasional – see for example Aldred 2015) to classify cycling and cyclists. Whilst classifying cycling and cyclists is useful for examining broader cycling trends over time (Pucher et al. 2011b) and examining particular types of journeys, such as commuter cycling in depth, the drawing of boundaries around what does or does not constitute cycling or who is or is not a cyclist distracts from the inherent complexity and slipperiness of cycling. Indeed, as Bonham and Wilson (2012) have found, people are not fixed in their cycling, yet this lack of fixity has not been given enough attention within cycling scholarship. Cycling's dynamism and fluidity can become lost in the boxing of cycling into categories and of cyclists into groups. Indeed, there is a small body of scholarship that has examined some of the implications that stereotyping cycling and cyclists can have for people who cycle, and I turn now to explore this, as it points to a growing engagement with the heterogeneous and autonomous nature of cycling.

2.2.4 Barriers, perceptions, images and identities

Cycling scholarship concerned with understanding the barriers to people's cycling, and the broader social perceptions and images of cycling and cyclists, has tended to imagine people who cycle in particular ways, and perpetuates discussion of cycling or cyclists as fixed. Cycling research has commonly identified environmental, social and personal/individual barriers to cycling. Indeed, this scholarship has found that a lack of time, environmental factors such as weather and topography, individual concerns such as safety or physical fitness, and the social stigmatisation of cycling all contribute to why people do not take up cycling, or why people do not cycle more regularly (van Bekkum, Williams and Morris 2011, Daley and Rissel 2011, Bauman et al. 2008). Much of the research concerned with barriers to cycling has focussed on improving or mediating the cycling environment, whereas research concerned with perceptions or images of cycling/cyclists has focussed on how non-cyclists view cycling, with less emphasis placed on the experience of cyclists themselves. This research has attempted to understand why people do or do not take up cycling (see for example Daley and Rissel 2011). However these studies tend to place greater emphasis on the barriers to cycling, such as perceived safety risks (Chataway et al. 2014), thus restricting knowledge of why people do/do not cycle, to less experiential and less personal accounts. This is an important oversight given that one's experiences of cycling also influence one's proclivity to continue to cycle (Zander, Passmore, Mason and Rissel 2013), in addition to having access to infrastructure. Interestingly, there is a small body of research concerned with how cyclists perceive themselves (Aldred 2010, 2013a & b) and this is explored further in this chapter.

The way in which cyclists have been othered by non-cycling communities has also been given a great deal of attention within cycling scholarship. For example, cycling has been considered as the domain of 'affluent, white men' (Steinbach et al. 2011, 1123), with cyclists stereotyped as MAMILS (Aldred and Jungnickel 2014b) or deviants (Furness 2010) in Western car-dominated cities. Indeed, researchers have found that cyclists often have a negative public image in highly-automobilised cities (Aldred 2013a, Daley and Rissel 2011, Furness 2010), with cyclists described as 'abnormal ... [,] "anti-auto," eccentric, or deviant' (Furness, 2007, 310). In countries such as the United Kingdom (UK), the

United States of America (USA), and Australia, 'bicycles [have traditionally been] ... considered [as] inferior forms of transportation' (Pucher, Komanoff and Schimek 1999, 22) and have historically been given less attention in planning discourses. This is important as the negative public image of cyclists, and lack of cycle planning or planning directed toward one particular group of cyclists, can influence the uptake of cycling. Moreover, by conceiving of cycling and cyclists in narrow terms as masculine and out-of-the-ordinary within cycling discourses, researchers do little to dispel the aforementioned negative public perceptions and images of cycling and cyclists.

Cycling researchers are beginning to challenge these stereotypes through investigating the ways in which cyclists develop and maintain their own particular cycling identities and mediate their behaviour (see for example Aldred 2010, 2013a & b, and Aldred and Jungnickel 2013). Social-cultural geographers and mobilities scholars are increasingly interested in concepts of identity with regard to mobility forms. In particular, recent research into people's cycling identities, their ability to cope with external stressors, and how they behave/perform certain identities has shown how cyclists attempt to counter and cope with the often negative perceptions of cycling or cyclists by developing their own strategies. For example, cycling scholars have found that cyclists modify their behaviour and employ strategies to mediate negative experiences in automobile-dominated environments (Aldred and Jungnickel 2014a). One particular strategy identified within cycling literature is a deliberate clothing choice (i.e. cycling-specific or non-cycling-specific clothing) (see McNamara 2013b). By choosing specific clothing, cyclists can portray a certain image, such as being a serious cyclist (in cycling-specific clothing) or a vulnerable human on a bicycle (in regular clothing) (see for example Aldred and Jungnickel 2014a, Furness 2007, McNamara 2013). Further research is needed to assess the usefulness of these types of strategies, and investigate how they work in practice to lessen negative perceptions of cycling and cyclists. This research would go some way to dispelling the predominate narratives of cycling and cyclists, and refocus attention on the diversity and complexity of cycling. Moreover, greater research effort is needed to understand the ways in which cyclists negotiate their own cycling identities in different settings in order to challenge prevalent images of cycling and cyclists, and to mediate stigmatisation and processes of othering.

2.2.6 Cycling infrastructure use and preferences

Building on the discussion of how many people cycle, cycling scholarship has also focussed on tracing where people cycle in terms of what types of infrastructure cyclists utilise and prefer. Observational studies of cyclists, stated-preference surveys, and before and after studies have been employed to evaluate the impact of existing and new cycling infrastructure on people's propensity to cycle (see Standen et al. 2017, Winters et al. 2011). This research predominately finds that cyclists prefer separation from vehicular traffic in the style of Copenhagen's cycling infrastructure and tends to be urban design and planning oriented (Fleming 2012).

Studies that examine cyclists' infrastructure use and preferences have given greater attention to female cyclists and/or commuter cyclists and tend to recommend separation from vehicular traffic. For example, Standen et al. (2017, 256), in their intercept-survey of a newly built separated cycleway in Sydney, found that most cyclists 'are willing to trade travel time/distance' in favour of using vehicular-separated cycleways, and that women were more likely to use these cycleways. These findings point to the usefulness of separated cycleways for encouraging greater cycling uptake in inner urban areas. Yet Standen et al. (2017, 256), also distinguish between commuter cyclists and non-commuter cyclists, finding that commuter cyclists preferred more direct routes and thus were less likely to go out of their way to use a vehicular-separated cycleway. In this way, the study reaffirms the particular stereotype of commuter cyclists as being speedy, brave and tough (Aldred 2015), whilst also discounting the ability of cyclists to shift from one cycling identity or mindset to another. Greater attention needs to be paid to the ways in which different cyclists experience different infrastructures, not only to improve infrastructure provision, but also to generate understandings of cyclists that take into consideration the diversity of abilities and experiences.

Cyclists' separation from vehicular traffic, as a policy intervention, is gaining popularity within Australian cities (Pucher, Dill and Handy 2010). For example, Garrard et al. (2008), in their observational study of cycling in Melbourne, found that female cyclists preferred cycling infrastructure that was separated from vehicular traffic. Conversely, McNamara (2013), in a Nelessen-style visual preference survey of Sydney-based cyclists, found that the infrastructure

preferences of males and females were not dissimilar. However, McNamara (2013) also found that for some cyclists, the separation of cycles from vehicular traffic acted as a deterrent to cycle and appeared to perpetuate the notion (for motorists) that cyclists did not belong on the roads. Studies such as these suggest that more people will cycle in automobile-dependent cities if high-quality, vehicular-separated infrastructure is provided, thus encouraging a diversity of cycling cultures (Aldred and Dales 2017). Importantly however, this scholarship does not shed light on the content or meaning of the cycle journey. Understanding what takes place for different cyclists on a range of different types of cycling infrastructures should also be of importance for cycling scholars seeking to understand cycling in-depth.

This emphasis on the role of physical cycling infrastructure has been at the expense of socio-cultural cycling infrastructures. It is for this reason that Cook and Edensor (2014, 429), drawing on the work of Aldred and Jungnickel (2014b), recast the role of infrastructure (calling it a ‘technological intervention’) in cycling research to posit that an understanding of infrastructure should encompass social and cultural infrastructures as well as physical/material infrastructures. This is an important recasting of a term that has, as has been explored in this chapter already, been the focus of much cycling scholarship. Indeed, from the literature reviewed here, it becomes clear that cycling scholarship should take social and cultural infrastructure seriously if more convivial cycling environments are to be encouraged.

2.2.7 Summary: moving on to the details of doing

The more conventional approaches to cycling explored in this section provide important insights into how and why people cycle. However, they do little to uncover the lived experience of cycling or challenge more static notions of cycling as transport, or male-dominated. Indeed, a preoccupation with the rational and utilitarian aspects of cycling often ignores the complexities of cycling, and has meant that much less attention has been given to understanding the everyday lived experiences of cycling. As such, much less is known about the ways in which people experience their chosen mobilities. Within cycling scholarship, the influence of cultural geographies and mobilities studies is evident in the growth of interest in the more qualitative aspects of cycling, including individual

experiences of cycling. I suggest that the broad scope of mobilities studies offer multiple means of making sense of cycling's inherent messiness. Accordingly, I turn now to explore how mobilities is understood and introduce key ideas within the new mobilities and post-new mobilities turn, before introducing two theoretical lenses gaining prevalence within this post-new mobilities turn. I contend that these lenses offer different and more nuanced ways of thinking through cycling.

2.3 Comprehending Mobilities

In the previous section, I highlighted how mobilities studies have influenced cycling scholarship; with greater attention now being paid to understanding why people cycle, and their experiences of cycling whilst on the machine of the cycle. However, I also drew attention to where mobilities and cultural geographic approaches to cycling could do more to illuminate the details of doing cycling and the multifaceted emotional, embodied, and affective experiences of cycling. In this section, I examine some of the ways in which mobilities scholarship can offer multiple avenues for exploring cycling in greater depth. Before attending to this, however, it is first important to elaborate upon how I understand mobilities.

Mobility 'and movement are a fundamental part of our ongoing engagements with the world' (Merriman 2009, 142). Indeed, mobility is an inescapable fact of life. It is evident in the movement of fluid around the body, to the movement of people and goods across the globe (here, I refer to the time-space compression that typifies modernity and globalisation – see Cresswell 2006, 4) from the micro to the macro scale. The basic signifier of mobility involves the displacement of an object or person from one location to another in time and space (Cresswell 2006, 1-4) (see Figure 2.1).

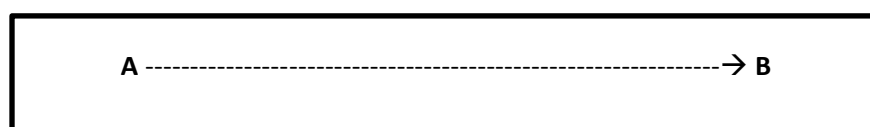


Figure 2.1: Displacement between two locations (adapted from Cresswell 2006, 2)

For sociologist John Urry (2010, 7-8), the four main senses of mobility are physical movement or the capability of movement such as everyday mobility; mobility that is unpredictable in the sense of the 'mob'; social mobility which is vertical; and horizontal forms of mobility such as migration. Geographer Tim Cresswell, in his seminal book *On The Move* (2006, 2), characterises mobility as movement that is not abstracted from place or meaning, and I agree with his proposition that mobility does not take place in isolation. For Cresswell (2006, 21) 'movement is made meaningful' through mobility. Cresswell (2006, 1) also acknowledges that mobility is inherently difficult to pin-down and define as the very 'intangible nature [of mobility] ... makes it an elusive object of study': it is socially produced and simultaneously unavoidable. Taking both meaning and fluidity into consideration, for the purposes of this study, I understand mobility to mean a person or thing (human, non-human, or more-than-human⁷) with the potential and capacity for movement (be it physical or virtual/cerebral) and the ability or potential to change or alter this movement. Moreover, I am inspired by Susan Hanson's (2010, 8) definition of mobility, where she challenges scholars to think about mobility as being contextually dependent, suggesting that 'it should be impossible to think about mobility without simultaneously considering social, cultural and geographical context – the specifics of place, time and people.'

For this thesis, where the central focus of study is cycling, it is the ability and potential that mobility offers, or rather the *dynamic* nature of mobility, and the way in which mobility is made meaningful, that I am most concerned with exploring. This is in addition to understanding that mobility takes place not in isolation, but within broader social processes (Hanson 2010, 8). As I have highlighted in the previous discussion, this dynamism and disengagement with the social is lacking within urban cycling research. This is particularly pertinent as everyday mobility, in Urry's (2010, 7) first sense of the term, is incredibly dynamic and often messy, and scholars can too easily overlook the messiness of mobility. Mobilities studies place emphasis on the power relations inherent within

⁷ Here, I use 'more-than-human' to mean 'agents other than humans' (Gregory et al. 2009, 358). Given that mobility occurs across multiple scales, it makes sense that humans, non-humans, and/or more-than-humans (animate or inanimate) have the capacity to move or be moved. Indeed, mobilities, like the post-humanist/more-than-human geographies Lorimer (2009, 335) is referring to, are 'open to the materialities and affective forces that flow between humans, organisms, and objects, cutting across modern ontological divides.'

mobilities, but at times ignore the messy details of enacting and performing mobilities (Bissell 2014). When considering everyday cycling as a mobility form, a mobilities approach would view the cyclist (human) as entangled within a constant flow of interactions between human and non-human entities and human-machine assemblages (the human mind/body and the machine of the cycle in motion) and landscapes. In addition to situating this thesis in mobilities studies, I also engage with more-than-human geographies by 'embracing the messy-ness of entangled worlds' (Dowling, Lloyd, Suchet-Pearson 2017, 825) as the cycling body is one that is more-than-human – blending machine and human, and constantly interacting and reacting to the world.

2.3.1 Locating mobilities: the new mobilities paradigm & post-new mobilities turn

The study of mobility has a long history within the social sciences, and human geography more specifically (Cresswell, 2011). Within geography, the study of mobility is apparent in 'the tradition of time-space geographies associated with the Lund School ... [, to] ... accounts of journeys to work developed within feminist geography ... [, and] geographies of commodities, globalization and capital' (Cresswell and Merriman 2011, 4). Geographers have long examined mobilities from a range of vantage points that did not place mobility at the centre of research. Instead, mobility was taken for granted and treated as a cause or effect, as opposed to an object of study in its own right (Merriman 2009). Rather than working within this tradition, this thesis begins with a discussion of the new mobilities paradigm and the post-new mobilities turn. I then situate the thesis with the post-new mobilities turn as it focuses on bringing different theoretical lenses together to look anew at cycling.

The 'mobilities turn' (after Sheller and Urry 2006) identified what was then a trend within the social sciences of work concerned with mobility, and called attention to the need to re-frame the focus of much of this research. Proponents of the new mobilities paradigm made 'a case for mobility research as a project which focuses on the universal but always particularly constructed fact of moving' (Larsen 2014, 59). Bringing the study of mobility to the fore has had a profound impact upon the way in which geographers approach mobile subjects. The very universality of mobilities encourages engagement with multiple disciplines and multiple epistemologies and ontologies, thus in the 11 years since the new mobilities paradigm was announced, the field has grown to encompass

work that is informed by thinking as diverse as non-representational theory (see for example Bissell 2014), performance studies (see Bicknell 2010), socio-technical transitions theory, complexity theory, social practice theory (for examples of these three theoretical influences see Sheller and Urry 2016), embodiment and affect (see Larsen 2014) and emotion (see Jensen 2012), among others.

At the start of the mobilities turn, Cresswell (2006, 2) invited scholars 'to explore the content of [the journey], to unpack it, [and] to make sure it is not taken for granted'. This call has only recently begun to be heeded in the careful detail it deserves, and there exists a renewed interest in focussing geographic enquiry on mobility 'by asking exactly what happens on the move' (Cresswell and Merriman 2011, 1) and in also investigating 'the politics of mobility' (Boyer, Mayes and Pini 2017, 1). Sheller and Urry (2006, 212) have suggested that 'mobilities need to be examined in their fluid interdependence and not in their separate spheres', as our mobility decisions have broader social, economic, environmental and political impacts. From this, it can be understood that mobilities need to be examined within a broader context or frame in order to more fully comprehend the complex processes at work within everyday mobilities. I understand this to mean more-than the movement or displacement of human and non-human objects between two locations and take seriously the notion that 'motion [should be considered] to be both normal and meaningful' (Hauge and Armstrong 2010, 1922). Mobility has meaning and these meanings, as well as the political implications of mobilities, are worthy of investigation. Mobilities challenges researchers to view mobility with larger social processes, to contextualise mobility and look beyond individual journey making. At the same time, mobilities dares researchers to look more closely at what takes place when we are mobile; what this means for ways of being in the world and explore the implications of our mobility practices more broadly.

In the post-mobilities turn climate, there is now a need to expand the exploration of the content and meaning of the journey, to encompass what takes place before and after a journey. Post-new mobilities go beyond the new mobilities paradigm by taking up some of the earlier calls to focus on the content and meaning of the journey in greater depth, and bring mobilities into closer contact with different epistemological perspectives. Such research would explore 'the intangible and

ephemeral, the meanings that accrue in the context of the journey itself' (Spinney 2009, 821) and that extend beyond the journey. Scholars have indeed heeded calls for a renewed interest in the meaning and content of the journey, and have started to break down preconceptions about why and how people move as they do. For example, Cook et al. (2015) in their study of recreational jogging in London, challenge narrow, linear, understandings of mobility by establishing that people make meaning through mobility that is non-linear. Moreover, they argue that the meanings and experiences of jogging are 'inherently heterogeneous' (Cook et al. 2015, 22), opening up understandings of mobility forms to incorporate the messiness of everyday life and highlighting the need to focus on individual, lived experiences, rather than homogenous understandings of mobility. In sum, the mobilities turn and the post-mobilities turn has enabled scholars to explore the ways in which specific mobilities are enacted, performed, and the way in which people make meaning through mobility, and challenged scholars to explore the broader role(s) of mobility in everyday life.

Mobilities scholars continue to focus research effort on situating mobilities within broader social processes, and connecting mobilities to ways of being in the world through finding connections with 'different epistemological frames' (Büscher, Sheller and Tyfield 2016, 485). As prefigured at the start of this section, social practice theory and emotion and affect are two such theoretical lenses gaining popularity amongst mobilities scholars. Social practice theory is gaining prevalence, within mobilities and across the social sciences, as a means of understanding the detailed goings-on of everyday processes. Conversely, emotion and affect are finding traction amongst scholars keenly interested in the ways in which people experience and find meaning in their everyday lives. Interestingly, this is occurring within social practice discourses. For example, authors such as Reckwitz (2017), Schatzki (2001b), Scheer (2012), Wallenborn (2013), Weenink and Spaargaren (2016), and Welch (2017) are trying to bring theories of social practice into conversation with emotion and affect, however this work remains marginal and largely theoretical. It is my contention that social practice theory and emotion and affect present two theoretical entry points into cycling that, together, can provide a more nuanced interpretation of cycling as a mobility form. Accordingly, I aim to view cycling through both of these lenses – separately and side-by-side – to explore the opportunities that these

potentially incommensurable approaches presents for comprehending the complexity and messiness of cycling. I now explore each of these ways of thinking in turn, including their broader definitions, use, and applications within mobilities scholarship, geographies, and to cycling to generate conversation about these interstitial literatures.

2.4 Theories of Practice

At the start of this chapter I proposed that cycling scholarship has focussed excessively on infrastructure interventions and quantitative accounts of cycling, and outlined that mobilities scholarship offers avenues for exploring the qualitative aspects of cycling. I suggest that one way of moving cycling research away from this fixation with infrastructure, whilst also attending to the qualitative aspects of cycling, is through the application of social practice theory – the practice lens – to view cycling. Social practice theory(ies) have gained significant traction within the social sciences in the past decade, and have recently entered into the vocabulary of mobilities scholars through the post new-mobilities turn as a way of ‘emphasi[sing] ... [the] unstable and ever-changing interrelation of places, persons, technologies and natures connected through performances and practices’ (Sheller and Urry 2016, 13) of mobility. In order to understand the ways in which social practice theory can illuminate aspects of cycling previously not understood in enough depth, it is first necessary to come to an understanding of the school of thought, and its contemporary applications to mobilities.

The term ‘practice’ is widely used as an expression to describe particular human activities or how we go about researching social phenomena. As it is used across a range of disciplines to refer to ways of knowing, ways of doing, and ways of analysing everyday life, a conclusive definition of the term ‘practice/s’ largely remains elusive (Corradi, Gherardi and Verzelloni 2010, Kent and Dowling 2013). Moreover, ‘practice/s’ is often used without ‘an elaborated or ... explicit conception of practices ... [and] also often used almost unreflectively’ (Schatzki 2012, 14). It is not my intention to provide a comprehensive review of approaches to social practice theory in this thesis. I do however wish to explore the potential opportunities that adopting a practice lens can offer to gain a more detailed understanding of cycling, in particular, the ways in which cycling is enacted, performed, and what

constitutes a cycling practice. Therefore, before delving into how practice approaches within mobilities and other relevant fields are able to illuminate the often-mundane details of doing everyday life, it is first necessary to understand the key concepts within practices and define how to understand practices.

2.4.1 Defining a social practice and practice theory(ies)

There is no universal definition of a practice. The term 'practice' has widely been used to describe something that is done by groups of people to encompass anything from walking, cycling, commuting to work (see for example Cass and Faulconbridge 2016), cleaning one's teeth, consuming a resource such as water or heating (see Browne et al. 2014, and Hitchings 2012), cooking (see Torkkeli, Mäkelä & Niva 2018), and farming (Schatzki 2010), to specific roles carried out in the workplace (see Mitchell 2015, Nicolini 2012, and Hitchings 2011), and even research practices. Reckwitz (2002b, 249) insists that a social practice is 'a routinized type of behaviour', and this routinisation is taken up by Spaargaren, Lamers, and Weenink (2016, 8), in their 'working definition ... [of] social practices [as] ... shared, routinized, ordinary ways of doings and sayings, enacted by knowledgeable and capable human agents who – while interacting with the material elements that co-constitute the practice – know what to do next in a non-discursive, practical manner.' Practice theorists often contend 'that practices are the chief context of human activity – and of social orders' (Schatzki 2001b, 54), and it can be argued that anything done by humans can be considered as a practice. However, it is commonly accepted that practices encompass more than mere actions, and the widespread theoretical engagement with the idea of 'practice' as an ontology (i.e. in mobilities, consumption studies, organisation studies, non-representational theory, and in sustainability-related transitions – see Birtchnell, 2012) is evidence of this theoretical turn toward unpacking the way in which the social world operates on a daily basis.

Theories of social practice offer scholars a systematic way of interrogating how and why humans operate within broader social systems (Kent and Dowling 2013b), whilst also focussing on the messy details of getting on with everyday life. Social practice theory has recognisable roots in the social sciences with theorists as diverse as Wittgenstein, Heidegger, Giddens, Taylor and Bourdieu

positioning practices at the fore of enquiry as early as the 1960s (see Shove et al. 2012, 4-5 and Reckwitz 2017, 116 for an overview of how contemporary social practice theories have emerged and evolved). In this thesis, however, I focus on contemporary understandings of social practice theory as they have developed since the turn of the twenty-first century by theorists including Andreas Reckwitz, Theodore Schatzki, and Elizabeth Shove and colleagues.

Practice is a theory of process, and practice theorists or researchers utilising a practice approach or lens seek to explain specific processes by tracing the stream of events through which a process unfolds (Pantzer and Shove 2010a). Contemporary practice theory(ies) centre enquiry on a practice rather than the individual engaged in performing and enacting the practice (Reckwitz 2002b; Shove et al. 2012). They require thinking beyond individual behaviours and choices, 'starting from situations whilst bracketing the individual' (Spaargaren et al. 2016, 5), and instead emphasising the relationships between and across things (elements and practices as part of broader sets of social practices) rather than viewing them in isolation.

Contemporary understandings of practice often define a practice by its recognisable elements, and these are the things that go together to make a practice endure. The various contemporary understandings of social practice theory – what Reckwitz (2017, 114) has termed '[t]he family of practice theories' – share significant commonalities with regard to how they describe the role of practices and what a practice is made up of. Indeed, contemporary approaches to practice theory suggest that everyday life takes place through a series of practices (Schatzki 2002; Shove et al. 2012). From the moment we wake up, we are involved in performing and re-performing a series of social practices that, together, make up social life (Schatzki, 2010).

Contemporary practice theory(ies) contends that 'what people do is never reducible to attitudes or choice, or indeed to anything simply individual. Rather, doing something is always a performance of practice' (Watson 2012, 488). This notion of performance (the physical act of *doing*) is important to understanding how practices endure, as it is in the doing of the practice (i.e. the performance and re-performance) that practices are produced, reproduced, evolve, and shift over time. This is significant as social practice theory(ies) views life as being comprised of practices, and views people

as the carriers of practice (Reckwitz 2002b). Indeed, shifting the focus onto practices themselves, rather than individuals (practitioners), opens up different avenues of enquiry that can attend to the role of the more-than human within practices, the relationships between practices, in addition to the individual experience and individual performances of practices.

By performing and re-performing practices, carrier-practitioners are engaged in a constant making and remaking of practice over time. Indeed, in everyday life ‘people are unknowingly engaged in reproducing and enacting multiple and various cycles of change, simultaneously shaping the lives of practices and being shaped by them’ (Spinney 2011, 167). This notion of change, the dynamic nature of practices, and the construction of a practice through elements, is imperative to my understanding of social practices, and provides an entry point into examining cycling in depth. According to Shove et al. (2012, 20) ‘practices emerge, persist and disappear as links between their defining elements are made and broken.’ For Shove et al. (2012) the capacity for change – or the dynamism of practices – is evident in elements themselves, as well as practices, practice bundles⁸, and practice complexes. A practice perspective seeks to understand how practices come into being, shift and change over time through their elements, as these are the basic units of change.

The elements of practice are simplified into three distinct, yet connected, categories by Shove et al. (2012, 14), and I adopt this definition in my thesis. According to Shove et al. (2012, 14), a practice is made up of the following interconnected elements:

- ‘materials – including things, technologies, tangible physical entities and the stuff of which objects are made;
- competences – which encompasses skill, know-how and technique; and
- meanings – ... include symbolic meanings, ideas and aspirations.’

There are multiple understandings of the different components of a practice within contemporary practice theory(ies). Shove et al.’s (2012) formation of practices is similar to the descriptions of practices put forward by contemporary practice theorists such as Schatzki (2001a, 2002, & 2010), Reckwitz (2002a), and the earlier work of Shove and Pantzer (2005), as well as early

⁸ Shove et al. (2012) use the term ‘bundle’ as a noun (along with ‘complex’) – whereas I use the term ‘bundle’ as a verb and subject.

conceptions of practices by scholars such as Bourdieu (1977). However, what distinguishes Shove et al.'s (2012) understanding of a practice, as being made up of materials, competences and meanings, from their contemporaries (here I am referring to Schatzki and Reckwitz), is the widespread application of this definition across multiple disciplines, as well as the broad definition of each individual element. Indeed, Shove et al. (2012) build on the work of Reckwitz (2002b), Schatzki (2001a) and earlier scholars to more comprehensively theorise and define what a practice entails, and how it is born and evolves over time. In Table 2.1, I collate some of the myriad terms that theorists have used to describe and name the elements of practice. This is useful to illustrate the varieties of terms used by theorists to explain their approach to practices, and to illuminate how some social practice theorists emphasise particular aspects over others (for a more comprehensive overview of the differing definitions and emphases placed on the elements of practice see Spaargaren et al. 2016).

Reference	Elements of practice
Reckwitz (2002b, 249)	<ul style="list-style-type: none"> • <i>Bodily movements</i> • <i>Mental activities</i> • <i>Objects</i> • <i>The use of objects</i> • <i>Ways of knowing</i> • <i>States of emotion</i>
Schatzki (2012)	<ul style="list-style-type: none"> • <i>Activities</i> • <i>Sayings</i> • <i>Doings</i>
Schatzki (2002 & 2010)	<ul style="list-style-type: none"> • <i>Material arrangements</i> • <i>Teleoaffective structure</i> • <i>Understandings</i> • <i>Rules</i>
Shove and Pantzer (2005, 58)	<ul style="list-style-type: none"> • <i>Skills</i> • <i>Images</i> • <i>Materials</i>
Shove et al. (2012, 14)	<ul style="list-style-type: none"> • <i>Materials</i> • <i>Competences</i> • <i>Meanings</i>
Maller and Strengers (2013, 244)	<ul style="list-style-type: none"> • <i>Material infrastructures</i> • <i>Common understandings</i> • <i>Practical knowledge</i>
Bourdieu (1977)	<ul style="list-style-type: none"> • <i>Habitus</i> • <i>Field</i> • <i>Doxa</i>

Table 2.1: Different Elements of Practice (adapted from Kent and Dowling 2013b, 87)

I adopt Shove et al.'s (2012) conception of a practice as construed of materials, meanings and competences, as it has been demonstrated as a useful lens to explore cycling. Indeed, Shove et al.'s (2012) model of elements has been employed by scholars interested in cycling, including Spotswood et al. (2015) and Watson (2012). For example, Spotswood et al. (2015) utilised an existing data set and applied the elements to them in order to identify the elements for commuter cycling and suggest interventions to encourage greater uptake. Whereas Watson (2012) uses the elements of practice to talk broadly about how cycling can be positioned as a sustainable transportation mode. Neither study interrogates cycling through the lens of practice in great depth. However, the very simplicity of the overarching elements means that it can have widespread applications. In addition to mobilities scholarship, Shove et al.'s (2012) understanding of practice has been taken up by scholars interested in understanding how change in consumption practices takes place (see for example Browne et al. 2014, Strengers and Maller 2017, Spaargaren 2011), and is also used to critique behaviour change models (Barr 2015, Spurling and McMeekin 2015, Shove 2010). For this study, a practice lens can usefully shed light on the ways in which people who cycle in Sydney enact and perform their cyclings, by breaking discussion of cycling journeys, as well as what takes place either side of each journey, into definable elements – materials, meanings and competences – that are required for cycling. Moreover, a practice lens can highlight the relationships between these elements and their connections to other social practices.

For the purposes of this thesis, my understanding of a practice is in accordance with contemporary practice theories. I understand a practice as a stable entity that is performed and re-performed by a group of people with specific sayings and doings (i.e. identifiable elements) attached to it (Shove et al 2012, Reckwitz 2010). In saying this, I also adopt the theoretical stance that practices are 'not static' (Schatzki 2002, 240), and instead are open to change and evolve over time (Shove and Pantzer 2005, Shove et al 2012, and Schatzki 2002 & 2010), as practices are made up of actions and materials that go forward in time. I adopt Shove et al.'s (2012) conception that a practice is repeated individually (forming habits and routines) and collectively (performed and re-performed en-masse), as it is the collective performance that solidifies a thing as a practice rather than a fad.

Further to this, I adopt ideas that are consistent with much contemporary practice theory as I understand that ‘practices intersect through practitioners and materials that are shared between them. [Whereby] [p]eople ... are [the] crossing points’ (Hui 2017, 60), as practices shift and change as they are made and remade by people.

In understanding that a practice is at once stable, not static, open to change, and has a temporal element, I position the thesis firmly within contemporary approaches to practice theory. A practice is made and remade as it is performed and re-performed, but also as it comes into contact with other practices as well as practitioner-carriers, and this leaves open questions about practitioner-carriers as individuals (see Reckwitz 2017, 115-16). In particular, I am interested in the emotional and affective experiences of performing and re-performing cycling practices in daily life, and in bringing emotional geographies into conversation with social practice theory, as this literature has been explored in a limited capacity within the context of social practice theory to date (Spaargaren et al. 2016, 7 – see sections 4.2.4 and 2.5 in this chapter for a more detailed discussion of social practice theories and emotion/affect). Accordingly, I adopt a theoretical stance that is consistent with contemporary practice theory(ies) in so far as how a practice is conceived of. Yet, I also seek to question the role of the individual within practices by bringing the lens of emotion and affect into conversation with social practice theory(ies) and engage with emerging discussions regarding the role(s) of emotion and/or affect within practices. Before exploring how emotions and affect are treated within emerging social practice discourses, I first elaborate upon how cycling might be constructively viewed as a social practice.

2.4.2 Cycling as a practice(s)

Having established how a practice is understood, including what constitutes a practice according to contemporary practice theory(ies), it is now pertinent to apply these understandings to cycling. This conceptual application of a practice lens (after Shove et al. 2012) prefigures a more detailed discussion of practice applications to mobilities and consumption studies and the lessons that can be learnt from these existing applications.

When considering cycling as a practice, at the most basic level, a cycling practice involves the merging of humans and machines (materials) to generate movement. Doing cycling is a performance of a practice. It is a set of actions (pedalling and balancing) carried out with particular materials (a cycle of some description and other accessories or clothing), but also sayings (terminology/lingo) and meanings (i.e. freedom and independence). Indeed, practitioner-cyclists bundle/bring together these elements together in order to enact and perform their cycling. It is important to note that the meanings associated with cycling are not fixed. For example, during the late 1800s and early 1900s in the United Kingdom, cycling's meanings were closely aligned with women's suffrage and social change (Penn 2010) and although cycling is still associated with a sense of freedom, today there is a strong sense of utility rather than novelty (Aldred, Woodcock and Goodman 2016). There are core competences involved that stay fairly fixed and are bound up in other transport practices, such as the skills that we acquire when learning to drive a car, and the know-how we develop about road etiquette. A cycling practice involves a set of elements that come together in different combinations at different times to produce a performance. Cycling practices can also be enfolded into other practices. If we understand that 'human co-existence unfolds through the organised activities of multiple people' (Mitchell 2015, 1, paraphrasing Schatzki, 2012), then it follows that by looking at these organised activities within a broader social context, we are able to understand the way in which cycling practices are enfolded into other practices, expanding our understanding of cycling as a practice.

By using a practice approach (after Shove et al., 2012) to consider cycling as a practice, I aim to develop an understanding of cycling as a practice that is inherently dynamic, open to transformation, and has the ability to transform or shape practitioners as well as practice. In addition to this, I will also identify areas for future change in practice theory and methods. Cycling needs to be normalized within urban settings if it is to become a viable and flexible mode of transportation for urban dwellers. A practice approach can generate an alternative definition(s) of the perennial problem (i.e. how to navigate Sydney's dominant culture of automobility). With regard to planning and policy, Bell and Ferretti (2015, 352) highlight how there exists 'a significant gap in the knowledge of *how* to

effectively enable more people to cycle as a regular part of their daily activities within urban settings.' A deeper understanding of cycling practices (and experiences) can help inform alternative measures to promote and encourage cycling that considers the multiplicity of cycling. Practice theory offers a useful way to gain an in-depth understanding of how practitioners perform cycling, potentially highlighting the multiplicity of practice. This alternative perspective then allows for different policy approaches to be formed.

The influence of practice theory within policy is seen in consumption studies and sustainability discourses. For example, practice theory has recently been applied to understanding how transitions are made, such as the transitions away from the private car and more sustainable patterns of consumption (Dowling and Kent 2013, Shove 2010). This body of work successfully identifies where, through the elements of practice, sustainable practices can be taken up, and I now turn to explore some of these practice applications, and their applicability to understanding cycling, in the following section.

2.4.3 Practice applications: mobilities and cycling

Social practice theory(ies) have been applied to a wide range of everyday practices, including particular modes of consumption, or behaviours, and mobility practices, in order to shed light on the details of doing everyday life and propose ways of instigating change within these practices (Shove 2010). These include, but are not limited to, Nordic walking, cycling, showering, laundry, car-driving, commuting, cooking, and energy use (see for example Aldred and Jungnickel 2013, Barr 2015, Bartiaux et al. 2014, Cass and Faulconbridge 2016, Dowling and Kent 2015, Heisserer and Rau 2015, Hitchings 2012, Maller, Nicholls and Strengers 2016, Strengers 2012, Torkkeli et al. 2018, and Waitt, Gill and Head 2009). These are only some example of the breadth of practice-based research.

Approaches to social practice theory are increasingly used by mobilities scholars as a way of unravelling the way in which different mobility practices come into being, are (re)produced, (re)performed, sustained over time, and inform meaning-making in people's everyday lives (see for example Pantzer and Shove 2010). For example, Bissell (2014) recently brought attention to the role of memory in people's commuting practices. He suggests that commuting practices, and the

memories of these, cohere and thus trouble linear constructions of commuting (ibid.). In this regard, practice is used to highlight the relationships between different instances of performing a practice (driving for the commute), and highlight the subtle ways in which practices can shift and change. Similarly, Maller and Strengers (2013, 244) use the concept of 'practice memory' to describe how migrants carry practices with them, and revive certain practices through enacting/acting on memories. In their study, practice usefully draws attention to how practitioner-carriers can reshape long-established practices, and make them new again. Cass and Faulconbridge (2017), in their analysis of participants' mobility biographies, emphasise the role of meanings within different mobility forms and highlight how mobility practices link up with everyday practices through the performance of a practice as entity. More importantly, they stress the capacity of practice applications to overlook the affective and sensual aspects of mobility practices, which they suggest are under-researched (Cass and Faulconbridge 2017, 112). Kent (2015) has also drawn attention to the role of affect within performances of car-driving practices, to suggest that people find comfort in the routinisation of everyday practices, such as private-car use. Practice applications to mobilities then, are useful for illuminating diverse, and often hidden, aspects of people's mobility practices, and can draw particular attention to how mobilities are embedded into daily lives through feelings and memory.

Practice theory has also been applied to mobilities as a means of highlighting where interventions within mobility practices can be made. This scholarship moves discussion beyond individual behaviour change initiatives, to situate mobilities and other practices of consumption within broader social processes. The influence of theories of social practice is evident in work that seeks to intervene in how mobility is governed (see for example Aldred and Jungnickel 2013), in transitions toward more sustainable ways of being in the world (see Watson 2012), and in understanding how new forms of mobility are embraced and encouraged by societal actors (Dowling and Kent 2015). The usefulness of approaches to social practice theory is also evident in consumption research where a detailed understanding of patterns of consumption can offer a critique of behaviour change models favoured by many governments looking to transition to more sustainable

futures (see for example Browne 2016, Shove 2010, Watson 2012).

My interest in practices is twofold. It comes from the aforementioned desire to instigate change, inform transitions to a more sustainable future, and to encourage greater cycling. In this regard, I fit Spinney's (2016, 451) stereotype of a researcher who is a cyclist and 'wish[es] to see more cycling'. However, this is not the only application that generated my interest in practices. I argue that the focus of much cycling research on infrastructure has been at the expense of understanding the way in which broader social process shape people's cycling, and in understanding the way(s) in which cycling is carried out. A practice approach is useful here, as practices have been used to highlight the mundane details of everyday life, separate the individual from the practice and focus on the way in which practices are performed, enacted, and made a part of everyday life. Whilst much mobilities work that uses a practice approach has revealed the way in which different mobility forms are practiced, the way in which cycling is practiced, understood as a dynamic and flexible practice, and the elements of cycling practice(s) are not well understood (Spotswood et al. 2015), and not well understood within the context of Sydney. A practice approach allows me to focus on individual elements that make up a cycling practice, thus repositioning the role of infrastructure within how cycling is conceptualised.

There exists a small body of scholarship that has examined different aspects of cycling through the lens of social practice. However, I suggest that this scholarship does not go far enough as it does not illuminate how practitioners bundle, enact, and perform diverse cycling practices, and moreover, make meaning through their cycling. This scholarship has successfully identified the elements of practice for specific ways of performing cycling in European countries. For example, Larsen (2017b) recently examined cycling from a practice perspective to identify the elements of practice that made up planning practices and user practices in the cycling-friendly city of Copenhagen, Denmark. Cyclists' parking practices have also been explored in European cities (see Larsen 2015, Aldred and Jungnickel 2013) as have the elements of practice for commuter cycling (see Spotswood et al. 2015) and planning practices that pertain to cycling in London (see Spinney 2016). Watson (2012) has also examined the role of cycling in shifting toward more sustainable transportation practices in the UK.

These studies draw upon contemporary understandings of practice, and use the language of practice to uncover both the way in which people enact and perform their cycling practices, and in how cycling practices are supported or hindered at governance levels. They also highlight the materiality of cycling infrastructure. This focus on infrastructure seems impossible to separate from cycling, however I suggest that a practice lens can uncover the relative importance of materials, including physical infrastructures, for cycling whilst also uncovering the importance of other materials, as well as meanings and competences. The practice applications to cycling that I have introduced here are primarily Euro-centric, and tend to focus on specific types or modes of cycling. I suggest that there is a need to examine a diversity of cycling practices, and acknowledge that different ways of cycling necessarily entail different configurations of elements. This leaves room for a practice lens to be applied to everyday cycling in multiple guises.

2.5 Emotions and Affect in Theories of Practice

Theories of practice shed valuable light on the mundane details of enacting and performing everyday life, commonly de-emphasising individual behaviours and choice in favour of situating everyday life within broader social processes (Kent 2013, Watson 2012, Spaargaren et al. 2016). Yet practice theorists are increasingly interested in the affective and emotional dimensions of social practices and in what this means for how practice theories are applied to social research (Hui, Schatzki & Shove 2017). In this discussion, I have illuminated how social practice theories have a wide range of applications for different scholarship including mobilities and geographies of consumption, and how they have been usefully applied to different practices of everyday living, including cycling and other motorised and human-powered mobility forms. The growing body of literature and research that utilises a practice approach or a practice lens to view everyday practices such as heating, showering, car sharing, car driving and cycling, often highlights the elements of practice (at individual and planning/governance scales), and identifies where change can be instigated, or proposes avenues for intervention at the planning or governance level. These approaches draw attention to the importance of particular practices in people's everyday lives; however, they stop

short of exploring the way(s) in which social practices perform greater roles, and there is now a growing understanding of the emotionality of practices and in the role(s) that emotion and affect play in the continuation of practices of everyday living.

For mobilities scholarship, approaches to social practice theory are increasingly utilised to answer less-explored questions about ways of being mobile in contemporary life, including the emotional and affectual aspects of mobilities (Cass & Faulconbridge 2016). What practice theory brings to mobilities is a focus on the mundane details of doing mobility and a focus on how mobility forms are made a part of everyday life, for example through social institutions, technological innovations, and the provision of parking spaces (see Kent & Dowling 2013). Practice applications to mobilities have significant potential to affect meaningful change within different ways of being mobile, particularly with regard to transitioning toward more sustainable mobility forms (Watson 2012). The 'concept of practice has so far been deployed in the 'new mobilities' literature, to illuminate the affective, embodied and skilled experiences, and the rhythms and routines of daily lives, that underlie bald statistics of trips, distance and time' (Watson 2012, 489). However, social practice theories and emotional geographies have not been brought into an explicit conversation within mobilities. To this end, practices are useful in exploring aspects of mobility practices that do not sit neatly within transport geography or transport planning, and have the capacity to generate a more nuanced understanding of people's mobility behaviours, and how they can be altered, than for example bicycle count data or journey to work data. When used in tandem with emotional geographies, there is even greater potential for a more nuanced understanding of the ways in which mobilities are made meaningful to come to the fore.

I suggest that practices alone cannot offer complete answers to shifting mobility behaviours, or produce a more nuanced understanding of the way in which people who cycle enact, perform, and experience their cycling. Indeed, as practice-based research has tended to 'decentralise the individual' (Watson 2012, 490) within practices, it follows that practice approaches to mobilities can only offer a partial, although by no means less important, view of the way in which mobilities are made a part of everyday life. Far from disregarding practices, I suggest that there is value in

examining cycling through multiple theoretical entry points to gain a more nuanced understanding of cycling. Following feminist geographers working with/in the realm of the everyday, and recognising that knowledges are partial (after Haraway 1988 & 1991) and situated (Nightingale 2003 & 2016), I suggest that a practice-based partial understanding of cycling needs to be accompanied by a focus on the qualitative experience of cycling – that is the emotional, affective, embodied and discursive experiences. Indeed, I suggest that taking emotion and affect seriously, and bringing social practices into conversation with emotional geographies, within the context of cycling in Sydney, will enrich both sets of literatures.

Social practice theorists, mobilities scholars, and geographies of consumption scholars have begun to work at the interface of emotional geographies and social practices, drawing on the synergies between both sets of literatures. As previously stated, some contemporary social practice theorists are beginning to explore aspects of practices that have been assumed or subsumed within first and second generation conceptions of practices (Hui et al. 2017). Indeed, there is a growing recognition that social practice theories have ‘not [been able to] provide convincing answers to issues of agency, emotions and power’ (Weenink & Spaargaren 2016, 61). This is because ‘classical social theory has tended to overlook the constitutive social significance of emotions and affects’ (Reckwitz 2017, 116), and social theory more broadly has been grounded in a ‘strict dualism between the social and the biological or individual’ (Reckwitz 2017, 118). This dualism has increasingly come under scrutiny (see Bericat 2016 for an overview of the emotional/affective turn within sociology), with practice theorists such as Reckwitz (2017) and Weenink and Spaargaren (2016), among others, drawing attention to the ways in which social practice theories can bridge this dualism. For example, Alkemeyer and Buschmann (2017, 11) have queried how practice theorists have cast practitioners within the nexus of practices, and suggest further opening up practice theoretical work to better take into account how ‘participants not only make routine contributions to the workings of a practice but also to intervene creatively ... and ... be a transformative force in praxis.’ Recasting the role of individual practitioners within practices is one such avenue being explored by contemporary practice

theorists interested in expanding what practice theory(ies) might mean, how they are understood and can be applied.

Although the scholarship that brings emotion and affect into contact with social practice theories is limited, there is an increasing awareness that emotion and affect are integral components of social practices (see for example Cass & Faulconbridge 2016, Hampton 2017, Reckwitz 2017; Scheer 2012; Wallenborn 2013; Weenink & Spaargaren 2016; and Welch 2017). For example, Reckwitz (2017, 118) puts forward a 'practice theory perspective on affects ... [whereby] every social practice is ... affectively *tuned* ... and has ... a built-in affective dimension'. Here, he places the role of affect/'affectivity' on par 'with social practices themselves' (Reckwitz 2017, 119). By bringing affect, defined through motivations and moods, into his conception of what constitutes a practice and how a practice operates, Reckwitz (2017, 120) differentiates between 'affect' or 'affectivity' and 'emotion', stating that '[a]ffectivity is ... always a relation between different entities' in contrast to emotion, which, although shared (Scheer 2012), is not always relational. For these scholars, there is an understanding that emotion/affect works to hold together socio-material relations, and a growing awareness of 'the synergies between ... [the] conceptual frameworks' (Hampton 2017, 8) of social practice theory(ies) and emotional geographies and affect studies.

These explicit engagements with emotion or affect within practices have tended to focus on the role of emotions/affect within practices in a broad sense, rather than focus on a specific practice (with the exception of Hampton [2017] who examines the affective atmospheres of working from home). For example, Scheer (2012, 194) has sought to show how 'people *do* [practices] ... in order to have emotions', suggesting that emotions could be a type of practice. In addition, recent work by Weenink and Spaargaren (2016) has sought to elucidate the relationship between emotions and practices. Building on Schatzki's (2002) discussion of how practices hang together, Weenink and Spaargaren (2016, 70) suggest that 'emotions contribute to the integration of practices'. Indeed, they suggest that '[e]motions are (re)produced in social practices and people experience the world and engage in it emotionally' (Weenink & Spaargaren 2016, 61). Put more simply, emotions play an important role in the performance of practices and in the (re)production of practices, as practices

both generate and are generative of emotions (Weenink & Spaargaren 2016, 77). Similarly, Reckwitz (2017) suggests that emotions are shared within practices, and are hence an integral part of practices. Importantly, these scholars recast the role of emotion and affect within practices, which have, until recently, been 'underestimated in practice theories' (Weenink & Spaargaren 2016, 75). However, these forays in to emotion and affect within practices are marginal, and there is scope to further illuminate the role that emotions and affect plays in specific, situated practices, and in practices of mobilities more specifically.

Practice applications to mobilities have also commonly tended to pay less attention to the emotional and affectual aspects of practices, instead focusing on how mobile practices are enacted and performed. Kent (2013, 88) suggests that this is because 'practice theory does not generally consider sensory experience as a legitimate element of practice.' Indeed, Kent (ibid.) goes on to explain that 'feelings [and I also argue emotions] are elements of practices [that are] often construed as individualised and as such ... their ... omission relates to practice theory's aversion to the use of individuals' beliefs, attitudes and values as predictors of behaviour.' This is because practice theories position our engagements with practices as a product of social processes, rather than any individual behaviour or choice (Reckwitz 2017; Wallenborn 2013). Despite this historic aversion to the individual from within practice theories, mobilities scholars that utilise practice lenses are increasingly recognising the importance of the individual within practices (see Browne 2016, Hitchings, 2012, Kent 2013, Spaargaren et al. 2016), and other scholars that engage with practice theory are also repositioning the individual and the body (see Wallenborn 2013) by suggesting 'there is scope for individual will' (Hitchings 2012, 63) in understanding practices. These applications and criticisms of practice theory, combined with the aforementioned burgeoning interest in understanding the role of emotion and affect within practices, suggests that there is something to be gained from working at the interface of social practice theory(ies) and emotional geographies.

As theories of social practice are beginning to be drawn into conversation with other literatures that already talk about emotion, affect and their influence on social worlds, there is a clear need to engage with these literatures in greater depth in order to gain a more nuanced understanding of the

role of emotion and affect within practices of everyday life. Indeed, I argue for a more explicit engagement with emotional geographies and social practice theory within the context of cycling to better understand the role(s) of emotion and affect. If one's mobility decisions hinge on the elements of practice, the interconnections between elements, and also, as Bissell (2014), Cass and Faulconbridge (2016), and Kent (2015), Wallenborn (2013) and Hitchings (2012) have highlighted, the individual performing the practice, how then does one's emotional and affective experiences of performing a practice(s) contribute to the continuation of a practice? I suggest that these aspects, in tandem with the lens of practice, are imperative to gaining a more nuanced understanding of cycling. I now turn to explore how emotion and affect have influenced mobilities scholarship and can usefully be applied to understandings of cycling.

2.6 Emotions and Affect

... emotions are what move us. But emotions are also about attachments, about what connects us to this or that. The relationship between movement and attachment is instructive. What moves us, what makes us feel, is also that which holds us in place, or gives us a dwelling place. (Ahmed 2004a, 27)

In the previous sections, I outlined how social practice theories are useful for understanding cycling, in particular, the ways in which people enact and perform cycling, through breaking practices down according to their elements (materials, meanings, and competences). I drew attention to how practice approaches can obscure emotion, ignore the individual performing the practice, and also how some contemporary practice theorists are beginning to redress this through engaging with concepts of emotion and affect in theoretical terms. I suggested that bringing emotional geographies into conversation with social practices can shed considerable light on the aspects of cycling that a practice approach may overlook. It is my contention that discussions of emotional geographies are pertinent to cycling. It is widely acknowledged that our emotions shape our experiences of being in the world (Ahmed 2004a, Shillington 2016), and that our mobility decisions are political (Hanson 2010). Indeed, many studies have examined the way emotions play a pivotal role in mobility

decision-making processes and mobility experiences (Gorman-Murray 2009, Kent 2015, Sheller 2005). If I am to produce a detailed understanding of cycling that takes practices and experiences into consideration, then it follows that emotional geographies discourses can shed light onto the experiences of cycling.

For the purposes of this thesis, I focus attention on the themes of emotions and affect. These are significant research themes within cultural geography that are also gaining traction within mobilities studies to further illuminate the ways in which mobilities are made meaningful, and more recently within social practice theory. In particular, emotions have been understood as shaping individual phenomenological experiences of place, space, and more recently, of mobility. The emotional and affectual turns within geography allow scholars 'to highlight the often fleeting and ephemeral meanings that can contribute significantly to what movement means' (Spinney 2009, 817). I argue that viewing cycling through the lens of emotion and affect can provide a more nuanced and fine-grained understanding of the experience of cycling, one that challenges rational and linear conceptions of mobility. Before reviewing research and literature on emotion and affect within mobilities and cultural geographies, it is first useful to come to an understanding of the ways in which 'emotion' and 'affect' are understood.

Emotions lie at the core of ways of being in the world (Ahmed 2004), and feminist scholarship has played a significant role in bringing emotions to the fore (Bondi, Davidson and Smith 2005). Emotion has been framed within cultural geography, and geographic writing on cycling, as relational (Bondi et al. 2005, Pile 2010, Wright 2015), transformative (Bondi et al. 2005), 'intrinsically fluid' (Bondi 2005, 437), and culturally constructed and circular (Ahmed 2004a). Emotion has also been imagined as 'constitutive of affect' (Thrift 2004, 60), and 'embodied [in] social activities' (McIlvenny 2015a, 57). Emotional geographies take emotional relations between human and non-human others, materialities, and space/place seriously. As prefigured in the opening quote from Ahmed (2004a, 27), 'emotions are what move us ...[,] what makes us feel, [and] is also that which holds us in place, or gives us a dwelling place.' They are an inescapable part of the ways that we relate to ourselves, the city, and human and non-human others. Following Bondi et al. (2005), I suggest that emotions

occupy in-between states, navigating an often-complex terrain between individual and collective experiences – emotions are both born in, and shape our mobilities, and the relationships that stem from these – ‘[e]motions are relational’ (Ahmed 2004b, 8).

Emotion and affect have been critiqued with regard to their capacity to engender broader social change and political action. This is in contrast to discourse that promotes the ability of social practice theory to engender political change (see Shove et al. 2012). Here, emotion and affect are seen as limiting in so far as they are difficult to capture and make sense of and have traditionally been ignored by geographers (Bondi et al. 2005). However, as feminist geographer Sara Ahmed (2010 & 2003) argues, emotions are essential to social change and political action. Indeed, for Ahmed (2004b, 9) ‘emotions ... are ... social and cultural practices’, and this understanding of the importance of emotion, and similarly affect, is now being recognised by social practice theorists (see for example Reckwitz 2017 and Weenink & Spaargaren 2016 and Section 2.5 in this chapter). Pile (1996) also recognises that emotions and affects are at once personal and social, thereby rendering them political and social. Viewing cycling through the lens of emotion and affect then, requires an acknowledgement of the potential for this analytical lens to raise broader social and political questions (I attend to these questions in Chapters Six and Seven of this thesis), and I take this further to suggest that one’s mobility decisions are indeed political.

Whereas emotions are often ascribed specific adjectives in every conceivable language (for example feeling frightened, concerned, angry, curious, dejected and so on), affect has been framed within cultural geography as in excess of language or discourse (Wetherell 2013), as largely unthought, and more-than or presupposing emotion (Thrift 2004). Scholars have noted that the turn to affect has worked to highlight the ways in which affect is difficult to ‘grasp [...], [be] made known, or represented’ (Pile 2010, 9), and that this has happened at the expense of emotion (Wetherell 2013). Without delving into debates about the relative importance of affect over emotion, or its inverse, affect is often inseparable from emotion. Ahmed (2008, 11) suggests that affect should be thought of ‘as contagious ... [as] we are affected differently by the things we come into contact with’, including

whilst on the move. Similarly, Thien (2005, 451) explains that ‘affect is the how of emotion ... [and] is used to describe ... the motion of emotion’.

‘Emotion’ and ‘affect’ have been conflated by some scholars (see for example Anderson and Smith 2001, and Thrift 2004), whereas others have attempted to clearly distinguish between the two (see for example Massumi 2002, and Pile 2010, 2011) at the expense of emotion according to Ahmed (2014, 201 – referring Massumi’s work). Feminist scholar Elspeth Probyn (2005, 25) clearly distinguishes between emotion and affect as she states ‘affect is the biological and physiological experience of it’ – wherein ‘it’ refers to emotion. For Probyn (2005), emotions are social whereas affect is more experiential, and is larger than oneself. Importantly, Probyn’s (2005) delineation of emotion and affect is echoed in Reckwitz’s (2017) distinction between the two (discussed in the previous section), and both provide a similar understanding of affect as being beyond expressible emotions (see also Thrift 2007). Although I am not concerned with debates over semantics (this is not the primary aim of the thesis), it is important to note that these debates exist and are ongoing within geography. Rather, in this section, I am concerned with mobilities, cultural geographies scholarship that engages with notions of emotions and affect as they pertain to forms of mobility. I am interested in what this body of work can elucidate about the lived experience of mobility forms, the meanings, and role(s) that different mobility forms fulfil, and how engaging with emotion and affect develops a different understanding of the experience and practice of mobility.

Accordingly, I now turn to explore the growing body of literature that examines emotion and affect in everyday (and not so everyday) mobility forms of (in alphabetical order) car driving, cycling, parkour, skateboarding, train travel, and walking. Drawing on concepts of embodiment and the kinaesthetic body, I first explore research and literature that illuminates the role of the body in emotion. This is followed by an examination of work that engages with attachments and connections formed through mobility and pertaining to the materiality of mobility forms, then work which highlights how meaning is made through or by mobility, before exploring the temporality of emotion in mobility.

2.6.1 Embodiment: feeling mobility through the body

Emotions are mediated and expressed through the body, and the body/emotions are intimately connected to mobility (Ahmed 2004a). Within cultural geography, embodiment is understood as the lived experience of the body (Moss and Dyck 2002), and embodiment is seen as ‘inherently emotional’ (Davidson and Milligan, 2004, 523 cited in Gorman-Murray 2009, 443). The act of being mobile in space and place is closely linked to notions of embodiment whereby bodily sensations and feelings are born in, or derived from, the physical act of being mobile – also stationary/immobile (Bissell and Fuller 2011). Indeed, it is commonly accepted that ‘the body ... [is] the site of emotional experience and expression ... [as emotions] take place within and around this closest of spatial scales’ (Spinney 2009, 818). It follows that embodiment is imperative to an understanding of cycling that takes emotion and affect into consideration. By considering embodiment as well as emotion and affect, the thesis will develop a more nuanced understanding of cycling from both the lenses of practice, emotion and affect.

Scholarly interest in ‘the body’ has seen a wealth of research and literature on the hard to articulate and harder to capture aspects of everyday life, largely born out of feminist geographies ‘which invokes ... ‘the body’’ (Longhurst & Johnston 2014, 267). With regard to mobility forms, scholars are increasingly pursuing the notion that being mobile often involves intangible, elusive, and hard-to-articulate experiences, such as different sensations, temporalities, emotions, feelings, and thought. These aspects are often hard to capture, as mobility is inherently mobile – thus feelings, sensations, thought, actions, and so on take place in the moment of being mobile. One avenue of this broader turn to the emotional and affective within cultural geography draws attention to the embodied nature of mobility practices including car driving (Edensor 2004, Merriman 2007, Sheller 2005, Kent 2015), cycling (Bicknell 2011, Jones 2005, McIlvenny 2015a, Spinney 2006), walking (Middleton 2010), parkour (Saville 2008), and even skateboarding (Borden 2001).

Work on the embodied emotions of car driving has highlighted the ways in which humans feel intensely about the materiality of the car, the attachment to driving, and the comfort that the private car provides drivers (see for example Kent 2016, Sheller 2005). What this work emphasises is the

ways in which mobility forms, through the act of journeying, become 'a way of being in the world' (Cresswell 2006, 2). Car driving is so ingrained within automobile-dependent societies, and is made a part of people's everyday lives in multiple ways. The dominance of the private car in cities such as Sydney presents significant challenges for making alternative mobility forms, such as cycling, a part of everyday life or a way of being in the world. Yet, it is understood that people develop similar intensities of feeling toward the material of the cycle, and that cycling does carry embodied emotions (Spinney 2007). However, what these embodied emotions entail for people who cycle for more everyday trips in cities is not well understood (Spinney 2007). This is in part due to the construction of cycling as marginal and cyclists as 'other' (Daley and Rissel 2011), but is also due to the transient and fleeting nature of cycling – as cycling bodies move in and out of the spaces of the city largely unseen, unregulated, and unrestrained. There is scope to examine cycling emotions through probing the content and the meaning of the journey, as Cook et al. (2015) have done through qualitative studies of joggers.

Emotions shape our experiences of being in the world, but I suggest that the emotional experiences of enacting and performing cycling, and the way in which it is made meaningful for people who cycle, is not understood in enough depth. In order 'to become aware of the unseen' (Harrison 2000, 497) and interrogate the ways in which we move through the world, cycling scholars have been drawing on different epistemologies and ontologies that start to illuminate the emotional experiences of cycling. For example, Bicknell (2011) uses performance studies and phenomenological anthropology to explore the embodied experience of spectating and cheering at a mountain biking event, whereas van Duppen and Spierings (2013) situate their examination of the embodied experiences of commuter cyclists in Utrecht in the Netherlands within transport geographies and mobilities studies. Taking inspiration from non-representational thinking, Spinney (2006) also explores the embodied experience of racing and touring cyclists in Europe to illuminate how it feels to cycle uphill. Pink (2011, 345) suggests that the 'scholarly commitment to the idea of embodiment ... dissolve[s] the distinction between the sensuous experiencing body and the rational mind', and this notion holds true for cycling scholarship engaged with ideas of embodiment. These cycling

researchers share a multi-, or cross-disciplinary approach to understanding what it means to cycle in contemporary society and, moreover, illuminate the importance of embodiment (without privileging mind over body or body over mind) in habitual/everyday mobility.

Cycling researchers have shown how cyclists utilise, share, and express embodied knowledge, that is knowledge gained through the repetition of performing cycling. The content and meaning of this performance of everyday cycling is not well understood. However, for Bicknell (2011, 107), a female mountain biker and academic, reflecting on her own performance of mountain biking and her own performance of spectating draws attention to the embodied knowledge riders have as both spectators and performers/competitors. Bicknell (2011) finds that the way in which spectators communicate this embodied knowledge to competitors through cheering and yelling advice and encouragement from the sidelines can impact the competitors' performances. Bicknell's work as a cyclist-researcher is similar to that of Spinney (2006), Jones (2005), and Jones and Burwood (2011) who articulate the importance of being there, seeing there, or experiencing with their cyclist-subjects. What these researchers have in common is an understanding of the significance of the felt, kinaesthetic, or embodied aspects of cycling. Their work suggests that it is in the performance of cycling, the performance of practice, that people (cyclists/practitioners) learn and experience cycling – through sensing and feeling.

Cycling scholarship pertaining to embodiment has also shown how cyclists inhabit a multi-sensory environment and express their emotions and feelings whilst cycling. Spinney (2006) has highlighted the importance of materials and technologies to the felt experience of cycling, as well as how bodily sensations and feelings are foregrounded at the expense of visual senses when cycling. For Spinney (2006, 275), cycling involves 'an experience that is felt [through the body] rather than seen'. His study of touring and racing cyclists traversing up Mount Ventoux, coupled with his own reflections on the ride up the same mountain, shows how cycling shapes relationships with place so that the mountain becomes more-than a mountain as it is connected with pain, satisfaction and enjoyment through the experience of cycling up it (Spinney 2006). For Spinney (2006) and his

research subjects, the embodied emotional experiences of cycling up Mount Ventoux serve to both challenge them as cyclists, and keep drawing them back (up) the mountain.

The felt experiences of cycling, although often hard to capture, are generally studied as movement takes place. Indeed, studies that engage with these aspects of cycling shed light on the way in which people express their feelings whilst in motion. For example, McIlvenny (2015a) has highlighted how being with others enhances the emotional experience of cycling, with a focus on expressions of enjoyment whilst cycling as a family group. Spinney (2006) and McIlvenny (2015a) both draw attention to the way in which cyclists verbally express their corporeal sensations. Both researchers also espouse the importance of ethnography, whether it is auto or video ethnography, for capturing aspects of the embodied and emotional experience of cycling (see Chapter Three for a thorough discussion of methods for mobilities research). Although they illuminate aspects of cycling that were previously under-researched, the studies focus on (predominately) male recreational riders and family group recreational riding (Spinney 2006, McIlvenny 2015), resulting in studies that privilege certain cycling populations over others.

Cycling scholarship that is interested in the emotional, embodied, and affective aspects of cycling, however, is not confined to recreational examples of the mobility form, and has also focussed on female cyclists. For example, using a life course perspective, Bonham and Wilson (2012) suggest that women pick up and put down cycling over the course of their lives, and that this was influenced by life events such as moving into a new dwelling, changing jobs, entering into a new relationship, or having children. Their study of women cycling through the life course identified many aspects of cycling (in all manner of forms of cycling) that are felt, embodied, and affective (Bonham and Wilson 2012). Although Bonham and Wilson (2012) do not explicitly engage with these aspects of cycling, their female participants spoke and wrote about their feelings about and for cycling. This is encouraging in two respects. Firstly, their study supports the current reinvigoration of traditional talk-based methods to garner insights into the more personal experiences of mobility practices (see Dowling, Lloyd and Suchet-Pearson 2016 – explored further in Chapter Three). Secondly, it underlines how female cyclists (at least) in Australia are able to open up and reflect on their cycling in a nuanced

manner. A more specific engagement with cycling emotions here could reveal the ways in which female cyclists, in particular, make meaning through their cycling. There is further scope to explore meaning making and the emotional, affectual, and embodied experiences of cycling for a more diverse cycling population. Doing so would go so far to producing understandings of cycling that take the diversity and multiplicity of the mobility form and its practitioners into consideration.

Despite this interest in cycling emotions and meaning making, many studies that engage with emotions do so from the periphery (with the exception of McIlvenny 2015 & 2014) or are focussed on recreational forms of cycling (Spinney 2006). For example, McIlvenny (2015) engages with the cycling emotions of families (adults and children cycling in 'velóformation') through recording (via audio and video devices) expressions of emotion in the act of cycling. Similarly, Spinney (2006), in his auto ethnographic study of cycling up Mont Ventoux, records feelings and embodied reactions whilst cycling. Spinney (2007, 29) calls for more explicit engagements with the ways in which cyclists express their emotions, feel cycling, and make meaning through their everyday 'mundane' cycling in cities. I take up this call, seeking to elucidate these hidden aspects of cycling through the lens of emotion and affect.

2.6.2 Affects and attachments

The kind of explicit engagements with that Spinney (2007) calls for within mobilities can be seen through the application of the concept of affect, as it has been explored in mobilities research in connection to how the material world is experienced. An example of this recent interest in the affective atmospheres of landscape is work by Cook and Edensor (2014) that explores the experience of cycling at night. They consider how a cyclist riding through rural landscapes in the dark perceives and is affected by those landscapes (ibid.). The capacity of the cyclist to be affected by landscape in darkness is markedly different from that of daylight mobility and accordingly, one's relationship with landscape, the mobility form, and the self, shifts in differing ways at night (Cook and Edensor 2014). However, though Cook and Edensor (2014) draw attention to the role of landscape in affecting and being affected, their study is based on one male's experiences of cycling in the evening, and the male gaze within cycling scholarship is something that needs redressing. What is important here is the way

in which affect is used to highlight the relationships that people form to landscape/environments by the act of moving through them.

Emotional connections or attachments to human and non-human others, as well as to space and place, are formed through mobility. As Ahmed (2004b, 11) illustrates, 'emotions are not only about movement ... [rather,] [w]hat moves us, what makes us feel, is also that which holds us in place, or gives us a dwelling place.' Hence, emotions cannot be separated out from mobility, but rather mobility shapes emotion and vice versa whilst simultaneously making and, one can assume, breaking connections and attachments to people, place, and materials as 'movement ... connects bodies to other bodies'(ibid.). Work on car driving particularly resonates with notions of materiality and affect, and highlights the emotional connections or attachments to material objects and human/non-human others that are formed through relational processes of being in the world.

2.6.3 Finding meaning through mobility

As cycling research has developed from a focus on transportation and the utilitarian, rational aspects of the mobility form, the new-mobilities paradigm and the cultural/more-than-representational turn within geography has generated a wealth of research interested in discovering how meaning is made through mobilities. This approach to thinking about cycling as deeply embedded within social life is seen in the work of cycling scholar Rachel Aldred. Aldred (2010, 2013a & b) has highlighted the ways in which cycling identities are tied up with conceptions of citizenship, identity and belonging, stigma, and governance, and Aldred and Jungnickel (2014a) have further elucidated how cyclists in cities in the UK mediate their environment through sensory strategies that are connected to technology. Aldred (2010, 46) has also emphasised the ways in which individuals feel a deeper connection with their local environment, and local community through the act of riding. Similarly, Cook and Edensor (2014), Jones (2012), and Simpson (2017) all draw attention to the role of affect in cycling through the landscape.

This growing body of cycling research challenges the construction of cycling as a rational means of transport, and instead proposes new pathways for understanding the ways in which people cycle. It argues that cycling is a valid form of transportation as well as a recreational mobility form, and

starts to suggest that cycling can pose a challenge to the private car, in so far as the capacity for cycling to generate more intimate connections with landscape and communities. The connections and relationships formed through cycling are indeed multifaceted, and worthy of further investigation. My research will build on these important shifts in cycling research, to further contribute to understandings of cycling that are diverse, meaningful, and challenge dominant conceptions of transport.

2.7 Chapter Summary

In this thesis, I contend that bringing the lens of emotion and affect into proximity with the practice lens will (a) address the lack of attention paid by practice discourses to cycling, and (b) address the lack of attention given to the myriad experiences of cycling within mobilities scholarship. Moreover, I posit that bringing these lenses into proximity can assist in reimagining the relationship between emotion and practices. By bringing practices and emotional geographies into an explicit conversation within the context of cycling in Sydney, this thesis seeks to build upon recent work (within mobilities, social practice theory and geographies of consumption) that highlights the synergies between social practice theories and emotional geographies. In doing so, I seek out richer ways of delving into social practice-based mobilities research and aim to break down binary conceptions of cycling, further develop feminist geographic thought regarding the way in which emotions hold together socio-material relations, and build on the emerging discourse that brings emotion and affect into discussions of social practice theory.

In this chapter, I have explored relevant literature concerning cycling, mobilities, practices, and emotional and affectual geographies in order to set up the background and context for my research. I argue that cycling research to date has predominantly been concerned with quantitative aspects of cycling, generating a fixed understanding of cycling, and with finding infrastructure-based interventions to encourage greater uptake. I suggest that this concern with infrastructure is tied up with conceptualisations of cycling as either a mode of transport or as a recreational activity, and that these binary understandings are based in transport planning and transport geography. I suggest that

by positioning cycling within mobilities studies, these understandings of cycling and cyclists can begin to be troubled, thus expanding definitions of cyclists and cycling to better take into consideration the dynamism and complexity of cycling.

Mobilities scholarship often engages with multiple epistemologies in order to expand understandings of the role(s) and importance of mobility in everyday life, and two theoretical lenses that can shed considerable insight on these are social practice theory and emotion and affect. I have shown that mobilities scholars working from social practice perspectives are able to bring attention to previously under-explored aspects of cycling, including repositioning infrastructure within broader systems. Despite existing applications of social practice theory to cycling, cycling is still not well understood from a practice perspective, and has been viewed in narrow terms. Parallel to this interest in social practices, mobilities scholars have also begun to look seriously at the role of emotions and affect within, and for, mobility practices (see for example Scheer 2012 and Sheller 2005). This literature has started to uncover how people experience their everyday mobility practices. In particular, it has shed light on the myriad ways in which people feel (emotionally, affectually and physically/bodily) whilst cycling, and also illuminated some of the ways in which people who cycle make meaning through their cycling, such as through the formation of identities and connections with others (at the individual and community scale).

I suggest that, in addition to viewing mobility practices through the lens of social practice to highlight the details of enacting and performing everyday mobilities, it is integral that mobilities scholars (and social practice theorists) also engage with emotion. This is because mobility practices shape people's sense of place in the world, and this understanding is beginning to be seen in social practice discourses that explore the role(s) of emotion and affect within broader practices. In this chapter, I have illustrated that much mobilities work that engages with the notion of practice(s) also highlights the importance of emotion within mobility. Whether consciously or unconsciously, approaches to social practice theory place emphasis on the meanings attached to mobility forms. I suggest that whilst practices can attend to the more-than-representational in specific ways, a practice lens does not fully reveal the details of emotion. This is because emotion tends to be

assumed, or is subsumed by simplified descriptors of the elements of practice, and practice theory work has tended to consider 'that the emotional mood that people experience while engaging in a set of doings and says are not a property of themselves but of practices' (Weenink & Spaargaren 2016, 66). Thus leading me to question what else the elements of practice obscure and highlight. This is an important question, and one that is also beginning to be probed by those working within social practice theory(eis). Therefore, there is a need to consciously explore the emotional and affective aspects of a range of ways of doing cycling.

Overall, there has been minimal direct investigation of how people who cycle experience their diverse cyclings with regard to practice and emotion and affect. However, the research that does engage with social practice theory and/or concepts of emotion and affect in cycling (see Aldred and Jungnickel 2013 & 2014a, McIlvenny 2015a, Spinney 2015 & 2006) does begin to develop a more nuanced comprehension of the elements of cycling and of the content and meaning of the cycling journey. This work also makes inroads into the importance of cycling in the everyday lives of cycling practitioners. Despite this, a comprehensive understanding of a diversity of cyclings from both lenses is lacking, and there remains a clear need to further interrogate cycling from both the lenses of practice and emotion and affect.

Following feminist scholars (including Ahmed 2004a & b and Probyn 2005), I suggest that emotions (feelings, embodied senses, connections and attachments) are integral to social life. Bringing the lenses of practice and emotion and affect into proximity to view cycling is a novel concept, and one that can produce quite different understandings of the same research problem. However, I argue that as scholars continue to interrogate different facets of social life and draw different literatures into explicit conversation with each other, it becomes imperative to understand both the way in which social life is ordered/organised and reordered/reorganised (through practice), and the way(s) in which our experiences of everyday life, such as everyday mobility forms, have impact beyond the individual, to influence the personal, political, and social spheres.

3

Researching Cycling: A Methodological Hybrid

If much of the world is vague, diffuse or unspecific, slippery, emotional, ephemeral, elusive or indistinct, changes like a kaleidoscope, or doesn't really have much of a pattern at all, then where does this leave social science? (Law 2004, 2)

3.1 Introduction

In the previous chapter, I argued that in order to think differently about cycling in a way that takes seriously the messiness and complexity of everyday life (Law 2004, 2), multiple theoretical entry points (after Nightingale 2016) should be employed. I proposed bringing two theoretical lenses into proximity to position cycling within the field of mobilities. These lenses are social practice theory, and emotion and affect. Bringing these into conversation offers several key implications for approaching the messy, enacted and felt context of cycling research. Firstly, the lenses of practices and emotions and affect represent a way of conceptually framing the research, as each presents a different way of looking anew at cycling. Secondly, I posit that emotions and practices continually bump up against each other, producing different material possibilities as well as ontological tensions in how cycling is approached and understood by different actors (including researchers). Drawing on the work of feminist scholars Sarah Whatmore (2002) and Andrea Nightingale (2016), as well as John Law (2004), and Alan Latham (2003), I find the idea of 'methodological hybrids' (discussed in detail in section 3.3 of this chapter) to be especially useful for unravelling the experiences, tensions, and objects of cycling. This approach allows me to consider how cycling is organised, ordered, enacted and performed by people who cycle, and simultaneously focus attention on the affective and emotional aspects of people's cycling journeys through the analysis of discourses, including expressions and utterances. Finally, these lenses are used as analytical frames and Chapters Five and

Six focus specifically on the findings that emerge from these lenses. In Chapter Five I use the concept of practice elements to break down my participants' cyclings and explore how participants bundle different elements together to perform diverse cyclings. In Chapter Six I look for emotion and affect within discourse, including the way that participants spoke and wrote about cycling. Chapter Seven then brings the literature into contact with the thesis' findings to explore in detail how these lenses come together to understand how practices, emotions, and affects are entangled and co-produce cycling mobilities.

In this chapter, I am concerned with how these two distinct ways of knowing are configured through the methodological hybrid. To reiterate from Chapter One, the overarching aim of this thesis is to gain a detailed understanding of cycling through the lenses of practice and emotion and affect, and address the research questions: *How is cycling practiced?* And *How does the practice of cycling shape emotion?* These two lenses, and consequently the research questions and sub-questions, concentrate attention on generating a comprehensive view of cycling. Yet they also present their own methodological challenges, as they come bundled with methodological and theoretical assumptions about how to research mobile bodies and social practices, how best to uncover the mundane details of performing and enacting mobility practices, and how best to get at the often hard to articulate aspects of the ways in which people experience their mobility.

In seeking to elucidate both the practices and emotional, affective and embodied experiences of cycling I situate my study at the nexus of cycling, mobilities, practices, and emotional geographies discourses. It follows that I find myself in the middle of simultaneously competing methodological debates. In this chapter I develop a methodological hybrid to research cycling as way of acknowledging and navigating these methodological debates, and contending with some of the challenges that adopting the dual lenses of practices and emotion and affect to view cycling present. In doing so, I position myself as a feminist geographer, as the theoretical framework, methodological hybrid and analytical frames that I employ are designed to blur the boundaries between theory and methods, thinking and doing, and muddy the waters between practices and emotion/affect. Indeed, I suggest that the use of a methodological hybrid advances current discussions within geographies for

reinvigorating traditional methods as, in this instance, reinvigoration occurs through the construction and implementation of the methodological hybrid. I assert that the methodological hybrid presents a valid alternative to repeated calls for experimentation in methods, whilst also remaining sensitive to the tradition of experimental methods' agenda to capture the performative and sensual nature of mobile bodies in motion.

For the purposes of this study, a hybrid methodology refers to considered, purposeful methods that are brought into proximity together to research the same problem from dissimilar perspectives. The notion of the hybrid is grounded in feminist geographic discourse, as feminist geographers (see for example Nightingale 2003 & 2016) often encourage 'a deeper engagement with the way in which methods are selected and employed [and often employ] well-established geographic methods in novel combinations to produce reflexive and situated engagements with research subjects' (McLean, Maalsen & McNamara forthcoming, n.p). Each method within the methodological hybrid is underpinned by specific ways of knowing, and this extends to processes of analysis. Within the hybrid methodology I adopt largely traditional methods for researching mobilities and practices that are generally well established and have originated from previous studies in the literatures that I bring into the hybrid. However, in doing so, I propose that the way in which specific methods are brought into conversation with one another presents a challenge to preconceptions about how mobilities and practices should be researched, and moves methodological discussion away from binary conceptions of methods as 'traditional/non-traditional' or 'mobile/ non-mobile'. A hybrid methodology provides a multi-layered perspective on the research questions by engaging multiple theoretical entry points to view the same research problem. More importantly, I argue that a methodological hybrid offers an alternative to experimentation and mobile methods for investigating the often hard to capture and hard to articulate experiences of mobility practices.

I begin this chapter by outlining the theoretical rationale that underpins the development of a hybrid methodology, before detailing how my approach to empirical investigation attends to the study's research aims and questions. I then define what a hybrid methodology encompasses for this study, and detail its design and implementation, including participant recruitment, participant

selection, and the fieldwork process. Following this, I discuss my approach to data analysis.

Attention now turns to explore the methodological debates within geography and mobilities studies that influenced the initial development of the methodological hybrid, including experimentation, binary conceptions of methods such as mobile/non-mobile methods and traditional/non-traditional methods, and the reinvigoration and enlivening of traditional qualitative methods. For the purposes of this thesis, 'traditional methods' refers to methods that have long been a part of the geographer's methodological toolkit, and include interviews, observation, and ethnographic techniques.

3.2 Methodological Complexity: Experimentation, reinvigoration & doing methods differently

The cultural-turn within geography engendered a new wave of academic interest in methods for understanding mobilities that were experimental, innovative, and challenged conventional means of doing research. The new mobilities paradigm has been characterised by this curiosity with doing methods differently (Cresswell 2011, Merriman 2014). However, in the current post-cultural turn climate where I situate this thesis, experimentation and innovation in methods are no longer held up as the 'new' means of doing research. Instead, qualitative methodological practices within mobilities studies and human geographies are currently experiencing a turn away from experimentation in favour of the reinvigoration of traditional methods (Dowling, Lloyd & Suchet-Pearson 2015). For example, DeLyser and Sui (2014, 303) advocate for methodological pluralism, that is utilising well-established methods, such as interviews, diaries, and mapping techniques 'to reach across methodological and theoretical divides'. This thesis takes inspiration from the current excitement with enlivening and enriching traditional methods. I extend these inclinations toward doing methods differently, to include methods for practice theoretical work as well. Indeed, social practice theory is currently experiencing significant academic interest in more traditional qualitative methods, and in particular talk-based methods (see Browne 2016, Hitchings 2011 & 2012), to garner insights into the mundane details of doing practices. My study is situated amongst these turns, and I suggest that

there is value in reinvigorating traditional research methods through the use of a methodological hybrid to gain a detailed understanding of cycling.

There is sustained academic interest in experimentation and diversification within methods and this is evidenced in recent cultural geographic and mobilities literature (see for example Dowling et al. 2016 & 2017, Faulconbridge and Hui 2016). Much of this curiosity toward experimentation, particularly amongst mobilities scholars, has been influenced by non-representational thought (also non-representational, or more-than representational thinking or theory, hereafter referred to as NRT) (Faulconbridge and Hui 2016). There is not a single NRT approach to methods (Vannini 2015), however scholars who use NRT commonly seek to explore, however partially, life's 'doings, goings, and becomings' (Vannini 2015, 15). The influence of NRT is evident within the growing body of mobilities scholarship that focuses on '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). This scholarship has focused on very specific aspects of everyday mobility practices, to probe what has generally been considered as mundane, in a way that elucidates better understandings of ways of being in the world (see for example Bissell, Vannini and Jensen 2017, Waitt 2014, Waitt and Stains 2015). Indeed, NRT chimes with mobilities scholars in particular as the performance of mobilities, the content, and meaning of the journey, are often hard to capture. The non-representational style encourages scholars to experiment with methods that aim to get at the hard-to-capture: to be inventive, draw from multiple ontologies and epistemologies, and move away from methodological sedentarism. In particular, it is the call to draw from multiple ways of thinking – exploring different theoretical entry points – and the focus on life's 'doings ... and becomings' (Vannini 2015, 15) that influenced the development of the methodological hybrid for this study.

Similar to NRT's calls to experimentation, the new mobilities paradigm in its infancy also invoked experimentation and diversification in research methods (Urry 2010). The new mobilities paradigm challenged researchers to reconsider and modify conventional methods, use mixed-methods

approaches, and place emphasis on a mobile component (Cresswell 2011, Merriman 2014). It is commonly accepted that experimentation 'push[es] the limitations of current conventions of representation and knowledge-making ... and move[s] away from what is considered 'safe', orderly and established' (Last 2012, 708). Accordingly, mobilities scholars experimented with methods and, most notably, developed 'an array of methods that in different ways capture, track, simulate, mimic, parallel and "go along with"' (Büscher, Urry and Witchger 2011, 7) mobile bodies and systems. Although I do not adopt methods that seek to go-along with research participants, I suggest that reinvention and reinvigoration can take place at smaller scales to 'move away from what is considered ... orderly and established' (Last 2012, 708).

The calls for experimentation within methods for mobilities gave rise to moving or mobile methods, and methods that utilise new technologies. These largely mobile methods have distinct advantages in that they enable the researcher to be with, see with, and experience movement *with* their research subjects/objects. For cycling researchers, mobile methods present a convenient way of gaining in situ insight into the experience of the cycling body. Cycling bodies are often engaged in quite strenuous activities that may require audio and/or video recording and/or Global Positioning System (GPS) devices to capture what takes place whilst cycling (on the move). Indeed, there has been wide ranging methodological debate about the ways to research these experiences that encompass mobile or moving components (see for example Aldred and Jungnickel 2014, Cook et al. 2015, and McIlvenny 2015).

Debate exists regarding the limitations of mobile methods, both in terms of implementation and analysis. The implementation of mobile methods often involves the use of mobile video and audio recording devices, mobile tracking devices, and moving interviews whereby the researcher travels with the research subject. These techniques can present physical, technological and ethical challenges for researchers that may not be easily overcome. One such example relates to researcher bodies, as methods that require the researcher to be mobile *with* the research subject can be exclusionary for researchers of differing abilities (van Duppen and Spierings 2013, Pooley et al. 2011, Spinney 2011). Moreover, an important criticism of mobile methods centres on analysis, as

geographers do not traditionally have the tools to analyse data (such as mobile video/audio recordings) produced from mobile methods (Rose 2012). As such, mobile methods often necessitate innovation in how data is both collected and analysed (McIlvenny 2015).

Mobile methods are commonly used in combination with other, more traditional, methods to examine mobilities across different scales. These include participant observation, diaries, reflexive interviews and focus groups (see for example Collin-Lange 2013, Cook 2015, and Spinney 2006). By employing different methods to examine the same research problem, mobilities scholars are often attempting to attend to what D'Andrea, Ciolfi and Gray (2011, 158) have termed the 'realisation of mobility as a complex, diverse and multidimensional phenomenon'. Despite mixing mobile approaches with more traditional methods, there remains a preoccupation within mobilities scholarship to be or see with the mobile research subject/object (D'Andrea et al. 2011, Merriman 2014). Manderscheid (2014) takes this critique further, to argue that mobilities scholars are often blind to the socio-cultural structures that shape mobility when focussing on the experience of mobility forms (through mobile methods), stating that mobilities scholars focus on the macro at the expense of the micro and vice versa. Merriman (2014) makes a similar claim in drawing attention to the dangers of being swept up in the need to be mobile. In different ways, these scholars highlight, the need to think through methods for mobilities carefully, rather than getting caught up in trends. Indeed, D'Andrea et al. (2011, 158) remind us that we should take 'care with methodological frameworks [in order to remain] sensitive to [the very] complexity' and multi-dimensionality of mobility. I take these calls to sensitivity, care, and caution seriously, and extend this care to method selection, implementation, and analysis.

There is an increasing understanding within mobilities that, as researchers, we do not necessarily need to be mobile to understand the experience of mobility. Whilst 'being there' and 'seeing there' are approaches that have dominated cycling-specific work with regard to understanding embodied and emotional practice (see for example Brown and Spinney 2010, Spinney 2006, and McIlvenny 2015), it is also necessary to acknowledge that they are only one way of understanding ways of being mobile. As previously mentioned, researchers often couple a mobile component with a non-mobile

component to capture different aspects of mobility and this has been viewed as a form of reinvigoration or enlivening of traditional methods, namely the interview (Dowling et al. 2016). It is not my intention to get bogged down in semantics and draw clear bounds between ‘experimentation’, ‘reinvigoration’ and ‘enliven’, however, it is important to note that mobile methods have often been held up as experimental (Merriman, 2014). This is problematic because, as Merriman (2014, 170) notes, researchers have been moving with their subjects prior to the formation of mobilities as a distinct area of study. Instead, I suggest that experimentation with methods for mobilities does not need to constitute being mobile. Rather, experimentation can take different guises, and operate at different (small) scales.

What matters for this thesis however, is whether embodied and emotional experiences can be captured by other methods that are not necessarily mobile. There is some scholarship that suggests embodiment can be captured through talk-based and diary methods (see for example Doughty and Murray 2014, and Hitchings 2012) and I explore this literature in greater depth further in this chapter. Current calls within mobilities, and human geographies more broadly, focus on renewing, reinvigorating and enlivening more traditional methods (see Dowling et al. 2016 & 2017). This discourse encourages scholars to look again at the ways in which talk-based methods (such as interviews and focus groups) and diary methods in particular, can reveal interesting insights into the more embodied, emotional, affectual, and even fleeting aspects of different ways of being in the world.

Whilst the ability of mobile methods to capture embodiment cannot be denied, it is also possible to understand embodiment AND emotion/affect through methods that do not rely on technology or the interviewer moving with the participant, or methods that were born out of calls to experimentation. Indeed, Merriman (2014, 183) cautions against the sole use of mobile methods, and instead, suggests a balanced approach to examining everyday mobility; using methods informed by different social theories, to work ‘across disciplinary boundaries’. For example, Cass and Faulconbridge’s (2017) recent qualitative study of individuals and households’ everyday mobility experiences draws on social practice theory from a mobilities perspective to examine emotion,

embodiment, and affect without utilising mobile methods. Interestingly, Merriman's (2014) reminder to work without and across boundaries echoes the calls to experimentation within methods from NRT insofar as non-representational thinking does not aim to limit methodological and theoretical boundaries (Thrift 2004, Vannini 2015). It is important to note that NRT-informed methods have been critiqued for their over-emphasis on experimentation and over-emphasis on the researcher at the expense of the research subject/object. Despite these critiques, NRT *does* encourage researchers to think outside of their traditional methodological toolkit and it is this aspect of NRT that excites me and informs the methodology for this project, along with feminist geographic approaches to methods.

In addition to exploring different ways of thinking about methods, I suggest that there is value in looking anew at traditional research methods. Traditional research methods, such as the interview or participant observation are experiencing a resurgence in the post-cultural turn (see Dowling et al. 2016a). Indeed, discussions of reinvigorating traditional methods for mobilities runs parallel to specific calls within practices that challenge the scepticism of the interview (Hitchings 2012), and expand practice's methodological toolkit to include quantitative and mixed methods approaches (see for example Browne 2016, Browne et al. 2014).

The renewed interest in enlivening more traditional methods has as yet unrealised potential (see Dowling et al. 2016a). Geographers have utilised different, more traditional, methods to understand the experiences and elements of everyday practices (see for example Bissell 2014, Browne et al. 2014, McIlvenny 2014, Nightingale 2003 & 2016, and Spinney 2006), and this work moves methodological debates away from well-established binary debates (such as mobile/non-mobile, and traditional/experimental), to a livelier discussion of methods that are considered, purposeful, and applied in novel combinations to deliver alternative points of view. This interest in moving methods away from binary conceptions has also influenced the methodological approach taken in this study.

Recent discussion of reinvigoration of traditional qualitative methodologies has focussed on the interview (Dowling et al. 2016a, 2). Interviews are regarded as a valuable tool to access details of the mundane (Hitchings 2012), and there exists a growing body of work which finds that talk-based

methods can be revealing (see Hitchings 2012), humorous (see Browne 2016), allow for personal reflection (see Bissell 2014), create space for narrative storytelling (see Aldred 2015), and highlight the embodied experiences of mobility (see for example Cook et al. 2015, and Spinney 2006). The interest in the capacity of the interview is encouraging, as researchers enrich the interview through supplementing it with other methods to push the boundaries of what the interview can reveal (Dowling et al. 2016a). Creative engagement with the interview's potential moves methodological debates away from binary discussions of methods. If geographers are to continue to be able to understand 'a world that is ... continually bringing forth new hybrids' (Thrift 2007, 8), then it follows that new ways of understanding this world must necessarily develop (Law 2004).

Recent discussion within practice research has seen a move away from following the path of a practice (traditionally achieved through participant observation or ethnographic studies – see Hargreaves 2011) and return to the individual through the reinvigoration of traditional methods. This discussion has centred on talk-based methods, including focus groups and interviews (see Bissell 2014, Browne 2016, Hitchings 2012, and Kent 2013). Practice approaches to research commonly ignore the individual doing the practice and instead focus attention on the practice itself (Kent 2013, 84; Watson 2012). As such, practice work has traditionally privileged qualitative methods, such as ethnography and participant observation (Browne et al. 2014). This is attributed to an underlying assumption that 'methodological techniques [should be] capable of observing what actually happens in the performance of [a] practice' (Hargreaves 2011, 84). Despite these implied assumptions, researchers are expanding what methods for practice work may mean. For example, quantitative methodologies have been used to analyse 'already existing data sets' (Browne et al. 2014, 28) as well as applying mixed methods approaches (see Aldred and Jungnickel 2013, and Browne 2016). However, the interview has been applauded as a means of uncovering the quite mundane details of everyday practices (see Bissell 2014, Browne 2016, Hitchings 2012, and Kent 2013), and as such, is gaining popularity within practice theoretical work as it can also reposition the individual within practices.

Within mobilities discourses, the shift to the individual is also evident in Middleton's (2009) use of experimental walking diaries, photographs and in-depth interviews, and Aldred and Jungnickel's (2013) discussion of cycling parking strategies. Traditional methods can shed considerable light on understanding practices, whilst simultaneously allowing space for participants to have agency within the research process. This is significant, as the practice (including the elements that make up the practice) and the practitioner (and their thoughts and feelings) are equally valid research subjects, and as such need to be equally considered in order to understand the experience of mobility practices. Yet, these shifts to the individual do not reveal the role(s) of emotion and affect within practices.

The growing interest in emotion and affect from within practice theory also presents opportunities for further expanding practice theorists' methodological toolkits, in addition to repositioning the individual within practices. I suggest that recent practice-theoretical work that engages with broader discussions of emotion and affect opens up opportunities for practice to draw on already well-established methods from other disciplines and schools of thought, for example emotional geographies. Whilst recent practice-based work has gone some way to illuminating the importance of affect and emotion to the endurance of practices (see for example Reckwitz 2017 and Weenink & Spaargaren 2016 and the discussion of emotion, affect and practices in section 2.5 in the previous chapter), this work does not outline *how* emotion and affect may be revealed through methods. This is in part because these forays into the more emotional, affectual and discursive aspects of practice are largely theoretical. Perhaps because of the lack of empirical work which deals with these aspects, there exists a call for 'more open, qualitative methodological approaches ... to conduct research on practices ... [in order to better] reveal the rich details of practices and the ways they unfold' (Spaargaren et al. 2016, 17). Indeed, Spaargaren et al. (2016, 18) suggest that '[q]ualitative methods are indispensable when seeking to describe the emotions at stake', and draw on Nicolioni's (2012) advice to 'zoom in' on social practices. As this is an emerging area within practice-based research, there is a limited engagement with how or what qualitative methods can best reveal emotion and affect. I suggest that the hybrid methodology could usefully solve this

dilemma through drawing well-established qualitative methods from emotional geographies into proximity with qualitative methods that are well used by practice theorists.

There is sustained academic interest in experimentation and diversification within methods, however there is also value in returning to traditional methods, albeit whilst also moving methods in new directions (a neo-experimentalism). As the above discussion has highlighted, much methodological and theoretical debate within human geographies, mobilities studies, and social practices has concerned *how* to capture, even partially, the ways in which people practice and experience everyday mobility forms. These debates have concentrated on doing methods differently and in challenging conventions through experimentation, pluralisation and more recently, the reinvigoration of traditional methods. Amongst these debates however, binary conceptions of methods still remain at the centre of much discussion (i.e. traditional/ non-traditional, mobile/non-mobile). I argue that geographic enquiry too easily falls back onto binary ways of thinking, and these should be challenged wherever possible (Bondi 2005, Whatmore 2002). I suggest that one means of navigating these debates, and a potential path to breaking down binary constructions of methods, is the use of a hybrid methodology. Accordingly, focus now turns to exploring the concept of a methodological hybrid.

3.3 Defining a Hybrid Methodology

The term 'hybrid/ity' has historical roots in post-colonial studies and has influenced geographic theory and methods through its potential applications in breaking down binaries (Johnston and Smith 2000, Mitchell 2005). Indeed, hybridity refers to 'a thing that is derived from heterogeneous sources, and [is] composed of incongruous elements' (Mitchell 2005, 188), yet hybridity is also used to 'describ[e]... those things and processes that transgress or disconnect binary terms' (Gregory et al. 2009, 361). According to Jones (2009, 266) hybridity is 'the understanding that much of life is only possible through routine interconnections' and this emphasis on constantly changing interconnections between things (whilst also de-centring the human) is core to geographer Sarah Whatmore's (2002) understanding of hybrid/ity. Indeed, Whatmore (2002) urges geographers to look

at the world as an always-unfolding assemblage of hybrids. With regards to methodology, hybridity is found in the influence of different theories and disciplines on method selection and their implementation (Nightingale 2016). It is my contention that a hybrid methodology can tread a path between experimentation and reinvigoration as it brings different methods, grounded in well-established bodies of knowledge, into proximity with one another to look anew at a research problem.

I suggest that it is the way in which a hybrid methodology plays with how methods and different theoretical entry points are selected, and brought into proximity with one another, that makes the methodology unique. Whilst I do not contend that the methodological hybrid is experimental per se, I do contend that it has experimental roots and remains attentive to the current post-cultural turn calls to reinvigorate and enliven traditional qualitative methods, as I incorporate ideas from the current discussion of enlivening qualitative methods. The hybrid methodology also attempts to move away from binary constructions of methods as one thing or another, by introducing notions of performativity into method selection. A nod to experimentation is found in the theoretical mismatch generated through bringing different methods into proximity with one another, whereas the influence of the current interest in reinvigoration is found in the choice of particular methods. For the purposes of this thesis, the theoretical mismatch is between theories of practice and emotional geographies, as theories of practice 'starts from the ontological position that 'practices' – as opposed to individuals, social structures or discourses – are the primary locus of the social' (Evans 2018, 4) whereas emotional geographies comes from the 'understanding that emotions are situated within, and co-constitutive of, our working (as well as social) lives' (Bondi & Davidson 2007, 2).

It is the theoretical mismatch – in my case, between theories of social practice and emotional geographies and how they understand social worlds – within the choice of methods that is core to my understanding of a hybrid methodology. I contend that the methodological hybrid eases the theoretical mismatch between these distinct ways of knowing as it brings new methodological approaches to the study of practices and to emotional geographies, providing a methodology for future social practice work that is concerned with emotion and affect (after Reckwitz 2017, Weenink

& Spaargaren 2016, and Wallenborn 2013 – see section 2.5 in the previous chapter where I discuss how this research does not provide empirical evidence to support the claims being made), whilst also remaining sensitive to these well-established bodies of research. A methodological hybrid is distinct from a mixed methodology, or a mixed methods approach, as one method is not used to validate the others and triangulation of data is not the primary goal. Indeed, I do not use a distinctly quantitative method⁹ in combination with at least one qualitative method, which is the well-established understanding of a mixed methods approach (Moore, Strengers and Maller 2016, 4). Rather, the quantitative method is used to recruit participants and to gather basic demographic and frequency data on who is cycling in Sydney. For Latham (2003, 2000) a methodological hybrid has the potential to ‘imbue traditional research methodologies with a sense of the creative, the practical, and being with practice-ness’. I take this to mean a creative arrangement of methods and theory that remains sensitive to a sense of liveliness, and life’s ongoing ‘sense of mutability’ (after Thrift 2007, 27). Although Latham (2003) does not explicitly define what he means by a ‘methodological hybrid’, I suggest that it brings together traditional different methods from different schools of thought to look at a research problem from new or competing angles. For Nightingale (2016), a methodological hybrid recognises that there are multiple theoretical entry points to any one project that informs the use of different methods. Given these depictions, my understanding of a hybrid methodology is one that draws inspiration from different ways of knowing in terms of method selection and implementation, as well as theoretical underpinnings.

The concept of the hybrid methodology takes inspiration from the feminist geographic perspective of partial knowledges (Haraway 1988, Nightingale 2003 & 2016, Whatmore 2002), the renewed interest in enlivening and reinvigorating traditional qualitative methods seen within a range of geographic sub-disciplines, NRT petitions to focus on the unfolding of life, and mobilities’ focus on *doing*. I suggest that bringing different, yet considered methods into proximity with one another can result in more nuanced understandings of the experience of mobility practices. The proximity of methods, and the theoretical mismatch generated, allows for the ‘silences and gaps between data

⁹ The online questionnaire, although quantitative, is not a primary source of data for this thesis, and thus is not classified as part of a mixed methodology.

sets' (Nightingale 2003, 77) to come to the fore. One method does not necessarily need to validate the other through triangulation, and data sets bump into and push against each other to produce situated, reflexive knowledges. Whilst I do not assert that a methodological hybrid is experimental in and of itself, I assert that experimentation is located in the weaving together of specific methods and theories used within the methodological hybrid.

For this study, I bring together ideas from social practice theories, mobilities, emotional geographies, and to a lesser extent, non-representational thinking and performativity, to create a methodological hybrid. The hybrid draws specific methods used within, and inspired by, these distinct ways of knowing into proximity to uncover the elements of cycling practices, and explore the emotional and affectual dimensions of cycling (see Figure 3.1 over the page and section 3.4 of this chapter for a more in-depth discussion of the theories I weave together). The hybrid methodology then, is concerned with method selection AND with ways of knowing. By bringing different methods (from different ways of knowing) into proximity with one another, I challenge assumptions about how to research mobility practices and experiences, whilst also forging a path to navigate competing and complex methodological debates. Attention now turns to the specific design of the hybrid methodology.

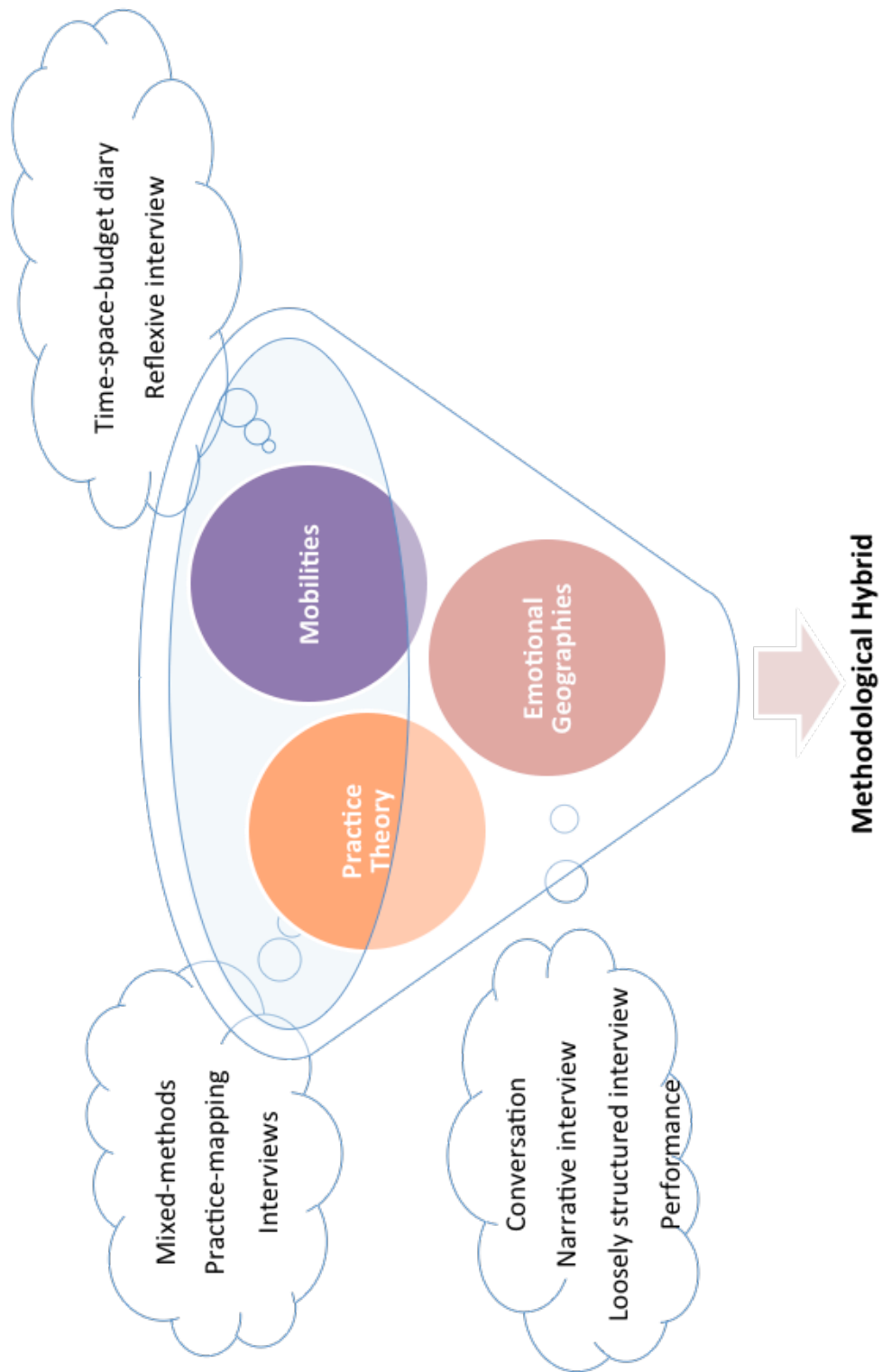


Figure 3.1: Methodological Hybrid for Understanding Cycling

3.4 Research Design and Implementation

In order to gain a nuanced understanding of cycling through the lenses of practices and emotion and affect, it follows that the design of the hybrid necessarily incorporates ideas from practice theory, emotional geographies, mobilities studies, and to a lesser extent, non-representational thinking and performativity. Each of these theoretical entry points carries specific ideas about *how* research should be carried out, or what methods should be employed, and these were taken into consideration when designing the methodological hybrid. Accordingly, the hybrid methodology brings together an online questionnaire (primarily used to recruit participants), a seven-day practice diary (a modified time-space budget diary with participants encouraged to view the diary as a performance) and a semi-structured in-depth interview (conducted after participants had completed the diary to foster a reflexive tone), with each method drawn from multiple ways of knowing (see Figure 3.2 over the page).

In this section I detail how I constructed and enacted the methodological hybrid for my study. I first describe the methods used to execute my study and justify their selection in the methodological hybrid. Attention then turns to describing how the methodological hybrid was practically implemented, including participant recruitment, participant selection, and the quantitative and qualitative data collection processes.

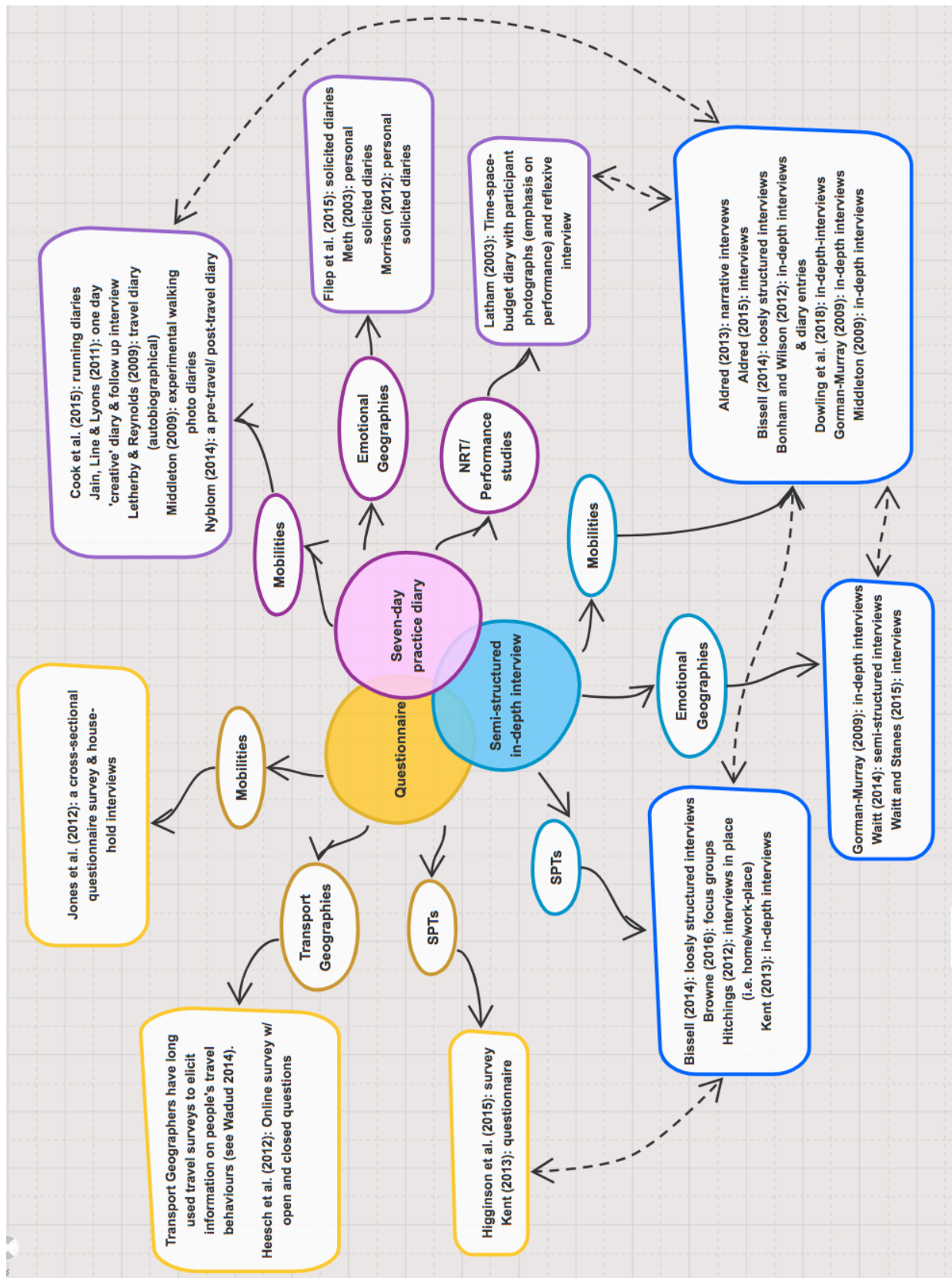


Figure 3.2: Methods and theory(ies) that informed the hybrid method selection

3.4.1 Research design and research methods

The overarching aim of the study is to gain a nuanced understanding of cycling through the lenses of practice and emotion and affect, and in doing so, answer two main research questions: *How is cycling practiced?* And *How does the practice of cycling shape emotion?* In order to answer these questions and gain a more nuanced and detailed understanding of cycling practices and experiences, the hybrid methodology necessarily brings together methods and theory from mobilities, social practice theory, and emotional geographies. As suggested in Chapter Two, an understanding of cycling practices can be gained through following the flow of a practice and in disassembling it according to its elements through the use of ‘talk-based’ methods (see Hitchings 2012, Browne 2016), hence the need to speak to people about the ways in which they practiced cycling. The ‘experience of cycling’ however, was inspired by Spinney’s (2009, 818) description of probing ‘the experience of traversing the line in between ... [and the] ways in which cycling becomes meaningful’ both on and off the cycle. For this project, the experience of cycling encompasses the content and meaning of the journey (of moving from point A to point B – ‘journeying’), the experiences that sit outside of the physical act of cycling (such as when preparing to cycle and what takes place after a journey) and the role(s) that cycling plays in participants’ lives; how the experiences of mobility transcend the journey itself, to permeate daily life beyond the act of mobility. Yet, what constitutes the ‘experience’ of cycling is often difficult to discern. Here, geographical scholarship on emotions (see Davidson, Bondi and Smith 2016, Bondi 2005, Bondi and Davidson 2011, Pile 2010 and the discussion of emotions and affect in section 2.6 in Chapter Two) offers an avenue for attending to these multifaceted experiences of cycling that are hard to articulate and often defy representation, but that simultaneously invite representation and expression.

As my study aimed to illuminate the aspects of people’s cycling practices that are relatively implicit and hard-to-articulate, it follows that the methods employed should aim to encourage relatively deep reflection on people’s everyday practices and cycling experiences. As such, the methods employed in the hybrid are qualitative in nature, and inspired by different theoretical approaches to ‘get at’ the inherent messiness and complexity of everyday cyclings. Activities such as

commuting to and from work or study, organising grocery shopping, visiting family or friends, and exercising, may all be intrinsically linked to the practice of cycling. However, this relationship is more complex than it first appears, and specific methods are needed to 'get at' these slippery aspects of cycling. The three methods that comprise the methodological hybrid are an online questionnaire, a semi-structured in-depth interview, and a seven-day practice diary (see Table 3.1 over the page for an overview of each method).

Method	Timing	Data	Discourse(s)/Theory(ies) invoked
Online questionnaire: general data gathering (basic demographic details and frequency of cycling) and used as a screening tool to ensure participants meet the inclusion criteria ¹⁰ for the in-depth components of fieldwork	One to two months prior to arranging interviews and diaries with participants.	<ul style="list-style-type: none"> • Demographic information • Basic cycling history • Type of cycling practiced • Frequency of cycling 	<ul style="list-style-type: none"> • Mobilities • SPT¹¹
Seven-day practice diary: a modified time-space-budget diary	Diary is kept over a seven-day period (i.e. a usual working week plus a weekend either side of that week) and sent (in hard copy or email) to the researcher before the interview can take place.	<ul style="list-style-type: none"> • Details of cycling patterns: date, time, how long, why, where, how (type of bicycle) • Optional additional information around feelings, whether the trip is out of choice or necessity, weather, choice of clothing, accessories, etc. • Optional photo, audio or cycling GPS data 	<ul style="list-style-type: none"> • Mobilities • NRT/Performance • Emotional Geographies
Semi-structured interview: reflexive in nature, designed to reveal the details of doing cycling (practice lens) and participants' thoughts and feelings about/when cycling (emotion and affect)	One to two weeks after researcher receives diary.	<ul style="list-style-type: none"> • Emotional and temporal experience of cycling • Reflect on week of cycling: thoughts, feelings, sense of time, why they rode, etc. • Elements of cycling practice (if not recorded in diary) 	<ul style="list-style-type: none"> • Emotional Geographies • Mobilities • SPT • NRT

Table 3.1: Design of the Hybrid Methodology

¹⁰ The inclusion criteria for the questionnaire is as follows: respondents needed to be 18 years of age or over, were currently cycling in Sydney at the time of completing the questionnaire OR had cycled in the Sydney region within the previous six – 12 months. This was to ensure that respondents and participants would have recent experiences of cycling in Sydney from which to draw on.

¹¹ SPT = Social practice theory(ies)

The three methods were chosen in order to obtain different views on the ways in which cycling is practiced and experienced from multiple theoretical vantage points: social practice theory, mobilities, and emotional geographies. Indeed, by bringing these together in a methodological hybrid, I intend to highlight different, yet overlapping, aspects of cycling practices and experiences, to shed light on the way in which cycling practices are bundled, enacted, and performed by participants, and shed light onto the emotional geographies of everyday urban cycling. Each of these methods is supported by the methodological debates and directions within social practice theory, mobilities, and emotional geographies discussed in the first part of this chapter, and attention now turns to outlining the methods used to execute my study, their links to ways of knowing, and the type of data sought through each method.

The questionnaire is used to recruit participants to the study and to gather basic demographic information and an understanding of respondents' mobility behaviours through eight multiple choice and 'yes' or 'no' questions (see Appendix D for a list of the questions). The seven-day practice diary, modelled on a time-space budget diary, asks participants to record a week's worth of cycling journeys. It incorporates the basic elements of a time-space-budget diary (when, where, how long for and whether stops were taken), and also asks participants to provide details about their specific cycling practice/s. These details include the materials (choice of outfit, bicycle, accessories), competences (use of technology, how pathways are negotiated) and meanings (sense of freedom, health, control/lack of control). The practice diary also encouraged creativity by asking participants to think of the diary as a performance, recording anything and everything about their cycling week that they desired. Participants were given several prompts to assist with the task, including recording the date, time, length of cycling trip/s, and purpose of cycling trip/s. Participants were also prompted to include any other thoughts, feelings or details over a seven-day period (see *Suggested Practice Diary Instructions* in Appendix F).

The interviews were designed to focus on the elements of practice and the experience of cycling. The combination of the practice diary with a more reflexive interview allows for participants to record and reflect upon journeys in a more 'real time' sense through the diary, and reflect more on

these journeys through the interview. Participants were eased into discussing their cycling in more depth as they progressed through the research process, fostering a sense of comfort prior to the interview. Indeed, the diary and interview allowed participants to report, record, and represent their mobility patterns and experiences. The semi-structured approach to the interview created space for participants to talk about all manner of personal and political topics including cycling governance, family, and how cycling fit in with or enhanced their ability to parent and work. Insights such as these reveal how cycling is integral to other practices of daily living. I now turn to discuss how the hybrid methodology was implemented.

3.4.3 Implementing the methodological hybrid

Empirical research was carried out over the course of 2015, and ethics approval was sought and granted from the human research ethics committee within the Faculty of Arts at Macquarie University in March 2015 (reference number 5201500128R – see Appendix C). Following ethics approval, the questionnaire, interview and practice diary were piloted on six participants (who became the first six participants out of the total of 26) in April 2015. Their feedback was sought on the ease of completing the questionnaire, the ease of completing the diary, and the interview process. Comments were largely positive, however one participant was desirous of an easier form of recording their diary, hence I included the option for participants to hand-write their diary, or type their diary into the body of an email, rather than fill out a table or spread sheet in a word processing application (see Appendix F for examples of the sample diaries). The pilot phase also allowed me to confirm that the research approach was feasible, and check that each method elicited data on the way in which participants practiced and experienced cycling.

The questionnaire was launched in May 2015 through an online portal, Qualtrics, and closed in December of the same year. Diaries were solicited from participants and interviews were conducted with the same participants from May 2015 to October 2015. I illustrate the timing of each aspect of the research process, from research design and ethics approval through to data analysis and synthesis in Table 3.2 over the page.

	Year/ Quarter	2015				2016			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Tasks	Research Design								
	Ethics approval								
	Pilot Phase								
	Questionnaire								
	Interviews								
	Diaries								
	Transcription								
	Quantitative data analysis								
	Coding (interviews and diaries)								
	Qualitative data analysis								
	Synthesis of data								

Table 3.2: Research Timeline

As previously stated, the online questionnaire comprised eight multiple choice and yes or no questions that were designed to obtain a brief cycling history for each respondent including the type of cycling performed, frequency of cycling, and basic demographic information (see Figure 3.3 for an example of the live questionnaire as displayed on a mobile device).

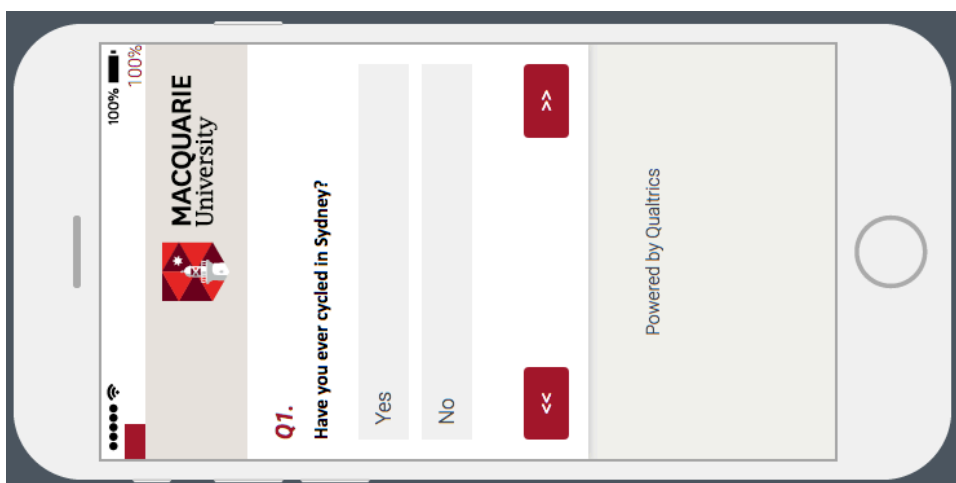


Figure 3.3: Example of the questionnaire when viewed on a mobile device

Practically, I recruited respondents for the online questionnaire through a range of means and these are listed below:

- E-mail lists of cycling-related groups, associations and organisations (both local and state-based – see Appendix E);
- Posting the e-flyer on cycling-related social media pages (i.e. blogs, forums, Facebook, and Twitter);
- Emailing over 40 cycling-related organisations, clubs, and groups who then shared the project information and flyer with their members via their regular e-newsletters and websites;
- Sharing advertising flyers via the researcher's social media accounts; and
- Displaying advertising flyers and posters in bicycle stores, cafes, and public notice boards located near cycling paths across Sydney (see Figures A.4 & A.5 in Appendix E for samples of the flyers).

It is important to note that there exist burgeoning cycling-related communities online in Sydney, and I utilised these communities to advertise the study to as broad a cycling audience as possible. Indeed, many respondents were recruited through these online communities as I intended to target active cyclists. As such, it can be assumed that the majority of questionnaire respondents were actively or passively engaged in these cycling communities, and were keen to contribute to research that could improve cycling in Sydney. This notion was tested within the interviews, and many interview-diary participants actively or passively participated in these communities.

The questionnaire was also used as a recruitment tool for participants willing to engage in the in-depth components of the research project. As such, respondents needed to meet particular inclusion criteria in order to be included in the questionnaire and to be considered a potential diary-interview participant. The inclusion criteria were based on age (18-years of age or older) and recent cycling experiences (having cycled in Sydney within the previous six to 12 months OR currently cycling). A total of 706 questionnaires were completed from July 2015 to November 2015, and of these, more than half indicated that they were interested in taking part in further in-depth research.

Participants for the practice diary and interview components were recruited from the 706 questionnaire respondents. I aimed to solicit diaries from, and interview, a diverse range of cyclists from across Sydney. I also aimed to have an even gender distribution (half male and half female)¹² and used a random number generator to create a pool of possible participants from the questionnaire respondents who had indicated that they would be willing to participate in further research. As the questionnaire was live at the same time that I started to conduct interviews I needed to recruit participants quickly and I used a semi-random sampling strategy when selecting possible participants. On a weekly or fortnightly basis (depending on the number of questionnaire responses received in a given week) I first isolated those respondents who had indicated that they were willing to participate in further in-depth research, before removing respondents who had indicated that they had not cycled in Sydney within the past six months. I then separated this group by gender and allocated each respondent in each gender group a number. For each gender group I then used a random number generator to produce between five and eight respondents to contact via email and arranged interviews with those people who responded in the positive to my initial email invitation. The process of arranging and conducting interviews with my participants took six months.

Over the course of these months I conducted 26 interviews with cyclists from across Sydney and received 24 diaries from those participants. In each interview I referred to a semi-structured in-depth interview guide (see Appendix G), as well as the participant's diary where necessary, for example if the conversation flagged or if the participant needed a prompt to remember some recent cycling experiences. Interviews were conducted with the 26 cyclists at a place and time that was convenient for the participant, and lasted between 30 to 75 minutes. The interviews were recorded with an audio recording device and transcribed as closely as possible to the completion of each interview using intelligent verbatim (whereby not every utterance such as 'like' or 'um' is transcribed), and then exported into NVivo for coding and analysis purposes – discussed in section 3.5 of this chapter.

¹² The questionnaire was conducted before the Australian Bureau of Statistics revised their survey guidelines to be more gender inclusive and thus avoid binary gender allocations (see ABS 2017d). In future work I will endeavor to be gender inclusive.

For each interview I arrived by public transport or on foot, as I did not want to appear as a 'comrade'. This was a conscious decision designed to present a professional and friendly image to participants, and also minimise the potential influence on the interview that appearing in cycling-specific gear could take. For example, if I were to arrive wearing Lycra and sweating after an hour commuting to the interview location on my road bike to interview a participant who did not wear Lycra or ride to meet me, I may have given an impression that I was a more experienced cyclist and this may have had a bearing on the interview. However, once each interview started, it became clear that my positionality as a cyclist-researcher (my gender, knowledge, and experiences of cycling in Sydney), as well as an enthusiasm to listen, helped me to encourage participants to open up. By acknowledging my own positionality (England 1994, McDowell 1992, Rose 1997) as a feminist cyclist-researcher, and the possible impact that this has on the research process, I echo England's (1994, 243) call to explore the 'shared meanings [between the researcher and the researched] and ... [through] methods that develop this advantage.' Thus, even though the researcher's body was not necessarily taken into the research process through mobile methods, my knowledge as a cyclist-researcher still enabled different outcomes within the research process, just as my positionality as a feminist geographer influenced the methodological hybrid. To illustrate this point, many participants asked questions about my own cycling experiences, and our conversations about our different and shared experiences of cycling assisted in building a sense of rapport and trust. This was imperative for enabling a richer discussion of participants' experiences of cycling.

The data collection process generated over 150 pages of text, graphs and tables. In addition to the interview transcripts, I received three hand-written diaries, two cycling blogs, and 19 typed diaries over the course of the fieldwork. Where participants completed the diary task before the interview I read the diary prior to conducting the interview. Participants also shared maps, photographs of scenery, equipment and cycles, as well as videos and data from activity tracking applications.

3.5 Data Analysis: Reporting, recording, & talking about cycling

The methodological hybrid generated different forms of data, and this necessitated the use of different analytical tools to interpret the diversity of data. In this section, I explore the analytical tools I employed during the data analysis process, including quantitative and qualitative techniques. Attention now turns to this task, starting with the questionnaire, then diaries and interviews.

The questionnaire results were exported into Microsoft Excel where I first cleaned the data to remove invalid responses or responses that did not meet the selection criteria. I then exported the cleaned data set into SPSS and used the software to confirm the validity and reliability of responses. The clean data was tabulated question by question in Excel, to highlight the major themes emerging from the questionnaire and identify specific questions that could be cross-tabulated to produce a greater depth of analysis using two or higher-way tables (whereby responses are divided up by gender, age, and type and frequency of cycling categories). These cross-tabulated results are discussed in the following context chapter, Chapter Four.

Diaries and interviews were collated in NVivo. I also ranked the diaries according to the level of information and detail that participants provided, in addition to highlighting where participants had included images, maps or videos as part of their diary. These practice diary notes provide an overview of the information participants included in their diaries (see *Practice Diary Notes* in Appendix H). For the interviews, data coding was undertaken in two stages. The first stage involved experimenting with deductive coding techniques and the second stage utilised inductive coding techniques. Ultimately, interviews were coded using ten themes. These themes are *body & embodiment, disruption, emotions & perceptions, identity, exercise or physical health, habit & routine, multiplicity, stuff, infrastructure, and time*. The coding process is explored in the following two sections, and this is followed by a more detailed exploration of the analytical tools applied to the qualitative data.

3.5.1 Deductive coding

Deductive coding was first employed to examine the interview transcripts and diaries. This concept utilises a pre-determined list of themes that are generated through an analysis of pre-existing theory and/or a project's conceptual framework (see Davidson, Bondi and Smith 2016, Bondi 2005, Bondi and Davidson 2011, Pile 2010 and the discussion of emotions in Chapter Two). For this study, I created two initial lists of possible codes, one was related to the elements of practice and the other was a list of the common themes I could recall from the interviews (see Table 3.3 below).

Practice(s)	Common Themes/Ideas
Materials	Organisation
• Bike/s	Disruption
• Gear/Clothing	Confidence
Meanings	Navigation
• Freedom	Weather
• Independence	Relationships
• Empowerment	Time
Competencies	Stillness while being mobile
• Skill development	Embodiment
• Confidence	Feeling cycling
• Safety strategies	Thoughts whilst cycling
	Emotions
	Other transportation

Table 3.3: Deductive code lists

Using both of these lists and the five interview transcripts, I scribbled all over the transcripts and kept a note of what was missing and what else I thought about as I was reading each transcript. In practice, this deductive coding exercise (Saldaña 2013, 75) produced a long list of codes that was later refined. Indeed, there exist aspects of the data that these codes did not capture, despite the lists being fairly extensive. The process of deductive coding raised specific questions around practices for me, and these questions are listed below:

- If cycling was not a practice per se, then what practice/s does it form a part of?
- Can cycling be enfolded into multiple practices, for example as a 'a practice of physical

- c. What about cycling that does both, and more too – cycling that has multiple meanings and purposes for practitioners, or that forms part of other daily practices such as childcare and home making?
- d. How can I find these connections?

3.5.2 Inductive coding

[illegible]

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I then listed these in a table and went through the table to see what each meant (second cycle coding – see Saldaña 2013, 68-9). Second cycle coding (ibid.) involves sifting through data to establish what it means. In my case, I grouped paragraphs/sentences from transcripts together by theme, and then interpreted these theme groups further, to ascertain what participants were talking about, thus arriving at particular codes. This helped me to decide what the text was saying, such as multiple cyclings and time (see Figure 3.5 below).

Code Mapping of two transcripts

Transcript 6	
First cycle coding	Second cycle coding
Male: 26 years old	
Bike shop employee	
Has been riding seriously since 19 years old	
<ul style="list-style-type: none"> • Cycling linked to career • Relationship with father led to working in a bike shop • Cycling culture • Cycling as a sport • Multiple forms of cycling: "competitive stuff", "recreationally for fun" and "a lot of commuting" – multiplicity • "my riding is a combination" • "I like riding" • Hundreds (300-400) of kilometers per week • Only cyclist in share house • Lack of housemates' understanding • "bike rider lifestyle" – organised, early starts • "set up ... lifestyle ... to be convenient for it" • food, clothes and bike all ready (tires pumped) and "gear ready" • It's about more than just being organised: idea of "having a good set up" • Sense of being short on time/a lack of time and making time to "get a ride in" – being organised helps getting away on time ("maybe get up early... from about 4.30 in the morning") • Weather impacts how much time is needed to get ready for a ride – clothing • Food linked to training and needing energy/fuel (to avoid "getting a bit huger flat") • Strong awareness of his body's needs (i.e. fuel) • Need to be considerate of other household members when getting away early • Importance of end-of-trip facilities at work – the appreciation of having a shower is something that has come 	<p><u>Multiplicity</u></p> <p><u>Emotion / Perception</u></p> <p><u>Organisation</u></p> <p><u>Time</u></p> <p><u>Body/embodiment</u></p> <p><u>Infrastructure</u></p>

Figure 3.5: Sample of second cycle inductive coding using pen and paper

Following these first and second cycle coding exercises I then tried working with Microsoft Word and highlighting text according to codes, however found it difficult to code sentences multiple times for different themes (see Figure 3.6 below).

<ul style="list-style-type: none"> ● Innovation at previous office spaces to find places to dry clothes: "I could hang up my gear actually in the air-conditioning vent in the return. You put it where the return is it sucks all the dry air through your gear and it's dry within a few hours. Very efficient" 	<ul style="list-style-type: none"> - Infrastructure
<ul style="list-style-type: none"> ● Cycling linked to community/friendship and the notion of a shared identity: "There's opportunities for social engagement when you're riding that aren't available in either car or train transport" It seems to be because it's a minority group that are persecuted by drivers, that the cyclists tend to have a common identity and they tend to talk to each other and give each other tips and ask people... a cyclist would ask another cyclist 'where are you going?' - this 'community' is important for the interviewee. 	<ul style="list-style-type: none"> - Time - Emotions/Perceptions - Identity
<ul style="list-style-type: none"> ● Riding with others for safety as well as company: "it makes a massive difference to your flow home to have another cyclist beside you." 	<ul style="list-style-type: none"> - Emotions/Perceptions
<ul style="list-style-type: none"> ● Organisation on a larger (community) scale: "our commuter group has about 180 members and they communicate by email, they meet regularly at the same coffee shop each 	<ul style="list-style-type: none"> - Organisation/Planning

Figure 3.6: Sample of inductive coding of Pat's interview transcript using Microsoft Word

After completing the second cycle coding of the first five transcripts in Microsoft Word (see Appendix I for the complete first and second cycle coding exercises), I collated and refined my list of themes (see Table 3.4 over the page for a list of themes coded for, their meaning, and connection with practices) and used NVivo to code all 26 transcripts. As previously stated, these codes were then applied to the diaries. In addition, I highlighted where each theme or code connected with a specific element of practice in order to highlight the intersections between elements and highlight where practices were not sufficient to describe or interpret participants' cycling narratives and diaries.

Theme	Meaning	Element(s) of Practice
Body & Embodiment	The kinaesthetic body – Spinney (2006, 725) called this sense ‘an experience that is felt [through the body] rather than seen’.	Meanings Competences Materials
Disruption	Events or things that stop and start people cycling.	Meanings Competences
Emotions & Perceptions	How do people feel about what they do [their practices] and how do they perceive themselves or others.	Meanings Materials
Exercise or Physical Health	How do people articulate ideas around fitness, physical health and exercising?	Meanings Competences
Habit & Routine	Habit can be pre-cognitive, or consciously performed and re-performed- more than 'organisation and planning'.	Competences
Identity	How the interviewees define themselves as a cyclist...it can be Collective (define themselves in relation to the group or cyclists in general) or Individual (unconnected to 'cycling').	Meanings Materials Competences
Infrastructure	Physical and social infrastructure that supports cycling and discussion of routes.	Materials Meanings
Multiplicities	The interviewee is doing different types of cycling or cycling for different reasons at different times – their cycling is flexible: and maybe their cycling identity too.	Materials Meanings
Stuff	Clothing, necessities, accessories – all the physical tangible things that you need/like to have when riding a bike – including the bike.	Materials
Time	How do people think about time? What do cyclists do with their time?	Meanings Competences

Table 3.4: Codes, their meanings, and relationship to the elements of practice

3.5.3 Data presentation and analysis: discussion and vignettes

The data generated through the fieldwork process is presented in chapters Four, Five and Six. Chapter Four presents the quantitative data from the questionnaire graphically, alongside with discussion and analysis of this data as it relates to the first research question *How is cycling practiced?*. In addition, the chapter sets the scene for a more comprehensive discussion of the qualitative data and research question two. Whereas Chapters Five and Six focus wholly on the qualitative data generated from the interviews and diaries.

In Chapters Five and Six I elaborate upon the elements and themes as they relate to each analytical lens (practice and emotion and affect). The inductive coding process highlighted themes and topics of concern to participants, as well as enabling me to highlight different bundles of elements for different forms of cycling. This is presented in Chapter Five through a discussion of each of the three elements of practice.

The first research question was primarily approached utilising techniques common to social practice theorists, that of tracing the flow of practice (cycling and its interconnections with other social practices) to identify the meanings, materials, and competences through each participants' diary and interview transcripts (see for example Pantzer and Shove 2010, Shove and Pantzer 2005). As I re-read interview transcripts and practice diaries I highlighted instances where participants referred to specific elements of practice. This was supported by direct and summative content analysis approaches (Miles and Huberman 1994). Direct content analysis drew on themes identified during the literature review process (see Chapter Two) relating to what constitutes a social practice (materials, meanings and competences). For summative content analysis, I examined the word frequency of key words related to cycling practices and emotion and affect that had emerged from the coding process (in particular under the codes 'Habit & Routine', 'Infrastructure', and 'Stuff'), including love, free, afraid, identify, cyclist, traffic, change, family/kids, transport, enjoy, hard, cars, road, cycleway, and bike. These techniques enabled a close analysis of how participants' enacted and performed their cycling practices.

The second research question was also approached using summative content analysis techniques, the narrative vignette, and a technique from phenomenology; thick description (organised by theme), to apprehend how cycling practices shaped emotion for participants. The vignette is a useful analytical tool that simultaneously allows the researcher 'to give greater depth to ... analysis by focusing intensely on a small range of experiences' (Hsieh and Shannon 2005) whilst also 'remain[ing] sensitive to the nuances of individual lived experiences' (ibid.) Indeed, the latter of these two analytical techniques have a strong theoretical grounding in emotional geographies and

feminist geographies, whereby the researcher attempts to give voice and agency to research participants (Gorman-Murray 2007, 200).

The summative content analysis of interviews and diaries for emotion and affect, or the emotional geographies of cycling, focused on text that I had coded under the themes: 'emotions and perceptions', 'identity', 'body and embodiment' and 'disruption'. However, as emotion is more-than feeling and something that not all participants could easily express discursively, the way that participants' expressed themselves was also coded at 'emotions and perceptions' in the interviews. It was found in chuckles, exclamations of excitement, exasperation, exhaustion, discomfort, and determination. It existed within silences or pauses, in smiles, in avoidance of questions, over-talking, and the changing of the topic. As discussed in section 3.4.3 of this chapter, the use of intelligent verbatim when transcribing audio recordings allowed for moments of silence, or pauses, to be recorded through textual representations and cues, such as the use of ellipses (...) or '[considers]' to represent a lull in conversation. Laughter and chuckles were made a note of in a similar manner (i.e. [chuckles] or [laughs]), as were facial expressions (i.e. [smiles]), whereas tone was expressed through italics, the use of CAPITAL LETTERS, and exclamation points!

3.6 Chapter Summary

In this chapter I have outlined how I developed and employed a methodological hybrid to research cycling in Sydney, outlined the process of coding qualitative data, and detailed how analysis of both quantitative and qualitative data was approached. In developing this hybrid methodology to research cycling in Sydney, I aimed to remain sensitive to the complexity inherent within social research and in researching mobile bodies in motion more specifically. Through the methodological hybrid, I attempt to remain sensitive to influential and current methodological debates within geography, mobilities studies, and social practice theory that variously question and call for experimentation, binaries, pluralisation, and the reinvigoration of particular methods. Given the project's dual lenses to view cycling, it followed that multiple methodological entry points necessarily

needed to be employed and I suggest that the methodological hybrid is one means of engaging with these multiple methodological and theoretical entry points.

The hybrid responds to mobilities studies and non-representational calls to experimentation in so far as it brings considered methods into proximity to purposefully generate gaps and silences between data sets. Yet this is not experimental in and of itself. Rather, I assert that the methodological hybrid experiments with the possibilities that bringing different, yet considered methods into proximity with one another generates. A hybrid methodology challenges conceptions of how cycling ought to be researched, progresses discussion of enlivening and enriching traditional qualitative methods, and expands the methodological toolkit for practice theoretical work.

Attention now turns to providing greater context for researching cycling in Sydney, with an overview of the site selection, an overview of the participants who took part in the qualitative components of the study, and an overview of the quantitative findings. It is imperative to embed the study within Sydney's predominant culture of automobility, in order for a better understanding of the way in which participants' enact, perform, and experience their cycling practices.

4

Locating Cycling: Sydney & Cyclists in the City

4.1 Introduction

This chapter serves to situate the study in Sydney and functions as a primer for the following two empirical findings chapters. I begin the chapter by introducing the Sydney region as a site from which to study cycling, and justifying locating research in my own geographic backyard. This is followed by a brief overview of cycle planning in Sydney and the state of cycling in Sydney, to provide greater insights into participants' cycling narratives drawn on in Chapters Five and Six. I then provide a summary of the quantitative research findings as they support the findings set out in Chapter Five. The quantitative findings suggest that people who cycle do so for multiple purposes and cycle frequently. This serves to highlight that people's cycling practices are complex, and warrant further investigation. The chapter then concludes by providing an introduction to the 26 participants who took part in the in-depth components of the research.

4.2 The Sydney Region: My geographical backyard

Sydney is Australia's largest city and is a significant site from which to study cycling. The Greater Capital City Statistical Area (GCCSA) of Sydney (see Figure 4.1 over the page), referred to as 'the Sydney region' or simply 'the region' throughout this thesis, is located on the east coast of Australia. It covers in excess of 12,000 square kilometres and has an estimated residential population over 4.8 million at the time of writing (Australian Bureau of Statistics [ABS] 2017). Geographically, Sydney spans from the Blue Mountains in the west, to Wyong in the north, extending to Wollondilly in the south, and is bordered by the Tasman Ocean to the east.

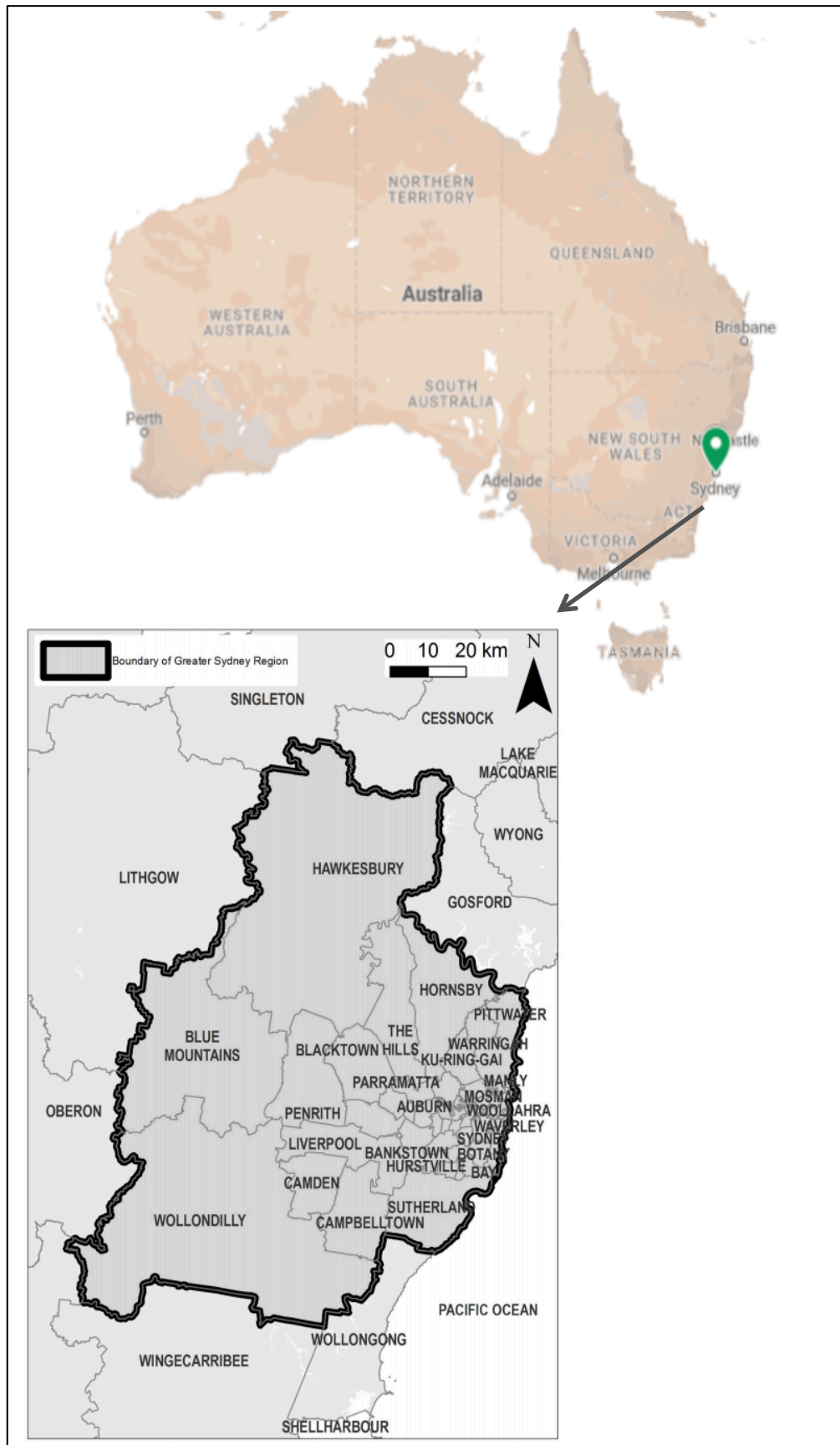


Figure 4.1: Location of the Sydney region within Australia (Google Maps 2017 [top]), New South Wales (NSE Government 2015, 11 [bottom]).

The region's significant history of 'expansive metropolitan planning' (Freestone 2010, 157), has resulted in spread out activity centres and dwellings which has in turn encouraged a reliance on the private car within the region. The majority of the population is clustered along major road corridors extending out and away from the Central Business District (CBD), with a heavy reliance on the private car for daily transport needs. Indeed, the 2016 Census (ABS 2017a) revealed that 59.8% of employed residents (aged 15 years and above) within the region drove to work or were a passenger in a private car on census day, with 22.8% traveling to work by public transport¹³. Governments are increasingly recognising the importance of, and are planning for, sustainable and liveable cities (Mees 2010) to reduce the reliance on the private car. Indeed, one example of how creating sustainable and liveable cities is being addressed by all three tiers of government in Australia is through the development of active transportation policies, plans and strategies to encourage and improve activities such as walking and cycling across the country. This increased attention on cycling from a planning perspective has significantly informed the study's site selection.

The site selection of the region has been informed by the region's history of car-centric planning, and the need to create more sustainable cities and regions, yet this decision was also influenced by the 'turn to the domestic' proposed by Head and Muir (2007) with respect to locating geographical research in the investigator's locale or neighbourhood. The choice of the region as the central focus for exploring the practices and experiences of cycling (the meaning and content of the journey and those often embodied, affective, and emotional facets of mobility that cannot simply be traced onto a map) has been heavily influenced by the aforementioned domestic turn. The region is my own geographical backyard and I have grown up and lived in different districts within the region my entire life. Moreover, I have continued to cycle in Sydney, developing my own cycling practices as I live and work in different parts of the city. Researching cycling in Sydney as a cyclist and Sydneysider (cyclist-researcher) is a logical manifestation of Head and Muir's (2007) domestic turn. Indeed, by researching cycling in my own 'backyard' I am embedding the knowledge-making process in my everyday life. My own knowledge and experience of cycling in the region influences where and how I

¹³ At the time of writing data for cycling to work on the census day were unavailable.

chose to recruit participants, and enables me to engage with participants on a more meaningful level.

4.3 Cycling Planning and Governance in Sydney

Discussion of the ways in which people practice and experience their cycling in Sydney requires an understanding of the broader cycling environment in which people cycle. As such, I now provide an overview of the cycling governance of Sydney. Cycling governance is shared across multiple levels of government in Australia. Australia's three-tier system of government divides transport planning responsibilities between Federal, State, and Local Governments, with cycle planning, policy and infrastructure provision largely shared between the state and local governments. Within this system, multiple local government authorities (LGAs) are primarily responsible for planning and delivering local cycling infrastructure, and they also work with State authorities to develop and deliver infrastructure. Within the Sydney region then, cycling is planned for at the LGA-level as well as the State-level, however strategic planning directions now also come from the Greater Sydney Commission. The Greater Sydney Commission (the Commission) was formed by the NSW State Government under the *Greater Sydney Commission Act 2015* (New South Wales Government [NSW] 2015), to act as an independent strategic planning voice and has developed active transportation strategies in addition to those of local and state governments.

Between the multiple government actors the region has seen increasing development of cycle plans and the increased delivery of cycling infrastructure. At the LGA-level, since 2007, the City of Sydney Council (COS) has invested over \$70million to develop a cycling network to better connect the CBD with surrounding suburbs and provide a viable transport option for city-dwellers and visitors (see McNamara 2013a, 14-16). This network is being developed in partnership with numerous LGAs and state bodies and is due for completion in 2017 (City of Sydney [COS] 2009). Numerous other LGAs across the region have cycle plans in place, with Camden City Council having the oldest (dating to 1996 – see Table A.1 Appendix A). At the same time, the NSW state government has increased cycling funding and developed numerous state-wide bike plans (NSW Government 2010). For

example, in the 2017-18 financial year the NSW state government committed \$62million to active transport, with 50% of these funds dedicated to cycling (Bicycle NSW 2017). This is in addition to the state government's announcement of an \$80million Cycling Infrastructure Fund over the next four years (Ibid), and the Commission's (2017, 4) strategic direction to create 'a city of great places' which includes designing for active transportation and exercise across the six sub-regions, or districts (see Figure 4.2 below).

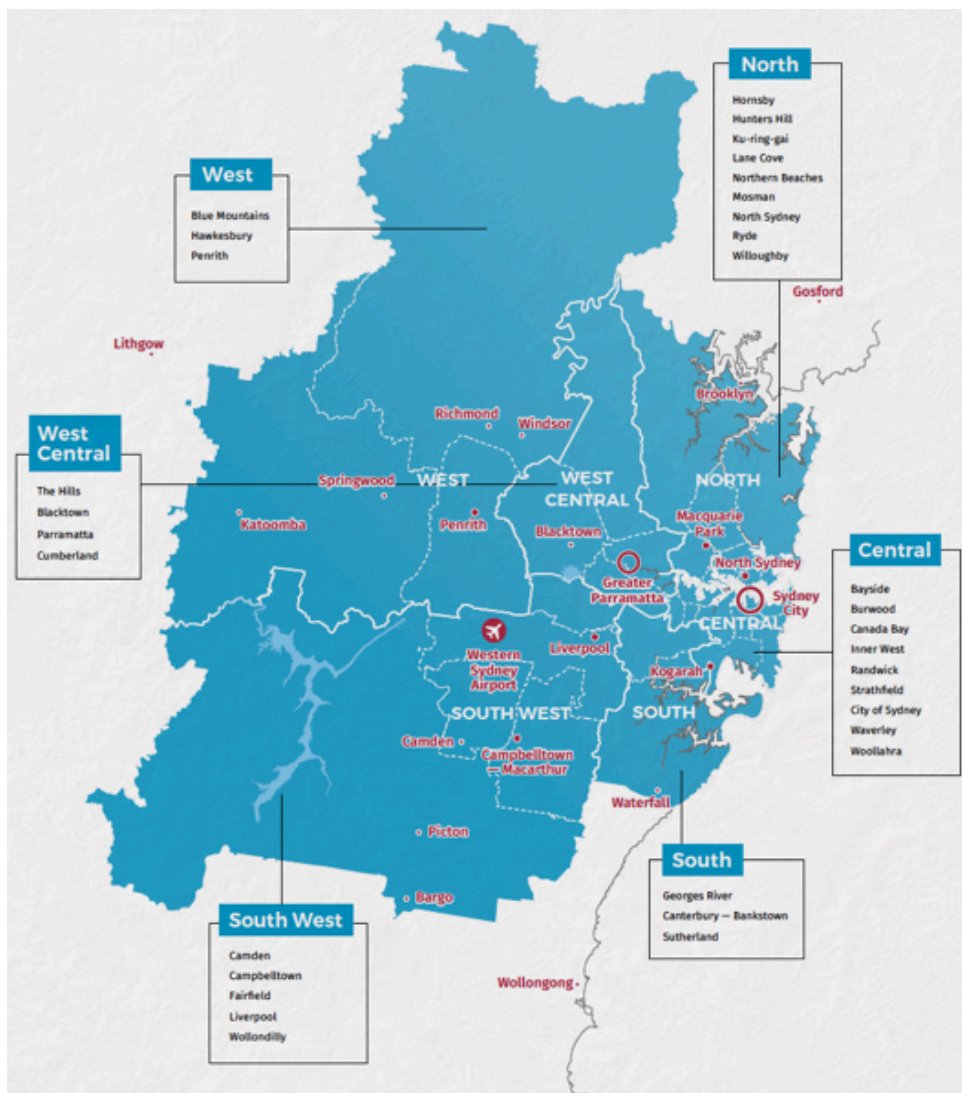
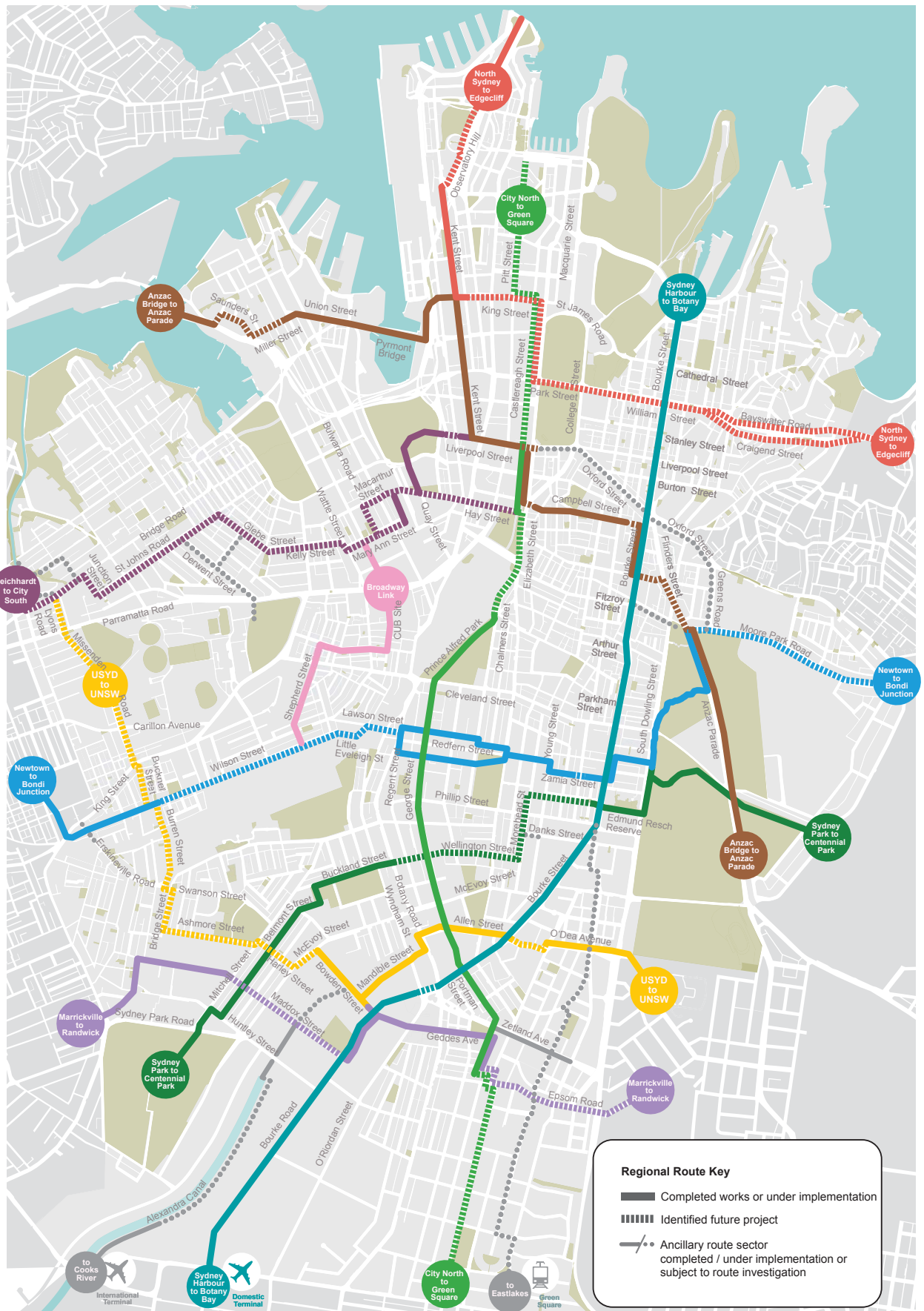


Figure 4.2: Districts within the Greater Sydney Region (Greater Sydney Commission 2016, 2)

As the cycle network has grown, so too have the number of cyclists, and the increasing visibility of cycling as well as increased planning interest in cycling. Indeed, cycle counts across inner Sydney have grown by 132% since 2010 when counting began (COS 2014). This is not surprising given existing scholarship suggests that top-down infrastructure provision is concurrent with rises in cycling

participation rates (Nelson and Allen 2007, Dill and Carr 2003). Increases in cycle participation are not only confined to inner-metropolitan areas of the region. Indeed, closer analysis of the ABS Census journey to work data by Zander et al. (2012) finds that from 2001 to 2011, the numbers of people using a cycle for all or part of their journey to work increased across the Sydney region, and this was echoed in the surrounding LGAs.

Cycling in Sydney is becoming increasingly visible as funding has increased, existing urban areas are retrofitted for cycling, new urban-infill developments are planned to include cycling, and the number of people cycling grows. Yet there is far more to cycling in Sydney than the narrative of infrastructure provision (see Figure 4.3 over the page for a map of the proposed network), funding, and cycle counts, as has been illuminated in Chapter Two.



City of Sydney
PROPOSED REGIONAL BIKE NETWORK MAP

Figure 4.3: Regional Bike Network Map (City of Sydney 2016)

Printed 19 February 2016

4.4 Questionnaire Results: Multiplicity and frequency of cycling

As described in Chapter Three, the online questionnaire was designed to gather basic information about who is cycling, what kinds of cycling they are doing, and how often they are cycling through eight yes/no and multiple choice questions, in addition to recruiting participants to the more in-depth components of the study. The data generated from the questionnaire complements existing cycling data sets, and provides a snapshot of the cycling practices of a sample of keen cyclists from across the Sydney region.

As detailed in Chapter Three, the questionnaire attracted 706 responses. Of these, six had never cycled in Sydney and were removed from the questionnaire, and 17 people who started the questionnaire did not complete it. As such, the questionnaire had 682 complete responses. These were people who identified as currently cycling in Sydney or who had cycled in Sydney within the past six to 12 months and are referred to throughout this section as ‘respondents’. The following discussion and analysis of the questionnaire data refers to these 682 responses. Where a respondent is quoted, the identifier of R and their respondent number is used, for example R1- R682.

All respondents were aged 18 years or older, with over half of respondents (56%) aged between 35-54 years. Overall, the questionnaire attracted more males than females, with 70% of respondents identifying as male. Interestingly, the questionnaire attracted more females in the 18-34 and 55-64 age groups, whereas more males aged between 35-54 and over 65 years responded than females (see Figure 4.4 below).

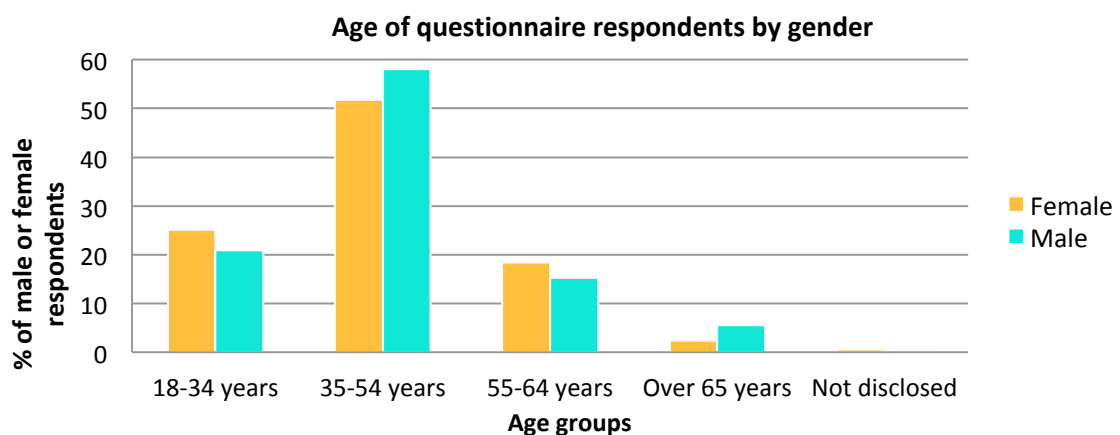


Figure 4.4: Age and gender of respondent

This gender difference, as mentioned in Chapter One, is consistent with the 2011 Australian Census method of travel to work figures (see ABS 2011) and findings from the National Cycling Participation Survey (ABC 2016) which suggest that more males cycle than females, and that this gap becomes more pronounced with age (ABC 2016.).

When considering reasons for cycling, respondents self-selected multiple reasons from a predefined list and provided additional reasons as to why they cycled. Respondents were asked *What do you cycle for?*, and were able to select multiple pre-defined purposes and provide their own reasons under the 'Other (please specify)' option – see Table A.3 in Appendix J for a full list of responses. Figure 4.5 over the page shows the most popular reasons respondents chose for this question. Fitness, recreation, and commute were the most popular, followed by shopping/errands. Of those 10% of respondents who chose the 'other' category, 97% elaborated upon their selection of 'Other'. Of these 'other' categories, 36% of responses were related to visiting family, friends or to socialise, 30% were related to general transport, and 12% were related to childcare practices. For example, R8's (a 35-54 year old male cycling more than once per week) response for 'other' was 'accompanying my daughter to school'. This was in addition to his cycling for commute, recreation, fitness and shopping or errands. In contrast, R193 (an 18-34 year old female cycling about once a week) stated that cycling was used for 'traveling to social events, meeting friends for breakfast...' in addition to the commute and shopping or errands. The remaining responses referred to a range of reasons including for fun (R120, 135 & 568), as a 'risk taking activity' (R481), touring and holidays (R195, 287, 347, 380 & 593), and 'because I feel happy when I'm rolling down the street on a nice sunny day' (R36). Although the variety of responses is indicative of the diverse purposes practitioners use their cycles for, the most interesting finding from this particular question emerges when examining the number and combination of reasons individual respondents gave for why they cycled.

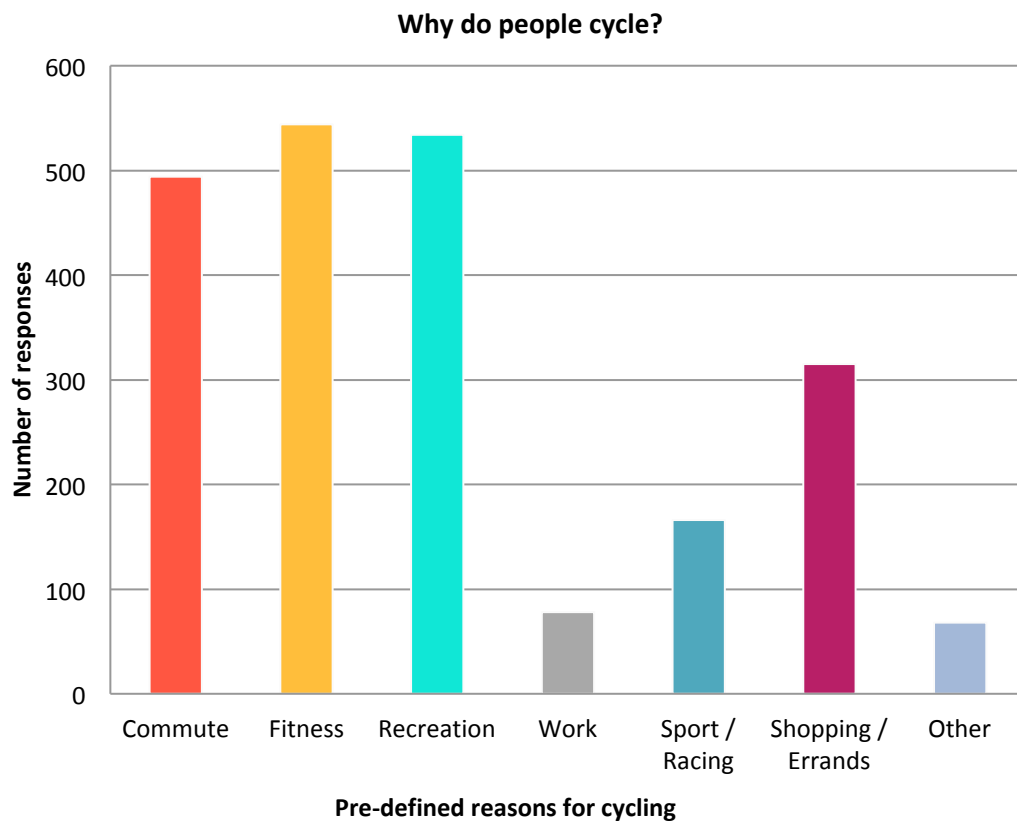


Figure 4.5: Purposes respondents cycled for

More than half of all respondents selected three or more reasons for why they cycled, with only 8% of respondents identifying a single reason for cycling. Of those who identified one reason for cycling, recreation, commuting and fitness were the most common with 33%, 32% and 20% respectively. Figure 4.6 over the page depicts the multiple purposes respondents gave for why they cycled, with the bulk of respondents self-identifying as cycling for three and four purposes. These findings are consistent with a smaller-scale study conducted in 2012 of 355 Sydney-based cyclists which found cyclists rode for a multitude of purposes (McNamara 2013a, 80-83).

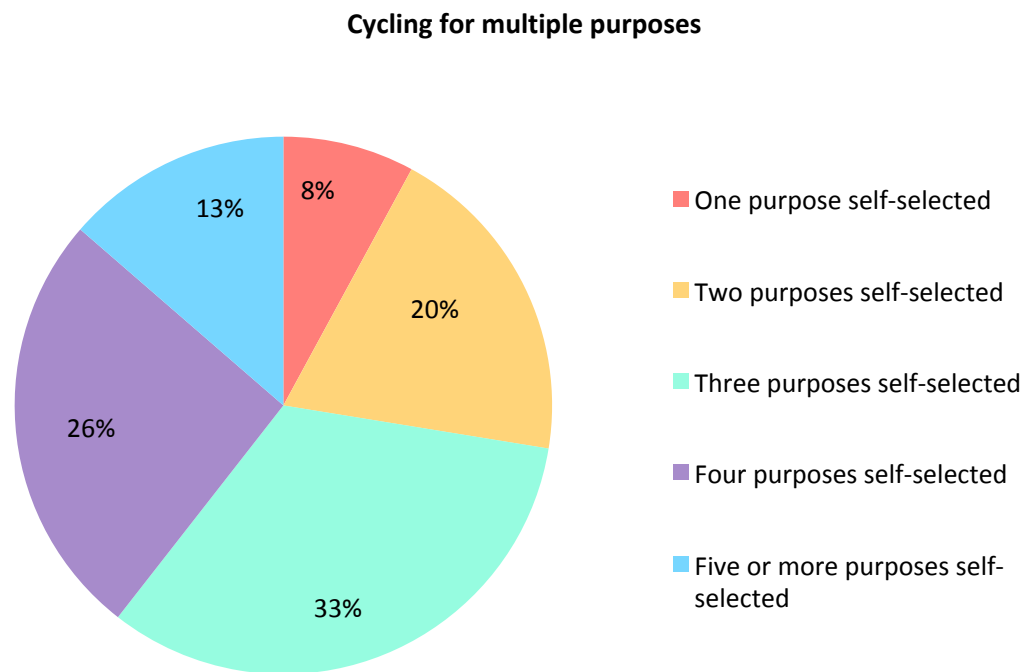


Figure 4.6: The multiple purposes respondents cycled for

With regard to frequency and duration of cycling activities in Sydney, almost all respondents (97%) indicated that they currently cycled in Sydney. Of these respondents, 93% had cycled in Sydney for more than one year and 84% indicated that they cycled on average more than once in a week. It is important to note that of those respondents who were relatively new to cycling (here I define this as having cycled in Sydney for six months or less), all but one respondent identified that they cycled more than once per week. When comparing frequency of cycling by gender, slightly more males cycled slightly more frequently than females and this is consistent given the proportion of male to female respondents. However, the majority of both genders cycled more than once per week (see Figure 4.7 over the page), which is indicative of the enthusiasm of the sample. Although not significant on their own, these figures are consistent with the National Cycling Participation Survey report (ABC 2016, 46-7) which found males cycle more frequently than females, and with a recent study by Crane, Rissel, Standen and Greaves (2014, 183) that found 'men were more likely to report cycling at least weekly'.

Frequency of cycling by gender

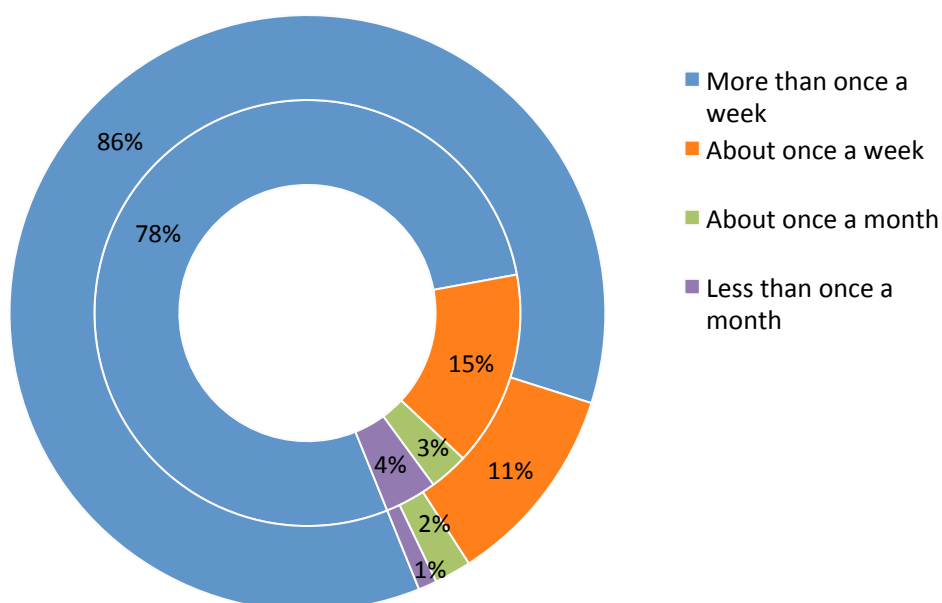


Figure 4.7: Frequency of cycling by gender (Males = outer ring, Females, = inner ring)

A closer examination of the combination of purposes respondents identified as cycling for reveals that 70% of all respondents combined commuting with one or more purposes (30% of these were female and 70% were male), whereas 21% combined fitness with one or more purposes that did not include the commute (32% of these were female and 68% were male), and less than 1% (3 males and 2 females) combined recreation with shopping/errands and/or other purposes besides the commute (see Table A.3 in Appendix J for the full list of respondents' responses). The gender ratio of these responses conforms to the overall gender response rate, where 30% were female and 70% were male with one respondent choosing not to identify. The three most common purposes for cycling (fitness, recreation and commute) were identified together by 47% of all respondents (30% of these were female and 70% were male). Interestingly, of these 47% of respondents, proportionally more females (77%) than males (67%) chose these three common responses with others options, indicating that there are gender differences in the way that people practice cycling.

Overall, the questionnaire provides an insight into the frequency and diversity of cycling in Sydney for almost 700 cyclists. It reveals that people cycle frequently, and that people often cycle for

a wide range of reasons. However, the questionnaire does little to identify the elements that practitioners bundle together to perform cycling. Indeed, particular aspects of the competences and meanings of cycling can only be inferred from these responses.

Before seeking to understand how cycling practices are assembled and enacted, it is prudent to introduce the study participants – those who completed the practice diaries and participated in the semi-structured in-depth interviews – as their detailed descriptions of their cycling journeys enabled a more nuanced understanding of the elements of cycling practice to emerge. This chapter now turns to this task.

4.4 Introduction to Participants

Before unpacking participants' cycling through the lens of practice in Chapter Five and exploring cycling emotions in Chapter Six, it is first necessary to introduce my participants as individuals. Whilst the practice lens de-centres the individual, the lens of emotion and affect demands that there is a certain degree of focus on the individual. I argue that there is value in focussing attention on the individual and individualised emotion because different theoretical approaches within geography (such as feminist, non-representational and humanistic geographies – out of which emotional geographies was born) offer different avenues of understanding ways of being in the world (Bondi et al. 2005). I argue that there is value in approaching research subjects from more than one vantage point. Hence the need to introduce the reader to the participants, as thinking, breathing, cycling individuals, before delving too deeply into empirical analysis.

I start by outlining each of my participants' backgrounds, including a brief overview of their socio-economic and demographic details, as well as their household structure and general household mobility patterns. I then describe each participant's cycling histories and current cycling patterns, and draw attention to the differences and similarities between different participants and groups of participants.

4.4.1 Overview of participants

The 26 participants who took part in the in-depth components of the research project were geographically dispersed and had experience of cycling in different parts of the city and its surrounds. My participants lived and worked or studied in different parts of the city.

Most (n=21) participants were between 18 and 54 years of age, with 11 of these aged between 18 and 34 years and ten aged between 35 and 54 years. The remaining five participants were 55 years of age or older, with one male participant over the age of 65. At the time of fieldwork, all participants resided within the Sydney region (refer to for an overview of the region) and described and wrote about cycling in and/or around the region. Less than half (n=11) of all participants had lived in in their current address for more than ten years, with six of these having lived in their current address for more than 20 years. Only three participants had been living in their current address for less than three months, with the remaining participants having lived in their current address for one to eight years. Of those 22 participants who worked or studied at the time of interview, all worked or studied in the region. Table 4.1 over the page depicts the pseudonyms used throughout the thesis, as well as participants' age group, gender, and general place of residence by district (refer to Figure 4.2 at the start of this chapter) at the time of interview. I go on to expand on participants' socio-economic, demographic, and household details in the following sub-sections.

Pseudonym	Age Group (years)	Gender	District ¹⁴
Mateo	35-54	Male	Central
Tina	35-54	Female	Central
Tony	35-54	Male	Central
Pat	55-64	Male	North
Kaye	55-64	Female	South West
Sam	18-34	Male	Central
Jan	55-64	Female	North
James	18-34	Male	Central
Liz	35-54	Female	West Central
Roshni	18-34	Female	Central
Skye	18-34	Female	Central
Conor	18-34	Male	Central
Leif	35-54	Male	Central
Yin	18-34	Female	North
Monica	35-54	Female	Central
Heng	18-34	Male	South West
Dave	35-54	Male	North
Genevieve	18-34	Female	Central
Brian	Over 65	Male	Central
Alex	18-34	Female	Central
Maggie	35-54	Female	Central
Neve	18-34	Female	Central
Olivia	18-34	Female	Central
Luke	35-54	Male	West Central
Will	35-54	Male	South
John	55-64	Male	North

Table 4.1: Participants' pseudonym, age group, gender and location

4.4.2 Living circumstances

A total of nine participants were born overseas, with the rest born in Australia. All remaining 17 participants were born in Australia and spoke English as their first language. Of those nine born overseas, two spoke English as their first language, whereas the remaining did not. Several participants had lived overseas on a sporadic basis: 'I lived in France for a year ... I lived in Japan for a year' (Alex), 'I was living in Barcelona, Spain ... for four years' (Mateo), and 'I've lived in New York and

¹⁴ Refer to the District map (Figure 4.2) on page 118.

London and here' (Tina) or had grown up overseas (Olivia) and these experiences had influenced their decision to cycle in Sydney.

When discussing residential mobility, it became clear that many participants had lived in the same suburb or area, such as the 'Inner West' or 'North' district, for most of their adult lives. However, several participants had grown up in different states or territories, including Canberra (Mateo), Queensland (Skye), and Western Australia (James), or outer Sydney-suburbs (Alex and Neve), and had moved to the Sydney region as an adult for work or study. Many of the participants aged between 18-35 years had lived in several different rental accommodations in the same suburb or Local Government Area, and expressed a level of satisfaction with their residential locality: living where I do and having a bike means 'it's really convenient and easy and saves on petrol and I don't have to get in my car ... because there's so much restricted parking I can easily ride there and catch a bus home or something' (James), and 'I prefer to pay more rent and live in an area with more public transportation and ... a walking distance to wherever I want to go, rather than having ... [a] car' (Roshni).

4.4.3 Household dynamics

More than half of the participants (n=17) were in a relationship and lived with either a partner or spouse, with the remaining unattached and either living with a family member/s (n=2) or housemate/s (n=7). Two participants (Jan and Brian) lived alone, and of these two, one lived away from their spouse. Ten participants had children living at home whose ages ranged from newborn to early 20s, and five participants had children who were no longer living at home. The remaining 11 participants did not have children. Of those participants with school age or below children, two were the primary care givers at the time of interview and stayed at home full or part-time. The caregiver role will be explored further in Chapters Five and Six.

4.4.4 Employment and socio-economic status

At the time of interview most (n=17) participants were working full time, with one on maternity leave. One participant was looking for work, four worked part time, one worked on a casual basis,

and three were retired. With regard to gender and employment, two of the three retirees were male, two males and two females were employed part time, and one male was looking for work. Most participants' approximate household annual gross income was above the national average of \$107,276 (Australian Bureau of Statistics 2015), with seven earning less than the national median income of \$87,704 (Ibid.).

4.4.5 Private car use and access

With regard to private car use, not all participants owned a car or held a NSW drivers' license. Indeed, eight females did not own a car and three males did not own a car. Of those participants who did not own a private car, one female participant had never owned a car, one female and one male did not have a drivers' license anymore and three (two females and one male) had given away their car/s. In addition, nine of those participants who did not own a private car stated that they were a member of a car-share organisation and used car-share cars, and one participant stated that they used rental cars when necessary. Two female participants (Tina and Olivia) and one male participant (Mateo) who had children still living at home, and who did not own a car, used cycling and public transport for almost all of their family's transport needs. Similarly, Maggie, who no longer had children living at home, reminisced about how her family had used cycles and/or public transport for most local family-trips. In contrast, Lief who had a child in childcare combined private-car use with cycling to take his son to and from childcare with his spouse. Will, Luke, Pat, Tony and Dave all had children living at home and they owned a private-car, however the car was not central to their parenting, and practice diaries and interviews focused on how they used their cycles to connect with (or take time out from) their children (see Table A.4 in Appendix K).

4.5 Chapter Summary

In this chapter I have provided a clear justification for conducting research on cycling in Sydney, presented the quantitative findings from the questionnaire, and introduced the cyclists who took part in the project. I also highlight how my own positionality as a cyclist-researcher living within the study site has advantages for connecting with participants. The data that the hybrid methodology

produced was largely qualitative in nature, with the questionnaire providing quantitative data on people who cycle. This thesis is predominately concerned with the former, as it aims to remedy the lack of attention paid to understandings of cycling within practice discourses and to the qualitative experience of a diversity of cyclings within mobilities discourses. These aims are addressed in the following two empirical findings chapters; through the lens of practice in Chapter Five and the lens of emotion and affect in Chapter Six. In Chapter Seven I bring the lenses into conversation to explore the notion of becoming with.

5

Cycling Practices: Elements & Bundles

It's just my way of getting around. And if I feel like it, I'll ride a little bit further on the way home, or I'll just go out after everyone else has gone to bed, just when I want to. But generally it's to get somewhere. (Luke)

5.1 Introduction

This chapter presents the empirical findings of the study as viewed through the lens of practice by (a) unpacking participants' cycling according to the elements of practice (as outlined in section 2.4 in Chapter Two) to identify the different elements that are enacted and configured by participants in order to carry out cycling, and (b) providing a detailed account of the elements that participants bundle together to enact and perform their diverse cyclings. For this project, the practice lens is grounded in the work of Shove et al. (2012) who theorise that a 'practice' is composed of three interconnected elements (materials, meanings and competences), and theorise that the social world comprises practices that intersect, with elements and practices changing and evolving over time. As discussed in Chapter Two, this is in line with contemporary approaches to practice theory which position practices as the core unit of study to decentre the individual, and conceive of a practice as being construed of various elements which are bundled differently by different practitioners at different times.

The chapter first examines participants' interviews and practice diaries to identify the elements of practice that each practitioner bundles together to perform diverse cycling practices. Drawing on the same empirical material, the chapter then maps different cycling practices through a series of narrative vignettes to further explore how participants use cycling for a diverse range of purposes.

The chapter concludes by making a case for how cycling is enfolded into other social practices by some cycling practitioners.

In this chapter I find that cycling can be constructively viewed as a social practice, and expand on current practice-based understandings of cycling by suggesting a more nuanced understanding of cycling as a diversity of practices. I suggest that this more nuanced understanding, of cycling as a diversity of cycling practices, more effectively encapsulate the dynamism and diversity inherent within cycling practices. This finding has implications for mobilities studies and cycling research, as discussed in Chapter Seven, and implications for policy, as discussed in Chapter Eight. Chapter Seven also discusses the methodological and theoretical implications of bringing this finding into proximity with the findings from the following empirical chapter (Chapter Six).

5.2 Unpacking Cycling Through the Lens of Practice

This section seeks to unpack participants' cycling through the lens of practice to gain a more nuanced understanding of cycling. Throughout this section I argue that cycling can be constructively viewed as a social practice, as it has identifiable materials, meanings and competences. I apply Shove et al.'s (2012) existing framework of the elements of practice (illustrated in Figure 5.1 over the page) to the empirical data obtained through qualitative research methods including semi-structured in-depth interviews and practice diaries. In what follows, I first explore the materials (necessities and accessories) used by participants for their cycling practices, this is followed by an exploration of the various meanings participants derive from and attribute to different cycling practices, before exploring the cycling competences that participants identified.

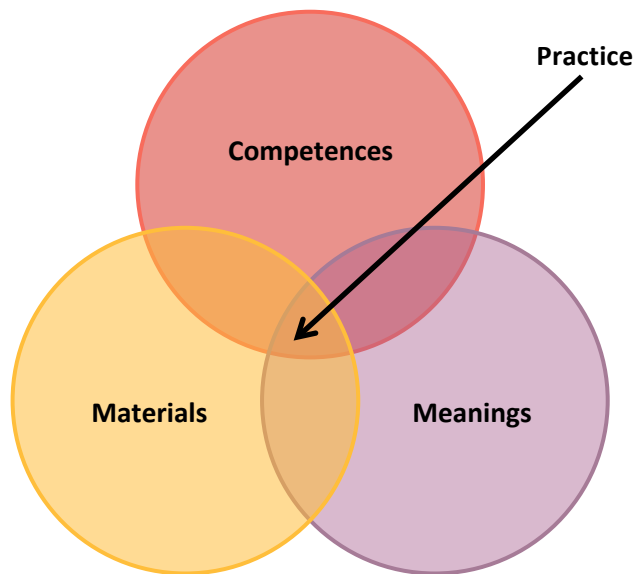


Figure 5.1: Elements of Practice (adapted from Shove et al. 2012, 28)

5.2.1 Materials: necessities and accessories for cycling

I think it's typical of people who cycle regularly to have more than one bike and what will happen is quite regularly you'll have a flat tire or some other defect with the bike and you just grab the other one. (Pat)

Cycling materials consist of the necessities and accessories required to carry out and support cycling. Broadly speaking materials include the 'things, technologies, tangible physical entities and the stuff of which objects are made' (Shove et al. 2012, 14). The materials for cycling include a cycle of some description, accessories, necessities, clothing and technologies. These are the physical tangible things that one needs and/or chooses to have when riding a cycle. Materials also include infrastructure, both physical and social (Shove 2017), such as cycling paths, cycling and way finding signage (see Figures 5.2 and 5.3 over the page), end of trip facilities (such as showers, cycle storage, change rooms, or tools), and the support work of cycling advocacy groups. The materials that make up cycling differed for different practitioners and different types of cycling and attention now turns to exploring these materials.



Figure 5.2: Cycling wayfinding signs, Wilson Street, Chippendale

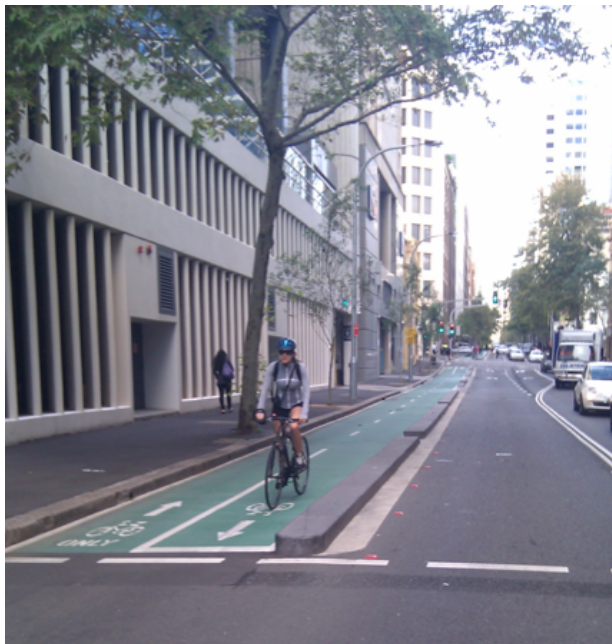


Figure 5.3: Vehicular-separated cycleway in Sydney's CBD

The cycle is the most important material necessary for cycling to be performed. All 26 participants spoke and/or wrote about the myriad cycle(s) they were currently riding or had ridden in the past and almost all participants owned or had access to more than one cycle. An NVivo word search of the interview transcripts and diaries revealed that 19 participants used a road bike, 11 used a hybrid/city bike or a commuter bike, three used an electric bicycle (hereafter referred to as an E-bike) including one participant who had converted an existing mountain bicycle into an E-bike, 11

used a mountain bike, four used a cargo bike(s) (see Figure 5.4 below), two used a fold-up bike (see Figure 5.5 below), and one used a cargo tricycle which also had an electric motor added on after purchase. Table 5.1 over the page provides an overview of the range of cycles owned by participants.



Figure 5.4: An Urban Arrow cargo bike with kid in the front (RideOn Magazine 2017)



Figure 5.5: Fold-up bicycle being ridden in the UK (Shannon 2017)

Cycle(s) owned	Participants
Road bike	Mateo, Tina, Tony, Pat, Kaye, Sam, Jan, James, Liz, Roshni (borrows her brother's road bike), Conor, Dave, Yin, Genevieve, Alex, Neve, Luke, Will, John
Hybrid/City bike	Mateo, Roshni, Heng, Dave, Alex, Maggie, Olivia
Dutch-style ladies' bike	Kaye, Skye
Cargo tricycle	Tina (with an electric motor conversion)
Town bike	Pat, Sam
Commuter bike	Tony, Pat, Jan, Neve,
Mountain bike	Tina, Pat, Jan, James, Liz, Monica, Heng, Dave, Brian (with an electric motor conversion), Neve, Will
E-bike	Tina, Skye
BMX	James
Cyclocross	Pat, James
Cargo bike	Mateo, Tina, Conor, Dave
Velodrome bike	Sam
Fold-up bike	Lief, Will
Fixed gear (Fixie)	Dave
Tandem	Maggie

Table 5.1: Participants' cycles

In addition to the type of cycle(s) used, participants also described a range of accessories that they added to their cycle(s). Accessories included lights and bells, both of which are mandatory in NSW at night or in inclement weather (Transport for NSW 2017), water bottle holders, racks (rear or front) for strapping things onto or attaching panniers to, mud guards, baskets for carrying items such as shopping, bike trailers, and child seats (see Table 5.2 over the page). For example, Maggie opted to use 'lights that strap on pretty easily ... [including] a front light and rear light and one on the rear of my helmet'. These lights are quick to attach onto a cycle and quick to remove so that a rider can choose to leave them on the cycle, or take them off if not needed, such as when cycling in fine weather.

Gear/Accessories & Technologies		Clothing	
<i>Cycling specific</i>	<i>Non cycling specific</i>	<i>Cycling specific</i>	<i>Non cycling specific</i>
<ul style="list-style-type: none"> ● light/s ● helmet ● bell ● panniers ● bike trailer ● tools (spare tubes/repair kit etc.) ● racks ● storage solutions (hanging bike racks) 	<ul style="list-style-type: none"> ● water bottle/s ● reflective vest/straps ● bag ● fold up crate ● occy straps¹⁵ ● camera/s (i.e. go pros) ● fitness or tracking gadgets (i.e. Garmin or STRAVA) 	<ul style="list-style-type: none"> ● Lycra kit: Knicks, jersey, vest, wind jacket, arm covers, gloves ● cleats (to clip cycling shoes into pedals) ● Cycling specific wet weather gear (waterproof outer pants, jacket, rain cape) ● Cycling specific warm layers (toe covers, vest, jacket) 	<ul style="list-style-type: none"> ● sporty (but not Lycra) clothes ● bright coloured clothing ● casual clothing ● work wear/work gear ● ‘normal’/everyday clothing ● dresses ● skirts/dresses with shorts underneath for modesty ● wet weather gear (waterproof outer pants, jacket, rain cape) ● warm layers ● spare socks

Table 5.2: Participants' cycling specific and non-cycling specific accessories and clothing

When recording the details of a commute to work in his practice diary, Dave described the bike, equipped with multiple accessories, and his choice of clothing that he wore and rode the morning after it had rained:

¹⁵ An occy strap is an Australian English term. It is also referred to as a bungee cord or shock cord.

... despite it being a lovely spring morning, there was a 50% chance of rain... So I rode my white bike (see picture [Figure 5.6]) which I have set up for wet weather (mud guards, fat tyres and a bike rack).



Figure 5.6: Commuter bike belonging to Dave (image provided by participant)

Ten participants described carrying different items in baskets or panniers attached to their cycles. Indeed, Monica wrote in the practice diary that she ‘carried [my] yoga mat in basket with keys, money, [and] sunglasses’ on a cycling journey to and from a yoga class. Monica also wrote about carrying items after a bus trip into the city where she ‘had some shopping so put it in front basket and put handbag across body’ to cycle home. In contrast, Maggie chose to use panniers to store ‘my stuff ... my tools, kit ... lunch and my bag’ rather than a basket. Maggie also always had ‘occy straps [in my panniers] ... so if something won’t fit in the pannier I can ... lash it onto the rack’. Another participant, Skye, included photographs (see Figures 5.7 and 5.8 over the page) of her E-bike set up with a basket and panniers in her practice diary, and spoke during the interview about how she has a growing ‘collection of luggage’ for her bike, exclaiming: ‘I love my bike and I love getting crazy crap to go on it!’ (Skye)



Figure 5.7: E-bike set up with panniers and front basket (image provided by Skye - diary)



Figure 5.8: Front view of Skye's basket (image provided by Skye - diary)

The majority of participants however did not use a basket or panniers for their everyday trips around Sydney such as utility trips or commuter trips. For those participants who commuted on their cycles, carrying items such as one's lunch, a change of clothes, or shoes, to work or university was achieved using a backpack or satchel bag rather than a basket or panniers. Mateo, Pat, Jan, Liz,

Roshni, Dave, Neve, and Will all mentioned carrying items to/from work or study in this manner. Several participants also mentioned that they stashed their tools in a saddlebag (see Figure 5.9 below) which, as Luke described, generally ‘has all the necessary spare tubes, tyre levers, pumps, and a few multi-tools, so if I get into trouble, usually I can get it fixed up enough to get myself to work’.



Figure 5.9: Road bike with saddlebag containing tools (Courtesy P & L McNamara)

In addition to providing comfort or convenience, some materials also carried extra significance for participants. For example, Conor described the freedom he felt when he stopped using ‘a really big backpack’ to carry items after purchasing a ‘smaller size[d] cargo bike’ (see Figure 5.10 over the page).



Figure 5.10: Mini cargo bicycle belonging to Conor
(Image taken by the researcher and used with permission from the participant)

For Conor, the materiality of his bike is intricately linked to the convenience it affords him, yet it is also time saving, and core to his ability to keep cycling in Sydney. He described his mini cargo bicycle as being ...

... completely suit[ed to] exactly what I wanted to do... [because] it's just super simplified.... I don't have to carry anything ... it's just boom!, get to where I am, lock my bike and walk away. ... [The] bike lets me have storage for those times when I don't want to ... be burdened by having to carry a bag everywhere. I just pop the milk crate up... (Conor)

Participants collected and spoke about a diverse range of accessories used for and when cycling. These materials, such as those depicted in the above discussion and summarised in Table 5.2 previously, featured in many interviewees' descriptions of getting ready for different cycling journeys and were also mentioned in similar discussions of preparing to cycle in some participants' practice diaries. The materials discussed here often make cycling easier, more pleasant, comfortable, and convenient. In addition, these materials help to make a cyclist more visible to other road users, and protect from extremes of weather.

Materials for cycling are not confined to accessories however, and also include items of clothing. Participants wrote and spoke about their choice of both regular (i.e. non-cycling specific) and cycling-

specific clothing (refer to Table 5.2). The clothing participants chose to wear when cycling ranged from cycling-specific Lycra cycling kits (an example of which is seen Figure 5.11 below) which basically consists of 'Knicks and a jersey' (Neve), to 'sporty and comfortable [clothing] ... but not very sporty so that you are singled out in a crowd' (Roshni – see Figure 5.12 below), and regular clothing or 'normal clothes' (Conor).



Figure 5.11: Typical Lycra cycling kits worn by women cycling in southwestern Sydney - cycling jersey, knicks, gloves, arm covers, vest, and cycling shoes
(Used with the permission of cyclists in photo)

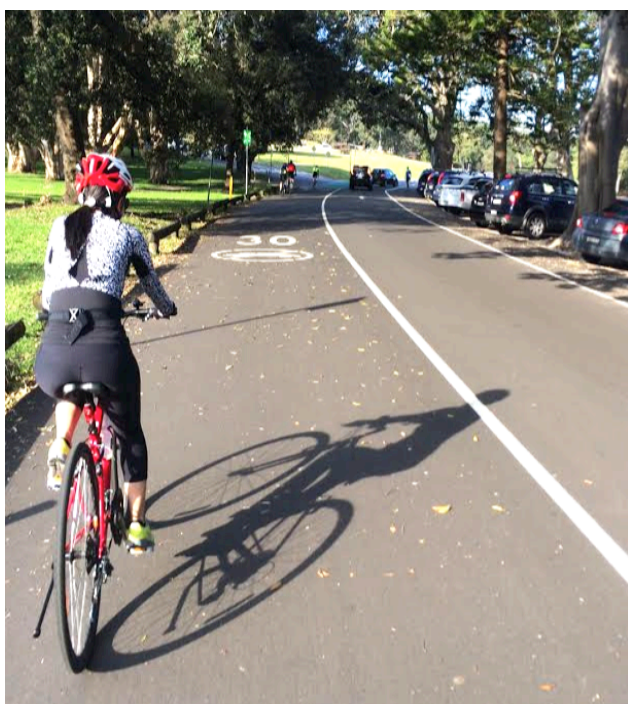


Figure 5.12: Roshni cycling in her sporty yet not too sporty clothing around Centennial Park
(Image taken by the researcher and used with permission from the participant)

Clothing decisions have impact beyond individual/personal comfort and can be used to convey particular messages. Several participants emphasised that they made a conscious decision to wear their regular clothing when cycling, including Tina, Roshni, Skye, Conor, Dave, Alex, and Neve, as a way of normalising or humanising cycling. By wearing their everyday clothing (see Figure 5.13) when cycling, participants placed emphasis on displaying to a broader non-cycling public that cycling can indeed be 'a lifestyle choice for people ... because it's sustainable, it's environmentally friendly, it's better for me...' (Alex). Tina, Roshni and Skye each described how they chose to wear dresses when commuting by bicycle as this saved time getting ready to cycle, was comfortable in both summer and winter (with tights and boots – Tina & Roshni), and also made a statement to other road users that the person riding was a woman rather than 'a cyclist'.



Figure 5.13: Cyclist on Cleveland Street outside Central Railway Station in 'regular' clothes in the winter

Discussion of physical infrastructure in Sydney included descriptions of interviewees' end of trip facilities such as convenient bicycle parking (see Figure 5.14 below), Sydney's general physical infrastructure such as on-road cycle lanes and vehicular-separated cycleways (see Figures 5.15 and 5.16 over the page) and parking availability, as well as specific problems with intersections, roundabouts, and certain roads. For example, Monica described a section of Darling Street in Rozelle (which is quite a hilly suburb in Sydney's inner west) in her diary as being 'dangerous road for car door opening ... also old tram track makes part a bit dangerous ... someone did open car door just in front of me, but I slowed down ok.' In this instance, Monica was able to slow down enough to avoid being 'doored', however her complaint, regarding the narrow roads in Sydney, speaks to many of the difficulties of retrofitting the city for cycling.



Figure 5.14: A staff member parks his fold-up bike outside the library at Macquarie University's Ryde campus (Used with permission from the cyclist in the image)



Figure 5.15: Cyclist riding on Darling Street, Rozelle, with no cycling symbols in sight



Figure 5.16: A section of Bourke Street cycleway separated from vehicular traffic

Many interviewees also made reference to social cycling infrastructure such as cycling organisations, groups and clubs, and some gave detailed descriptions of their routes, particularly commuting routes. Infrastructure was also a sore spot for some interviewees who complained about the quality and amount of cycling infrastructure in Sydney, for example James described a section of road along one of his regular commuting routes stating that there were ‘potholes, ... there’s cuts in the road, there’s new tarmac surfaces they’ve just overlaid and it makes it really bumpy and you’re trying to pick out which line you’ll take’. However some interviewees stated that they had noticed improvements and also enjoyed the infrastructure available, particularly cycleways. For Conor, riding for the first time in Sydney’s inner-east ‘was amazing [as] it was basically cycleways the whole way. ... I was genuinely ecstatic and smiling’ (Conor). The materiality of the separated cycleway (see below) also feeds into participants’ competences, providing a sense of safety and improving confidence through the physical separation from vehicular traffic and increased visibility for cycling in Sydney that this affords.

Cycling requires specific materials that are unique to cycling, in addition to a range of materials that can be used for other practices, particularly sports practices. The materials that make up cycling are both essential (i.e. a cycle) to the proper functioning of the practice, and also make the practice more convenient, comfortable, and accessible for practitioners, such as the provision of the separated cycleway.

5.2.2 Meanings: cycling imaginaries and representations

Meanings, as explored in Chapter Two, encompass ‘symbolic meanings, ideas and aspirations’ (Shove et al. 2012, 14). For cycling, meanings include a specific set of imaginaries and representations – both personal and collective – connected to the physical act of cycling, the sociality of cycling, representations of cycling, and memories. Meanings emerged from participants’ discussion of their cycling histories, discussion of cycling memories, and also from prompting participants to open up about why they currently cycled and consider what would happen if they were not currently cycling.

The meanings attached to cycling are incredibly varied; however participants commonly associated environmental concerns, freedom, autonomy, and mental wellbeing with what cycling meant for them. Cycling's meanings also emerged from participants' description of their cycling histories, and had changed over time. What cycling meant for participants, including what it represented (for example as a childhood rite of passage or act of rebellion) and what it could possibly represent, was explored in each interview.

Cycling meanings are also dependent upon the place in which cycling occurred or the purpose of particular cycling journeys (see Table A.5 in Appendix L for an overview of participants' cycling purposes). For example, a casual weekend cycling trip on one's own utilising traffic-separated cycling infrastructure in city parks, or on a quiet road in Sydney's peri-urban fringe, had more connotations with relaxation, self-care and personal wellbeing, whereas a technical mountain bike ride in a National Park frequented by many other competent mountain bikers would be associated more with personal achievement, a certain level of stress, concentration on the task at hand, and connecting with the Australian bush. Suffice to say, cycling represents a great many things at any given time, and these meanings are often also in flux, for example changing as one ages (Kaye & Brian), changing due to big life events or health scares (Tony, Pat & Jan), or when one moves to a new city (Roshni & Olivia). Although cycling held a significant place for some, for others, cycling represented something less significant, and the diversity of cycling's meanings are explored below, starting with participants' cycling histories.

Riding a bike is a common rite of passage for most Australians, and as such, remains a link to one's childhood. The majority of my participants (n=23) spoke about how they had learnt to cycle as a young child (early to mid-primary school age), or had some memory of cycling as a child. Commonly those participants who spoke about their own childhood cycling memories recalled cycling to 'to school and back, when maybe I was about 8 or something' (Monica), 'my earliest bike memory would be in primary school, probably, with my friends' (Alex), learning to cycle with training wheels or balancing on 'plastic trikes as soon as we were tall enough to push them' (James), 'rid[ing] with my parents on the weekends' (Genevieve), or 'remember[ing] cycling with my father and things like that'

(Brian). These early cycling memories were connected to family moments and spoken of fondly. Interestingly, three participants did not grow up with cycles in their household. For Dave, Yin and Maggie, learning to cycle was something that had happened outside of their immediate family's home, also as children. Dave and Yin both recalled how they had learnt to cycle on cousin's bikes, with Dave explaining how he 'wasn't allowed to have a bike as a kid' because:

... when I was quite young [a boy] got killed like right outside our house on a bike, and my parents said, 'You're never going to own a bike. We're never going to buy you one.' And I used to ask for a bike every single Christmas, like Christmas, birthdays: 'Can I have a bike? Can I have a bike?' ... My cousin had a bike and I used to love going to his house, not to see my cousin, but to ride his bike ... it was [a] beautiful blue, drag-style with the handlebars and the sissy bar and the long banana seat and three-speed, and I used to go there and ride it all the time. ... I had another cousin who had a bike and I used to ride there. ... I remember learning to ride and just loving it so much, and just immediately that freedom that I can go somewhere and just go (Dave).

For Dave, memories of riding his cousin's bike were steeped in meaning. This was the first time he remembers feeling a sense of freedom that cycling 'immediately' afforded him and he was simultaneously rebelling against his parents by riding his cousin's bike. Cycling has come to represent a multifaceted freedom for Dave, which will be explored further in this chapter. In contrast, Yin, whose parents were not 'really into sports ... [they did] let us play sports, but it was mainly just tennis [or] swimming [and] it just never crossed their minds to go cycling' she learnt to cycle on holidays with an uncle and cousins when she was about 10 years old. Cycling never had a strong personal meaning for Yin, although this has changed as she started to cycle more regularly for recreation. Cycling now meant something to Yin but this meaning was somewhat elusive. When asking what cycling meant to her Yin responded; 'It does. But I don't know what. It just is an activity that I enjoy very much ... [I] feel very happy just going on a bike ride.' Similarly, Maggie's childhood cycling-memories were not particularly significant. She recalled learning 'to ride on a friend's bike in primary school; I didn't have a bike. I went to early high school with my own [bike though]. I rode a

bit, but not a lot, then'. However Maggie was able to compare her early cycling memories with what cycling represented in her adult cycling-life, where cycling plays a significant role in her and her family's everyday transport practices, replacing the private car and public transport, and embodying an ethics of sustainability.

The majority of participants, in Brian's words had 'abandoned cycling' after primary school or early high school, and came back to cycling through a relationship, a cycling experience overseas, work (for Sam), having one's own children, or a health event which triggered the need to cycle. However it is necessary to note that for those few participants who grew up in European cities with strong cycling cultures (see the discussion of Competences in this chapter), cycling was something that they did not abandon in the same way that many other participants had. Maggie and Neve both started cycling again in their early 20s after meeting partners who were 'keen' (Maggie) cyclists. For example, Neve said 'I hadn't really got on a bike since primary school ... [and] I remember my boyfriend at the time was riding bikes ... [so] I ended up just buying almost like a Dutch bicycle; that was probably my first city bike.' Whereas Skye and Yin all had friends who cycled and these friends encouraged them to take it up as an adult.

In contrast, Tina, Tony, Pat, Roshni and Jan had experienced a serious health scare or injury that triggered them to take up cycling (again), whereas Liz took up cycling after quitting smoking 6 years ago (at the time of interview). For these participants, the importance of cycling to their health was particularly significant as cycling represented the best means of maintaining their health. Olivia, Lief, Monica, Dave and James had all continued to cycle, despite moving countries or states, whereas Mateo, Alex, Genevieve and Skye had all cycled on an overseas holiday which had encouraged their decision to cycle on their return to Australia. Kaye explained how she had cycled as a child, teenager and in her early working-life, however having children had stopped her cycling. Instead, she returned to cycling after she retired. In contrast, Brian explained how he did not cycle

... for a period of about 20 years, until my kids were about 8 or 9 and they wanted bicycles, so I took them along to a bicycle shop and got them bicycles, and suddenly, in the middle of shop, I realised that I wasn't going to let them ride by themselves [chuckles] anyway, so I

said, 'You'd better give me one too.'... I don't know why. It must be about a 20-, 30-year gap there. And anyway, of course my kids have long since given away bicycles, but I keep on, obviously. I gave away my car a couple of years ago... and don't really miss it.'

Here, Brian draws attention to the trigger (his children) for taking up cycling as an adult, which is in contrast to Kaye's trigger for stopping cycling – her children. Despite the differences between participants' cycling trajectories (stopping and starting cycling again due to relationships or life events such as the birth of a child), there were many commonalities amongst participants' memories of their cycling histories. Indeed, cycling was something learnt as a child, connected to family and fond memories of growing up, and was put down and picked up again at different intervals throughout one's life.

For many participants cycling had become a large part of their identity, and several participants described the sense of community, belonging, or camaraderie felt when cycling. Indeed, several participants described how cycling provided 'a really supportive community' (Tony) and a 'sense of belonging [to a] community' (Roshni) of like-minded people, whether one rode with others on a regular basis or not, and remarked that 'I always like the camaraderie among cyclists' (Maggie). Indeed, several participants felt this sense of being connected to a larger imagined community. For example, Conor described how cycling allowed him to 'engage with my broader community ... in a way that technology' and automobile-dependent planning did not. Many participants rode with a group or multiple groups of cyclists on a regular basis either at the weekend or during the week, and spoke about the social side of these 'group rides' or 'bunch rides' (Tony, Yin, Alex, Neve & John all described riding with others) – see Figure 5.17 over the page for an example of a weekend riding group.



Figure 5.17: A bunch of male riders stop to wait for other members of the group in Camden

John, when describing one social cycling group he is a part of said that, ‘we ride for about an hour-and-a-half and then we go and have coffee ... it’s just a nice way to catch up ... [and] a nice way to cycle’ (John). Indeed, this response was repeated throughout the interview process, with several other participants describing riding with their groups of friends or social groups, stopping for coffee, and hopping back on their bicycles again as a very enjoyable, and socially satisfying activity. In contrast, Alex explained her involvement in the launch of an evening casual social cycling group, that was attracting younger ‘lifestyle riders’ and was just about exploring Sydney of an evening. Although Alex’s experiences of social cycling were markedly different from several other participants’ experiences of social cycling, the feeling of belonging, of feeling included and connected to others, was very much central to what cycling meant for her.

When explicitly asked what, if anything, cycling meant to them in the interviews, some participants expressed how cycling was something that they just did to get them from A to B or for exercise and that they enjoyed cycling, however it did not have a particular meaning (see Kaye, Lief and Yin). For these participants, cycling represented something that was part of their everyday lives or something that was used occasionally for fitness and recreation, riding a bicycle was a normal activity, and there was little or no desire to feel connected to a broader cycling community. However

for other participants, doing cycling had become a part of their identity without them really intending it to (see Jan, Skye, Conor, Monica, Maggie and Neve).

An unintended cycling identity was spoken about in a positive manner as cycling opened up doors to new friendships, new holiday experiences, engagement at work, new ways of socialising, and new ways of being in the world ('you just see the world in a different way' – Maggie). Some participants, for example Olivia, expressed how cycling had not held a particular meaning until moving to Sydney and attributed this to the 'Us Versus Them' mood frequently felt between people who cycled in Sydney and vehicular traffic. This framing of cycling as embroiled in an ongoing conflict with vehicular traffic in Sydney, was also spoken about by many participants. Here, participants expressed an understanding of the way in which cycling has been portrayed and represented by mainstream media in Sydney, often framing cyclists as disruptive rule breakers (see Daley and Rissell 2011, Risell et al. 2010). The importance of cycling to individuals' identities will be explored in more depth in the following Chapter, however the connection of cycling with identity was an important theme, which permeated many aspects of the fieldwork. With regard to cycling's meanings, from a practice perspective, a cycling identity.

In addition to this sense of belonging to a community (real or imagined), most participants also spoke about how cycling gave them a sense of freedom. Notions of freedom and belonging can also be viewed from the lens of emotion and affect as they permeate both understandings of cycling. In this chapter, however, I am concerned with how these meanings (i.e. 'symbolic meanings, ideas and aspirations' [Shove et al. 2012, 14]) can be captured by the lens of practice. To illustrate the flexibility of meanings, Tina highlighted how freedom is a complex notion when she said, 'it's multifaceted that freedom'. Indeed, cycling affords freedom from particular aspects of everyday life, it provides the freedom to accomplish a great many things, such as time to one's self, and is also a feeling that is sensed through the body. For some participants, including Mateo, Sam, James, Skye, Conor, Dave and Neve, cycling afforded a particular lifestyle, as it provided freedom from the private car and public transport systems in Sydney and afforded greater flexibility for where they chose to live and/or work. This was an incredibly common theme, with almost all participants who commuted by

bicycle expressing how cycling was flexible and convenient for them. For example, Mateo spoke about how riding a bike and 'not having a car justifies me having more expensive rent [in the inner city] ... [so] I use the bicycle to go everywhere and do everything'. Lief also spoke about how cycling provided a sense of freedom as 'you're not depending on many external things ... going from one place to another'. Whereas other participants, such as Skye, found that cycling provided a great sense of 'self-sufficiency ... and independence', as well as control. This was also expressed by Tina, who loved having cycling in her life as a way of being able to manage her health and provide time to herself away from the demands of work and family, and Monica who stated: 'I like it because it gives you a lot of control.' Comparably, Roshni described how cycling emboldened her, stating; 'it's very empowering ... I've never felt bad cycling. Every single time that I cycle, for no matter what reason, I feel good!' So cycling represented freedom for a lot of participants, whether it was freedom away from the demands of family or work, freedom from transport systems, freedom from the private car, or the sense of freedom generated by the sensation of moving yourself on your 'own terms' (Skye).

Amongst the multifaceted meanings participants attributed to cycling, mental wellbeing and physical health were spoken of often. Several participants, including Tina, Tony, Sam, James, Monica, Neve and Will, described how they found that cycling had a positive impact on their 'mental wellbeing' (James) or 'mental health' (Tony) as well as their physical health, and this was often due to the ability of cycling to create time for themselves, providing a space 'to zone out, meditate' (Lief). In contrast, every participant spoke about how cycling had had a positive impact on their physical health whether it was by 'squeezing in incidental exercise' (Tina) or purposefully cycling as an exercise or fitness activity. But for Tony cycling held a profound meaning connected to health. At the start of the interview he recalled how finding cycling as an adult, after a serious health scare, had changed his life; 'I had a stroke out of the blue ... and [a friend] said come and ride with us ... and that's when this magic thing happened – I found out that I could write and speak...' (Tony).

In addition to the health benefits cycling affords, and the aforementioned sense of freedom and community participants attributed to cycling, many participants spoke about the positive environmental impact cycling had. For example Genevieve said that 'the main reason I cycle is

because it's the environmentally responsible thing to do... it doesn't cost anything, ... it's a more efficient way of getting around ... [but also] I guess, in a way, it's sort of become a part of my identity ... which I don't mind.' Dave's interview and practice diary demonstrate the multiple meanings participants associated with cycling. Indeed, he spoke in the interview at length about how cycling provided him independence from the transport system in Sydney, including independence from petrol and road infrastructure, which are difficult to extricate oneself from, especially in some areas of Sydney that are ill served by public transport systems¹⁶. Yet he also spoke about the sense of freedom cycling brings him, which he has always had since he first rode a bicycle as a child, as well as the sense that he was doing something positive for the environment and his health by cycling. Moreover, Dave also spoke about his love of cycling, saying 'it's just fun and it's just something I really love doing ... ', but he also spoke about his love of his many bikes (in both the interview and practice diary) as beautiful objects and that he forms an attachment to ('I love this bike so much!'). Neve summarised what many participants talked around when she said 'bikes in my life have become ... they are such a large part of my life, it's actually pretty [chuckles] scary, but I think they represent, for me, all the things I love, like the environment and being social, and contributing to society in some potential way. And I just love that!' (Neve) – love as a feeling or sense is explored in the following chapter through the lens of emotion and affect. This is because practice theory tends to subsume the complexity of this emotion into the element of meaning.

The meanings participants attributed to cycling were incredibly diverse and were often specific to particular cycling trips or events. This finding reaffirms early understandings of practice meanings as being individual as 'practitioners ... [do not] confer the same meaning on their practice' (Bourdieu, 1984, 209-11 cited in Horton et al. 2007a, 2). Moreover, meanings operate on many levels, are often multiple, function simultaneously and extend beyond the performance of cycling itself. The implications for what this meaning-extension, and the question of 'practicing the same practice' (ibid.) are explored further in Chapter Six as I discuss in greater depth the role of cycling, and are

¹⁶ Australian governments have historically favoured investment in road infrastructure over public transportation at both federal and state levels (Mees 2012) and this is the case in Sydney. Recent examples include the construction of WestConnex and the M7.

explored in Chapter Seven through a discussion of temporalities and the notion of becoming.

Attention now turns to unpacking the final element; cycling competences.

5.2.3 Competences: abilities, skills, know-how, & knowledge

The competences that make up cycling, although often tacit and implicit (Nettleton and Green 2014), can be drawn from the practice diaries and interviews. Participants recounted what took place on specific cycling journeys, highlighting how they used technology to navigate or record performances, the way in which they came (back) to cycling and developed confidence in their abilities. Competences, that is abilities, skills, knowledge and know-how, tended to be bound up in other transport practices, such as the skills that we hone when learning to drive a car, the know-how we develop about road etiquette living in a car-dominated city, and knowledge of road rules and regulations – all of which are transferable to cycling – or bound up in the materiality of the cycle, as well as more general life-skills such as being organised, an ability to navigate, and the knowledge of cycling routes that develop over-time. These are explored below, along with some more unusual competences that were revealed in interviews and practice diaries.

All participants had learnt to ride a cycle as a child and many had come back to cycling on more than one occasion throughout their lives, thus they had carried the basic skills (balancing and pedalling) required to cycle with them into adulthood.¹⁷ This embodied knowledge was improved upon over time through repetition, as participants built up their confidence and a sense of familiarity with their cycling routes, developing other knowledges. The majority of my participants had cycled in Sydney for a significant length of time¹⁸ and were able to speak at length about their cycling trips, displaying a particular awareness of the way that they held themselves on different cycles ('I ... get nice and low and just tuck out of the wind' – Heng), positioned themselves in space ('I take the middle of the lane' – James) when cycling, and in their body's own abilities and limits ('I'm not a good hill-climber' – John). Tina, Roshni, Skye, Yin, Alex and Will spoke specifically about how they had become more confident cyclists as they rode more frequently.

¹⁷ This process of learning to cycle as a child, gaining 'the physical skills required' ... [, is emblematic] of embodied tacit knowledge, in that you never forget how to ride a bike' (Nettleton and Green, 2014, 243).

¹⁸ See Chapter Three for a description of participants, including their cycling histories.

All participants had gone through the licensing system in Australia or overseas and had formal knowledge of the road rules in Australia, yet not all participants held a drivers licence (Skye let hers expire) or chose to own a car (Genevieve and Alex had recently sold theirs at the time of the interview and Brian sold his a number of years ago). Thus every participant was able to speak confidently about how they used (or chose not to use) private cars, car-share cars, or public transport systems in Sydney, and regale me with narratives about the ups and downs of cycling on and off roads in Sydney. Formal knowledge of the road rules, and an experience of driving, are particularly important transferable competences, as people who cycle in urban regions cannot easily avoid coming into contact with the system of automobility. For some participants their experiences of cycling (and their embodied knowledge from cycling in vehicular traffic) informed their car driving, for example John said that ‘whenever I see a cyclist on the road, I go out of my way to make sure they survive... [and I] try to be a little more respectful to them,’ which illustrates the relationship between cycling and driving competences.

Organisation and maintaining a routine were also strong themes that permeated interviews and diaries. The ‘skills of time and space management remain embedded in practical consciousness’ (Nettleton and Green 2014), and are core to maintaining habits and routines. Organisation and forming/conforming to particular habits or routines were intimately connected to the materials of cycling and daily living. For example the setting of an alarm, checking over the cycle prior to a ride (‘Prep: tyre check, supplies’ – Tony [diary], ‘Pumped road bike tube to the correct pressure, basic brake and gear check’ – Yin [diary]), checking the weather in advance to lay out appropriate clothing, having one’s bag packed the night before (Mateo), or one’s cycling clothes ready next to one’s bicycle (Sam), all involve particular materials. Although not dissimilar to any other routine of getting ready (i.e. getting ready to go on a holiday, or getting ready to simply catch the train to work), the skill of being organised and developing a routine certainty aided the ease of cycling. For Tina and Skye, who both used E-bikes, remembering to charge the bike batteries was also a part of their routines. Skye’s E-bike ‘lives in the back of my house so I can plug it in at night’. Ten of the participants who completed a practice diary also recorded the time taken to get ready to cycle or

after a cycle. For example Mateo, in his diary, reported that it took him ‘2 minutes to get ready’ before eight of his cycling trips (commuting and utility), and ‘10 minutes to get ready [in order to] put on wet weather gear’ on one occasion commuting in the rain. Similarly, Liz (diary) recorded that it ‘takes roughly 10 minutes to prep before each ride’ irrespective of the time of day or weather. Pat (diary) reported that his post-commute routine of ‘shower and dress at work’ takes 15 minutes, and Jan’s (diary) ‘shower & change at work – [was] 20 mins’ with ‘... 10 mins to get ready - back into Lycra’ recorded for the commute home. Having a routine and being organised minimized the amount of time taken to get ready to cycle for participants. Other competences that aided the ease of performing cycling for many participants were way finding and navigational skills, in addition to map reading and the use of mapping technologies, including the use of GPS tracking devices. Almost all participants described how they utilised maps and mapping technologies (for example, the use of Strava – see Figure 5.18 below and 5.19 over the page) to assist their route-planning, track their performance, and encourage friendly competition amongst groups of cycling friends. Here, competences are bound up in spatial practices as well as materials, such as the technology of the GPS device or smart-phone.

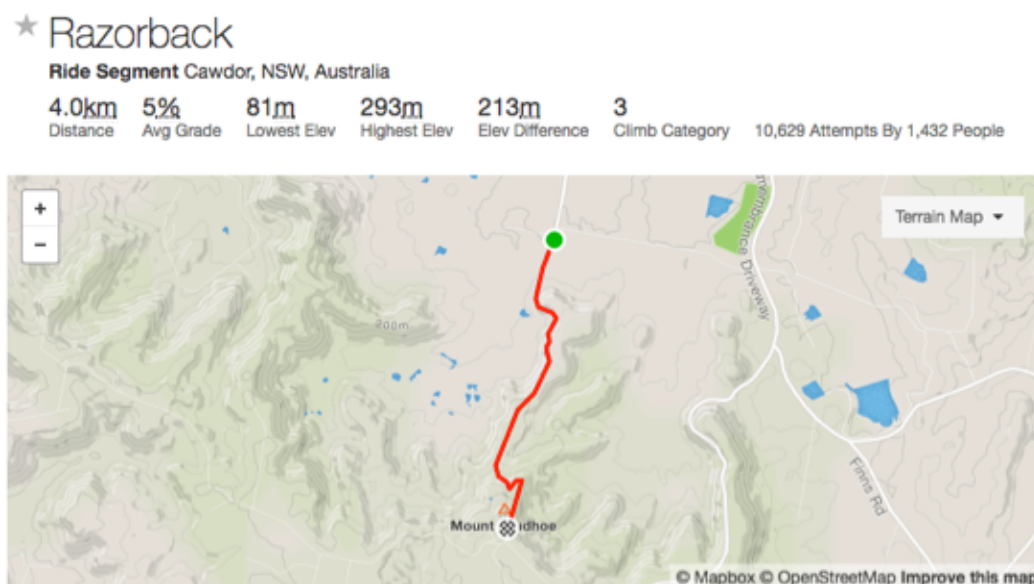


Figure 5.18: Strava segment map of ‘Razorback’ in Cawdor, NSW, showing the number of attempts by over 1,000 cyclists (as at 26/05/2017) (Strava 2017b)

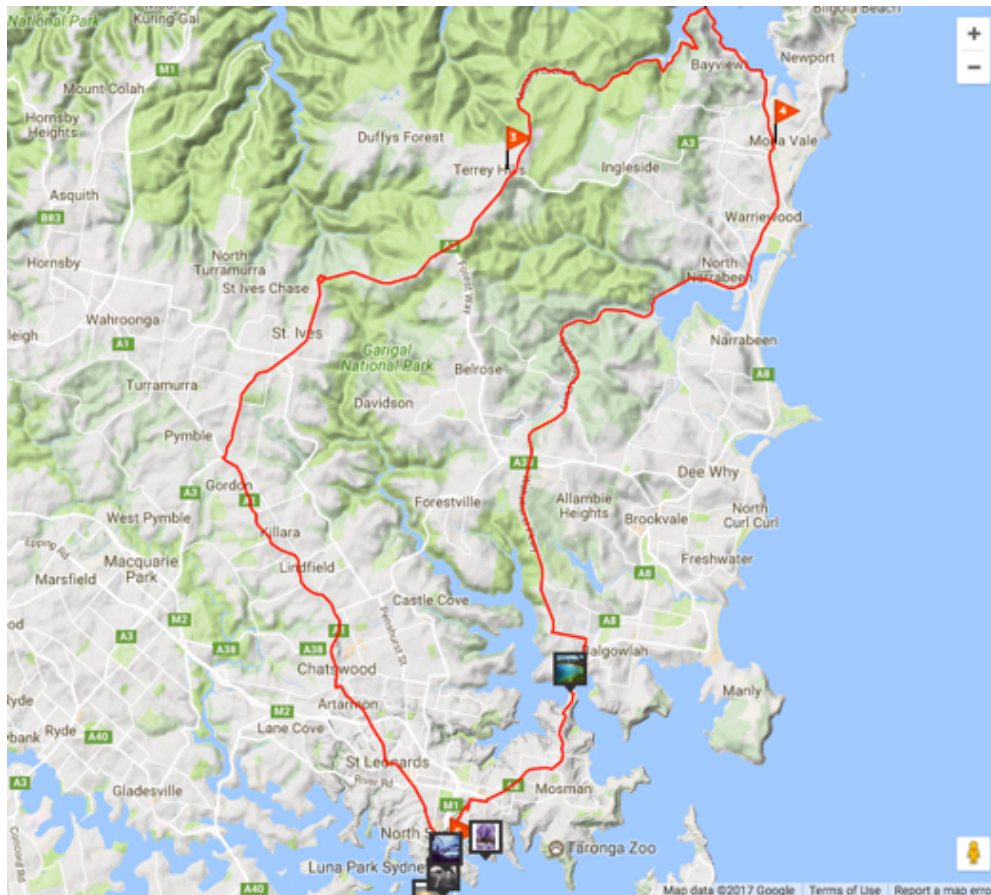


Figure 5.19: Strava route map of the 'North Loop' with points of interest (Strava 2017a)

In addition to way finding and map reading or mapping, participants also spoke about how, through repetition, they had developed a strong sense of familiarity with their cycling routes. For example, Lief told me his commuting route never (usually) changed, 'I usually go exactly [the] same ... [way and] I know all the potholes and I know all the humps.' For Dave, this sense of familiarity extended to knowing when to listen for traffic when approaching particular intersections on his daily commute to work. Dave's account invokes Spinney's (2007, 33) depiction of a city cyclist as actively 'considering the environment in other than visual terms, pointing to the significance of other sense-scapes in making sense of place.' Indeed, most participants, when asked what they thought of whilst cycling spoke about how they were actively scanning and listening for potential hazards.

The importance of maintaining a keen sense of awareness and concentrating on what one was doing whilst cycling were raised repeatedly throughout the interviews. Indeed, half of the participants spoke about how they were very much aware of their surroundings on an almost constant basis. These competences were more tacit or implicit and included being aware of vehicular

traffic, pedestrians, and road conditions when cycling, whilst also simultaneously concentrating on pedalling and moving on the bike. Monica made the distinction between cycling on an off-road cycle path where she could 'maybe daydream... and just look ... at things' and 'cycling on the street [where] I'm very much aware of what's going on around me, and watching out for things, and I'm trying to concentrate a lot more.' Similarly, Maggie also distinguished between cycling on and off-road, recognizing that they afforded a different level of awareness: 'in the traffic you need to be a lot more alert than cycling on the cycle path, for example ... I'm probably a bit more relaxed and let my thoughts wander a bit more off-road'. Although this ability to multi-task (pay attention to multiple things simultaneously) is one that may not come naturally to some, it was something that many participants developed over time and developed through repetition, or by learning from mistakes.

In addition to those abilities, skills, knowledge and know-how explored above, several competences stood out amongst the interviews and practice diaries. Some participants described how they had developed confidence by riding with others to feel safe and to learn from them, had enrolled in maintenance or skills courses in order to up-skill, developed strategies to deal with external stresses such as hills or traffic, and utilised technologies (such as weather applications, navigation or GPS tracking applications) to help in their decision making processes. Competences then, are also bound up in materials and meanings, as mastering material technologies improves both the riders' skills and confidence and this in turn alters the meanings associated with cycling. For example John used the tracking application Strava to compete with his son and cycling group friends in real time and in virtual time, which he described as adding to 'the fun' of cycling. For Roshni, riding with a buddy on a regular basis to explore new parts of the city has helped to improve her confidence, whereas Alex began organising night rides over social media platforms so that 'people who might not know Sydney very well' could come along and ride with a really friendly group of people. Other participants, including Tony, Yin, Dave and John, recalled how a friend or friends who cycled had introduced them to cycling as an adult, and this introduction gave them enough confidence to keep cycling on their own.

Confidence was also developed through a range of experiences had on the cycle itself in Australia and overseas. Indeed, several participants recounted positive experiences of cycling in cities and countries other than Sydney and Australia as an adult. These positive experiences had helped to develop ideas of cycling as a normal and viable transport option upon returning to Australia. Cities included Barcelona (Mateo), Montpellier (Alex), Paris (Skye), Chicago (Lief), Amsterdam (Genevieve), and Brussels, Auckland and Gothenburg (Olivia). Whereas two participants (Lief and Olivia) grew up in countries that have a long history of cycling and a positive cycling culture, which normalized cycling for them.

Confidence in one's cycling abilities was also developed through taking part in skills courses. Indeed, participants built confidence in their own cycling ability, skills, and expertise through attending cycling and maintenance courses (see Figure 5.20 below), for example Skye explained how 'before I started commuting, when I was gearing up to get the E-bike I went and did a City of Sydney bike maintenance course [to learn how to] keep patching a tyre! You can put tonnes of patches on a tube and it's fine'. In contrast, Neve said that she used maintenance videos online, calling 'YouTube ... [her] bike-maintenance bible.' In addition, some participants taught others cycling skills, for example Maggie led community rides where 'often there [would be] people who are relatively new to cycling and want the security of riding with a group ... [and I like] to encourage them in their endeavours.' Confidence building was recognised by almost all participants and, given Sydney's culture of automobility, it forms an important part of the suite of competences that make up cycling.



Figure 5.20: Sydney Park Cycling Centre is one location that the City of Sydney Council operates cycling maintenance and confidence courses out of – note the cargo tricycle in the foreground (City of Sydney 2017)

Confidence building was also achieved through the development of strategies. For example, six participants spoke about how they had developed strategies to help them to deal with external stressors and/or exude an air of confidence. Singing became an essential strategy in situations such as hill-climbs, pain, or traffic. Skye, Yin, Dave and Maggie all admitted to singing whilst cycling as a strategy to distract one from the pain or difficulty in going 'uphill [chuckles] it's like Ah! I can't do it! So I just sing, and then seem to not think about the hills that much' (Yin), as a distraction from the pressures of road riding 'if I get really nervous ... I actually make myself sing along to my music because it calms me down because it just feels ridiculous!' (Skye), and to avoid cycling too quickly 'if I can't whistle or sing, I know I'm pushing myself too hard, I need to slow down a bit because then I get all sweaty' (Dave). Similarly, Kaye spoke about how she sets herself targets to help her cycle to the top of a difficult hill. The targets included telling herself 'I'll do ten more pedals, or I'll just get up to that house or get up to that corner, and the harder it gets ... [when] I'm thinking I'm going to give up ... I stop myself [and start] to count my pedals and I'll say I'll only do 500 more pedals and so I'll count' (Kaye). For Liz, one strategy she had developed to aid her cycling was checking the bureau of meteorology website the night before riding to work, if the weather forecast predicted rain, then she would not get her cycling things together and could 'sleep in longer ... If it's raining I won't cycle. I'm too old to cycle in the rain anymore' (Liz).

The cycling competences explored above tended to be tacit and inherent to the body (such as practical skills), they are often transferrable to other social practices, and can intersect with materials and meanings, thus highlighting the interdependence of elements (Shove et al. 2012). Taken individually, each element of practice only provides a partial understanding of cycling practices in Sydney. Following Shove et al. (2012), Schatzki (2001a & b) and Reckwitz (2002a & b), I suggest that the elements need to be examined in combination and within broader contextual frames, to gain a more nuanced understanding of cycling.

5.2.4 Summary: Elements of practice in context

By unpacking cycling through the practice lens, I have identified the elements of cycling that my participants employ and use, and also highlighted where elements intersect. Returning to the

question of *how is cycling practiced* posed at the start of this chapter and in Chapter One, the above discussion and analysis has shown that there are core materials (i.e. a cycle of some description and somewhere to cycle upon), meanings (i.e. health, wellbeing, fitness, transport), and competences (i.e. balancing and pedalling) that are shared across different cycling practices (see Figure 5.21 below). A cycling practice(s), then, is made up of a specific grouping of materials, meanings and competences, and these materials, meanings and competences can shift and change over time. At the most basic level a cycling practice bundles together a cycle of some description (non-human cycle), a path or road to cycle on (material infrastructure), a body capable of cycling (human with skills and bodily knowledge of how to cycle) and a reason or purpose (meaning) to cycle. Identifying specific materials, meanings and competences allows for connections to be made with elements of other social practices, to identify where and how cycling can be encouraged. Yet, this notion that there are different cycling practices is obscured by the focus on the elements themselves.

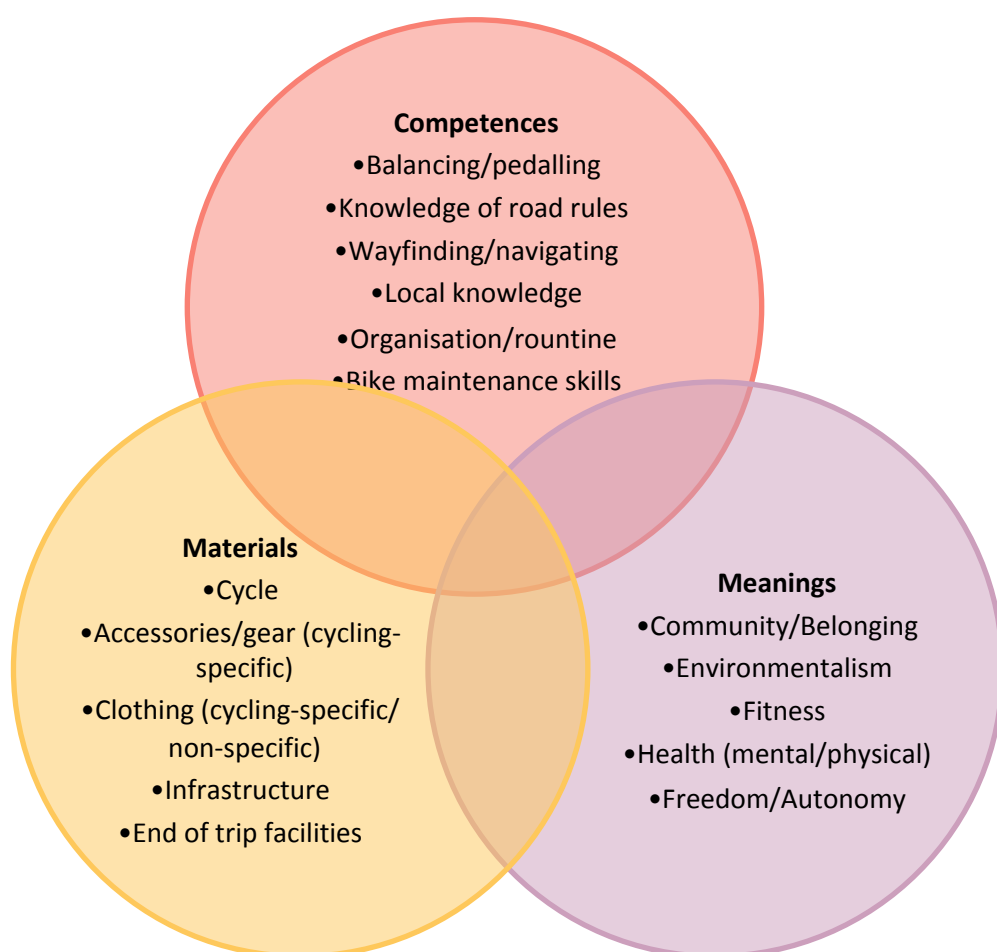


Figure 5.21: Summary of common elements of cycling practices

Examining cycling through the lens of practice has allowed for a close examination of the different elements that constitute cycling practices. However, this focus on the minute details has also divorced the elements from specific ways of practicing cycling – the context of cycling journeys, their purposes, and forms. Utilising a practice lens has meant that the diversity of my participants' cycling practices is de-emphasised by the elements of practices. Indeed, whilst it becomes clear that there are diverse cycling practices (as there are diverse materials, meanings and competences that are configured in particular ways), the dynamism of cycling is overshadowed in the details of doing cycling. In order to overcome this problem, I now turn to map participants' cycling practices through a series of vignettes that utilise data from the practice diaries and interviews to illustrate the diversity of cycling practices and draw attention to the inherent dynamism of cycling.

5.3 Cycling Vignettes: elements, intersections and fluidity

5.3.1 Introduction

I present a series of narrative vignettes in this section to illuminate the diversity inherent within cycling. I seek to illustrate the way in which diverse cycling practices are enacted and constructed, drawing out the similarities and differences between these diverse ways of practicing cycling (with regard to the elements of practice for diverse cyclings), rather than joining the elements of practice together neatly, and highlight the inherent complexity of transport behaviours. Moreover, the vignette is used to provide a more detailed understanding of the diversity of cycling practices my participants recalled, described, and recorded. The narrative vignettes are written in the first person in order to express the feel of being in the moment *with* my participants¹⁹, and represent my participants' multiple and shifting cycling practices.

The vignettes are grouped into two overarching categories: commuting and recreational cycling practices. Although there are multiple ways of practicing cycling, and hence multiple ways of cutting across these practices (refer to Figures A.6-8 in Appendix N), one way of thinking about cycling practices that has emerged from the above discussion of elements is as 'commuting' or 'recreational'

¹⁹ The feeling of being *with* is in response to debates within mobilities of the ability of non-mobile non-video/audio methods to feel *with*/be *with*/see *with* participants.

cycling, and as such the vignettes are grouped according to the primary purpose of the journey – for the commute or for recreation. Each vignette also refers to the co-presence, or lack thereof, of other cyclists on both commuting and recreational cyclings. The vignettes have been drawn from the interview transcripts with all 26 participants, the practice diaries and blogs provided by 24 of those participants, and the research notes I made over the course of fieldwork in 2015²⁰. The vignettes highlight the intersections of different elements, the way cycling practices intersect with other social practices, and reflect upon the value of practice models for understanding cycling. I turn now to explore commuting cycling practices, before examining recreational cycling practices. This is followed by an exploration of some of the ways in which participants enfolded cycling practices into other social practices, focussing on the intersection of commuting cycling practices with childcare practices.

5.3.2 Commuting Cycling Practices

Almost all of my participants recalled, described, and recorded cycling for their commutes to and from their place of work or study, with the exception of the three participants who were retired. The commute was achieved either wholly by cycle, or as part of a multi-mode commute to get to the bus stop to change modes or to and from the train station.

A total of 21 participants described and/or wrote about commuting on their cycles, the majority of whom commuted via cycle multiple times in a normal week. Of these participants, Olivia was not currently commuting but would usually commute via cycle so described her regular commuting practice to me, and Yin told me about the rare occasion that she had commuted to work on a weekend. Of the 11 males who usually commuted, all commuted on their own, however Pat spoke about how he would commute home when possible with his commuter cycling group. Similarly, all of the 10 female participants who usually commuted also commuted alone, however Tina also combined her commute with the primary school and childcare drop off or pick-up, and as such had the pleasure of her kids' company '[as they'll] talk to me when I drop them off at childcare but then I

²⁰ The vignettes are primarily an amalgam of participants' diaries/blogs and interviews. Wherever possible I have used participants' exact words, however I have modified the tense and turn of phrase to aid with the ease of reading. I have also drawn on my research notes as they relate to participants' clothing, facial expressions, and tone of voice to further flesh out diary comments in particular.

have time to myself to get to the office' (Tina). Lief also combined his commute with the childcare drop off, using the car to take his child to care, and then unfolding his fold-up bike to commute the rest of the way to work. Will was the only other participant who commuted using a fold-up bike, and he combined his cycle-commute with a train journey. In addition, Skye, Conor, Tina, Neve, Genevieve and Maggie, also combined their commutes to or from work or study with running errands, participating in exercise classes, attending social events, meeting friends or relatives, or shopping.

The below vignettes, drawn from participants' depictions of solo or group commuter cycling trips, and my notes, illustrate the ways in which a commuter cycling practice can be more-than a practice as it takes on a greater depth of meaning for participants, serves multiple purposes, and is enfolded into other practices.

Morning commute:

I've woken up early, it's 6.30 and I'm pretty certain that it won't rain (quick check of the rain radar – all clear) so I'll still ride in to work on my commuter bike. I'm so glad I set my alarm last night, checked my tyres are pumped, and decided to check that brakes are working too – that's a massive time-saver when I need to get out the door quickly to beat the traffic on some of the main roads near home.

** Mental note to remember to delete data from Go Pros when I get home too**

Okay – get up. Time to get dressed into my work clothes and have something to eat (breakfast today is cereal and a banana).

Have to pack lunch (leftovers from the night before.... winning! Oh it's soup! Double bag that then get on the bike quickly).

Remember to throw a change of clothes in bag (for after-work drinks with some friends) and get on bike.

7am

I'll take the same route, down the side streets near home, then cross the main road. I need to turn left onto the main road and move into a lower gear so that I'm not suck in a big chain ring when I get my chance – waiting, watching, listening for cars and a break in the

traffic large enough to jump in – then pedal hard for a block, change gears, arm out – indicate – turn right onto the on-road bike path. It's mostly quiet this time of morning. Few others out because it's still winter, but I nodded at one guy on a fixie, he nodded back and said 'nice bike!'

Quick trip into work, park bike in the garage of the building where I work. No need for a shower this morning, I didn't work up a sweat (no stops except for waiting for traffic lights), and am in my work clothes already – time to start work.

This vignette demonstrates how, for this cyclist, being organised and keeping to a routine are key to commuting via bicycle. In this particular example, the cyclist is combining their commute home from their workplace with after work drinks and has prepared the bike and necessities for the workday and social activities prior to leaving the house in the morning. The act of commuting is made easier as they employ technologies (an alarm and internet access – for weather) to assist with organisation and decision-making, and have access to a safe place to park their bike whilst at work, and (one assumes) a shower facility if needed. In this particular example, the cyclist brings together a specific combination of materials (a commuter bike, video recording devices, mobile technologies, work clothes and going out clothes, material infrastructure of the road and on-road bike path, and access to a garage), meanings (time-saving, socialising, camaraderie, normalisation), and competences (organisation, knowledge of *how* to cycle in traffic) to enact their commuting cycling practice and combine it with socialising practices.

Morning commute in cycling-specific gear:

6.30am: alarm quick out the door on the roadie after putting on my kit and having some breakfast – out the door by 7.15am.

The 30kms into work goes pretty quickly. I'm used to riding to work now. My riding is a combination of trying to ride to work four to five times a week, and then trying to fit in some training on the side as well to try and keep fit. Depending on what I'm doing at that point whether it's training for racing or just generally trying to ride, it might be three to four hundred kilometres a week, mostly on my own with weekend or week-day early club rides in

there too. There's lots of socialising that happens in the saddle. Anyway, the ride to work is uneventful – passed some guys out in their club kits on Parramatta road, thought they might run a red but they didn't. Good to see that there's boys out there behaving themselves. Just before I hit the suburb that my work is in there's some school zones that kick in as I go past. Remember to slow down and keep an eye out for kids and buses. Ride right into the shop, park my bike out the back in the store room, head to the shower in the basement of our building, shower and change into my work uniform (left it there from the day before). Ready for the day!

In this vignette, the cyclist clearly enfolded multiple cycling practices into their everyday life. Commuting to work on their road bike ('roadie'), this cyclist muses about the multiple roles that cycling plays in their life: cycling is used for getting to and from work, but it is also used to train and keep fit, and socialise whilst cycling. Again, getting into a routine and preparing one's bike/gear before a commuter cycling trip assists with getting on the bike, just as having access to end-of-trip facilities (materials) also aids in their commuting. Yet, there is greater emphasis placed on the meanings and competences of cycling, rather than the materials in this example. For this cyclist, cycling is about keeping fit and working hard, yet it is also about being a good cycling-citizen (Aldred 2010); behaving appropriately and being aware of other road users and pedestrians. As this cyclist notes, each commuting trip is much the same, yet it is the repetition of these commutes that means cycling is enfolded into their everyday life.

Lunchtime errand running:

Have appointment at the GPs near work on my lunch break. I could walk but prefer to ride, as it's much faster. Cycle to my appointment and park out the front, take off helmet, lock up bike, wait ... After my appointment I get back on the bike and ride back to work via the shops for sushi – same deal: park, lock, helmet off, sushi, reverse – then back to work and leave my bike in our garage.

As this vignette illustrates, cycling is useful for squeezing time out of the day, revealing how time away from and at the office is important. This cyclist commutes to work and then jumps on their

cycle to get lunch and run errands, thus saving time throughout the day whilst simultaneously embedding multiple cycling practices into their everyday life.

Multi-modal commute to work:

Last night I packed my bag with the bare essentials and nothing else, which makes me able to ride further and faster. So the bag's ready for when I wake up.

5am alarm wakes me up in the morning to go to work and it's: get up, toilet, get ready, shave, breakfast, and then get the bag and go.

I ride for 10 minutes to the train station. When the train arrives I wheel the bike in, then I fold up my bike, take a seat and I'm set for the rest of the trip. I can be more considerate with the fold-up bike than I can be with any other bike. No one has to dodge around me or the bike taking up space in the vestibule of the double decker trains. When I get to Town Hall station at the other end I unfold my bike because there's plenty of room, there's not many people standing around as they're all off up the escalator. Then I go up the escalator and out onto Elizabeth Street, then I hit the trip metre on the bike and it's pretty quick up to the office. Some days it can be a bit scary sometimes in traffic on the way to the office, you get an impatient person behind a wheel and they think I'm slow because I have small wheels on my bike. Mostly though it's not too bad. I bring my bike into my office and change out of my bike clothes before sitting down to work.

In this vignette the cyclist combines two modes of transportation for their commute: cycling and train travel. Notice how the cyclist in this example uses a fold-up bike that they carry on the train folded down as a courtesy to other train passengers. The importance of organisation to assist with getting on the bike is reinforced in this vignette as well, as is the routine of folding and unfolding the bike and activating material technologies to record the trip(s). Here, there is more emphasis placed on the performance of the commuting trip at each change of mode, and on the interactions with other transport users including train passengers and vehicle drivers.

Solo commute home with extra exercising and an errand:

Really enjoying the headspace on this ride home today! The traffic hasn't been half as bad as it normally is, maybe it's because it's school holidays?

I'll take a longer route home today to get some extra ks in my legs (down toward the harbour and snake through the harbour-side suburbs before turning toward Surry Hills/Central/then home – good thing I rode in my Lycra today because I'll get sweaty on those hills heading home).

Might even stop past the fruit shop to pick up extra ingredients for dinner. Text the wife to see if she wants apples and zucchini (none needed, but she'd like milk) -

I'm an efficiency junkie and my biggest satisfaction is if I have to go from point A to point B, but I can do five things on the way (the shopping and fitness and time to myself), that's my happy time.

Cycle up the main road to the grocery store, lock bike up out the front to a pole, run in and get the milk. Stash it in my panniers, unlock bike (haven't bothered to take my helmet off), and then it is just a few blocks home. I don't like cycling along the main road at this time of night but it's not for long and I look serious and feel fast in my kit today thanks to the detour ride (I find I'm constantly turning my head back over my right shoulder to check for cars as I move into the middle of the lane to take the lane so that I can turn down my street). I LOVE cycling along my street, the trees are incredibly beautiful and I feel like they're welcoming me home before I'm even there.

Quickly stop in the back laneway and unclip the gate – jump off the bike and wheel it into the shed. Take lights etc. off bike, to charge and go in the back door. Shower before hugging the wife and chuck the kit in the washing basket.

The cyclist in this vignette uses cycling for three main purposes: commuting, exercising and shopping. This demonstrates how multiple social practices can flow through a cycling practice. By extending his commute home, this cyclist gets some extra exercise in before arriving home, and utilises technologies to communicate with his partner to arrange to pick up extra grocery items. This

cyclist also admits to being ‘an efficiency junkie’ and cycling enables that level of efficiency they crave, whilst also affording opportunities to appreciate their surroundings. The vignette also highlights how the cyclist in this example actively looks for dangers and rides confidently in traffic.

Morning commute after the school run:

As my cycling journey is only 8km in total and I drive about 4km to drop my kids at the bus (they then catch the bus to ... school [all the same direction as my own work]), I'm not really saving all that much petrol - my kids often point his put to me. Of course, the cycling isn't about saving petrol. So I drive the kids to the bus stop, then drive back home and get on my bike. I make sure it looks in working order and get going.

The first thing I have to do is ride up a hill, so it kind of gets you going actually, because I think once I've gotten up that hill I can conquer anything.

This morning, about half way to work I found myself in a herd of other commuter cyclists (read not looking like they're focused on 'feeling the burn') at a set of lights. Moving through a few blocks with them before diverging was almost surreal, like being in Europe all of a sudden...

Within this vignette, organisation again is important for enacting a commuting cycling practice, and is particularly important when other household members are involved. In this example, the cyclist feels empowered by cycling up a hill and enjoys cycling with a group of cyclists that are not wearing cycling-specific clothing. Here, there is less emphasis placed on the materials of cycling, with greater attention paid to how cycling makes the person feel –individual feelings are not typically considered to be a part of the elements of practice (after Shove et al. 2012), however this vignette clearly illustrates their importance in reinforcing the practice (thus providing empirical evidence to support recent practice-based work that recognises the role of emotions – see Weenink & Spaargaren 2016, Spaargaren et al 2016).

Morning commute to work with childcare:

This morning it's my turn to drop our son off at childcare. Put the bike in boot, and then kid in the capsule, let's go. Once I've dropped him off I'll fold out my bike and cycle to work from

childcare. It takes about 35 minutes, no stops except for at the traffic lights. It's a typical commute. Get to work with ample time even though I didn't race in. Take bike up to the office, fold it up and store it out of the way. No need to change my clothes at all unless it's rained (spare shirt in my desk drawer and spare slacks and socks too). Today it's clear, but I pack my rain jacket just in case in the wintertime.

This vignette illustrates one way in which a commuter cycling practice is transformed into a childcare practice, as the cyclist uses a fold-up bike to cycle to work after dropping his son off at childcare with a private car. It also hints at the necessary organisation and division of labour in the home required for both childcare and commuter cycling practices to occur.

Morning commute to work with school drop off:

You need to be organised in the morning, especially when children need to be ferried to/from childcare or school. So to help with getting out of the house in the morning I have everything I need packed in my bag all the time - pump, spare tubes, various tools. That way if anything untoward happens I'll be ready!

We cycle uphill to school in the cargo tricycle, and say goodbye to my eldest kid, then it's on to childcare for my youngest, before cycling the rest of the way to the office on my own. I enjoy the kids' chatter, and am lucky to be able to take them to school and care by bicycle. I think it's sending a really positive message to them: 'we don't need to have a car because mum and dad get all the things they need to get done on the bikes!' I might take the cargo trike to the shopping centre on my way home from work because my husband will collect the kids on his cargo bike (some days the baby sitter does this for us) and then I can fill up the bike with our week's worth of shopping.

This vignette also demonstrates how dividing labour between spouses in the home assists with getting the whole family ready to go of a morning, as does outsourcing childcare. In this example, both parents cycle on cargo bikes or trikes that can accommodate two small children and double as their shopping carriers. The material of the cargo bike is core to this family's commuting, childcare and shopping practices.

Commute home:

Bike's out the front of work – I've changed into my leggings for bike yoga in the park, now I just need to pop the panniers back on and unlock it, then trundle over to Redfern Oval to do yoga. In an ideal world ten times a week I can get an hours exercise riding to and from work. But in the real world at least two or three or four times a week I get an hours exercise, plus bike yoga for half an hour once a week to help keep my core strength up.

In this vignette the cyclist enfold exercise practices with their commuting practice. Cycling to/from work is their main means of exercise, with an additional exercise class squeezed into their commute home.

To summarise, within all these commuter cycling vignettes the need to be organised in order to commute by bike is consistent. Yet each vignette also highlights the small and not so small ways in which individuals enfold cycling into their everyday lives, by linking together different social practices via the cycle. Commuting cycling practices involve a certain level of preparedness, including having the cycle ready to go before needing to hop into the saddle, checking and using multiple technologies, and organising accessories and necessities including clothing and lunch. When combined with childcare practices, this level of organisation becomes more important as cyclists are working to school or childcare timetables, in addition to their own schedules. Each vignette draws attention to the multiple roles that cycling plays in individual and family life, the different elements participants bundle together for their own commuter cycling practices, and how they are enfolded into other social practices (see Table 5.3 over the page). In these ways, the vignettes reinforce the dynamism of cycling, and the ability of cycling to be enfolded into multiple social practices and into practices of everyday living.

Materials	Meanings	Competences	Links to other practices
Commuter cycle	Exercise/keeping fit	Knowledge of road	Childcare
Cargo bike	Quick	rules	Exercise
Road bike	Efficiency	Confident in traffic	Socialising
Fold-up bike	Creates more time	Organisation	Shopping
E-bike	Good for mental	Routine	Washing/
Helmet	health/space to think/sort	Navigation	Cleanliness
Water bottle	through things	Repair skills	Mealing/
Bell	Stress-relief	Strategies for	Cooking
Tool kit	Camaraderie	coping with	
Lights	Normalised	hazards	
Lycra kit	Socialising	Awareness	
Regular clothes	Training	Division of labour	
Video recording device(s)	Working hard	within the home	
GPS mobile technologies	Being a good cycling citizen	Adherence to road	
Access to infrastructure (on/off road	Empowering	rules	
paths) and end-of trip facilities (i.e.		Repetition	
shower/change room)		Outsourcing child	
Lock/place to lock up bike		care	
Mobile phone			
Alarm clock			
Weather app			

Table 5.3: Commuter cycling practices

5.3.3 Recreational Cycling Practices

Weekend, weekday, early morning, or anytime of the day really, participants would cycle on their own or with other people for recreation. These various recreational cycling practices, like their commuting cycling cousins, are engendered through quite specific combinations of elements and intersect with other social practices. Whether it was a spouse or partner, child(ren), group of friends, or strangers that one had fallen into a bunch with for a while, their co-presence also changed the shape of a ride.

All of my participants spoke or wrote about cycling for recreation in various guises including cycling holidays, dedicated fitness or recreational rides, or simply finding fun in most of their cycling trips. Although many participants commuted using their cycles, it is important to note that these vignettes focus solely on rides where the purpose was not to run an errand or to get to a place of work or study – as mentioned above, these are cycling holidays, cycling for fun and fitness, and to socialise.

The below vignettes, drawn from participants' depictions of solo or group recreational cycling trips, and my own field notes, illustrate the ways in which recreational cycling practices become more-than a practice as participants imbue their cycling journeys with multiple meanings, using recreational cycling to serve multiple purposes, and enfold recreational cycling into other cycling practices and practices of daily living.

Mid-morning cycle for fun/exercise:

Since retiring I've got the luxury of being able to cycle whenever is convenient for me. Today I've got my favourite bright red tights on, a cute floral cycling skirt I found in Spain, and a red jacket to match the tights. For extra warmth and visibility I'll throw my lovely yellow windbreaker on.

This morning I thought I was feeling particularly tired after a week of sick grandchild minding so I should stick to a gentler, more familiar ride.

I ride into town, then along the river, before riding home up a few hills. Now I've got my strength back on the flats I can tackle those last few hills before I get home.

Pedal, pedal, pedal, pedal, pedal... counting as I go.

The hills in the distance look lovely today, it's probably too late in the day to meet other people riding. I wonder if I should suggest that we all do the M7 ride to my friends when I meet them on Saturday morning for coffee? It would be good to do that ride again. Back home. Where did that last little bit get to? Change out of my leggings and into something more comfortable. Will go over the bike later. Must have a shower first.

This vignette draws attention to specific competences that the cyclist in this example employs in their recreational cycling practices. In particular, the vignette draws attention to the importance of knowing one's own bodily limits and strength, and to the application of coping mechanisms for pushing oneself further. Although a solo recreational cycling practice is recorded in this example, the cyclist also makes reference to her cycling friends, thus highlighting how a recreational cycling practice can be an exercise practice whilst also being a socialising practice too.

Weekend trip to sporting event and shops with child:

I've hooked up the tag along to my flat bar road bike and put different cleats on the pedals to take my kid to his Saturday sport. We allow plenty of time to cycle the 20 mins to the oval and I feel that we are both safe in the traffic in a sit-up position. At sport we just leave the bikes where all the parents sit. I don't mind not locking it up. After the game on the way home we park out the front of the supermarket and lock it up so that I have some piece of mind thinking it's not going to disappear.

Once the shopping is done I put it in my pack and we ride the short distance home.

In this vignette, the cyclist uses a tag along to connect his bike to his son's. This ensures that they stay together and he can pull his son along, thus getting to their destination more quickly. This vignette draws attention to the flexibility and multiple purposes that the cycle can be put to through the combination of the sporting game with collecting some groceries.

Solo exercise weekday morning before commute to work:

Okay. It's really early, but I've got to cycle to the Eastern suburbs and back before work. I need to keep up with the club riders on Sunday's bunch ride. I WILL feel good after slogging out a hard workout! This morning I ride out around Rose Bay and Vaucluse, and Bondi Beach, before turning for home. The harbour beaches are beautiful to ride near and that keeps me going up the hills. I feel like I'm balancing fitness with socialising with the club riding now, and it's also having a really good impact on my mental health. Thanks to the ex for getting me into cycling, it's now my new obsession and I'm making some great friends through it too.

Back home – quick shower after changing out of my Knicks and club jersey.

Breakfast, then swap from my racing bike to the commuter bike.

Shove work clothes in bag, then put it in my basket with lunch.

Check water bottle is full – put that on too.

Go out the front door with bike trying not to wake up sleeping housemates.

Ride to work along a mix of main roads and back streets. Nothing interesting happens. Ride to the front of the building and chain up bike. Then quick change of shoes and my top – ready for work.

Within this vignette the cyclist uses cycling for recreation and exercise in the morning, prior to commuting to work via cycle. In this way cycling is used for keeping fit, socialising (with cycle club members), maintaining good mental health, and also commuting. This illustrates both the flexibility of the machine of the cycle, and the multiple roles that cycling can play for individuals.

Weekend ride with my partner:

It had turned out to be such a nice weekend weather-wise, and we didn't have anything planned with our families or friends, and no errands to run either, so we thought we should get on our bikes. Okay, it's more like I really wanted to ride and know that my partner needs a destination to ride to and some form of snack at the destination to make it worthwhile. So I convince him that I'll go mad if we stay in all morning and why don't we try cycling further than we have before on the shared path past the airport? To sweeten the deal I suggest we swing past the bakery to take a treat with us.

My partner still has his old, slow, heavy mountain bike, and it's not hard to out-ride him on my fast road bike. After a little trip in the opposite direction to get carrot cake, we found a new street that took us right down to the shared path along the river and headed east with a throng of other people out enjoying the weather. It takes us all the way over to Sans Souci and it's such glorious weather for riding – not too warm and a nice breeze.

It was a really nice day! We didn't really know where we were going to end up after following the path that bit further than before. I was busy looking at all the houses and

perving on everyone's front gardens in the quiet suburban streets, then all of a sudden we've hit the beach. My partner's yelling at me: "oh there's a beach here, there's a fish and chip shop here!" Who would have thought that one moment you could be surrounded by market gardens with planes coming into land right above you, then you're in the middle of suburbia and it's so serene, and then the next thing you know you're by the sea and it smells and feels like you're much further away from the hustle and bustle of the inner city suburbs!?

It's really incredible how much more of the city we've seen since I instituted the 'weekend-bike-adventure' (it was supposed to be twice a month so we'd get our butts off the couch but it's been more like once a month-ish). I think we've both lost a bit of weight too, and it makes the weekends that we do ride together extra special. ... I know I've become the crazy bike lady when I drag my partner out for a ride just because I feel like it but I reckon that he likes it too.

This demonstrates how time spent cycling with a spouse or partner emerges as a space of co-presence (McIlvenny 2015). Time spent cycling together is filled with fun and there is enjoyment found in exploring new spaces in the city *with* another person as the experience is shared. This vignette shows how cycling for recreation is also used as a form of exercise (to lose weight), a form of urban exploration, and used to connect with/spend time with a spouse or partner, thus highlighting the dynamism of cycling practices.

Weekday early morning group ride:

It's Wednesday today. So I'll meet the small bunch for a 50K loop around the Northern suburbs. At least three of the guys will have their Garmin's on, must turn mine on too. Put bike on the roof racks, shoes and helmet and water in the front passenger seat. Jump in the car and drive to the meeting spot – car park near Maccas – everyone's here when I get there. I'll catch up as we ride. Talked trash mostly. Sad to hear that Fred's got two broken ribs after coming a cropper down a hill the other week, could've been much worse but the

boys stopped and waited with him whilst the ambos came. Right. Now it's getting serious.

Have lost count of the hills.

My legs!!! This hill climb!!! Stuff it, I won't be king of the mountain today. Next week though...

Finally! We stop at my favourite café for a quick (haha it's never quick!) coffee. The business owners never mind us spreading our road bikes (some of the guys have spent a small fortune on theirs and I'm not too far behind) along the footpath whilst we sit out the front, helmets off, clip clopping in and out in our shoes to order coffee, then a snack, another coffee, and use the facilities, all the while talking about our kids, our wives, our old jobs, our parents, the news...

This vignette draws attention to the importance of social relationships and the role of one's peers in maintaining a recreational cycling practice. In this example, the cyclist is cycling to stay fit and illuminates some of the materials and competences required to carry out this weekday-morning bunch ride. However, the cyclist's description of the potential dangers of cycling (i.e. broken ribs), paired with the description of how fellow cyclists helped the injured rider and the ritual of the coffee stop, serve to reinforce why the cyclist continues to cycle. Despite the inherent dangers, it is the capacity of recreational cycling to foster social relations between people, that comes to the fore here. Socialising is equally or more important than the act of cycling.

Weeknight ride with a mate:

5.30pm: My mate and I have organised to go for a ride tonight. I'll just change into my kit (just got given a really cool new jersey with cacti all over it) and give my bike a once over (make sure USB lights are charged) before I meet him at the local pub.

6pm: We're off and rolling through the inner west in the general direction of the Harbour Bridge. We have a general idea of where we're going, and devise a route as we go or we'll go on the Strava heat map and look at what the common themes are and where all the cyclists go, or where the well-recognised roads are if we get stuck.

For the first time ever someone stopped in front of me and stuck their head out the window and said “your jersey’s awesome, we saw you from behind there and it’s awesome!” they were happy, the person in the car, it’s a nice thing! [laughs]

We ride two abreast as much as we can really just to prevent people from over taking us at stupid distances and things like that, but we also laugh and talk a lot when we’re out of the traffic. When we’re in the Northern end of The Rocks and it’s quiet, then we can chill out and talk and it makes it easy. But when we’re coming back through some of the more iffy areas then, yeah, time’s spent focusing a lot.

8pm: Stop off at the pub near home for a beer and some grub then home.

This vignette shows how a recreational cycling practice can become a socialising and exercise practice for this cyclist. The cyclist pays attention to the materials of cycling (kit, lights etc.) but also focuses on how cycling with his mate in traffic and on quieter streets affords ample opportunities to socialise, and also to interact with other road users (as in the example of the jersey).

In summary, these vignettes have drawn attention to the way in which participants enfold cycling into their daily lives and bundle together a range of elements to accomplish diverse recreationally-motivated cyclings (see Table 5.4 over the page). The material cycle is a vehicle through which greater meanings emerge, as cycling facilitates social interactions, exercise, and greater connections with family and more general feelings of fun and enjoyment.

Materials	Meanings	Competences	Links to other practices
Road bike	Fun/Enjoyment	Navigation/map reading	Socialising
Cyclocross bike	Exercise/keeping fit	Knowledge of road rules/how	Exercise
E-bike	Social aspects	to behave in traffic	Child care
Helmet	Sense of community	Awareness when in	Shopping
Water bottle	Spending time with	traffic/awareness on share	Washing/
Bell	family/friends/children	paths of pedestrians/pets	Cleanliness
Tool kit	Range of health benefits	etc.	Mealing/
Lights	Meditation	Navigation/use of	Cooking
Sporty clothing	Relaxing	technologies to navigate	
Regular clothing	Stress-relief	routes	
Access to infrastructure	Improve mental	Self-awareness (of one's	
(on/off road paths)	health/wellbeing	bodily limits)	
Car – transport to	Travel/holidays – exploring	Coping strategies for traffic	
cycleways	Urban	Coping strategies for hills	
Panniers/luggage if	exploration/discovery	Relationships with cycling	
bike-holidaying	Risk/danger to life	friends	
Tag along			

Table 5.4: Recreational cycling practices

5.3.4 Summary: Cycling is enfolded into multiple practices

The above vignettes drawn from the empirical data and my research notes show how cycling practices form part of a broader set of social processes. Indeed, I suggest that cycling practices, in addition to being diverse, are enfolded into a range of other social practices by cycling practitioners (see Figure 5.22 over the page for some examples of the social practices that flow through cycling). This is a key finding from my research, as the practice lens has highlighted the ways in which participants use cycling for multiple purposes, often simultaneously. Cycling practices form part of a broader set of social processes as they are made a part of everyday life. This finding supports previous practice approaches to cycling that interrogated the elements of cycling and found ‘cycling is ... embedded as a system within other systems’ (Spotswood et al. 2015, 31).



Figure 5.22: Social practices that flow through cycling

5.4 Conclusions: A diversity of cyclings and more-than practice

This chapter has demonstrated that cycling can be constructively considered as a social practice but, more importantly, that there exists a diversity of cycling practices. Because of this finding, I have shifted from describing cycling as a practice in the singular (i.e. 'the practice of cycling') to discussing cycling as multiple cycling practices and a diversity of cyclings (after Horton et al. 2007). I find that the differing ways in which individuals enact and perform cycling, bundle different elements together in different ways, and use cycling to accomplish multiple, and at times simultaneous, purposes suggests that cycling is better considered as multiple/diverse cyclings. This more nuanced understanding, whilst in accordance with contemporary social practice theory that acknowledges the dynamic nature of practices (see Shove et al. 2012), also has implications for how cycling is understood outside of practice-based work, and I suggest that more care is needed when considering the ways in which people who cycle enact and perform multiple cyclings, embed diverse cyclings into their daily lives, and make meaning through these dynamic cycling practices. I suggest that one way of taking care is by thinking through cycling as more-than practice - that is, looking at cycling (both practices and practitioners) through multiple theoretical viewpoints. A more-than practices perspective of cycling then, drawing on the notion of the methodological hybrid, is suggestive of the need for a larger framework through which to come to a more comprehensive view of cycling.

The chapter first finds that cycling can be constructively understood as a social practice as it has identifiable elements. This finding widens current understandings of cycling within practice discourses to explicitly include a diversity of ways of practicing cycling. The practice lens employed through the methodological hybrid enabled me to uncover the way in which different cycling practitioners enacted and performed their cycling practices and build a detailed picture of cycling practices, including identifying the individual elements of cycling practices (materials, meanings and competences). Moreover, the practice lens enabled the bundling or arrangement of these elements, for different practitioners at different times for different cyclings, to come to the fore, as well as

draw much needed attention to the dynamic way(s) in which cycling practices intersect with other social practices. These findings have implications for mobilities scholarship and cycling research (discussed in depth in Chapter Seven), and have significant implications for policy, as governments seek to encourage transitions away from the private car and will be discussed in greater depth in Chapter Eight.

The chapter then finds that different elements intersect and overlap within and across cycling practices. This finding supports existing practice theoretical work that recognises that practices are performed with fluidity across time and space (as detailed in Shove et al. 2012 and Schatzki 2001a & b). When delving into individual interviews and diaries, it becomes clear that cycling is practiced quite differently by different practitioners and at different times. Importantly, this finding regarding the diversities of different cyclings and bundled practices emerged through the practice lens and analysis adopted through the hybrid methodology, and further supports the arguments I present in Chapter Two and Three for multiple theoretical entry points to provide a more situated and reflexive engagement with research subjects. Whilst acknowledging the diversity within cycling practices is commonplace for contemporary practice theory, it does however, pose a challenge to dominant, binary understandings of cycling within mobilities literature and transport geographies more broadly. Indeed, the detailed practice-based understanding of cycling that this study has presented indicates the need for a broader conception of cycling to accommodate the inherent fluidity of cycling practices and other mobility practices that similarly shift and change.

Unpacking cycling through the lens of practice also served to highlight the routinisation of cycling as a part of other social practices, including shopping, childcare, commuting, exercising, studying/working, and socialising, as well as the more mundane practices of everyday living such as washing and cooking. In drawing out the elements of cycling I have also highlighted the ways in which practitioners use cycling for multiple purposes, to achieve multiple aims, and fulfil or satisfy multiple functions. This finding aligns with contemporary understandings of practice (see Shove et al. 2012, Schatzki 2002), and expands existing understandings of cycling practices. Indeed, I find that cycling plays an integral role in many of my participants' lives. As such, I suggest that it is more

constructive to view cycling as a diversity of practices, rather than as a practice in the singular. The very flexibility of the bike lends itself to multifunctionality; hence an understanding of cycling as multiple practices is needed.

The dynamic cycling practices described in this chapter, and the way(s) in which a diversity of cycling practices are enfolded into multiple practices of daily living – or lock-into other routine practices – can be considered as part of a ‘communities of practice’ (see Shove et al. 2012, 66-9). Indeed, by identifying participants’ pathways into their diverse cycling practices, and the evolution and diversification of participants’ cycling practices over time, whilst also identifying the way in which diverse cycling practices connect up with and lock-into other practices of daily living, I have opened up possibilities for cycling researchers to better understand the ways in which people participate in, carry, and spread cycling practices in urbanised environments. Whilst this understanding of a community of practices is not new for social practice theorists, it does have implications for mobilities scholarship and cycling research that seeks to explore the question of how to encourage greater cycling uptake, in addition to policy makers who also seek to encourage greater uptake. These implications are explored in Chapter Seven where I bring the findings into contact with the literature, and in Chapter Eight as I discuss the planning and policy implications of the thesis findings.

In addition to building this detailed picture of cycling practices, the practice lens also uncovered data that did not neatly fit into conventional conceptions of ‘practice/s’, leading me to conclude that cycling could also be considered as more-than a practice(s). By focusing on practices ‘it becomes possible to view individuals not as mere mobile subjects, but as actors who are engaged in shaping and (re)producing mobilities’ (after Shove et al. 2012). Participants actively shape(d) and (re)produce their own mobility trajectories, whilst also being shaped by their cycling practices. I argue that whilst the practice lens I applied to cycling does uncover the elements of practice that come together for a range of cycling practitioners in Sydney, and reveals the dynamic way in which cycling is enacted and performed, the embodied and emotional aspects of cycling become obscured within practices and other methods are needed to better reveal these aspects. Here, the methodological hybrid (by

drawing on multiple epistemologies) becomes useful for exploring these more-than aspects of practices.

Methodologically, practice has not traditionally provided a means of analysing emotion and or affect on a deeper level. Indeed, these harder to articulate and harder to capture aspects of practices have not been the focus of the majority of practice theoretical work (refer to Section 2.5 in Chapter Two). Despite recent interest in emotion (see for example Wallenborn 2013 and Weenink & Spaargaren 2016) and affect (see Reckwitz 2017) within practices, there remains a lack of engagement with the methodological implications that bringing emotions and affect into practices may have. Indeed, whilst this small body of work does state the importance of emotion and affect to the continuation of people's everyday practices, there is no detailed empirical evidence to support these assertions and little discussion of *how* this might be accomplished through practice methods. Recent work by Browne (2016) and Hitchings (2012) suggests the important role that more traditional talk-based methods can play in revealing more nuanced insights into situated practices. I build on these insights by suggesting that the methodological hybrid can bring other tried and true methods from emotional geographies into conversation with practice methods.

This chapter has shown that there are multiple cycling practices with varying emotions and affects. Yet these emotions and affects are still not understood in enough depth, as practice methods tend to focus on the doings and sayings of practices, rather than the discursive, embodied, affective and emotional aspects of practices. A detailed understanding of these emotions and affects is necessary in order to more fully comprehend the way(s) in which people cycle and the impact that diverse cyclings have across multiple scales. I suggest that the lens of practice is not sufficient to capture the more nuanced understandings of cycling that have begun to emerge through my analysis the elements of cycling, and the way(s) in which they are bundled to perform a diversity of cyclings. Indeed, Horton et al. (2007, 2) posit that although 'we are surrounded by cycling[,]... cycling's universality is also one reason for its very complexity, diversity and, therefore, mystery.' Although the elements (and their interrelationships) of practice can be identified from participants' practice diaries and interviews, and the data shows that there are a diversity of cycling practices, there are

aspects of cycling that this analysis obscures by focusing on the elements and structuring of practice(s). In particular, I suggest that these are the emotional, affectual, embodied and discursive aspects of cycling practices. These aspects are now beginning to be foregrounded in practice discourses (see for example Reckwitz 2017 and Spaargaren et al 2016) and are deserving of further interrogation. Unpacking cycling using the lens of practice unravels some of this mystery, yet it does not lay bare all its mystery, and I expand upon these aspects in Chapter Six through the lens of emotion and affect. I examine the implications that bringing emotional geographies into conversation with social practice theory has for understandings of cycling, mobilities, and social practice theory in Chapter Seven.

6

Cycling Emotions: Feeling Cycling

It's true that you will get there quicker in a car, but you'll probably get there happier on a bike. (Maggie)

6.1 Introduction

In this chapter, I present participants' multifaceted experiences of cycling and examine the role of cycling in participants' lives through the lens of emotion and affect. Through this discussion the chapter makes contributions to understandings of emotions and affect within mobilities discourses, and expands understandings of emotion and affect within social practice discourses. The practice lens applied in the previous empirical findings chapter allowed for a close examination of what constitutes a cycling practice(s), where practices are bundles of elements, configured in different ways to produce different cyclings, and identified connections with other social practices. Although the practice lens enabled the meanings (in the practice-sense) that participants attach to cycling to be uncovered, I was not able to successfully capture the depth of meanings attached to cycling, or the significant role(s) that cycling plays in participants' lives through the practice lens. This is because the practice lens necessarily de-emphasised the individual, shifting enquiry onto cycling practices, rather than cycling practitioners.

In this chapter I re-centre the individual by connecting cycling to the individual and subjective body through an exploration of the emotional geographies of cycling. In order to attend to the harder to capture aspects of cycling and the depth of meanings participants attached to and found in their cyclings, this chapter presents the empirical findings through the lens of emotion and affect, bringing emotional geographies into proximity with social practice theory. Through a detailed exploration of emotion and affect in this chapter, and by drawing connections to the diversity,

multiplicity, and meaning making explored in the previous empirical findings chapter, I find that the notion of 'becoming with' (after Bawaka Country et al. 2013 & 2015, Haraway 2008, and Puig de la Bellacasa 2012) can more completely capture the depth of meanings, roles, intensity of feeling, and the often fleeting and ephemeral experiences of cycling, in a way that practice approaches to mobility forms, and emotional geographies on their own cannot. This new understanding of cycling as a relational process of becoming emerged from the two empirical findings chapters and, as such, is explored in full in the following discussion chapter (Chapter Seven).

By focusing on the emotional and affectual experiences of cycling and the role(s) that cycling plays in participants' everyday lives, this chapter explores aspects of cycling that have been obscured within practice discourses (the emotional/affective and felt/embodied aspects) and builds on the recent work of Spaargaren et al. (2016) and Weenink and Spaargaren (2016) who highlight the importance of emotion to the endurance of practices, as well as the practice-related findings presented in Chapter Four to present a more nuanced understanding of cycling as a social practice and multiple practice(s), to argue that emotions are integral to the endurance of cycling practices. Drawing on empirical findings from the 26 interviews and 24 cycling-practice diaries (see Chapter Four for an introduction to these participants), this chapter expands the discussion of cycling's meanings (as an element of practice) set out in Chapter Five, to explore in greater detail the 'ways in which cycling becomes meaningful' (Spinney 2009, 818) for participants from an emotional geographical perspective through three thematic frames. These frames are feeling cycling, connections and attachments, and meaning making and identity. Through these frames I aim to elucidate the attachment participants have to cycling, the role(s) that cycling plays in participants' lives, and ultimately, the way that cycling endures for participants.

In this chapter I centre enquiry on the emotional and affectual experiences before, during and after the cycling journey, and seek to reveal how these experiences and encounters have the capacity to reach beyond the cycling journey and permeate life in a multitude of ways both on and off the bike. I suggest that the emotional experiences of cycling – the affective and imaginary contexts – are core to understanding how and why people cycle, and moreover, in understanding

how we (re)shape our relationships with the city, the self and with others. The chapter explores the emotional and affective experience of cycling through three distinct thematic frames, these are: feeling cycling, connections and attachments, and meaning making and identity. Within each of these three thematic frames I draw upon qualitative data from the interview and practice diary components of the research project. It is important to note that each section (thematic frame) within this chapter draws more heavily on some participants than others, as those participants spoke and wrote in the most depth, with the most enthusiasm, and in the most explicit terms about their own cycling experiences. The cycling narratives are partial, often circular, overlapping, and fluid, and this is reflective of the course that many of the interviews took as participants switched from one cycling story to another, with the past and present interwoven. I traverse these cycling narratives below, starting with feeling cycling, then connections and attachments, before concluding with an exploration of meaning making and identity as a (non)cyclist in Sydney as articulated by participants.

6.2 Feeling Cycling: the body and encounters on and off the saddle

Don't enjoy the getting out of bed at 5.15am but always feel good once I am doing the ride.

(Kaye – diary)

Cycling can be viewed as a form of encounter – where the cyclist, through the act of cycling in space, encounters the world and one's body differently (for example to that of driving or walking). Yet these encounters are not confined to the act of cycling. The cyclist, the non-human cycle, and the environment are involved in (re)shaping relations between the self and human and non-human others, and the experiences/encounters on the cycle extend beyond the journey itself (i.e. off the bike). If the experience of cycling hinges on this specific encounter, and cycling is made meaningful through the act of cycling, then it follows that meanings are often embodied. Indeed, when cycling 'the body ... [is] the site of emotional experience and expression ... [as emotions] take place within and around this closest of spatial scales' (Kent 2015).

Through the interview and diary process the majority of participants spoke and wrote about how they had felt, what they had seen and done, and what they had thought about during and after

recent cycling journeys, and the emotions, bodily sensations and feelings that cycling elicited within them. This discussion can be broadly grouped into 'cycling experiences, interactions and encounters', as participants described recent cycling journeys, and described the various interactions and encounters (including encounters with the self/mind and with the physical cycling environment) that they had experienced on and off the bike on these, and other cycling journeys. This section explores these experiences, interactions and encounters by weaving discussion of the physical act of cycling with discussion of specific experiences, interactions and encounters both on off the bike (before, during and after a ride), and discussion of cycling in more general terms, to give a sense of how participants experienced cycling and how their own cycling experiences, interactions and encounters, were able to permeate life beyond the physical cycling journey (from point A to point B).

Physically cycling, that is the act of pedalling and of moving one's body in coherence with the machine of the cycle, elicited a wide range of emotions and bodily feelings. These emotional experiences cannot be separated easily from the bodily, or embodied experience of cycling and thus must be examined together – they are not mutually exclusive. Feeling good had many adjectives attached to it such as happy, ecstatic, positive, energised, awake, alive, switched on, relaxed, or meditative. Some participants voiced sentiments such as 'cycling makes you feel good about yourself' (Liz), 'feeling great, best way to start day' (Tony – diary), 'it's good for my mental health and my physical health and I know that I feel better if I'm on my bike' (Will), 'I think it's a really good headspace [, and] it's a really good opportunity just to get your own alone time' (Sam), and 'I feel more joyful inside because I [rode and I] had a challenge today!' (Roshni) Most participants expressed how cycling made them feel good about themselves, feel alive, and ready to tackle the rest of the day ('it feels so good to be energetic, productive, and the day's ahead' [Tony]), and noticed a difference in their overall mood if they had not cycled for a while. For example, Genevieve explained how 'when it rains for a week or two at a time, I actually get a little bit antsy. Probably just pent-up lack of exercise, lower endorphins ...', Liz talked about how she felt 'guilty when I don't cycle because I like it so much as I miss it ... [and] I find that ...s the more you do it the more you enjoy it and the more you feel better about yourself', and Mateo said 'cycling is really important [to me] ... if I

don't cycle for a few days I feel my energy levels go down, my mood goes down, everything goes down.' In this sense, cycling's capacity to impact the mental wellbeing of participants seems profound, although it is at times hard to separate mental wellbeing from enjoyment – the two are intimately linked.

Cycling's ability to permeate one's day after the ride has taken place was a common theme throughout the interviews and diaries. Mateo, Tony, James and Luke all spoke about how cycling made them feel good for the rest of the day. Tony described how he had found that cycling was a great 'way to cope with [stress and] ... hopping on my bike and riding, more and more and more. It really, really, helps.' Similarly, Luke said 'if you've had a rotten day at work it's [cycling] a very good way of getting over that before you get home and you're [not] a ... grumpy dad and husband'. Likewise, Yin stated how cycling made her 'feel happy', and Jan wrote in her diary that 'exercise helps keep you positive, it is great for mental well being'. Pat also described how cycling had positive benefits for his wellbeing when he detailed what normally goes through his head whilst cycling: 'I deliberately don't think I just float along, I enjoy the scenery, I meditate, I don't levitate [laughs].' Similarly, Skye talked about how cycling 'is a really nice way to get out of work headspace ... you just have to, kind of, do what you're doing and nothing else, which is really good.' Kaye, as evidenced in the quote at the start of this section, before we sat down to complete the interview had not cycled as many times in a week as she normally would (a normal week for Kaye was five cycling trips), and recognised that she does not feel as happy when she is not riding as consistently as normal. For most participants, these meanings attached to cycling were important motivations to continue cycling.

Underpinning the majority of this description was an overwhelming sense that participants derived enjoyment from the physical act of cycling (where enjoyment is materially experienced), as well as from the encounters and interactions (such as a friendly nod to another cyclist whilst out riding [Mateo], an animal on the side of the road that draws your eye [Kaye], or a long chat over coffee with one's group of cycling friends [Jan]) with human and non-human others on and off the bike. Participants commonly brought up how they simply enjoyed cycling, and found enjoyment in specific aspects of cycling, including enjoying the scenery ('I particularly enjoy the ride through the

parklands track. It is quite isolated but very pretty with [a] great view of the city skyline.’ Kaye - diary), the enjoyment that is materially experiences such as the feel of the sun and wind on one’s body (Yin, Roshni), the joy of pushing your body to its limits (for example Neve recalled an instance where she ‘finally got up a [difficult mountain bike trail] section that ... [I] had never gotten up before, and ... I think I even yelped with joy’), simply ‘enjoying being out there’ (James), and the joy of socialising with a bunch of cycling friends during and after a ride (Sam, Jan, John, and Neve). The feeling of enjoyment was a constant throughout the interviews, with many participants unable to put into words what exactly it was that they enjoyed about cycling. Rather, they would describe elements that were enjoyable. For example Mateo said, ‘I really enjoy it ... it is the nicest thing to cycle’, and this perhaps summarises what the majority of participants were expressing.

The feeling of satisfaction in achieving goals (for example Mateo rode from Sydney to Newcastle overnight and built a bike to ride on the trip which he was intensely proud of) and working hard to achieve those, whether it was building up your strength, confidence and abilities (for example to get up a hill – Yin, Roshni, and Monica all articulated a sense of satisfaction in reaching the top of a hill or climbing higher than before) or in developing new skills (such as learning to balance on a tricycle with the weight of children passengers – Tina) was a common thread. There is a temporal aspect to the experience of cycling here as well. Participants became more confident in their own cycling abilities the more, and also longer, they cycled for. For example, Maggie’s own cycling trajectory meant that she would cycle above any other mode of transport, whereas Yin, who had limited cycling experience in comparison, would not use cycling as her first mode of transport. In contrast Neve had recently expanded her cycling horizons by joining a women’s mountain bike team and participating in club (road) training rides in addition to her regular commuting, and acknowledged ‘I’m still learning, I’m still nowhere near an amazing mountain biker in any way [laughs]’. The longer one spent in the saddle, the greater one’s capacity to cycle. Yet a temporal advantage is not a sole motivator for cycling.

Finding satisfaction in moving yourself and being proud in the knowledge that you have gotten yourself places in Sydney via your own (pedal) power was also common throughout the interviews.

For Tina, who had previously had gestational diabetes, cycling helped her to keep fit and stay fit 'because of all the incidental exercise that I have now[,] I've lost 20 kilos and kept it off!' Tony also alluded to how the preparation involved in cycling was part of the enjoyment as well, and Roshni, John and Kaye all took satisfaction in getting ready to cycle and in the physicality of the performance of cycling. Participants were able to talk around how they encountered their own bodies and minds through cycling. Indeed, Roshni said:

... you see yourself more clearly, your power, your confidence, your body limits or even your mind limits, when you're cycling.

Many participants described how their bodies felt whilst cycling and commonly repeated terms that described bodily effort. Hill climbing can be quite hard work, and some interviewees recalled feeling as if they wanted to give up because it was so physically hard (such as Kaye and Roshni). Yet interviewees also explained how this was also a mental challenge, and one that carried with it a strong sense of accomplishment and even joy or pleasure, in knowing that you have pushed yourself (your body and mind) to its limits whilst riding. For example, Tony said 'I like hill climbing because I really enjoy the challenge, and a successful challenge; which means riding over the hill and sometimes I have to walk.'

For John, who is 'retired [and] ... can cycle whenever I want' and is a self-described 'more of a sprinter', hill climbs are a challenge that is made enjoyable through 'friendly competition' amongst fellow riders and on Strava (he said he has 'no interest in going fast downhill'). John cycles with two different groups of cyclists, one on the weekend ('it's a social event') and another on weekdays ('another social group, but very formal, and they take their cycling seriously and we compete a little bit'). He recalled an uphill section of a recent weekday ride with his 'more formal' group:

... then the worst one is Nasty Little Hill, it's about two-thirds of the way home, it's a hill that's about ... [it] takes my son 45 seconds to get up, if you sprint; it can take you a minute-and-a-half to get up if you don't sprint. So, they went into that hill, they sprinted, and they killed me, so by the time I got to the top of it, it was all over, red rover.

There's a trick to getting up it: You've got to go up it in a big gear with power, and if you're bonked [wrecked] halfway up, you're in the wrong gear, because you're in the big ring, and if you get bonked – like, you lose momentum – you can't gain it back in the big ring. Well, they bonked for some reason, and I'm at the back of them obviously getting towed, so once they stopped me I was gone, so the three in front of me disappeared and I rode home in fourth, I suppose. Didn't even get to the sprint, didn't get near it ... the frustrations of the elite cyclist! [laughs]

In John's description of this section of his ride he refers both to a strategy for getting up the hill – using appropriate gearing and being 'towed' by other cyclists – and to the pain of cycling uphill, where the effort involved 'killed me ... it was all over red rover.' Interestingly, several other participants described strategies they had developed over time to help themselves get up hills, such as singing (Dave, Yin and Skye) or setting targets to reach ('to stop myself [from giving up] I count my pedals ... but I'll try and make it more than enough pedals so I know I'll get there' Kaye) as a distraction from the difficult task of climbing up a hill on a cycle. Skye mentioned how she sometimes sings in busy traffic to 'calm... [myself] down because it just feels ridiculous ... if I get really nervous on the road I actually make myself sing along to my music'. Both male and female participants mentioned getting an endorphin or adrenalin rush from cycling (including Sam, Dave, Alex [F], and Luke – Alex said 'It's the adrenalin of just being out and free and [in the] fresh air') or feeling high from the body working hard. Similarly, Kaye said:

... if I find it hard to get going once I've got going I always enjoy it once I'm doing it and when it's finished. I wouldn't say I feel high, but I certainly feel chattier and more talkative.

Not every participant spoke about endorphin rushes and adrenalin, and this appeared to be the domain of participants who engaged in more strenuous forms of cycling such as group exercise rides wearing cycling-specific clothing and riding road bikes, or more stressful encounters of cycling in traffic. However, it is worthwhile to explore the hill climb, as this particular cycling performance involves quite heightened bodily sensations and embodied emotions – adrenaline increases as one works one's body harder, indeed pushes/pedals harder to 'climb' (rather than get up) the hill. As

highlighted in the previous chapter's discussion of cycling competences, Kaye described how she managed to encourage herself to keep climbing up a hill, she said 'I stop myself [from giving in and walking the bike up the hill,] ... [I] count my pedals and I'll say I'll ... do 500 more pedals' (Kaye).

Participants made mention of other, more physical impacts of pushing one's body whilst cycling, including muscle soreness, tiredness, getting a 'hunger flat' (Sam) after a big ride, feeling your heart beating (Dave) and your legs working. For example, Heng recalled two instances where he had pushed his body to its limits cycling on his 64km round trip commute from Sydney's West to his place of work in the Northern suburbs (once in the midst of a Sydney summer heat-wave and another time after drinking some off milk the previous evening) that he had to catch the train home from work rather than commute home by cycle. He described himself as 'definitely ... stubborn ... I tend to keep pushing until I meet my goal.'

Emotions, for participants then, are embodied whilst cycling however embodied emotions also extend beyond the journey itself. The after-ride-impacts on the body were also discussed by participants and commonly included feeling tired or 'pretty shattered' (Sam) after a long ride, such as a training ride, but simultaneously happy. Roshni's descriptions of how she felt after a ride illustrates one way in which cycling emotions are embodied in specific ways. She said, after a ride 'even if you feel a bit tired, it's a very sweet tiredness, [a] very sweet soreness of the muscles' (Roshni). Indeed, Roshni also spoke about how she had noticed a change in her thigh muscles since cycling but she did not mind, and in fact really quite liked having thigh muscles from her cycling. Skye recalled a recent cycling trip where she took her bike over the Sydney Harbour Bridge and said 'my entire upper body ached with those stairs because my bike is so heavy getting it up and down the stairs!' When talking about one of her regular cycling routes, which included a few hills, Kaye spoke about the different effort required for different terrains: 'once you come down from our hill it's nice and undulating and it's so easy. But it's not flat, it's got a little bit of climbing work so you work out a bit and then of course on the way home it's got that nice little climb at the end which is always good.' For Kaye, the undulating hills are easy but the big hills (or mountains) are hard work, but worthwhile. Indeed, cycling in general was a form of rewarding exercise:

I have a medical condition Polymyalgia i.e. generalized muscle pains – common in Caucasian women over 60. No known cause. It is improved with gentle movement and warming up. It often hurts to start riding – particularly if it is cold and I have been sitting in a car. The pain reduction benefits last hours and seem to lessen with regular riding. (Kaye – diary)

In addition to the post-ride impacts of a general sense of good health and muscle soreness, several participants also explained what it felt like to balance on a cycle and recalled encounters with the physical cycling environment and non-human others whilst cycling. Genevieve and Tina both described feeling their cycles underneath their bodies, and positioning themselves on the bike. For example, Genevieve described how she had recently changed from a flat bar road bike to a 'carbon-frame ... full-on road bike' and she also talked about the sense of control that this gave her:

I was a bit apprehensive about the whole, the sort of aggressive posture, leaning forward; I was a bit worried about my back, as well ... and I was worried that in leaning forward you're less able to turn around and look at what's going on around you, but it hasn't really been a problem. ... I think you get used to the position very quickly, and you just have to keep looking around, so you do it; it's still possible, so you just make it happen. And it's kind of fun, in a way, riding up on the bars, it's like taking the bull by the horns or something, like if you're in control of some sort of wild animal [laughs]. (Genevieve)

There was also some discussion of feeling and getting used to a different way of moving with a tricycle (Tina) or a new bicycle and the physical challenge of the task, as well as learning new skills. Some participants also spoke and wrote about encountering the physical cycling environment. For example, James told me about a particular section of road on one of his commuting trips which is riddled with

... potholes, there's divets, there's cuts in the road, there's new tarmac surfaces they've just overlaid and it makes it really bumpy and you're trying to pick out which line you'll take and the car doesn't know which direction you'll pick and why you're sweeping out over a tiny little telecommunications ... metal ... but you swing out to go around it and, you know, when you're riding to work at 6.30 or 6am in the morning and it's dark in Winter and you can't see

it. So ... I concentrate on what I have to do because it's just pretty crappy conditions at times. (James)

In contrast, Heng viewed the state of some cycling infrastructure which he has seen 'strewn full of glass and stuff' and some drivers' attitudes (they're 'just wanting to overtake you and can't wait a second or two' – Heng) with more ambivalence as, 'just one of those things'. These, potentially dangerous, encounters did not deter Heng from cycling. Instead, he cycled because 'it just feels a bit liberating, like you're getting sunshine and rain, it just makes you feel happy' (Heng). Jan described this relationship with cycling in her diary as one of 'love/hate'. In the interview Jan also recalled a recent encounter on a morning commute where she met a fellow cyclist who had two flat tyres after riding through 'a whole lot of tacks'. She recalled how she had 'stop[ped] to pick them up ... and I did flag a couple of cyclists down to say "watch out for them."' After this encounter with the tacks on the road Jan said that she wrote to the NSW RMS and reported the incident – she was really angry²¹ and had also overheard other cyclists in recent months tell similar stories of getting flat tyres from tacks that had been, she assumed, deliberately left there to damage cyclists' tyres. Yet this type of encounter does not deter Jan, instead it is the sort of encounter that justifies her determination to cycle, and to participate in advocacy organisations and in the Australian Cyclists' Party. Encounters such as these, however, were not limited to the foibles and failures of physical cycling infrastructure such as poor road surfaces.

Cycling is undertaken within place, and the cycling spaces of the city are often where human and non-human others bump up against each other. Indeed, several participants described encountering the non-human in their diaries and in the interview. For example, Kaye wrote in one diary entry that she 'saw echidna crossing road on Razorback', and told me about a few other encounters with non-humans during the interview:

I'm just there cycling and seeing what's happening and you know I look around and just enjoy what I'm passing. I notice I'll see a lot more once I've sort of got into that state. For example one day I picked up a tiny little tortoise about the size of a 20cent coin. [It was a]

²¹ As Jan was recounting the tack incident I could see the anger in her face. She was visibly affected by this encounter.

tiny little orangey thing. I just saw his little orange underbelly and picked him up and I've seen lots of little butterflies been hit by a car and they're still lying beside the road almost complete, and I'll see them and pick them up.

For Kaye, these fleeting encounters with the world around her (in Sydney's peri-urban fringe) when she's 'pottering along' are part of what makes cycling enjoyable, and thus meaningful for her. They also speak to a deeper appreciation for, and love of, the natural world. Luke, who also lived in close proximity to bush land in Sydney's Western suburbs, wrote and spoke about encountering the non-human other as a reminder of the change in seasons and a reminder to slow down. In each of his commuting diary entries Luke recorded that he travelled the 'usual way looking out for snakes', and told me that he had seen 'two [brown snakes] this morning' on his way into work. He went on to describe the encounter:

Yeah, they were on the path – the black path – sunning themselves [chuckles], trying to warm up for the morning. And because, like if you actually walk ... you won't see them, but because the vibrations your feet make walking, they'll hear, they'll feel you, they'll just slither off into the grass. [But a] [b]ike doesn't make that, so you roll up and, yeah, you see them and then once you get within, oh, 50 metres and you slow down, and they go off into the bushes. And you let them go [chuckles].'

Luke was especially conscious of looking out for snakes in the warmer months in Sydney, and he also said that he would 'see little finches and birds and ... hear frogs croaking' on many of his rides, whether it was a commute or a recreational ride. For Luke, these encounters signified that the 'ecology [,]... all the things down the food-chain are all probably in quite reasonable states'. In telling me about the morning's snake encounter, it became clear that Luke cared about the environment in which he lived and about the non-human inhabitants of that environment. The experiences that each participant recounted and recorded of their cycle commutes and myriad other cycle journeys, inform their cycle journeys moving forward. Although most participants recounted how their commutes would usually play out, the above instances of specific experiences and encounters with non-human others had stuck in their minds and influenced the way that they cycle moving forward.

In addition to encounters with non-human others, each participant, recalled either a specific encounter with other (human) road users, such as drivers, that they had had, or spoke about a sense of conflict and animosity between road users (i.e. cars versus bikes, cyclist versus cyclist, pedestrians, and other vehicles – an ‘us and them’ mentality). This sense of anxiety was a common underlying subject throughout the research. Indeed, most participants recalled instances where they or someone they knew had felt threatened, vulnerable or unsafe when riding on the road in Sydney. Sam and Conor also related these feelings to the ‘bad behaviour’ of other road users, namely drivers. Although not all participants described a negative experience of cycling in the city (where they had had a close call with a vehicle or a car door), there was an understanding amongst participants that there existed ‘a war between cyclists and cars’ (James) in Sydney in particular – at least in terms of some of the mainstream media attention cycling received – and that the behaviour of some cyclists fuelled the negative attention given to cycling, giving the majority of well-behaved cyclists a bad name. Participants also recognised that better education of all road users (drivers and cyclists) and time would both contribute to a more cohesive cycling environment in Sydney.

Many participants had personally experienced aggression from other road users, particularly drivers, the memories of which stuck with them and at times made them more aggressive or more cautious riders. For example, Conor admitted to antagonising some drivers that had come too close to him in Sydney’s Inner West and said that ‘there’s plenty of times where someone’s verbally abused me and I’ve basically escalated the situation by putting my bike in their way and riding in front of them really slowly’. However he was an exception amongst my participants. Conor also noticed that ‘Peak hour cars are riskier (drive closer, faster etc.) in the afternoons’ (Conor – diary) and as such he would avoid riding in the afternoon peak if possible.

Conor was not alone in his decision to cycle outside of peak times. Heng commuted from Sydney’s west to the northern suburbs – a 62 kilometre round trip – after the morning and evening peak had passed. Heng did not share an example of a bad experience of cycling in Sydney with me like many of my participants did, however, he explained that he chose to commute to work outside of peak times to avoid the worst of the traffic, offering that he found driving stressful whereas

cycling, ‘funnily enough[,] ... [was not] stressful [chuckles].’ Heng’s choice to commute in excess of 60 kilometres, with part of his trip along Parramatta Road (one of the longer commuter cycling trips undertaken by my participants) did take him into close proximity with vehicular traffic, however he was not focused on complaining about traffic or bad experiences when we conducted the interview.

Many participants used their stories of close calls with drivers to talk about how they had developed ways of avoiding or managing these kinds of situations, for some in quite systematic ways, and these methods of managing dangerous situations had emotional implications. For example, Roshni, who was relatively new to cycling amongst all my participants, spoke of her anxiety riding in traffic:

I’m almost very scared of “oh my god is there going to be heavy traffic on the road” because I know that most of the roads here are not for bicycles, so it’s a big challenge for me. ... Even going on Saturday rides we always try to wake up really early, because we know that if the roads are getting really heavy traffic then it’s going to be a challenge because we’re not familiar and we can’t actually enjoy our cycling.

Roshni’s anxiety meant that she would only cycle in traffic on roads that were local, that she was familiar with, or cycle along cycleways and shared pedestrian-cycle paths. She also preferred not to ride alone on longer trips and always tried to ride early to avoid traffic with a friend on weekend trips where they would ‘get lost in the city’ (Roshni). Roshni’s confidence cycling on the road had grown, however, as she became more familiar with Sydney and cycled more frequently with a friend.

For Neve, managing the potential danger of cycling on the road was tied to feelings of vulnerability, which she turned to her advantage by actively riding defensively: ‘when I am feeling vulnerable, I will always move into the middle of the lane and take the lane. ... it can just be inconsiderate car drivers, but it could also just be car drivers who are a bit awkward and don’t really know what to do with cyclists.’ Dave used his weekday commuting encounters with traffic as an excuse ‘to avoid using the road as much as possible - I get enough interaction with cars during the week’ (Dave – diary). Instead, his weekend rides were mostly on ‘shared paths [as they made him feel] very safe (ibid). For Yin, who described herself as a ‘leisure’ cyclist, an on-road encounter where

‘the car behind me was just beeping and then when I finally moved to the side ... that car just weaved in front of me, and ... it wasn’t a very good experience’ meant that she would ‘try to avoid peak hours [or] normal working hours I don’t feel very comfortable riding to work.’ Instead, she rode at the weekend on shared paths and cycleways to avoid traffic and ‘make[ing] sure ... [to] stick with the ... cycle paths ... and ... where people ride’. Yin shared one example of following dedicated cycleways and shared paths in her diary and photographed some of the journey (see Figure 6.1 and 6.2 below).



Figure 6.1: Barangaroo cycle path (Yin - diary)



Figure 6.2: Jubilee Park shared pedestrian-cycle path (Yin - diary)

Riding in dangerous circumstances elicits distinct emotional responses that do not necessarily involve feeling afraid. In addition to those strategies of avoiding possibly dangerous situations and riding defensively, some participants also used humour to defuse potentially dangerous driver behaviour, which had emotional implications as well. Pat told me that he had 'decided to ... turn any abuse into a joke. ... Because mostly cyclists who are yelled at, they're already anxious about their safety, so they mostly react, some passively or aggressively, they can't help it'. He said that he and his commuter group 'now only experience positive driver events' as they have developed 'a system of tokens [and] we try to accumulate as many tokens as we can, we call then GOTFR tokens which stands for Get Off the F'n Road. And so if you get a GOTFR token it's actually something to celebrate and to compare with other cyclists.' Indeed, Pat went on to laughingly tell me how he had told his brother about a particular GOTFR that a friend had experienced that was 'a 100% quality GOTFR token ... because it involved the horn, the winding down the window, the verbal abuse, and the hand gesture'. He used the GOTFR story to laugh about an otherwise upsetting encounter, and shared this with family and friends. This strategy, along with the commuter group jovially laughing like Santa in unison ('ho ho ho ho' – Pat) to get the attention of the group and other road users ('it's a form of yelling that gets attention' – Pat) where there were hazards, such as cars driving too close to the group, imbued Pat's commuter group rides with a sense of fun. These kinds of engagements are what made commuting with others enjoyable for him.

Cycling emotions extend beyond the journey itself and can relate to the overall state of cycling in Sydney. Peppered throughout my participants' cycling narratives were some encouraging observations regarding the improving state of cycling in Sydney. Indeed, several participants talked about how they have noticed an improvement in cycling in Sydney over the years, with more people cycling, more cycling infrastructure being built, and more cyclist-friendly drivers. Jan thought that Sydney's roads had 'really ... improved a lot [in comparison to when she] ... first started commuting, and it can't be more than ... two years [ago]'. She said; 'truly it was everyday ... [a]lmost guaranteed that someone would abuse me in some shape or form. ... Yes it used to happen to me all the time. Now, it's only once every few months that I will get it' (Jan). Maggie also had noticed an

improvement in driver attitudes over her 20 plus years of cycling in Sydney and she said: 'there are a lot more cyclists now, so I think that helps all the drivers to be a little bit more friendly ... because the cyclists are more visible.' She went on to explain that '[now] I don't have much trouble. I know people who do, ... but I must admit I get very, very little of that.' However she also connected this noticeable decline in harassment by drivers to her age, 'I think that's one of the good things about being a middle-aged woman' (Maggie). Noticing improvements in the overall state of cycling, and encountering less animosity from drivers, for Jan and Maggie at least, had a noticeable impact on their emotional connections to cycling – assisting in the continuation of their own cycling.

The embodied experiences of cycling are often difficult to separate from the materials of cycling. For example, some participants linked the weather to their experiences of cycling as they described feeling cold (particularly in the morning in Winter) in different parts of the body (including the face, ears, and hands) to begin with and then warming up as one rides, and similarly of feeling too hot in the height of Summer 'like someone was holding a giant hairdryer in front of you' (Heng). Winter was also discussed in relation to the body with Liz describing feeling 'a difference in your body' after cycling less in the cooler months. Rain was also a common topic of discussion, with some participants refusing to cycle in the rain and others cycling regardless of the level of precipitation. For example, Heng said 'If it's raining I don't do it, because it's not nice, you get sprayed everywhere' and Maggie said that 'obviously, if it's bucketing rain I catch a train ... but otherwise, not much puts me off' cycling. In contrast, Tina chose to cycle in the rain but with a different cycle: 'if it's raining, and it's winter I'll take my E-bike because it has better brakes, it's a heavier bike, it's more stable, [and] I feel more comfortable on that in the rain.' Dave also used a different cycle when it was raining, and talked about how he does not 'like it when I get caught out unprepared, so I've got [a wet-weather bike complete with] mudguards and I can carry my rain jacket'. In comparison, Conor scoffed at the rain when he said 'I don't worry about it. I call it temporary wetness ... I'm not precious about any of the clothes that I wear ... so being dirty or wet is fine.' Brian, Jan, Mateo and Conor all described the wet weather gear that they used to enable cycling in the rain, which included wet-weather pants

(Mateo) and a rain cape which ‘means that most of you stays dry – apart from your feet ... there’s no way around that’ (Brian).

Other participants described the joy that they felt when cycling which was materially derived. Examples include feeling the wind when cycling, where ‘the wind blows into your face and it feels really good(!)’ (Yin), also the fear of wind pushing you off course (Jan), the difficulty of cycling into a headwind, and the ease of cycling with a tailwind (both Jan). Jan recalled the differences between cycling on a road bike she had once owned, where the body is in a more compact position, to cycling on her current hybrid bike where the body is in an upright position, and experiencing the wind on her commute:

Truly! It’s bad enough getting a headwind when you’re down, but when you’re sitting upright and you’re [holds self in very upright riding position], if you stop you’ll get blown that way [moves body to the side]!

Other interesting experiences of cycling that combined the mind and the body were raised by some participants, including the use of all the senses and constantly (actively) being aware of what your body was doing, such as ‘cognitively scanning and being aware of cars, pedalling and getting puffed ... looking and ... thinking about what’s going on around me almost constantly’ (Conor) or ‘concentrating on staying alive [being aware of what] the cars are doing, what the traffic is like, what the lights are ... doing’ (Tony). Other bodily experiences included balancing one’s centre of gravity and satisfying hunger and thirst. For example, Tina and Leif spoke about the burden and weight of carrying children on a bike and Heng and Sam spoke about being aware of needing to stay hydrated and eat (food as fuel for your body when it is working hard). These encounters with the self/mind were not confined to bodily sensations and emotions derived from feeling the bike underneath one’s body, or the after-effects of the ride. Participants also described the way in which cycling generated specific connections and attachments to human and non-human others and this is explored in the following section.

6.4 Connections and attachments: to cycling/bikes/community

... bikes in my life have become ... they are such a large part of my life (Neve)

The emotional connections and attachments that we form or develop to human and non-human others are integral to the endurance and persistence of people's cycling. Without those emotional connections and attachments, cycling becomes less lively, less enticing. Participants expressed strong connections and attachments to the object of the bike and to the importance of connections to others, such as family and friends, developed through cycling. These connections and attachments were multi-layered and encompassed connections and attachments to; the bike(s), people, communities, and to place(s).

Many participants referred to an indescribable feeling of love. This was expressed as an emotional attachment to the object of the bike and to cycling in general, with participants telling me 'I just love it [cycling] and I have no idea why' (Jan), or 'I just love it, it's a very big interest and you can spend a lot of money very quickly [laughs]' (James). However, participants' emotional connection to cycles/cycling was not always articulated through expressions of love. Indeed, each participant, whether it was documenting their cycling and thoughts about cycling via the practice diary or talking about their own cycling practices in the interviews, expressed a wide range of feelings, sensations, and emotions as they attempted to describe how they felt whilst cycling (recounting specific cycling journeys, interactions and encounters with cyclists/non-cyclists/non-human others), how they felt about cycling (in addition to articulating what cycling meant for them), how they viewed themselves both on and off the cycle, and how cycling had impacted their lives in numerous ways.

The sense of attachment or connection to one's cycle or cycles was common for many of my participants. Indeed, very few participants expressed how they felt a sense of ambiguity about their cycles or about cycling in general. Several participants felt deeply about their own cycles, including ones that they currently owned and had previously owned. For example, as mentioned in the Material discussion in Chapter Four, Skye described how she simply loved to buy 'crazy crap' to decorate her bike with and liked collecting different luggage for her bike, such as colourful panniers and vintage suitcases. Whereas other participants took pleasure in building, fixing and maintaining

their bikes, sourcing special components to make the ride smoother, faster, more enjoyable, or the bike more beautiful, and even building up some bikes to sell. Mateo loves building bicycles, to the extent that everyone at his workplace know him as a cyclist/bike builder, and he has a bike-building business on the side. I asked Dave about the bikes he owned and he very enthusiastically told me about the eight ('so I've got many bikes') different bikes that he owns or is in the process of building:

I've got the first bike that I ever owned, my own bike, which is the one I still use every day. It was a mountain bike, so it did have 21-speed, but I broke things on it and had it converted to a single-speed. It's not fixed, because [where I ride is] too hilly for fixed, and if you make a mistake, it'll throw you over the handlebars – even though I kind of like it fixed. I actually have a fixie as well, but I'll get to that. Yeah, so I use that every day, and it's got fat tyres and it looks really cool and it's a little bit steampunk, which I really like. Yeah, I like the fact that it's single speed. I actually have another bike which I'll go into first: That's the bike I used to commute on for years, it's got road tyres and it's faster; it doesn't have the drop-handlebars but it's a really fast kind of bike. And I was finding, I was riding that to work for a couple of years, I was going really, really fast all the time, and I was losing – first of all I was losing the whole Zen thing, where it's a journey, it was just all about: 'Oh, go here, go fast, watch out for this car, go fast so I can overtake that person,' sort of stuff, and some of the hills I go down, you're doing 60 or more down the hill, and then cars come out in front of you, and I had a few really close calls, and I went: 'I'm just going to kill myself [chuckles] on this bike, because I'm going so fast, every afternoon; it's just laws of averages, I'm going to make a mistake and I'm going to be in trouble.' So I started riding the single-speed one with the fat tyres, which is really, really slow and a lot heavier, but I really like it a lot better, because it's slower and I can't pedal than more than 25 kilometres an hour, because I've only got one gear, and once you get over about 25, you can't pedal anymore because it's too fast. Which is actually good, because I figure I'll survive something that's under 20 [chuckles] – if I come off going that, it's survivable, whereas if you come off at 60, it's not really survivable.

I talk about death a lot, don't I? I was just thinking, I'm just talking about getting killed a lot – does everyone do that? ... So I've got the bike that I deliberately have to go slow [on], and then I've got another bike. After going to Japan I put that together from one that was my wife's old bike that she never rode anymore ... because I wanted to carry stuff, so I put boxes and stuff on it.

I've also got a mountain bike, which I don't ride as much as I used to, because I kept hurting myself mountain biking, because I'm not very good at it [chuckling] ... and I don't ride it very much anymore ... I ride it every now and then. So I've got that, I've got a nice road bike, which I put together from – I don't have a carbon bike or any of that sort of Lycra-y kind of stuff. This is an old – it's probably a 30-year-old steel-frame bike, with nice things and nice handlebars and a really pretty brown leather saddle and brown leather tape on the handlebars and it's all lovely, and I really love it. That's the one I ride on the weekend, that's kind of my special [bike][exhales]... I've picked up a fixie ... and I've only ridden it a few times, because it still needs some work, and it's a little bit dangerous: the bottom bracket needs some work and I'm a bit worried, and I just haven't had time to fiddle with it. And I'm actually building a nicer cargo bike, because that one, I like that one, and you can carry a lot on it, but it's really, really slow. So that one, I want a nicer gentleman's kind of – I don't know if you've seen, you probably don't know what I'm talking about, but anyway – there are these gentleman's ones that are all lovely with things, and really nice. There's this thing called Velo Orange, and it's this really lovely hammer-finish, chrome-y, shiny mudguards, all this sort of stuff and a little rack on the front, a little shiny rack on the front. So I'm putting that together. I actually bought some parts on the weekend for it, which I'm not allowed to have till Christmas.

... so it's also like a little building hobby stuff, and it's kind of fun. And yeah, theoretically I should build them and sell them and make money, but I can't sell them once I've got them, it's like: 'Oh! I love this bike so much!' [chuckles] I don't want to sell it ... I've also got a three-wheeler one. ... I'm really enjoying [talking about] this.

Dave articulated a love of and attachment to his many bikes, as well as a love of building bikes, and curiously, was surprised at how much he enjoyed telling me about his many bikes (old, new, and in progress). Dave's description of his bikes, their speed, weight, the different sensations they each generated whilst cycling, as well as the impact that these different bikes had on his cycling emotions (particularly when switching between bikes for the same commuting route), illustrates how emotions shape our sense of place in the world and reinforce practices. Furthermore, it illustrates how closely connected one can become to one's cycle(s) – they become imbued with sentimental value over time.

This attachment to, and enthusiasm for, one's own bikes, however, was not unique. Mateo also expressed an attachment to building and fixing up bikes: 'I like fixing them and building them up and keeping them running. It's very relaxing I think. It gets a bit harder with a kid though so I do a little but less fixing now than I used to, but that [is] equally as enjoyable as riding. ... I just got rid of a few [bike frames], but I would have maybe close to 20 frames' at home'. Building bicycles is a hobby and also a source of added income for Mateo, however it is the love of 'fixing up' or restoring old bicycle frames which holds his interest. Mateo also told me about an orange cargo bike he had bought but that he was yet to build up. He was really looking forward to being able to put his son in the front and ride to the beach with him. Some months after the interview I ran into Mateo at Bunnings (hardware store), where he had ridden to on his newly built cargo bike, ready to take home some items in the front cargo compartment. I asked him to send me a photo of the cargo bike and he did so of it parked at his place of work (see Figure 6.3 below).



Figure 6.3: Mateo's cargo bike parked in the garage at his place of work (Image courtesy of the participant)

Collecting, building, repairing, restoring, and purchasing components or whole new cycles, is a hobby and an investment in one's future. For example, Conor told me about an old Schwinn le tour bike that he rode around Sydney's Inner West ...

for the longest time [and] I put so many kilometres on that bike – crazy amounts of kilometres. I went through multiple chains and had to repair lots of stuff on it because I just used it so much. The tyres on it, I had these brutal tyres on it, they were self-sealing, they had this thorn-proof tape on them, and they were triple layer thorn-proofed just so it could never die because I got three flats in a day once and I thought 'I'm just going to get the ridiculous thing'. So anyway I loved that bike and it was a really, really, good bike and I rode it so much that it just became, I guess cycling became normalised on that bike.

Conor's experiences of cycling on this particular bike, getting flat tyres and balancing 'grocery bags on the drop bars', led to his decision to invest quite a lot of money (in the few months prior to our interview) purchasing a new Dutch cargo bike that allowed him greater storage (with a pop-up crate on a rear rack) and simplified his routine of getting ready to cycle and arriving at his destination: 'we've been talking this entire time and I'm without a helmet ... but it's just super simplified; I just have a lock and ... two keys – my house and my lock key, I don't have to carry anything, there's no weight, there's no extra, it's just *boom*: get to where I am, lock my bike and walk away.'

The stories of attachment to the object of the bike, and the memories embedded in cycling were simply charming to listen to and read about. In each interview I asked participants about their most memorable cycling journeys or fondest cycling memories and they almost all recalled a favourite childhood bike-memory or were about cycling in a special place with a family member or friend, or connecting with the environment in which they were cycling. For example, Will recalled the first bike he ever owned, it was 'a green bike ... back then they called them 'dragster' bikes, do you remember those? ... [It had a] really long seat ..., [a] fat tyre at the back, [a] skinny tyre at the front, and it was 3-speed. It was great!' For Luke, a fond cycling memory from the previous twelve months was riding

in parklands with his young family. He recalled how he was riding with one of his children (the others had ridden ahead):

[my daughter] and I were dawdling along, riding at about 15 kilometres an hour, which is really slow, and it was springtime ... and she said, 'Isn't this just nice, Dad?'

And I said, 'Yeah' ... there were some blue wrens, and other pretty little finches, and there were flowers and there was wattle blowing over the path, and she said, 'Isn't this just nice?'

We get to where we're stopping for lunch and [my other daughter] goes, 'Oh, where have you been, you two slow-coaches?' [chuckling] And [the daughter I was riding with] just turned to her and said, 'Enjoying outside.'

For Luke, spending time with his family was incredibly important, and this memory of connecting with one of his children through cycling 'was just nice to share some time with one of my kids, on our own' and also foster a sense of connection with the environment. Cycling also afforded opportunities to connect with the natural and built environments for Neve who, in a morning diary entry, wrote 'I love riding up through the Bronte car park because of the beautiful views, being closer to nature; it's refreshing and it really helps get your head in a good space for the day.' In the evening on the same day she wrote 'I just love riding around ... [and riding through] Centennial Park at night is interesting because there are no lights; it feels good to be in darkness right in the city, it feels fresh and I love the trees there.' Similarly for Olivia, riding helped her to 'feel much closer to your environment ... you're looking at the people and looking at buildings – I love just looking at houses and stuff like that [chuckles], and gardens.' Jan also expressed a similar connection to the environment when she said 'I always love the view when I go over the Harbour Bridge' on my bike. In contrast, Pat struggled to recall a favourite cycling memory. Instead he said

... my favourite cycling stories are not favourite cycling stories, they're disaster stories like dropping my brand new carbon bike on the round about ... the first day I got it ..., or crashing at the bottom of the ramp on the cycleway off the Harbour Bridge. ... So my favourite memories are, I don't have any favourite memories I've only got memories of disasters ... [like] being hit by a car on my birthday! ... I ended up in hospital on my birthday.

... [considers] what's a favourite memory? Oh. Ride to Work Day where we all wear suits [laughs]. That's quite fun everyone in suits. [One year] I said 'we should all wear suits' so everyone wore these old suits [and we were] very sweaty, we were very miserable looking by the time we got to Hyde Park, 30 blokes in suits! Some were funny. The next year for some reason we all wore swimming trunks ... boardies ... [and] Knicks underneath.

Memories, whether imbued with humour, fondness, or even fear or pain, play a role in shaping participants' cycling experiences. Although Pat initially struggled to recall a favourite or fond cycling memory, as the excerpt above illustrates, he was able to laugh at some of the antics he and his cycling friends engaged in. For Pat, those humorous memories of Ride To Work Day, along with his 'connection to community', will ensure he participates in Ride To Work Day in the future and stays connected to his cycling community.

Through cycling, participants formed connections and attachments to other people, to community(ies) – real or imagined/virtual, and to cycling-related institutions and organisations. Indeed, many participants articulated how they felt a connection or attachment to a community, or to cycling-related institutions and organisations during the interview phase of the project, and this was often expressed in terms of a sense of belonging to a 'broader community' (Conor). For example, cycling had given Tony a 'supportive community', while Roshni felt a 'sense of belonging [and] community', and Alex exclaimed that it was 'really nice to have that community'. For Conor, who did not socialise with other people who cycled, cycling enabled him to have a 'continuous sense of engagement with my broader community'. This engagement, whether imagined or real, was made possible by cycling through his local neighbourhood, where small interactions with pedestrians and other cyclists are made possible as opposed to when taking public transport or driving and being disconnected from other people.

A sense of community was felt more keenly amongst particular subsets of a broader cycling community. For example, Neve found that women's 'mountain biking [wa]s ... a very close-knit and a very supportive community', and the support and encouragement she found in the women's mountain biking scene in Sydney had helped her to develop her skills as a mountain bike rider.

Wright (2015, 392) posits that ‘belonging is constituted by and through emotional attachments’ – hence participants’ discussion of the satisfaction derived from the emotional attachments, or rather their relationships, with others. The sense of (non)belonging and identity derived from cycling will be further expanded upon in the next section (what it means to be a cyclist/not identify as a cyclist in Sydney), attention now turns to the social aspects of connections and attachments.

Cyclists tend to have a common identity and they tend to talk to each other and give each other tips ... a cyclist would ask another cyclist ‘where are you going?’ ... Because every journey is a voyage of discovery people are always keen to find a better way or have some company for safety in numbers too. (Pat)

Attachments and connections to a cycling community, or to groups of cyclists also had a social aspect, the importance of which was communicated to me by numerous participants. Of the manifold benefits that cycling afforded, participants commonly talked about the importance of their social group to their own cycling. Whether it was having coffee with a cycling group at the end of a weekend ride or part way through a ride, chatting to and catching up with friends whilst cycling, making new friends through cycling, or simply being able to cycle to meet a friend or relative, participants’ emotional experiences of their cycling communities became imperative to the way in which cycling was made meaningful.

The social connections formed through engaging with a cycling community, whatever the makeup of that community, are also emotional. Cycling enabled social interactions and allowed participants to connect with their family, friends and a broader cycling community and these interactions or connections encouraged participants to continue to ride. Indeed, many of my participants who commuted on their own, also rode socially (at the weekends), and participated in social cycling events, such as the Sydney to the Gong ride (Pat), the Spring Cycle (Will), The Tour Down Under Community ride (Jan), or local BUG rides (Maggie and Brian²²). Some participants even organised social rides (Maggie and Alex), and were involved in advocacy organisations and cycling-

²² Although Brian did not commute as he was retired.

related political organisations (Jan). Sam described the way in which his relationships with people involved in cycling further pulled him into cycling:

... once I established the friendship groups within cycling ...[then] it started to become ... a big part of my lifestyle ... It's the friendship groups you have within it that makes a big difference ... motivating you to get up and go for those rides ... say[ing] 'come to this ride on Saturday!' That really makes a difference.

For those participants who cycled in groups or with a friend (as outlined in Chapter Four, 11 participants rode with a regular group of cyclists and two participated in BUG rides) they also loved the social aspects that went with riding with others. For example, John said that when he first started cycling with groups the 'people [were] very friendly, and you got sucked in to having coffee all the time', and similarly Sam recalled how cycling with friends made a 'big difference' to his willingness to cycle. Other participants outlined how cycling freed up time to spend with family or friends, which was important to help foster better relationships ('I can be a better Dad' – Luke). Tina even described how cycling has been a great way to go on holidays with the family and build stronger family relationships, although these relationships were tested on an infamous hill climb in South West Sydney when one of their two cargo bikes got a flat tyre in 35 degree Celsius temperatures.

The emotional attachment to the object of the bike, and the emotional connections (found through cycling) to the city or to other people and communities, motivates and reminds participants of why they cycle. Roshni, giving active agency to the bike, summarised her own attachment to the bike when she exclaimed that 'having that bicycle is always a motivation, it's something itching you in your room, every single time saying go out... use me!' – See Figure 6.4 over the page.



Figure 6.4: Roshni's bike in her bedroom is always within sight
(Image taken by the researcher with permission from the participant)

6.5 Meaning making and identifying/not identifying as a cyclist

Cyclists tend to have a common identity and they tend to talk to each other and give each other tips ... a cyclist would ask another cyclist 'where are you going?' ... Because every journey is a voyage of discovery people are always keen to find a better way or have some company for safety in numbers too. (Pat)

Within the narratives of encounters, experiences, interactions, attachments and connections explored above, there is an underlying sense of what it means to be a cyclist (or not consider oneself as a 'cyclist' per se) in Sydney. In addition to being brave (to face traffic and the elements), organised (or at least prepared), be able to navigate Sydney's roads and cycleways/paths, have some strategies to cope with traffic or stress, and to enjoy cycling and derive numerous benefits (social, economic, wellbeing, and health benefits)²³, participants often spoke about the role that cycling played in their lives in terms of what it meant to cycle or to identify as a cyclist (or to cycle and *not* identify as a cyclist).

²³ All of which, as elements, are bundled together for different practitioners' different cyclings – see Chapter Five. See also my discussion of the usefulness of the term 'bundle' as a verb and subject on page 25.

Identifying as a cyclist (whatever this term meant for my participants), feeling a sense of belonging, and an attachment to a broader cycling community (as outlined in the previous section) were common amongst participants. Only one participant, John, made a point of letting me know that he did not identify as a cyclist, and even Kaye, who 'felt no particular attachment' to cycling described herself as 'a pleasure cyclist'. For some participants, identity and belonging were connected to a collective identity, whereas for others this was an individual identity. Some participants spoke about their sense of self separate to cycling (for example Tina), or of cycling as something that they just did (Kaye), whilst others spoke of how cycling had become a large part of who they were (Genevieve, Olivia), and many participants described the sense of community, belonging, or camaraderie felt when cycling. The broader discussion of the type of behaviour that participants championed whilst cycling is something that does not seem to fit in either individual or collective conceptions of identity. Pat, Sam, James and Dave all discussed at length the need to be a good cyclist (see the discussion of cycling citizens in Chapter Two) and 'try to do the right things' (Dave); to be a role model for other cyclists (Sam) and also show drivers that cyclists do adhere to road rules and are polite (Sam).

All but two participants had grown up with ready access to a bicycle and cycling was a part of their childhood-identity. For some participants cycling was something that they just did to get them from A to B or for exercise or enjoyment and did not have a particular meaning or form a part of their identity (Kaye, Lief and Yin all spoke about this) – cycling was a matter of course and an everyday thing or there was no desire to feel connected to a broader cycling community. Whereas for other participants, doing cycling had become an integral part of their identity without them really intending it to. For example, Jan, Roshni, Monica, Alex and Neve all spoke about how cycling had become a large part of their lives. For example, Genevieve said:

I guess, in a way, it's sort of become a part of my identity, and it's a way that a lot of people, say, who I work with, know me as. So I'm the – there's a cycling kind of club there – I'm the president of the cycling club, and people kind of like: 'Oh, that's [Gen], she's a cyclist,' it's sort of become a part of my identity – which I don't mind.

The unintended cycling identity that these particular participants had developed was spoken about in a positive manner as cycling opened up doors to new friendships (Alex), new holiday experiences ('I'm doing a few more cycling tours ... I'm going to Japan, Tokyo to Osaka next week!' – Alex), social engagement at work ('those little bits and pieces of help I've done over the past couple of years at work, I think, making people feel comfortable to ask me for [chuckles] advice' – Neve), and new ways of socialising ('Saturdays and Sundays I'll go ride and have coffee ... and I'll happily sit there beside them in the sun' – Jan). Olivia spoke about how she did not feel the need to identify as a cyclist until moving to Sydney and attributed this to the 'Us Versus Them' feeling between people who cycle and vehicular traffic. Several participants described how they express themselves through their choice in clothing (non-Lycra, normal everyday clothing or sporty but casual clothing).

A number of participants described how they did not care what others thought of them, or that they thought they must look unusual on a bicycle, but again, did not care what others thought. Cycling was also part of some participants' sense of self. For a few participants cycling was connected to their ability to maintain their identity as an independent woman. For example Tina and Skye both spoke about how cycling enabled them to maintain an independence (apart from family and work) and Roshni spoke about how cycling was 'empowering'. But it was also a way of expressing values about environmental sustainability (Maggie and Dave).

The sense of community felt whilst cycling was expressed by several participants who described their own, or others', willingness to stop and chat or lend a hand, or simply nod acknowledgement when passing – a type of passive engagement in a broader community. For example, Mateo told me that 'if it's pouring down with rain and there's another cyclist [riding past you then] there's always a [nodding] "feel your pain" acknowledgement.' This small act gave him a sense of community and belonging, highlighting the important emotional role that an imagined cycling community plays for participants. Participants also discussed how it was necessary to 'team up' (Pat) with other people who cycle for safety in particularly dangerous or busy areas – these relationships between people who follow a similar route were mentioned by Jan and Skye who recognised the same people on their regular commutes.

The feeling of camaraderie was also discussed by several participants, particularly in relation to riding in groups: these are the friends, fellow cyclists, and people that will watch out for each other when riding (such as by calling out dangers – see the discussion of Pat’s commuter group in the previous section), and make it an enjoyable experience. Pat said that he cycled for his commute due to a family history of cardiovascular disease. He required a form of exercise that fit in with his busy lifestyle, yet he also gained more than health-benefits from cycling, a feeling of community. When asked what cycling meant to him, Pat responded; ‘it means commuting with community, that’s what cycling means.’ In contrast, Olivia responded to my question by comparing her previous experience cycling in her home country to Sydney, stating that; ‘since moving here ... it’s become a part of my identity.’ Cycling then, has multiple meanings that range from the quite nonchalant, such as that articulated by Kaye when she said ‘it’s not sort of anything that I think I passionately must do ... apart from being a physical activity that I enjoy and find easy’, to the all-encompassing emotions expressed by Neve when she said ‘bikes ... have become ... such a large part of my life [and] ... I think they represent, for me, all the things I love’. Many other participants expressed similar feelings regarding meaning, stating that cycling had given them a ‘supportive community’ (Tony), a ‘sense of belonging [and] community’ (Roshni), that it was ‘really nice to have that community’ (Alex), or have a ‘continuous sense of engagement with my broader community’ (Conor) whether imagined or real. For others, this sense of community was felt more keenly amongst a particular subset of the broader cycling community. For example, Neve found that women’s ‘mountain biking [wa]s ... a very close-knit and a very supportive community’. For Neve, the support and acceptance that this community gave her was incredibly important, providing emotional support and encouragement for the new adventures that mountain biking could bring. Cycling affords multiple opportunities to socialise and to connect, even in a small way, with others and to develop or improve upon one’s relationships with one’s friends and family by cycling together (see Figure 6.5 over the page).



Figure 6.5: Adults and children cycling together on mountain bikes through Dharawal National Park in Sydney's south-west, 2013.

Community engagement through cycling extended to organising cycling events with large groups of people. For example, Maggie and Alex were both actively involved in organising and leading Bike User Group (BUG) rides and social night rides, respectively. Both participants described as being social, relaxed and non-Lycra events. The distinction between 'serious' and 'casual' cycling was really interesting, and some example of serious cycling events were organised weekend group rides (such as club or training rides) and large organised events (such as the Sydney to the Gong or the Spring Cycle), whereas casual examples are BUG rides (monthly Bike User Group rides) and younger group rides (often at night – see Figure 6.6 over the page). Here, clothing and the level of organisation involved both contributed to the 'serious' or 'casual' nature of these types of rides.



Figure 6.6: Cyclists meet at a pub after a night ride in Melbourne, 2014.

Identifying as a cyclist was not confined to physically appearing like a 'cyclist'. Many participants described how they cycled, and in particular commuted, in their regular clothes rather than in a Lycra kit. This was a very conscious decision and one that, in Sydney's often quite hostile cycling atmosphere, immediately singles out the rider as a non-conforming and perhaps more-vulnerable cyclist. Cycling in regular clothes is a signifier that the rider is a human being, not a genderless Lycra-clad human-machine hybrid and therefore should be treated like a human being (McNamara 2013). Clothing choice plays an important role in how some participants viewed themselves and how they thought that other road users would view/not view them. Alex's decision to eschew Lycra was in part due to this notion as she said 'instantly you say you're a cyclist and you're not a human being'. Curiously Dave, who also chose to cycle in his regular clothes, had noticed that over the past 18 months as he was growing his hair he 'found that [as] my ponytail's growing ... people are nicer to

me. I think it's because they come up behind me and think I'm a girl.' So clothing choice and even gender is used as a shield to protect participants from perceived hostility.

Some participants even spoke of the need to normalise cycling in Sydney, and to break down common stereotypes (such as the MAMIL). Normalising cycling was something that Tina, Skye and Alex were all really interested in and were achieving for themselves through wearing their everyday clothing and not-conforming to Lycra-road cycling norms. Alex said; 'I ... want to have a policy where I can just do it as a lifestyle choice rather than being that "cyclist", even though in my mind I'm still a cyclist I'm trying to work with the community ... to show them that you can just wear normal stuff to work.' For Tina, wearing her normal clothes when cycling was also a conscious choice to reduce the fuss involved in getting ready to cycle, and also to maintain her identity as a women, not a stereotypical Lycra-clad cyclist, she said:

I just wear dresses that's it. Because I can't be bothered, like, I can't think beyond that. It's like, 'oh I've got to coordinate the top and the bottom!' No, don't have time. Put the dress on, put make up on, put jewellery on, perfume, tights, boots in the winter, heels without tights in the summer. Done.

Similarly, Skye also chose to cycle in her regular clothes, most often a dress ('I'll just sit there mentally shaking my head at myself and go "you look crazy, you've got an insane looking bike with flowers hanging off it, you're wearing a big poufy dress, but you're trying to tear up a hill" [laughs] – Skye) because she rides an Electric Bike which means she does not work up as much of a sweat if she were on a 'normal bike', and refused to wear Lycra 'I don't want to have to be packing changes of clothes, changing at work, showering at work and carrying on'. Mateo also spoke about how he did not wear Lycra and instead cycled in his regular clothes ('I don't wear cycling gear, or Lycra or anything like that ... it's just all the same' – Mateo), as did Lief, Conor, and Dave. Wearing one's own clothes, rather than adopting a 'serious' (Will) cycling uniform both enabled participants to express their own identity, and also sent a message to other road users that, in Kaye's (diary) words 'old ladies have hot bikes and can still ride', or rather that cycling is accessible for everyone and 'you don't have to do the Lycra, you don't have to do the sporting gear' (Alex).

Returning to the notion of what it means to be a cyclist (or not a 'cyclist' per se) in Sydney, participants spoke about how cycling had connected them to a community, had become part of their identity, yet cycling also had a large influence on several participants' lives. Indeed, this influence was so profound for some that one could infer that cycling had transformed the shape of their lives or their outlook on life. Most notably, Tony, Roshni, Tina, Alex, Jan, Skye, Dave and Neve all described in detail how cycling had changed or even transformed their lives for the better and was something they felt intensely about. Tony attributed his recovery after a stroke to cycling, whereas Roshni spoke of how cycling was empowering for her as a migrant from a highly patriarchal and restrictive society, Tina and Alex spoke of how their obsessions with cycling were influencing their career paths, Jan and Skye both spoke of how cycling had become an integral part of their identities, and Dave described how life was much richer and more enjoyable with cycling and bikes in it. In this way, cycling becomes more-than about transportation, and instead is integral to people's sense of self and sense of place in the world.

6.6 Conclusions: Powerful cycling emotions and affects

The emotional and affectual experiences had on and off the machine of the cycle shape people who cycle in multiple ways, they are powerful and potentially transformative. In this chapter I have shown how attending to the emotional geographies of cycling highlights the ways in which cycling is made meaningful for participants, and the ways that the myriad experiences of cycling (on and off the machine of the cycle/in and out of the saddle) shape people's relationships with the city, the self and with human and non-human others. I find that cycling plays a significant role in many participants' lives, not only is it a way of exercising, staying fit, maintaining mental wellbeing, reducing stress, improving relationships and facilitating relationships with family and friends, but cycling has also transformed the lives of several participants. I find that emotions are embedded in everyday materialities including bodies, sweat, cities, and also temporality (where cycling has an emotional impact beyond the journey), and that the emotional experiences and encounters that cycling affords, can have quite significant impacts outside of the act of cycling itself. These findings

serve to extend current understandings of the emotional, embodied and affectual experiences of cycling, to include a diverse range of cycling practices and people who cycle. They also contribute to mobilities research and literature that illuminates the transformative and temporal aspects of mobility forms by expanding these considerations to the realm of cycling. The theoretical and methodological implications of these findings, and the findings outlined in the previous chapter, are explored in greater depth and brought into contact with the literature in Chapter Seven, with the planning and policy implications explored in Chapter Eight.

The experiences that each participant recounted and recorded of their cycle commutes and myriad other cycle journeys, inform their cycle journeys moving forward. Although most participants recounted how their commutes would usually play out, there were specific experiences and encounters (with human and non-human others as explored above) that had stuck in their minds and influenced the way that they cycled, choosing not to cycle on particular roads, or at particular times, or reminding one to maintain an awareness for danger or be on the lookout for wildlife. These findings reinforce the notion that emotions shape our experiences of being in the world, and give weight to recent discussion within mobilities studies of the role of practice memory (see Bissell 2014).

The emotional geographies of cycling shift and coalesce depending upon both external factors and internal factors. Internal (mental/physical) states combine with external influences including the weather, traffic (cycling, pedestrian and vehicular), human and non-human others, the material world (such as the physical cycling spaces in the city), and memory are engaged in a relational process of becoming (after Bawaka Country et al. 2013 & 2015, and Haraway 2008). Cycling can be viewed as a form of encounter – where the cyclist, through the act of cycling in space, encounters the world differently (to that of driving or walking). The cyclist, bike, and the environment are constantly involved in shaping and reshaping relations between the self, the city, and human and non-human others as each journey unfolds.

Cycling plays a significant role in my participants' lives, not only is it a way of exercising, staying fit, maintaining mental wellbeing, reducing stress, improving relationships and facilitating

relationships with family and friends, but cycling has also enhanced the lives of several participants. Cycling has become a part of my participants' everyday life in a way that matters to them. Participants place immense value on their cycling, and in a city such as Sydney, which does not have a great cycling culture (although local governments are working toward creating more cycling-friendly environments), their drive and desire keep cycling is tied up in their emotional and affectual experiences of cycling in Sydney. I find that these experiences reach beyond the cycling journey and permeate life in a multitude of ways both on and off the bike, to make one's cycling matter and endure.

The transformative capacity of cycling that I have started to uncover in this chapter is significant. Bringing an emotional geographies perspective to cycling practices has highlighted that cycling practices are potentially transformative for people who cycle. Indeed, as participants described the multiple ways in which their own diverse cyclings had permeated and impacted upon their lives, their political beliefs, their relationships, and their sense of place in the world, it became clear that cycling practices were potentially transformative for individual practitioners. This is in contrast to Chapter Five which, drawing on social practice theory, has shown how cycling practices themselves transform. By analysing cycling through these two lenses I have arrived at similar, yet important conclusions pertaining to the transformative capacity of cycling. Social practice theory and emotional geographies locate this transformation at different sites, and this is an important ontological difference between the two approaches. I suggest that it is through bringing these lenses together that a more nuanced and detailed understanding of how cycling practices change, persist, and impact upon people who cycle can emerge. I bring these lenses together in the following chapter (Chapter Seven) to discuss the theoretical implications of my findings, where I suggest that cycling should be considered as a relational process of becoming (after Bawaka Country et al. 2013 & 2015, and Haraway 2008), and discuss the wider planning and policy implications of these different approaches in Chapter Eight.

7

Reimagining Cycling as Becoming With

7.1 Introduction

The previous two chapters discussed the research findings through the separate lenses of practice (Chapter Five) and emotion/affect (Chapter Six), and this chapter explores the theoretical and methodological implications and opportunities of these findings, bringing them into contact with mobilities, cycling, and social practice theory literature. In Chapter Five I argued that cycling is a practice, but that there exist multiple and diverse cycling practices. I also argued that cycling is enfolded into multiple/other social practices, and suggested that cycling be considered as more-than a practice. Following this, in Chapter Six I argued that the emotional and affectual experiences of cycling are messy, highly contextual, embodied, extend beyond the cycling journey, and can be transformative. Accordingly, at the end of Chapter Six I suggest that a different understanding of cycling is needed, one that considers cycling in a more relational light. Each lens provides invaluable insights into the practices and experiences of cycling on their own. However, I posit that bringing the lenses into proximity focuses greater attention on important aspects of people's cycling practices that can be missed or under-emphasised by each separate lens. I suggest that *both* practice and emotion/affect need to be considered if we are to think about cycling differently. Importantly, I argue that it is by viewing my findings together that a new understanding of cycling as *becoming with* (after Bawaka Country et al. 2013 & 2015, and Haraway 2008) can be developed.

I begin this chapter by discussing the theoretical and methodological implications and opportunities of the research findings as set out in Chapters Five and Six (see each chapter for a detailed discussion of findings). I then bring each lens into proximity and draw out the major themes that cut across both the lenses, to explore the larger theoretical contributions of my study. These

themes are cycling identities, cycling materialities, and cycling temporalities. Following this discussion, I build upon the proposition made at the end of the second empirical chapter (Chapter Six), that cycling should be viewed as a relational process of becoming (building on the work of Bawaka Country et al. 2013 & 2015, and Haraway 2008). I argue that this framing of cycling as relational is core to developing a more nuanced understanding of cycling, one that is sensitive to the way(s) in which people who cycle make meaning through their cycling, enact/perform multiple cyclings, and embed cycling practices into their everyday lives. Becoming with, as a finding and theoretical contribution, emerges from the intersection of practice and emotional geographies, and takes shape as the findings from each lens cohere.

7.2 Reflections on Cycling Practices & Emotions: Summary of findings & theoretical contributions

This section discusses the thesis findings, highlighting the theoretical contributions from each lens, and responds to the overarching aim of the thesis to gain a detailed understanding of cycling utilising the dominant lenses of practices, and emotions and affect. I also set out to remedy the lack of attention paid to understandings of cycling within practice discourses and to the qualitative experience of a diversity of cyclings within mobilities discourses more broadly. I suggest that bringing different theories or schools of thought into proximity with one another enables a multi-layered approach to answering the research questions, and as such, separate discussion into practices (research question one – section 7.2.1) and emotion and affect (research question two – section 7.2.2). Following these separate discussions, I then turn to discuss the theoretical contributions and implications that emerge from bringing my findings (and the lenses) into proximity.

7.2.1 Cycling Practices: *How is cycling practised?*

My study confirms that cycling can be considered as a social practice. Indeed, my study finds that cycling can be constructively understood as a social practice as it has recognisable elements: materials, meanings, and competences (after Shove et al. 2012). This finding supports previous, although less-in-depth, research that viewed cycling through the lens of practice, and agrees with

contemporary understandings of social practices as being construed of elements (see Aldred and Jungnickel 2013, Larsen 2017, Spinney 2010, Spotswood et al. 2015, and Watson 2012 for examples of practice applications to cycling). The findings presented in Chapter Five of the thesis support previous work that loosely identified specific elements of particular cycling practices, including commuter practices (Spotswood et al. 2015, Watson 2012). I find that there are essential elements that are common across multiple ways of practising cycling and these include:

- Materials: a cycle, access to a path/road/cycleway to cycle upon, accessories and necessities for making cycling more comfortable, safer, and more enjoyable;
- Competences: knowledge of road rules, bike-know how, maintenance/knowledge of where to get help, navigational skills/access to navigation technologies, implicit bodily knowledge of riding, and confidence/coping strategies; and
- Meanings: freedom, enjoyment/fun, exercise/fitness, mental/physical health, and socialising.

These elements, although not exhaustive, are generally essential for a cycling practice to take place and in this respect my study also agrees with contemporary cycling research that is informed by practices.

My study extends existing practice-based research on cycling by providing a detailed account of the way(s) in which participants enact and perform diverse cyclings in Sydney. Indeed, I progress the small body of research on cycling that is informed by practices by identifying the elements of practice for a range of different kinds of cycling practices that are specific to the Australian urban context. More specifically, I extend the work of Aldred and Jungnickel (2013), Larsen (2017b), Spotswood et al. (2015) and Watson (2012) by proposing that social(soft) infrastructure (i.e. cycling social groups and cycling friends/family) should be considered as an essential material element for cycling practices. Moreover, as my study finds that elements are shared across numerous cycling practices, including commuting, recreational, utilitarian, and sporting cycling practices, I add considerable depth to the existing practice-based cycling scholarship. This is an important finding as it illustrates, and provides empirical evidence for, the diversity of cycling practices and malleability of cycling practices. Although practice applications to cycling research have been employed in a limited

capacity to date (see Spotswood et al. 2015, Larsen 2017b, and Watson 2012), my study adds considerable depth and detail to this body of knowledge by expanding existing evidence regarding the ways in which diverse cycling practices are enacted and performed in urban and peri-urban settings, and are made a part of everyday life.

My findings agree with contemporary understandings of social practices as being construed of elements that have a life of their own (Shove et al. 2012). In understanding cycling as a social practice with recognisable elements, it follows that elements emerge, disappear, and persist over time, and I find that this is true of the elements of cycling. In particular, the material of the cycle changes as one grows up/older and cycles more/or less. Different materials emerge and disappear as technological advances take place, fashions in cycling change, and governments invest in (or remove) cycling infrastructures, and competences emerge through the repetition of the physical act of cycling in time and space both alone and with others. Here, I extend contemporary understandings of the life of elements, by acknowledging that elements are both shared across multiple ways of practicing cycling and evolve or change at an individual/personal level, as well as at a broader social level. This also points to the importance of positive cycling cultures for supporting people's individual cycling practices, and reinforces the need to foster a range of positive cycling cultures within heavily-automobilised settings in order to encourage greater cycling (both in terms of new cyclists and existing cyclists).

My study has found that participants practised a diversity of cyclings at different times throughout their life courses, thus highlighting the multiplicity of cycling practices. This finding serves to illustrate a common thread throughout theories of social practice (see Shove et al. 2012 and Schatzki 2002), yet it also has implications for non-practice-based literatures. As such, I argue that cycling should be viewed as multiple/diverse within cycling research and within mobilities literature more broadly. This positioning will better reflect this dynamism and can start to dismantle many of the binary constructions of cycling within dominant understandings of cycling. For example, the quantitative results of the questionnaire outlined in Chapter Four, along with the qualitative findings detailed in Chapter Five, show that respondents and participants identified as performing multiple

different cyclings at different points in time, whereas cycling scholarship commonly focuses on one mode of cycling (i.e. commuting or leisure - see Jones & Burwood 2011 and Larsen 2017a). In my study only 8% of respondents identified as cycling for one purpose, whereas 72% of respondents identified as cycling for three or more purposes (see section 4.4 in Chapter Four). Close analysis of the qualitative data, collected through interviews and seven-day practice diaries with cyclists in Sydney, reveals that individual practitioners performed multiple cyclings at different times in their life-course and over the course of the seven-day practice diary. Taking these findings together, I propose a more nuanced understanding of cycling practices as diverse, flexible, and open to change. When applied to existing (non-practice-based) cycling scholarship, this understanding of the diversity and multiplicity of cycling presents a significant challenge to the binary ways in which cycling has been commonly viewed in transport geographies and planning literatures, whilst also providing greater empirical evidence to support recent mobilities scholarship which starts to explore the small ways in which people's mobilities behaviours change on a daily basis (see for example Bissell 2014).

The practice lens applied to my qualitative findings reveals that participants enact and perform their multiple cyclings through the bundling of specific elements in specific contexts. Although these bundles differ for different cyclings, many elements are shared across different cyclings (refer to Table A.7 in Appendix M) and I find that there are core or foundational elements necessary for any form of cycling practice. The interchangeable nature and flexibility of the elements of cycling practices, and in particular the ability of elements to circulate across and between specific cyclings, supports Shove et al.'s (2012, 43) conception of the life of elements as being relatively stable and simultaneously in flux – moving and changing as practitioner-carriers pick up and put down practices. I find that certain elements can be appropriated or translated from other social practices into cycling practices, and that the reverse is also true. This is significant for developing ways of intervening in practices and encouraging greater cycling uptake at planning and policy levels. I suggest that differing cyclings then, are practiced through the bundling of cycling-specific and non-cycling specific materials, meanings, and competences, and that these elements can be integrated into everyday life.

Close examination of the configuration and bundling of elements reveals not only the way in which my participants enacted and performed diverse cycling practices, developed skills and abilities to better improve their cycling, but that participants were practically and emotionally attached to cycling, their cycle(s), the social relationships formed through cycling, and moreover made meaning through their cycling. These findings suggest that the meanings and materials of cycling practices are given greater emphasis by practitioners than competences. The unequal emphasis of one element over another, in particular configurations of elements, supports contemporary practice theoretical work which identifies that meanings and materials must match in order for a practice to be performed (Shove et al. 2012). Yet my study also moves beyond this understanding of the life of elements, as I argue that materials and meanings do not need to match – as practitioners shift between cycling practices, often shifting meaning rather than materials (although participants sometimes shifted materials when switching cycles or when combining/intersecting cycling with other commuting infrastructures such as train travel).

I suggest that my study adds to understandings of how cycling has been positioned within existing practice-based cycling research, by illuminating how diverse cycling practices are enfolded into and intersect with other social practices. In addition to finding that cycling practices are dynamic and flexible, the study has found that cycling practices can be enfolded into other/multiple social practices and that people who cycle are not fixed in their cycling practices. Indeed, I find that cycling practices shift and change as practitioners themselves enfold their cyclings into other/multiple social practices. Specifically, the study found that these are sporting or exercise practices, childcare practices, shopping practices, socialising practices, and working or study practices, as well as more mundane practices of daily living. Thus cycling serves multiple and overlapping functions for people who cycle in Sydney, and is made a part of participants' everyday lives through enfolding it into other practices of daily living. Here, I extend current understandings about the way in which practices are integrated with other practices (Shove et al. 2012, Reckwitz 2002b), by providing a detailed account of how cycling practitioners in Sydney enact, perform, and embed their diverse cycling practices in their everyday lives, and posit that this integration takes place across multiple scales and times.

My study's findings suggest that the role of the individual within practice needs to be given greater consideration if a more nuanced understanding of practice is to be produced. This is particularly pertinent for approaches that utilise of Shove et al.'s (2012) three elements model of practices. Methodologically, there is increasing recognition that practice theory ought to re-examine the individual practitioner, for example through exploring the role of affect (Reckwitz 2017) or emotions (Weenink & Spaargaren 2016) within practices. However, Shove et al.'s (2012) model of practices often renders emotion and affect invisible, or less important, as focus is on the way in which a practice comes into being, is configured, bumps up against and connects with other social practices, and changes over time. Repositioning the individual within practices has implications for practices as well as implications for how scholars conceptualise research objects and subjects. Whilst the study identified the elements that participants bundled together in order to enact and perform their own diverse cycling practices, I have found that the propensity for practice theories to decentre the individual to be problematic. Decentring the individual becomes problematic when 'unbundling' cycling practices within the context of automobility, as the meanings participants attach to their cycling practices are highly individual and emotional. I argue that the individual and emotional responses of participants demand a closer examination of the role of the individual within practices. In doing so, I support recent applications of practice theories (Hitchings 2012, Browne 2016) that reposition the individual – human subject – within the research process, in order to give the individual a greater voice within practice work. Where practice has traditionally focussed attention on the practice (object) as the unit of analysis, this has been at the expense of the individual performing and enacting the practice(s).

I have attempted to reposition the individual practitioner within practices through the methodological hybrid by bringing two different, yet connected, approaches together. My thesis has shown how bringing a practice lens into proximity with the lens of emotion and affect, and drawing on well-established research methods from different epistemologies, such as emotional geographies and social practice theories, can usefully highlight different dynamics of transition and transformation within practices as well as illuminate how practices can be potentially transformative

for individuals. This finding supports recent work by Bissell (2014, 1946) who advocates for interstitial approaches to mobilities research to illuminate ‘the different ways in which mobility practices self-transform’. My study provides a methodological toolkit for re-examining the role of the individual and drawing attention to transformative capacity of cycling (at the practice and individual scales), through bringing two approaches together to look anew at the same research problem. I suggest that the role of the individual within cycling practices needs to be re-centred and that the individual practitioner-carrier cannot be easily or neatly separated from practices. In focussing attention on the elements of practice from the vantage point of the individual practitioner, my study has also highlighted how re-centring the individual smudges the boundaries between object and subject within practice discourses.

In proposing a more nuanced understanding of cycling as multiple cycling practices, or diverse cyclings, I also draw attention to the inherent danger of over-simplifying practices and caution against under-privileging individuals within practice-based approaches to mobilities. This is because my study has shown how individual practitioner-carriers shape their own unique cycling trajectories just as they are shaped by the structuring influence of practices. There is no doubt that a practice lens (after Shove et al. 2012) helps to make sense of cycling by simplifying cycling into elements, allowing for bundles and arrangements of elements to be identified. Indeed, the diversity of bundles subsequently highlights that there are a diversity of cycling practices that are performed in Sydney. Yet this act of simplification somehow misses the complexities of cycling, overlooking and subsuming the affective, emotional, and embodied aspects of diverse cycling practices that do not neatly fit into Shove et al.’s (2012) elements. I suggest that methodologically, Shove et al.’s (2012) three elements model confines analysis to the practice itself (which was the initial attraction in the model), meaning that individuals are not privileged within practices. This has methodological implications for how practices are researched, and I suggest that acknowledging the ease of over-simplification is a sensible first step. In order to more successfully overcome this hurdle, I suggest that future practice-based approaches to mobility forms should accommodate emotions and affect in their formations of practices from the start (after Reckwitz 2017, Wallenborn 2013, or Weenink & Spaargaren 2016).

I suggest that a practice approach to researching cycling cannot uncover sufficient depth of meaning on its own to fully attend to both of the research questions. The practice lens allowed for the elements of different cyclings to be identified, the commonalities highlighted, and the bundling of elements to perform diverse cycling practices to come to the fore. However, as previously stated, the affective, emotional, and embodied aspects of mobilities are difficult to box into the elements proposed by Shove et al. (2012). By interrogating cycling through the lens of contemporary practice theory, I have developed new insights into how practitioners enact and perform diverse cycling practices, and enfold cycling into multiple/other social practices. This detailed understanding of cycling highlights where the usefulness of practice ends and new theories are needed to help make sense of the complexities and messiness of everyday urban cycling that privilege the individual.

One way of thinking differently about practices is by bringing the experiences of the practitioner – their embodied, affectual, and emotional experiences of cycling – into closer conversation with ways of configuring and enacting practices. Within the context of my study, I have attempted to do this through the methodological hybrid as I drew on social practice theories and emotional geographies to probe cycling from multiple theoretical perspectives. I consciously tried to draw out the elements of practice and focus on participants' cycling narratives, however my participants' articulation and expression of the personal affordances of cycling practices, including freedom, empowerment, and a greater sense of self, could not easily be considered as fitting neatly into one element or another. This was a distinct limitation of the practice lens (after Shove et al. 2012) adopted for the study. For instance, some participants described their embodied emotions whilst in the saddle – but the practice lens tends to subsume embodied emotions into meanings (where a participant associates the meaning of a particular cycling journey with pushing their body to its limits) OR materials (as embodied emotions can be connected to the material of the cycle and of cycling uphill for example). Here, the value of the practice lens lies in tapping into the non-discursive by talking through routines and explaining habits (see for example Browne 2016, and Hitchings 2012) – both of which are largely ignored within transport planning scholarship and are integral to gaining a more nuanced understanding of cycling, particularly with the view to encouraging greater

uptake and moving away from the dependence on the private car. For my study, emotional geographies were brought into proximity with practices, and I aimed to shed light on what each lens could offer to understandings of cycling in Sydney.

The study's findings remind us that knowledge is partial (Haraway 2008). Indeed, my thesis finds that practice's focus on the practice itself overshadows some of the more highly charged or intense embodied, affectual, and emotional aspects of cycling, and I argue that a methodological hybrid can be employed to remain sensitive to both practices and emotions/affect. Historically, these aspects have been difficult to incorporate into social practices (Spaargaren et al 2016), and although recent practice discourse has drawn much needed attention to the importance of emotion and affect for practices (see Reckwitz 2017, Weenink & Spaargaren 2016, Wallenborn 2013), this discourse does not provide detailed empirical evidence to support these claims, nor does it offer a methodological toolkit to probe these aspects. I have argued that cycling can be considered as a social practice as it has identifiable elements, and in the process of identifying these elements I have shown how there exist multiple cycling practices. From this, I have argued for a shift in the way that cycling is productively understood within practice theoretical work and mobilities studies from a focus on a generalised, singular practice to diversity of cycling practices. This fundamental shift in the language used to describe cycling practices as multiple and diverse has implications for dominant, binary understandings of cycling (refer to the discussion of these understandings in Chapter Two), in addition to having implications outside of theory-based literature, for example in policy circles. At the very least, I suggest that moving to multiple cycling 'practices' rather than 'practice' acknowledges the malleability of practice(s) and allows for the nuances of small-scale shifts in the performances of particular practices, especially mobility practices, to be accounted for within and beyond practice discourses.

My research has also highlighted that cycling practices are highly emotional and affective. As outlined in Chapter Two emotional geographies provides a useful theoretical entry point for exploring the more-than practices aspects of cycling that participants' recorded in their diaries or spoke to in the interviews. The more in-depth descriptions of the emotional, affective, and embodied

experiences of cycling, all hint at the limitations in only focusing on the elements of practice and the interconnections of cycling practices with other practices. Emotion, affect and embodiment are implied within the elements of practice, for example Shove et al. (2012, 24) define materials as ‘encompassing objects, infrastructures, tools, hardware and the body itself’. As these aspects of the elements of practice are tacit and not made explicit, there is the tendency for approaches to practice theory to ignore the individual and for practice to underestimate or not capture emotions, affect, or embodiment particularly well (see Wallenborn 2013, Watson 2012, and Kent 2013). Accordingly, the second research question focuses the research findings toward emotional geographies discourses and I now turn to summarise the study findings as they relate to the second research question.

7.2.2 Cycling Emotions: *How does the practice of cycling/cycling practices shape emotions?*

The research finds that emotions are integral to the endurance of cycling practices, and that cycling practices shape emotions in tacit and implicit ways. This finding builds on recent work by Weenink and Spaargaren (2016) and Wallenborn (2013), amongst others, who find that emotions and affects are integral to social practices, and provides significant empirical evidence to support these claims within practice-based literatures that are currently not well supported. More specifically, my findings show how the physical act of cycling elicits a range of emotions, and that these emotions extend beyond the journey itself. Importantly, it is the capacity for cycling practices to shape emotions that extend beyond the journey itself, which enables people to continue to cycle. Indeed, the study also finds that cycling emotions are not always born in, or connected to, the act of physically cycling. Instead, I find that cycling emotions are influenced by the environment, human and non-human others, and the self, just as cycling influences one’s relationships with these. Cycling emotions then, are fundamentally relational. This latter finding is imperative to the development of a new understanding of cycling as relational, and I explore this contribution in greater depth in section 7.4 in this chapter.

My study has shown how the physical act of cycling elicits a range of highly emotional responses that are individualised, yet also collective, and these are embodied, discursive, and affective. For

example, cycling is felt through the body, yet it also affords much greater emotional responses as a space for reflection, for relaxation, and can engender feelings of empowerment and freedom. These few examples from my findings, although not representative of the gamut of emotional responses that participants described or alluded to, are representative of the transformative capacity of cycling, and the larger role(s) that cycling plays in individuals' everyday lives. It is through the multifaceted emotional experiences had on the bike, that cycling practitioners are able to make meaning through their cycling. Importantly, my research has shown that emotions are integral to the continuation of cycling and this finding challenges the way in which cycling is conceived of in transport planning and geography, as I argue that cycling is an integral part of people who cycle's everyday lives, and is more-than transport.

My findings contribute to work that reveals how cycling generates embodied emotions and generates particularly joyful experiences. Many of my participants described in great detail how it *felt* to cycle (i.e. feeling cold wind in one's face or the burn of one's calf muscles). These embodied emotional experiences that my participants described, builds on the work of Spinney (2006), extending understandings of cycling's embodied emotional capacity to include urban forms of cycling. In addition, the majority of participants also described and alluded to feeling joyful, happy, and free when riding. The articulation of joyful experiences generated through differing cyclings in my research expands the work of McIlvenny (2015b) beyond vélomobile family formations, to include myriad cycling practices that are not necessarily carried out with others. Indeed, my findings assert that a sense of joy is felt cycling alone as much as it is with others, and that joyfulness is not the sole domain of recreational or sporting cycling practices carried out in groups. This finding is important for opening up avenues for researching the cycling emotions of solo and group cyclists in all manner of locations, as no two experiences of cycling are the same.

My study finds that cycling emotions are not always born in, or connected to the physical act of cycling. Indeed, I have drawn significant attention to the sociality of cycling and to the importance of relationships to people who cycle. Cycling emotions extend beyond the physical act of cycling and cycling has very real impacts beyond the confines of the journey between points A and B. Indeed, my

study participants described and attempted to articulate what cycling meant for/to them, as well as the impact that cycling has had on their mental and physical health or wellbeing, their relationships, and their life outside of cycling. These broader emotional geographies of cycling, particularly the finding that cycling had positive mental health, wellbeing, and social impacts for participants, are core to the understanding of cycling emotions as extending beyond any individual cycling journey. Discussion of cycling communities, belonging, and of social cycling groups in Sydney links to the predominately interview-based work of Aldred and Jungnickel (2014b), and Aldred (2013a, 2013b, and 2010), whereby strong cycling communities and cultures encourage further cycling uptake, or at least encourage existing cyclists to cycle more.

Cycling practices shape emotions in multiple ways that are both tacit and implicit. In making this claim, I acknowledge the difficulty of getting at emotions within geographic research concerned with mobility practices. I argue that it is important to consider practices AND emotions, to more fully comprehend the way(s) in which people enact, perform, and experience their mobility practices. My study supports recent claims within practice discourses that ‘people can talk [and write] about their practices in revealing ways’ (Hitchings 2012, 61). The emotional geographies of cycling were spoken of and written about by participants, however not every emotional response to cycling (be it the act of cycling or to cycling cultures in general) could be inferred from the data. Instead, emotion was sought in participants’ facial expressions, exclamations, laughter, and silences in interviews, as well as in the content of interviews and diaries. This has methodological implications for researching cycling. The success of this approach in ‘getting at’ emotion and affect builds upon the work of mobility scholars that utilise the interview to explore mobile emotions and affect including Adey et al. (2012), Bissell (2011), Spowart and Narin (2014), and Waitt (2014). It also presents an alternative to cycling scholarship that utilises go-along recording methods (McIlvenny 2015b, Spinney 2011, 2006). People can indeed speak and write about the more emotional aspects of their mobility experiences in revealing and insightful ways.

My study’s findings also have methodological implications for practice and mobilities scholarship. The study supports the capacity of more traditional talk-based methods, to elicit

important insights into the emotional geographies of mobilities. My research finds that participants can talk openly about their embodied emotions – the feelings and sensations of physically cycling – using a reflective writing task as a primer to a more in-depth interview. This finding builds on the work of Hitchings (2012) who uses the interview to talk about the intimate and often mundane details of practices, and Browne (2016) who uses talk in a humorous manner, whilst also extending the work of Spinney (2006) on the kinaesthetic experience of cycling, to include stationary, reflexive semi-structured interviews as being a useful tool for eliciting emotion and affect as it pertains to the cycling body. This later proposition is important for mobilities scholarship, as I reassert claims by Merriman (2014) that mobilities research does not necessarily need to rely on methods that are ‘mobile’.

My study has drawn connections between participants’ emotional experiences of cycling and their relationship(s) to ways of being mobile in the city. For some participants, the intensity of this relationship extended to their rejection, or decreased use of, the private car (see section 4.4.5 in Chapter Four and Table A.4 in Appendix K). This finding builds on the work of Klocker, Toole, Tindal, and Kerr (2015), who found that migrants have less of an attachment to the private car in Australia. Indeed, 11 of my participants did not own a private car, with three (Tina, Brian and Olivia) out of the five participants (Brian, Roshni, Lief, Tina and Olivia) who had migrated to Australia as adults included in this list. Most of my participants, regardless of their country of origin, eschewed the private car, with some even selling their cars (for example Skye and Neve) and tow letting their licences expire (Skye and Brian). My study extends this work to further develop the idea that transport practices are increasingly characterised by diversity and dynamism. Indeed, my study has shown that people who cycle can become less attached to the private car, and also utilise the cycle in multiple and diverse ways.

Participants’ discussion of the perceived health (both physical and mental) benefits of cycling supports extensive research on the connections between cycling and quality of life (see for example Crane et al. 2015 & 2017). My study has recorded critical qualitative evidence of the capacity of cycling to positively benefit the physical and mental health and overall quality of life of people who

cycle. More importantly, the study finds that these benefits extend beyond the journey itself – this is a significant finding that presents opportunities for more longitudinal qualitative studies of cycling.

The emotional geographies of cycling are integral to the continuation of cycling. Given the findings outlined above, my research supports much emotional geographies work that argues that the importance of emotions should not be underestimated (Anderson and Smith 2001, Bondi 2005), and also provides a methodological toolkit for revealing the role of emotions and affect within practice-based work as this is an under-researched area with little empirical evidence and methodological discussion (Spaargaren et al. 2016). My study uncovers the ways in which cycling can become embedded in the way that people navigate the city, but also the way in which they navigate relationships and make sense of their place in the world. If we take seriously the notion that cities are (re)produced through emotions, and our relations to space/place and human/non-human others are shaped by emotions, then it follows that the emotional experiences had on and off the bike necessarily (re)shapes how practitioners relate to the self and human and non-human others in the city. Attention now turns to explore the ways in which cycling practices and emotions, when brought into proximity, elucidate particular aspects of cycling that are imperative to further developing the notion of cycling as becoming with.

7.3 Practices, Emotion and Affect in Proximity

I suggest that bringing the lenses of social practice theory and emotion and affect into proximity to view cycling uncovers specific theoretical contributions that neither lens on their own can reveal, or only partially reveals. Through my research I have uncovered the ways in which cycling is enacted, performed, and sustained by people who cycle, and explored what it means, from an emotional geographies perspective, to cycle in Sydney – and the findings and theoretical contributions from these lenses are explored above. However, these findings and contributions primarily belong to each individual lens and provide partial understandings of cycling practices and experiences. When viewed in proximity, it becomes clear that each lens obscures particular aspects of cycling, and these have theoretical implications for practice theories, emotional geographies, mobilities, and cycling. I posit

that by bringing the lenses into proximity, and examining findings side by side, I am able to make new claims about the relative importance of the role(s) that cycling can play for people who cycle and contribute to theory in distinct ways. I explore these contributions through the themes of cycling identity(ies), cycling materialities and cycling temporalities below. These discussions, together with the study's responses to the two research questions above, assist in the development of a new understanding of cycling as a relational process of becoming (after Bawaka Country et al. 2013 & 2015, and Haraway 2008), and this is explored in section 7.4. I now turn to explore the contributions that the lenses produce when brought into proximity (in a hybrid sense) through each of the aforementioned themes, beginning with cycling identity(ies).

7.3.1 Cycling Identity(ies)

Cycling, and cycles, are integral to people who cycle's identity formation, and cycling identities are integral to the continuation of cycling. The lenses of practice and emotion and affect used in the study have shown in different ways that people who cycle, at times unwillingly or unconsciously, form an identity(ies) that is connected to their particular cycling practices and/or identify as 'a cyclist' or a 'person who cycles'. The study has found that a cycling identity(ies) can also be connected to the materiality of the cycle, and to one's outward appearance in so far as what one chooses to wear and how one chooses to behave on the cycle. Moreover, the study has highlighted the emotional importance of belonging to/or engaging with a cycling community to participants. Examined individually, each lens has only hinted at the importance of identity for cycling and people who cycle, yet examined together, these findings make important contributions to cycling scholarship. I now explore some of the implications that attending more closely to cycling identities (and communities as an extension of this) has for cycling, mobilities, practice theory, and emotional geographies.

Developing a cycling identity is integral to one's inclination to continue to cycle, and identities are multiple/shifting. One's cycling identity can be individual (tied up with self-worth/sense of self and unconnected to specific cycling cultures) or collective (linked to a broader sense of belonging to a group – however that group may be defined). At the same time, a cycling identity(ies) is often multiple and in flux. The point here, is that the cycle (in all its forms), the associated affordances and

meanings of cycling, and the social relationships formed around/through the act of cycling, can significantly influence one's sense of identity, one's sense of self, and one's sense of belonging or non-belonging to a broader community – and the same is true of the reverse, as the cycling identity(ies) one adopts/portrays influences the experiences had on and off the cycle. This relationship, between cycling and individual and collective cycling identity(ies), becomes particularly pertinent in cities such as Sydney that do not have a long history of cycling, or a strong cycling culture. To cycle in Sydney is to put one's self/body in public, car-dominated spaces and make claims to the cycling spaces of the city (both physical and virtual [online and imagined] – see McNamara 2013). By bringing practice and emotion and affect into proximity, the importance of identity comes to the fore – it is imperative for both the continuation of a cycling practice, and the formation of positive cycling cultures. In highlighting the importance of cycling identity(ies) I extend existing cycling and mobilities scholarship concerned with identity (see Aldred 2010, 2013a & b) and draw particular attention to the existence of 'overlapping and multiple, sometimes conflicting identities' (Aldred 2013a, 264). I argue that the multiplicity of cycling, whether in regard to identity or ways of practicing cycling, is too often overlooked within cycling scholarship and call for greater academic attention to be paid to multiplicity.

There is a diverse range of cycling identities and this complicates the way that people navigate and negotiate their own cycling identity(ies). Cycling identities are complex and often in flux, and there is not a single 'cycling identity', however adopting particular identities assists people who cycle to 'fit' their chosen mobility form(s) with their lifestyle and portray a particular message to other road users. For example, some participants identified more strongly with particular cultures or ways of performing cycling (such as commuting to work in regular 'work' clothes), and disassociated themselves from other people who cycled, such as cyclists who displayed a disdain for the road rules (i.e. by running red lights) or who wore Lycra cycling kits. I suggest that this underlying otherisation of differing cycling identities/communities by particular cyclists themselves points to the need to acknowledge the diversity of cycling practices, both for cycling researchers and for practice theorists.

By identifying the undertone of a division between ‘good’ and ‘bad’ cyclists/cycling identities²⁴, and the existence of processes of otherisation, I contribute to work by Aldred et al. (2016), Aldred (2013a), and Aldred (2010) that finds identity, stigmatisation, and behaviour are linked within cycling cultures. It is my contention that, in a city in which cycling is largely marginalised, constructing a cycling identity, whether as a Lycra-clad MAMIL/MAWIL, a normal person who happens to cycle, or something else entirely, becomes imperative for people’s ability to sustain their cycling. The importance of identity to the endurance of cycling is not highlighted in existing mobilities scholarship concerned with cycling. My work deepens existing understandings of identity formation within cycling, and in doing so, I highlight that a cycling identity(ies) is relational (Wright 2015), in that it is connected to the material cycle, clothing, public perceptions of cycling, encounters and interactions on/off the bike, behaviours, and a sense of belonging – it both produces/shapes and is re-produced/shaped (Ahmed 2010, Wright 2015).

My study finds that a cycling identity is developed over time and is not fixed and this implies that there is also a temporal element to identity.²⁵ Commonly, those participants who had been cycling in Sydney for several years felt a stronger connection to a cycling community or more readily identified as a cyclist. In comparison, those who were not regularly cycling and/or had not cycled in Sydney for a lengthy period, felt less connected to a broader cycling community, were less inclined to identify as a cyclist, and some also employed behaviours that actively portrayed their unwillingness to be classified as a Lycra-clad cyclist by the broader public. In addition, one’s relationships with other people who cycled also influenced this sense of identity, and identities were picked up and put down as one shifted between cycling practices and employed different bundles of elements (a commuter cyclist on one day, and a serious Lycra-cyclist another day). This temporal aspect to identity is not made explicit within mobilities scholarship concerned with cycling, and my research goes some way to highlighting the relationship between the two. Despite this lack of attention paid to the relationship between temporality and identity with regard to cycling, there does exist research that

²⁴ Fostering ‘good’ cycling identities using the insights from practice and emotion and affect is explored in the following chapter.

²⁵ I explore cycling temporalities in greater depth in section 7.3.3 of this chapter.

highlights the relationality of the two (see for example Middleton 2009, Waitt and Gorman-Murray 2011). For Middleton (2009, 1949), it is the exploration of ‘the multiple temporalities in [her participants’ mobility] ... patterns [that] make visible their multiple identities’, and I argue that my research has made visible multiple temporalities through discussion of multiple identities.

The study finds that there is a mismatch between individual/collective cycling identities and the broader perceptions and representations of cyclists in western car-dominated environments. Through this finding, I extend current research concerned with cyclists’ identity/ies (see Aldred 2015) and challenge images of cycling in mainstream society (see Daily and Rissel 2011 and Osborne and Grant-Smith 2017) to encompass the less-researched female cyclist (someone who is also a mother, partner, student, single, professional women etc.), the everyday cyclist (where cycling is practical), the younger cyclist, older cyclist, people who simply happened to cycle as a part of their everyday lives, and people for whom cycling has become normalised.²⁶ Indeed, my participants’ discussions of their own cycling identity(ies), and their socio-demographic characteristics (refer to the discussion of these in Chapter Four, section 4.4), presents a significant challenge to the dominant paradigm of cycling in western car-dominated environments as being the domain of middle-aged white males (e.g. the ‘weekend warrior’ or ‘MAMIL’). It is important to note, however, that participants both adhered to and broke away from this dominant image of a cyclist in small, and not so small ways.

The prevailing image of a ‘serious’ cyclist as a middle aged white male, wearing Lycra, cycling in a group with other middle aged white men early on a weekend/weekday morning was perpetuated by three participants: Tony, Pat and John. However, other younger male participants also participated in bunch/group cycling activities that involved the wearing of a Lycra cycling kit, as did several female participants whose ages ranged from the early 30s through to mid 60s. Many of the participants who identified with the serious/fitness image of a cyclist and actively participated in weekend or weekday early morning group rides wearing Lycra, also held onto other cycling identities. In contrast, other participants would actively choose to disassociate themselves with the Lycra-cyclist stereotypes,

²⁶ This list is by no means comprehensive, but does illustrate the diversity of people who cycle. My participants were not just middle-aged and/or wealthy white males. Indeed, half were women, and only three participants (Tony, Pat, and John) were middle-aged white men who rode with groups of cyclists wearing Lycra regularly.

instead choosing to dress in less-sporty looking clothing, with several participants choosing to dress in their regular clothes such as trousers and button up shirt, jeans, skirts, or even dresses, and several participants switched between cycling practices and thus identities. These kinds of contrary cycling identities present a challenge to the dominant discourse of cycling and cyclists as being Lycra-clad MAMILS in Sydney, as participants are engaged (whether knowingly or unknowingly) in making political statements – they are cycling and they are here to stay. Moreover, the diversity within female cycling identities has been largely ignored within cycling discourses, with the exception of Bonham and Wilson (2012) and earlier work by McNamara (2013), and my thesis goes some way to redressing this. This thesis makes particular contributions to understandings of cycling as dynamic, and open to change, with regard to identity(ies). From these findings, I argue that the very existence of multiple and shifting cycling identities points to the growing public and local government support of cycling in Sydney, as well as the inherent dynamism of cycling, and suggest that there are opportunities to examine identity(ies) in other locations.

The study's finding, that cycling and cycles are integral to participants' identity formation and thus their inclination to continue to cycle, highlights the importance of a cycling identity(ies) to people who cycle. Yet it also highlights the importance of a cycling identity and identity formation to the development and successful continuation of a positive cycling culture in Sydney. In highlighting the importance and complexity of a cycling identity(ies) for my participants, I further support similar findings by Aldred and Jungnickel (2014b) and Aldred (2013 & 2010), that propose the existence of a 'cycling citizen', identifying both 'good' and 'bad' cycling citizens. My participants were actively aware of their behaviour when cycling, and also as drivers toward cyclists, and how this behaviour (including their choice in clothing) portrayed a 'good' or 'bad' cycling identity. My study adds to this growing body of work on cycling identity(ies) by drawing attention to the importance of a cycling identity(ies) to people's continuation of their own cycling practices.

The continuation of one's cycling practices, and the development of specific cycling identities and a sense of belonging to a broader cycling community feed into discussion of cycling cultures and thus, politics. Indeed, Aldred and Jungnickel (2014b) argue that the existence of a cycling culture

matters for cycling practices to endure, and I add to this claim by suggesting that cycling cultures also matter for developing cycling-friendly politics. From the outside this seems a fairly obvious connection to make, as the better or more well established a cycling culture is in a certain place, the more people are likely to cycle in that place, and cycling is better placed to become normalised (see Chapters One and Two for more detailed discussion of cycling cultures at differing scales). Yet Shove et al. (2012) highlight that a cycling culture is deeply entrenched in the meanings that both cyclists and non-cyclists attribute to cycling and the relationship between the two.

My study has shown that there exists a relationship between the individual meanings cycling practitioners attribute to their cycling, cycling cultures, *and* a broader social acceptance (or rejection) of cycling. For example, participants' discussion of their feelings about finding their place in the (Sydney cycling) world or a sense of belonging, are suggestive of the broader politics of inclusion/exclusion at play within Sydney's transport arena. People's "'feelings' for particular modes of transport [are] ... highly ... political' (Waite et al. 2017, 340) and the feelings of belonging or non-belonging to a cycling community, and belonging/non-belonging in the cycling spaces of the city, that my thesis uncovered necessarily point to a politics of acceptance within certain sections of society. The flip side of course, is that cycling's normalisation has a long way to go in Sydney, as there exist tensions at the state and local governance levels (refer to Chapter Four). This finding 'underlines the relationality and constant re-making of place, and its connection to new politics of cycling' (Aldred and Jungnickel 2014b, 85). For cycling to continue to grow in Sydney, there needs to be both diverse and strong cycling cultures, and a supportive non-cycling community, which should include politics.

For many of my participants, cycling had become a part of their everyday lives in a way that matters. It matters in ways that are hard to conceptualise, were at times hard for participants to articulate, and that were at times a challenge to represent. For some participants, cycling had started as a convenient and affordable way to keep fit but had since become a part of their identity. For others, cycling was something that they just happened to do and it did not hold too much weight or importance in their lives, yet they had not given much thought to what they would do if they were not cycling. Whereas for other participants, cycling had become integral to their way of life – filtering

into most or all aspects of their daily lives to such an extent that some participants became ‘involved in [cycling in] some concrete way’ (van Dooren 2014, 291). This finding, that cycling becomes a part of how one sees one’s place in the world and makes sense of the world, supports the argument that cycling shifts one’s relationships with the city, the self, and with others. I suggest that it is the transformative capacity of cycling that my findings hint at, which opens up the need to view cycling as a relational process of becoming with (after Bawaka Country et al. 2013 & 2015, Haraway 2008). Viewing cycling in this way also echoes discussions of care and becoming-with within environmental humanities scholarship (see Puig de la Bellacasa 2012, van Dooren 2014, and Wright 2014), and I explore this further in section 7.3 of this chapter. Returning to why cycling matters, or rather, the implications that cycling mattering has for understandings of cycling and mobility more broadly, the very fact that cycling matters and can be deeply meaningful for some people who cycle, suggests that our mobility decisions have implications beyond the brute fact of movement. Importantly, these findings deepen existing understandings of cycling and recreational forms of mobility that seek to trouble prevailing conceptions of transport as speedy, linear, and straightforward (Aldred 2015, Cook et al. 2015). For Cook et al. (2015) jogging for the sake of jogging carries significance for those that jog, just as cycling is important for those that cycle (Aldred 2015, Spinney 2010). What my study has shown, is the nuanced and detailed ways in which cycling becomes meaningful and matters for people who cycle. This is in part connected to the development of a cycling identity(ies), however more broadly, these findings also highlight how mobility decisions have political, personal, emotional, and social implications – all of which extend beyond the individual cycling journey (I explore this extension in section 7.3.3 of this chapter).

Approaches to theories of social practice would suggest that cycling has to integrate with life in order for it to happen and endure (Everts, Lahr and Watson 2011), and the findings presented in my thesis support this claim. Yet I add to this understanding, by suggesting that emotions are also integral to the continuation of an individuals’ cyclings, and a cycling identity is also integral to this endurance. Indeed, my participants had all successfully integrated cycling into their everyday lives in small and not so small ways, and, as the above discussion suggests, developed their own cycling

identities or sense of self connected to cycling. Shove et al. (2012, 76) have stated that cycling to work was once a 'deeply embedded' social practice that was slowly erased by the advent of the automobile and the time-space compression that it afforded. However, by viewing cycling through both the lens of practice and emotion and affect, I find that cycling's multifaceted emotional affordances, as well as the meanings people make through their cycling (irrespective of the time-space compression that some people who cycle get out of their commuter cycling practices) are evidence that cycling practices, in urban Sydney at least, have not been entirely expunged by Sydney's culture of automobility. Indeed, cycling endures and thus it MUST have been integrated into enough practitioner-carrier's lives in order for this to happen. It is important here to recognise that whilst Shove et al. (2012) are likely alluding to the well-documented decline in cycle commuters from the 1950s onwards (Mees 2010) in many Western cities, cycling practices were never truly erased.

My thesis agrees with contemporary understandings of practices as 'always [being] on the move ... [and] not fixed' (Shove 2017, 163). As illustrated in Chapter Six, a diversity of cycling practices endure as individual practitioners (my participants) pick up and put down different cyclings over their 'life course' (Bonham and Wilson 2012), thus shifting their cycling practices. Importantly, my findings diverge from practice theoretical understandings as I foreground the individual practitioner-carrier within the process of flux and call for greater attention within practices to be paid to the role of the individual within practices of mobility. For the majority of my participants, switching between different cycling practices (for example between commuting and recreational group cycling) was part of their day-to-day lives, and part and parcel of a cycling identity in flux. If the 'point in practice theory is to firstly observe the role of the practice in the context of the routines of day-to-day life' (Kent and Dowling 2013a, 89), then it follows that the role(s) of cycling practices are diverse and flexible – serving multiple functions and purposes, and engendering different identities at different times (and places) throughout the day, week, month, or even life-course. My findings thus contribute to more nuanced understandings of practices that take the messiness and complexity of everyday life into consideration (see for example Hui 2013), further troubling the relationship between behaviour change and practices (Shove 2010). Cycling practices are embedded in the details of doing every-day

life, and this has implications for how we think about the city and the function that the city serves (explored further in Chapter Eight).

The multiple affordances of cycling carry multiple meanings for participants – and it is these meanings that are worth pursuing in an effort to move to more sustainable transport futures. Meaning becomes important for encouraging cycling, as Nettleton and Green (2014, 239 emphasis added) suggest that ‘efforts directed at changing practice might usefully focus not on behaviour or environments but on identifying the *social fields* in which mobility practices are likely to be malleable’. Whilst the practice lens drew attention to the important social meanings that participants attached to cycling, a closer examination of the emotional and affectual impact of cycling on social relationships revealed the intensity of the social fields that cycling occupies for some cyclists. As cycling holds intense meaning, including social meaning, for many of my participants, there is a potential role for cycling in transitioning towards a less car-dependent future as cycling practitioners feel a keen sense of belonging to a group, and also feel empowered by the very act of cycling as they take the positive impacts of cycling into their daily lives – extending beyond the cycling journey. I suggest that it is through looking at cycling’s meanings in depth, through the lenses of practice and emotion and affect, that these relationships between people, places, and practices in cities cohere. I suggest that revealing these relationships can have tangible outcomes for how we think about mobility into the future and I argue that there is value in exploring the deeper meanings attached to mobility forms (Waite, Harada, and Duffy 2017) for this very reason.

7.3.2 Cycling Materialities

The thesis has highlighted the importance of the materiality of the cycle and its associated technologies, infrastructures, and accessories, for practice theoretical and emotional geographical understandings of cycling. It is important to note that neither lens deals with cycling materialities completely, with each lens viewing materials/materiality in different ways. Practice theories tend to ‘foreground the material features’ (Maller, Nicholls and Strengers 2016, 2) of the built and natural environment and tangible objects (such as bodies/things/stuff) as part of what makes up a practice, or a nexus of practices. In contrast, emotional/affectual responses to materialities tend to focus on

the relationships between materialities and bodies (Anderson and Wylie, 2009, Pile 2010). I suggest that by bringing these lenses into proximity, a more careful examination of cycling materialities is produced. Indeed, these lenses together reveal that participants became attached to their cycle(s) in multiple ways and that the experiences (emotional, affectual and embodied) of cycling are intimately linked to the machine of the cycle. Whilst the practice lens highlights the materials employed in enacting and performing a cycling practice, the lens of emotion and affect reveals the ways in which people make meaning through these materials.

Without the machine of the cycle, cycling practices cannot take place. The study found that participants, as discussed in Chapters Five and Six, collected a large array of materials to put on their cycles, in addition to owning multiple cycles. More importantly, the study found that many participants became attached to their cycle(s) and their cycling accessories/necessities, as well as their regular cycling routes. This attachment to the material cycle, to accessories/necessities, and to place (cycling routes), and the importance of the cycle is significant. I suggest that the importance, both practical and emotional, of the materiality of the cycle presents a challenge to the notion raised by Aldred and Jungnickle (2013), that the bicycle when not ridden is mundane. In contrast, I suggest that when not ridden, the object of the cycle is far from mundane and is indeed highly symbolic and emotionally charged for the cycling practitioner. However, more research is needed to understand this relationship between the cyclist and cycle in Sydney.

Focusing on practices and emotions/affect shifts understandings of mobilities with regard to materialities. The relationship between materials and embodiment in emotional geographies is particularly fuzzy, and this is in sharp contrast to the relationship between the two in social practice theory, whereby embodiment is subsumed within the elements of practice. Bringing the two lenses into proximity to examine cycling has highlighted how these different treatments of embodiment and materiality potentially obscures aspects of cycling that are imperative to gaining a nuanced understanding of the mobility form. It is my contention that the embodied experiences of mobility are partly shaped by the materiality of (and of people's relationship with) the things that people carry with them/ride upon, and put on when journeying. But this is only part of the picture as one's

relationships with human and non-human others, the city, and the self are also shaped through cycling, whether mobile or immobile. Hui (2013, 903) suggests that '[s]tudying mobilities through the frame of practices is ... important because it sheds light on how people are 'mobile-with' practices and the elements that compose them.' I agree in so far as my participants are mobile-with their practices as they enact and perform them, however I add to Hui's (2013) argument, by extending being mobile-with to encompass the impacts/affects of cycling that extend beyond the act of journeying. People practice their diverse cyclings off the material of the cycle, through shopping for cycling gear/accessories, engaging with cycling-social media/politics, in simply talking about cycling, and by making meaning through cycling (as evidenced in Chapter Five and Six). Indeed, I suggest that an emotional geographic perspective of the material elements of cycling practices foregrounds the embodied, affectual, and emotional connections between materials and doing cycling.

My study has uncovered the way in which cycling can become embedded in the way people navigate the city, but also the way in which they navigate relationships and make sense of their place in the world. If we understand that 'emotions play a crucial role in the 'surfacing' of individual and collective bodies' (Ahmed 2004a, 25), then it follows that cycling emotions play a role in one's becoming with the bike. In the process of becoming with, a cycling practitioner-carrier is engaged with (re)shaping relationships with the self, the city, human and non-human others, and in particular with the materiality of cycling spaces and the machine of the cycle – as connections to objects, place and space are forged, remade, and broken as one cycles.

7.3.3 Cycling Temporalities

The findings presented in this thesis through the lenses of practice and emotion/affect, when taken together, disrupt linear conceptions of time, especially when considering the existence of multiple cycling practices and the capacity for cycling to have impact beyond the journey. By acknowledging the malleability of time (the affordances and benefits that cycling in space and time has – the temporal dimensions of mobility), my thesis contributes to existing research and literature that recognises the existence of 'time-deepened processes' (Jones 2009, 272), whilst also agreeing with research that acknowledges that 'practices are inherently temporal' (Hui 2013, 892 referring to

Bourdieu). Throughout the findings presented in Chapters Five and Six, and the above discussions of the implications of these findings, I have hinted at an undercurrent of temporal flexibility. Indeed, it is my contention that viewing cycling through the lenses of practice, emotion and affect necessarily makes time liquid, and affords space 'to offer a less stable version of the everyday, and through this a sense of practice as an activity creating timespace not time-space as some matrix within which activity occurs' (Crang 2001, 187).

For my participants, cycling afforded multiple understandings of temporality that both challenge and support conventional understandings of time as linear, and challenge conceptions about how cities work. Specific ideas exist about how cities work, whether through formal planning processes, or our understanding of urban inhabitants as rational creatures, for example a transport system that works to a time frame or timetable (Adam 1990, Crang 2001). In contrast, when cycling one is not constrained by timetables, and many of my participants made this point. Transport planning scholarship has tended to reaffirm the perception that everything works to a time frame or timetable, which perpetuates this idea that we (i.e. academics/planners) sit back and formulate ideas that we then go out and implement through action (Curl and Davison 2014). The decision to cycle has been traditionally viewed by planners and transport geographers as a rational choice, one which 'prioritis[es] ... the destruction of distance and the minimisation of time spent travelling' (Aldred 2015, 686). However, talking to cyclists about their cycling practices, and eliciting practice diaries, revealed that ideas can and do form and emerge through the action (cycling or writing and talking about cycling) itself. For example, a participant changing routines, cycling for different reasons, making time to do a plethora of things (other than move from A to B) whilst on the cycle, feeling time speed up/pass quickly or slowly, or using cycling to beat the 'time squeeze' refutes the claims that cycling is a rational, linear, mobility form. Rather, I argue that cycling makes time liquid. This challenges conceptions of linear time as well as dominant ideas about how cities work.

Cycling affords multiple temporalities as people who cycle use cycling to stretch or squeeze the most out of their time spent cycling. This finding is not surprising, however it becomes important when considering the ways in which cycling and cyclists 'create... [their own] timespace' (Crang 2001,

187). For example, many participants attributed positive mental health benefits to cycling and drew the connection between the time spent in the saddle as being important to them. Indeed, by making the connection between cycling and time. At the same time, participants also described being able to squeeze more out of their day through the use of the cycle. These two examples show how time spent cycling can be considered as productive in multiple ways, and as a gift. In this way, my fine-grained approach to exploring cycling experiences progresses existing research which views travel time as a gift (Jain and Lyons 2008, Cook et al. 2015). This in turn can have implications for how cycling is portrayed to a broader, non-cycling public.

Cycling troubles linear conceptions of time as it has impact beyond the journey – and each experience on the cycle informs journeys moving forward. I have shown in Chapter Six how cycling experiences last beyond the duration of a cycling journey as they have impact beyond the start and completion of any one journey. Indeed, cycling's meanings and emotional geographies extend beyond the journey itself – and live to play an important role in how people make sense of the world. The act of cycling brings forth memories that influence the shape of the journey at hand, and the impact of the journey itself is felt and realised beyond the conclusion of the journey itself – through memory, bodily-memories (where the body knows what to do and we learn from mistakes), physical/bodily impacts, as well as social impacts (i.e. as relationships form through cycling). The dual lenses of practice and emotion and affect have unveiled these two aspects of cycling which, when viewed alongside the existence of multiple cycling practices as revealed by the practice lens, do much to disrupt linear conceptions of time. My understanding that cycling temporalities are in flux echoes the work of Bissell (2014) around the role of memory in driving mobilities, Hui's (2013) work on leisure mobilities, and similar claims by Vannini (2014) and Sheller (2014), in addition to contributing to the well-established literature on time-geographies more broadly (see Crang and Thrift 2001). Indeed, the trouble with time or temporality is that it is socially constructed, thus any actions that disrupt or alter this construction necessarily must also be constructed.

No two journeys are ever the same, yet the very act of repetition (jumping on one's cycle and travelling to the shops, or to place of study or work, or to visit a relative or friend, or just for fun and

the thrill of it – and indeed the repetitive action of pedalling) invites memories (corporeal and cerebral), which in turn influence (consciously or subconsciously) the way in which the practitioner/carrier enacts the practice; but also in how they view the practice as it extends beyond the journey itself. Bissell (2014, 1950) suggests that the past influences practices and practice transformations, so that ‘the experience of tomorrow’s commute will be different from today’s, not just because other things might be encountered, but because each experience in time alters the constitution of bodies and milieus.’ The study found that the experiences that each participant recounted and recorded of their cycle commutes and myriad other cycle journeys, inform their cycle journeys moving forward. This finding supports Bissell’s (2014) work on commuting memory, and extends the application of it to other mobility forms, such as cycling.

My study has shown that cycling emotions extend beyond the journey itself, just as the meanings people attach to cycling, and the embodied experiences of cycling, extend beyond the journey itself – and that this extension troubles traditional understandings of time. The capacity for cycling to move people beyond the act of journeying is illustrative of the significant relationship between emotions and ways of being mobile. These findings agree with a well-established body of knowledge that suggests commuting can disrupt traditional understandings of temporality, especially clock time or linear paths (Edensor 2011). However, in finding that people’s cycling emotions have reach beyond each individual journey, I also extend discussion of commuting mobilities as disrupting clock time to include multiple cycling practices, other than commuter practices. Here, the slower pace of recreational or leisure cycling and its capacity to slow down, draw out, and carve out time to relax/meditate becomes important. Indeed, Cass and Faulconbridge (2016), Cook et al. (2015), Middleton (2009), Bissell (2014), and Hui (2013), among others, all draw attention to the multiple temporal affordances of non-commuter and commuter mobilities. My thesis adds considerable depth to this research by providing detailed empirical evidence to support these emerging discourses. Moreover, it agrees with recent cycling research which also suggests the experiences of cycling have influence beyond the journey (see for example Aldred and Jungnickel 2014b). I suggest

that greater research effort could be focused toward understanding the ways in which emotions pre- and post-journey challenge linear conceptions of time.

Understanding that cycling emotions are relational directly feeds into a new understanding of cycling as a relational process of becoming (after Bawaka Country et al. 2013 & 2015, Haraway 2008). The notion of 'becoming with' the cycle emerged from my data analysis as I drew connections between both findings chapters and was a surprising turn of events in the PhD process as I did not situate the study within literatures that utilise notions of becoming with or co-becoming. I now turn to explore further what cycling as a relational process of becoming entails, and how viewing cycling in this manner has implications for mobilities studies, emotional geographies, and social practice theories.

7.4 Cycling as Becoming With

Viewing cycling as becoming with is both an empirical finding and a key theoretical contribution of this thesis. I suggest that cycling is a relational process of becoming, whereby the cyclist (and by extension the cycle) is constantly engaged in the (re)negotiation of relationships between the city, the self, and human and non-human others. The central argument flowing throughout this thesis is that cycling is more-than. It is more-than a practice, more-than a mode of transportation, more-than the material of the cycle, used for more-than one purpose/function at the same time, has more-than one meaning, and that people who cycle *become* more-than 'people who cycle' or 'cyclists' through their cycling. In each of the above explorations of identities, materialities and temporalities I note the importance of relationships or the relationality between particular aspects of cycling, and how these relationships impinge upon the lives of people who cycle. Re-imaging cycling practices and experiences as bound up in people's relationships with each other, with identity(ies) formation, a sense of place in the world, the materiality of the cycle (and associated technologies, necessitates, or accessories), and with conceptions of time and temporality provokes a new understanding of cycling as relational. More specifically, the discussion of multiple and shifting identity(ies), the connections between materials and identity(ies), and the extension of cycling emotions and meanings into other

facets of life draws much needed attention to the multiple ways in which people who cycle are changed by or become (even just a little bit) different, or more-than, through the act of cycling and through their social cycling circles. All of the complexity, multiplicity, and yes messiness, which is inherent within diverse cyclings (both practices and individuals) demands an alternative way of thinking through cycling. I suggest that viewing cycling as a relational process of becoming (after Bawaka Country et al. 2013 & 2015, Haraway 2008) is the most effective way for me to think across the data (and my subsequent analysis of it) as it helps me to describe cycling as more-than practices, and is a more performative way of thinking about practices and emotions/affect. I now turn attention to where the notion of becoming with, before exploring the more nuanced ways in which cycling can be considered as a relational process of becoming, and the implications that this reimagining has for cycling and mobilities more broadly.

After writing my two empirical findings chapters I came across the notion of ‘becoming with’ in the work of Bawaka Country et al. (2013 & 2015) who use the term ‘co-becoming’ to describe a relational ontology of continuous becoming with human and non-human others in Country. For Bawaka Country et al. (2013, 186) becoming implies that ‘things’ ‘are never static, fixed, complete, but are continually emerging in an entangled togetherness.’ I found this discussion of entanglement and sense of things/people/stuff as being in a constant negotiation and renegotiation a fitting metaphor for the transformations I saw within many of my participants’ cycling narratives as I started to draw connections between my findings chapters. This prompted further interrogation of what becoming with could mean when applied to cycling. For Haraway (2008) ‘becoming with’ involves an awareness of the ‘copresence’ of non-human others and an acknowledgement of the affective capacity of non-human and human others. Similarly, Wright (2014, 247 – emphasis added) uses ‘becoming-with’ to refer to ‘a form of *worlding* which opens up the frames of what registers to us and so what *matters* to us.’ Here, it is important to highlight ideas of mattering, affect, and awareness of self/others. These notions particularly chime with my discussions of meaning making and identity, as my participants *became/become* cyclists *through* cycling and make meaning through their cycling – in an active and ongoing process. Becoming with helps me to think across the findings

to understand cycling as an ongoing, fluid, performance between two states of practices and emotions, of doing and thinking, and of the redistribution of agency as participants' identity(ies) and sense of place in the world become entangled with the machine of the cycle.

Becoming with not only provides a way of understanding the in-betweenness where practice and emotions/affect overlap and bump up against each other, it is also a useful term to articulate the (often small) ways in which participants expressed their changing relationship with the environment through cycling. Within environmental humanities discourses, becoming also implies an ethics of care for non-human and human others (see for example Puig de la Bellacasa 2012, van Dooren 2014, and Wright 2015). For example, van Dooren (2014, 291-2, drawing on both Haraway and Puig – emphasis in original) sees becoming as an ethics of care, whereby caring takes on multiple forms: as 'an *affective* state, ... an *ethical* obligation, [and] a *practical* labour ... [and that it results in the imperative to] do something'. To become with the bike then, is also to care and to act on that imperative to care – for the self, for others, for the environment. It is this breadth of meaning associated with 'becoming', and an underlying acknowledgement within mobilities discourses that mobilities are indeed relational (see Bissell et al. 2017, Manderscheid 2014, Sheller and Urry 2006, Waitt et al 2017), that has informed my own understanding of the term and its application to the intensities of feeling and meaning that come to the fore when examining my research findings through both lenses in proximity to one another. Whilst I do not situate my research within environmental humanities scholarship, I suggest that mobilities can learn from opening up to these more relational ways of knowing/thinking as we become ever aware of 'the proliferation of multiple identities and ways of being in the world' (Wright 2014, 297).

It is my contention that cycling practices help people to make sense of their place in the world, and it is through cycling that people *become* cyclists, cyclist-activists, environmentalists, part of a community(ies), aware of their cities and the fragility of the self/life, politically engaged, 'good' or 'bad' cycling citizens, healthier/fitter, and better dads/mums/partners/spouses/friends/role models. Indeed, I argue that to *become with* the bike involves a constant shifting of one's relationships with the self, the city, and with human and non-human others. Bringing the lenses of practice and

emotion and affect into proximity focuses attention on the ways in which people become with the cycle, through highlighting the importance of cycling identities, materialities, and temporalities. I propose that cycling should be considered as a relational process of becoming – where the cyclist is engaged in a process of becoming *with* the cycle (a human/non-human hybrid machine – see Whatmore 2002) in time and space. Becoming with (after Bawaka Country et al. 2013 & 2015, Haraway 2008) captures how humans and non-humans are engaged in a constant cycle of making and remaking relationships – or relational becoming. Becoming with takes shape and emerges as a way of thinking about both cycling practices, emotions and affects.

I am particularly concerned with how becoming with describes a continual process of changing states, as this helps to conceptualise the myriad ways in which my participants change without change (Haraway 2008), whilst dissolving the binary coding of self/other as one becomes *with* the cycle – a human-machine hybrid. For example, through the act of cycling one's body is transformed (i.e. one becomes fitter/more keenly aware of one's muscles and the embodied experiences of being in the saddle), and at the same time, one becomes more aware of one's own humanity by risking one's life in traffic or on a particularly scary hill descent. This becoming and change without change can also be seen in my participants' awareness of (or complete tuning out from) their environment/the spaces through which they cycle, and also in the distance that cycling puts between the self and others – it is a physical, bodily and mental becoming. I posit that the concept of becoming with the bike/cycle allows for the intensity and complexity of the relationships between cycling practices and ways of being in the world to come to the fore. Through cycling, relationships with the self, the city, and with human and non-human others are constantly reshaped. One becomes aware of the self and others through cycling, as cycling is an ethical encounter – encountering the world from the saddle implies that people who cycle are engaged in an ethics of care (Puig de la Bellacasa 2012).

The intensity and complexity of the relationships between cycling practices and ways of being in the world can be epitomised through the notion of becoming with. In my study, I find that people who cycle, and in engage with cycling through various social arenas, are in fact engaged in a

relational process of becoming. This notion of becoming with the cycle poses a challenge to conventional understandings of transport, and to how cycling is viewed within cultural geography more broadly. I view becoming with as an intensity of feeling where participants' lives have been fundamentally altered or changed (and continue to be so) through cycling. Indeed, people who cycle are engaged in a relational process of becoming as they cycle in the city, encountering new materialities, new meanings, new competences, new relationships, and new ways of being in the world. Becoming with the bike can be viewed as a kind of urban encounter – negotiating space for one's own cycling whilst simultaneously manipulating the machine of the cycle, being aware of other road users, being aware of road conditions, of pedestrians, of non-human others, whilst also dealing with/feeling the weather and topography, thinking and feeling (or not – zoning out instead), and all the while actively engaging with the city through the very act of cycling through it.

Cities are made and remade through mobile bodies in motion. When considering cycling in Sydney, there are prescribed paths and routes that cyclists are supposed to take – such as shared paths or separated cycleways (refer to sections 4.2 and 4.3 in Chapter Four). However, my study finds that cycling has a great capacity for change, innovation and transformation, and that cyclists make use of spaces (and time) differently to what is often prescribed. Seen in this light, it becomes clear that cycling has the capacity to construct and reconstruct the places that cyclists inhabit or cycle through. It is here that the notion of becoming with is particularly useful, as it more completely captures the intensity of feeling, meanings, role(s), and the complexity of the relationships between the city, the self, and others that are made and remade with each cycling journey through space and time.

For my participants, cycling meant more-than transport, as it had become an integral or important part of their lives. Cycling carried a depth and breadth of meaning, experiences, and emotions, which were hard to articulate and quantify. However, the study found that, for many of my participants, cycling had enabled them to create new friendships, new social groups, and improved their general outlook on life – as cycling introduced many participants to other people who cycled for a plethora of reasons, apart from getting from A to B. By cycling for enjoyment, for the

social aspects, as well as fitness and general utility/transport, cycling helped to produce 'an alternative understanding of the urban' (Petersen 2007, 37 cited in Jensen 2013, 110) for participants. The act of cycling in urban areas generated a different sense of the city – it is one that reinforces the cyclists' vulnerability (vulnerable to traffic, infrastructure, and weather), whilst simultaneously empowering/freeing the cyclist from the regular constraints of timetables and traffic jams, as they are able to move independently and relatively unrestrained. Moreover, the cyclist has closer contact with pedestrians and other cyclists; this scale of interaction fosters a more intimate relationship with the city.

Viewing cycling as a relational process of becoming de-stabilises the dominant narrative of the city whereby cycling has been 'framed in policy circles along narrow lines of environment and health' (Petersen 2007, 37). Instead, I have shown how cycling is multifaceted, complex and dynamic. I posit that cycling practitioners are engaged in a process of becoming, rather than simply performing transport. This is because cycling helps participants to reshape their relationships with the city, the self, and with others (both human and non-human). The increasing interest in the emotional geographies of mobility within cultural geographies has prompted a reimagining of 'our understanding of bodies ... as dynamic and emergent multiplicities' (Bissell 2011, 2649). The cycling body then, is dynamic and emerging as it becomes with the bike. For the 26 people who participated in the in-depth components of my study, I argue that cycling can be seen as a relational process of becoming as their relationship(s) with the self, human and non-human others, and the city are shaped and reshaped by and through their cyclings. Indeed, many participants had reimagined themselves through their cycling. Cycling represents a way to resist the dominance of automobility, is a way to care for the self/for one's relationships/and for the environment, generates a sense of freedom, produces differing identities, and elicits a whole range of emotions which enrich and challenge one's sense of the world. By conceptualising cycling as a relational process of becoming, I also call for greater academic attention to focus on the relationships between ways of being mobile and ways of making sense of the world.

7.5 Conclusions

My research is critically different from much cycling work as the methodological hybrid and dual lenses of practice, emotion and affect meant that I asked my participants qualitatively different questions to existing cycling scholarship, that drew out elements of practice(s) alongside emotional, embodied, affectual, meaningful experiences. In doing so, my research moves beyond linear conceptualisations of cycling as fixed and beyond discussion of infrastructure to interrogate the emotional, affectual and embodied experiences of everyday cycling, whilst also illuminating the ways in which cycling is enacted, performed, and sustained by people who cycle through the lens of practice. In setting out to gain a nuanced understanding of cycling through both lenses, I have produced a detailed and nuanced understanding of cycling from both lenses that views cycling as i) a social practice, ii) more-than a practice/multiple practices, iii) meaningful – in multiple and complex ways that matter for people who cycle, and iv) shapes emotions during and beyond the journey. Taken together these more nuanced understandings of cycling have produced a new understanding of cycling as a relational process of becoming – cycling is a relational process of becoming as people who cycle are involved in a constant shaping and reshaping of their relationships with the city, the self and human and non-human others as the materiality of the cycle, cycling identities, and the transformative capacity and multiple temporalities of cycle all cohere through and beyond the act of cycling.

My findings contribute to theoretical discussions of practice, mobilities, ways of being mobile in contemporary cities that are not dependent on the private car, and understandings of cycling as dynamic and flexible. My research also makes contributions to methods for mobilities and practice work, as the hybrid methodology presents an alternative methodology for researching mobilities practices – it presents one way of navigating the methodological and theoretical complexity inherent within cross-disciplinary research whilst remaining sensitive to the need to innovate and push the boundaries of what is methodologically possible as a female and feminist cyclist-researcher. Finally, a conceptualisation of cycling practices as relational processes of becoming is a key contribution of my

research. I conclude this thesis in the following chapter by further summarising these contributions as they relate to implications for policy and planning and suggesting areas for future research.

8

Conclusions and Recommendations

8.1 Introduction

This research has explored the ways in which people who cycle practice and experience their diverse cyclings in Australia's largest city, Sydney. Through the application of a practice lens and the lens of emotion and affect, I aimed to create an understanding of cycling as dynamic and flexible in order to challenge dominant conceptions of cycling within transport geography and transport planning. I further aimed to remedy the lack of attention paid to understandings of cycling within practice discourses to reveal the malleability of practice, and remedy the lack of attention paid to the qualitative experiences of a diversity of cyclings within mobilities discourses. These multiple aims were addressed through adopting a conceptual approach that privileged practice AND emotion/affect to answer two core research questions and sub-questions:

- 1) How is cycling practiced?
 - a) What materials, meanings and competences do cycling practitioners bundle together in order to perform cycling?; and
 - b) What are the commonalities, similarities and differences between these bundles of elements for different forms of cycling?
- 2) How does the practice of cycling/cycling practices shape emotions?
 - a) How and in what ways do the experiences of cycling shift over the duration of the journey and extend beyond the journey itself?
 - b) What is the role of cycling in participants' lives?

I utilised a hybrid methodology that brought together different methods and different theoretical entry points to answer these questions and gain a more careful understanding of cycling

through the analysis of 26 participants' recollections, descriptions, and records of their experiences of cycling in Sydney (refer to Chapter Three). I now provide a summary of the research findings as they relate to each of the research questions and theoretical lenses that have guided this project.

8.2 Summary of findings

Whilst answering the research questions in the preceding chapters, I have identified the elements of cycling for different ways of practicing cycling, and argue that cycling is a social practice but also more-than a practice. I have demonstrated that people who cycle i) enact, perform, and sustain diverse cyclings, ii) make meaning through their diverse cyclings, and iii) embed cycling practices into their everyday lives. Furthermore, my research has demonstrated that iv) there exist multiple cycling practices with distinct bundles of elements, v) elements are shared across multiple cycling practices, vi) people who cycle become practically and emotionally attached to cycling, and vii) cycling's multifaceted emotional, embodied, affectual and discursive experiences extend beyond the journey itself. From these findings, I understand cycling as multiple, dynamic, and open to change and place emphasis on the importance of people's cycling identity(ies), attachments and connections to the materialities of cycling, the capacity of cycling to shift understandings of time, and the potential for cycling to be transformative (from the personal/bodily scale to the level of practices).

My thesis makes significant theoretical and methodological contributions that open up social practice theory, and practice-based approaches to mobilities, to different ways of thinking. In reaching across the practice/emotion (and affect) divide through the methodological hybrid, my thesis questions the way in which emotions and affect have been written out of methods for, and ways of analysing, social practices in preference for a focus on 'practice' as the core unit of analysis. In particular, my thesis contributes to the growing body of work interested in emotion and affect from within practices (see Reckwitz 2017, Weenink & Spaargaren 2016, Wallenborn 2013) by proposing a methodology for incorporating emotional geographies into social practices. I suggest that, rather than intervening in theory and reinventing the wheel, bringing methods (and thereby theory) into proximity can usefully produce nuanced, situated, interesting insights into the ways in

which practices are performed, enacted, experienced, made a part of everyday life, and are potentially transformative (across different scales). This serves to broaden understandings of the role of emotion and affect within social practices, and also extends understandings of the role of mobilities within everyday lives.

The key contribution I make through my thesis is the proposition that cycling be considered as a relational process of becoming, whereby the cyclist (cycling practitioner-carrier) is engaged in a constant process of shaping and reshaping relationships with the city, the self, and human and non-human others, both on and off the cycle. These more nuanced understandings of cycling practices and cycling emotions have practical implications for planning and policy and I now turn to explore these, before outlining the limitations of the thesis and identifying opportunities for further research.

8.3 Study Implications and Recommendations: Policy, planning, practice

My research has demonstrated that cycling in Sydney is complex, exciting, takes practice, hard work and organisation, and is at times fraught with danger. Over the past decade, previously car-dominated areas of the city have been retrofitted (and continue to be so) to better accommodate cycling, cycling funding is increasing, participation rates are increasing in particular areas (i.e. in the CBD), and there are growing cycling cultures (as evidenced through such mass cycling events as the Sydney to the Gong ride or the Spring Cycle – refer to discussions of cycling participation and governance in Chapters Two and Four respectively). Yet the Sydney region as a whole remains a difficult place in which to cycle. At the conclusion of many of the interviews when I asked my participants if there was anything else they would like to add, many said ‘can you fix cycling?’ or ‘just make it better’. I did not have an answer at the time, and my answer now is multi-faceted, partial, and by no means able to ‘fix’ cycling. My thesis did not intentionally concentrate on infrastructure, as this is often held up as the one thing that does improve cycling in cities (see McNamara 2013, Osborne and Grant-Smith 2016). Despite this, infrastructure snaked its way into the qualitative components of the study through discussion of the material elements of cycling and people’s experiences of cycling on Sydney’s roads and cycleways or shared pedestrian-cycle paths. As such,

physical cycling infrastructure was revealed as one of many aspects required for cycling, and I argue that there is no single answer to making cycling more accessible, more accepted, and more convivial through interventions in infrastructure alone. Indeed, my study has shown that cycling is about more-than transport, more-than the provision of infrastructure, and impacts upon people who cycle in multiple ways that extend beyond the journey.

Even though it was beyond the scope of my study to investigate detailed answers to the complex problems associated with automobility, there are numerous small-scale suggestions for policy and planning that I can make given the study's findings. The detailed and nuanced understandings of cycling I have developed from the lenses of practice, emotion and affect, and my new understanding of cycling as more-than a practice and as a relational process of becoming have multiple implications for the way that cycling is planned for and encouraged in cities. The implications and recommendations explored below are practical, aspirational, and directional and operate at different scales.

Social practice theory has been used to highlight the importance placed on material infrastructure in the governance of mobility forms (see for example Dowling and Kent 2015b). When considering cycling in the Sydney context, all three tiers of government have a role in planning for cycling and cycling policy (McNamara 2013). The emphasis on the material element of the cycleway or cycle path across governments (the build it and they will come program of infrastructure provision) is important, as councils and state government agencies focus on a core element of 'the practice of cycling' – infrastructure provision (cycleways/paths/lanes, parking options, maintenance stations). However, my findings suggest that the other elements of practice (meanings and competences) are equally as important and perhaps more important than materials.

The practice lens highlighted the ways in which materials (other than the provision of the cycle lane) and social infrastructure are integral to people's continuation of cycling. In addition, the study has shed light on the meanings and competences that practitioners value in their cycling. From these more nuanced understandings, it becomes clear that cycle planning and policy needs to consider the

various materials, meanings and competences together – rather than focusing on infrastructure provision alone to encourage cycling.

My study goes some way to challenging dominant narratives of cycling as being most popular in inner-urban areas of cities, with some participants living and performing multiple cyclings on the peri-urban fringe and outer suburbs of the Sydney region. Cycling policy and planning needs to be carried out at a citywide scale in order to foster more inclusive and connected cycling environments across the city. The old adage of ‘build it and they will come’²⁷ (Nelson and Allen 2007) only works if people can access cycling infrastructure – for people living in areas with limited or no cycling infrastructure (including social infrastructure), cycling is still something that is practiced with great gusto. My study has highlighted the importance of social cycling networks for people who cycle in these less-connected areas of the city. People who cycle away from the inner city’s network of cycleways and on-road lanes create their own social and physical cycling spaces, by cycling with others and taking up residence at cafés during/after cycling journeys, or at cycling shop club houses. Understanding and acknowledging the complexity and spread-out nature of cycling practices, how access is gained, and communities are created, are necessary to influence debates about how we plan for and develop urban spaces in the future.

My study has also shed considerable light on the emotional and affectual aspects of cycling and it is these aspects that are often overlooked in planning and policy discourses. I propose that Australian planning systems need to take emotions and affect seriously, as material technologies and bodies come together to know and understand local urban problems in distinctly emotional ways. This raises important questions for planners and policy makers, as well as urban designers, around how to design for enjoyable, visually interesting, at times physically challenging, and connected cycling across the region. Whilst planners and policy makers may not yet have the tools to incorporate emotions into planning, interventions can be made through healthy planning paradigms and within planning education at the tertiary level.

²⁷ Where ‘it’ refers to physical cycling infrastructure.

The largest overarching planning and policy implication of my research relates to the ways in which cycling can be integrated into practices of everyday living. I have shown that people who cycle enfold their cycling practices into other/multiple social practices. Indeed, childcare, commuting, shopping, recreation, exercise, work and study, and socialising practices all flow through cycling. Normalising cycling within different social practices will go some way to normalising cycling on a larger scale. Indeed, further planning and policy related to housing, employment, entertainment and shopping, and places of study/education, needs to consider the integral role that cycling may play for the everyday mobility practices of people who cycle. It is more than about having access to a cycleway or path and a place to park. For many people who cycle their cycling is representative of broader environmental concerns, freedom, independence and a choice to extract themselves from the strictures of automobility.

In addition to finding ways to intervene in cycling practices, and better embed cycling into practices of daily living, I suggest that there will need to be continued provision for, and education for and of, cycling and people who cycle. Within the inner suburbs of the Sydney region cycling infrastructure provision has gone some way to normalising cycling and providing a legitimate place for cycling within the transport hierarchy. Yet this is still a hierarchy, with greater rights given to motor vehicles above cyclists. More visible cycling events in outer suburbs and on the peri-urban fringes could assist in spreading the positive message of cycling that organisations such as BNSW are successful in doing in the CBD and inner suburbs.

Considering cycling as a relational process of becoming has implications on a personal scale, as it is through cycling that relations with the self, the city and with others are shaped and reshaped. My study has shown that cycling re-shapes identities (whereby some people who cycle have developed a cycling identity and attempt to present themselves as a good cycling citizen), re-shapes relationships with human and non-human others (creating friendships, uniting spouses, opens opportunities to participate in communities – both imagined and real), creates communities, fosters a sense of belonging, improves individuals' wellbeing or health, is empowering, enables people who cycle to break ties with social auto-mobile norms, transforms bodies (through the technology of the cycle),

generates a greater sensitivity about bodies/mental wellbeing and about bodily expectations of cycling spaces (i.e. what a city *should* do/provide for its citizens). My participants' personal experiences of cycling are distinct to each participant and as such, not all my findings can be scaled up to a broader population. However, these nuanced understandings of cycling as relational and highly personal can inform better education and cycling recruitment programs at a local, state or national level, and begin to break down deep seated stereotypes about cycling and cyclists. Indeed, many of my findings support existing understandings of the multiple social, economic, and environmental benefits of cycling, however it is the personal element that shines through and should be capitalised upon to encourage greater cycling.

My study has shown that people who cycle have become able and confident cyclists over time. In Chapter Six I have shown how my participants developed relationships and friendships through cycling that help them to continue to cycle; some started to cycle after being invited or encouraged by friends or partners to cycle, whereas others had always cycled and would pass on their love of cycling to their own children. The advocacy work of organisations such as BNSW and CNSW (the racing equivalent of BNSW) must continue. These, and other organisations (there are too many to list here) normalise cycling by making it visible through large-scale events (some targeted at families such as BNSW's Spring Cycle or the national Ride to Work Day which is supported by BNSW and other organisations) in which roads are closed and thousands of people cycle together through the city (see Figure 8.1 below).



Figure 8.1: One of the advertising images for the 2017 Spring Cycle (Spring Cycle 2017)

Similarly, LGAs must continue to normalise cycling through their cycling campaigns and outreach projects such as the COS's Try-a-bike program (City of Sydney 2018) in public spaces, such as city-owned parks, which introduces cycling to those who may not otherwise have considered it. Re-framing cycling advocacy and advertising around relationships could go some way to improving cycling in cities, and my research has shed light on the importance of social cycling infrastructure and relationships in people's everyday cycling practices.

Keeping within Sydney, in Chapter Seven I proposed that cycling disrupts dominant understandings of time, making time liquid for people who cycle. This has implications for how we think about how cities work and as such has implications for cycle planning. I propose that greater attention in planning and policy needs to be paid to the multi-modal, shifting practices of cycling, and in particular, of the capacity of cycling commuting practices to be enfolded into other/multiple social practices. Creating environments that are more-cycling friendly takes time, however there is need to work toward a better integration of shorter cycling trips with public transport modes such as buses or trains, allowing for greater flexibility across the transit network. Small-scale suggestions include incorporating cycling-friendly design elements into bus stops and light and heavy rail stations across the region. This can be accomplished as governments upgrade transit stations (i.e. during the conversion of many heavy rail stations into metro rail stations as part of the NSW government's Sydney Metro rail scheme – see NSW Government 2018).

Making space for cycling should involve increasing the number of cycle parking spots at public transport stations/stops (see Figure 8.2 over the page), as well as creating cycling-friendly residential streets surrounding public transport options through increasing the number of cycling symbols and signs on roads, decreasing speed limits, and narrowing lanes for cars to create more space for cycling (see McNamara 2013). In addition, greater integration and policing of road rules that affect cyclists, such as the minimum metre passing distance (Transport for NSW 2018), need also to continue to be visible. Whilst these suggestions do not directly address clock time, replacing public transport timetables in favour of a predictably short wait between services would vastly improve connections

between modes, allowing for less clock time dependence, as would enforcing rules which impact cyclists' safety.



Figure 8.2: Cycle parking is at capacity at Sydenham station, with cyclists parking their cycles against the pedestrian barrier (on the right hand side) in addition to the dedicated cycle parking posts (on the left hand side).

Whilst governments plan for the 30-minute city, wherein one can cycle to anywhere one needs to be within 30-minutes (Newman 2016), my study finds that people will and do cycle for more than 30 minutes for their commutes, for recreation, and to visit family and friends. This finding challenges current planning trends, however more research is needed to understand the extent of people cycling for more than 30-minutes to commute in order to provide recommendations to assist the plus 30-minute city.

Cycling in Australia is often recognised to be the domain of affluent 50-something year old white men who cycle for recreational purposes (i.e. Lycra-clad MAMILs), with a strong emphasis on cycling's sporting and racing appeal (Spinney 2006). However, I refute this presumption, as my findings suggest that females AND males of differing ages with differing socio-demographic characteristics, cycle for a plethora of purposes in cycling-specific and non-cycling-specific clothing, with multiple and shifting cycling identities. Indeed, some people who cycle actively rebel against this dominant cyclist narrative, and choose to do so through the way that they present themselves whilst in the saddle and in everyday life off the cycle. Importantly, this finding has implications for how cycling is planned for and encouraged in our cities – cycling, in all its guises, needs representation

amongst planning, political and social arenas, not just as the domain of well-off white males.²⁸ More inclusionary cycling policies are needed to better acknowledge the diversity of cycling and cyclists.

My study has shown that some people who cycle are actively engaged in enacting an environmental politics that has individual emancipatory possibilities, as well as implications for planning. Some people who cycle actively reject or resist the dominant culture of automobility by choosing to cycle as their primary means of transport. My research has gone some way to breaking down conceptions that automobile reliance is primarily the domain of Anglo-Australians (see Klocker et al 2015), however further research is needed to clarify the diversity of this loosened automobile-dependence. By claiming the right to the cycling-friendly city and making claims to space by cycling in/through urban spaces, my study has shown that people who cycle are establishing connections to place through the embodied practices of cycling. Contesting access to the urban raises important questions for planners (Osborne and Grant-Smith 2016). Indeed, planning should be participatory; to include all users of urban spaces needs to take into consideration the views of people who cycle. Improving public consultation processes at local and state government levels is vital to improving cycling in cities. The more that governments know about the way in which a diversity of people move through and inhabit the cycling spaces of our cities, the better equipped government agencies will be to plan for their inclusion.

8.3 Opportunities and Limitations of the Study

In the previous section I discussed the implications that my findings have for planning and policy, and I hinted at some of the opportunities where future research could have a direct impact upon planning or policy. Attention now turns to identifying specific opportunities for further research and I acknowledge the limitations of my research.

Conceptually and methodologically, the notion of hybridity was key in shaping and framing this thesis. Indeed, hybridity is found within my positionality as a hybrid cyclist-researcher, in bringing together theoretical frames which at times did not seem to connect, bringing together

²⁸ Here, I make reference to the former Liberal Prime Minister Tony Abbott's infamous MAMIL cycling identity (O'Reilly, n.d).

methodologies from diverse ways of thinking, and in the simple amalgam of the human with the machine of the cycle (as I cycled throughout the thesis and participant spoke and wrote about their own experiences on and off the bike). Indeed, I posit that there is scope to incorporate notions of hybridity with geographies through methods and theory; it is not something to be wary of.

Given the qualitative approach to researching cycling I adopted, my conclusions are not automatically representative of a broader cycling population in Australia or overseas, with my study limited to 26 participants and 682 respondents. Yet the number of participants has allowed for a depth of analysis that would not have otherwise have been possible, and the number of respondents indicates that Sydney has a keen cycling population. I have made every attempt to represent my participants' cycling narratives and cycling journeys, remaining faithful to their storytelling and diary writing. Moreover, I acknowledge that the process of collecting and interpreting data (detailed in Chapter Three), my own positionality as a feminist cyclist-researcher, and the conceptual framing of the study within social practice theory, mobilities, and emotional geographies (refer to Chapter Two) necessarily results in conclusions that are not universally applicable.

Geographically, my study's findings may not be applicable to other cities. This is because the cycling spaces of Sydney are fundamentally different to the cycling spaces of Melbourne or Perth (both capital cities in other Australian states) for example, as are the cycling culture(s), policies and practices. As my study has found that cyclists form connections and attachments to cycling spaces/places and cultures, as well as the materiality of the bike, there is a need to explore further whether this is the case in other cities or regions, and to investigate how to better support these cultures for better policies and meaningful engagements with practices.

One logical avenue for further research is to seek validation of my findings within the context of specific cycling practices. This may include groups of cyclists in other locations, in highly automobilised environments, and less-automobile dependent environments such as rural regions or more cycling-friendly cities. These groups may be enacting and performing specific cyclings, or multiple cyclings, and be defined by age, gender, or location (in the same or different parts of the city).

Lastly, there exist further opportunities for empirical investigations of relational mobilities. My study has drawn significant attention to the importance of social relationships to the continuation, and indeed sparking, of people's cycling practices. Further research into relationship pathways into diverse cyclings is needed to further illuminate the ways in which interventions at a relationship-level can take place. This may take the form of a longitudinal study to follow groups of cyclists through the life-course (after Bonham and Wilson 2012), and suggestions include family groups, workplaces, and places of study (i.e. universities – see for example Spotswood et al. 2015).

8.4 Concluding Remarks: on cycling practices and experiences in Sydney

Hybridity, more-than, and becoming with are central themes that have been woven throughout this thesis. These themes are reflected in the methodological and theoretical contributions that I have made, and in the new knowledge generated through my study. With regard to social practice theory, mobilities scholarship, and cycling research, this thesis has provided detailed empirical evidence that draws much needed attention to the myriad ways in which people who cycle enact and perform a diversity of cycling practices in Sydney, make meaning through their cycling, and highlighted the transformative capacity of cycling. This is a significant contribution as it challenges many of the dominant, binary ways in which cycling has been considered in non-practice-based work and points to the need to consider this multiplicity and diversity within cycling policy and planning discourses in order to encourage and improve cycling into the future. Indeed, working with interstitial literatures, both methodologically and analytically, has resulted in contributions that are reflective of the interstitial nature of the study.

Methodologically, my thesis makes a significant contribution to practice-based approaches to mobilities, and mobilities studies more broadly, by suggesting that the binaries of mobile/ non-mobile and traditional/non-traditional research methods can be overcome through bringing different methods, grounded in different epistemologies, into proximity in a methodological hybrid. The methodological hybrid serves to bridge the divide between practice-based research and emotional geographies, whilst also extending feminist geographic methods into mobilities research. The

theoretical contributions that emerge from this situated, reflexive approach to examining cycling are similarly diverse. The overarching theoretical contribution – that cycling should be considered as a relational process of becoming – is also illustrative of the theoretical and methodological approach that I have taken to the study.

As prefigured in the preamble, I have become with my thesis, my participants and my bike(s) over the course of the PhD and now consider myself a feminist cyclist-researcher. Indeed, as I reflected upon the process of bringing diverse epistemologies and ontologies together to look anew at cycling, my own positionality as a researcher, and the reflexivity of the tasks I asked participants to undertake, it became clear that I have always sought to trouble and question boundaries. But what does this mean going forward? I aim to keep seeking out the in-between spaces, where theory and method bump up against each other, binaries and dominant narratives are questioned and reimagined, and where equity is at the core of investigation. This may be in cycling, or it may be in something else entirely. That said, since concluding fieldwork many cycling-related things have happened in Sydney. The advent of dock-less share bikes in October 2017 has seen the most visible change in the city, with four companies leaving their brightly coloured bikes across the city. I am interested to see whether Sydneysiders will embrace these schemes, or if they will become the modern equivalent of the shopping trolley – left abandoned and defaced in difficult to access parts of the city.

Afterward

One would think that researching cycling for three and a half years (in addition to the 18 months I spent undertaking my MPhil, also on cycling) as closely as I have would turn me off completely. But I feel incredibly privileged to have this opportunity to share my participants' cycling stories and to be trusted with their knowledge of cycling in Sydney. Everyday that I have spent writing about cycling, becoming ever familiar with how much my participants gained from their own cyclings, has served to reinforce why I love cycling so much. Indeed, I intend to take that fervour for cycling with me into old age and cycle as much as I can for as long as I can.

Whilst I wrote my thesis I kept a research journal and in it I recorded my cycling journeys, listed all the good things about cycling, and wrote notes to myself reminding me why I cycle. So whenever I got tired or bored I was able to flip open my research journal and use it to motivate myself to keep writing. Not long after I started the PhD my partner and I bought a stationary bike trainer and after a few morning spins I wrote:

- Pedal for stress relief. Get those endorphins going!; and
- Stress relief. Stress relief. Stress relief. Sore butt.

I quickly discovered that repeated morning spins, although doing amazing things for my physical and mental health, were going to wear down my rear road tyre, as it was the one in contact with the spinning mechanism. I asked around and found a friend of a friend who was willing to part with some old tyres they were yet to dispose of and planned on changing the existing tyre out for one of these old ones. I had seen my parents, old friends, and people on the side of the road change a tyre countless numbers of times (and had 'helped' mum change a flat tyre one VERY exhausting morning on the side of an arterial road in Narellan – see Figure 3 below) but had never done it myself. Enter the Internet! I searched and found some video tutorials featuring mostly white, male, bike mechanics instructing the viewer on how to change a tyre and launched myself into it. Road tyres are quite thin, and the valves on my tubes are quite sensitive, so naturally I ended up getting frustrated with changing the tyre as I kept accidentally deflating the tube and wasn't able to get the tyre off completely. Many attempts and swear words later I succeeded and made a note in my journal:

- Have mastered how to change a tyre with the tyre levers. YESSSSS!!! SUCCESS!!! (I have such sore thumbs)

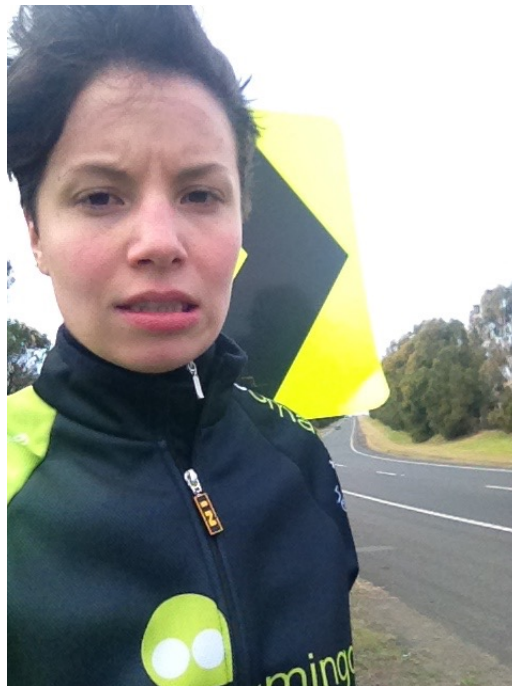


Figure 3: Me, exhausted and likely grumpy whilst Mum changed her flat in Narellan circa 2012

Other moments that I recorded in my research journal were after really enjoyable cycling trips along the river near home, and to the local pub or a café to meet mates:

- 4/2/16 - Oooooohhh yeah there's nothing quite like cycling to the bakery for treats with G and getting an extra snack for the ride back home/ stopping in the park for an impromptu picnic.
- 3/11/16 - Stick the bike in a hard gear and pedal hard along the flat – you'll feel like you've worked out more.
- 21/5/17 - 10am: rode to café to meet the girlies and wasn't afraid of locking up Hilly on her own – it's daylight after all. Hilly still there after three coffees and lots of catching up.
- 12/06/17 - Cycling along the river in the morning gives a great view of the water. I especially like how it reflects the sky and mangroves – cycle along there more often!
- 5/10/17 - Rode for the first time in I don't know how long to Centennial Park to take photos of people cycling. It was HARD. My legs were jelly when I got off and I think I've been walking around bow-legged for at least a good hour. 17kms each way not counting the way there when

I got lost (thanks Transport for NSW for ripping up half of Alison Road for the light rail). I think my seat post is up too high – remember to ask Dad to check the height. I can feel my strength coming back though. Hello legs!

- 02/11/17 - It is SO much fun riding home from the pub with Grant! We whizz down the hill near the park and just like that (imagine your fingers snap) you're home! Keep it up!

These short excerpts from my journal remind me of why I like, no love, cycling – there's time saving benefits in there, physical health benefits, practical tips for me to get more out of shorter trips, and there's even a sneaky bakery treat or three to be had by biking! Now, as I bring together my final reflection three things stand out. The first is the pain I endured in my limbs and digits in my pursuit of cycling – and also the pain my partner must have felt when I forced him to try out my road bike set up on the trainer without wearing bike Knicks for comfort (sorry G). Secondly, is the usefulness of the bike as a city-dweller. I am keenly aware that having a nice light road bike is a privilege, and I am fortunate to be able to live in the inner suburbs where more people cycle for recreational and regular travel. Indeed, I have discovered the ease of cycling to the light rail in regular clothes and hopping on and off along the line to visit family and friends that live perhaps a little too far for me to cycle to, or cycling all the way would involve too many main roads (see Figure 4 below).



Figure 4: Wearing sandals and a skirt with my bike on the light rail between Haberfield and Dulwich Hill, January 2018

The last notion I want to reflect upon however, is that despite all the really physically challenging times I've spent in the saddle, I still want to get back on and ride – anywhere, everywhere, for the rest of my life. I think the final (and longest) excerpt from my journal may just illustrate that, no matter how hard cycling can be at times, there's generally a little bit of good in there somewhere even if I may not realise it whilst my muscles are hurting – it'll do me good in the long run!

- Sept 30 2017: RAZORBACK DAY! Spent last night at Mum and Dad's place and woke up at 5am (yikes!) on Saturday for the morning ride with Mum and her friends. Dad sorted me out with a new saddle, lowered the seat post for me, and swapped the pedals for cleats on Friday arvo. He also cleaned up my bike when he was cleaning his and Mum's – thank you!!! So back to waking up at 5am on Saturday morning... the three of us had the regular 'breakfast of champions' – porridge, dates, an orange, piece of toast – and I'm completely stuffed but I *know* that I need all the fuel I can get. Mum and I put our bikes in my car boot, with the shoes (I'm borrowing mum's old mountain bike shoes to clip into the cleats on my bike), water bottles, gloves, jackets, arm warmers, and the essential kit of license, phone, keys, lip balm, and \$5 for coffee packed in a zip lock bag that'll go in my jersey pocket. I think we're set and I drive us to Camden to meet everyone else. Dad's already headed off on his bike just after 5.30 and we'll see him out there. Frankly I think he's bloody nuts riding all the way to Camden when it's only 10 degrees but he's got all the right gear on.

Riding with Mum and I today are Lois²⁹ (who I've ridden with about 5 years ago when I was finishing off MPhil), Barbara (we haven't met before but we have spoken on the phone in the past), and Tanya who has just started riding with the group. Mum introduces me to Tanya and I say hi to Lois and Barbara then we clip in and pedal out of town toward Mount Razorback. I'd forgotten what it feels like to ride with a group (five is a group!). It's chilly with a good strong headwind so warming up takes next to no time as I'm working hard cycling into this wind. We ride in a line two abreast at the front, one in the middle and two abreast at the back, half on the shoulder of the road, half on the road. I catch up with Lois about what's been

²⁹ The names of our cycling companions have been changed.

happening with study and my family, and ask her about her kids and work. I remember to unclip a shoe as we approach traffic lights and a round about so if we have to stop I don't fall off or stab myself on the chain ring. We ride for a good 20 mins on the road out of town, it's fairly quiet and has some gentle ups and downs. We swap positions in the group a fair few times as everyone chats away.

A manure truck rolls past and I'm at the back of the group so call out 'TRUCK BACK' and we all move over and I try not to breathe in the smell but end up laughing. As we approach the bottom of Razorback everyone agrees to go at their own pace up the mountain. I confess that I have not ridden up Razorback since 2012 so am so unsure about it, but will give it a go all the same (partly I know that Mum will do it so I feel like I have to as well). It's not a race with these ladies and I like that. I think I'm fairly young and fit in comparison to everyone else so ride ahead with Mum and Barbara. They're the most experienced out of everyone here.

I keep looking down at my Garmin to check the speedometer (10kms/hr, 8kms/hr, 5kms/hr, 4kms/hr) and each corner I turn feels familiar (it really has been five whole years since I've done this climb). The rise never shows up in photographs so there's no point even trying to take one as I pedal. I do love looking over the gully toward the west.

I think that the corners will be over soon and any minute now I'll see the final uphill. But I don't. Two, maybe three, groups of guys overtake us before we've made it to the last climb. Some of them say 'hello' or nod as they pass. Others say 'bike behind' so that I know to keep left for a while longer. I forget that there even is a last climb to tackle at one point and tell Mum and Barbara that I'm going on ahead. But I timed it so poorly and go too hard too soon. I *have* to stop after maybe 5 mins to take off the amazing fluoro jacket Mum lent me because I'm overheating in all these layers. Whilst I'm taking off my jacket and cooling down Mum and Barbara pass me. I feel guilty for stopping so jump back on the bike and try to maintain the small distance between us. There has got to be only a km or so left to go as I overtake Barbara. I feel like I've had the wind knocked out of me. This is harder than I remember!

A young-ish guy on his own in a Liverpool Cycling Club jersey overtakes me just as I feel like I'm going to die and he says something encouraging like 'you're almost there!' so I take a breath, change into the lowest of the lowest gears (granny gear), stand up in my pedals and push on. I think of Kaye and how she told me she counts her pedals so I try that trick. It does work!

Mum's already at the top when I get there. Now that it's over I have the biggest grin on my face. I DID IT! I made it up the whole mountain! We stop for a photo and wait for the others before we go back down.

Mum checks that I'm okay, and reminds me how to get down into the Ds and says not to go too hard on the brakes, and we're off! Far out! I could swear that it was never this scary. Okay, maybe the first time I did a hill descent on Razorback I was just as terrified. I oscillate between freaking out, pulling on my breaks, uncramping my right hand, enjoying the feeling of whizzing down at 25kms/hr, looking ahead to see where the rest of the group is at, trying to keep left when bikes and utes go past, and smiling because it's such a great feeling!

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Appendix A: Cycling governance

NSW LGA Cycle Plans Pre-2016 Council Amalgamations³⁰:

LGA	Policy/planning document/s	Year adopted	Other initiatives
Ashfield *	<i>Ashfield Bike Plan</i>	2010	<ul style="list-style-type: none"> - Bicycle Workshops, e.g. <i>Back on Your Bike Day - Cycle Skills for Adults</i> (part of the <i>Treading Lightly Workshops</i>) - <u>Local Cycling Map and Guide</u> - <u>Transport Access Guides</u>
	<i>Local Action Plan to Reduce Greenhouse Gas Emissions</i>	2010	
	<i>Cooks River to Iron Cove Masterplan & Coordination Strategy</i>	2009	
Auburn	<i>Plan of Management for General Community Use</i>	2001	\$69 fine for not riding in a bike lane if one is provided & other bicycle infringements
Bankstown *	<i>Bankstown Bike Plan</i>	1999	<ul style="list-style-type: none"> - Cycle Skills Workshops - Sponsors CARES (Community and Road Education Scheme) - 'Wheel out West' event - <u>Cycle map/guide</u>
	forthcoming <i>Active Transport Strategy</i>		
Blacktown	<i>Blacktown Bike Plan</i>	2013	- Sponsors CARES (Community and Road Education Scheme)
	<i>Safer Transport Strategic Plan 2014-2020</i>	2014	
Blue Mountains	<i>Blue Mountains Bike Plan 2020</i>	2009	- Cycling in the Blue Mountains Map
Botany Bay	<i>Botany Bicycle Plan</i>	1996	
Burwood	<i>Burwood Bike Plan</i>	TBC	<ul style="list-style-type: none"> - Cycle Burwood Guide/Map - Treading Lightly workshops
	<i>Green Action Plan</i>	2012	
Camden	<i>Camden Bicycle Plan</i>	1996	<ul style="list-style-type: none"> - Cycling Map - Camden Cycling Advisory Group
Campbelltown	<i>Campbelltown 2025</i>	2004	<ul style="list-style-type: none"> - Ready to Ride day - Bicycle and Road Safety Education Centre
Canada Bay	<i>Canada Bay Bike Plan</i>	2005	
Canterbury *	<i>City of Canterbury Cycleway Plan</i>	2008	<ul style="list-style-type: none"> - Cycle safety tips - Maps of cycle routes
	<i>Cooks River to Iron Cove Masterplan & Coordination Strategy</i>	2009	

³⁰ The NSW State Government began to amalgamate some Councils in the greater Sydney region (NSW Government, 2018b). Some were forcibly amalgamated whereas others chose to amalgamate voluntarily (ibid).

LGA	Policy/planning document/s	Year adopted	Other initiatives
Fairfield	<u>Fairfield City Plan 2012-2022</u> <u>Road Safety Strategic Plan 2001-2010</u>	2012	- <u>Cycling map</u> - Western Sydney Cycling Network - Bike Hire - Bike recycling - Community bike rides
Hawkesbury	<u>Hawkesbury Mobility Plan (incorporates the Bike Plan and Pedestrian Access and Mobility Plan)</u>	2010	- Cycling Maps - Road Safety Program - Hawkesbury Bicycle Steering Committee
Holroyd	<u>Holroyd Accessibility Action Plan</u>	TBC (2010?)	- Bike Q&A - Maps
Hunters Hill	<u>Urban Design Strategy</u>	2010	
Hurstville	<u>Bicycle Access and Pedestrian Access and Mobility Plan</u>	2008	- Cycleways Map
	<u>Hurstville Community Strategic Plan 2021</u>	2011	
Kogarah	<u>Bright Future, Better Lifestyle: Community Strategic Plan 2030</u>	2012	- Bike Week event
Ku-Ring-Gai	<u>Ku-Ring-Gai Bike Plan - Final Report</u>	2012	- Cycleways Map & Information
Lane Cove	<u>Draft Lane Cove Bicycle Plan</u>	2013	- Bike Maintenance Workshops
Leichhardt *	<u>Leichhardt Bicycle Strategy</u>	2007	- <u>Share the Path Leichhardt program</u> - <u>Out and about in Leichhardt map</u>
	<u>Cooks River to Iron Cove Masterplan & Coordination Strategy</u>	2009	
Liverpool	<u>Liverpool Bike Plan</u>	2009	- Healthy Communities Initiative - Free Monthly Cycling Groups
Manly	<u>Community Strategic Plan: Beyond 2024</u>	2014	- Bike Map
Marrickville *	<u>Marrickville Bicycle Strategy</u>	2007	- freecycle confidence courses - Green Living Centre Bike Library (hire bikes)
	<u>Cooks River to Iron Cove Masterplan & Coordination Strategy</u>	2009	- <u>Cycle Marrickville Map</u>
Mosman	<u>Mosman Bicycle Strategy 2005-2010</u>	2005	- Active Transport Working Group - Cycle route maps
	<u>MOSPLAN Community Strategic Plan 2013-2023</u>	2013	
North Sydney	<u>North Sydney Bike Strategy</u>	2006	- North Sydney Cycling Map

LGA	Policy/planning document/s	Year adopted	Other initiatives
	<i>North Sydney Bike Plan</i>	2004	- Bike Smart Workshop
Parramatta	<i>Parramatta Bike Plan</i>	2009	- CBD secure bike parking
Penrith	<i><u>Penrith Accessible Trails Hierarchy Strategy</u></i>	2012	
Pittwater	<i><u>Pittwater 2025: Community Strategic Plan</u></i>		- Free DATADOT packs (limited #)
Randwick	<i><u>Randwick Bicycle Plan</u></i>	2008	- Cycling and Walking Map - <u>Bicycle Route Network Map</u>
Rockdale			- On The Go map
Ryde	<i><u>Ryde Bicycle Strategy and Masterplan</u></i>	2007	
Strathfield	<i><u>Strathfield 2025 Community Strategic Plan</u></i>	2013	
Sutherland	<i><u>Integrated Transport Policy</u></i>	TBC	
Sydney	<i>Cycle Strategy and Action Plan 2007-2017</i>	2007 (<u>updated 2012</u>)	- <u>sydney cycleways website</u> - Behaviour Change Programs (i.e. Share the Path Program) - Sydney Rides Festival - Cycleways network maps - Try2 Wheels - Free bike maintenance & cycling the city courses (through Bike Wise)
The Hills	<i><u>The Hills Shire Bike Plan Review</u></i>	2009	- Map & info <u>here</u>
Warringah	<i><u>Warringah Bike Plan</u></i>	2010	- Maps (+ mountain biking maps) - Bike count reports
Waverley	<i><u>Waverley Bike Plan</u></i>	2013	- Workshops (i.e. Rusty Riders Cycling Skills) - Maps - National & State events - <u>Bike Safety Day</u>
Willoughby	<i><u>Willoughby City Bike Plan</u></i>	2006	
Woollahra	<i><u>Woollahra Bicycle Strategy</u></i>	2009	
Wollondilly	<i>Shared Cycleway Plan</i>	TBC	- Road safety program

Table A.1: Cycle plans in NSW LGAs

* = Councils which have since been amalgamated.

** Search strategy: Council website search for a combination of 'cycling', 'bike', 'cycle' plus 'plan', 'strategy', 'policy' & 'map'

Appendix B: Cycling participation

National cycling participation by gender:

Year	Period	Male	Female
2011	Week	22.7	13.7
	Month	32.5	21.8
	Year	46.8	33.7
2013	Week	20.8	12.2
	Month	29.9	19.3
	Year	44.1	31.1
2015	Week	21.7	13.3
	Month	29.3	19.4
	Year	41.8	30.9
2017	Week	20.4	10.7
	Month	27.3	16.5
	Year	39.5	29.0

Table A.2: Cycling participation by gender (Austroads 2017c, 22)

National cycling participation figures for 2017:

By State:

Cycling participation as a proportion of Australian resident population in 2017

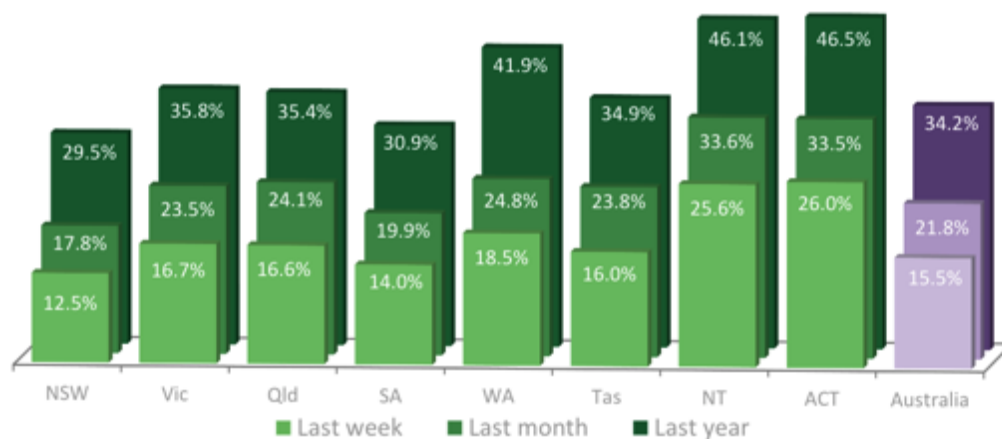


Figure A.1: Summary of cycling participation by state (Austroads 2017b, 1)

In NSW over time:

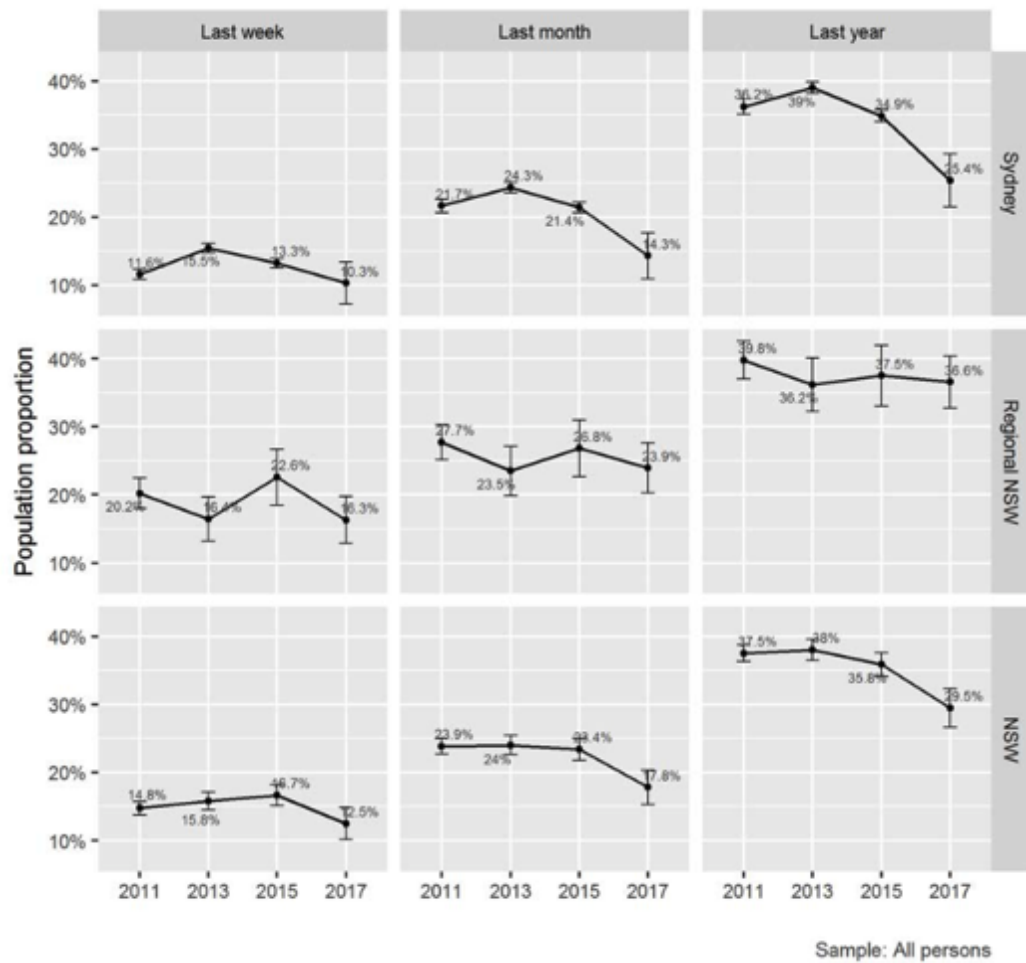


Figure A.2: Cycling participation of NSW residents over time (Austroads 2017a, 3)

Appendix C: Ethics Approval

28/05/2018

Macquarie University Student Email and Calendar Mail - Final Approval - Issues Addressed - 5201500128(R)



MACQUARIE
University

NICOLE MCNAMARA <nicole.mcnamara@students.mq.edu.au>

Final Approval - Issues Addressed - 5201500128(R)

1 message

Faculty of Arts Research Office <artsro@mq.edu.au>

Thu, Apr 2, 2015 at 9:24 AM

To: Professor Robyn Dowling <robyn.dowling@mq.edu.au>

Cc: Faculty of Arts Research Office <artsro@mq.edu.au>, Miss Nicole Kate McNamara <nicole.mcnamara@students.mq.edu.au>

Ethics Application Ref: (5201500128) - Final Approval

Dear Professor Dowling,

Re: ('Understanding Cycling Practices in Sydney')

Thank you for your recent correspondence. Your response has addressed the issues raised by the Faculty of Arts Human Research Ethics Committee. Approval of the above application has been granted, effective (2/04/2015). This email constitutes ethical approval only.

If you intend to conduct research out of Australia you may require extra insurance and/or local ethics approval. Please contact Maggie Feng, Tax and Insurance Officer from OFS Business Services, on x1683 to advise further.

This research meets the requirements of the National Statement on Ethical Conduct in Human Research (2007). The National Statement is available at the following web site:

http://www.nhmrc.gov.au/_files_nhmrc/publications/attachments/e72.pdf.

The following personnel are authorised to conduct this research:

Miss Nicole Kate McNamara
Professor Robyn Dowling

NB. STUDENTS: IT IS YOUR RESPONSIBILITY TO KEEP A COPY OF THIS APPROVAL EMAIL TO SUBMIT WITH YOUR THESIS.

Please note the following standard requirements of approval:

1. The approval of this project is conditional upon your continuing compliance with the National Statement on Ethical Conduct in Human Research (2007).
2. Approval will be for a period of five (5) years subject to the provision of annual reports.

Progress Report 1 Due: 2nd April 2016
Progress Report 2 Due: 2nd April 2017
Progress Report 3 Due: 2nd April 2018
Progress Report 4 Due: 2nd April 2019
Final Report Due: 2nd April 2020

NB: If you complete the work earlier than you had planned you must submit a Final Report as soon as the work is completed. If the project has been discontinued or not commenced for any reason, you are also required to submit a Final Report for the project.

Progress reports and Final Reports are available at the following website:
http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/human_research_ethics/forms

3. If the project has run for more than five (5) years you cannot renew

https://mail.google.com/mail/u/0/?ui=2&ik=33873062d6&jsver=-dxVNC9Y02g.en.&cbl=gmail_fe_180516.06_p8&view=pt&cat=Ethics-approval-email&search=cat&th=14c77

approval for the project. You will need to complete and submit a Final Report and submit a new application for the project. (The five year limit on renewal of approvals allows the Committee to fully re-review research in an environment where legislation, guidelines and requirements are continually changing, for example, new child protection and privacy laws).

4. All amendments to the project must be reviewed and approved by the Committee before implementation. Please complete and submit a Request for Amendment Form available at the following website:

http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/human_research_ethics/forms

5. Please notify the Committee immediately in the event of any adverse effects on participants or of any unforeseen events that affect the continued ethical acceptability of the project.

6. At all times you are responsible for the ethical conduct of your research in accordance with the guidelines established by the University. This information is available at the following websites:

<http://www.mq.edu.au/policy/>

http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/human_research_ethics/policy

If you will be applying for or have applied for internal or external funding for the above project it is your responsibility to provide the Macquarie University's Research Grants Management Assistant with a copy of this email as soon as possible. Internal and External funding agencies will not be informed that you have approval for your project and funds will not be released until the Research Grants Management Assistant has received a copy of this email.

If you need to provide a hard copy letter of approval to an external organisation as evidence that you have approval, please do not hesitate to contact the Faculty of Arts Research Office at ArtsRO@mq.edu.au

Please retain a copy of this email as this is your official notification of ethics approval.

Yours sincerely

Dr Mianna Lotz
Chair, Faculty of Arts Human Research Ethics Committee
Level 7, W6A Building
Macquarie University
Balaclava Rd
NSW 2109 Australia
Mianna.Lotz@mq.edu.au

https://mail.google.com/mail/u/0/?ui=2&ik=33873062d6&jsver=-dxVNc9Y02g.en.&cbl=gmail_fe_180516.06_p8&view=pt&cat=Ethics-approval-email&search=cat&th=14c77

Figure A.3: Ethics approval letter - Macquarie University

Appendix D: Questionnaire

Questionnaire:

1. Have you ever cycled in Sydney?

- Yes
- No

(If yes > question 2. If no > exit statement)

e. Do you currently cycle in Sydney?

- Yes³¹
- No

(If yes > question 4. If no > question 3)

f. How long has it been since you cycled in Sydney?

- Less than 1 month
- Between 1 and 6 months³²
- Between 6 months and 1 year
- More than 1 year

(> Question 6)

g. How long have you cycled in Sydney for?

- Less than 1 month
- Between 1 and 6 months
- Between 6 months and 1 year
- More than 1 year

h. On average, approximately how often do you cycle in Sydney?

- More than once a week
- About once a week
- About once a month
- Less than once a month

i. Do you cycle for any of the following purposes? (Please select all that apply)

³¹ Respondents who answer *Yes* for this question fit the inclusion criteria for the interviews (provided they are over 18 years of age)

³² Respondents who choose this option (*Between 1 and 6 months*) or the first option (*less than 1 month*) also fit the inclusion criteria for the interviews provided they are over 18 years of age)

- a. Commute
 - b. Fitness
 - c. Recreation
 - d. Work
 - e. Sport or Racing
 - f. Other (please specify)
- j. What is your current age group:
- 18-34 years
 - 35-54 years
 - 55-64 years
 - Over 65 years
 - Do not wish to disclose
- k. What is your gender:
- Male
 - Female
- l. To thank you for your time today, we would like to enter you in a draw to win a \$50 Paddy Pallin gift card. Is this ok?
- Yes
 - No
- m. We would like to discuss cycling in more detail with some people. Would you be willing to participate in a follow-up interview? The interview will be conducted over one 60-minute session, and will be arranged at a mutually convenient time and place. Participants in the follow-up interview will be given an additional gift voucher to a total of \$20 for a bicycle store as a token of thanks for their contribution. This is in addition to the participation draw mentioned above. (Note that selecting "Yes" indicates that you allow us to contact you to arrange an interview. The number of participants selected for interview is limited, and we cannot guarantee that you will be contacted).
- Yes
 - No
- n. If you answered "Yes" to questions 9 or 10 above, we will need to be able to contact you and therefore request the details below. Please be assured this information will be filed

separately from this questionnaire and will not be used for any purpose other than for that specified throughout this questionnaire.

Name:

E-mail Address:

Phone number:

Exit statement:

Thank you for your time. Should you have any questions about this research please do not hesitate to contact the project team by e-mailing nicole.mcnamara@mq.edu.au.

Appendix E: Recruitment

Organisations and bodies used to recruit participants through:

State Bodies

- Bicycle NSW
- Cycling NSW

Other cycling organisations/social media groups

- Bike Wise
- SydneyCycleways
- Bicycle Network
- Art Cycle
- Chain Lynx
- Cycle-re-cycle Club
- Muggachinnos
- Sydney Uni Bike Soc
- UNSW Bike Club

Bike User Groups (BUGs)

- Ashfield
- BikEast
- Bike North
- Bike Sydney
- Canada Bay
- Dulwich Hill
- Leichardt
- Liverpool
- St. George
- Marrickville BUG
- Sydney Spokes
- CAM West
- Windsor

Cycle Clubs (CC [racing])

- ATTA NSW
- Bansktown Sports CC
- BiciSport
- Caravello CC
- Central Coast CC
- Coast Velo Club
- Dulwich Hill Bicycling Club
- Eastern Suburbs Club
- Giant CC Sydney
- LaneCoVelo
- Lidcome-Auburn
- Macarthur Collegians
- Manly Warringah CC
- North Western Sydney
- Northern Sydney
- Parramatta CC
- Penrith Panthers CC
- Randwick-Botany
- Southern Cross
- Southerland Shire
- Triathlon NSW
- Waratah Masters
- Western Sydney Cycling Network

Flyers used for participant recruitment:



Figure A.4: Recruitment flyer used on websites and social media

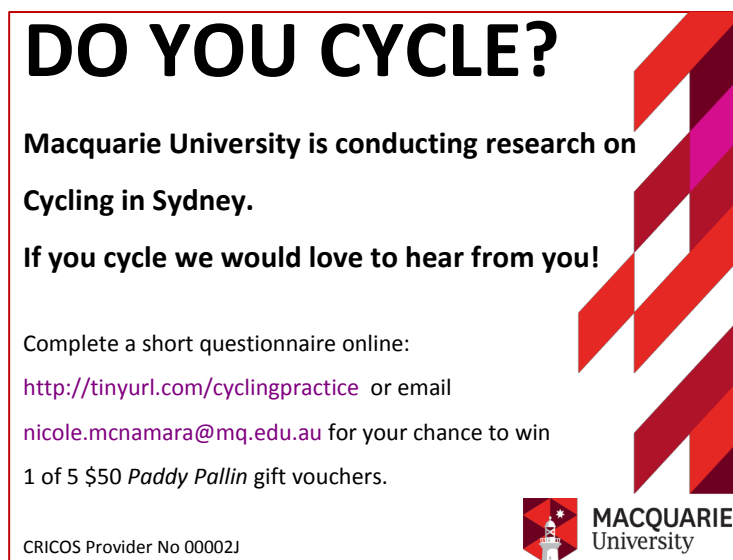


Figure A.5: Small recruitment flyer for cycling-related stores and cafes along cycle routes

Appendix F: Practice-diary guidance

Practice Diary Suggested Instructions:

Keep a diary for a period of 7 days. Record the details of your travel each day, paying particular attention to cycling. Think about:

- Where did you go?
- What did you do?
- Who with/who was there?
- When? (Date/time of day)
- How long did you spend doing different things? (E.g. getting ready, cycling, stopping for a flat...)
- What is the purpose/why did you ride?
- Is this a typical or unusual day for you?
- Feel free to write about how you felt or what you thought about as well
- You might want to view the diary task as a type of performance – *how do you perform cycling?*

Exactly how you keep the diary is up to you. I've provided a table in case you're not sure how to start. Feel free to write the diary however you like. Add photographs, maps, or anything that helps you to log your cycling journeys.

SAMPLE LOG No. 1

Day	Date	Bicycle journey #1	Bicycle Journey #2	Bicycle Journey #3
1		Type of trip: <i>Commute/Shopping/Fitness/Recreation...</i> Distance (Kilometres): Time: Location/s:		
2				
3				
4				
5				
6				
7				

SAMPLE LOG No. 2

Day	Date	Cycling Practice Diary
1		
2		
3		
4		
5		
6		
7		

Appendix G: Interview guide

Semi-structured in-depth Interview guide:

Record: Name, Demographic details (if known), Interview Location, and Date/Time.

Prior to commencement of the interview the participant will be:

- Requested to read and sign the Participant Information and Consent Form.
- Requested to confirm that they don't mind that the interview will be audio recorded.
- Advised that if they feel uncomfortable talking about anything at any time during the interview we can move on to the next discussion topic.
- Advised that they will be e-mailed transcripts of each interview for the review and ultimate approval.
- Give the \$20 gift voucher.

Interview prompts

1. I'd just like to start by asking you what's your most memorable cycling journey?
 - a. Can you describe what was happening in your life at the time?
2. If it's ok with you, I'd like to get some really basic information about you and your household.
3. Just quickly, do you belong to a cycling group?
4. Thinking about your current (or most recent) cycling experiences in Sydney... can you tell me a bit about why you currently cycle?
 - a. Do other people in your household also cycle?
5. Now I'd like to talk about the way you cycle. I hope it's ok but I'd like you to go into some detail about this. I am interested in what you do and think most of the time when you cycle, but don't be afraid to talk about abnormal days as well.
 - a. How often, on average, do you cycle?
6. Where do you cycle to most often?
7. How do you decide when you are going to cycle?
8. How do you cycle mostly? Do you sometimes cycle in a different way or for a different purpose?
9. What type/s of bicycle/s do you use? Is there anything you particularly like about one bicycle over another?
10. Do you ever have much interaction with other cyclists?
 - a. What does this interaction normally involve? Where does this take place?
11. What do you think about mostly when you're cycling?
12. Thinking back to the last time you cycled, what sort of a trip was it?
 - a. Where did you go?
 - b. What was the weather like?
13. So, we've spoken a bit about actually cycling. I'd like to talk about what happens in the lead up to you jumping on the bike.

- a. We were just talking about the time you cycled to (insert trip purpose). Can you remember when you would have decided to make that cycle trip? Or if you make this same trip every day, when and why did you start to cycle to (insert trip purpose)?
 - b. Do you ever think about not making this trip by bike?
14. We've talked about your cycling trips in some detail – thanks for being so open. Now I'd like to talk about when you first started cycling. Usually people have a story about how they first started cycling or how they started cycling again. Can you tell me about what was happening around the time you started cycling, or came back to cycling most recently?
15. I'd like to ask you to think through your day. Have you ever really thought of what takes up most of your time? What you spend most of your time doing?
16. Sometimes we spend a lot of time in our day doing things that are not necessarily the most important things to us. What is important to you? If you could pick a few words to describe yourself, what words would you use? What do you think you do to be good at, or to nurture those things?
17. Just to wrap things up, I'm interested in your thoughts about why you cycle.
- a. What would you say your primary motivation is?
 - b. Does cycling mean anything in particular to you?
18. Is there anything that we've not discussed that you'd like to tell me more about?

Final Statement: Thank you for your time. I'm now going to switch off my voice recorder. (At the conclusion of the interview the participant will be asked to record details of the times they cycle over the course of the week following the interview - paying particular attention to the details of the cycling trip/s and how and why they are taking place as well as what the participant notices whilst on the trips about what they are thinking of - photographs and other supplementary material, such as route diagrams or descriptions of bikes ridden, are also welcome).

Appendix H: Notes on diaries

Practice Diary Notes:

Detailed time-space budget diaries plus extra information (i.e. thoughts/feelings, photos*, and maps**) = nine in all

- Tony: 7 consecutive days, good level of detail re time (riding), route/s taken, and trip purpose. Recorded whether trip was alone or with others and added thoughts/feelings.
- Kaye: 7 consecutive days, good level of detail re time (riding), route/s taken, and trip purpose. Some really nice observations on mood, road surface, own fitness, identity, what happened on the ride/s, health, etc.
- Jan: 7 consecutive days, good level of detail re time (riding), route/s taken, and trip purpose. Links to strava records**. Added extra comments on rides; details of bike/s used, different things that happen on trips and thoughts/feelings. Added a page of notes on 'why I commute and other comments'.
- Skye: 7 consecutive days. Good details of trips (time, distance, to/from). Notes on bike used, why she chooses to ride, what happened on particular trips, planning involved in her riding, and photos*.
- Conor: 7 consecutive days, good level of detail re time (getting ready & riding), route/s and path type taken, and trip purpose. Multiple trips taken each day. Extra details re helmet use, whether anything usual/unusual happened and feelings.
- Yin: 7 consecutive days, good level of detail re time (getting ready & riding), route/s and path type taken, and trip purpose. Recorded car use and travel on non-riding days too. Thoughts on her own cycling. Photos* taken on trip/s and strava route maps** included.
- Dave: turned the 7-day diary into a blog. Good description of trip details (where to/from, time, distance, whether the trip was unusual or typical, and included some rich description of what he thought about on different rides, thoughts on mandatory helmet laws, speed of travel, and state of mind. Also included excellent pictures* and maps of routes**.
- Alex: cycling blog rather than diary (gave me a link to her blog page rather than completing diary) - several non-consecutive rides - time/dates, length of rides, images from each trip*, route maps**, and general description of the rides. Also discussion of technology used in cycling.
- Neve: 7 consecutive days (+ multiple trips in the same day). Details the time taken to get ready, time spent riding trip purpose, start/end points/location of ride and extra thoughts about those rides.

Detailed time-space budget diaries = seven in all

- Mateo: 7 consecutive days, good level of detail re time (riding + getting ready), route/s taken, and trip purpose
- Tina: 7 consecutive days, good level of detail re time (riding), route/s taken, and trip purpose. Multiple trips taken each day.

- Pat: 7 consecutive days, good level of detail re time (riding), route/s taken, and trip purpose. Included car use as well.
- James: only 3 days of riding recorded. Links to strava for maps of rides recorded**
- Leif: 7 consecutive days, good level of detail re time (riding), route/s and stop/s taken, and trip purpose.
- Heng: 7 consecutive days. Good level of detail re time (getting ready and riding), route/s, trip purpose, and some extra description of road and weather conditions and how they impacted the trip.
- Luke: 7 consecutive days, good level of detail re time trip commenced, route/s, distance, trip purpose and whether or not this was a usual or unusual trip - some extra info re path type and perception of time/speed of cycling.

Basic or shorter/less detailed time-space budget diaries = eight in all

- Liz: 7 consecutive days, simple details of time, distance, to/from.
- Roshni: only 3 days: simple details of time, distance, to/from.
- Monica: 7 consecutive days. Good detail on trips (time, location, other transport modes used), and some extra description of materials.
- Genevieve: 7 consecutive days of commuting travel. Included date, time, location to/from, time spent riding, and kms.
- Brian: two lots of 7 consecutive days - recorded kms ridden and to/from.
- Olivia: three non-consecutive days - time spent riding, location to/from, cycling attire and also a comment re wanting to do more cycling.
- Will: 18 consecutive days (cycling trips recorded for nine of 18 days). Included type of trip, time, distance, location/s and reasons for not cycling.
- John: four non-consecutive days recorded. Date, time, average speed, distance and location/route. Plus a link to his strava profile. I've taken a screenshot from the profile which shows a map** of one of his regular routes.

Appendix I: Interview coding exercises

First and Second Cycle coding of four transcripts

Key:

Overarching themes:
Multiplicity
Emotions/Perceptions
Time
Body/Embodiment
Identity
Disruption
Physical Health/Fitness
Mental Health/Wellbeing
Infrastructure
Planning/Organisation
Clothing/Accessories/Necessities

Transcript 4	
First cycle coding	Second cycle coding
<p>Male: 55-64 years old Lawyer Commutes from Northern Suburbs to CBD</p> <ul style="list-style-type: none"> Cycling closely linked to exercise: "to get exercise regardless. So it's part of my routine otherwise I wouldn't do it. I don't go cycling on the weekend ... in an ideal world ten times a week I get an hours exercise. Or in the real world at least two or three or four times a week I get an hours exercise." < Short on time? Will cycle if it's feasible: "if I can I will ... when I can't is if there's drop off responsibilities or pick up responsibilities, or if I've got to go to client functions." Weather doesn't generally deter him from commuting by bike: "even if it's really miserable and really cold, I still at least start on my ride and then by the time I warm up I keep going." Multi-modal travel enabled with the opal card: "what has revolutionized cycling on the North Shore anyway, maybe the rest of Sydney, is the Opal card. Because with the Opal card your bike is free on the train ... so you're seeing a lot of cyclists around train stations with bikes on trains, they're doing part of their journey on bike because it's not safe to leave your bike at the station and you can take it with you on the train to work, ride the last leg from the station to work... do it all the time" Would find a way to fit cycling into difficult routines, like the school drop off and pick up: "I'd drive them to school, and then take the bike off the car, ride into the city, ride back, pick them up and take them home. A lot of people do this now. They put their bikes, and they treat their car like a bike carrying machine." 	<ul style="list-style-type: none"> - Physical Health/Fitness - Organisation/Planning - Time - Disruption - Emotions/Perceptions - Body/Embodiment - Infrastructure - Emotions/Perceptions - Organisation/Planning - Time - Organisation/Planning - Relationships - Emotions/Perceptions

<ul style="list-style-type: none"> • Cycling has multiple benefits: "I like the exercise regardless, but on top of that I like the flexibility, the reliability and the community." • Dislikes the "level of organisation required, particularly with helmets and gear. So it's not just practical gear, but actually having to wear a helmet is a pain ... if you're going to a meeting, you don't want to put a helmet on your head, they're smelly or mostly, they muck your hair up and that's something else to worry about" • Laments inner-city bicycle infrastructure - hindering him from using his town bike to go between meetings in the CBD: "there's nowhere to park your bike most places too. When you turn up at a venue, where do you leave your bike?" • Weekly routines of cycle commuting: "in the morning you get into your cycling gear not into a suit for work. Once a week you take a lot of shirts into work, ... and at the other end you've got to get your bike away, get into a shower, and get into your work gear...it's just a process to make sure you have all of the things out, apart from all the things like a pump and a tube, the repair, the maintenance things you need, your wet weather gear, at least in winter.... then every weekend all the wet weather jacket, the gear, goes into the wash. Leg warmers, arm warmers, they become a smelly mess.... And, at work you need a system to dry your gear. Cause you've gotta have a shower and you gotta rinse your gear otherwise they'll be smelly at the end of the day. So you've gotta have a system to wash them, you wash them in the shower that's easy, but where do you hang it? If you hang it anywhere around the office, most offices it will smell even if you wash it well.... you need end of trip facilities at your workplace. You have to have a bike locker, you have to have showers, they've got to be clean, you have got to have nice dry floor, you have got to have towels and blow driers. Everything there to make it happen." - End of trip facilities are incredibly important for office workers commuting longer distances and needing to change! • Only does necessary organisation: "buy the gear only when it's so desperate you realise you should have got it ages ago, or apart from having a supply of spare tubes and different things like that. And having, you know I decent supply of gear so you don't run out of Knicks and tops." • Lobbied for the end of trip facilities to be put in at his workplace <ul style="list-style-type: none"> - "Eight years ago I started lobbying, and it was put in six years ago." • Innovation at previous office spaces to find places to dry 	<ul style="list-style-type: none"> - Organisation/Planning - Emotions/Perceptions - Infrastructure - Clothing/Accessories/Necessities - Organisation/Planning - Clothing/Accessories/Necessities - Organisation/Planning - Emotions/Perceptions - Infrastructure - Organisation/Planning - Clothing/Accessories/Necessities - Emotions/Perceptions - Infrastructure - Infrastructure - Time - Emotions/Perceptions
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<p>clothes: "I could hang up my gear actually in the air-conditioning vent in the return. You put it where the return is it sucks all the dry air through your gear and it's dry within a few hours. Very efficient."</p>	- Identity
<ul style="list-style-type: none"> • Cycling linked to community/friendship and the notion of a shared identity: "There's opportunities for social engagement when you're riding that aren't available in either car or train transport. It seems to be because it's a minority group that are persecuted by drivers, that the cyclists tend to have a common identity and they tend to talk to each other and give each other tips and ask people... a cyclist would ask another cyclist 'where are you going?'" - this 'community' is important for the interviewee. 	- Emotions/Perceptions
<ul style="list-style-type: none"> • Riding with others for safety as well as company: "it makes a massive difference to your flow home to have another cyclist beside you." 	- Organisation/Planning
<ul style="list-style-type: none"> • Organisation on a larger (community) scale: "our commuter group has about 180 members and they communicate by email, they meet regularly at the same coffee shop each morning, they have a regular bus, a bus in the morning and two in the evening. And you can pretty much guarantee you'll see particular people on a particular bus... Because there may be up to 20 or 30 or even sometimes 40 cyclists travelling together they've started to deliberately adopt lots of different routes." 	- Infrastructure
<ul style="list-style-type: none"> • Safety in numbers - but up to a point: "A group of five or ten is much safer than a group of 30. It causes, it's enough, five or ten is enough to get the traffic to see you, but once you get above that the car drivers aren't impressed because you really are a barrier to them preceding anywhere." 	- Emotions/Perceptions
<ul style="list-style-type: none"> • Hilarious group strategy for dealing with angry driver behaviour: "We now only experience positive driver events. Because now we have a system of tokens which, we try to accumulate as many tokens as we can, we call them GOTFR tokens which stands for 'Get Off the F'n Road.' And so if you get a GOTFR token it's actually something to celebrate and to compare with other cyclists. What I've decided to do is to turn any abuse into a joke." 	- Emotions/Perceptions
<ul style="list-style-type: none"> • Cycling linked to space/time to oneself but also acknowledges the inherent dangers and need to be aware of them: "I make resolutions for the day, I do some planning, um, I think. I don't think. I deliberately don't think I just float along, I enjoy the scenery, I meditate. I don't levitate. So there's quite, I mean it's like any activity, but yeah cycling's strange there's both less and more freedom in it compared to other activities because it's 	- Emotions/Perceptions
	- Time
	- Relationships
	- Emotions/Perceptions
	- Organisation/Planning

<p>such an inherently risky activity you have to be focused with what's happening around you so there's hazards at every turn and the faster you go the quicker they mount."</p> <ul style="list-style-type: none"> • Alone time = the commute in when riding solo: "that's a time for reflection or planning". • Camaraderie / looking out for one another: "another part of the activity, so you're calling 'car left', 'car right', 'looking right', 'free', 'clear', 'door up', you know, so this is a constant sort of, yeah it's pretty noisy. And the odd 'ho ho ho ho' ... so there's a sort of running commentary and um, I think some of them just think we're a bit crazy, but it's made it quite a lot of fun." • Flexibility/Multiplicity and Habit: Something happens to one bike, you swap to another "this is typical, I grabbed my bike out of the back of the car, got on it and then took off and realized I'd forgotten it has a new disc brake on the front that's a recent rebuild, and I'd forgotten that I was going to disassemble it and double check the pads because it wasn't gripping properly. So I immediately just clicked my clip and went back in the dumped that bike and grabbed the road bike. I think it's typical of people who cycle regularly to have more than one bike and what will happen is quite regularly you'll have a flat tire or some other defect with the bike and you just grab the other one. So you just change your behaviour, you change... I don't think cyclists are fixed in their ways, they've got to be highly flexible." "So that's what cyclists do they have spare wheels to do the quick swap." • Reliable and fast: "reliable In terms of your timing; you don't get held up by anything" • Family history of cardiovascular disease started his cycling: "I was very very busy working so I thought 'what could I do?' and I was already doing things like jumping off the train early and running home, like a couple of stations early, walking to the station, walking up and down stairs to the office rather than using the lifts, all those sorts of things. But I thought if I could get in something, the cycling might be a better way to do it." • Other benefits: "It's reliable and it's less, notwithstanding the heat or the cold or the rain, it's less unpleasant than train travel or bus travel. And if you're working indoors you're outside, so you actually get some outside time before you go into your little glass and steel box for the day." 	<ul style="list-style-type: none"> - Clothing/Accessories/Necessities - Organisation/Planning - Multiplicity - Identity - Time - Disruption - Time - Physical Health/Fitness - Time - Emotions/Perceptions
<p><i>Reflections</i></p> <p>The interviewee was incredibly frank about why he cycles and really honest about how he copes with traffic and drivers. Boy can he talk! Really easy to interview in so far as I could ask a question and he would tell a story to help illustrate his answer and make it funny. The transcript is filled with funny anecdotes and stories that may be useful further down the track, but are simply too long for here.</p> <p>Cycling is very much a part of his life and identity, however it's not what defines him. It's something he does, and has been</p>	

doing for long enough for it to be a matter of course for him.
Certainly didn't take himself (or cycling) too seriously.

Transcript 6

First cycle coding	Second cycle coding
<p>Male: 26 years old Bike shop employee Has been riding seriously since 19 years old Commutes from Inner West to Homebush</p> <ul style="list-style-type: none"> • Cycling linked to career • Relationship with father led to working in a bike shop • Cycling culture • Cycling as a sport • Multiple forms of cycling: "competitive Clothing/Accessories/Necessities", "recreationally for fun" and "a lot of commuting" – multiplicity • "my riding is a combination" • "I like riding" • Hundreds (300-400) of kilometres per week • Lack of housemates' understanding • "bike rider lifestyle" – organised, early starts • "set up ... lifestyle ... to be convenient for it" • food, clothes and bike all ready (tires pumped) and "gear ready" • It's about more than just being organised: idea of "having a good set up" • Sense of being short on time/a lack of time and making time to "get a ride in" – being organised helps getting away on time ("maybe get up early... from about 4.30 in the morning") • Weather impacts how much time is needed to get ready for a ride – clothing • Food linked to training and needing energy/fuel (to avoid "getting a bit huger flat") • Strong awareness of his body's needs (i.e. fuel) • Need to be considerate of other household members when getting away early • Importance of end-of-trip facilities at work – the appreciation of having a shower is something that has come with age and improves the commuting experience: "not being clean is just not nice" • Feeling lucky to work in an environment that is friendly to bike commuters – image of a lycra clad man walking through the office is not appealing. • Work assists commute • Riding as a time-commitment – more time dedicated to riding 	<ul style="list-style-type: none"> - Identity - Relationships - Multiplicity - Emotions/Perceptions - Organisation/Planning - Time - Time & - Clothing/Accessories/Necessities - Body/Embodiment - Infrastructure - Emotions/Perceptions - Time - Identity - Planning/Organisation - Emotions/Perceptions

<p>on weekends and extra kilometres fitted in before work – again, making time</p> <ul style="list-style-type: none"> • Mostly an individual sport • Riding with others is organised • Idea of a being in control over your own riding schedule (solo and group rides) • Flexibility of cycling (to do different rides when it suits) • Listening to music when riding solo • Idea of riding providing “a really good headspace”, allowing “alone time” – provides a rare opportunity to get one’s own headspace & is a “good time to think” • Think about quite random things when riding: “anything that’s going on in your life really” • Perception of other cyclists as “badly behaved” • Good behaviour when riding is important – sets an example for other road users • Feeling frustrated with cyclists that are badly behaved or break road rules and give cyclists a bad reputation • Cycling on the road is dangerous – important to ride safely and behave appropriately or be a role model for others • Lack of accountability as a cyclist – police don’t enforce road rules as much: “at the end of the day you can get away with murder on a bike” • Deviant behaviour? • Experience does not equal good behaviour • Freedom and liberation that cycling affords • Cycling is a “lifestyle choice” • All consuming/defines you • Health and wellbeing aspects are positive • Provides focus and structure in your day/life & good habits • Environmental and economic benefits (economic slightly counteracted by working in a cycling shop and buying more bike things – buying bike things is fun). • Fun/enjoyable side of cycling is an argument for people spending \$ on a bike • Element of care and maintenance involved in owning a bike • Variety of bikes out there – owns four (two road, one velodrome and around town bike) • Idea that bikes are precious – would be sad to see one stolen (fear of theft of a more expensive bike so uses a less-expensive ‘around town bike’ for those local trips) • Casual use of around town bike • Family relationships helped transition to cycling • Interest in cycling gradually developed over time 	<ul style="list-style-type: none"> - Multiplicity - Emotions/Perceptions - Time - Emotions/Perceptions - Identity - Emotions/Perceptions - Identity - Emotions/Perceptions - Emotions/Perceptions - Identity - Physical Health/Fitness - Mental Health/Wellbeing - Planning/Organisation - Emotions/Perceptions - Multiplicity - Emotions/Perceptions - Relationships - Emotions/Perceptions - Relationships - Identity - Physical Health/Fitness - Emotions/Perceptions
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<ul style="list-style-type: none"> • Importance of friendship groups within cycling to encourage active participation in the sport & to motivate you • Cycling peers encourage participation to “pull you in and say ‘come to this ride on Saturday.’” • “A big part of my lifestyle” • Competitively driven • Positive impact on lifestyle – develop healthy habits • “I really like riding my bike a lot” • A way to exercise and see the city • Ideas around balance • Mental health and fitness impacts • Cycling ‘kit’ (clothing) changes with weather and is mostly quick to put on (saving time or speeding up time it takes to leave work) • In a routine for commuting to and from work • Less important to ride home quickly: “cruise home” • Time spent ‘doing’ cycling: “about 15 or 16 hours a week” (riding + time either side of the ride) • Training makes you tired – need to balance riding with social life, family responsibilities.... • Positive state of mine (at work and when cycling) • Positive outlook on life and work in general: “I want to feel like I’m ... ahead of the game and really want to [be] maximizing and optimizing [my time] and not just getting by.” • Needs to have something other than work to focus on (hence cycling) and have goals in • Cycling provides an uncomplicated life in many ways: Not cycling would “make my life a little bit more complicated because there’s a lot of aspects of my life that ... are just sorted with riding a bike” – Transport, exercise, work/life balance. • Cycling linked to having a big friendship group • Car use: still drives when it’s not feasible to cycle (i.e. to pick up big things, visit family) • Experienced the “pro cyclist life” working in Italy as a cycle tour guide – “where you’ve got nothing else to worry about except riding your bike” • Developed a sense of responsibility on the road through the Italian cycle tour guide job. • Sydney traffic can be a deterrent for people – idea of being “used to it after a while” 	<ul style="list-style-type: none"> - Mental Health/Wellbeing - Physical Health/Fitness - Clothing/Accessories/Necessities - Time - Organisation/Planning - Time - Body/Embodiment - Mental Health/Wellbeing - Time - Identity - Organisation/Planning - Physical Health/Fitness - Relationships - Identity
<p><i>Reflections</i></p> <p>It’s great to get a bike shop employee’s perspective on cycling! He cycles a LOT (300-400Kms each week) but it’s all just a part of the cycling/cyclists’ lifestyle: ride to work (get in extra kilometres on the way), ride home, do some training rides with mates, and ride on the weekend – always getting up early and being incredibly organised. Organisation seems tricky – is it habit? Necessity? Routine?</p>	

I'm really interested in how work and friends keep people cycling, if he stopped cycling he'd have less friends and at the same time it would seem weird to work in a bike shop and not cycle.
I like his sense of responsibility to be a good cyclist (Aldred's 'cycling citizen'!!!) and to set an example and be a role model for others: being in the shop also would add to that responsibility – there are customers new to cycling that they could influence, also various events they ride in/organise that would have an impact.

Transcript 10

First cycle coding	Second cycle coding
<p>Female: 34 years old PhD student Has been riding for 2 years Rides recreationally at weekends and on weekdays (regularly) Occasionally commutes from Randwick to UNSW</p> <ul style="list-style-type: none"> • Early childhood memories of acting like a tom boy riding around home • Growing up in Iran cycling is not something women do (not safe) • At first Sydney "didn't look safe" for cycling – took time to work up the courage to buy a bicycle • Injury was a catalyst for taking up cycling (coccyx and pelvis) – only exercise that was low-impact and recommended by physiotherapist to help with recovery • "I really fell in love with it" • Cycling is for fun and exercise (at weekends "no plans [and] get lost in the city somewhere" • Cycling provides a range of benefits: It's a "physically, emotionally, challenging, joyful experience all together and also recovery" • Likes walking for transport and public transport • "I prefer to pay more rent and live in an area with more public transportation ... than buy a car" • Cycling and weather – less in the rain • Weekend "cycling partner" – arrange rides with around the city/inner eastern and western suburbs with a destination (i.e. a market or a café) in mind "sometimes we go without a plan... we get lost in the city" • Safety concerns on road: "I prefer to cycle with someone when I go on a road" "I like it to be daytime... I have good lights but I don't trust the traffic." • Solo riding during the week (commuting short distance to university) – linked to needing "to feel the air on my face" (improve mood/relieve stress) • Stress relief again: "it keeps my mind away from the things that are very stressful." • Cycling improves energy: "sometimes I just do it because I want 	<ul style="list-style-type: none"> - Emotions/Perceptions - Disruption - Emotions/Perceptions - Emotions/Perceptions - Body/Embodiment - Organisation/Planning - Emotions/Perceptions - Body/Embodiment - Mental Health/Wellbeing - Emotions/Perceptions - Body/Embodiment - Body/Embodiment - Clothing/Accessories/Necessities

<p>to have a good feeling ... I feel very energetic when I cycle"</p> <ul style="list-style-type: none"> • Cycling is a good challenge – especially cycling up hills around Randwick. • Hair is a hindrance to cycling (clean hair days = no cycling) "because of the helmet sometimes I don't" cycle to uni • Normal clothing on commuting trips (bike shorts underneath a skirt or dress for modesty) • Sense that cycling is empowering – pushing yourself, moving yourself on your own terms "it's like the feeling that it's you in charge, it's you that you're moving I even enjoy falling off!" • Started to ride her brother's road bike so that she could ride it to Central in order to take it to the bike shop for a service and build familiarity with it – has since started riding it more regularly. • Different bikes provide different riding experiences: Hybrid/Intro bike Vs Road bike (fun/easy riding/challenge going up hills Vs faster/more powerful/but fragile) • Feels a sense of responsibility to get both bikes serviced regularly. • Saturday morning ride has become a regular occurrence – something out of the ordinary would have to happen to stop the ride. • Weekday riding is "more unplanned" – linked to how you're feeling on the day. • Sydney's weather influences cycling: humidity = sweat and sweat = dirty hair = cycling – "then I know that this is the time to wash my hair 'let's do the cycling' ..." • Would like to go to the shops on the bike – afraid of parking bike on the footpath – fear of theft "I don't feel safe leaving my bike there". • Fear of the unknown at the destination sometimes hinders cycling: "lack of those faculties are hindering me from using it more often" • Fear of traffic/ safety in traffic also a concern: "I'm ... scared of 'oh my god is there going to be heavy traffic on the roads?' ..." • Sense that being more familiar with Sydney's roads and traffic would help her to cycle more: "we try to wake up really early because we know that if the roads are getting really ... heavy then its going to be a challenge because we're not familiar and we can't actually enjoy our cycling." • This sense of safety is seen in her route choice – sticking to paths (e.g. riding through UNSW campus not down High Street: "you know people don't actually look when they're opening the [car] door?"), back streets and riding with another person. 	<ul style="list-style-type: none"> - Body/Embodiment - Emotions/Perceptions - Organisation/Planning - Multiplicity - Organisation/Planning - Organisation/Planning - Emotions/Perceptions - Emotions/Perceptions - Infrastructure - Emotions/Perceptions - Infrastructure - Infrastructure - Mental Health/Wellbeing - Body/Embodiment - Clothing/Accessories/Necessities - Clothing/Accessories/Necessities - Body/Embodiment
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<ul style="list-style-type: none"> • Afternoon bike ride to restore energy to help study • Clothing choice for weekday rides: "my riding outfit [is] ... a comfortable pair of ... sports tights, and the dry fit top... I don't wear the lycra things..." • Clothing choice for weekend rides is casual: "quite comfortable jeans and a top ... something that is sporty but comfortable at the same time". • Use of STRAVA on mobile device when starting to cycle to help figure out kilometres ridden • Previous bad experiences with drivers have stopped her riding longer distances on the roads by herself: hearing "things that are not comfortable to hear" • Concentrating on what she's doing when cycling – idea of being in the zone. • Cycling feels good: "Every single time that I cycle, for no matter what reason, I feel good ... If I feel sore afterwards I feel more joyful inside because I had a challenge today." • Interactions with other cyclists are positive: "I like smiling at the cyclists ... it's a good feeling" • Sense of community and belonging: "you feel that you are part of a community... they're your kind of people – they enjoy what they're doing [and] they're doing it for itself ... it's that sense of belonging." • Hill climbs present the opportunity to challenge her to work harder: "I think that I'll go up that hill in [gear] 4 or 5... and I will always end up using 1 or 2." – it's also something she enjoys doing. • Confidence building – setting herself little challenges on the bike is a way of "helping me to build up my confidence" • Pushing yourself: "I like pushing myself to the edge or my limit and this is why I feel really good, even if I do short distances" – That exercise high! • Cycling linked to wellbeing: "you see yourself more clearly, your power, your confidence, your body limits or even your mind limits when you're cycling" • Ideas around being still: "it helps you sleep better – I'm a very hyperactive person, so it calms me down" • Weekday rides follow a similar routine: Laps of Centennial Park with a rest break at the fountain and the challenge of a hill climb on the way home – forms part of a larger routine of winding down from the day, shower, eat, talk to family overseas, chill out with her brother, then bed. • Weather linked to how enjoyable rides can be: warmer weather "it's more enjoyable and drier"; cold weather "your 	<ul style="list-style-type: none"> - Organisation/Planning - Emotions/Perceptions - Emotions/Perceptions - Emotions/Perceptions - Body/Embodiment - Emotions/Perceptions - Emotions/Perceptions - Identity - Body/Embodiment - Emotions/Perceptions - Body/Embodiment - Body/Embodiment - Mental Health/Wellbeing - Mental Health/Wellbeing - Emotions/Perceptions - Organisation/Planning - Body/Embodiment - Time - Emotions/Perceptions - Emotions/Perceptions - Organisation/Planning
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<p>face is freezing because you're cycling and the air is actually [so cold] ... but it's always nice because you feel warm."</p> <ul style="list-style-type: none"> Time of day can be a big part of the decision-making process: "it's always more enjoyable to cycle early in the morning" The joy of unintentionally finding new places: "the serenity of the spot was amazing and we just ... sat down and we looked over the harbour. It was beautiful." Food also mentioned frequently: eating before an afternoon ride, eating after a ride, having breakfast before a morning ride, or riding to a café to have breakfast: "we went to Bourke Street Bakery and we had breakfast" Time spent mostly on PhD and stressing about doing/not doing PhD. Positive outlook on life despite stresses – expressed through trying to be happy, wearing bright clothes that make her feel good, doing things (cycling) that make her feel good. Cycling means motivation to keep going with everything: "having that bicycle is always a motivation, it's something itching in your room every single time say 'go out... use me!'" Can't understand why cycling infrastructure is so below-par in Sydney and also how the transport system doesn't support cycling (i.e. buses being able to carry bike on the front of them). 	<ul style="list-style-type: none"> - Time - Emotions/Perceptions - Emotions/Perceptions - Emotions/Perceptions - Infrastructure
<p><i>Reflections</i></p>	
<p>The interviewee is so enthusiastic about cycling. Although she's only cycled in Sydney for a short time it is something that holds a great importance in her life. Perhaps it's because she's also so focused on completing her PhD and most of her family is in Iran, that exercising helps to get her through all the stress and anxiety she's felt moving across the other side of the world?</p> <p>Injury seems to be a fairly common catalyst for starting to cycle. It's nice to hear that the love and enjoyment of the sport came from something that would have been traumatic and painful.</p> <p>I liked how we could talk easily about normal clothing rather than cycling-specific clothing. It's something that really helps some people to feel at home on a bike in.</p> <p>The word 'challenge' came up a LOT – challenge of riding up hills, challenge of going longer distances, challenge of navigating the city... The challenge of doing your PhD in another language didn't come up but I figure that she likes challenges!</p>	
<p>Transcript 11</p>	
<p><i>First cycle coding</i></p>	<p><i>Second cycle coding</i></p>
<p>Female: 18-34 years old E-Bike commuter and weekend rider</p> <ul style="list-style-type: none"> Moving as catalyst for buying a bike: "when I lived in Coogee I really wanted to start cycling, but it was just too hard (laughs). So as soon as I moved to Marrickville, it was like: right, it's flatter up here, it's better, where can I buy a bike?" I still have her but I don't ride her anymore (laughs). It's 	<ul style="list-style-type: none"> - Emotions/Perceptions - Body/Embodiment

<p>a three-speed cruiser Dutch bike ... really upright, really grounded on the road and it's a really comfortable bike until you hit a hill...</p> <ul style="list-style-type: none"> Used first (intro) bike to ride along :the Cooks River Cycleway: "very flat and very removed, so I honestly couldn't keep up with traffic in it. You know, if I was on the main roads and I felt like there was a line behind me I'd pull over and let people around me because I was like <i>I am too slow, I accept this</i>" On buying an E-bike: "I had test ridden one ... and it was just like 'oh my god how do I find an excuse to ride this everyday? I would love to justify this cost!' And it took me about a year of going 'I really want one of them' to get into" Changed jobs and moved office location helped to switch to an e-bike: The move "took me out of the CBD and it made me comfortable going 'I can commute that to work, that's fine'..." moving jobs, there was a pay increase, there was a slight change in location and I just kind of went 'I've wanted to do this for a year, why not do this?'" After buying the e-bike: "it was actually instant I'm a full-time bike commuter now. So I went from zero days a week to commuting five, just by having this bike" Fear of getting lost/problems with navigation: "my biggest concern was getting lost. So I had my phone strapped to my handlebars with my little GPS map tracker thing, and of course I am one of those people where I struggle left from right (laughs) so I kept making the wrong choice" Weather impacts cycling to a certain degree: "if it's pouring down rain, light rain I'll cycle in, but pouring down rain I will bus" "On the weekends if my partner's around, because he's not a regular cyclist he can't keep up with me, so it's the car or a train depending on where we're going. ... he gets really sweaty as well so if we're going somewhere nice he doesn't want to turn up sweaty. And there have been instances where he's ridden his motorcycle 	<ul style="list-style-type: none"> - Infrastructure - Emotions/Perceptions - Emotions/Perceptions - Disruption - Emotions/Perceptions - Identity - Clothing/Accessories/Necessities - Emotions/Perceptions - Organisation/Planning - Clothing/Accessories/Necessities - Disruption - Relationships - Organisation/Planning - Emotions/Perceptions - Time - Organisation/Planning - Emotions/Perceptions - Clothing/Accessories/Necessities
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<p>somewhere and I've gone to the exact same place but on my bike, and then we've left the party at different times as well and everyone's just looking at us going <i>what is wrong with you two?</i>" (laughs)</p> <ul style="list-style-type: none"> Ideas around efficient use of time: "I'll end up running errands on the way because it's so much easier on the bike ... I'll just do some stuff while I'm getting there". Accumulates bike accessories and enjoys shopping for bike things: "I've got a collection of luggage - you've got to have the right bag ... I've got the basket on the front and panniers or trunk bag on the back" Importance and life of an E-Bike motor: "kept burning through the motor" on first E-bike Errand running on bike is a big part of everyday routine: "five days a week travelling to and from work and I do all my work errands on the bike, generally around lunch time" Utility - Bike as a default first choice for transport: "last weekend we had to pick up a chicken coop, which is a really awkward shaped thing and impossible to be on a bike, so that went in the back of a car. But a lot of the time, the choice to go bike versus car, is based solely on the fact that is it me just travelling to this place, or do we have to go together? If it was just me on my own it would be seven days a week!" "I don't enjoy driving a car, so that's why I've left my license lapse and tried to figure out every way I can go around driving ... do you sit around waiting for a bus, get frustrated about it being late, being stuck in traffic, or can you get this really efficient way that you just leave from your door, like you would a car, and there's no wait time, there's no transferring time, you get around a lot of traffic because there's heaps of turns a bike can make that a car can't." Sense of efficient use of time as something satisfying: "I'm an efficiency junkie ... my biggest satisfaction is if I have to go from point A to point B, but I can do like five things on the way, that's my happy time. And the bike makes it really easy to do that!" 	<ul style="list-style-type: none"> - Time - Organisation/Planning - Emotions/Perceptions - Emotions/Perceptions - Time - Time - Emotions/Perceptions - Organisation/Planning - Time - Emotions/Perceptions - Organisation/Planning - Infrastructure - Time - Emotions/Perceptions
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<ul style="list-style-type: none"> • Example of time-used efficiently: “I can get on my bike, go to Harris Street, drop off some stuff there, swing around to Mountain Street drop some stuff and pick some stuff up, and then go to Broadway, get my lunch and circle back to work and I’ve still got a full lunch hour in front of me. That makes me really happy” • “I actually save up my errands from the week in Newtown to do it by bike on the weekend during the day because parking is so hard there.” - saves time being organised! • Bike provides ease and flexibility: “if i can do things on the way, or take a slight detour, again it’s so much easier to do it by bike.” • Bad experiences whilst cycling on the road don’t deter her from riding: “I have lovely stories about Sydney drivers, some of them are beautiful. But sometimes ... you get a spate of really aggressive drivers that .. do not think you should be there and it’s so frustrating to have to get in those situations...” • Shopping for bike accessories: “I love my bike and I love getting crazy crap to go on it, I spend a lot of time on it.” • realistic about how much money and how many bikes she can have: “I need to get rid of my old 3-speed because I just don’t ride her anymore, it’s too much work.” • Average Commuting morning: “I get myself up, get myself ready, I usually take my dogs for a walk, ... and then as soon as I get back it is straight out the door with the bike. My partner takes care of feeding the monsters. Everything is pretty set to go. My bike actually lives in the back of my house so I can plug it in at night. So it is generally a process of hauling it down the back steps ... out my front door and just go there’s very little prep time” (Quick) • Clothing choice and bicycle choice linked: “I don’t change. What I wear during my day is what I wear on my bike, and I’ve always been very adamant that’s how I want to commute, I don’t want to have to be packing changes of clothes, changing at work, showering at work 	<ul style="list-style-type: none"> - Emotions/Perceptions - Emotions/Perceptions - Time - Body/Embodiment - Organisation/Planning - Time <p>Type of bicycle = less</p> <ul style="list-style-type: none"> - Clothing/Accessories/Necessities - Emotions/Perceptions - Emotions/Perceptions - Clothing/Accessories/Necessities - Organisation/Planning - Emotions/Perceptions - Clothing/Accessories/Necessities - Emotions/Perceptions - Emotions/Perceptions - Body/Embodiment - Identity
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<p>and carrying on ... that was part of the reason I went down the e-bike [path], not just so I can keep up with the traffic, but so I'm not a sweaty mess at the end of it." "it's just chucking my purse in the pannier and pressing on" [More good quotes in transcript to illustrate the ease of the interviewee's trip] "it's just door to desk. I really wanted to keep that as simple as possible"</p> <ul style="list-style-type: none"> For new destinations or destinations that she's less familiar with there is a lot of planning involved: "I recently did one to North Sydney.... [which] was probably the biggest one out of my comfort zone ... and I probably spent an hour looking at maps, which is ridiculous because it takes an hour to get there!" Fuss-free bike simplifies getting ready: "it's very set and forget ... it's all internal hub, covered up chain, get on and go which I like." E-Bike affords speed: "I like being able to zip up the hills I have to deal with". Impact of the E-bike's weight on the body is so different to other cyclists: "I hate those stairs [at the North Sydney end of the Harbour Bridge bike path]! My entire upper body ached with those stairs because my bike is so heavy getting it up and down the stairs." Cycling is a large part of her identity: "I think it pervades everything about me now which sounds really bizarre. But when I took this current job I actually said to them, look at some point I will corner each and every one of you and make an argument for why you should cycle. I don't know I'll be compelled to do this, but it will happen and it's okay for you to ignore me. (laughs) Built confidence in other aspects of her life: "I think it has made me, certainly on the roads it's made me a lot more confident, which is odd because it's an intimidating place to be on a bike a lot of the time. But ... if you've done the worst of it, there's not much else they can throw at you." Views herself on her bike with humour: "while I'm cycling, I'll just sit there you know mentally shaking my 	<ul style="list-style-type: none"> - Emotions/Perceptions - Emotions/Perceptions - Identity - Emotions/Perceptions - Clothing/Accessories/Necessities - Emotions/Perceptions - Mental Health/Wellbeing - Organisation/Planning - Identity - Emotions/Perceptions - Emotions/Perceptions - Time - Emotions/Perceptions - Relationships - Organisation/Planning
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head at myself and go *you look crazy, you've got an insane looking bike with flowers hanging off it, you're wearing a big poufy dress, but you're trying to tear up a hill!*"

- Safety strategies on the road: "mentally keep telling myself to dominate the lane"
- Compares experience of commuting on public transport to commuting by e-bike: "it is a space where I can't sit there reading my emails which is really good, and I can't focus too heavily on anything else [apart from] watching traffic dangers, working out where I am. It is a really nice way to get out of work headspace because previously when I commuted on the train and bus, my entire trip I was ... on my phone checking emails to see what's coming in, trying to look at my diary to see what's coming up on the schedule ... all those things. But you can't do that on a bike. You just have to ... do what you're doing and nothing else, which is really good."
- Ideas around self-sufficiency, autonomy, control and independence are strongly linked to the use of the bike, even providing food (eggs) for themselves: Doing things yourself "it feels a lot more self-sufficient and that probably feeds into why I like cycling as well. Like I don't have to rely on a bus turning up, I don't have to rely on the expense of a car, I can just get on this thing and get myself there, in my own time, exactly the way that I want to do it."
- Empowerment is also a strong theme for her: "I'm getting myself there on my own terms ... an independent way of me getting from point A to point B but it also separates me from my partner on the weekends from getting to point A to point B because it's not something we can really do together."
- In the lead up to commuting full-time on the e-bike she attended a City of Sydney-run bike maintenance course, to make sure she was patching tires correctly.

Reflections

Ideas around control, freedom of choice, independence and flexibility/efficiency came up frequently in this interview. The interviewee was quick to laugh at herself and how she thinks she looks on her e-bike.

Really interesting how she spent a year deliberating whether or not to buy the e-bike - justifying cost/cost per use.

Fiercely independent in her day-to-day life... but wonders whether this also has an impact on her relationship with her partner.

Appendix J: Questionnaire Results

Respondents' multiple purposes/reasons for cycling:

Combination of purpose(s)	Number of respondents
Commute, Fitness & Recreation	95
Commute, Fitness, Recreation & Shopping / Errands	90
Fitness, Recreation	68
Commute, Fitness, Recreation & Sport / Racing	36
Commute, Recreation, Shopping / Errands	31
Fitness, Recreation, Sport / Racing	29
Commute, Fitness, Recreation, Sport / Racing & Shopping / Errands	23
Commute & Fitness	22
Fitness, Recreation, Shopping / Errands	22
Recreation	18
Commute	17
Commute, Fitness, Recreation, Shopping / Errands & Other	16
Commute, Fitness, Recreation, Work, Shopping / Errands	15
Commute, Fitness, Sport / Racing	14
Commute, Recreation	14
Commute, Fitness, Recreation, Work, Sport / Racing, Shopping / Errands	13
Fitness	11
Commute, Fitness, Sport / Racing, Shopping / Errands	10
Fitness, Sport / Racing	10
Commute, Fitness, Shopping / Errands	9
Commute, Shopping / Errands	9
Commute, Fitness, Recreation, Work, Shopping / Errands, Other	8
Commute, Recreation, Work, Shopping / Errands	8
Commute, Fitness, Recreation, Work	6
Commute, Recreation, Shopping / Errands & Other	6
Commute, Shopping / Errands & Other	6
Commute, Work, Shopping / Errands	6
Commute, Fitness, Shopping / Errands & Other	5
Commute, Fitness, Recreation, Sport / Racing, Shopping / Errands & Other	4
Commute, Fitness, Recreation, Work, Sport / Racing, Shopping / Errands & Other	4
Fitness, Recreation, Sport / Racing, Shopping / Errands	4
Recreation, Shopping / Errands	4
Shopping / Errands	4
Commute, Fitness, Recreation & Other	3
Commute, Fitness, Recreation, Sport / Racing & Other	3
Commute, Fitness, Recreation, Work, Sport / Racing	3
Commute, Fitness, Work	3
Commute, Fitness, Work, Shopping / Errands	3
Fitness, Shopping / Errands	3
Sport / Racing	3
Commute, Recreation, Sport / Racing, Shopping / Errands	2
Commute, Sport / Racing	2
Commute, Work, Shopping / Errand & Other	2

Combination of purpose(s)	Number of respondents
Fitness, Recreation & Other	2
Commute, Fitness & Other	1
Commute, Fitness, Sport / Racing, Other	1
Commute, Fitness, Sport / Racing, Shopping / Errands & Other	1
Commute, Recreation, Sport / Racing	1
Commute, Recreation, Work	1
Commute, Recreation, Work, Shopping / Errands & Other	1
Fitness, Recreation, Sport / Racing, Shopping / Errands & Other	1
Fitness, Recreation & Work	1
Fitness, Recreation, Work, Shopping / Errands & Other	1
Fitness, Sport / Racing, Shopping / Errands	1
Fitness, Work	1
Fitness, Work, Shopping / Errands	1
Fitness, Work, Sport / Racing	1
Other	1
Recreation, Shopping / Errands & Other	1
Shopping / Errands & Other	1
Total number of respondents	682

Table A.3: Respondents' multiple purposes/reasons for cycling

Appendix K: Participants' Mobility Patterns

Participants' purposes and frequency of cycling and access to a private or shared car:

Participant	Cycles for (self-identified reasons) ³³	Frequency of cycling	Can access/owns a private car	Has a divers' licence	Uses a car share scheme
Mateo	Commute, fitness, recreation, & shopping/errands	> once a week	N	Y	Y
Tina	Commute, fitness, sport/racing, & shopping/errands	> once a week	N	Y	Y
Tony	Commute, fitness, recreation, shopping/errands, & socialising	> once a week	Y	Y	
Pat	Fitness, recreation, and sport/racing, & shopping/errands	> once a week	Y	Y	
Kaye	Fitness & recreation	> once a week	Y	Y	
Sam	Commute, fitness, work, & sport/racing	> once a week		Y	
Jan	Commute, fitness, & recreation	> once a week		Y	
James	Commute, fitness, recreation, & sport/racing	> once a week			
Liz	Commute, fitness, recreation, & work	> once a week			
Roshni	Commute, fitness, & recreation	About once a week	N	Y	Y
Skye	Commute, work, & shopping/errands	> once a week	N	N	N
Conor	Commute, fitness, recreation, work, & shopping/errands	> once a week	N	Y	Y

³³ This list is taken from the questionnaire as responses differed between the interviews and diaries

Participant	Cycles for (self-identified reasons) ³³	Frequency of cycling	Can access/owns a private car	Has a divers' licence	Uses a car share scheme
Leif	Commute, fitness, recreation, and shopping/errands	> once a week	Y	Y	
Yin	Fitness & recreation	About once a week	N	Y	
Monica	Fitness, recreation, & shopping/errands	> once a week	Y	Y	
Heng	Commute, fitness, recreation, and shopping/errands	> once a week			
Dave	Commute, fitness, recreation, and shopping/errands	> once a week	Y	Y	
Genevieve	Commute, fitness, recreation, and shopping/errands	> once a week			
Brian	Fitness, recreation, and shopping/errands	> once a week	N	N	N
Alex	Commute, fitness, recreation, and shopping/errands	> once a week	N		
Maggie	Commute, fitness, recreation, and shopping/errands	> once a week	N	Y	Y
Neve	Commute, fitness, recreation, and shopping/errands	> once a week	N	Y	Y
Olivia	Commute, fitness, recreation, and shopping/errands	> once a week	N	Y	
Luke	Commute, fitness, recreation, and shopping/errands	> once a week	Y	Y	
Will	Commute, fitness, recreation, and shopping/errands	> once a week	Y	Y	

Participant	Cycles for (self-identified reasons) ³³	Frequency of cycling	Can access/owns a private car	Has a divers' licence	Uses a car share scheme
John	Fitness, recreation, and shopping/errands	> once a week	Y	Y	

Table A.4: Participants' purposes for cycling, frequency of cycling, and access to a car

Appendix L: Participants' use/frequency of cycling

Participants' frequency of cycling and multiple purposes/reasons for cycling as taken from diaries:

Participant	Frequency of cycling (# of days cycled in the 7-day period)	Number of individual trips in 7-day period	Number of different types of cycling performed and types of cycling
Mateo	7	14	4: Commute to work, 'fitness/recreational after work ride', shopping and interestingly, 'commute to friends house' (socialising)
Tina	7	30	Multiple uses of the term 'commute' (to different locations/with and without children/husband: work, childcare, swimming, home, violin lesson, dinner...)
Tony	4 (in first week of diary)	5	3 (commute, recreation & fitness, shopping) Tony differentiated between: 'riding', 'peloton road riding', 'shopping', 'commuting'
Pat	7	14	All considered 'commuting', however there are differences in the length, location and who with - describes commuting as riding to the train station with kids (counts as one trip), then commuting as the trip from the train station to work as another trip undertaken without kids.
Kaye	5	5	Kaye did not differentiate between types of cycling - the rides were accomplished with different groups of people, or different partners and also alone. Routes differed as well - regular and non-regular routes taken - Health & exercise AND social contact
Sam	No diary		
Jan	7	12	Commute (solo and non-solo), group ride (with bunch), and group ride with friends
James	3	4	3: commute, shopping and recreational mountain biking
Liz	5	10	2: commute and an extended commute (with a detour)
Roshni	3	5	2: commute and recreational rides
Skye	5	13	4: Commuting, work errands on bike, shopping (market ride), 'traveling to a social activity'
Conor	7	18	General transport - going to work, to home, to grab a coffee, to get lunch...
Leif	6	21	5 (Childcare, commute to/from work, to get lunch, to play in the park with child, to visit friends)

Participant	Frequency of cycling (# of days cycled in the 7-day period)	Number of individual trips in 7-day period	Number of different types of cycling performed and types of cycling
Yin	1	1	Recreational/exercise solo ride
Monica	4	11	5: trip from home to bus stop & back (part of a commute), to shops, to markets, to bothers' house, to yoga studio and home, around the bay
Heng	4	8	Commutes- to/from work
Dave	6	19	3: commute, shops, recreation/fitness
Genevieve	5	11	Commute: to/from work and different locations in the city on the way to/from work
Brian	4	6	General transport for attending an exercise class, doing the shopping, visiting family
Alex	Not recorded	Not recorded	Travel cycling/weekend rides with friends > cycle tourism?
Maggie	No diary		
Neve	7	23+	Commute, club rides, mountain bike rides, short trips (to shops on way home), to meet/go out with friends
Olivia	3	6	Riding to/from events (dinner) and exercise class/swimming
Luke	7	13	Commute - to/from work, friend's place, bible study and kids' school
Will	3	9	2 - commute and fitness
John	4	4	No reason given - recreational/fitness rides

Table A.5 Participants' multiple cyclings (as recorded in practice diaries)

Participants' frequency of cycling and multiple purposes/reasons for cycling as taken from the questionnaire responses:

Participant	Frequency of cycling	Commute	Fitness	Recreation	Work	Sport / Racing	Shopping / Errands	Other
Mateo	> once a week	•	•	•			•	
Tina	> once a week	•	•			•	•	
Tony	> once a week	•	•	•			•	Socialising
Pat	> once a week	•	•	•		•	•	
Kaye	> once a week		•	•				
Sam	> once a week	•	•		•	•		
Jan	> once a week	•	•	•				
James	> once a week	•	•	•		•		
Liz	> once a week	•	•	•	•			
Roshni	About once a week	•	•	•				
Skye	> once a week	•			•		•	
Conor	> once a week	•	•	•	•		•	
Leif	> once a week	•	•	•			•	
Yin	About once a week		•	•				
Monica	> once a week		•	•			•	
Heng	> once a week	•	•	•			•	
Dave	> once a week	•		•			•	Fun!
Genevieve	> once a week	•	•					
Brian	> once a week						•	Visit friends
Alex	> once a week	•	•	•			•	
Maggie	> once a week	•	•	•			•	Visiting friends & family
Neve	> once a week	•	•	•	•	•	•	
Olivia	> once a week	•	•	•			•	
Luke	> once a week	•	•	•			•	Fund raising
Will	> once a week		•		•			
John	> once a week	•	•	•		•		

Table A.6: Participants' self-reported frequency, and reasons for cycling (as recorded in the questionnaire)

Appendix M: Elements of Cycling Practices

Elements of practice for different cyclings:

Cycling practice	Materials	Meanings	Competences
Commuter	Commuter cycle	Exercise/keeping fit	Knowledge of road rules
	Cargo bike	Quick	Confident in traffic
	Road bike	Efficiency	Organisation
	Fold-up bike	Creates more time	Routine
	E-bike	Good for mental	Navigation
	Helmet	health/space to think/sort	Repair skills
	Water bottle	through things	Strategies for coping with hazards
	Bell	Stress-relief	Awareness
	Tool kit	Camaraderie	Division of labour within the home
	Lights	Normalised	Adherence to road rules
	Lycra kit	Socialising	Repetition
	Regular clothes	Training	Outsourcing child care
	Video recording device(s)	Working hard	
	GPS mobile technologies	Being a good cycling citizen	
	Access to infrastructure (on/off road paths) and end-of trip facilities (i.e. shower/change room)	Empowering	
	Lock/place to lock up bike		
	Mobile phone		
	Alarm clock		
	Weather app		
Recreational	Road bike	Fun/Enjoyment	Navigation/map reading
	Cyclocross bike	Exercise/keeping fit	Knowledge of road rules/how to behave in traffic
	E-bike	Social aspects	Awareness when in traffic/awareness on share paths of pedestrians/pets etc.
	Helmet	Sense of community	Navigation/use of technologies to navigate routes
	Water bottle	Spending time with family/friends/children	Self-awareness (of one's bodily limits)
	Bell	Range of health benefits	Coping strategies for traffic
	Tool kit	Meditation	Coping strategies for hills
	Lights	Relaxing	Relationships with cycling friends
	Sporty clothing	Stress-relief	
	Regular clothing	Improve mental health/wellbeing	
	Access to infrastructure (on/off road paths)	Travel/holidays – exploring Urban	
	Car – transport to cycleways	exploration/discovery	
	Panniers/luggage if bike-holidaying	Risk/danger to life	
	Tag along		
Group exercise cycling/ Solo exercise cycling	Road bike	Fun/Enjoyment	Competent in a group/peloton formation
	Helmet	Exercise/keeping fit	Speed/bodily power
	Water bottle	Social aspects	Navigation/use of technologies to navigate routes
	Bell	Sense of community	
	Tool kit	Range of health benefits	
	Lights		
	Lycra kit		

	<p>Extra accessories (i.e. arm covers, toe covers, cleats, etc.)</p> <p>GPS device</p> <p>Car – transport to meeting place/starting point</p>		
Shopping/Errand running	<p>Any bike (plus if it has panniers, basket, rack/s, or a cargo area)</p> <p>Lock/place to lock up bike</p>	<p>Ease of travel</p> <p>Time saving/convenient</p>	<p>Knowledge of road rules</p> <p>Confident in traffic/dealing with other road users</p> <p>Navigation/use of technologies to navigate routes</p>
Transport outside of work	<p>Cycle of some description</p> <p>General bike accessories</p>	<p>Ease of travel</p> <p>Time saving/convenient</p>	<p>Knowledge of road rules</p> <p>Confident in traffic/dealing with other road users</p> <p>Navigation/use of technologies to navigate routes</p>

Table A.7: Bundles of elements for different cyclings

Appendix N: Practice Maps

Maps of Different Cycling Practices:



Figure A.6: Commuter Cycling Map

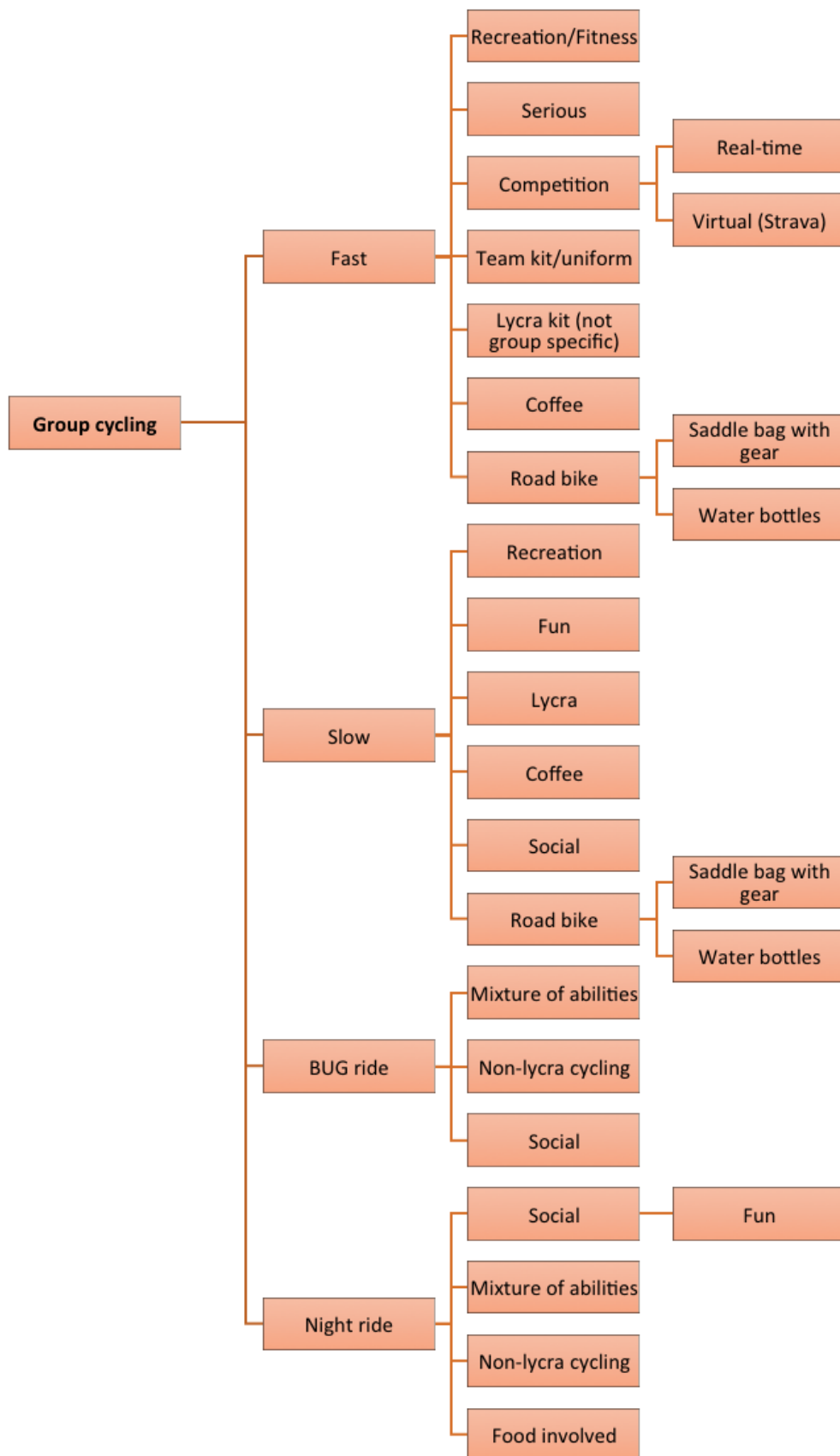


Figure A.7: Recreational (group) Cycling Map

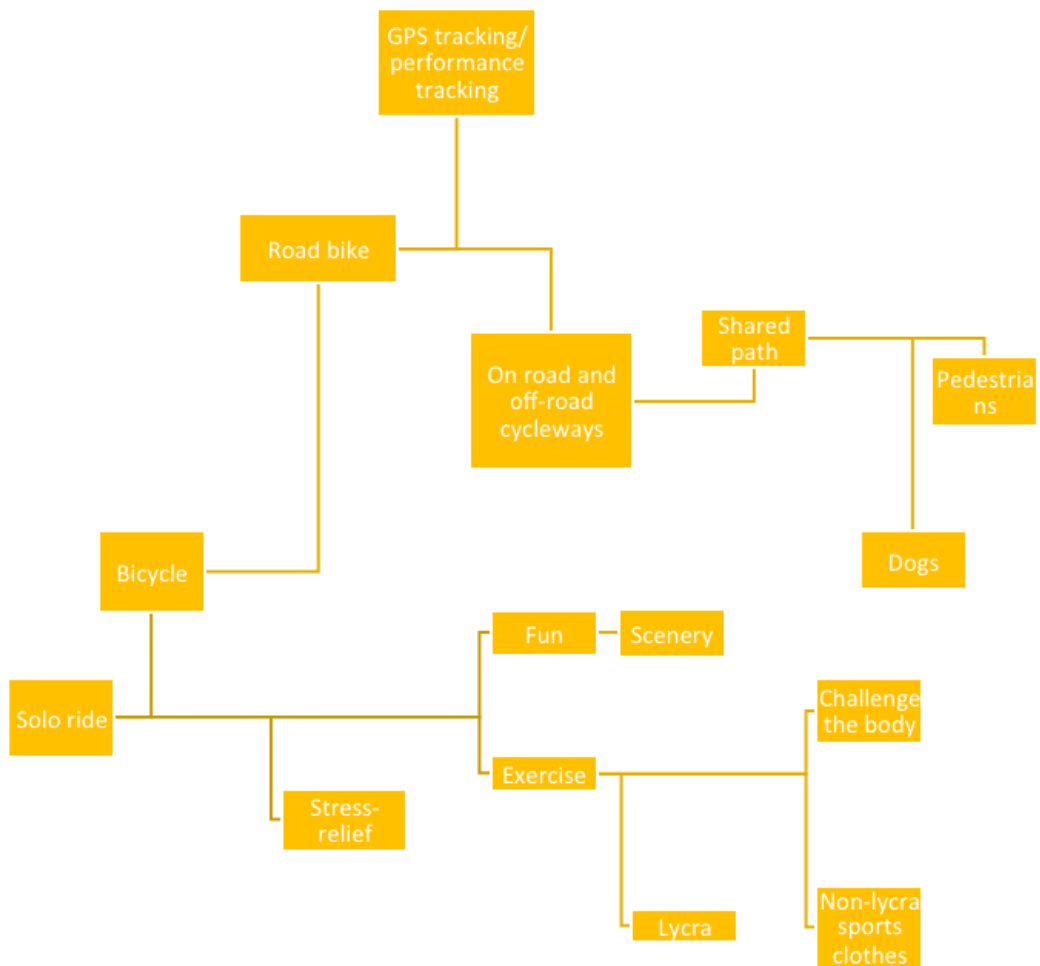


Figure A.8: Recreational (solo) Cycling Map