

Mobilizing bodies: Unsettling sustainable mobility through cycling in Los Angeles

October 2017

Anna Christine Davidson

DPhil Geography and Environment

Keble College

University of Oxford

Supervised by Dr Tim Schwanen & Prof Sarah Whatmore

Abstract

The figure of the human body and notions of its sustenance, wellbeing and need for change are central, if often latent, within discussions of contemporary eco-social ‘crises’. This dissertation considers cycling practices in Los Angeles as a ‘case’ to ask how *conceptions* of human bodies - the intertwined ideas and materials that constitute them – need reconsidering. Cycling, particularly when replacing car journeys, is increasingly promoted as a solution for some of these ‘crises’: Reducing greenhouse gas emissions, air pollution, traffic congestion and alleviating health concerns associated with sedentary lifestyles and mental health. Much cycling advocacy and research is focused on improving the cycling experience and enhancing rates of cycling in cities, yet rests on dominant ontological presumptions around human bodies, their categories of identity and their normativity - both what is considered ‘normal’ as well as aspirations of ‘good’ in terms of health and sustainability.

In this dissertation, I work through a methodology of ‘riding theory’ by bringing together (material) feminist, queer and critical race theories with multi-sited ethnographic fieldwork on cycling practices, focusing mainly on Los Angeles, California. Rather than building on automatic assumptions of cycling as a ‘solution’, I ask in what ways cycling practices manifest through relations of power. This rests on an ontology of ‘flesh’ and ‘enfleshment’ – indebted to the work of corporeal and black feminist theorists - whereby cycling is understood not as *modulated* by relations of power, but becoming-as and through these relations in highly uneven ways.

Through cycling in Los Angeles, intertwined techniques of power are discussed as: *categorization* (the naming and reproduction of identities and bodily difference); *configuration* of matter and meanings through spacetime (the configuration and affordances of cycling lungs, exposures, taking up spacetimes, speeds and locomotion) and *valuation* (the enrolment of cycling subjectivities and energies within the reproduction and circulation of value). As opposed to cycling futures reconfigured to fulfil alternative criteria of valuation, I consider what a cycling ethic of response-ability might do: An ethic that arises from the ontologies of enfleshment and that requires a working-with the affordances of cycling. Thinking through these ontologies and/as ethics, I argue, forces emergent reconsideration of how cycling subjectivities and responsibilities, justice, health and sustainability are understood.

For Claudia Comberti, who built worlds with her energies. Ride on in eternity my friend.



Figure 1. CicLAvia open streets event, Martin Luther King Blvd, LA, 2014

Acknowledgements

Academic citation is ineffective and sometimes violent in its lack of recognition of the fragmented configurations of energies and attention that makes a project like this possible. Citation and the academic practices of authorship risk ascribing ‘ownership’ to ideas that are far more collaboratively constructed. One small page with its absences alone can’t undo this, but nonetheless, I am grateful to:

Tim Schwanen and Sarah Whatmore for helping to make this possible, for their belief and support, scribbles in the margins and challenges that fed thought for years, and their careful patience with my undisciplined thinking and writing.

The many teachers, presenters and colleagues whose words, ideas and presence have challenged, supported and endured: Rosi Braidotti, Astrida Neimanis, Myra Hird, Kathryn Yusoff, Elizabeth Povinelli, Katherine McKittrick, Kathy High, Jamie Lorimer, Linda McDowell, David Banister, Jennie Middleton, Rafa Pereira, Negar Behzadi, Claudia Comberti, Kelsi Nagy, Victoria Wyllie de Echeverria, Ian Klinke, Jack Manno, Jackie Orr, Claudia Klaver, Robin Kimmerer, Sharon Moran, Mike Dimpfl, Matt Huber, Farhana Sultana, Katie Barnhill, Chanelle Benz and an even longer time ago the lecturers and tutors at Edinburgh in sociology, normative political theory and geography, who brought me towards an interdisciplinarity in and beyond geography and its radical, ecological and feminist edges.

The Economic and Social Research Council (grant number ES/J500112/1), Keble College and the Feminist Theory Workshop for financial support.

In Los Angeles and Southern California – all the hosts, interviewees, cyclists and non-cyclists including Janet Walker, Mike Davis, Ryan Snyder, Marty, Rigo, the LACBC, the Feminist Library on Wheels, James Rojas, Adonia Lugo, Sahra Sulaiman, Joe Linton, Allison Mannos, Jen Klausner, Tamika Butler, the O.V.A.S for allowing me to follow their lead (Anzaldúa, 1987, p. 107).

For the love, laughter, challenges, support and companionship: Akbar, Anna R, April, Phil, Betty, Ben, Darren, Desiree, Dude und Peter, Inge, Kayan, Leo, Lydia, Mary and Mike, Mimi, Nicolo, Nora, Pia, Graeme, Sarah, Tabassum, Vipasha, Jackie my Qmo, Forbes for being there in the end. K, for the many lessons I never wanted or expected to learn, without which this piece of work would not have been what it is. Abbeydale for the sustenance of physical work. Chloe for tripping over my trolley and into my life.

For the writing, I owe so much to the moor that became my heart, with its infinite paths and mossy Carboniferous rocks, and to Monkey, for the energy that made me smile and get up in the mornings when I could not fathom doing either. [As I write she is giving me much needed perspective – the stack of papers of my dissertation draft is nothing but a warmer, crinklier surface than the floor, albeit one made more interesting by the strings that bind it and the traces of its journeys and supervisory efforts]. One Oak folk for the fellowship, Vince for breaking down doors – real and metaphorical. Mona, for saving us from the floods, and for the countless ways you kept me going and showed how everyday acts of presence and care let us transcend difference and ourselves. I can’t thank you enough.

Lastly, I am grateful for this project itself - the bikes and the cycled cities, the concepts and the enfleshments they required and shaped - for the endurance ride of a lifetime.

Table of contents

ABSTRACT.....	3
ACKNOWLEDGEMENTS	6
TABLE OF CONTENTS.....	7
LIST OF TABLES	9
LIST OF FIGURES.....	10
GLOSSARY OF KEY TERMS AND ABBREVIATIONS	12
1. INTRODUCTION.....	13
2. LITERATURE REVIEW	33
2.1 CYCLING LITERATURES	34
2.1.0 Positivist approaches to cycling.....	36
2.1.1 Critiques of positivist approaches	40
2.1.2 Cycling and the social.....	47
2.2 POWER AND BODIES	58
2.2.1 Discursive & performative power and the body	60
2.2.2 Power, capitalism and the body.....	61
2.2.3 Power in practices of the (not so) everyday	62
2.2.4 Material powers: the nonhuman and inhuman.....	64
2.2.5 Intersectional bodies; the body in crip, queer and post-colonial feminist theory..	66
2.3 CONCLUSION	74
3 RIDING THEORY: CYCLING METHODOLOGIES.....	76
(Dis)orientation 1: Towards unsettling encounters	79
3.1 CYCLES OF THEORY & PRACTICE: HOW I CAME TO 'RIDE THEORY' IN LA.....	81
(Dis)orientation 2: Towards queer inheritances.....	92

3.2	RIDING THEORY IN AND AROUND LOS ANGELES	95
3.3	MANIFESTING: ON THE PAGE AND BEYOND	112
3.4	CONCLUSIONS.....	116
4.	CATEGORIZATION – L.A. CYCLISTS UNSETTLING DIFFERENCE.....	117
4.1	INTRODUCTION.....	117
4.2	ACCOUNTING FOR DIFFERENCE	122
4.3	SOCIAL JUSTICE AND CYCLING DIFFERENCE: REPRESENTATION, RECOGNITION, INCLUSION	134
4.4	BENEATH THE SURFACE OF ‘IDENTITY’? DIFFERENCE-IN-ITSELF	142
4.5	GIVING ACCOUNTS OF ‘IDENTITY’ AND DIFFERENCE IN LOS ANGELES.....	148
4.6	FLESH AND THE BODY: “OR NO HUMANS INVOLVED”	157
4.7	CONCLUSION	163
5.	CONFIGURATION: CYCLING THROUGH ONTOLOGIES OF THE FLESH	165
5.1	INTRODUCTION.....	165
5.2	LUNGS: CYCLING AIRWAYS [INSIDES/OUTSIDES].....	170
5.3	LIGHT & HEAT: CYCLING EXPOSURES	179
5.4	‘TAKING THE LANE’: ENFLESHMENTS OF TIME-SPACE	192
5.5	LOCOMOTION: CONFIGURATIONS OF EFFORT, *CYCLES AND SPEED	207
5.6	CONCLUSIONS.....	222
6.	VALUATION: CYCLING THROUGH VALUE.....	225
6.1	INTRODUCTION.....	225
6.2	CYCLING IN THE MARKET OF LIVEABILITY	227
6.3	(IN)HUMAN ENERGIES: STRIVING CYCLING SUBJECTS	257
6.4	AN IMMANENT ETHIC OF ENFLESHMENT: CYCLING RESPONSE-ABILITY	276
6.4.1	<i>Futurities – (or Unfuck/unlearn the world).....</i>	<i>279</i>
6.4.2	<i>Cycling energies: indistinctions of life/death.....</i>	<i>283</i>
6.4.3	<i>A praxis of the more-than-human: cycling response-abilities</i>	<i>287</i>

6.4.4	<i>Riding response-ability: Howling/healing with the Psycos.....</i>	292
6.5	CONCLUSIONS.....	297
7.	CONCLUSIONS	300
7.1	POWER AND CORPOREALITY THROUGH CYCLING	303
7.2	RUMMAGING THROUGH ATTICS AND CLOSETS: LEFTOVERS, LOST USEFULNESS AND OTHER QUEER INHERITANCES.....	312
7.2.1	<i>Unsettling health and sustainability.....</i>	315
7.2.2	<i>Justice on the move – Cycling’s affordances.....</i>	322
7.2.3	<i>Riding Theory: Making other LA stories.....</i>	330
	POSTSCRIPT	337
	REFERENCES	338
	APPENDIX 1	374
	APPENDIX 2	384

List of tables

TABLE 1: OVERVIEW OF FIELDWORK LOCATIONS AND EVENTS	103
TABLE 2: SELECTED RESEARCH EVENTS AND METHODS IN LOS ANGELES	105

List of figures

FIGURE 1. CICLAVIA OPEN STREETS EVENT, MARTIN LUTHER KING BLVD, LA, 2014	5
FIGURE 1.1: SPINNING GYM, LOS ANGELES.....	15
FIGURE 1.2: CARLOS OCANA ON METRO CYCLING BILLBOARD	16
FIGURE 1.3: LOCATIONS STAYED IN LOS ANGELES.....	19
FIGURE 1.4. ARTICLE IN RKP: "THE SECOND-CLASS CITIZEN" (BRADY, 2014)	24
FIGURE 2.1: HELMET CONTROVERSIES (LYDON, 2011)	41
FIGURE 2.2 PERCEPTIONS ON WOMEN AND CYCLING (HEART FOUNDATION, 2013)	43
FIGURE 3.1: 'OXFORD SPOKE' BY ARTIST EMMA MAYOUX-ANDREWS, OXFORD, 2014.....	76
FIGURE 3.2: METRO BILLBOARD IN LOS ANGELES, 2014 (UNKNOWN, 2017).....	95
FIGURE 3.3 LOS ANGELES CYCLING IN 1800S	98
FIGURE 3.4 'LA, WHERE NATURE HELPS INDUSTRY MOST'	101
FIGURE 4.1: AN ASSEMBLAGE OF CYCLING MASCULINITIES.....	117
FIGURE 4.2: "FAMILY BIKE RIDE TIME!", PHOTOGRAPH IN REA (2012).....	122
FIGURE 4.3: WOMEN MEAN (CYCLING) BUSINESS.	124
FIGURE 4.4. PEDAL LOVE, CALIFORNIA.....	125
FIGURE 4.5: BIKE COUNT SHEET	128
FIGURE 4.6: CYCLING TYPOLOGIES	131
FIGURE 4.7: QUESTION FROM AMERICAN COMMUNITY SURVEY	132
FIGURE 4.8: CHANGING THE FACE OF BICYCLING	135
FIGURE 4.9: "BENEATH THE SURFACE": GENDER PERFORMANCE IN MOBILITY	142
FIGURE 4.10: DIE-IN PROTEST	147
FIGURE 4.11: LEFT: BODALICIOUS BIKE BABES; RIGHT: O.V.AS (IN 2014).....	151
FIGURE 4.12: FEMINIST LIBRARY ON WHEELS	152
FIGURE 4.13: MAP OF HEART OF LA CICLAVIA ROUTE, 2014.....	155
FIGURE 4.14: OPERATION FIREFLY.....	156
FIGURE 5.1: DARK DUST ON FINGER	171
FIGURE 5.2: LOS ANGELES MISERY DAYS.....	179

FIGURE 5.3: TWEET USING HASHTAG SAFETYIS, AUGUST 15 TH 2017.....	190
FIGURE 5.4: JENNA ROLLMAN, ...	192
FIGURE 5.5: JENNA ROLLMAN, (IMAGE SOURCE: JENNA ROLLMAN)	193
FIGURE 5.6: JENNA ROLLMAN (IMAGE SOURCE: JENNA ROLLMAN)	193
FIGURE 5.7: “I GIVE 3 FEET: IT’S THE LAW”	198
FIGURE 5.8: BLACK LIVES MATTER PROTEST, DECEMBER 2014, AUTHOR’S IMAGE	204
FIGURE 5.9: HSBC ADVERT AT LAX AIRPORT 2015 (AUTHOR’S PHOTO)	207
FIGURE 5.10: SCREENSHOT CRAIGSLIST ADVERT, 2015	211
FIGURE 5.11: FLYWHEEL, SCREENSHOT OF AUTHOR’S CLASS SUMMARY, 2014.	217
FIGURE 6.1: LOS ANGELES CAR SHOW, 2014.....	229
FIGURE 6.2: THE BIKE STOPS HERE.....	231
FIGURE 6.3: SKID ROW ACTIVIST, GENERAL DOGON (DEARATANHA, 2015)	232
FIGURE 6.4: WHERE ARE LA’S HOMELESS?	233
FIGURE 6.5: DTLA BIKE SHARE SCHEME	234
FIGURE 6.6: IMAGE OF AIRBNB AUTHOR STAYED IN, SILVER LAKE BLVD (HOTPADS, 2015)	235
FIGURE 6.7: GENTRI-FLYER, TWEET, 2014.	237
FIGURE 6.8: PROTESTING GENTRIFICATION & DISPLACEMENT, BOYLE HEIGHTS.....	238
FIGURE 6.9 : CYCLING IMAGERY, INFRASTRUCTURE AND REDLINING MAPS.	242
FIGURE 6.10: SALGADO AND VASQUEZ, 2014	256
FIGURE 6.11: BP ADVERT AND SPONSORSHIP OF PARALYMPIC GAMES, 2015	257
FIGURE 6.12. GO HUMAN CAMPAIGN, SCAG	261
FIGURE 6.13. A COLLAGE OF DOWNTOWN ‘REGENERATION’: ONE SANTA FE	268
FIGURE 6.14 “FAT LANE/FAST LANE” (LOVEYOURBIKE.ORG, 2006)	269
FIGURE 6.15: ARTIST UNKNOWN, MANIFEST JUSTICE, LA, 2-10 MAY 2015.	272
FIGURE 6.16: TAKE 1, GIVE 2, CYCLEHOUSE	275
FIGURE 6.17: NOTES ON UNFUCK THE WORLD EVENT, SATURDAY 13 TH JUNE 2015	282
FIGURE 7.1: MUSEUM OF NATURE AND SCIENCE IN DALLAS, TEXAS, AUTHOR’S PHOTO, 2015, ...	312
FIGURE 7.2: VOLKSWAGEN DISPLAY AT THE LOS ANGELES CAR SHOW, NOVEMBER 2014.	322
FIGURE 7.3: LOS ANGELES MUSEUM OF NATURAL HISTORY	330
FIGURE 7.4 PRESENTATION BY LEAGUE OF AMERICAN BICYCLISTS, AT CNU IN DALLAS, TEXAS.	331

Glossary of Key Terms and Abbreviations

*cycle:	I use this term instead of ‘bicycle’, as a more inclusive word to refer to any form of human-powered, belt or chain-driven vehicle. The term bicycle assumes two wheels and a particular form of embodiment and capacities, as it excludes tricycles and hand-cycles, for example. I do use bicycle when referring exclusively to two-wheeled *cycles.
‘accident’	I use this term in inverted commas to emphasise the problematic ways in which the term ‘accident’ obscures uneven relations of power/force, leading to uneven risk of death and injury. Instead, where possible I use the term ‘crash’, see below.
CicLAvia:	Los Angeles car-free open street event co-ordinated by the non-profit CicLAvia, started in 2008 and inspired by Bogotá’s Ciclovia. On selected Sundays (up to four times a year) a selection of streets is closed to cars and open to events and non-motorized forms of transport.
Crash	I use this term instead of ‘accident’ where applicable, see above.
LACBC:	Los Angeles County Bicycle Coalition
LADOT:	Los Angeles Department of Transportation
Latinx:	This term, as opposed to Latino/Latina, subverts the gender binary denoted by Latina/Latino and emphasises gender-fluidity and neutrality.
“Metro” or MTA:	Los Angeles County Metropolitan Transit Authority (re-branded “Metro” in 2004)
Ovarian Psychos/O.V.A.S:	All womxn of colour cycling brigade out of Boyle Heights, renamed in 2017 to: Overthrowing Vendidxs, Authority & the State
The League:	The League of American Bicyclists

1. Introduction

Healthy, sustainable, affordable, ethical, lean, efficient and clean are some of the ways cycling is characterized in advertising, popular culture, research and cycling advocacy. Alongside a professed ‘cycling boom’ in large European, North and South American cities, research on cycling has burgeoned in the last ten years (Pucher & Buehler, 2017). Cycling is promoted as a sustainable and ‘progressive’ transport option, a solution to the myriad ‘crises’ associated with automobility (Pooley et al., 2013) including: Traffic-related injuries, congestion, air pollution, greenhouse gas emissions, physical inactivity, prevalence of depression and mental health issues, and varying health problems attributed to an ‘obesity epidemic’ in ‘developed’ economies (Woodcock, Banister, Edwards, Prentice, & Roberts, 2007)¹.

My initial research aims were largely framed within these parameters, based on preconceived notions of the value of cycling and the role it could play within solutions to contemporary eco-social crises. I was drawn to theoretical questions around sustainability and bodily effort, and cycling seemed to me a less commodified, more sustainable and healthier transport option for bodies, environments, minds and cities. In line with much research on cycling, the ‘solution’ (cycling) was in a sense predetermined, the problem was more about *how to get there*: How to normalise cycling, how to overcome barriers and how to get more people to cycle. I had wanted initially to consider how cycling was practiced in three different countries; the United States, India and The Netherlands, to draw out the different meanings, norms and materialities around cycling in these contexts. Los Angeles was to be my first port of call, chosen in part for its stereotype as a car-centred

¹ UN-Habitat, for example highlights the promotion of cycling as a pathway towards healthier, more sustainable, productive and equitable cities (UN-Habitat, 2013).

‘autopia’, and yet with a burgeoning, if still minor, cycling ‘scene’². In 2012 Los Angeles was recognized with a bronze Bicycle Friendly Community award by the League of American Bicyclists, with the comment:

“Leaders like Los Angeles serve as a great example that even cities known for Carmageddon can take cost-effective steps to start making cycling an integrated part of the transportation system” (LADOT, 2012)

If cycling could thrive in Los angeles, I thought, surely it could anywhere.

It took only a few weeks in Los Angeles, in 2014, to realize that the complexities and diversities of cycling in this city – or urbanized area (Soja, 2014) - would take years to get some handle on. As will be discussed further in Chapter 3, I dropped the other fieldwork sites and refigured my research approach. Not only did the empirical scope of my project morph to the encounters, challenges and openings of the ‘field’, my research questions and the theoretical resources I drew on changed. Largely relying on an ethnographic approach meant being open to the challenges the field posed, the ways it changed me as a researcher and the questions it foreclosed and opened up.

There were particular experiences and encounters I had in Los Angeles which produced knotted, unsettling encounters: Ones that I kept returning to perhaps because they contained both an insight that I could not fully articulate and spurred questions that could not readily be answered. These affective encounters also epitomize an approach to research (indebted to theorists such Elizabeth Grosz (Grosz, 1995a, 1999b, 2017; Grosz, Yusoff, & Clark, 2017) and Katherine McKittrick (McKittrick, 2014, 2015a, 2015b, 2017, 2015d)),

² As discussed further in Chapter 3, Los Angeles has implemented policies to enhance cycling in the city and on some accounts is undergoing a cycling ‘renaissance’, with cycle commuting increasing by 56% in the decade to 2010 (Los Angeles Department of City Planning, 2015). It also has the third highest public transport usage in the United States and in the 2035 Mobility Plan committed to ‘balance the needs of all road users’ (Los Angeles Department of City Planning, 2015).

which I began to think of as ‘riding theory’, where theory is not so much a way to *analyze* or make sense of ‘the world’, but is immanent within the materialities and meanings of an ‘event’ or encounter: My experiences in the CycleHouse, an exclusive indoor cycling or “spinning” studio (Figure 1.1 and field notes), and a Los Angeles Times photograph of Carlos Ocana sitting on a Metro cycling billboard (Figure 1.2) are two such encounters. Their juxtaposition produces this unsettling of the ready assumptions I had of cycling as a solution or ‘cure’.

Figure 1.1: Spinning Gym, Los Angeles

Image source: Spun Out, reality television show about spinning instructors (Alcala, 2015)

The CycleHouse in Los Angeles costs \$26 dollars, but the first session was free. They had nowhere to park my bike. No bicycle parking at the cycle house. I parked it right in front of their reception, by their merchandise. I came to the cycle house from the front, off La Cienega, a dark kind of alley thing that seemed not to be the entrance most people used. Everyone came from the parking lot through the back. *Are you new to this?* I was clearly late too. I needed to put my cycling shoes on quick, get myself ready as they were going to start pretty punctually. There was no natural light inside, like some form of church or nightclub, candles in yellow glass holders, stage in the middle, Schwinn bikes aligned up to face the high priestess of this church of, what...the self? The instructor seemed to transform once the music went on, once the spinning started. She bounced from side to side on the bike, dancing, then she put her face up under your bike and yelled encouragement. *fight fight fight. Why are you here, and what do you want?! You can do it, you will do it. Don't waste your time here, you only have 45 minutes. You'll see some people spinning so fast, there's no point at that, you're not doing any work.* A woman came straight in after we were done and mopped up our sweaty towels, she picked up our weights, cleaned up. I asked her how the water dispenser worked. She seemed shy, her demeanor so different from that of the front-facing receptionists – they seemed almost to say - *“I'm not here to serve you, I'm here to improve you”*. **Edited field notes, 2nd October 2014**

Before he was stunned with Tasers by the Los Angeles Police Department (LAPD) SWAT team, Carlos Ocana, skid row resident, sat on top of a Metro billboard that promoted regular cycling in Los Angeles. Beyond the coincidence of this iconic snapshot, what does Carlos have to do with urban cycling and what does spinning have to do with either? Carlos lived in skid row, a section of downtown Los Angeles with an estimated homeless population of eight to eleven thousand³ people.

³ http://www.lachamber.com/clientuploads/LUCH_committee/102208_Homeless_brochure.pdf

Figure 1.2: Carlos Ocana on Metro cycling billboard

“Carlos Ocana, a homeless skid row resident, died after falling from the roof under a billboard at the corner of 5th and San Pedro streets in Los Angeles on May 24, 2014” (Source: Genaro Molina / Los Angeles Times)”

Skid row is in the middle of a gentrifying downtown, the signatures of which include redeveloped loft apartments, expensive coffee shops, galleries and pop-up shops, including a Levis ‘commuter space’ I visited in August 2014, intended to promote their bike-commuter jeans line. As part of LA’s “cycling revolution”⁴ segments of downtown streets in the last five years have been redeveloped to become more cycle-friendly (LACBC, 2015). At the same time, according to activist groups, skid row residents have been subjected to increasing - and increasingly violent⁵ - policing by the Los Angeles Police Department, and Business Improvement District’s security guards “working in partnership with LAPD to patrol our streets by bike, foot beat, and Segways, 24 hours a day every day”

⁴ Referred to in several sources, but notably in: Guardian article <http://www.independent.co.uk/news/world/americas/bicycle-gangs-of-los-angeles-the-quintessential-car-city-is-in-the-throes-of-a-cycling-revolution-8925746.html>

⁵ <http://cangress.org/tag/safer-cities-initiative/>

(Historic Core of Downtown Los Angeles, 2017).

While skid row residents struggle to have access to drinking water⁶ and basic toilet facilities⁷, the CycleHouse provides eucalyptus infused towels, filtered water and staff to clean up after its ‘riders’. Stencilled on the back wall is the text: *“In this house we’re defined by what we do. Strength is in the struggle. Failure does not exist. We fight”*. As discussed further in Chapter 6, for every \$29⁸ ride at the CycleHouse they donate two meals to “a person in need” in “the underserved community around us”. These stark contrasts and connections conjured up by the photo of Carlos on the billboard and the experience of riding in the CycleHouse are emblematic of the questions that arose from ‘fieldwork’ and led to the themes of this dissertation: What are the circulations of meaning, value and energies that bodily work such as cycling becomes enrolled in? What kind of bodily energies, whose energy, when and where is valued and normalized? If we really are what we do, what are we becoming in relation to our own bodily work and energies? How is driving a car to ride a stationary bike for \$29 seen as a normal part of a healthy lifestyle regime, whereas cycle commuting in Los Angeles is still a fringe, if increasingly ‘hip’ and desirable, activity? What assumptions are made of health and sustainability within cycling, and who is valued and included in the image of a healthy, successful, sustainable cyclist and city, and who is excluded?

As discussed in more detail in Chapter 3, my ‘fieldwork’ was not entirely limited to Los Angeles, however, I spent five months in LA during three visits in 2014 and 2015. During

⁶ (Los Angeles Community Action Network, 2013)

⁷ <https://www.theguardian.com/us-news/2017/jun/30/la-skid-row-homeless-toilet-access-report>

⁸ The price of a ride increased from \$26 in 2014 to 29\$ in 2017

this time, I stayed at ten different Airbnb⁹ rooms and apartments in Downtown LA, Silver Lake, Los Feliz, City Terrace, Wilshire and Boyle Heights (see Figure 1.3). My hosts and their friends introduced me to different Los Angeles neighbourhoods, ways of living and getting around. The first hosts in Silver Lake lent me a bike. Later I rented a bike from a downtown bike shop, before buying a hot pink-coloured bike (see Figure 5.10) and, ironically, renting car to pick it up from Mid-City. I drove, took public transport, walked but mainly cycled to buy food, attend events, local meetings, talks, protests, cycling shops and exhibits. I spoke to academics, cyclists, cycle activists, car drivers and planners and volunteered for the Los Angeles County Bicycle Coalition (LACBC) bike counts and Operation Firefly – handing out free bike lights on winter evenings. I attended organized group rides such as the monthly Critical Mass, the yearly Clitoral Mass ride and monthly Luna Rides, both organized by the all-women cycling brigade the ‘Ovarian Psycos’, recently renamed the O.V.A.S (Overthrowing Vendidxs, Authority & the State). During my stays in Los Angeles I attended two car-free street events, called ‘CicLAvias’ – one incorporating Boyle Heights and Downtown, and the other in South LA.

⁹ This raises its own questions about fieldwork ethics, with Airbnb being criticized by both academics and activists for contributing to the Los Angeles affordable housing crisis (Dayne Lee, 2016). This will be discussed further in the methodology.

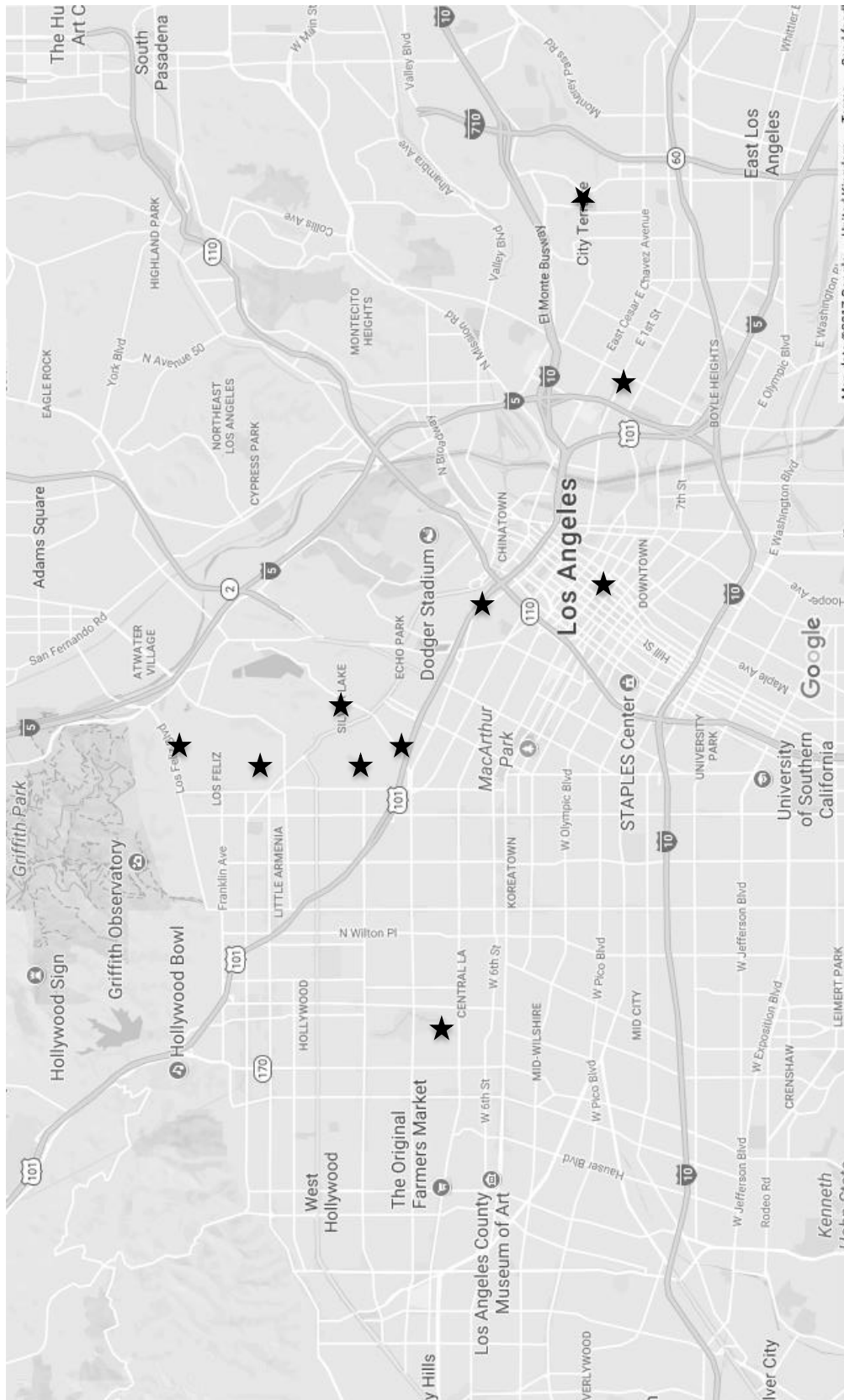


Figure 1.3: Locations stayed in Los Angeles

My ‘fieldwork’ led me to events and encounters which at first may seem tangential to cycling, but became increasingly central to how I thought of the bodily efforts and

affordances of cycling through, and as, power. Summer to early winter 2014 in Los Angeles was also a time when some of the cycling groups and the streets were increasingly influenced by a growing Black Lives Matter movement and regular protests. The movement, set up by Black queer women – including the LA-based Patrisse Cullors – was a response to the police shooting of Trayvon Martin in 2012 (#BlackLivesMatter, 2017), and was a nation-wide and world-wide movement after the police shooting of Michael Brown on August 9th 2014. With my bike I attended some of these Black Lives Matter protests, events and exhibits on police violence and the Prison Industrial Complex. The CicLAvia in South LA (Figure 1), and the O.V.A.S rides were influenced by Black Lives Matter, with the O.V.A.S 2017 annual ride on 5th August being named the Black Mass (previously known as Clitoral Mass) (O.V.A.S, 2017).

I began to question the framing of my own research questions, the ways in which my own project, assumptions and institutional affiliations were produced within and through racialized and colonial relations of power. I could no longer see the notion of ‘a cyclist’ as an abstracted concept of a ‘body’, when it became so clear that streets and cycling, and ‘being a body’, were fundamentally enrolled in racialized, white supremacist ways of defining the human (and the ableist, gendered, heteronormative assumptions co-constituted within this). Black life becoming-body at the hands of police brutality, seemed a violently visible, and sometimes questionably reproduced, image of a power that pervaded ways of living and dying. The feminisms and material feminisms I had thought through my initial project with, in some respects were not adequate any more. The way everyday life and mobilities tied into settler colonialism, white supremacy, histories of slavery, Jim Crow and ongoing segregation and injustices of the contemporary prison industrial complex (Alexander, 2010; Gilmore, 2007) required a set of literatures and frameworks that saw racialization as a force of power on and through everyday bodily energies and capacities

for mobility. It also required asking fundamental questions about theorisations of embodiment: Could white feminist and European theoretical accounts of embodiment be used to explain racialization with a kind of pluralization, or increasingly intersectional account of ‘difference’ (as discussed in Chapter 4) or do core assumptions of how ‘humanness’ is constructed need to be further questioned?

A project that had started its emphasis on the body and cycling, ended up being fundamentally about trying to get a grasp (Pignarre & Stengers, 2011) on what Anderson (2017) has described as intensities and forms of power. The way in which I had seen cycling as a solution or ‘cure’ for contemporary crises of obesity, bodily inactivity, air pollution, climate change, urban inequality and mental health, became inverted. I began to consider the cycling body, and its particular, but differential, materialities and normative meanings as itself an effect and ‘vehicle’ of power.

Like the unsettling encounters of Carlos juxtaposed with the spinning gym, above, this ever-slippery notion of power was something I could only ever grasp towards and gesture at through the ‘cases’ (Berlant, 2007a) of particular cyclists and cycling practices. In this way, my research questions centre on three always-intertwining forms and intensities of power enacted through cycling bodies: categorization, configuration and valuation. These threads make up the three substantive parts of the dissertation (Chapters 4, 5, and 6) and relate to the following questions:

1. How does power operate on or through bodily difference in cycling in Los Angeles? How does difference come to matter, be known, named and recognized? (Categorization)

2. What is specific – materially, semiotically, technologically - about the bodily efforts of cycling? How does power configure the material and discursive intensities, exposures and proximities of cycling? (Configuration)

3. How is value conceptualized, attributed to, and reproduced through, particular bodies and bodily practices of cycling? (Valuation)

Parsing out these three facets of power risks them being conceived as separate when they are mutually constitutive threads woven together. It is a notion of power that emerges from ontologies: A cyclist is not either moved *by power*, or valued or not *by it*, power is constitutive of, and constituted by, these very practices and bodies themselves. Modes of materializing, categorizing, representing, differentiating, spacing, accounting for, planning and designing for, fuelling and policing cycling, produce substantively different cyclists. In the three substantive sections on categorization (Chapter 4), configuration (Chapter 5) and valuation (Chapter 6) I read cycling in Los Angeles through, and sometimes *as* a form of (queer, black, material, crip¹⁰) feminist critical theory in order to consider what is at stake in particular ways of understanding, configuring and valuing cycling and cycling bodies.

Through what I discuss in Chapter 3 as ‘riding theory’, the supposed division between ‘theory’ and the ‘cyclists’ themselves is blurred. Cyclists and *cycles discussed throughout these sections make creative use of, enact, perform and are made possible in part through the notions (or ‘theory’) of what it means to be a *cycle, a cyclist - and a human - in our specifically gendered, classed, ableist and racialized forms. Similarly, although “theory” can have the tendency to speak in abstract universals (e.g. ‘the body’), it is written through

¹⁰ The term ‘crip’ (or cripple) as opposed to ‘disabled’ or ‘handicapped’ might, as Kafer (2013) highlights, ‘make people wince’, but is a term gaining use in disability activism and theory. Like the term ‘queer’ is a re-appropriation, it is a usage that turns the wince ‘back on itself’ (Kafer, 2013, p. 15).

very particularly situated bodies and concepts, those that gain entry into the corpus, or ‘canon’ of theory through practices and institutions of in/exclusion.

In order to counteract the parsing out of the discussion into the three substantive chapters of the dissertation, I introduce its main conceptual threads, below, through three ‘unsettling encounters’ with cyclists in Los Angeles between July 2014 and July 2015. I want to start a discussion on cycling bodies with cyclists themselves – whether depicted in a news article (Milt Olin, below), or through my notes after a conversation (Antonio and John, below). Rather than define cycling bodies by theme or by identity category, I depict how cycling bodies are entangled in – and made possible by - wider relations and flows of meaning and matter; bicycles, food, gender expectations, social values, racialization, urban infrastructures, work or places of residence. The section opens with individual bodies in order to ‘undo’ them (Grosz, 2007 in Ruddick, 2010, p. 27), to focus on how they become – differentiated - cyclists, because of conditions of (im)possibility that deny the very ‘boundaries’ that supposedly delimit individualized bodies.

John. Author’s notes, Nov 2014: Volunteering for the Los Angeles County Cycling Coalition’s ‘Operation Firefly’, we stopped John on the cycle path on the west side of the LA River with the call; “free bike lights, do you want free bike lights?”. It was dusk in late November and he was riding his bike away from the river and towards Los Feliz. He didn’t have lights at the moment, so was happy to take some. First he had to answer the questions I rattled off the card: “is the bicycle your only mode of transport? Is it a legal requirement in California to have a white light on the front of your bicycle..?” It was his only transportation, quicker to get around than walking. It was a pretty bust-up bike. I asked him what his zip code was. He asked why, I said we don’t need the exact address. He said he didn’t have a fixed address right now, was going to pick up his mail from a friend’s place in Hollywood. There’s a whole load of people under the bridge there – he said and pointed back the way - with bikes and no lights. “Should we go down there and hand them out?” I asked. He said he wouldn’t do that, just give them lights if they ride past and want them.

Antonio, author's notes, Dec, 2014: Antonio works in the kitchen of a restaurant and rides the gold path [along the LA River] to work every day. 17 miles there, 17 miles back, he says it's a gated cycle path. He says it's pretty safe, you just have to watch out for people sleeping on the path, normally they're pretty good and keep off the cycle path, but sometimes, when they're drunk off their face.... He likes it [the riding to work] he just smokes a bit, not too much, first, and then he sets off - but he's careful, you know, riding. He works 6 days a week, 12 hour shifts. Cycling makes you hungry, we agreed, and spoke of food as we munched over the snacks. Sometimes him and his friends go dumpster diving behind Trader Joe's, that's the best place, just fill up a car with stuff, perfectly good food. He gives things to his mom, like some of the nice beauty products. There's so much stuff that they give most of it away, pass it round. He doesn't like driving, he can drive, but it makes him feel all closed-in, like he can't see. He said one day he had to get out of the car and just get some air, he couldn't breathe. He talked of the protest ride and video screening that I found online. He had gone, he said it was really upsetting. They just shot him, just like that. That's how we got onto talking about the cops on the bus. The first time he fell asleep and had to pay 70\$ for missing his stop and his ticket was invalid. The second time was a good cop. A cop who let him off after a lecture, he'll never forget that cop. He kind of wants the cop to stop him again so he can show his monthly pass - "look, I did it". He let him off, and saved him 250 bucks or a month of community service. He had to do a month's community service before for stealing some meat in a shop, and it took him a year to do those 30 days of community service. "Who has that [\$250] kind of money?" Unless you're saving up for something I guess". He said if you get a DUI (Driving Under the Influence) you only get a week's service, or 10 grand. How is that fair - just a week?

Figure 1.4. Article in RKP: "The Second-Class Citizen" (Brady, 2014)

Milt, news article "The Second-Class Citizen" in Red Kite Prayer:

"The death of a cyclist while cycling contains within it an inherent irony. We ride to see the world, to enjoy ourselves, to improve our health—in short, we ride to live. So when a cyclist dies while pedaling a bicycle, for those of us who identify as cyclists, the loss is tragic on a grand scale. What could be more opposite of enjoying abundant health than to be struck down by a car?

So it was for Milt Olin. As the former COO of Napster, and married father of two, he wasn't a nobody, not some random gangbanger shot while riding through the wrong neighborhood, not some kid who darted from between cars and was struck by the next door neighbor. Olin was riding a road bike on Mulholland Highway in Calabasas, Calif., on December 8, 2013, when he was struck from behind by Sheriff's Deputy Andrew Wood."

The three men¹¹ above, Milt, John and Antonio, all rode bicycles in Los Angeles, but their commonality as ‘cyclists’ belies how differently they exist in the city; how they cycle, what forces they have access to, how they are exposed, seen and valued as cyclists and as human bodies. While this hierarchy of value is related to how they are situated within racialized, gendered, classed and geographical boundaries, I will argue, particularly in Chapter 4, this is not simply an ‘identity’ placed onto bodies, but a deeply materialized differentiation. As I will elaborate in the three substantive chapters of the dissertation, a distinction between concepts of ‘flesh’ and ‘the Body’, drawing on Hortense Spillers (Spillers, 1987) and Alexander Weheliye (Weheliye, 2014) allows for conceptualization of the deeply racialized assumptions at the core of understandings of humanness. In Chapter 5, I draw on material feminist and black feminist elaborations on Merleau-Ponty’s flesh of the world (Merleau-Ponty, 2004) to consider the relations of power through pre-individual, impersonal forces (Deleuze & Guattari, 1987) that configure cycling practices.

To be clear, my use of the term ‘flesh’ and its distinction with ‘Body’ is not intended to denounce cognate terms of ‘embodiment’, ‘corporeality’ (Colebrook, 2000a; Diprose, 2012; Hird, 2007; Kirby, 1997; Slocum, 2008) or bodily ‘materialization’ (Judith Butler, 2011b; Harvey, 1998) – nor does it signal a claim to an entirely novel conceptualization. Rather, my word choice indicates a particular orientation (discussed also in the ‘(dis)orientation sections) within feminist theories on the body, one that is in conversation with previous uses both in critical race theory and in material feminisms (e.g. Spillers (1987), Bray and Colebrook (1998); Kirby (1997), Povinelli (2006, 2011), Weheliye (2014), Musser (2014) and Rivera (2015)). Neither is this flesh/Body distinction intended

11 Gender is a bodily relation rendered less visible by the excerpts above in that John, Antonio and Milt are people who present as men. However, this is also typical of Los Angeles, where four out of five cyclists are identified as being men (Los Angeles Bicycle Coalition, 2014)

to claim an ontological divide in the realm of human bodies¹², but a conceptual division to underscore the unequal terrain of the ability to claim recourse to a body that matters.

The flesh/Body division emphasizes two main conceptual orientations: The first is the recognition, embedded in the work of feminist critical race theorists, (McKittrick, 2015a, 2015b, 2015c; Mignolo, 2015; Weheliye, 2014; Wynter, 2003; Wynter & McKittrick, 2015) of the fundamentally racializing foundations of who is made to count as a human 'Body', where the 'Body' denotes the historically and geographically contextual ways in which some bodies are legally, politically and socially recognized as human persons, with specific attributes, meanings, rights, boundaries, capabilities and responsibilities ascribed to this category. That is to recognise 'the Body' as a heuristic construct, not a universal lived reality or a socially indivisible experience. The flesh speaks to that which survives – and can still thrive - when entry into the category of the Human Body is denied, rescinded or never fully possible. This is why the concept of flesh has been crucial to the theorisation of life in postcolonial and settler colonial contexts.

Arguably much work on the body and embodied subjectivity within poststructuralist and feminist research has had its basis within such assumptions – of women's exclusion from the 'fully human' in patriarchal societies. As will be discussed further in the Literature Review (Chapter 2), at times white feminisms' focus on sexual and gender difference has meant an elision of the sexual, racial and ableist relations of power that deny homogeneous notions of 'womanhood'. Longhurst and Johnston's (2014) retrospective on 21 years of publishing in geography on the body, for example, identifies race and ethnicity as a 'gap' in research. However, this is not so much a 'gap' that can be filled by more wide-ranging

12 Thinking through the flesh I am also cognizant of Agamben's (1998) notion of bare life (*homo sacer*) and Esposito's (2008) *bios*. However, in this dissertation I engage less directly with their work, and more with the critiques and re-working of their concepts which both Weheliye (2014) and Povinelli (2011; 2016) have undertaken.

or inclusive studies of ‘the body’. Rather, along with theorists such as Sylvia Wynter and Alexander Weheliye, I would argue it is a lacuna in the fundamental conceptualization of the body in western knowledge formations. The notion of ‘the flesh’ entails recognizing the process, technologies and epistemologies of patriarchal racialization that underpin notions of ‘humanity’ and ‘The Body’. This is not to reify ‘race’ merely as difference in skin colour or to somehow select and privilege ‘race’ over difference understood through categories of gender, sexuality, ability or age – as though these are a palate of discrete differences on an even plane (a risk of some notions of intersectionality). These categorizations of difference are always implicated and enrolled in one another’s construction. Thinking through the flesh is to recognize these uneven processes of racialized dehumanization, through which entire groups of humans are, and have been, deemed sub-human, or less-than-human. Yet, as Weheliye (2014) understands the flesh, it is not an entirely powerless state or an ‘object zone of exclusion that culminates in death but an alternate instantiation of humanity’ (p. 43). In this way, the flesh is not a social death, nor a metaphor for complete loss of agency, it represents a flight from the imaginary of The Body of/as Man (white, male, universalized, individualized, legalistic notions of personhood).

The second opening afforded by conceptions of the flesh speaks to a bodily ontology in excess of cognition or sensation, as proto-bodily, trans-bodily, more-than-human and more-than-individual. The term ‘flesh’ recognizes the forces, materiality and meaning that inheres in and through derivative fragments of a body (muscle tissue, hormones, toxin load, bodily data (Dixon, 2014; Povinelli, 2006)). This speaks to what constitutes a body and exists before, after, ‘below’ and between conceptions of a body bounded by skin, mapped onto by a legally or medically recognized living Body as ‘person’. Importantly the flesh is not merely a material substrate – speaking of the flesh and The Body is not a resurrection

of a biologically fixed materiality of flesh (e.g. ‘sex’) as opposed to the culturally constructed Body (e.g. ‘gender’). Rather ‘the flesh’ speaks to the always material-semiotic configurations, processes and capacities understood as unbound by ‘the body’, these ‘enflesh’ or ‘become’ particular corporeal states. For bodies cycling, for example, speaking of flesh accounts for how the cycling body is constructed through its intra-actions (Barad, 2003b) with space-times of urban ecologies, energy flows and exposures – food, fossil fuels, light, visibility, air, sensation, pollution, sound – in ways that can exceed sensation and are always entangled in relations of power. As discussed in Chapter 5, cognate terms ‘enflesh/ed’¹³ and ‘enfleshment’ (noun from verb) are intended to highlight this as a process, a form of (in/non-)human work involving forces of incorporation, living-with, through - and despite of - sloughing off and transformation, in a perpetual ‘becoming’ (Deleuze & Guattari, 1987).

On one level the concept of flesh may appear to allow for an ontological universality – ‘we are all flesh’ – and have the capacity to become mere flesh (no longer a Body and legal person) in the extreme through death or dismemberment through force, violence or a cycling ‘accident’ (see Chapter 5, section 5.5 for a discussion of problems with this term). However, as Milt, John and Antonio indicate, enfleshments or fleshy configurations of work, are imbued with different material-semiotic attributions of value, life chances, capacities, exposures, vulnerabilities and inheritances (‘genetic’/epigenetic and otherwise). Chapter 4, on categorization, focuses on the ways in which power constructs these differentiations of flesh.

Rather than seeing bodily difference as a secondary level or ‘representational’ facet of a

¹³ Michelle Murphy has used the term ‘enfleshed’ to express the ways in which; “all life is enfleshed through industrial chemicals and environmental violence” (M. Murphy, 2016).

universalizable bodily existence, Chapter 4, *LA Cyclists Unsettling Difference*, asks how bodily difference, and understandings of difference, come to matter within cycling in Los Angeles. Theoretical conceptions of bodies and movement that universalize bodies, bracket out bodily differences or too readily denounce ‘identity politics’, struggle to do justice to the experiences of the cyclists I encountered in Los Angeles. However, rather than accounting for difference only through experience of identity categories— considering them as given and static and risk reifying them - this section thinks difference through the conceptual lens of the flesh and The Body. In doing so, I draw on material feminist and Deleuzo-Guattarian theorizations of difference in itself, wherein understanding a body as enfleshed entails a proliferation of difference that cannot be fully captured by categories of difference as identity (or ‘faciality’ for Guattari (2016)). Furthermore, drawing on critical race theory, cycling bodies can be understood as categorized and hierarchized according to gradations of difference *from* white, male, able-bodied, heterosexual notions of what it means to be a ‘truly’ Human Body. Given the biopolitics – governance of life and death – for, and through which these categorizations proliferate, they have real consequences for the forms of enfleshment available to a cycling body. In this sense, fleshy difference cannot be understood as a realm entirely ‘outside’ or ‘prior’ to representation and the categorizations and hierarchies of The Body, yet, its possibilities are not determined by these.

Chapter 5, *Cycling Through Ontologies of the Flesh*, elaborates further on this always differentiated enfleshment, to ask what is specific about a *cycling* body? I try to avoid a fixed definition of what a cyclist is through negative identification (a cyclist is not a driver), cyclical and technologically determinist definitions (a cyclist rides a *cycle), or a form of strict spatial and temporal delimitation (finding the limits of where and when a cyclist is). Rather, this chapter expands on an ontology of becoming as the work of enfleshment.

Through a discussion of Merleau-Ponty's 'ontology of flesh' (Merleau-Ponty, 1968) and feminist engagements with his work, I introduce the work of enfleshment as the constant psychic/bodily holding in tension of a becoming towards - and between - exposure (ontological openness, malleability) and composure (ontological resistance to change, endurance, sustainability). The chapter draws out this ontology of enfleshment through the insides/outside of cycling lungs, exposures to light and heat, the politics of 'taking the lane' as taking up spacetimes, and locomotion through configurations of bodily and *cycles' efforts in Los Angeles. This ontology of enfleshment departs from notions of bodily capacities, energies and properties inhering in individualized 'bodies', rather enfleshment is made possible through uneven material-semiotic 'queer inheritances' (Yusoff, 2015b). As Judith Butler has put it, Merleau-Ponty's ontologies reveal how: "...the limits of the body do not contain us but expose us to a world without which our living is not possible" (J Butler & Berbec, 2017). This has implications not only for how 'bodies' are conceptualized but forces a reconceptualization of notions of health, sustainability relations of spatio-temporal division and justice, notions of responsibility and 'accidents'.

The third substantive chapter *Cycling Through Value* (Chapter 6), asks what configurations of value harness and stimulate particular fleshy capacities, desire (Deleuze & Guattari, 1987) and energies (Grosz in, Yusoff, Grosz, Clark, Saldanha, & Nash, 2012). Thinking through techniques and modes of valuation of cycling in Los Angeles this chapter considers how economized modes of valuation enrol cycling bodies into forms of governmentality and environmentality - neoliberal modes of control. Thinking through valued cycling subjectivities as a never-achievable ideal of 'striving' - drawing on Achille Mbembe (2013) and Wendy Brown (2015) - cyclists can be seen as sites of capital investment, and cycling as the effort of investment within a 'market of liveability'

(enhanced productivity, health, efficiency, self-sufficiency). Human ‘value’ and recognition does not rest only on ontological definitions of the body, nor liberal principles of rights associated with humanity, nationality, citizenship or contractual labour rights. Although these still persist de jure, positions of precarity mean that de facto valuation and consideration of Personhood is also related to its (assumed) investment potential and risk – its particular capacity to conduct, store and enhance capital. Thinking through human energies, and building on the insights of Chapters 4 and 5, this chapter also asks whether a diagnosis of cycling subjects as ‘neoliberal’ is sufficient – what are the hierarchies of value made invisible through a dominant economic framing?

The final section of Chapter 6, *An immanent ethic of enfleshment* considers what forms of cycling ethics might exist in the interstices of dominant modes of valuing cycling. How can the efforts of cycling be recognized without being enrolled only within economic, productivist and utilitarian terms and techniques of valuation? What forms of cycling ethic arise through riding theory alongside feminist cyclists in LA and with material feminisms and black feminist work on rethinking the human?

In most respects this is a theoretical dissertation, however, as will be discussed in the Methodology (Chapter 3), it experiments with a mode of writing theory (riding theory) which attempts to blur boundaries between ‘theory’ and ‘practice’. My interest in cycling arose in part through how I found cycling itself both *forces thought* and abandons it. The – always failed – attempts at *riding theory* emerge through the images, interview segments and ‘field’ notes, interspersed with text in this dissertation. The experimentation with blurring boundaries between theory and method, also often risks bleeding out the limits of the traditional (empirical/experimental) structure of an academic paper I have followed

here: Introduction (Chapter 1), Literature Review (Chapter 2), Methodologies (Chapter 3) substantive Chapters 4, 5 and 6; and Conclusions (Chapter 7).

For a dissertation structured in this way, it may not provide the ‘empirical’ answers about cycling in Los Angeles some readers may hope to find. As this introduction has indicated, I do not claim to provide evidence to support novel policy insights into how cycling in Los Angeles can directly be improved or increased. The Literature Review (Chapter 2), will situate this dissertation within wider research on cycling that does tend to focus on cycling as a ‘cure’, to diagnose the problems that limit its uptake and consider solutions to enhance it. While having ‘impact’ in those realms is not the main remit of this dissertation, as I will discuss in the conclusions (Chapter 7), the ontologies, relations of power and ethics explored here have emergent implications for how cycling subjectivities, space, mobility, justice and cycling ethics are conceived. In particular, it leads away from seeing cycling as a homogenous practice, nor a dogmatic or over-determined tool of environmental, health and social ‘progress’. Rather, it needs to be critically considered what values, normalizations and configurations of power continue to be dominant within the promotion of cycling. In other words, there is space and need for perspectives on cycling that question discourses of universal ‘progress’, homogenous embodied needs and experiences, technological or culturally determinist histories of cycling, individualized notions of choice and tokenistic understandings of equity as inclusion. As far as ontological assumptions of the human and what it means to lead a ‘good’ and ‘ethical’ life are central to practices and policies on cycling, urban sustainability and liveability, it is here where this dissertation mobilizes unsettling thought practices.

2. Literature review

“The first mark is the worst; The drawing of a line cuts the paper in two;”

Marlene Dumas, *Against the Wall*, 2010 (wall text in Tate Modern exhibition

Marlene Dumas: The Image as Burden, 5th February-10th May 2015)

The literature this dissertation relies on, is situated within - and responds to - provides a defining scope for the project. As will be explored also in Chapters 3 and 4, the act of making cuts, in this case of inclusion into the realm of relevant literatures, is not without a politics¹⁴. The methods, orientations, exclusions and delineations through which cycling, cycling bodies and power are apprehended define the shape of the dissertation and its lines of argument. In a much-cited introductory section of the book *Orientalism*, Edward Said speaks of how that first cut “...the act of beginning, necessarily involves an act of delimitation by which something is cut out of a great mass of material, separated from the mass, and made to stand for, as well as be, a starting point, ...” (Said, 1978, p. 16). He is referring here to the necessary exclusions made in the carving out of a text or argument.

As briefly discussed in the introduction, and returned to in more detail in the methodology, however, the method of thinking I have employed throughout this project has meant an awareness of how the politics of ‘beginning’ is ongoing: Whether in citation practices¹⁵ and decisions to omit work that ‘defines’ a field in attempts to subvert relations of power, or the delineations of what is to be classified as ‘literature’ and discussed in the literature

¹⁴ Highlighted by David Livingstone (1992, p. 304) (quoted in (M. Murphy, 2016) “to dictate definition is to wield cultural power”, and Foucaultian notions of truth and power: As explained in detail in Michel Foucault’s *The Courage of Truth* lecture series in 1984, from a parrhesiastic standpoint the triad of subjectivation (ethos), veridiction (aletheia) and governmentality (politeia) are necessarily intertwined, not separate domains. They are “irreducible” and at the same time there is the “impossibility of thinking truth, power and ethos, without their essential, fundamental relationship to each other” (Foucault, 2008, p. 68).

¹⁵ For a brief discussion on the disciplinary politics of citation see (Herod & Wright, 2007) and disciplinarity (Willems-Braun, 1997) more generally. For more recent discussions about wider academic practices of citation and censorship (Gregson, 2003).

review and what is empirical material ‘from the field’. This review of the literature is thus necessarily partial and does include some of the ‘dominant’ research frameworks through which cycling and bodies have been understood. This is in part to be able to follow the politics of how cycling and bodies are defined; who is counted as a cyclist, what counts as cycling and how are these practices differentially produced through research frameworks and the methodological and normative assumptions inherent within these.

I situate this project at the intersections of critical research on cycling and geographical, material feminist, queer and black feminist understandings of power and bodies. Although these bodies of research are by no means cohesive or entirely mutually exclusive, for ease of discussion I consider them in turn. The first section is a critical overview of literature on cycling, covering a broad range of disciplines and research approaches from quantitative studies to social and cultural research with a micro-focus on individual cycling experience to macro-level considerations of socio-technical change and mobility. I discuss also an emergent body of critical approaches to mobility and cycling. The second section focuses on theories of the body, corporeality and embodiment within geography and feminist theory more broadly.

2.1 Cycling literatures

Cycling – as a sport, a political tool, active urban transport mode, leisure activity and subcultural practice (Spinney, 2010) – is increasingly being promoted and researched. Despite still being a minor mode of transport in the United States, cycle commuting has been the fastest growing transportation mode between 2000 and 2012 (Golub, Hoffmann, Lugo, & Sandoval, 2016). This is one of the reasons for the growing body of research on cycling in North America, Australia, New Zealand and Europe. Another is its proposed role in solving problems ranging from the ostensibly ‘personal’ (e.g. time constraints,

health problems, financial hardship, immobility) to the urban and global levels, such as pollution, climate change (Ogilvie, Egan, Hamilton, & Petticrew, 2004), public health costs, traffic casualties, ‘obesity epidemics’ (Ng & Popkin, 2012) and ‘inactivity pandemics’ (Kohl et al., 2012). This has meant cycling being the focus of research within disciplines as diverse as transport studies, sport science, medicine, public health and epidemiology, urban planning, psychology, sociology, anthropology, history, science and technology studies and geography. This research is increasingly published in journals with titles such as *Social Science and Medicine*, or *Transfers*, indicating both inter– and trans-disciplinary modes of enquiry. The diversity of perspectives and blurring of boundaries means this discussion cannot be exhaustive and any attempt to group and delineate approaches does them a disservice. However, there are quite stark differences in how frameworks of research approach cycling and the cycling body, as such it is helpful to broadly group research by; 1) quantitative approaches; 2) social science and cycling and; (3) nascent critical theories of cycling.

In one sense the narrative arc of this chapter will be a familiar one – ending with the approach I find most compelling. The chapter starts with the approaches that have tended to garner most academic and policy space, time, funds and recognition. I will end with approaches that point towards an emergent critical edge for studies of mobility, the call for which is not new (Schwanen, Banister, & Anable, 2011), but the response to which, in research on cycling, is still emerging. These critical approaches centre on questions of social justice and cycling and critique some of the extant disciplinary, epistemological, definitional and scalar boundaries of what cycling is and can do.

2.1.0 Positivist approaches to cycling

“In the categorical paradigm, the idea of a science of society involves a particular attitude to what constitutes ‘data’, an emphasis on the use of formal logic and a theory of explanation (‘hypothetico-deductive’), which, in combination, result in a concentration on strictly delimited units of analysis, on concepts of widest possible application in time and space and on the production of systems of universal propositions, ideally laws of society”

(Albrow, 1974, p.184 as quoted in Smith, 1979a, p. 357)

In the past ten years there has been a relatively small, but growing, body of quantitative research on cycling conducted in fields of epidemiology, public health, sport science, environmental/behavioral psychology, transport planning, geography and urban studies. New disciplinary fields such as physical activity and public health have also arisen (Kohl et al., 2012). Studies in these fields provide evidence on the relative health (e.g. de Nazelle et al., 2011; Ogilvie et al., 2004; Pucher, Dill, & Handy, 2010) and environmental (Lovelace, Beck, Watson, & Wild, 2011; Pierce, Nash, & Clouter, 2013) impacts of cycling (or both, e.g.: Rabl & de Nazelle, 2012; Rojas-Rueda, de Nazelle, Teixido, & Nieuwenhuijsen, 2012). They have studied trends in cycling propensities; its spatial and demographic distribution (Zahran, Brody, Maghelal, Prelog, & Lacy, 2008); its linkage to attitudes and behaviours (Beecham & Wood, 2014); and policy and infrastructure interventions (Buehler & Pucher, 2011; Keall et al., 2015; Pucher et al., 2010; Yang, Sahlqvist, McMinn, Griffin, & Ogilvie, 2010). At times data on cycling is combined with walking under the heading of ‘active travel’ or active commuting, particularly for school-aged children (Villa-González, Ruiz, Mendoza, & Chillón, 2017). These approaches have tended to focus on using large scale survey data, health modelling, systematic reviews (Yang et al., 2010) and analysis of previous literature and data (Kelly et al., 2014), to

describe who cycles and where, why they cycle and to assess or predict environmental and health effects of cycling and how cycling as a transport mode in cities can be increased.

Most evidence points towards cycling being associated with increased overall physical activity and is therefore linked to reductions in health problems related to inactivity, such as cardiovascular disease and obesity¹⁶ (Pucher et al., 2010). Proposed health benefits are seen to outweigh potential higher risks of traffic crashes and levels of exposure to airborne pollutants (e.g. de Nazelle et al., 2011). The health outcomes are varyingly expressed in terms of measures of disability-adjusted life years saved (Woodcock et al., 2009), the potential reduced health costs (e.g. Gotschi, 2011; Jarrett et al., 2012) or average likelihood of mortality, e.g. ACM or all-cause mortality (Kelly et al., 2014). Calculations of improved sustainability tend to be based on assumptions of cycling replacing personal motorized transport, resulting in reductions of fine particulate matter and emissions of CO, nitrogen oxides (NO_x) and carbon dioxide (Goodman, Brand, Ogilvie, & consortium, 2012; Hickman, Ashiru, & Banister, 2010; Rojas-Rueda et al., 2012). Given that in the United States transport represents considerable proportions of oil consumption (71% of US petroleum (Huber, 2013)) and greenhouse gas emissions (27% of U.S. greenhouse gas emissions were from transport in 2015 (United States Environmental Protection Agency, 2017)), theoretically the environmental gains of cycling could be considerable.

Despite overwhelming evidence pointing towards the environmental and health benefits of cycling, most interventions to increase cycling rates in the UK and USA have only been moderately effective (Pooley et al., 2013, p. 4; Pucher & Buehler, 2010, p. 122). Cities such as Berlin, considered to have ‘dramatically raised’ levels of cycling, have only

¹⁶ A 1995 US study cites: “coronary heart disease, hypertension, Type II diabetes, colon cancer, depression and anxiety, and osteoporotic hip fractures” as being related to inactivity (defined as absence of leisure time activity). (Puar, 2011a).

reached cycling levels of approximately 10% of trips¹⁷ (Pucher & Buehler, 2010, p. 117). In their literature review of 139 studies into the effectiveness of cycling interventions, Pucher and Buehler (2010) consider interventions such as travel-related infrastructure, end-of-trip facilities, integration with public transport, behavioural programmes, access to bicycles and legal changes. They argue for integrated packages of interventions that combine, for instance, bike lanes and paths, bike sharing, promotional events and training, traffic calming and bike-transit and call for further monitoring and research on the effectiveness of interventions.

However, despite increased rates of cycling in the United States sometimes referred to as a ‘cycling renaissance’ (Pucher, Buehler, & Seinen, 2011; Pucher, Komanoff, & Schimek, 1999) and some cities achieving significant growth in cycling rates over the last ten to twenty years, overall cycling rates remain low. The large U.S. cities with the highest levels of bicycle commuting, such as Portland, Oregon, still only achieved cycle commuting rates of 6.1% according to data from 2014 (McKenzie, 2014; United States Census Bureau, 2016). In comparison, Los Angeles rates of cycle commuting increased from 0.6% in 2000 to 1% in 2008-2012 (United States Census Bureau, 2014). According to Pucher et al. (2011), the US cycling ‘boom’ has meant an overall increase of cycling commuting from 0.4% to 0.6% of daily commutes from 1990 to 2009. However, Pucher et al. (2011) also indicate the unevenness of this cycling boom, with regional differences such as more cycling in cities in western USA, and university towns, and concentrations in particular areas of cities, such as near CBDs, in gentrifying neighbourhoods and universities.

This brief overview might lead to the conclusions that cycling needs to be made more safe, convenient and comfortable, and private motor vehicles need to become less so (Woodcock

¹⁷ In 2007, and up from 5% in 1990.

et al., 2009). Advocated interventions include changing land-use (towards higher density), increasing and improving cycling infrastructure, prioritizing cyclists and pedestrians in policies, awareness-raising, training and promotion of cycling. Some studies also advocate not only for changes in the ‘public’ perceptions of cycling, but for increased integration between disciplines and the proliferation of graduates and policy makers who look across the links between public health and physical activity, for example (Kohl et al., 2012).

In terms of research, there is a drive towards ‘more of the same’, in the sense of expansion of the same kinds of approaches to under-studied geographic areas and the application of new methods (algorithmic models, for example (Nourian, van der Hoeven, Rezvani, & Sariyildiz, 2015)) onto cycling research. There is also an expansion of quantitative research into newer cycling technologies such as e-bicycles (Behrendt, 2017; Campbell, Cherry, Ryerson, & Yang, 2016; T. Jones, Harms, & Heinen, 2016; Pierce et al., 2013), newer cycling practices and infrastructures such as bike-share schemes (Fishman, 2015) and the integration of ‘velomobility’ and smart cities (Behrendt, 2016, 2017).

Notwithstanding the value and importance of this data and the need for its expansion, there is also a need to interrogate a) whether a purely quantitative-based understanding of cycling is sufficient and b) whether some of the underlying assumptions and methodological approaches within these studies limit the possibilities for more radical analysis and, hence, necessary shifts towards increased cycling and c) whether some of these approaches are inherently intertwined also within modes of governmentality and the reproduction of relations of power within knowledge production spheres (Schwanen et al., 2011).

2.1.1 Critiques of positivist approaches

Some of the gaps and oft-unspoken assumptions made within positivist research on cycling relate to the nature of evidence itself, the assumptions of causality, how the methodologies determine who ‘a cyclist’ is understood to be and the gaps in terms of understanding complexity, power relations and social contexts. Criticisms of positivism are well rehearsed within human geography, with influences from feminist and post-structural theory. These highlight the impossibility of an objective standpoint (a notion of the researcher as distanced from objects of study) inferring an immutable ‘truth’ and point towards the dangers of these forms of abstraction as imbricated within imperialism and governmentality. In some sub-fields of geography, these critiques and the seeming incompatible epistemological frameworks lead to a kind of bifurcation in research between positivist and post-positivist approaches, to the point where there is often little engagement between the two. I attempt to avoid this bifurcation within this dissertation, but do want to highlight some of the critiques of purely positivist approaches.



Figure 2.1: Helmet controversies (Lydon, 2011)

(Grayscale version of original image by [Patrick M. Lydon](#), reproduced with Creative Commons Attribution-ShareAlike License ([CC BY-SA](#)))

Basing understandings of cycling practices and hence cycling policy purely on quantitative data is problematic, and some of these problems can be highlighted using the example of research on cycling safety and helmets. In 2015 the pros and cons of helmets while cycling were being debated due to proposed legislation to make helmets mandatory in California ("An act to amend Section 21212 of the Vehicle Code, relating to bicycles," 2015). Within this debate, ample research could be employed to promote either the pro- or the anti-helmet camp. Helmet proponents could point to evidence that links helmet use to lower incidence of head injuries and death (Attewell, Glase, & McFadden, 2001; Rivara, Thompson, & Thompson, 1997; D. C. Thompson, Nunn, Thompson, & Rivara, 1996; D. C. Thompson, Rivara, & Thompson, 2000; R. S. Thompson, Rivara, & Thompson, 1989). Helmet legislation opponents can point towards studies that show bias in these results (Elvik,

2011), and that results may simply indicate that mandatory helmet use causes reductions in cycling and thus lower crash rates (e.g. Markowitz & Chatterji, 2015).

Yet, aside from simply assessing the burden of evidence on either side of these debates, there are further critical questions that need to be asked which tend not to be possible within the frameworks of purely quantitative studies. Namely, correlative statistics can only be considered with attention to the specific assumptions, framing and delimitations in the research set-up itself (see Figure 2.1, above). A cyclist is seen as being responsible for the ‘choice’ to wear or not wear a helmet, yet this does not account for wider legal, political and infrastructural questions of the relative protection and prioritization afforded to different people in public space (as discussed further in Chapter 5). Making helmet use mandatory risks drawing on, and reiterating, the individualization of responsibility and victim-blaming that attends so much discourse on cycling and safety. It could be argued that helmet laws risk penalizing and putting cyclists off, thus reducing the overall benefits attributed to cycling.

There is an obvious impossibility of modelling or controlling for, nor even qualitatively accounting for, the vast complexity of social-material worlds. Yet a strictly hypothetico-deductive approach to a research question is inherently conservative in the sense that it limits itself to the categories, variables, research questions and model limits initially imposed. A part of this difficulty lies in a series of dualistic ontological assumptions that necessarily underpins much positivist research on cycling: humans as separate from their urban infrastructural environments (nature/culture); experts are configured as the knowers, cyclists as the ‘known’ (subject/object); and cyclists are defined in terms of binary categories and variables (e.g. male or female, a behavior is present or absent, a choice is made or it is not). For example, as Figure 2.2 below shows, an Australian Heart Foundation

research questionnaire on women and cycling asks questions that already presume women's perceptions around cycling are limited to questions of fashion and looks, what is socially acceptable, what their girlfriends think and personal safety.

Perceptions and Acceptance				
	Agree	Neither	Disagree	Unsure
It is socially acceptable for women to ride a bike	85.9%	10.6%	2.5%	1.0%
It is hard for women to cycle in skirts and dresses	81.9%	12.0%	5.6%	0.6%
It is safe for women to ride a bike during the day	70.8%	21.8%	6.3%	1.1%
Cycling is seen as acceptable by my girlfriends	54.6%	34.0%	6.8%	4.7%
Wearing a helmet ruins a woman's hairstyle	38.9%	27.0%	33.1%	1.0%
Cycling clothes are fashionable	23.0%	39.2%	36.1%	1.7%
It is safe for women to ride a bike at night	16.1%	23.0%	59.0%	1.9%

Figure 2.2 Perceptions on women and cycling (Heart Foundation, 2013)

Table reproduced with permission from Women and Cycling Survey 2013. © 2013 National Heart Foundation of Australia.

There is a risk also, when taken uncritically, that the results of such studies reify the categories on which their variables rely and solidifying the correlations which they reveal as causations. This will be discussed in more detail in Chapter 4 of the dissertation, but to outline briefly: There is a risk in emphasizing the role played by the category of class, race or gender itself, rather than laying emphasis on structural injustices. So, for example, the notion that “women are under-represented in cycling” can risk putting the onus on women to change, resulting in targeted behaviour-change programs to encourage women to cycle more. However, what these programs fail to do is tackle some of the underlying social, political and cultural factors which may contribute to women cycling less, ranging from gendered divisions of (household) labour to lack of flexible working hours (Huff & Ralph, 2014; Smart, Ralph, Taylor, Turley, & Brown, 2014), urban land use and even educational policies.

Similarly, research that focuses on cycling infrastructure tends to employ a ‘build it and they will come’, or build it and be safer approach (Thomas & DeRobertis, 2013) to encouraging cycling, one that risks technological and economic determinism (Anable, Brand, Tran, & Eyre, 2012). For example, transport choice is seen as a result of urban density or of infrastructural design, with less consideration of the political and social contexts that constitute urban space. Even for research that attempts to address subjective experiences of cycle paths, for example, the solutions are often framed in very technocratic terms (e.g. Krizek & Roland, 2005). In this particular study by Krizek & Poland (2005), the inevitability of cycle paths ‘coming to an end’ is not really questioned, nor are the wider political, economic and cultural context that make this appear an ‘inevitable’ effect. Framed in this way, cycle paths become an issue that must be planned for with better models (e.g. Krizek & Roland, 2005) and more advanced technical expertise, rather than a question of political and economic prioritization.

This is an approach that is in keeping with transport policy and research dominated by motorized forms of transport and engineering/infrastructure solutions (Pooley et al., 2013, p. 15). In this framework cycling is seen as a complementary or competing transport mode in efforts to promote more ‘efficient’ urban transport (Pooley et al., 2013). In this sense, travel is seen as derived demand (not an activity undertaken for its own sake) with the primary imperative of reducing travel time and cost (Banister, 2008), or in the case of cycling, increasing sustainability and health. Under this framework, transport is the dominion of technical expertise, subject to quantitative measures of efficiency, speed and capacity and maintenance of given systems (Lucas, 2004b), on which transport users themselves are only rarely consulted (Schwanen et al., 2011).

Quantitative studies that do survey cyclists as transport users often draw on economic (Rietveld & Daniel, 2004) and psychological models of behavior to understand factors determining travel (Anable, 2005; Hunecke, Haustein, Boehler, & Grischkat, 2010; Wardman, Tight, & Page, 2007). These tend to rely on underlying theoretical models of individuals as rational actors, choosing consumption¹⁸ based on preferences, attitudes and perceptions. In a similar way as identity categories were discussed above, the assumptions of cyclists made in research thus become further reified in the creation of policy. If cycling is seen as a rational ‘choice’ then it is presumed it needs encouraging through policy ‘carrots’ and ‘sticks’. Marketing, behavior-change programs, infrastructure and better facilities are seen to attract or ‘nudge’ people towards healthier or more sustainable choices (Schwanen, Banister, & Anable, 2012; Thaler & Sunstein, 2009). These assumptions of individuals aligns with a vision of humans as consumer-citizens exercising their ‘free choice’ in what is considered a free market of transport options. This representation, which I have here conveyed somewhat starkly, risks shifting cycling into what can be called the ‘techno-managerial’ domain (Swyngedouw & Kaika, 2014) rather than within a sphere of politics.

Along with the ontological dualisms inherent in much positivist research, there are a number of fundamental epistemological barriers to integrating social complexities, future uncertainties and transport-user perspectives. For example, integration of user perspectives in the design and implementation of research not only requires a loosening of the binary between expert/lay-person, transport user/designer, but it also requires a loosening of the boundaries and hierarchies of “scientific evidence” to include qualitative and interpretive methods and data. There are hierarchies in terms of what counts as evidence in policy

¹⁸ Consumer choice theory, for example (Chakrabarti, 2017)

making (Schwanen et al., 2011), with quantitative methods tending to be given more weight. However, there are also different ideological views and cultural norms with regards to ‘evidence’ in different sectors of governance (Rychetnik & Wise, 2004, p. 248) and with cycling being of relevance to policy-making in sectors as broad as health, transport, land-use, safety, urban planning there is a potential difficulty in relating evidence across these boundaries.

Some of these boundaries of what counts as evidence are highlighted through which studies are deemed acceptable within comprehensive reviews. So for example, in Ogilvie et al. (2004) “the best available evidence” only includes “experimental or observational studies with a prospective or controlled retrospective design”. Similarly Foster and Hillsdon (2004) only considers studies who use ‘scientific evidence’ and ‘experimental designs’. Even where disciplinary and methodological boundaries are bridged, for example in studies that have explored possible future energy pathways for the United Kingdom factoring in social and cultural preferences (Anable et al., 2012), scenarios are still limited by available data. Necessarily, these models need to impose limits and complex, non-linear modal shifts, such as for example where political or economic events or a ‘critical mass’ (Whitelegg, 1997) of cyclists spurs faster growth in cycling (Pucher & Buehler, 2010, p. 121), are more difficult to model.

There is then a kind of geographical and temporal conservatism – with a bias towards particular geographical contexts and phenomena that have previously been studied in a way deemed legitimate and providing sufficiently ‘high quality’ data¹⁹. Even though their systems model includes feedback loops (such as taking into account the non-linear increase

¹⁹ For example, studies modelling the comparative health risks of a shift from driving to cycling, tend to assume no effect on rates of injuries from traffic ‘accidents’, as this data is unavailable (Sælensminde, 2004).

in cycling as a result of safety in numbers), Macmillan et al. (2014) point out that due to a lack of quantified data some effects of increased cycling cannot be factored into their study (pg. 342). Similarly, in a large-scale evaluation of new cycling infrastructure in four U.S. cities called the *Green Lanes Project* (Monsere & Dill, 2015), the streets surveyed were in predominantly white, middle to high income neighbourhoods as this is where cycling infrastructure was placed. In this sense, the inherent conservatism of methods has consequences for social equity. Particular people, places and practices are in a cycle where they do not ‘count’ as much because they – ostensibly - cannot be counted in some studies.

This is particularly troubling given that cycling in the United States is not simply a white middle-class mode of transport, despite the notion of young, predominantly white, urban, gentrifying cycling ‘creative classes’ being the prevalent face of the ‘cycling boom’ (Hoffmann, 2016). In fact the largest proportion of cyclists in the U.S. are in the lowest U.S. Census income class, and people with a Latino ethnicity have the highest rates of cycle commuting (Golub et al., 2016). Furthermore, where quantitative research is framed around ‘preference’, ‘choice’ and ‘attitudes’, there is already a bias coded into the research, occluding the ways in which cycling is often not a ‘choice’ made out of a commitment to a particular ideology or lifestyle, but out of economic and political necessity (Golub et al., 2016).

2.1.2 Cycling and the social

The ontological, epistemological and methodological assumptions that underlay some humanities and social sciences work on cycling diverge quite starkly from the positivist approaches discussed above. These differences lead to - and are derived from - a framing of research questions that tends to be more open and explorative. However the ‘humanities

and social sciences’ encompass a great diversity of methodological and disciplinary influences, ranging from those relying on relatively positivist epistemologies, and mixed-method approaches to ask how cycling can be promoted (Pooley et al., 2013) to anthropological studies taking a critical look at taken-for-granted meanings, values and practices related to cycling in the United States (Vivanco, 2013). Below I will briefly highlight some of the ways in which social science paradigms have considered cycling, from the micro level of individual cyclists, the meso-level accounts of cycling cultures to the macro-level of wider social, political and economic systems. I recognize that in making these divisions for heuristic purposes, I risk over-simplifying how these scalar and conceptual levels and distinctions are made. However, I wanted also to highlight how research in the social sciences does tend to stick to scalar and conceptual rigidities and how this influences the kinds of assumptions made and conclusions drawn about cycling.

Micro-level

Studies of the bodily and experiential aspects of cycling diverge from positivist psychological and economic conceptions in key ways. Individuals are not seen as rational, utility-maximizing actors belonging to fixed identity categories and separate from the *cycles used and the cities they navigate through. Despite variations within humanities and social science approaches, cyclists tend to be seen as interacting with their environments through multiple ‘sensory strategies’ (Jungnickel & Aldred, 2013). Within non-representational theories this is understood as a relational processes of ‘becoming’ (Dewsbury, 2011; Jensen, 2009) or co-production of experience between bodies, objects, practices and infrastructures (Merriman, 2013; Simpson, 2017). Rather than a ‘rational’ actor, cyclists are seen as embedded in materialities of infrastructures and technologies,

‘atmospheres’²⁰ (Simpson, 2017) and social processes such as habit formation (Schwanen et al., 2012).

Much research in the United Kingdom and Australia in particular which has focused on the experiential aspects of cycling has been influenced by a ‘mobilities turn’ in the social sciences (Sheller & Urry, 2006). Proponents of this paradigm criticize a ‘sedentarist’ social science on the one hand for neglecting movement, under-emphasizing its importance and focusing excessively on the *social* at the expense of the material and the human-material interaction. On the other hand, they criticize an overly positivist transport research for being cut off from the rest of social science (Urry, 2007), and transport policy for its tendency to overlook the lived experience of mobility.

Cycling researchers drawing on the energy of this purported new turn tend to critique transport studies and policy for an over-emphasis on infrastructure, utilitarian aspects of mobility (Simpson, 2017) and the neglect of the embodied, contextual experiences of cycling (Cupples & Ridley, 2008; Doughty & Murray, 2016). Some of these approaches rely on nonrepresentational theories to emphasize the “more ‘unspeakable’ and ‘non-rational(ised)’ meanings of cycling” (Urry, 2007). These approaches are varied (see for example: P. Jones, 2005, 2012; P. Jones & Burwood, 2011; Simpson, 2017; Spinney, 2006) but tend to critique the Cartesian, the ‘representational’ and ‘constructivist’ for their bifurcation of the world into dualisms of reality/representation, and their neglect of the pre-cognitive. They emphasize multiple performances, sensations and affects that reside not *in* individual bodies but as relations between bodies, bodies on bicycles and various materialities and spaces. Phil Jones (2005), for example, describes his own embodied

²⁰ The notion of an ‘affective atmosphere’ has arisen within nonrepresentational theories of affect, such as those by McCormack (2008), it attempts to capture a ‘mood’ or a ‘quality’ of an affective immersion that is subsequently labelled or named through ‘feelings’ and ‘emotions’.

experience of cycling in Birmingham as “performing the city”. He describes how both the city and cyclist are constituted through the practice of cycling. In this way, there is not one fixed city that is navigated by individual cyclists, but it is an always already changing landscape based on the positionalities and capabilities of cyclists, their bodily capacities and affects.

While a focus on the complexities of cycling experience is necessary, questions need to be asked about how individualized pre-cognitive experience is conceptualized. Can these theorisations avoid the pitfalls of individualized accounts (the privileging of very particular experience, without sufficient contextualisation)? How do they account for the ways race, class and gender structure difference in material, geological, conceptual and energetic configurations of how bodies can *become* and be mobile? How do they speak to relations of power, violent ‘atmospheres’ and uneven social, political and economic conditions of possibility in cycling? These are concerns that became particularly prominent for me in researching cycling in Los Angeles, and are questions that run through Chapter 4 of this dissertation.

Meso-level: group cultures, social practices & citizenships

Research focusing on cycling at what could be called a meso-level, focuses on the level of cultural perceptions (Aldred & Jungnickel, 2014) subcultures, identity formation, social and political movements, social practices and citizenships. A common argument made within this research is that there is a need to understand not only individually-held experiences, but wider cultural norms, and specific barriers, attitudes and beliefs held by sub-groups such as older adults (T Jones et al., 2016), adolescents and parents (Hopkins & Mandic, 2016), women and women as mothers (Bonham & Wilson, 2012; Boyer & Spinney, 2016; Eyer & Ferreira, 2015). Largely these studies use qualitative methods such

as time use diaries, interviews, focus groups, and mobile methods such as go-alongs (Buscher & Urry, 2009; Merriman, 2013). Some authors working on cycling (e.g. Aldred, 2010) have drawn on practice theory (Shove, 2003) that has been used to understand sustainability and consumption patterns. This allows for a view of cycling not as an individualized ‘choice’ but as a wider social, cultural and material practice that is ‘hosted’ by an individual body and modified and enabled by urban infrastructures and policies (Watson, 2012). Based on 25 in-depth interviews with cyclists in Cambridge, Aldred (2010) coined the term ‘cycling citizenship’ – a set of bodily relationships and impacts on local and wider social and ‘natural’ environments - enabled by cycling practices. A ‘cycling citizenship’ was seen to be associated with environmental, self-caring, locally-rooted subjects, viewing themselves as part of an imagined community.

Ethnographic research on cycling sub-cultures of urban BMX riding on the London Southbank (Spinney, 2010) and urban bicycle messengers (Fincham, 2006), explore how these practices resist or conform to social and cultural norms in public spaces. Similarly, studies that focus on the bicycle advocacy groups such as Critical Mass (a now global movement that started in San Francisco in 1992) use concepts ranging from social movement theory (Aldred, 2013b; Blickstein & Hanson, 2001) and a Marxist analysis of class (Carlsson, 2008) to understand movements and their strategies and to highlight their transformative capacities. Furness (2010), for example, looks at how Critical Mass has the potential to disrupt the dominance of automobility both spatially - by taking up public road space - and ideologically; as “an expression of the utopian possibilities inherent in the city” (p. 107). Drawing on Marxist analysis, Carlsson (2008), views “outlaw” bicycle subcultures in western USA as working towards a do-it-yourself, sustainable, non-commoditized future outside of relations of domination based on class exploitation and market consumption. In a Brazilian context T. Jones and Novo de Azevedo (2013) explore

the perspectives of cyclists in the city of Pelotas, including those taking part in a *bicicletada* bicycle protest. They conclude that in a context where car ownership is associated with material success, a policy challenge is fostering cycling as a desirable and ‘normal’ part of “mobile identity”.

Much of this research has a critical edge, in the sense that it attempts influence transport policy to make it more just and inclusive, and attempts to look towards how power and mobility are intertwined (Cresswell, 2010). Yet as Sheller points out, there has not been enough work on how power and uneven mobilities relate to embodied difference (Sheller, 2015, p. 16). Even when this is taken into account, there is still a tendency to take for granted particular identity categories (race, gender, age, ethnicity) and the ways in which cycling is desirable and positive. The relations of power that structure these normative understandings of identity, cycling and inclusion are generally left intact. Feminist approaches to cycling, for example, are interpreted more as ‘women and cycling’ or motherhood and cycling, rather than fundamentally queering identity constructions (Oswin, 2014). This is a gap that will be further discussed in both Chapter 4 and Chapter 5.

Macro-level

There is a further set of approaches on cycling and mobility which takes a ‘macro’, or wider spatial and/or conceptual scope to see cycling as part of larger interrelated social, socio-technical, political and historical systems and structures. Watson (2012) argues that in order to be able to account for change and diversity in mobility practices over time and space, mobility practices need to be understood as part of socio-technical systems. The hyphenation of “socio-technical” indicates the need to understand social and technological change as always already implicated in one another. In a similar vein - but from a different

theoretical and conceptual angle of systems theory rather than science and technology studies - authors such as Urry (2004) consider bicycling a ‘subaltern regime’ (Geels, 2012, p. 475) or a weak competitor ‘driven out’ (pg. 32) by a global system of automobility. Although these systems perspectives vary, in general automobility is understood as the dominant paradigm – constituted by complex interactions between technologies, policies, markets, practices, culture and scientific knowledge (Geels, 2012). In this view, transition to a different (e.g. low-carbon) type of mobility system would require long-term action by a combination of different actors at multiple levels.

This chimes in some respects with the perspective taken by transport scholars, such as Banister (2008), who argue that sustainable mobility requires a paradigm shift. This requires a change in prioritization²¹ and policy that goes beyond technological fixes or change in level or type of transport infrastructure, and towards integrated urban planning, design and policy. Wardlaw (2014) advocates a similar approach, based on a comparative history of cycling policy, advocacy and infrastructure interventions in the UK and the Netherlands. Comparative and historical approaches, including histories of socio-technical change, such as Bijker’s (1995b) case study of the development of the safety bicycle, can avoid teleological accounts of change or narrow social or technological determinism. In Bijker’s case study, for example, the development of the bicycle was enrolled also within changing social norms regarding wealthier women’s clothing and their ability for independent mobility (Bijker, 1995b, p. 59).

I do not mean to imply, however, that there is something more ‘comprehensive’ or superior about a macro approach than a micro one. There is nothing about taking a ‘wider’ more

²¹ This has been put in terms of the shorthand: “avoid – shift – improve” travel, a transport version of “reduce, reuse, recycle”.

‘systemic’ approach that is inherently more ‘complete’. As highlighted by Boehm, Jones, Land, and Paterson (2006), systems theories risk leaving little room for the collective agency and resistance by people (nor of matter, arguably) within the system. These approaches also risk deterministic and ‘closed’ notions of a system that can be ‘objectively’ modelled, without taking into account the often unpredictable, inexplicable creativity of power conceived in a more fluid, material and context-specific ways. In this sense it becomes easy to denounce the ‘system’ without the ability to point towards specific culpable agents and processes in particular contexts (Pignarre & Stengers, 2011). Focusing analysis on different scales, using different approaches and questions enriches understanding of cycling and mobility more generally (Schwanen, 2015b).

Despite this pluralism of approaches to researching cycling, there is less diverse and critical attention paid to some key ontological and normative assumptions on cycling. Firstly, there tends to be a consensus on cycling as a social and environmental ‘good’, where ‘health’ and ‘sustainability’ are pre-defined and largely uncontroversial. Secondly, although humans, technologies and environments are seen as interrelated, it is still largely deemed possible to speak of them and study their effects separately (i.e. health is not the same as sustainability). Thirdly, power is theorized mainly as inhering in the physics of the ‘natural’ world (i.e. horsepower, energy or human-power) *or* in the human world of politics and as something responsible for the “governance of mobility” rather than governing *through* mobility (Bærenholdt, 2013). Lastly, in order to help increase cycling in cities and bring positive changes to societies and environments, cycling should be further researched, with new and better methods and theories in order to be ‘better’²² understood.

²² Despite attempts in some mobilities research to move away from ‘utilitarian’ and supposedly ‘objective’ research and towards more interpretative and open approaches to take into account the non-representational (or less-representational), there is still a temptation to argue that some methods, such as video, can proved

Aside from a nascent critical mobilities literature, which I will turn to now, there has been less attention paid to understanding how power operates through the assumptions of truth and the functioning of mobility itself. Questions of which people, practices and concepts are excluded from research and policy on cycling and why, inherently about power and violence as it operates through materiality and meanings, have tended to be side-lined in a transport geography not generally associated with questions of geopolitics (J. Shaw & Hesse, 2010, p. 308).

Within the last few years these questions have begun to be explored critically in research arising in contexts mainly outside of Western Europe. Despite varied disciplinary and methodological framings from the ethnographic and anthropological (Lugo, 2012, 2013b) to more political economic, structural takes (Koglin, 2014; Stehlin, 2014, 2015) in general these critical perspectives look to understand the relations of power within which cycling planning, advocacy, and practice are situated. Drawing on theories of power (e.g. Marcuse) Koglin (2014) argues that transport planning based on modernist ideals of scientific rationality, efficiency and technological advances has systematically and spatially marginalized planning for cycling. Koglin and Rye (2014) suggest there is a need for more theoretical innovation in planning for cycling. Drawing on Cresswell's (2010) politics of mobility they argue for velomobility planning that takes into account a) physical movement from A to B (b) power relations in urban traffic (c) representations of cycling and (d) everyday practice.

Despite placing concepts of power centre-stage in considerations of cycling, Koglin (2014), and Koglin and Rye (2014) still largely place 'cycling' – seen largely as a unified practice – in an unequivocally positive light. Other critical takes on cycling (Lugo, 2013b;

'better' results: "This does not mean that I am suggesting that the sensory and affective can be represented 'intact', rather that some forms of representation may evoke them better than others." (Spinney, 2011).

Stehlin, 2014, 2015; Stein, 2011; Spinney, 2016) have gone further in questioning the image of cycling as a ‘universal good’, that serves only to subvert and reinvent space, resist prevailing power structures. Rather, cycling practice, advocacy and policy are considered as produced within and implicated in the same extant fields of power as automobility – characterized by spatial injustice, gentrification (Lugo, 2013b; Stehlin, 2015; Stein, 2011), white supremacy and neoliberal urban governmentality (Spinney, 2016; Stehlin, 2014).

As such, in contrast to a kind of cycling advocacy that has been called ‘totalizing’ (Cupples & Ridley, 2008), there is no unified conception of cycling. Meanings diverge amongst cyclists (Lugo, 2013b) as a reflection of particular racial, class, gendered positions, and as part of wider ongoing and contested fields of cultural production. Cycling can represent revolutionary and utopian ideals (Carlsson, 2008) while simultaneously being a symbol of gentrification in the hands of the young, mainly white, ‘hipster’ creative classes increasingly colonizing urban cores (Stehlin, 2015). In what D. Lee (2015, p. 85) drawing on Aldred (2010) describes as the “good-bad bicyclist binary” some cyclists are deemed well-behaved (helmet-wearing, and contributing to work, efficiency and commerce) while others are seen as disruptive. This hierarchy disrupts the potential for a collective cycling politics and reinforces a neoliberal agenda of individualized responsibility (D. Lee, 2015, p.87).

Not only is cycling fragmented and its representations diverse, but some policy frameworks that further cycling, such as ‘complete streets’²³, or ‘liveable cities’ (Zavestoski & Agyeman, 2015), risk upholding and aggravating structural, representational, spatial and mobility inequalities. The edited volume *Incomplete Streets*

²³ Complete Streets is a shorthand for a concept and movement that aims to make streets safe for all road users, breaking out of the dominance of automobility (Zavestoski & Agyeman, 2015).

(Zavestoski & Agyeman, 2015) highlights how “complete streets” initiatives in cities in the United States remain embedded in neoliberal programs of attracting investment to urban cores, displacing lower-income and ‘minority’ communities (Golub, 2015). By potentially reducing the flow and increasing the cost of motorized traffic, valorizing the bicycle and focusing on the street-level inclusion rather than at the level of the region, Chapple (2015) argues, “complete streets” may occlude the needs of some low-wage workers relying predominantly on automobility.

Thus, cycling and cycling advocacy in its quest to become ‘normal’ (Stehlin, 2014; 2015) and its need for funding and inclusion in policy spheres, risks becoming enfolded into – and serving to uphold - prevailing urban power structures of neoliberal governmentality. The socially just, inclusive and expansive meanings and practices of cycling become increasingly foreclosed when cycling becomes a de-politicized lifestyle or transport choice, one that reinforces racialised power structures (Golub et al., 2016) and seeks to politely share commodified urban space and contribute to the quest for exclusionary urban renewal, liveability and economic growth (Stehlin, 2014).

This emergent work in critical mobilities begins to problematize and unsettle any simple assertions regarding urban cycling. Rather than starting from the presumption of cycling as an unequivocal ‘cure’ to environmental, health and social ills, these approaches view cycling movements, policies and politics as complex phenomena that arise from - as much as they attempt to struggle with - material-representational power relations and inequalities that structure urban spaces. In this respect, as Bærenholdt (2013) points out with the concept of *governmobility*, through Foucaultian understandings of power, there is a nascent body of work that seeks to understand the power immanent in mobility itself – mobility as an operation of power.

It is within this emergent body of critical – or radical²⁴ - work on mobilities that I situate this dissertation. As I will explore below, approaches to cycling that take a material feminist, queer and critical race theory approach may open a set of under-explored questions: What bodies are seen as the ‘referent’ in notions of healthy, mobile responsible cycling and with what effects? How does *difference* come to matter in cycling practices? What forces and power relations allow for cycling to be possible and desirable for some people in some configurations of city space? Put differently, what are the conditions of possibility for particular relations of practice and habits to emerge, how are material powers (i.e. in fossil fuels and muscles) and cultural political powers always-already implicated in one another in the politics of cycling? Lastly, a critical feminist theory might allow for experimentations in a ‘theory’ that is not necessarily used or applied (to aid in ‘uncovering truths’, understanding and explaining an empirical context (Pryke, Rose, & Whatmore, 2003)) - but rather as a way of *thinking through cycling*. What if theory were not only a way to ‘understand’ cycling as such, but to open up particular avenues into learning from cycling? A more reciprocal, or non-binary relation might be established between theory and practice where cycling (as a thought-politics in praxis) is seen as a way to practice and understand *theory* and its production.

2.2 Power and bodies

There was a so-called ‘body boom’ in the 1990s in geography (Callard, 1998; Longhurst, 2005) and an increasing number of articles published on embodiment and the body in the 2000s (Longhurst & Johnston, 2014; Mountz, 2017). While the body has not been the

²⁴ There is perhaps a need for a ‘radical’ subset to critical mobilities, one that moves beyond the experiential and cultural (Cidell, Prytherch, & Addie, 2015) and a critical mobilities that is generally about relations of power (Cook & Butz, 2015). More specifically, a radical approach might attend to how the roots of assumptions about mobility tie into wider ontological assumptions and notions of value.

exclusive remit of those calling themselves feminist theorists (see for example: Harvey, 1998), much work within geography on the body has relied on feminist and post-colonial, disability (or crip) and queer theory, where discussions of power and the body have been more central²⁵ (Mountz, 2017). I am loath, therefore, in this overview to draw clear disciplinary boundaries around theory on bodies and embodiment. The strength of much feminist work on the body is precisely a recognition of the unbounded ‘messiness’ of bodies and attempts at understanding them (Longhurst, 2001; Mountz, 2017). Both the varying feminist theory and urban theoretical work (Jayne & Ward, 2016) discussed below are interdisciplinary, cutting across the humanities and social sciences from literary, legal and cultural studies to psychology, gender studies, critical race theory, architecture, history, sociology and geography. I will start with a brief discussion of how the intersections of bodies, power and urban spaces have been understood within geography before focusing more specifically on the body and embodiment within feminist theories more broadly.

Research within geography on bodies and embodiment is so disparate as to make concise summarization difficult. This difficulty is expounded by the struggle to parse out the body from allied concepts that link bodies, power, (urban) spaces and materialities – experience, affect, encounter, rights, identity, practices, infrastructures, architectures²⁶ – surely these pertain to, are inhabited by, and condition the possibilities for mobile urban bodies? Some of these concepts arise from the conditions that are thought to make urban spaces distinct: the density of infrastructure, flows and architectures, difference and interaction due to the

²⁵ Not all research which relies on feminist theory makes this reliance explicit. There is a particular practice of reading and engaging with feminist work only to dismiss and ‘over-write’ it. For example, while Thrift (2007) mentions Diprose (2002a) notion of ‘corporeal generosity’, he writes, with very problematic word choice: “but I think that this phrase runs the risk of falling back into the domestic model of kindness that I am concerned to escape” (p. 215).

²⁶ Some of these are the sub-headings in the introductory text on urban theory by Jayne and Ward (2016).

densities and diversities of urban populations; the contested nature of ‘public space’ and the relations of production, exclusion and power that produce the city (D. Mitchell, 2003). I limit this brief review to work within geography that more directly touches on the intellectual approaches (critical, feminist, post-structural) and empirical contexts (urban, Los Angeles, mobility) employed in this dissertation. I will do so through a somewhat crude categorization²⁷ of the ways in which power is conceptualized in and through bodies.

2.2.1 Discursive & performative power and the body

Much work on the body in geography has lineages to sociological (Bourdieu, 1977, 1984), poststructuralist, phenomenological (Merleau-Ponty, 1962), feminist, post-colonial, psychoanalytic (Cixous, 1986) and cultural theory (de Certeau, 1984) on the body and literary (Rich, 1987) accounts of lived experience. The extent to which power is seen to operate through structures such as class, gender, race, or language, representation, bodily habits, practices or cultural norms are largely dependent on the particular theoretical framework employed. As a philosopher and historian of the body and power, Michel Foucault’s (Foucault, 1977, 1978, 1980, 1986, 1991, 1994, 2003, 2007, 2008, 2012) expansive work has been very influential within more poststructuralist geographical work on the body. Although Foucault did not foreground ‘space’ explicitly in his work (Elden & Crampton, 2007), geographers have drawn on his histories and conceptualizations of power as pervasive and not simply ‘limiting’ or repressive, but productive of particular subjectivities, norms and life itself.

In Johnston (1998)’s book *Places Through the Body*, for example, Foucault’s work is used to understand spaces and practices from gyms and self-monitoring and optimization

²⁷ In some respects this aligns with more traditional sub-disciplines within geography; Marxist geography, feminist geography, cultural geography etc (a distinction used by McCormack (2008)).

practices of body building (Johnston, 1998), to a critical feminist reading of Foucault by Pratt in collaboration with the Philippine Women Centre (1998), on Filipina domestic workers in Vancouver. Some have criticized Foucault for proffering too ‘totalizing’ a notion of power that leaves little room for true change and resistance (as discussed in Hekman, 1996). Pratt rehearses some further critiques of (interpretations and uses of) Foucault’s work, such as a relative emphasis on discourse at the expense of the material; a lack of attention on how European power and discourses rely on colonialism, and a loss of discussions of the role of labour.

2.2.2 Power, capitalism and the body

The latter critique of more poststructuralist and discursive understandings of power largely come from within Marxist understandings of power and the body. In this historical materialist understanding, power – and bodies - need to be understood through particular political-economic relations. According to Harvey, for example, the body does not “float freely in some ether of culture, discourses, and representations” (1998, p. 420). In a very literal sense, bodies in Los Angeles are produced through food grown largely within capitalist agricultural modes of production, live within housing subject to the vagaries of rental and property markets, and bodily practices and requirements of paid labour and social reproductive work structure the everyday lives of most adults. Quoting Donna Haraway, David Harvey (1998) argues the body is an accumulation strategy – it is materialized through flows of capital. Yet there are some clear impasses between a poststructuralist and historical materialist conception of bodies. This includes how capitalism is seen to operate, and understandings within historical materialism of a dialectical nature/culture relationship – including within the ‘nature’ of humanity itself (Orzeck, 2007).

Human bodies within political economic conceptions are largely still framed around the economic categories of labour (Weeks, 2011), consumption and social reproduction or life's work (K. Mitchell, Marston, & Katz, 2004; Strauss & Meehan, 2015). However, these analyses of how political economic power constructs bodies have taken increasingly nuanced and contextual understandings of power: For example, in thought on obesity that embeds understandings of neoliberalism with race, epigenetics and the constructions of biological difference (Guthman, 2014), bodily and technological materialities (Strauss & Meehan, 2015); racialized capital (Gilmore, 2007); governance responses to crises that could be termed Foucaultian *dispositifs* (Braun, 2014); through social and affective infrastructures and politics that is about 'redistributing insecurity' (Berlant, 2016); and power as it operates through logistics (Cowen, 2011).

In an urban context, research on gentrification alone reveals understandings of urban bodies co-constructed within specific material-semiotic processes and conditions that are themselves mobile, result in changing mobilities and displacements (Rerat & Lees, 2011), involve distributed power and agencies (Paton, 2011) and operate at scales from the bodily (Kern, 2012, 2015) to the global (Lees, Shin, & López-Morales, 2015). Particularly in Chapter 6, I attempt to follow a nuanced understanding, following as Pignarre and Stengers (2011) term them 'inheritors of Marx', in attempting to get pragmatic, creative, contextual 'holds' on the 'sorcery' of capitalism, through how value circulates in and through cycling bodies.

2.2.3 Power in practices of the (not so) everyday

The largely British geographical arena of non-representational theory bleeds across work on mobilities (as discussed above), the urban and moving bodies (McCormack, 2008, 2013; Simpson, 2017). Much has been written and debated about how power is seen to

operate within these framings. Nigel Thrift sees nonrepresentational theory as opening up ‘new political domains’ at the level of ‘ordinary’ everyday practice, a more playful, generous mode of embodiment, changing the ‘texture of the feel and outcome of the everyday” (Thrift, 2007). The political is not so much discursive or capitalist as it is conceived at a level prior to cognition, the ‘pre-individual’ and non-biographical and is entwined with the world of ‘things’.

In dance, for example, McCormack argues, cultural and political power needs to be understood in ways that cannot be ‘reduced to the terms of representation’ (McCormack, 2008). There is a notion in which bodies are not simply reproducing cultural mores in dance, but are on a micro-scale of ‘inventing’ and ‘reworking’ corporeality through affective power. Others focusing on the level of practices have looked to particular bodily practices that seek to reinvent, uncover and/or resist particular (increasingly privatized and enclosed) urban spaces through urban exploration (Garrett, 2014; Garrett & Hawkins, 2013), urban skateboarding and parkour (Saville, 2008; Sharpe, 2013).

Yet some of this work has been criticized for its individualization of emotion and experience, its masculinized and ableist assumptions (Mott & Roberts, 2013b). The question needs to be asked how these important micro-level accounts of play and performance relate to forms of power that also condition the possibilities of this micro- and pre-cognitive reworking. Human and nonhuman bodies ²⁸ - notwithstanding representational or cognitive capacities – are materially conditioned by racialized,

²⁸ See research on mammalian bioaccumulation of PBDEs (chemicals used in flame-retardants) (Alava, Ross, & Gobas, 2016) and human body burdens (Mackendrick, 2014). Some of these bodily burdens (such as lead) implicate the immune and nervous systems, influencing bodily capacity for affect itself (Chen, 2012).

sexualized and classed geographies of exposures. I will engage more with this particular critique in Chapter 5.

2.2.4 Material powers: the nonhuman and inhuman

With the influence of posthumanisms and (new) materialisms, the body in geography is increasingly recognized as always having been more-than-human (Whatmore, 2006) and more than simply ‘itself’, but made-up by - and always imbricated within - relations to the nonhuman, be it fire (Clark & Yusoff, 2014), fossil fuels (Yusoff, 2013a), gut bacteria (Haraway, 2008), food (Guthman, 2014), technologies (Boyer & Spinney, 2016) or clothing (Colls, 2004). In this sense, critical explorations have not only defined the body in terms of space, time and capacities but also towards the limits of the human (Abrahamsson & Simpson, 2011).

A number of geographers (Clark, 2010; Colls, 2007; Noxolo, 2014; Yusoff, 2015b) have considered the human body through material feminist lenses. The particular bodies under discussion range from asylum seeking bodies (Noxolo, 2014), ‘geologic’ (Yusoff, 2015a, 2015b) and volatile bodies (Clark, 2010) to fat bodies (Colls, 2007). However, these bodies of work are threaded together by a reliance on critical theories on the power of materiality. Drawing on queer and feminist theory from Haraway (1991), Grosz (1987) and Barad (2012), these genealogies of thought seek not to separate humans, our bodies and cultures from ‘nature’, and split ideas and representations from matter and materiality. Rather, they emphasise forms of co-production or intra-action (Barad, 2007).

I rely heavily on this body of work throughout this project, in part because it pushes towards a reconsideration of how the human can be further thought and practiced in radically different ways. There is a recognition within this research– in particular within a feminist geophilosophy - that modes of thought are subtended by, or responsive to,

particular material, earthly relations (Bosworth, 2016; Clark & Yusoff, 2014). This is not just about diagnosing what forms of power produce bodies in current anthropogenic worlds, but asking the very practical and theoretical questions about how humanity might be lived differently (McKittrick, 2015b, 2017).

As Anderson (2017) discusses in his review of cultural geography's contemporary understandings of power, these conceptions of experience (not simply as individualized and sensory but as modes of living) not only seek to understand the complex forms and intensities power takes, but also experiment with the form of academic writing/expression (e.g. Krupar (2013) and McKittrick (2015b) discussed in Anderson (2017)).

2.2.5 Intersectional²⁹ bodies; the body in crip, queer and post-colonial feminist theory

Bodies as objects of knowledge are material-semiotic generative nodes

(Haraway, 2013, p. 280)

Sex (1=male)

(variable denotation in: Krizek & Roland, 2005)

How is one supposed to think, write, model, analyze, write policy and design for cycling bodies without bracketing out differences, without speaking in averages and universals? It might be said, we cannot write about all 7 billion human bodies in all their intricacies, we cannot please everyone, so cuts have to be made. As such, gender becomes binary, race becomes something footnoted and dealt with under a different – supposedly political - project. However, critical race, crip, queer and de-colonial feminist theory has always worked against a tide of this pervasive erasure of difference. Within its own minor canon, post-colonial and feminist theory³⁰ draws on a long lineage of critiques of universalism in theory (Tolia-Kelly, 2006). In doing so, it relies on notions of all bodies as fundamentally historically, socially, spatially specific.

As such there is no clearly defined or fixed ‘body’ that allows for a clean delimitation of research within feminist theory. Nor is there a single ‘feminist theory’ that exists outside of specific disciplinary, temporal and geographical relations (Braidotti & Butler, 1994). In a sense many discussions of ‘the body’ have been less about bodies and more the necessary

²⁹ I use the term ‘intersectional’ here to refer to intersecting, overlapping bodies of research and to the influential term ‘intersectionality’ as coined by Crenshaw in 1989 (Carbado, Crenshaw, Mays, & Tomlinson, 2013). She used a street intersection as a metaphor to refer to the ways in race, class and gender, in particular, are not mutually exclusive but ‘intersect’ within structures, politics and representations.

³⁰ See here Braidotti’s critique of Badiou and Zizek in her public lecture at University of East London on 11th March 2015.

starting point for fundamental epistemological and ontological questions. Bodies have been, and are, ‘material-semiotic generative nodes’ in Donna Haraway’s terms, above. This overview thus asks less what the body ‘is’ and how it is represented within theory, but more what the body is made to mean, and what work it is sought to do within theory at specific junctures (Callard, 1998).

The body for feminist theory has historically been the site for a key set of arguments, including but not limited to: (a) refuting the naturalising notions of immutable bodily differences and supposed ‘inferiority’ that use Science to legitimise social dominance; b) showing how gendered (as well as, for some theorists, racial, class, able-bodied, heteronormative) relations of power are socially and politically produced and contingent, not ‘natural’ and fixed within bodies; c) questioning the universalizing of Man (and theory) as white, male, straight, able-bodied; (d) questioning dualisms that pit femininity/passivity/nature/private as other and inferior to masculinity/activity/culture/public; (e) furthering epistemologies and ontologies that break down these binary assumptions, and focus on bodies as relational and their boundaries as fluid (Longhurst, 2001); and (f) advocating for methods of research and thought that are situated (Harding, 2004) and embodied, not seeking to portray a disembodied ‘objective’ ‘view from nowhere’ (Haraway, 1988).

The starting point for much feminist theory is a critique of the Cartesian divide where the body is seen as a machine composed of inert matter, a container for the immaterial mind and soul (Harvey, 1998, p. 402)³¹. This binary of the body as matter and the soul or mind

³¹ However, it needs to be considered that Descartes may not have been entirely “Cartesian”, as Diprose (2011) points out, Descartes has also written: “Nature also teaches me by these feelings of pain, hunger, thirst etc., that I am not only lodged in my body, like a pilot in his ship, but, besides that I am joined to it very closely and indeed so compounded and intermingled with my body that I form, as it were, a single whole with it” in the Sixth Meditation (1968: 159)

as immaterial is one of the pervasive dualisms that, as outlined by Cixous, structure the very fabric of speech and meaning in dominant ‘western’ thought and culture. For Hélène Cixous these dualisms (e.g. activity/passivity; culture/nature; head/heart; father/mother; logos/pathos; form/matter, seed/ground (Cixous, 1986), structure meaning in a way that reflects gendered societal relations of dominance and value, with the initial concept in the binary being associated with the masculine, the ‘better’, the standard by which all else is measured, with the feminine representing the lack, the lesser, the ‘Other’. For feminist theorists a main task has been to confront and subvert some of the dualisms, either by reversing them to valorise the feminine (see for example *écriture féminine*, Cixous in the 1970s) or by attempting to write and speak of bodies outside of these dualisms (Braidotti, 2006a; Colls, 2007; Diprose, 2002a; Grosz, 1987; Haraway, 2013; Povinelli, 2006; Whatmore, 2002; E. Wilson, 2015).

However, this has not been a simple task of overturning or erasing binaries, but rather a constant renegotiation and working-with. Spivak argues that terms such as ‘woman’ are necessary to allow us to make a stand yet this needs to be made in a provisional and polemic way (Spivak, 2012, p. 103). Similarly, an outright break from these dualities risks denying how they structure patterns of speech and thought. Instead authors such as Donna Haraway have maintained a kind of incredulous pragmatism or playfulness around these “suspect technolog[ies] for the production of meanings” (Haraway, 2013, p. 281). To eschew either of the duelling positions of outright denial or a (tacit) re-imposition, a trickster, coyote scepticism and creativity may be warranted³². Drawing on these approaches and lineages of feminist theory within this project not only has implications for my methodology (to be

³² See (Braidotti, 2006a) for a discussion of Haraway’s use of the figurations of trickster, coyote, onco-mouse and cyborg to think beyond binaries of nature/culture.

discussed in the next chapter), but also has implications for the way in which I approach how ‘bodies’, *cycles and ‘cities’, and their interrelations are conceived.

This speaks to the fundamental work of addressing binaries of human/technology, nature/culture, discursive/material that still haunts feminist theoretical work. Notions of a socially constructed gender were initially used to refute the ‘naturalization’ of feminine subordination. Yet, for some ‘sexual difference theorists’ a notion of gender risked placing male and female on a ‘level playing field’ (Braidotti & Butler, 1994). Another critique of gender as socially constructed is that this move simply leaves the ‘sex’ of biology as under-theorized or naturalized, fixed and deterministic. By leaving behind the biological or ‘natural’ as an oppressive and deterministic force, E. Wilson (2015) argues, feminism has risked a kind of antibiologism (pg. 34). For Wilson, feminist theory needs to critically engage with biological data rather than leave it to biologists. More recent work within feminist theory has thus questioned the existence of a fixed ‘sex’ within biology (Fausto-Sterling, 2000).

There are varying strands within feminist theory that differ in how the discursive/material duality is negotiated in ideas of what constitutes bodies and subjectivities. In part this is due to divergent philosophical lineages, such as Judith Butler’s post-Kantian and Rosi Braidotti’s Spinozan and Deleuzo-Guattarian influences (Blaagaard & Tuin, 2014). For example, feminist theory’s focus on social constructivism, representation and theories of gender performativity (drawing on Judith Butler’s work (Judith Butler, 1988, 1990, 2011b)) has sometimes been unfairly critiqued by material feminists for an over-emphasis on the discursive at the expense of the agencies and forces of materiality. In response there has been a ‘turn’ within feminist theory towards the ‘problem’ of nature (Grosz, 2005), nature and embodiment (Alaimo, 2010), the agency of matter (Bennett, 2010), human

corporeality (Colebrook, 2000a) the ‘natural’ sciences (E. Wilson, 2015), and our relationships to non-human (Haraway, 2010) and more-than-human (Whatmore, 2006) nature (Fannin, MacLeavy, Lerner, & Wang, 2014). In the substantive chapters that follow I will draw on varying strands of these material feminisms, particularly as they relate to, and overlap with, insights of critical race, disability and queer theory.

In this respect, this dissertation forms part of an internal revisioning and critique within feminist theory. One such critique has questioned whether posing sexual difference as a primary (or only) binary has risked minimizing how sexual difference is always constituted in relation to structures of power based on race, humanity, (dis)ability and class. Feminist theorists of debility (Puar, 2009; Wearing, Gunaratnam, & Gedalof, 2015), disability studies, and crip theory (Kafer, 2013) have pushed feminist theories towards broader political allegiances and conceptual concerns. This goes beyond simply creating an additive or intersectional notion of bodily difference (imagined as fixed identities overlapping), but towards a fundamental rethinking of feminist thought. In the book *Feminist, Queer, Crip*, Alison Kafer (Kafer, 2013) for example, brings feminism, queer and disability studies into conversation. Following the above discussion, her argument puts into question not only medical and individualized models of disability (disability as a medicalized ‘problem’ or lack residing within individualized bodies), but also the social model with its distinction between impairment (a body’s capacities) and disability (the ways in which society and built environments produce disability). Rather, she advocates a political/relational model of disability, one that recognizes the lived realities of pain, and fatigue, the real desires some have for medical intervention and the ways in which ableism permeates wider societies (Kafer, 2013, p. 8).

Kafer (2013), and this dissertation, draw on a queer theory that has retrained thought from a narrow focus on identity, sexuality or gender, to more general understandings of the constructions of “normality/normalcy” itself (Wright, 2010, p. 57). This allows for a “queer geography that engages deeply with feminist, postcolonial and critical race theories” (Oswin, 2008). A queer theory that goes beyond queer as an identity politics questions the ideal of inclusion (Oswin, 2008), the normalizing and categorizing powers of all identity formations and unsettles and questions normative temporalities and spatialities (Freeman, 2010; Halberstam, 2005; Oswin, 2012), binaries between meaning and materiality (Barad, 2012; Povinelli, 2011), life and non-life, vitalism and inertia (Chen, 2012), mobility and immobility. As queer and queer-of-colour theorists point out (Chen, 2012; Oswin, 2008; Puar, 2006), queer theory needs also to consider how normalization of gender and sexuality is intertwined with colonial and racialized relations of power. As Mignolo (2015) puts it: “race is not in the body but rather is built in the social imaginary grounded on colonial differences.” (pg. 116).

As Black feminist scholar Weheliye (2014) points out, some feminisms – and it could be contended, queer theories - risk being part of a more general ‘deracination of poststructuralism’ (p. 9). Again, this is a more fundamental critique than simply calling for consideration of how gender, race and disability intersect, applied in this project, for example, in the experience of cycling. Rather, Weheliye’s critique, drawing on black feminist theorists such as Sylvia Wynter (2001, 2003) and Hortense Spillers (1987), centres on conceptions of what it means to be human. Sylvia Wynter’s redefinition of ‘the human’ embeds within it a cognizance of how such self-conceptions are always-already tied up in histories, ideas and methods of domination, or “coloniality of being, power, truth, freedom” (Wynter, 2003, p. 327). Wynter argues that the dominant contemporary notion of the human is based on a Western-centric, white notion of ‘Man’ as biocentric, rational,

homo-oeconomicus and political subject of the state (Wynter, 2003, p. 282). Wynter argues, rather than viewing this concept of the human as a historically-specific ‘founding myth’, positivist science assumes this notion of the human as ontological, objective truth (or in Sylvia Wynter’s words – ‘supracultural’). The effects of the over-representation of this human self-conception as ‘Man’ are seen in the ongoing re-creation of a substratum of humanity, or a less-than-human (or as Wynter puts it drawing on Darwinian terms, ‘less evolved’ or dyselected) category in racialized national (e.g. U.S. police violence towards black, male bodies, responses to hurricane Katrina) and supra-national imageries and policy (e.g. immigration policies).

In this sense, a *decolonial* episteme, or as Mignolo calls it, following Wynter and Fanon, a decolonial *scientia*, requires a re-thinking of the human as well as what counts as ‘human’ thought. It allows for a linking of knowledge across humanities-versus-sciences disciplinary divides (McKittrick, 2015a; Wynter, 2003, pp. 269-270) and reconsideration of questions of ‘appropriate’ scale (Mignolo, 2015). As was highlighted by the review of literature on cycling, above, much research on cycling tends to remain relatively ‘disciplined’ in terms of a focus on a particular scale³³ (e.g. individual bodies, cycling cultures or social systems) with an attendant set of definitions, methods and theories associated. In many respects, this serves to reinforce a bifurcated system of thought along culture (social sciences and humanities) and nature (sciences) lines. For a critical

³³ With scale being a concept so central to critical geography, there have been several in-depth reviews of the politics of scale, ranging from post-structural perspectives (Marston, 2000) to the more political-economic (MacKinnon, 2010; Marston, 2000; Neumann, 2008; Swyngedouw & Heynen, 2003). These have considered scale as referring to size, level and relation (Howitt, 1998 in Marston, 2000); some have contended that there should be more consistency in terminology for the sake of clarity, others suggest notions of scale should be entirely disbanded (Marston, 2000). While there is little contention around the assertion that notions of scale are ‘constructed’ in various ways, disparities arise around *how* and under what relations of power these scales are constituted. Analyses varyingly see changing research technologies; disciplinary divides; capitalist relations of production; patriarchy and histories of colonialism and empire as being technologies of power that define or produce notions of scale.

reorientation in mobility, such re-thinking makes it possible, and necessary, to link up and rethink previously disparate scales and fields of enquiry. I will discuss this in more detail in the methodological chapter, but as McKittrick (2015a) points out, there is an opening up to of a kind of knowledge-making of the body; “as connective to flesh, blood, bones, muscles, and brain matter while also forcing us to notice new forms of scientific life in the arts” (p.156).

It is clear that a method of care surrounding binaries is required to write cycling bodies outside of their (un)conscious reproductions. This mode of thought will be further discussed in the next chapter on methodology, and its implications carried throughout the dissertation in a queer language of hyphens: the co-relational (McKittrick, 2015c), material-semiotic (Haraway, 2008; Povinelli, 2006), intra-action (Barad, 2010) and the more-than-human (Whatmore, 2002). There is a further hyphenated notion that I want to use to pull some of the feminist theory into conversation with research on cycling. This is “riding theory” as a kind of theory-as-practice, practice-as-theory: There are aspects of the theoretical frameworks outlined above that rely on relatively conceptually abstract and philosophical argumentation. Work within English literature and philosophy, for example, can make significant conceptual headway without being forced down to earth, to be thought through and tested by specific people, materialities and relations in quite the same way as the feminist thinkers within geography (Whatmore, 2002; McKittrick, 2015b), sociology (Hird, 2007, 2010; Hird & Clark, 2013) and anthropology (Povinelli, 2006). I do not aim to reproduce hierarchies of value wherein theory is only valued through its capacity to be ‘applied’ in utilitarian terms, but simply locate this dissertation within ‘situated’ feminist theory. Particularly this project asks what happens when material feminisms are thought through the mundane figuration of cycling bodies in specific times and places of Los Angeles.

2.3 Conclusion

This overview of literatures reveals some of the difficulties of crossing over disciplinary and methodological boundaries and their ‘stickiness’ towards particular empirical attachments. The disciplinarity of studies on cycling can mean silo thinking whereby cycling tends to be understood as ‘mobility’ or ‘transport’ or ‘fitness’ and the cycling body within this becomes understood through these disciplinary boundaries/practices/methods. This misses opportunities to see the wider connections between health and sustainability, between cycling and land use and to question the politics of some of the deeper assumptions of bodies and cycling: What meanings of health and sustainability are promoted? How is the individual person understood in questions of justice? By creating policies, technologies, economies and infrastructures based on these assumptions of embodiment – they risk being re-inscribed.

This project brings cycling bodies in Los Angeles into conversation with multiple threads of literatures – primarily material feminisms and critical race theories. These approaches have attended to the politics of particular assumptions of humanity and value. Yet, they have more commonly been associated with analyses of ‘the human’ more generally, or bodily practices through and in literature, art, architecture and music, and less with the contemporary, relatively mundane and ostensibly ‘utilitarian’ practices such as cycling (exceptions are (Colls, 2007) and (Boyer & Spinney, 2016)). Queer and crip theory has contended with some of these everyday mobilities and urban embodiments yet sometimes has left questions of racialization under-emphasized. Similarly the philosopher-cultural-geographers who look at city life and cycling practices from an ‘embodied’ perspective (e.g. P. Jones, 2005), sometimes risk reinterpreting politics so it becomes difficult (or irrelevant) speak to the ways in which some of the LA cyclists I spoke to - the Ovarian

Psycos or the black, queer cycling advocate, a woman on a hand cycle or woman on a Pashley - are working to recreate different cities. The risk of these omissions is a body of theory (on the body) that reinscribes and upholds, rather than questioning and seeking to subvert, the language, assumptions and politics of universalized figures of embodiment and masculinized, ableist, racialized and neoliberal hierarchies of value and relations of power.

This project seeks not so much to carve out a ‘new’ space or turn within the literatures reviewed but to thread together the strings of extant literatures (Haraway, 2016), and stay with cycling as a mundane (Binnie, Edensor, Holloway, Millington, & Young, 2007) but not staid figuration in ongoing thought towards other ways of thinking-practicing humanness.

3 Riding Theory: Cycling methodologies



Figure 3.1: 'Oxford Spoke' by artist Emma Mayoux-Andrews, Oxford, 2014.

Poem 'Carbon cycles' by author with Mayoux-Andrews, inscribed on wheel: "Our carbon framings: steely, carbon cycles through me, meaning leaving imprints in."

"Think we must"...everything begins this way, with experimentation ceaselessly recommencing, with the sense of the possible always being reborn" (Stengers, Despret, & Knutson, 2014)

"Writing is an intransitive activity, a variation on breathing, an end in itself; it is an affective and geometrically rigorous mode of inscription into life." (Braidotti, 2014)

Riding theory is not borne of, and does not only speak to, a realm of individualized experience in the here and now. Riding theory is about finding the seams and sutures that tie together the fabric of bodies and cities and make them what they are and can become. It is tracing and re-riding the sometimes-illegible urban growth marks, dislocations, hauntings. (Author's notes, 2017)

In this chapter I think through cycling methodologies not only as the methods and methodologies this project engages in, but also how methodologies are part of an iterative

cycle: Ontological assumptions form the basis of perspectives on knowledge (epistemology) and power, and in turn influence the approaches and ethics of research. It is this ‘always recommencing’ and circular process of research (Pryke et al., 2003, p. 4) that I found myself cycling through, reformulating and reconsidering what the theory-in-practice meant for the theory-in-text and vice versa. An ethnographic approach allowed and required this kind of iterative and non-linear mode of research (DeLyser, 2010, p. 134).

With the pun ‘riding theory’ I do not mean to imply that riding a bike *is the same as* writing theory, but I want to play with the boundaries that separate, link and co-constitute these as practices. To claim that they are the same thing, or one can be replaced by the other, would be to undermine what makes each different and valuable within this difference. As theorists from Judith Butler and Saba Mahmood (2005) to Wendy Brown (2002) have argued, there has been a division of practical and theoretical wisdom since Aristotle, and for good reason. As Wendy Brown (2002) has argued in the case of political theory, the drive for theory to become more like the social sciences and pressured into its applicability and usefulness undermines what theory can offer: An openness not to have to, necessarily, adhere to the regimes of value and truth that social sciences do³⁴.

My orientation – both before and while engaging in ‘fieldwork’ - tended towards theoretical questions: How do cyclists in cities come to be understood, what does it mean to try and apprehend cycling in its different forms, and what forms of ethics and ways of living are made possible through these practices and understandings? I found it problematic to write a discrete methodological chapter, as it belies how methodological provocations have infused both my reading of the literatures (in Chapter 2) and the main arguments of

34. With the proviso that what theory can offer is not a given, it is contingent upon the questions ‘for whom, under what conditions and circumstances?’ Thank you to Sarah Whatmore for this comment.

the dissertation (Chapters 4,5 & 6). As will be discussed below, my research process did not aim, nor allow for, a linear process that meant the literature review was ‘complete’ prior to ‘fieldwork’ and where fieldwork was over before writing began (Bingham, 2003).

This iterative process from the decision to embark on a doctorate with a set of niggling questions and half-formed ideas, to the last edits of text and images, involves a series of cuts, translations (Latour (1999) as discussed in Massey, 2003). In this chapter I elucidate some of the unexpected and unpredicted (dis)orientations, ‘unsettling encounters’ and ‘queer inheritances’ (discussed below) that formed the ‘infrastructure’ of this dissertation. In 3.1 I introduce the iterative process of engaging theoretical frameworks with, and through, empirical ‘encounters’, discussing how I came to ride feminist theory in Los Angeles. Section 3.2 elucidates what my ‘fieldwork’ entailed and how I went about it. Lastly, 3.3 discusses the manifestation of these cuts, encounters and translations in this text: What happened between encounter in Los Angeles and encounters through the page, and with what intended and unintended effects?

(Dis)orientation 1: Towards unsettling encounters

“The decolonial option does not simply protest the contents of imperial coloniality; it demands a delinking of oneself from the knowledge systems we take for granted (and can profit from) and practicing epistemic disobedience”

(Mignolo, 2015, p. 107)

The notion of an encounter requires an ‘other’, something/someone different. It is less expected and planned-for than a meeting, an event or an interview and signifies a limited duration. To be unsettled can be disconcerting, things that you presumed to be the case, are not quite what they seemed (e.g. Los Angeles as a car city), relationships that seemed incontrovertible (e.g cycling and health) have complexities and hidden violences and gaps. Unsettling may hold a false promise of a radical ‘lack of closure’ that is impossible: Can everything be unsettled at the same time, without simply trading off presumptions to be unsettled for others to be fixed?³⁵.

An encounter establishes and presumes some form of boundary. Unsettling, in this context speaks also to a change, a movement towards something other than how or what it was. I use it also to refer specifically in the United States context, to settler colonialism (Wynter, 2003), with an unsettling being a form of decolonial thought. Following thinkers such as Wynter (2003), McKittrick (2015d), Povinelli (2016) and Rifkin (2014) in using the term settler colony to describe the US – rather than rubrics of wealth, GDP or level of ‘development’ – is a choice to recognize and name the colonialism and slavery which constituted the ‘nation’ and the wider global project of ‘modernity’. Settler colonialism is not simply ‘historical’, but describes an ongoing operation of power through patriarchal white sovereignty, which, in the words of Moreton-Robinson (2004, p. 88): “operates ideologically, materially and discursively to reproduce and maintain its investment in the nation as a white possession” (as quoted in Rifkin (2014, p. 8)).

To describe everyday research interactions, Page (2017, p. 17) uses the phrase ‘unsettled encountering’ in discussion of Mahmood’s experience of research as consisting of ‘intimate and uncomfortable encounters’ (Mahmood, 2005), particularly wherein the researcher’s own sense of truth and claims to knowledge (framed within dominant (neo-)colonial frameworks of

³⁵ Thank you to Tim Schwanen for this comment.

truth and knowledge) are left uncertain. The phrase, ‘unsettling encounter’ captures both how I experienced the process of research as fleeting ‘events’ and openness to uncertainty (as discussed in *Disorientation 2 on Queer Inheritances*) and the ethical orientations I sought through a de-colonial episteme. This orientation brought the following unsettling questions:

- Does theory need to emerge through the use of particular cases that speak to generalizable notions and feed into techniques of normalization (Berlant, 2007a) or can an unsettling experience at a protest, an online tweet, a cycle ride, or a collective whoop on bikes under a tunnel (discussed in Chapter 6) constitute a break in thought, a discomfort and vulnerability (Page, 2017) as enactment of lived theory? Some of the readings of Deleuze and Spinoza by theorists such as Ruddick (2010) point towards bodily practice, events and encounter as forcing thought.
- Can fieldwork as a series of impracticable ‘graspings’ towards events that can never be fully represented or pinned down (Gerlach & Jellis, 2015) be *practical* to a political project (Saldanha, 2015)? Does a politics and ethics need to be seen as fixed and pre-determined or can it be immanent in an ontology (Chapter 6)?
- The unsettling encounter between theoretical text and lived encounter is a form of diffractive practice. A diffractive reading (Haraway, 1997; Barad, 2012) is one that does not take a critical position outside of either, nor does it leave them (theory and practice) as somehow ‘whole’ and sacred experiences or texts to be represented as ‘the same again’, and either to be affirmed or disavowed. This allows for practices of reading, thought and writing that move away from dialecticism and allows for unexpected connections and linkages to be made (Barad, 2012; Haraway, 1997; van der Tuin, 2011).
- Can unsettling encounters be reproduced, always in queer, failed (Halberstam, 2011) ways, through the presentation of text and images in a dissertation (discussed in 3.3)?

If an encounter is a meeting across ‘difference’ this does not need to be an ‘active’ encountering (Bissell, 2011; Spinney, 2015) or a meeting of pre-existing ‘otherness’ but it is at the encounter where these boundaries are constantly remade (Haraway, 1997). These are boundaries where marginalization and (in)visibility and vulnerabilities are present (Casey & Watkins, 2014, pg. 13).

I use the term ‘edge’ here because cycling in Los Angeles – and in many cities - tends to occur at the edges of the street between lines carved out of the sides of the road. ‘Edgework’ is used in some sociological work (Lyng, 2005) as thrill-seeking and risk-taking behaviour. Risk and some level of desire to push the edges and limits of what a body can do (discussed in Chapters 5 and 6) is relevant to cycling, but the edges I refer to here are more akin to a subaltern (Legg,

2016; Spivak, 1988) approach of tracing edges, moving away from the centres of disciplines and learning from the limits of visibility and inclusion.

A commitment to these unsettling, shifting boundaries does not mean essentializing the notion of margins or peripheries – at the risk of reiterating the power relations that define centres and margins in the first place. In this dissertation it means tracing the boundaries and exclusions in conceptions of mobility, ‘sustainability’ and ‘health’ of cycling. It entails learning from those cyclists (as in the Introduction) deemed “invisible cyclists” – workers, labourers commuting to jobs at night, for example, and asking why it is - what it is about our own thinking - that means *they* are deemed invisible rather than *us* unwilling to see.

The risk involved in the edges I am referring to, is not about purposefully seeking out edges by placing the ethnographer’s body on a *cycle in the ‘marginalisation’ of the edges of a busy Los Angeles street with large and fast vehicles. An ethnographer cannot truly become the ‘edges’ they study and claiming such becomings represents a particular form of appropriation³⁶. The work of this edge is more about taking an epistemological risk of the type Mignolo (above) refers to, one that requires a “procedure ready to undertake self-critique” (Derrida, 1994, p. 110) one which requires awareness of the necessary, yet particular and situated “violence of writing, of thought, and of knowing” (Grosz, 2005, p. 56). Academic work is already implicated in and - when not truly writing *from* the margins - benefits in being far from them. As such, a commitment to edges implies being an “imperial subject, who instead of “saving the colonial Other” through themselves, join and accept the guidance of the decolonial subjectivity” (Mignolo, 2015, pg. 118).

As Cesaire and Senghor argue (Wilder, 2015), this decolonization does not happen ‘elsewhere’ – it needs to happen in the thought/practices of the colonizers. In the research practices of this dissertation it means constantly questioning the positionalities and queer inheritances (as discussed in *Disorientation 2*) that mark the conditions of this research: The privileges, legacies and epistemes of colonization and white supremacy.

3.1 Cycles of theory & practice: How I came to ‘ride theory’ in LA

Never has anyone seen the detailed path from the color blue to the word blue that no longer has anything blue about it, from senses to concept; biochemical receptors and intersynaptic messengers have never led to a thought unscathed by protein and electric

³⁶ I am reminded here of heated debates regarding blogs claiming that the experience of being marginalized on the road as a cyclist allows them to understand what gender or racial oppression feels like, or works as a metaphor for understanding privilege (Jezebel, 2014; N. Lee, 2014; Mock, 2014; TwoXChromosomes, 2014). This parallels assertions made in academic texts, that ethnographers – by placing their own bodies temporarily ‘at risk’ in a context they are studying – can gain a more ‘authentic’ insight into the experiences of the people they are studying.

charge (Serres, 2011, p. 26).

... “it is the parrhesiastic standpoint, which tries precisely, stubbornly, and always starting over again, to bring the question of truth back to the question of its political conditions and the ethical differentiation which gives access to it; ... ” (Foucault, 2012, p. 68)



In a way that interprets Foucault’s (2012) parrhesiastic standpoint of ‘always starting over again’ I came to see the iterative interweaving of theory and practice – or the bodies of theory I thought through and the empirical, emplaced bodily-technological encounters of ‘fieldwork’ – as an intertwined spiral. In some thinking on methodology (Flyvbjerg, 2006) the choice of methods should arise from the particularities of the problem at hand. Yet, it would be disingenuous to deny that I came to this project with a set of questions and orientations that were already posed within conceptual terms influenced by feminist, queer and poststructuralist theory.

Within these frameworks theory is less a set of concepts *used* to explain the ‘empirical’ or ‘material’ world. Research does not impose structures of ideas onto brute matter, but instead elaborates on, and invents, through “lines of development, that are already there, immanent, in the prehuman and nonhuman world” (Grosz, 2017, p. 259). In this way, theoretical concepts are not merely a fabrication of the human intellect, fashioned from – or more or less faithful or ‘accurate’ representations of - the brute matter of the world, but rather are co-constituted through the mattering-forth, or the idealities expressed and produced through the event (Clark, 2011) of research. The researcher, then, is part of enacting the world and remaking relations (Mellander & Wiszmeg, 2016). I was drawn to

do a PhD within geography³⁷, particularly for the ways in which the discipline allowed not only for a theorization of human-nonhuman relations, but for how engagement with ‘fieldwork’ is seen as a valid site of theorization.

I could not have *un-thought* this set of orientations and (sub-) disciplinary theoretical framing. It oriented me towards asking research questions (exploratory, open-ended, theoretical) around cycling practices and embodiment that already lent themselves to the forms of ethnographic research I employed. It also necessitated an open and flexible (Nakamura, 2010) approach that allowed for unsettling encounters and unexpected questions to arise throughout the process. At times this meant that the spiral appeared to spin outwards – encompassing more and more concepts, empirical sites and encounters (during initial reading and desk-based research), and at others (such as for writing, discussed in 3.3) it needed to narrow. In what follows I narrate some of this spiralling process, outlining how it led down a different set of empirical/theoretical paths than I had initially set out on.

I had planned to engage in a multi-site ethnography in cities in three of the following countries; the Netherlands, the UK, the USA and India. These were chosen less for their comparability³⁸, and more for their differences and “ability to draw attention to the productive relations, conflicts and frictions” (Tsing, 2011). I had wanted to do what I thought of as a ‘contagious’ research process, to learn from this confrontation across

³⁷ Perhaps due to geography’s positioning across the humanities and the physical sciences, social and cultural geography has sought to blur boundaries between the humanities and the (social) sciences. As part of what has been called a ‘material turn’ or a re-materialization of social and cultural geography (Jackson, 2000) it has increasingly drawn and sought to build on philosophical lineages wherein materiality is not simply considered a ‘given’ an inert ‘backdrop’ for social worlds and social theory, nor a subject matter to be left to physical geography.

³⁸ I was influenced here by debates in post-colonial theory in comparative history and literature on the ethics and political implications of ‘comparison’ e.g. (Felski & Friedman, 2013) and (Seigel, 2005).

difference (Howie, 2010, p. 205). I had planned to collate and share experiences and struggles around cycling practices between the different contexts.

My selection of cities was to represent: A globally recognized leader in cycling in cities (a Dutch city); a postcolonial ‘developing’ country context where cycling journeys were increasingly being replaced by motorized vehicles (an Indian city), and a car-dominant city attempting to increase cycling journeys (a US city). However, spending some initial time in Los Angeles I had to reconceive notions of where and how cycling practices differ and my own role as a researcher. I found that I inadvertently represented a form of ‘contagion’ between different contexts. My own experiences growing up in the Netherlands, and living in the US and UK, and being both a cyclist and attendant within academic and policy discussions on cycling, already was, in some respects a positionality of ‘inbetweenness’ and contagion.

Rather than attempt to construct new lines of contagion, I found myself confronted by the ways in which my assumptions were already implicated within the contagions and relations of knowledge-power that I was encountering in Los Angeles. At the CicLAvia in Boyle Heights in 2014, I met Rigo, an activist with Somos Wyvernwood, an organisation in Boyle Heights resisting the demolishing and redevelopment by a commercial developer of Wyvernwood, the social housing project in which they live. Rigo asked me: “And what’s your community, what are you working to change?”. In stammering to answer his question I realised “my communities” were the interlocking institutions, practices and discourses that make up the academic/policy/teaching interfaces. Listening to and learning from ‘the field’ in Los Angeles increasingly made me question many of the contested and varying definitions of cycling, ‘re-development’, ‘sustainability’, ‘health’ and ‘liveability’ that have traction within academic discourse on cycling. What I wanted to challenge, then, was

how academic thought and practice can serve to reproduce, through legitimization, justification and complicity, the relations of knowledge-power that maintain unjust statuses quo.

One of these relations of power was the predominance of ‘Global North’ empirical contexts, and authors in research on cycling. I had wanted to engage with cycling practices in India for this reason, yet I was very uncomfortable with my own potential imbrications in neo-colonial practices of scholarship, such as the “North” being a site of theory and the South the site of the ‘field’ (Ramdas, 2016, p. 845). Ostensibly in the ‘Global North’, Los Angeles also put into question this regional categorization. A third of LA County’s 10 million residents are categorized as ‘immigrants’ in 2012 (Pastor, Ortiz, Carter, Scoggins, & Perez, 2012), 41% of these are from Mexico, and almost one in ten California workers is undocumented (Public Policy Institute of California, 2017). In terms of its population, Los Angeles problematizes a Global North versus Global South binary. However, engaging with LA activist groups and with U.S.-based theory, it became clear these North/South divisions did not work. Rather, seeing the United States as a settler colony (as discussed above in *Unsettling Encounters*) shaped by histories of slavery and ongoing racial capitalism, belies North/South divisions or economised hierarchies based on aggregate wealth or ‘development’.

Specifically, in Los Angeles I encountered a settler-colonial city in which there were many different cycling practices, communities and discourses around cycling. Some of these were in tension with one another, but also, importantly, countered some of the dominant images of urban cycling and sustainability in much North American and European research: One particularly associated with a young, eco-conscious, active, well-to-do and

white urban lifestyle (Golub et al., 2016)³⁹, and urban policies designed to attract these ‘creative classes’ through cycling infrastructures.

I found some of the most nuanced voices, critical of these dominant narratives, within the Californian (Stehlin, 2014, 2015) and Los Angeles (Golub et al., 2016; Hoffman & Lugo, 2014; Lugo, 2012, 2013a, 2013b; Lugo, Murphy, & Szcsepanski, n.d.) cycling movement itself, particularly from activists, journalists and academics with queer, critical race, Marxist and feminist influences. They questioned whether the portrayal of the contemporary ‘cycling renaissance’ (Pucher et al., 2011) as white, middle-class ‘hipsters’ is accurate at all – particularly given that the largest proportion of cyclists in the United States is in the lowest income bracket (Golub et al., 2016; McKenzie, 2014) and cycling rates have grown faster between 2001-2009 amongst African American, Hispanic and Asian American populations than white populations (The League of American Bicyclists and The Sierra Club, 2013).

Learning from the Los Angeles context, it became clear that the dominant theoretical frameworks through which cycling was understood (as discussed in Chapter 2) and promoted, could not necessarily speak to subaltern cycling practices: ‘Invisible cyclists’ (Fuller & Beltran, 2010; Koepfel, 2006; Mannos, nd) who cycle not as a ‘lifestyle choice’ but out of various forms of ‘necessity’ (Golub et al., 2016; Lugo, 2012, 2013a, 2013b) (discussed further in Chapter 5); concerns around cycling infrastructures tied to gentrification and displacement (Hoffman & Lugo, 2014; Stehlin, 2015) (Chapter 6); people for whom access to water, housing, poverty, or safety on the streets more generally

³⁹ This was a discourse I was to later encounter repeatedly at the Congress for the New Urbanism I attended in 2015 in Dallas, Texas, the leading narrative of ‘progressive’ planning and building for the future was about catering to two main demographics – framed as ‘markets’: millennial ‘creative classes’ (as coined by Richard Florida) and baby boomers – both of whom are seen to increasingly want denser, walkable and cycleable urban living.

is a priority over ‘cycling’ (Golub et al., 2016) and for whom true ‘justice’ in the immediate future may entail gaining access to a reliable car (Blumenberg, 2008) rather than a bicycle.

Some of these questions of social justice are unique to the materialities of cycling and yet also far wider than a presumption of cycling as an embodied, affective experience or transport ‘mode choice’. As discussed in the literature review, much research on cycling tends to be within a transport or mobility framing and remains relatively ‘disciplined’ in terms of its focus on a particular scale⁴⁰ (e.g. individual bodies, cycling cultures, social systems or economies) with an attendant set of definitions, methods and theories associated. There is also a rough bifurcation along cultural/human (humanities) and natural/physical (sciences) lines. The methodological assumptions around what research can and should do, and what “good” and “good enough” research is, vary along this hazy line. Much of the literature on cycling I reviewed in the previous chapter, and the deployment of mobile methods⁴¹, might increasingly use concepts and methods from the humanities and critical theory, yet they tend to do so in order to make empirical claims about what cycling is and how it should be studied to arrive at more nuanced (Spinney, 2009), more complex, inclusive, complete or more politically attuned insights into cycling.

⁴⁰ With scale being a concept so central to critical geography, there have been several in-depth reviews of the politics of scale, ranging from post-structural perspectives (Marston, 2000) to the more political-economic (Kobayashi, 2005, p. 37). These have considered scale as referring to size, level and relation (Howitt, 1998 in Marston, 2000); some have contended that there should be more consistency in terminology for the sake of clarity others suggest notions of scale should be entirely disbanded (Marston, 2000). While there is little contention around the assertion that notions of scale are ‘constructed’ in various ways, disparities arise around *how* and under what relations of power these scales are constituted. Analyses varyingly see changing research technologies; disciplinary divides; capitalist relations of production; patriarchy and histories of colonialism and empire as being technologies of power that define or produce notions of scale.

⁴¹ There is by now a considerable body of research that employs so-called ‘mobile methods’ (Buscher & Urry, 2009; Merriman, 2013): Go-along or ‘ride-along’ methods (Ghekiere et al., 2014; Spinney, 2006) which combine interviewing and participant observation ‘on the move’, mobility diaries (Middleton, 2009, 2010), video ethnography (Spinney, 2011), tracking devices and skin sensors (T Jones et al., 2016). Some of these aim to understand the cycling process and experience as it happens, employing new methods that bring into view aspects of empirical worlds previously undervalued, out of view or blurred (Spinney, 2009).

This is vital in terms of gaining understandings of habit formation (Schwanen et al., 2012), for example, or cycling experiences amongst different groups (T Jones et al., 2016), within a remit of increasing cycling and enhancing cycling experiences.

However, as introduced at the beginning of this chapter, the orientation arising from initial fieldwork in Los Angeles, was not so much a question of what kinds of theory I should ‘choose’ to best explain cycling processes in Los Angeles. Rather, the encounters with people, bikes, roads, cars, and climates in Los Angeles shifted the theoretical frameworks (part of my own ‘queer inheritances’) through which I was encountering LA and the questions I was asking. Rather than ask how to better understand cycling, or how to improve cycling, my questions shifted towards how the particular practices of cycling itself were manifestations of different forms of power. Crucially I wanted to think through ‘power’ not only as social and political relations, but through the ‘powers’ that inhered in the ‘stuff’ of LA cycling.

Riding feminisms⁴²

Posing questions in this way was not simply by ‘chance’ or ‘choice’ - In some respects I was ‘riding LA’ through the feminist⁴³ work on ‘nature’ and human-environment relations I had engaged with previously. As discussed in Chapter 2, these material feminisms attend

⁴² Thinking cycling through feminisms is not new. Cycling has long been used as a political tool and as a way to tell particular social and geographical urban histories of change, whether it is characterized as a ‘progressive’ and/or ‘dangerous’ tool for shifting norms and uses of public space. Early American feminists or ‘reformers’, such as Susan Anthony, famously claimed that the bicycle: “has done more to emancipate women than anything else in the world” (Friss, 2016), and academic analyses of the *cycle’s role in women’s liberation has been done elsewhere (Bijker, 1995a).

⁴³ These approaches contrast with most feminist approaches within transport and mobilities research, which have done vital work in understanding the gendered experiences of cycling mobility and the gendered effects of transport policies on women (Akyelken, 2013; Bonham & Wilson, 2012; R. Law, 1999; McDonald, 2012; Scheiner, 2013; Steinbach, Green, Datta, & Edwards, 2011; D. Walsh, Valestrand, Gerrard, & Aure, 2013). Not specifically *about* women, or aiming to *include* women, the forms of feminist theory I draw on here, question the dominant relations of power and the structures of thought, language, value and materiality that tend towards upholding the status quo and its injustices.

to power, difference and materiality without automatic filiation to categorizations of identity such as gender. Cycling can be seen as a fundamentally material and ‘environmental’ practice, bridging some of the bifurcations that exist between the humanities and the ‘sciences’.

With material feminisms (and their post-structural lineages) there is a method of thinking cycling without automatic assumptions of its value, technological determinism or a parsing out of the world into infrastructures/nature/technology and human behaviour/culture/meanings: It opens up questions such as: What is a cyclist without a *cycle? How are cyclists constructed through urban spaces, ‘environments’, and mobile, global technologies they are hooked into? What are the effects of an entrenched view of this separation of ‘the human’? If corporations are gaining rights – such as free speech – normally attributed to humans, and humans can increasingly be understood as ‘bits of capital’ (W. Brown, 2015), what is ‘human’ about the human?

Material feminisms (and much cultural geographic thought in a ‘material’ (re-) turn (Whatmore, 2006)) allows for thinking through the inhuman and non-human forces and materialities that have always made the ‘human’ ‘more-than-human’. However, riding with the O.V.A.S and their critical de-colonial feminisms; and with critical race theory and black feminist thought, further forces an encounter with the colonial and racialized presumptions around the ‘human’ within dominant systems of knowledge (Sylvia Wynter in McKittrick (2015b) and Mignolo (2015)).

Within both black feminist thought and material feminisms there is an urge to re-think, not only what it means to be ‘human’, but what counts as ‘human thought’. While I discuss these two theoretical lineages in more detail throughout Chapters 4, 5, and 6, the decolonial and posthuman/more-than-human epistemes are a methodological consideration in this

dissertation. Within feminist ontologies wherein matter and meaning are intertwined (Barad, 2003b; Grosz, 2017), and feminist science and technology studies wherein agency is not the sole purview of the human, ‘doing research’ is a co-fabrication (Whatmore, 2003) with the ‘more-than-human’.

For Wynter, and McKittrick (2015a) a *decolonial* episteme, or a *scientia*, is not only a question of seeing how the nonhuman comes to ‘matter’ or co-fabricate knowledge. For McKittrick (2015a) what counts as science, and the humanities-versus-sciences disciplinary divide is haunted by racialized underpinnings (p.149). For Wynter, science has tended to assume a very particular notion of the human as a universal, objective or ‘supracultural’ truth, that of Western-centric, biocentric, rational, homo-oeconomicus “Man” who is the political subject of the state (McKittrick, 2015a, p. 154). This concept of the human needs to be understood as a ‘founding myth’, as always-already tied up in histories, ideas and methods of domination, or “coloniality of being, power, truth, freedom” (Wynter, 2003, p. 327).

In this respect, a different practice of science is needed, a *scientia* that bridges this divide, not to deny the workings of biology or neurology, for example, but to see how these are also configured through sociogenic codes and scripts. In this way, the production of knowledge is “connective to flesh, blood, bones, muscles, and brain matter while also forcing us to notice new forms of scientific life in the arts” (McKittrick, 2015a, p. 156). For McKittrick (2017), for example, this means thinking black music, not as an *object of study* but as a method. The music of Jimi Hendrix (McKittrick, 2015a), for example, is itself a praxis of knowing – or a theory - that can reimagine neuro-biology, physiology and language.

In this dissertation, thinking cycling with feminists such as McKittrick (2015a), Krupar (2013), Chen (2012), Povinelli (2011), Hird (2010), Haraway (2016) and Whatmore (2002), means theory is not so much constructed *about* social and material practices in Los Angeles, but with and through them. I began to think of cycling in Los Angeles as an unsettling material-semiotic praxis of theory – one that opens up questions (Rose, 2003) and ways of thinking: What happens to thinking on cycling, bodies and power if they are unsettled⁴⁴ from attendant automatic attachments and extant frames of thought⁴⁵. What if cycling were unsettled from automatically being considered a form of mobility, and necessarily being seen as healthy and sustainable? In this way cycling in Los Angeles⁴⁶ is a kind of paradoxical⁴⁷ and queer⁴⁸, but also modest and mundane figuration⁴⁹. In contrast to a speculative figuration on the ‘cutting edge’ of scientific and technological innovation, cycling is a fusty figuration. Where a figuration is not simply a ‘case study’, but a way of riding theory itself.

⁴⁴ The term ‘unsettled’ allows for a reference not only to discomfort, a sense of mobility and of reference to settler colonialisms

⁴⁵ Thom van Dooren describes a careful mode of critique as one that “refuses to take for granted assumed categories and frameworks” (2014, p. 293).

⁴⁶ Los Angeles is a city given to performing itself (see the film *LA Plays Itself*) and has widely been used as a figuration for urban theory (LA school of urban theory). In this project I do not want to necessarily generalize out from Los Angeles as a case study, but rather, consider where thinking with cycling and cyclists in Los Angeles can lead – what different concepts/thoughts/methods of thoughts arise?

⁴⁷ One of the paradoxes is how to make city streets safer for cyclists and draw attention to the risks they face, without then discouraging cycling.

⁴⁸ In this case I use ‘queer’ to denote out-of-the-ordinary, perplexing, strange, different.

⁴⁹ For Donna Haraway figurations such as the cyborg or OncoMouse™ are ‘performative images that can be inhabited’ (Haraway, 1997, p. 11). Her later work on companion species (Haraway, 2003, 2008, 2010) offers – in dogs and chickens, for example - what could be termed a more ‘modest’ figuration than the cyborg.

(Dis)orientation 2: Towards queer inheritances

“To address the past (and future), to speak with ghosts, is not to entertain or reconstruct some narrative of the way it was, but to respond, to be responsible, to take responsibility for that which we inherit (from the past and the future), for the entangled relationalities of inheritance that ‘we’ are, to acknowledge and be responsive to the noncontemporaneity of the present, to put oneself at risk, to risk oneself (which is never one or self), to open oneself up to indeterminacy in moving towards what is to-come.” (Barad, 2010)

“There is no inheritance without a call to responsibility” (Derrida, 1994, p. 91, as quoted in Barad (2010))

“...one of their great disappointments in these accounts [experimental, intentional, utopian, dystopian and revolutionary communities and movements] was that so many started from the premises of starting over and beginning anew, instead of learning to inherit without denial and stay with the trouble of damaged worlds” (Haraway, 2016, p. 150)

Why separate out an orientation that threads itself through this methodology (as a method-of-methods) and the wider dissertation? There is a discontinuity – and a necessary abstraction – from the narrative that does not tow the straight line down a page.

I inherit from Yusoff (2015b) and Barad’s (2010) inheritance through Derrida (1994), to think through queer inheritance as a notion of the ‘entangled relationalities’ that make thought/research/writing/cycling possible. Inheritances are ‘queer’ in that they do not simply follow in linear fashion from the past into the present⁵⁰, and from one site to another, but subvert/queer this spatio-temporal linearity. What makes this thought possible may not have ‘come before’, it may coexist or pre-exist it, and it may be of a completely unknown ‘lineage’. One thought might not ‘produce’ the other, but nonetheless makes it possible for thought to exist (i.e. the queerness that makes heterosexuality possible – the ‘other’ that makes Man). A queer inheritance is also not a reproduction of the same, but neither is it necessarily a complete renouncing or critique, it is *quer* in German, meaning slanted/oblique. It recognizes inheritances of language, of practices and practices of thought, of literatures and concepts, even if it entails a necessary unfaithfulness or subversion of them (Stengers et al., 2014).

My orientation to queer inheritances means:

- staying with Michel Foucault’s understandings of the interrelations of power, truth and subjectivity, detailed in his lectures on *The Courage of Truth* in 1983 and 1984

⁵⁰ For a discussion of ‘queer time’, see Page (2017, p. 17) and Munoz (1996)

(Foucault, 2012). If this dissertation (and the texts, interviews, encounters, ‘data’ on which it is based) is considered a mode of veridiction it needs to be understood as intertwined with modes of subjectification (practices of the self) and governmentality (‘the procedures by which people’s conduct is governed’ (Foucault, 2012, p. 9). I want to interpret this as an orientation towards the particular conditions under which this authorship is made possible – or self-reflexivity as concerned with the “conditions of production of the “self” and its knowledges” (Sidaway, 2000)

- Does it need to emerge from and include the signature words and names of the canonical (or edgy not-yet-quite canonical) – largely – ‘dead white men’? Does successful theory need to resuscitate their thought, reinterpret it, repurpose it, and speak their language well enough in order to get to *count* as theory? What does it mean to go back to source literatures, is this the only way towards rigour in critical thought (Ruddick, 2015)?
- an assumption of the rider/researcher (“never one or self” (Barad, 2010)) not as an individualized producer of knowledge (DeLyser, 2010). A riding/writing is co-produced through the rider-road-bike-ecologies of the city working in tandem (as discussed in Chapter 5).
- an approach to ‘fieldwork’ that is open to spacetime discontinuities. This immediately entails a certain disregard for the conventions of a discrete spatiotemporally bound ‘fieldwork’. Although my fieldwork was situated in Los Angeles and was focused on cycling, I was open to following lines of inquiry to spaces and times that did not seem congruent, linear or proximate (as discussed in 3.2)
- staying with what Page (2017) has called a ‘vulnerable’ writing. This is itself a queer inheritance, as Page (2017) has drawn on feminist (Ahmed, 2012, 2015b), postcolonial (Mahmood, 2005) and queer theorists such as Muñoz (1996) and Barad (2007). Vulnerable writing pays attention to non-sequential times and does not necessarily strive for ‘coherence’ in linear accounts of cause and effect (Page, 2017, p. 21). It stays with indeterminacy, forms of incoherence, supposed ‘irrelevance’, uncertainty and an inability to respond or to ‘conclude’ (as discussed further in 3.3 and the Conclusions). Where Page’s emphasis is on the temporalities of vulnerable methodologies– advocating syncopated (2017, p. 23), slower, queerer times of research – this should also be spatialized, following tangents and lines of inquiry to spaces that are vulnerable to claims of ‘irrelevance’, or research scopes and geographical boundaries that are too ‘broad’.
- thinking through a researcher/rider/writer’s responsibility with and through queer inheritances, rather than framings of ‘choice’ and/or rational decision⁵¹. This means

⁵¹ When Grosz describes the philosophical genealogy from Ravaissan to Bergson and to Deleuze, she uses the words “attraction” and “fascination” (2013, p. 229). Rather than individualized ‘choice’ or rational

recognition also of the governmentalities around thought – the pressures on time, to be recognizable and current (Ruddick, 2015) – that follow from the systems of recognition and funding aligned with particular neoliberal academic governmentalities (Mountz et al., 2015). It means responsibility towards the specific intellectual inheritances (recognising institutional, disciplinary inheritances and ‘coming out’ about the ‘choices’ made around citation⁵²) not to unquestioningly propagate a particular lineage of wording, or framing of a problem.

‘decision’ I want to think through these inexplicable notions of ‘being drawn to’, as well as the institutional and cultural politics around exlusions/inclusions, citation and ‘voice’. As Ahmed has put it: “...there is a politics to how we distribute our attention” (Ahmed, 2008, p. 30)

⁵² In my confirmation of status meeting I was asked to justify why it was I had not cited x or y white male author on the topic at hand. My explanation, that I had consciously chosen to read women of colour and feminist interpretations of the same concepts, was accepted, but it was suggested that I explain my process of decision making here. For a brief discussion on the disciplinary politics of citation see (Willems-Braun, 1997) and disciplinarity (Gregson, 2003) more generally. For more recent discussions about wider academic practices of citation and censorship (Puar, 2011a).

3.2 Riding theory in and around Los Angeles

Figure 3.2: Metro Billboard in Los Angeles, 2014.

Photo source: [Daily Billboard Blog](#)

The ‘choice’ to focus on Los Angeles has as much to do with Los Angeles as it exists ‘out there’ as it does with my own queer inheritances and the unsettling encounters that led me there. Rather than a utilitarian sense of what Los Angeles should be able to teach us about cycling (as an ‘extreme’ case study (Flyvbjerg, 2006), or a city that can stand in for - or be generalized from towards - other cities) the ‘choice’ of city came from an urgent curiosity, a line of flight or a spark that needs amplification. One of these unsettling encounters was a short video of the O.V.A.S a friend sent me through Twitter in 2013. This was at a time when my research was to be sited in England and The Netherlands. The O.V.A.S work excited me, they seemed to do feminisms, collectivism, anti-racism, prison abolishment, urban justice, anti-racism, queer and indigenous practices, aesthetics and politics, with an unapologetic readiness to be vulnerable and strong, experiment and fail. In this sense, the

dissertation is not a detached narrative about cycling in Los Angeles nor does it seek to centre my own embodied experience of cycling the city (e.g. P. Jones, 2005). Rather, it attempts to amplify a spark of curiosity about what cycling, material feminisms and black feminist thought *can do* when they encounter one another. Los Angeles does not just happen to be the backing screen for this conversation, it forms its very particular geography (as in earth-writing).

The feminist, Latinx, indigenous politics and aesthetics rooted in Boyle Heights shown in the O.V.A.S short film, was so different to the way Los Angeles –such as in the film *LA Plays Itself* (2003) - is made to be everywhere through its cultural productions. Urban social theory has not been excluded from this idea of ‘LA as everywhere’. Since the 1970s (e.g. Banham, 1971; M. Davis, 2006; Soja, 1986), LA. has been characterized as the city of the future, the epitome of a postmodern city, the forerunner of processes of urban ‘regionalization’ (Soja, 2014) and the city that “re-presents the world in urban microcosms” (Soja, 1986, p. 256).

Perhaps it is the global ubiquity of (mis)representations of Los Angeles that provoked the most common response to my dissertation topic, largely from those with less familiarity with the city: “Cycling in *Los Angeles*? Really?”. It is unsurprising that cycling for transport is seen as out-of-place in a city so often typecast as sprawling (D. Murphy, 2017), ‘the most car-congested city in the world’ (Romero, 2017), defined by its car-centricity (Meyer & Kersten, 2016, p. 239) and poor air quality (Los Angeles Department of City Planning, 2015), in a country with relatively high rates of traffic-related mortality (Saubers-Schatz, Ederer, Dellinger, & Baldwin, 2016).

Yet, Los Angeles confounds many of these stereotypes. In some accounts, LA is undergoing a cycling ‘renaissance’ and the advantageous weather, relatively flat terrain

and wide boulevards should ‘pave the way’ towards LA as a cycling utopia. I want to navigate between some of these more utopian/dystopian (M. Davis, 2006) accounts of cycling in Los Angeles, towards a more nuanced perspective. In the decade to 2010 cycling has increased by 56% (Los Angeles Department of City Planning, 2015) and research has suggested Angelenos are broadly in favour of increased investment in walking and cycling infrastructures (Gase, Barragan, Simon, Jackson, & Kuo, 2015). According to the 2009 National Household Travel Survey, 19% of journeys made in LA County (see Figure 5 for map) are completed on foot (17.6%) or bike (1.4%) (Elgart, 2013). Almost 5% of households in the greater Los Angeles area do not have a vehicle (Tomer, 2011), and Los Angeles has the third highest public transport usage in the United States (Los Angeles Department of City Planning, 2015). Despite stereotypes of sprawl, LA is actually the densest urban area in the United States (Soja, 2014).

Slightly different figures are revealed in the 2012-2013 California Household Travel Survey: 88% of employees in Los Angeles County commute by car, 8% use public transport and 4% use non-motorized modes (Chakrabarti, 2017). While the rates of cycle commuting in Los Angeles are still very low - 1% in 2008-2012 (United States Census Bureau, 2014) - cycling is increasingly visible and visibly encouraged (see Metro poster, Figure 3.2) as a healthier, more sustainable and more business-friendly (The League of American Bicyclists, n.d) and community-oriented ‘choice’. There is also an increasing recognition, however, amongst U.S.-wide and Los Angeles cycling advocacy organisations, that cycling has long been a part of the everyday efforts of accessing income, education, sociability, errands, exercise and the outdoors, for those who choose not to, or have no choice to, drive.

In this way cycling is not a new technology or development for Los Angeles. Construction

Figure 3.3 Los Angeles cycling in 1800s

At left: Los Angeles Wheelmen in Downtown Los Angeles, 1893. At right: Pasadena Cycleway. Source: Los Angeles Public Library.



of an above ground cycling highway was started in the late 1880s (see figure 3.3) in the midst of the first ‘bike boom’. However, for most of the 20th century, transportation spending, urban and transport planning (Avila, 2014a) and culture (Conley & McLaren, 2009; Urry, 2006) have been dominated by automobility. Since 2010 in particular, the bicycle has however, made some inroads into Los Angeles.

LA’s new bike plan, touted as the “most ambitious” plan to date (following bike plans in 1977 and 1996⁵³) was published in 2010 (Los Angeles Department of City Planning, 2011). There have been up to four CicLAvias annually since the inaugural event in 2010 and the 2035 Mobility Plan (Los Angeles Department of City Planning, 2015) includes plans for hundreds of miles of protected bike lanes.

⁵³ It is interesting to note, without any ability to infer causation, the timings of these three bicycle plans also coincide roughly with some years after crude oil price spikes/recessions in mid 1970s, in 1990 and in 2007-2009.

The latest addition to LA cycling infrastructure are Bike Hubs (two currently, one planned for 2018) which house bike parking, repairs, rentals and host bicycle-related events. A bike share scheme was launched in July 2016, run by the City of Los Angeles and Metro (the Los Angeles County Metropolitan Transportation Authority, formerly shortened to MTA). As of September 7th 2017, bike share stations will be operating in Downtown LA, Pasadena, Port of LA and Venice. In terms of policies and initiatives, LA Mayor Garcetti launched LA Vision Zero in 2015, a commitment to eliminate traffic deaths by 2025 and a Measure M with a budget of approximately \$27 million allocated to the Los Angeles Department of Transport for project initiatives in 2017-2018 (Linton, 2017).

The City of Los Angeles (population approx. 4 million) is one of 88 cities within Los Angeles County. Metro is the main public body responsible for the funding, planning and running of transportation in LA County. Transport in the county is funded through three main streams: local funding from ½ cent sales taxes, such as Proposition A, C and Measure R, makes up 67% of funding with federal (approx. 12%) and state (21%) making up the rest (Elgart, 2013). A considerable portion of this local funding (67%) is allocated to cities within LA County for transportation infrastructure, yet analysis by Safe Routes to School and LACBC (Elgart, 2013) indicates very little of this has been allocated to cycling and walking, with cities relying on state and federal grants. Ultimately, based on Metro's 2009 Long Range Transportation Plan, only approximately 1% of Metro's funding was dedicated to pedestrian and bike projects (Elgart, 2013). In 2016 Measure M – LA County Traffic Improvement Plan - was passed in LA County, raising a 0.5% sales tax for transportation, increasing to 1% on expiration of measure R. Over the next 40 years revenues are expected to be \$120 billion of which \$4 billion will be earmarked for walking and biking. The Trump administration's proposed caps on future federal highway and transit spending are a serious concern also for cycling funding streams. The State of

California's commitments towards lowering emissions, however, may offset some of these cuts. California's Senate Bill 1 (SB1), for example, which passed in April 2017 has an allocated \$100 million/year for bike and pedestrian projects (State of California, 2017).

The funding, policies and physical infrastructures for cycling are vital, but as Adonia Lugo argues (Lugo, 2012, 2013a, 2013b), these do not work without the human infrastructures in networks of activists, the bodily presence of cyclists riding on streets or on organized rides. People I met in LA often referred to this as the 'bicycle community', an interconnected and overlapping network of activists, shop owners, traffic engineers, bicycle co-op volunteers, advocates, journalists, transport planners, group ride organisers and participants, artists, landscape architects, environmentalists, academics, members of local and university-related bicycle coalitions. An interview with Joel, a labour activist, cyclist and housing not-for-profit employee, showed how the unpaid, unpublished cycling activist work *before* an initiative is taken up by the machinery of city governance, can become erased behind the published minutes, budgets, dedicated cycling funding and new policy initiatives with city councilor's names on them.

Although I also interviewed transport planners and academics, more of my fieldwork was spent riding alongside and interviewing cyclists, cycling activists and volunteering with the Los Angeles County Bicycle Coalition (see table 2). However, cycling and activism, whether for an individual or a coalition was rarely only *about cycling*. It was about access, urban form, social justice, health, environmentalism, fun, socializing and a combination of all of the above. Cycling activism and community networks cannot be seen as separate

from the strong networks and innovative work forged by what Soja calls ‘labor-community-university coalitions’ in Los Angeles (Soja, 2014).

Figure 3.4 ‘LA, Where Nature Helps Industry Most’

Exhibit: 'Becoming Los Angeles', LA Natural History Museum, 2014 (Author's photo)

Leaving behind its ‘pro-business’ (see figure 3.4) and anti-union history, Los Angeles now has become something of an example for labour organizing (L. Turner, 2007). Since the 1990s there have been strong spatial and social justice coalitions; The Bus Riders Union (BRU), for example, won a class action lawsuit against the Los Angeles Metropolitan Transit Authority (MTA) for discrimination against transit-dependent Angelenos (Soja, 2014). There are also several coalitions of community groups and activists such as Right to the City (<http://righttothecity.org>), MoveLA (<http://www.movela.org/>) and Fix LA (<http://fixla.org/>), launched in 2014 against cuts to City services.

As discussed in the disorientation on *Queer Inheritances*, I was interested in the wider contexts that made cycling and driving possible, and was sometimes led by lines of inquiry that did not always seem congruent, linear or proximate. For example (see tables 1 and 2), following the threads of ‘energies’ that make driving and cycling possible, I interviewed staff at the Food Chain Workers Alliance (<http://foodchainworkers.org/>) and attended an event they put on in Pasadena. I visited the LA Car Show in November 2014, and rented a car to drive to oil museums, car sale lots and oil fields near Bakersfield, California. Wanting to consider the wider context of injustices on Skid Row I visited the LACAN (Los Angeles Community Action Network) offices, interviewed the founder of the performing arts and activist organisation the LA Poverty Department; spent time in their pop-up museum about Skid Row activism and interviewed an employee at a not-for-profit job centre working to provide homeless and low-income individuals with resources needed to enter and remain in employment. Considering how cycling fit into wider visions for urban futures I attended events put on by Zocalo public square in Los Angeles on urban development and urban transport; an event on Transit-Oriented Los Angeles (November 2014) put on by the Urban Land Institute, at which private sector developers, Seleta Reynolds from the LADOT and the mayor, Eric Garcetti, spoke.

As Table 1 indicates, while my research was largely based in Los Angeles, through three visits between July 2014 and July 2015, lasting a total of approximately 5 months, my ‘field’ (Massey, 2003) could not be delineated as a spatially and temporally contiguous ‘Los Angeles’. I volunteered and attended at workshops, talks, conferences and events on urban cycling in Dallas, Texas (North American Congress on New Urbanism), London, Oxford, Manchester, Sydney and Copenhagen (Jan Gehl Architects). This helped situate Los Angeles in relation to other cities and wider discourses on cycling amongst urban designers, developers and ‘city experts’ that operates at a trans-urban, and in many cases

trans-national, context. In some cases, there were direct linkages to Los Angeles: Jan Gehl's offices had worked on a design project in LA, I met LA-based planners in Dallas, Texas, and in London in 2015 I met the then-director of the League of American Bicyclists (as discussed in Chapter 4).

TABLE 1: OVERVIEW OF FIELDWORK LOCATIONS AND EVENTS

Where	When	What
Los Angeles – (Boyle Heights; Silver Lake; Los Feliz; City Terrace; Downtown; Wilshire Blvd)	July 2014 – August 2014; September- December 2014 April-May 2015	Staying in seven different neighbourhoods of Los Angeles, in 10 different Airbnb rooms; using the bicycle and mapping apps to commute to events and interviews, cycle rides and talks (details in table 2)
Oxford & The University of Oxford	October 2013	Executive education courses on transport and mobility. Transport and mobility seminars. CycleOx meeting, Broken Spoke co-op.
Manchester	August 2016	CycleBOOM research project event
London – University of Westminster	December 2014 - July 2016	London Cycling Coalition events, including presentation by then-director of League of American Bicyclists.
Dallas/Fort-Worth, Texas	April-May 2015	North American annual conference for the Congress for the New Urbanism (CNU23). Volunteering, participant observation, informal interviews
Sydney	April 2016	Interview with cycling advocate; photography.
Copenhagen	April 2016	Attendance at meeting with representative of Jan Gehl studios.
Online/ 'virtual' research	October 2013-September 2017	Engagement with academic literatures and policy discourse on urban cycling. Notifications and updates from not-for-profits and activist groups via Twitter, Facebook and websites. Daily newsfeed using keywords *cycling OR *cycle AND Los Angeles.

After fieldwork in Los Angeles was ‘over’ and I began focusing largely on writing, I continued to encounter cycling in Los Angeles regularly through listening to the weekly KPFK Bike Radio podcasts⁵⁴, which featured interviews and stories by and about people in the Los Angeles cycling community, including shop owners, cycling advocates, planners and activists. Since 2014 I received daily news alerts through Google for the terms *cycling AND Los Angeles; followed groups on Facebook and received newsletters from organisations such as LACBC, the spinning gyms I attended and the not-for-profits whose work I was interested in.

In this way, the line between embodied encounters in Los Angeles and ‘virtual’ aspects of fieldwork were blurred. Whilst based in Los Angeles, several of my interviews were conducted over the phone and Skype in large part to fit into the busy schedules of respondents. Most of my arranged interviews were approached through ‘snowballing’ – referrals from other people, or people I had met at CicLAvias and organised rides. Some interviews were arranged via e-mail and conducted over Skype. However, even in face-to-face interviews there was always an internet and phone-based element intertwined into communication: Emails were exchanged, phone calls and texts were used for last minute changes in timings and location. I found out about rides and events almost exclusively through social media channels. The Critical Mass and CicLAvia websites and O.V.A.S Facebook feed allowed me to plan fieldtrips to Los Angeles around these rides and the Midnight Ridazz (<http://www.midnightridazz.com>) has a web-based calendar with most of the night rides organised by different groups in Los Angeles.

As Table 2 indicates, the majority of conversations and encounters were very informal and unplanned. Where interviews were pre-arranged, I was able to bring along a printed

⁵⁴ <http://archive.kpfk.org/index.php?shokey=biketalk>

consent form (see Appendix 2 for an early version of this). I asked specifically whether and how people wanted their names to appear in anything published, and whether they wanted to read what I had written based on interviews. Pre-arranged conversations were longer (the average length was over an hour, with the shortest being a 30min Skype call, and the longest a 2-hour conversation over dinner and a 20 minute bike ride to dinner).

Following feminist modes of interviewing I intended for these conversations to be exchanges, offering my own perspective and positionality rather than simply asking questions. My questions were not standardised, but were tailored to the individual. I tended to have general themes noted down that I wanted to cover, and tried as much as possible to allow the conversation to flow without too much directing. Having a dedicated time in a café, book shop, restaurant or the interviewee's own home (for two interviews), these interviews allowed for more in-depth discussion about the role cycling played in people's lives, their views and experiences of cycling in Los Angeles. Where conversations were *ad hoc*, on *cycle rides, in *cycle shops and at events, there was no opportunity to ask for consent to 'reproduce' these conversations at a later date. In these cases, I chose to anonymise conversations in the final text and remove references to events or details that might identify someone. The same is the case for audio recording, video footage and photography.

TABLE 2: SELECTED RESEARCH EVENTS AND METHODS IN LOS ANGELES

Approach/Method	Dates	Where & How
Interviews – recorded 23 interviews with 1 urban planner; 6 cycling activists/advocates; 2 urban sustainability activists/journalists; bike mechanic;	Sept. 2014- Jan. 2016	(6 Skype or Skype-out from London) (3 Telephone in Los Angeles) (14 in-person in Los Angeles) Between 30 minutes to 2.5 hours in length
Conversations – unrecorded Estimated between 30- 100 conversations	Sept. 2014 – Sept. 2017	Notes taken on phone and laptop through the app Evernote – these notes form part of 'database' of

		1000+ notes in “PhD fieldwork notebook”
Photography (see particular ‘events’ and instances below)	Sept. 2013 – Sept 2017	3000+ images (10GB), comprising photographs of signage, streets, *cycles, people, events, on phone and digital SLR cameras.
Online ethnography	Sept. 2013 – Sept. 2017	Screen shots of websites; saved articles and documents; listening to KPFFK Bike Talk radio; watching City meetings broadcast online; tweets and Facebook posts. Part of database of 1000+ notes in “PhD fieldwork notebook”
Participant Observation	Sept. 2013 – Sept. 2017	Everyday life in Los Angeles – food shopping, tour of new rental accommodation in Downtown LA; buying a bike, driving, commuting to and attending interviews and events (see particular ‘events’ and instances below).
Sound recordings	July 2014-July 2015	40+ hours of recording of street sounds; ambient sound at protests and recording of talks and events
Emailed conversations/ ‘interview’	Spring 2015	Conversations with two respondents over several weeks via e-mail.
Ethnography (walking)	July 2014 – July 2015	Walking in the different Airbnb areas, to better enable photography and observation of cycling/roads.
Mobile ethnography (cycling)	July 2014-July 2015 in Los Angeles	Note taking on my phone after cycling; google maps recording my trips – and transferred into video; sound recording; GoPro filming ahead, behind and of the road surface. GoPro camera mounted on the front and back of my bicycle during most rides. Go-along rides with three interviewees (one in Boyle Heights, one in Pasadena, and one from Hollywood to Silver Lake (with respondent on an electric assist bike).
Mobile ethnography (Skateboarding)	Nov-Dec 2014	Attempted (and largely failed) to learn how to skateboard, to attempt being mobile in the city in a way I was not accustomed to.
Mobile ethnography (Driving)	Oct-Dec. 2014	Narrated the experience, sounds and reflections of driving into sound recorder.

Cycling during CicLAvia Boyle Heights & Downtown South Los Angeles	Sun 5 th Oct. 2014 Dec. 7 th 2014	Participant observation; photography; conversations with cyclists.
Organised rides & cycling events O.V.A.S Clitoral Mass; Monthly critical mass O.V.A.S Luna rides Midnight Ridazz night ride LA River Ride Multicultural Communities for Mobility Charity dinner in East Los Angeles	August 2014 July 2014; Nov. 2014; May 2015 Oct, Nov, Dec 2014 Nov. 2014 28 th June 2015 13 th Nov. 2014	Organised night rides generally from 7pm – midnight. GoPro filming, photography, participant observation Ride through South LA Rode on organised ride along LA river Dinner and award ceremony by mobility advocacy group MCM
Bike Shops and workshops Women-identified drop-in bike fix session at ‘Bitchen’ Bike Kitchen Silver Lake Flying Pigeon bike co-op (with the O.V.A.S) Orange20 bike shop (Melrose Avenue); Golden Saddle Cyclery (Silver Lake)	October 2014 November 2014 Sept-Dec 2014	Learned how to replace brake cables and basic maintenance. Workshop on how to fix a puncture Conversations with shop owners while buying necessary parts and getting bikes fixed
Meetings Will Cycle Lanes Gentrify My ‘Hood?’ City Council’s Streets and Transportation Meeting Community meeting with discussion by Metro regarding bike lanes Legalize street vendors event	26 th October 2014 30 th October 2014 17 th June 2015	Boyle Heights Downtown Los Angeles Boyle Heights Boyle Heights
Conferences/workshops/talks Zocalo Public Square talks Transit-Oriented Los Angeles L.A. New Urbanism Film Festival BUSTed Event	October – Dec 2014 November 2014 November 2014 23 rd Nov. 2014	For example: “Is LA Mobile Enough to be a global city?” (11 th Dec. 2014) Is L.A. Really the Creative Capital of the World? (23 rd June 2015) Conference by Urban Land Institute Hollywood, attended with Feminist Library on Wheels Echo Park, talks by people who ride the bus in Los Angeles by choice

Museums & exhibits		(Photography, review of documents and signage, notes, sound recordings and conversations)
LA Car Show	November 2014	Los Angeles Convention Centre
Manifest Justice (Art)	May 2015	South LA
Kern County Oil Museum	5 th July 2015	Kern County; and surrounding oil fields
LA Natural History Museum	July 2014	
Japanese American National Museum	May 2015	
Skid Row Museum	May 2015	Downtown LA
Volunteering for Los Angeles County Bicycling Coalition (LACBC)		
Operation Firefly Giving out free bicycle lights (Los Feliz)	Oct – Dec 2014	On two evenings: Spoke to people riding on the LA River path without lights; gave away free bike lights
Bicycle count (Silver lake and UCLA area)	Dec 2014	Conducted three bicycle counts, each for 2 hours.
Event set-up (Downtown LA)	May 2015	Volunteered for an afternoon to set up an event in Downtown LA.
LA River Ride set up (Los Feliz)	June 27 th 2015	Spent one day in a group painting signage onto roads ahead of the LA River Ride.

As Table 2 indicates, my smartphone (or the smartphone-me object (Schwanen, 2015a) was vital for research. Its GPS in combination with Google maps and a handlebar mounted sleeve with a see-through cover allowed me to navigate the streets of Los Angeles without stopping to look at a map. When it was dark or I didn't want my phone visible, I turned up the volume and would listen for directions from the phone in my pocket. The application Evernote on my phone (and synced with my computer) was often the quickest way to capture sounds and web content such as 'tweets' from Twitter. It also allowed me to capture field notes or record memories of conversations in a voice recording rather than carry paper and a pen. I used a GoPro camera mounted on the handlebars, and sometimes on the carrier rack on the back of the bicycle. I did so not with a particular set agenda, but with an openness to what this different mode might be able to reveal. Through replaying

footage, I was sometimes able to see or consider aspects of an experience I had not apprehended or remembered while cycling (see, for example, in Chapter 5)⁵⁵.

It was some of the un-recorded, unplanned and incidental encounters that are harder to pinpoint, store as ‘data’ or even categorize or name, yet some of these shifted thinking the most: Conversations overheard on the street (section 5.4), opinions and advice given by Airbnb hosts (5.4), the experience of a downpour after months of drought, the feel of LA’s cracked streets on two different bicycles (5.1) or the relief of shade in a tree-lined street. Although I did not want this dissertation to be *about* my own experiences of cycling in Los Angeles, the capacities enabled by my body and the *cycles were a central ‘research tool’. At times it was through encountering my own limitations, capacities and queer inheritances that I learned the most unsettling theoretical insights: My whiteness, my (often questioned/mis-gendered) gender, affiliation to the University of Oxford, queerness, my size, my non-Americanness, my fears, joy, pains, political orientations, exhilaration, apprehensions, susceptibility to heat and fatigue, sunburn and ‘the shakes’. Some of these inheritances sometimes opened and closed off more encounters than I probably can ever know – academics seemed willing to speak to me, predominantly white cycling groups such as S.W.A.T (She Wolf Attack Team) with a racing-focus, recruited me to join rides. There were also moments of fear and discomfort, such as a loud banging sound and a SUV passing with the windows rolled down while cycling home one night, an interview with a man in his own home turned suddenly ‘cold’ and distinctly ‘off’ at my mention of feminism and queer theory. Some of these encounters influenced my ability and willingness to be open to future, potentially similar, encounters. There were several events I missed and

⁵⁵ A particularly disturbing section of footage which points to the problematic ethics of filming while cycling was taken when I had stopped in front of a busy shopping area. While parking the bike the camera was still on. It captured a man and woman getting out of a car, the man seems to spot my camera, holding the woman firmly by the arm he leverages her back into the car and they drive off.

interviews I did not follow up, simply because of the difficulty and/or cost of getting to them without a car⁵⁶, or my fears and concerns of cycling alone after dark. There were times when the difficulties of getting around made me feel very trapped and constrained.

A large part of the research consisted of overcoming some of these barriers within every day social reproductive work. This is the ‘life work’ (K. Mitchell et al., 2004) that made it possible to live and get around in Los Angeles for three months, and included applying for funding, completing training and risk assessments; searching for and buying a bike (the bike I bought, Pink, discussed in Chapter 5); finding accommodation and re-finding accommodation when hosts cancelled last-minute; getting a US phone that did what I required; working out how to buy affordable and fresh food without a car in different parts of Los Angeles (I ended up relying largely on a weekly (relatively expensive) food delivery system); working out routes and practices that felt safe enough and manageable to cycle; using the bike-and-bus, bus and metro or Uber when all the above took too long. It was surprising how much time and energy this ‘infrastructural’ work took, simply to have the conditions in place to conduct the, supposedly, ‘proper’ work of research. My diary-like ‘field notes’ and emails intermingle notes on interviews and attendance at events, as much as they do on the everyday experience of living and getting around in Los Angeles. Some of this preparatory, social-reproductive work emerged as a significant ‘finding’ of the research as much as it was its precondition.

Table 2 gives some insight into the activities I undertook, the traces of which (where they existed) were collated in a ‘database’ of hundreds of digital photographs, hard copies of leaflets, pdfs and images of documentation, video recordings, field notes in notebooks, but

⁵⁶ When I was staying in City Terrace, East Los Angeles, I had an interview at UCLA. I used Google Maps to decide how best to get there. It would have taken three buses 2 hours to get there; cycling for 2 hours or 36minutes (and \$25) with an Uber. That time I chose the Uber.

mostly in the app Evernote, recorded interviews and sounds. The limitations with the sheer quantity and diversity of materials was that I was unable to review everything systematically. I reviewed video footage (going through some sections at faster speeds, due to the sheer length of some of these) and re-listened to interviews and selectively transcribed (see Appendix 1) sections of them. My photo library was revisited far more regularly as I found myself trawling through it regularly as a way to ‘feel myself’ back into the Los Angeles context. I wrote about initial themes throughout doing fieldwork, and the gaps between visits to Los Angeles allowed me also to review what themes I felt I needed to pursue further. These emergent themes were discussed with respondents in conversations and interviews, and experiences or notions raised in an interview were often brought up in further interviews with other people.

There was a blurring of what might be considered methods of the research ‘proper’ and ‘writing-up’. Following on from methodological assumptions wherein methods co-create worlds, more than ‘representing’ given truths, writing the final text of the dissertation, working through a form of bricolage of text and images, snippets of interviews, recollections and news quotes, was itself a method of *riding theory*. More than a year after taking pictures in Los Angeles, the work of juxtaposing images, further researching particular contexts around photos (such as the artist-designed bike parking in downtown Los Angeles in Figure 6.2), brought about connections and conceptual insights. In this sense I am influenced by authors who allow for academic writing to encompass both text and images and eclectic sources and styles of writing (Haraway, 2016).

3.3 Manifesting⁵⁷: On the page and beyond

“Theory’s most important political offering is this opening of a breathing space between the world of common meanings and the world of alternative ones, a space of potential renewal for thought, desire, and action. And it is this that we sacrifice in capitulating to the demand that theory reveal truth, deliver applications, or solve each of the problems it defines” (W. Brown, 2002)

“Rolling!!” (Group call on Ovarian Psycho rides, when getting on *cycles again)

“We are willing to participate in a killjoy movement. Watch us roll” (Ahmed, 2017, p. 268)

How does this ‘database’ of embodied encounters - and their affective traces (that always fail to be captured) - manifest⁵⁸ in the work of this dissertation? How then to best write/ride theory when the output has to be (largely) textual and legible within academic discourses and hierarchies of value? Following descendants of poststructuralist thought, writing is not merely a representation or communication of truths or objective data. We are constituted - ridden/written/riven - through language and this language is never outside of the knowledge structures and dominant structures of meaning⁵⁹. This approach does not lend itself to demands of research rigour that apply criteria of accuracy, objectivity, truth and validity or the capacity to provide neat solutions to pre-given problems. This does not mean

⁵⁷ The term ‘manifest destiny’ came up a few times in Los Angeles. Once in an interview and once when I attended an art exhibition entitled “Manifest Destiny Billboard Project” where the artist and urban planner James Rojas held a workshop. There was something disturbing about the unproblematized use of this colonial notion.

⁵⁸ A ‘*manifestation*’ in French and Dutch is also a protest or march.

⁵⁹ The research methodology I employ is within a critical theoretical framework, wherein there is not a strict delineation between ‘the field’ and researcher, and theory and practice. The open-ended, exploratory and embodied nature of my initial research questions, and the slippage between theory and praxis, arise from, and require, particular epistemological assumptions. These include seeing knowledge production as a social practice, where ‘truth’ claims are always historically and politically situated and normative (e.g. Foucault (2008) ; Donna Haraway (1991)), and where the researcher, methods, technologies and research ‘subjects’ themselves, co-create the realities studied (J. Law, 2004, p. 143).

that ‘anything goes’, but that the commitments to critical acuity and ethics need constant revision and questioning.

Rather than appeal to notions of rigour such as objectivity and replicability, the approach I have tried to take in the composition of the dissertation is one that, following Ahmed (2017) could be described as a feminist manifesting. This does not mean that I am manifest within the text. As discussed above, my own ‘enfleshments’ (a term discussed in detail in Chapter 4) and queer inheritances cannot be removed from the final text, it is ‘behind the camera’ in many of the images and each word embodies traces of my enfleshed experiences of Los Angeles, of concepts and language itself. While recognising the inextricable enfleshment of riding theory, this dissertation aims to open a space of thought-practice away from individualized narratives of the lived *experience* of cycling. Manifesting, in this respect is an acknowledgment of my own embodied-thoughts and orientations within the text, without it becoming largely a theorisation of, and from, my own affective experience.

In a workshop at the University of Oxford in May 2017, a visiting theorist stated that his work was not trying to do anything as bombastic as writing a manifesto. Perhaps I felt indirectly slighted, thinking of the various manifestos that have influenced my thinking (Bear, Ho, Tsing, & Yanagisako, 2015; Haraway, 2003; Marx, Engels, Harvey, & Moore, 2008; Orr, 2012). I put up my hand to question what was so distasteful about a manifesto: Is it so bad to explicitly state demands and beliefs, rather than hiding behind impossible ‘neutrality’? He responded that he wanted to leave openness to thought, not nail his colours to a mast. I did not respond at the time, but have wondered since whether it represents a particular form of privilege not to be - or to feel - compelled to nail your colours to the mast, not to manifest as a manifesto, as Sara Ahmed (2017) might put it? For some, lived

experience, embodiment and presence in particular spaces, and spaces of theory, means you manifest, whether you aim to or not.

This raised the important question of how to find a balance within this text (or text-image bricolage): How to create enough space for the people I spoke to in Los Angeles, the *cycles, the streets, and the rides to ‘speak for themselves’, and yet not to create a false impression of ‘objectivity’, neutrality by removing the author’s own reflexivity, presence and responsibility? I do not read ‘manifesting’ necessarily as ‘nailing your colours to the mast’ as a predetermined and fixed solidarity to specific political ends, but nevertheless an openness about who you are and what you are oriented towards. In interviews, for example, this meant that while I tried to create an open space for any view to be expressed, I also did not pretend to be ‘neutral’.

I sought ways to volunteer and collaborate in the writing and theorising with cycling and urban justice activists in Los Angeles, but this was much harder than I had imagined. I wrote a blog post together with an urban planner I met in Los Angeles and volunteered for the LACBC (see table 2, above) but these activities certainly do not amount to being a part of the Los Angeles cycling movement, nor necessarily of even ‘helping’. The Ovarian Psycos, for example, have written their own Herstories, made their own documentary, they did not need a researcher’s ‘help’ in doing this. I sought more to navigate encounters without extraction or didacticism, with a careful feminist approach⁶⁰, one that in many respects forced unsettling of the assumptions and practices of thought that prevailed in my own (academic) communities.

⁶⁰ See for example, de la Bellacasa (2012), Donna Haraway (1991), Ahmed (2008) and Diprose (2002b)

The decision-making around which texts, interviews and images ‘made it’ into the final text, where and how (in colour, or not) is a form of ‘manifesting’ that is not neutral: It was always led by my positionality and orientations – literally behind the camera, computer screen, voice recorder or phone - and the politics of what and where I could (chose to and afford to) ‘look’/listen/be. In this sense, the iterative ‘unsettling encounters’ between my database, my queer inheritances and the theoretical academic texts I was reading are not replicable, reliable nor objective. Some encounters in Los Angeles, and their translation into images and field notes, ‘did something’ to me – struck me, moved me, perplexed me, spurred thought, brought together disparate concepts and affects into a form of inextricable knot. Muñoz discusses this using Sylvia Wynter’s distinction between a strategy of ‘rhetorically demystify(ing)’ versus a consideration of the ‘illocutionary force’ of the mystification (Muñoz, 1996, p. 12). I interpret this as not so much considering what images, memories mean (as deciphering), but of what they do. I was led in my choices of inclusion/exclusion both by the force of ‘unsettling encounters’ and by the stories images or text evoked. The ‘data’ I chose to manifest and/or superimpose and collate in this text are those that were inexplicable, left me unsettled and said something about relations of power often left unseen or unspoken.

The fact that the LA *cycle rides themselves cannot manifest in this text is itself a political manifestation, one that subverts the need for documentation, evidence and ‘impact’. Queer performance studies, in particular the work of Esteban Munoz on ephemera (Muñoz, 1996) is helpful here in thinking through how an event, a ride – something that is here today, and gone tomorrow – can be a ‘queer act’ of political import. In some respects the incalculable, ephemeral aspects of a ride, make it an intervention that is not registered through the machineries of academic reward and recognition (Mountz et al., 2015), making it a particularly vulnerable methodology (Page, 2017).

3.4 Conclusions

In this dissertation I experiment with what I came to think of as a methodology of riding theory. While it is inextricably tied to cycling in this project, riding theory is not a mobile methodology (a mobile way to *better* research mobilities) as much as a method of theorising through cycling. As I discussed in section 3.1, to think through cycling as riding theory I rely on feminist ontologies and epistemologies in which divisions between matter and meaning; humans and nature; and the humanities and sciences are questioned. In this way, ‘theory’ is not purely a human endeavour. Furthermore, following Sylvia Wynter and Katherine McKittrick in particular, practicing ‘humanness’ outside of dominant gendered and racialized assumptions of what it means to be human also means a reconceptualization of the ‘proper’ objects and methods of science.

In this respect, I see cycling itself not so much as the ‘object’ of study, but a method of theorising itself – one that is always in an unsettling encounter with theoretical texts. In two sections I called ‘disorientations’ I discussed how riding theory is oriented towards ‘queer inheritances’ (a way to think through the entangled relations that make thought-practice possible) and ‘unsettling encounters’ (a decolonial thinking through/with difference). These disorientations accompanied my discussion of how I came to ride theory in Los Angeles (in 3.1) and the specificities, encounters and context of cycling in Los Angeles (in 3.2). Finally, in 3.3 I discussed the politics and aesthetics of how riding theory (always fails to) manifest in the final text.

4. Categorization – L.A. cyclists unsettling difference

4.1 Introduction

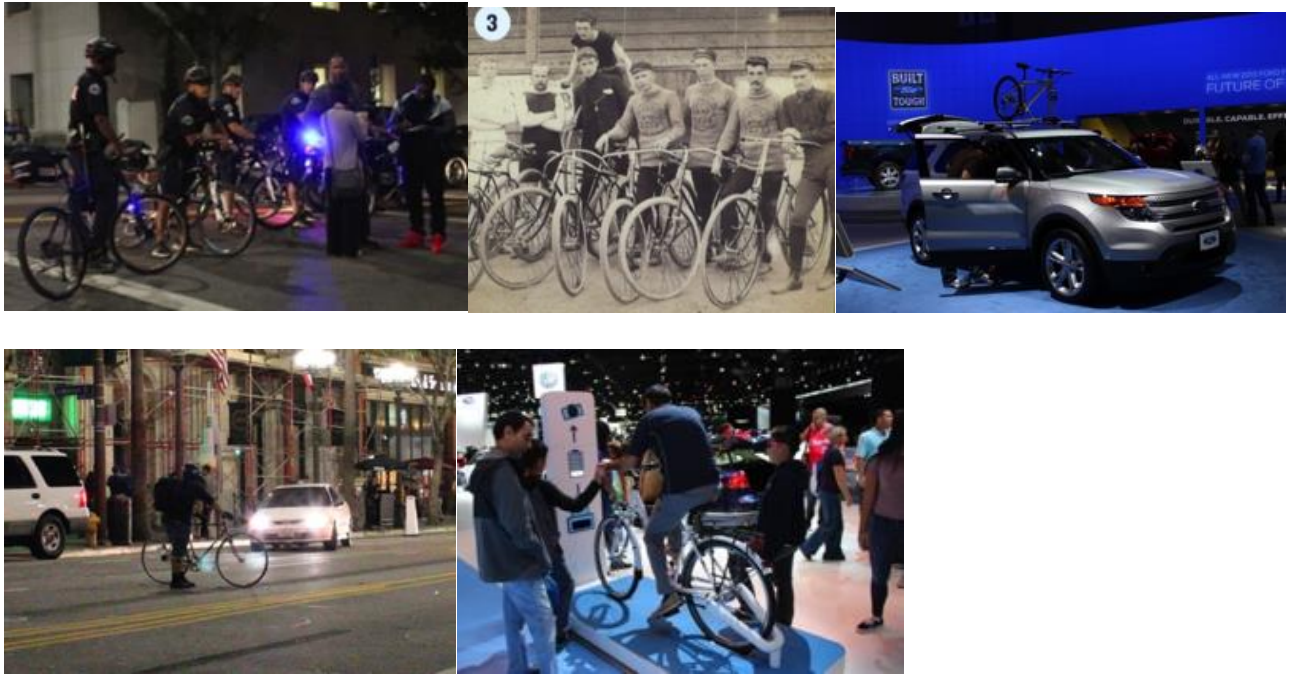


Figure 4.1: An assemblage of cycling masculinities

Clock-wise starting from top-left: 1. Los Angeles Police Department (LAPD) officers surround activists at Black Lives Matter demonstration in Downtown Los Angeles, 2014. 2. Members of Los Angeles Athletic Club, 1880 (from *Becoming Los Angeles* exhibition, Natural History Museum) 3. Explorer bicycle on a Ford truck, at LA Car show, 29th November 2014. 4. Image from website of LA Wheelmen cycling club. 5. Display entitled “Think Blue. Photoshooter”: Volkswagen-branded bicycle triggers off a camera to take a ‘selfie’ 6. A cyclist ensures cars stay away from protestors, Black Lives Matter demo, 2014.

"If more attractive women rode bicycles here [like they do in Europe] then we might have more women cycling in LA... but that's not really what this is about, is it?"

(Anonymous academic in conversation with author, Los Angeles, 2014)

“This is a feminist project whether or not there are any women or people or any other macroscopic beings in sight.”

Karen Barad (in Dolphijn & Tuin van der, 2012)

The images of cycling in Los Angeles, above, were collated to say something about the way bodily difference matters in cycling. Firstly, the particular materialities of cycling, the exposed visibility of the body (hence my use of images, above) and the direct use of bodily muscle power for propulsion makes differentiated human bodies and bodily capacities particularly central, visible and identifiable in cycling practices. Secondly, the collection of images is intended as a pastiche of the oft taken for granted masculinisms within cycling discourses and imagery: The sexist allusion to female cyclists needing to be ‘attractive’ (quote, above). In the images clockwise from the top left; the male-identified bodies of both police officers and a protestor, taking up space and time in ways that require and negotiate particular forms of, often masculine, body comportment; the all-male Los Angeles Athletic club in 1880; a bicycle used to sell cars – largely to a male audience - with a slogan of ‘built tough’ at the Los Angeles car show; the photo of LA “Wheelmen” in militarized drag in 2013. Even in photographs of bodies partially obscured, or at a distance, there is a gendering of bodies – whether human or automobile⁶¹ – as masculine or feminine.

I chose to depict and highlight gender in the images above and in the Introduction to this dissertation, where I introduced Milt, John and Antonio. However, the feminist perspective I take does not focus only on this as an axis of differentiation, nor will it counter these masculinisms by foregrounding notions of cycling femininity or images and representations of people considered female. On the contrary, the feminisms I draw on, as Karen Barad’s quote above implies, queer the very categorization of bodies into fixed identities, and do not necessarily speak of ‘women’ at all. Rather than take bodily

⁶¹ See Gartman (2004)

categories such as race, gender, age, sexuality or debility⁶² as a ‘given’ and seeking justice or equality based on these understandings, queering identity categories allows for consideration of how the very techniques, devices and modes of thought involved in categorization are an operation of power. This chapter explores specifically how modes of categorization function through cycling in Los Angeles.

Antonio, Milt and John, revealed some of the ways in which difference matters to cycling bodies in complex and intersecting ways. While they may all be men, the different experiences of cycling, and the ways in which they were represented and regarded, shows the rifts within bodily identity categories such as that of ‘male’. So for example, in some media representations, people such as John, camping under overpasses along the cycle paths by the LA River are associated more with ‘blight’ on the cycle path (Bartholomew, 2009) than as people, cyclists and users of the path. In contrast, Milt Olin, in the Red Kite Prayer article, was characterised as a cyclist on a road bike, a father, an executive, a married man, a *somebody* as opposed to the racialized references to “nobodies” - the gangbanger or the kid darting between cars. The sub-text here is that some cyclists matter more than others. Neither Antonio, nor John, really fit into the “we” who in the article, “ride to see the world, to enjoy ourselves, to improve our health—in short, we ride to live”, to which it is implied, Milt Olin, the author, and the readers, belong. While Antonio clearly enjoys riding, he also rides to his job in a kitchen, and gets what sounded like panic attacks whilst driving. For John without a permanent address or a car, cycling was more of a necessity than ‘riding to see the world’. For Antonio and John ‘riding to live’ encompasses an

⁶² The term ‘debility’ as used, for example, by Puar (2009) and Wearing et al. (2015) seeks to challenge ‘compulsory ablebodiedness’ in part by breaking down binaries of ‘disabled’ and ‘able-bodied’.

element of ‘riding to survive’⁶³.

The ways in which their bodies are marked by violence, and as violent, and the vulnerabilities this opens up, vary substantially. Milt Olin is considered the victim of a preventable ‘accident’ in the news articles and the foundation set up in his name; “dedicated to eliminating distracted driving-related fatalities and serious injuries” (“Milt Olin Foundation,” 2016). A *somebody* such as Milt Olin, is much less likely to be in a purposefully violent encounter with police. A white man is statistically less likely to be stopped and searched by the police than a black or Latino man (Ayres & Borowsky, 2008). Antonio, as a young Latino man, described encounters with law enforcement as an inevitable part of moving around the city, negotiating public transport fines, community service or being let off the hook. When I spoke to him he had just been to a film screening of *Fruitvale Station* – about the police shooting of Oscar Grant in San Francisco - and a bicycle ride to protest police violence against people of colour. John, staying under the overpass, would likely not only be more vulnerable to violence in general, but also to police violence (C. Davis, 2015).

Clearly, how these three men experienced cycling, the city and their bodies is refracted through the specificities of their bodies; specificities that could be named with phrases like ‘ethnicity’⁶⁴ or ‘race’, ‘class’, ‘age’ and ‘bodily capacities’. While some of these ‘identities’ may be considered more obviously residing in the body - such as gender, race or bodily capacities, the category ‘class’, as many theorists of the body since Bourdieu

⁶³ In an Ovarian Psycos video posted in 2017 they use the phrases: “riding to resist, riding to exist”, and “Riding for survival in the streets of L.A.”

<https://www.facebook.com/ovarian.psycos/videos/1605176609556189/>

⁶⁴ The entirely constructed and political nature of racial and ethnic categorization can be seen in the ways in which U.S. census data categorize ‘race’ in uneven ways; in the Community Household Survey, for example, categories at times seem to relate to skin colour; i.e. White (homogenous), Latino/Chicana (as white, but no other categories of whiteness are given), black or African American, and sometimes to nationality; e.g. Spanish or Guatemalan.

(1984) have argued, is also incorporated in and through the body, its varying access to capitals, energies and exposures to environments and violence. Yet, these categorizations are certainly not fixed in some essential way within their bodies, and they can become more or less visible, legible, calcified⁶⁵ or important over time and space. In this way the categories do not do justice to the specific contexts of John, Antonio and Milt's lives, and simply reiterating and reifying the identities themselves, risks reinforcing the relations of power that produce them. Yet clearly difference, and the representations of these differences captured in the short vignettes I presented, *matters*. Eliding discussion of difference in the name of avoiding the entrapments of 'identity' and 'identity politics' risks ignoring the ways in which difference is produced through and entangled in the embodied experience and possibilities of cycling.

This chapter centres around this primary tension: The recognition of practices of categorization and accounting of difference as an apparatus of power, and yet the prevailing need to give an account of bodily difference and the injustices that continue to be enacted through them. Staying with this tension, firstly, the chapter takes a close look at how bodies and difference are made to matter in Los Angeles cycling, through material assemblages and practices of accounting. Drawing on material feminist understandings of difference and identity, I argue that these devices and practices of categorization do not 'represent' difference as much as co-produce it as an apparatus of power. Secondly, I explore how varying understandings of difference in Los Angeles are mobilized to further particular notions of equity, social justice and inclusivity in cycling. In the third part, I argue that how identity comes to matter in Los Angeles needs to be understood through analyses that go beyond an understanding of the "here and now" of particular devices of

⁶⁵ Winnubst (2016)

categorization or corporeal experience. Here I draw on thinking by critical race theorists on the fundamental categorization of the concept of the human and who counts as a ‘Human Body’ as opposed to ‘mere flesh’. The final section explores how some L.A activists who combine social justice and cycling advocacy navigate the tensions between giving an account of difference and injustice and yet queering fixed and bounded assumptions of identity.

4.2 Accounting for difference



Figure 4.2: “Family bike ride time!” Rea (2012)

Photo use with permission from Hollywood Rides a Bike (Rea, 2012)

The bicycle has been a device of gendered differentiation since at least the 1870s when a version of the Ariel bicycle was designed by producers specifically for women to be able to ride side-saddle so as to conform with Victorian social norms around femininity (Ambrose, 2013; Bijker, 1995b). Arguably this is one way in which cycles become enrolled into, and reproduce, the materialization of identity. The more the product (the *cycle) can help incite and fulfil needs and desires associated with the proper performance of normative or desired identity, sub-identity or form of cycling (a racing bike for weekends, a city bike for commuting, a ‘family’ cargo bike for transporting children), the more of a

product will be sold. For the contemporary cycling industry, for example, tapping into new market segments enhances sales, profits and industry growth:

The bicycle industry must also seek growth by attracting women back to the sport, and by finding ways to put Hispanic, black, and Asian families on bikes... Most of the children in America's largest cities and states are black, Hispanic, Asian, or from some other non-white race. For this reason, the single best way to attract women and minorities to bicycling is making urban and suburban streets safer and more cycle-friendly (Edmondson, 2011).

As the quote above implies, and work by science and technology studies scholars, from Bijker (1995b) on reveals, this is more than the product itself inhering this identity, its normative expressions and then inciting the desired practice (to buy a bicycle). It is not simply a matter of tailoring the size, design and ergonomics of bikes to specific bodily needs and desires (such as the white, hetero-patriarchal family portrait above). The product itself and its producers are always in dynamic relation with the wider social and material contexts (Callon, Méadel, & Rabeharisoa, 2002).

For example, the bicycle industry report, quoted above, will also have been produced in response to market and other research data on the preferences and practices of populations understood through categories of race, age, gender and urban/suburban location. The aims, methods and language of 'targeted' messaging, policy and infrastructure intervention to 'cater' to particular 'market segments' is reflected also within research taking psychological (Dill, Mohr, & Ma, 2014) and economic epistemologies and approaches (Damant-Sirois, Grimsrud, & El-Geneidy, 2014; Dill & McNeil, 2012; Geller, 2009; Li, Wang, Yang, & Ragland, 2013). Research in this vein tends to seek to understand how motivations, attitudes, practices and beliefs about cycling are distributed demographically and how this relates to the likely take-up of cycling. Bicycling advocate organisations will rely on data such as these to inform campaigns and lobbying. Despite not having the same

organizational ‘bottom line’ of increasing profit from bicycle-related products, bicycle advocacy groups will at times employ discourses around cycling and growth in sales and profit (see Figure 4.3) and need the support of industry for funding and event sponsorship, for example.



Figure 4.3: Women mean (cycling) business.

Image used with permission, League of American Bicyclists, Women Bike, 2013 (The League of American Bicyclists, n.d)

Cycling industry, research and advocacy are interrelated or ‘co-articulated’ (Marres, 2012) in various ways. The organisation PeopleForBikes for example, sits on the blurry line between ‘industry’ and ‘advocacy’ in cycling. It is a cycling industry coalition not-for-profit started in the U.S in 1999 and funds and undertakes research, community projects and U.S. policy-maker fieldtrips to see cycling practices and infrastructure in Denmark and the Netherlands. In what it calls its “statistics library” the section entitled “participation

statistics” has a library of links to academic articles under headings such as: demographics, ethnic diversity, seniors and youth (www.peopleforbikes.org). In California, Pedal Love (Figure 4.4) is a small communications non-profit focusing particularly on women cycling. Through ‘creative storytelling’ it aims to ‘elevate the voice and impact of women for more mindful mobility’ (Pedal Love, 2016)

In this way identity and categorization of age and ethnicity through demographic data are not only used and created for market segmentation but also within notions of inclusion and participation as social justice. I will discuss understandings of social justice in more detail in the following section, but now turn to various techniques of categorization used.

The integration, or cross-over between market research and social research has a long history, as Osborne and Rose (1999) consider in their genealogy of the opinion poll. In their approach, common in social studies of science and technology, the specific technologies or techniques of research itself are seen as a particular device or ‘methodological instrument’ (Marres, 2011) that crucially does not simply gather data about a phenomenon seen to exist in the world – such as women in cycling - but co-produces these phenomena and their understanding. Taking this performative understanding of accounting for identity in cycling then, gender identities, for example, are not simply performed through individualized practices of clothing or bicycle consumption (see figures x, y, z, for example) but are also produced through the wider political technologies of accounting for difference and the specific devices and technologies employed in this.

a Figure 4.4. Pedal Love, California

Cycling advocacy (Graves, 2014; League of American Wheelmen, 2016; Szczepanski, n.d.), research (McDonald, 2012) and industry groups which speak of the ‘gender gap’ in cycling in the United States, for example, use demographic data on cycling uptake. So for example, in Los Angeles in 2013 1.8% of men cycled to work and only 0.6% of women (Linton, 2014). Demographic statistics (the word meaning ‘science of the state’ (Foucault, 2007)) need to themselves be understood as a technique of power, and humans produced as individualized and categorized subjects and populations (Foucault, 2007).

As I will discuss further, below, treating people as numbers, through statistical analysis for example, is not necessarily ‘good’ or ‘bad’ but, rather, is a question of the specific techniques and modes of analysis (Deleuze & Guattari, 1987, p. 390). Some of the different ways of accounting for cycling difference in Los Angeles and the wider United States context reveal how the modes of accounting co-produce how cycling is known, and who cyclists are known to be, in some respects reinforcing relations of power, and in other ways revealing their operations.

Alongside the materials and information provided, such as the count sheet (see figure 4.5) and the instructions given, I became part of an assemblage accounting ‘device’ for cycling in Los Angeles. I volunteered for the Los Angeles County Bicycle Coalition bike count and spent two hours counting cyclists and pedestrians on Sunset Boulevard. The count sheet in Figure 4.5 captures fifteen minutes of accounting data, but it also captures the ways in which ‘cyclists’ are constituted through this particular form of accounting.

A bicycle count may seem a more inclusive way to count ‘all’ cycling bodies present in a particular time and space, rather than limiting cycling to just self-reported commuter journeys. However, the count still relies on the categories on the sheets, instructions given to volunteers and the outward legibility of bodily difference to the particular volunteer.

The bodily differences that ‘count’ in this particular survey are where the volunteer classifies cyclists as ‘female’, or a pedestrian as a ‘child’ or ‘Wheelchair/Special Needs’. It was not possible to count as ‘cyclists’ those people walking with their bicycle (only those riding), disabled cyclists (only disabled pedestrians), those with advanced age (only children). They are counted – and represented graphically - as *individualized units* upright on bicycles, rather than as composite social cycling units of two adults on a tandem, an adult and one or two children, for example, or an adult on a tricycle. They are constituted as mobile, being counted only on crossing an imaginary line, so that any lingering or non-linear travel (going back and forth a few times) could either not be counted or required a judgment call on the part of the person counting. This indicates how ‘the cyclist’ becomes constituted through the available registers of accounting and the socialized legibility of their identity performance as it relates to the reading ‘abilities’ of the volunteer and the available categories written into the count sheet.

The particular aims of advocates and policy makers are also reflected within the design of the count sheets. Accounting for gender and helmets, for example, correspond to policy debates around compulsory helmet laws, low rates of women's ridership (with one in five cyclists counted as female (Los Angeles Bicycle Coalition, 2014), and with female ridership being lower on streets without bicycle infrastructure. In an interview, Tamika Butler of LACBC (the Los Angeles County Bicycle Coalition), expressed a tension between wanting to understand the lived, felt and 'on the ground' cycling experiences of identity, difference and road safety and yet balancing this with the kind of count data needed to convince planners in active transportation. I mentioned how I found it problematic to have to identify cyclists as male or female on the bicycle count sheet. She responded:

“...If you put ‘other’ or ‘don’t know’ how do you get the data...[...]. It brings me to one of the biggest struggles I’ve faced, and it’s because I come from a sociology/psychology background, where data is important, but you’re looking at data in a different way, and you’re definitely looking beyond numbers. We want to be able to write a report that says; hey we did a bike count, and in areas where there’s more infrastructure, people feel safer and so if people feel safer there are more women that ride. We want to be able to make that extrapolation, and I think sometimes in the States, planners fall so much in love with an ability to use data in that way, that when you talk about being more inclusive, or when you talk about doing something that would be a little bit harder, it becomes this really interesting conversation, about...well, you can’t get good data if you’re doing this...”

Statistics on who cycles needs to be gathered according to the presumptions of which categories of identity exist (e.g. the assumption of two mutually exclusive genders), how they are named (e.g. see Figure 4.5: Female is named under ‘other’, males are counted by default) and which categories are prioritized (e.g. gender is prioritized as a bodily identity in Figure 4.5). These identity categories and assumptions both rest on and are reproduced by ways of counting, and accounting for, who cycles. So if, for example, women are seen,

very problematically, as ‘indicator species’⁶⁶ for infrastructure, counting them on a bike count (such as Figure 4.5) will gather the kind of data that can be used to argue for increased cycling infrastructure (Butler, Interview, 2016). This discourse and the technique of accounting and research (large scale surveys, aggregating data by gender) however, relies on, and fosters an assumption of ‘average’ gender roles and women’s relative risk-averseness. In this respect, surveys can reproduce a normalized identity with a set of assumptions of what it means for when, where, and how members of this ‘identity’ category cycle. This is not to deny or diminish the fact that the bike counts might ‘work’ to spur policy makers to build more protected cycle lanes, for example. However it needs to be considered that these forms of accounting and the ensuing construction of bike lanes, for example, potentially serve to even out access to cycling in some ways, but may also obfuscate the wider political, economic and social inequities and violence that underly risk-averseness, for example, or uneven access to cycling.

A commonly used categorizing framework that does not directly rely on gender, but groups respondents by ‘cycling type’, is that between ‘captive’ or ‘choice’ cyclists. This categorization recognizes how cycling is not necessarily unequivocally positive, or necessarily a ‘choice’ (e.g. if it reflects poverty and lack of access to a car). However, as Jacques, Manaugh, and El-Geneidy (2013) point out, this categorization also risks policy and advocacy focusing only on ‘selling’ cycling to those for whom it is a choice, neglecting the needs of so-called captive users. It is also a rather crude categorization, leaving little room for complexity. An example of an expansion of this classification are the categories developed by the City of Portland: ‘strong and fearless’, ‘enthused and confident’, ‘interested but concerned’ and ‘no way, no how’ (Dill & McNeil, 2012; Geller, 2009).

⁶⁶ This relates to how high female participation in cycling in a city is considered an ‘indicator’ for good cycling infrastructure (Lugo et al., n.d.; Peters, 2013; Pucher & Buehler, 2010).

However, as Figure 4.6 (a presentation slide on the appeal of e-bikes) indicates, assumptions and stereotypes around age, race and gender of cyclists, still slip through in the way data is used and represented. Even when the categories are mockingly subverted and it is hoped they can shift (in the case of this presentation, through the use of e-bikes, in Figure 4.6), they still play into assumptions of cyclists as white, largely white-collar professionals, and women – particularly older women - as risk-averse and ‘concerned’.

Large data sets like the American Community Survey (Fig. 4.7) necessarily include

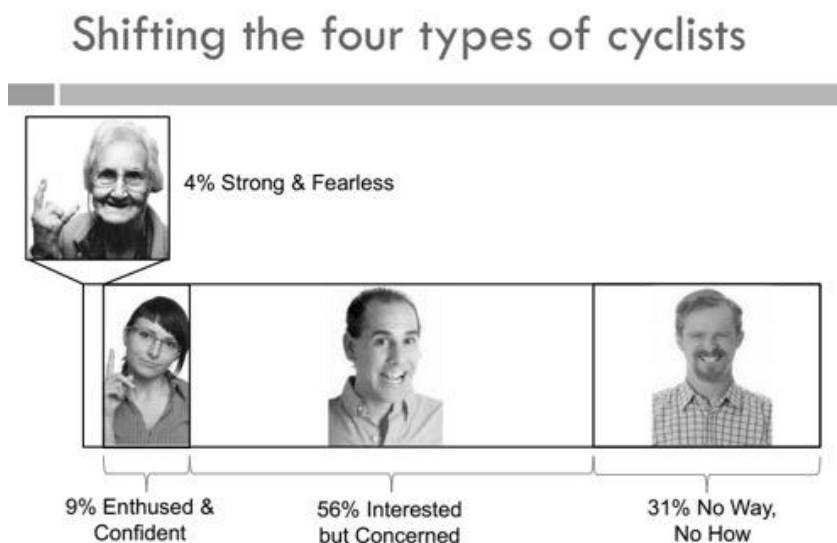


Figure 4.6: Cycling typologies

Image by: M. Anderson/BikePortland.org, used with permission “The Appeal of E-Bikes” (M. Anderson, 2013)

definitional exclusions within methods of accounting for difference. So for example data on ethnicity and cycling from the US Census Bureau’s American Community Survey (McKenzie, 2014) indicates that nationally people self-identifying as Latino are most likely to cycle and people self-identifying as black are least likely. However, if the only categories used are ‘people of colour’ and ‘white’, ‘people of colour’ are more likely to cycle regularly than ‘whites’ (PeopleForBikes and Alliance for Biking and Walking, 2014). Some of these discrepancies likely come from the particular sample surveyed. The

American Community Survey, for example, only counts cycling as a mode to ‘get to work’ (See Figure 4.7), with work defined as “work for pay at a job (or business)” (McKenzie, 2014). Those without a permanent address, those who cycle for informal labour such as picking up empties (Koeppel, 2006), unpaid household or caring work, and those whose trips are integrated with transit (Wang & Liu, 2013) are not counted (see Figure 4.7).

A given statistic, say on women and men’s relative participation rates in cycling, can however, also be interpreted and relayed into policy discourses in a range of different ways. In some accounts, women’s participation appears to matter merely as a conduit for further participation; women’s roles as household financial gatekeepers, ‘lifestyle educators’ as teachers, mothers, and because ‘women like to share’ is seen to enhance future overall participation (Snyder, 2011). In other analyses cycling participation rates are seen as

31 How did this person usually get to work LAST WEEK? If this person usually used more than one method of transportation during the trip, mark (X) the box of the one used for most of the distance.

☐ Car, truck, or van	☐ Motorcycle
☐ Bus or trolley bus	☐ Bicycle
☐ Streetcar or trolley car	☐ Walked
☐ Subway or elevated	☐ Worked at home → SKIP to question 39a
☐ Railroad	☐ Other method
☐ Ferryboat	
☐ Taxicab	

Figure 4.7: Question from American Community Survey

symptoms of wider structural inequalities such as (in)accessibility of recreational spaces and safe infrastructure, gendered social and cultural discourses that discourage participation in physical activity, financial barriers and divisions of labour, with trip-chains for feminized work such as shopping and caring roles making cycling less convenient

(Smart et al., 2014). Cycling researchers and advocates Huff and Ralph (2014) argue, for example, that the Netherlands achieves gender parity in cycling (with on average more trips completed by women) far ahead of the US due to shorter working weeks, flexi-time, part-time working, paid parental leave and higher gender equity in household work. Many women in the US, they argue, simply do not have the time to use bicycles as they disproportionately carry the burden of household travel and have less time to do it in (Smart et al., 2014). This research does not interpret women's lower participation rates as inhering in individually held perceptions, aversions or fears, but rather in the wider political, social and economic context which, in some respects, disables women from cycling.

I have not intended here to denounce all quantitative methods of counting cyclists, but rather to highlight the techniques and categories through which cyclists are named, made countable, counted and how counts are described and analysed, are inherently intertwined within relations of power (Lawson, 1995). As a technique of governmentality, drawing on Foucault, forms of counting produce subjects as 'knowable' both to themselves in relation to 'norms' (as 'cyclists', as 'women', as 'average' or 'healthy' for example) and to systems of governance as populations to be managed through biopolitical modes (M. P. Brown & Boyle, 2000). This however, does not automatically lead to assessing all instances and techniques of accounting as necessarily reinforcing governmentality and dominant hierarchies (e.g. patriarchal and racialized). If there is recognition of the limitations of presumptions/definitions made, the relations of power inherent and the ways data risks 'fixing' what are dynamic, contextually, historically embedded processes and meanings (Lawson, 1995), techniques of quantification can be a vital part of critical research (Schwanen & Kwan, 2009). Quantification is needed to point towards "disturbing patterns" that need critical investigation (Haraway, 1997), in discussing cycling in this dissertation, for example, I draw on a range of quantitative data on inequitable and differential

exposures to violence, pollution, traffic injury and incidences of disease.

4.3 Social justice and Cycling difference: Representation, recognition, inclusion

The section above introduced some of the practices of categorization and data gathering through which women's participation, in particular, is counted and accounted for. However, accounting for and the discourses around 'diversity' (understood in particular through gender, race and class) in cycling more broadly has become commonplace within cycling organisations in the United States. This is part of a wider recognition that cycling advocacy organisations, such as the League of American Bicyclists and the LACBC, have tended to be led by - and cater for the interests of - white, relatively affluent cyclists who might cycle commute 'by choice' and often also ride for recreation and sport. However, the ways in which 'diversity' is understood, represented and made to matter within cycling organizations diverges.

For example, in June 2015, at the London Cycling Campaign, Andy Clarke, then President of the League of American Bicyclists began his presentation with the proposition that the League needs to become more 'representative':

"The League [of American Bicyclists] is...we're a bunch of 55 year old white guys with beards, which counts some of you into the clan, into the tribe...[laughter from an audience in which majority was white, male and over 50] ...and it's good in some respects, as far as a sort of demographic profile of membership and whatever, it's quite good, but in terms of longevity and sustainability and representativeness, it's horrible. And part of our job I think is to try and change... our members tend to be pretty dyed in the wool, hardcore enthusiasts, they don't need a lot of convincing or encouraging to ride, they will get out and do it, whatever the situation, whatever the weather, they're committed... And that's awesome, that's a tremendous thing, but there's a limit to how far that will take us. What I wanted to talk about this evening is whether we're ready to change, to succeed and see our dreams come true...".

Success was tied, in Clarke's presentation, to "Changing the Face of Bicycling" away from the "poor chap" he had photographed in Florida: A middle-aged white man, covered head-to-toe in hi-viz and high-end cycling gadgetry, who represents "who people think we are". With his helmet, GoPro camera, gadgets and power cords, Clarke says: "when we're trying to convince people to take up cycling, if they're convinced this is what they have to do, they're just not going to do it". Instead, he said, 'the vision we want to project' is better represented by the image on the slide shown in Figure 4.8.

Figure 4.8: Changing the face of Bicycling

(From League of American Bicyclists Presentation. London, 2015)



Clarke later went on to suggest more substantive policy changes to cycling advocacy – such as moving away from a focus on cyclists' interests and towards "serving, relating to and adding value to a much larger population" (Clarke, 2015), a move that clearly signals a more inclusive shift in policy. However, there are two problematic ways of representing difference illustrated by his presentation. Firstly, there is the allusion that those who are not 'hardcore members' may need more convincing to cycle and may not be as dedicated. There is a problematic exclusion here of the many cyclists in Los Angeles, for example,

for whom cycling is not a choice. There is a strong likelihood that they will “go out and do it, no matter the situation, the weather...” and it is highly unlikely they will be members of the League (Fuller & Beltran, 2010; Koeppel, 2006; Mannos, nd). Secondly, there is a way in which a slippage occurs between the terms ‘representation’ as acting for, or in, someone’s interests, and ‘representation’ as an image, sign or the way someone is depicted or described. Having more depictions of women and people of colour in organisational documents and PR may be a necessary step in representing diversity, but it is not sufficient in representing the diverse interests and perspectives of those beyond the (very problematically-named) white, middle-aged male ‘clan’.

This point is made clearly by Tamika Butler, Executive Director of the Los Angeles County Bicycle Coalition (LACBC):

“Our board just didn’t hire a black face, they hired me based on the things I was saying about how the intersection of the work would look under my tenure. And it’s never just enough to hire them and set them free... as an organisation we could’ve checked the box, and been like, alright we have this person as our E.D. [executive director] equity is done, on to this other issue, but we’ve really made this commitment...this is something we’re integrating into our everyday work” (T. Butler, 2015).

Thinking with Tamika Butler’s comments, above, and Deleuze and Guattari on the faciality machine⁶⁷ (1987), the hiring of a black face or “changing the face of cycling” might help somewhat alleviate the surface representation of the ‘unbearable whiteness of cycling’ (Hylton, 2017), yet it does little to question or dismantle the oppressive material-semiotic structures of racism itself. Racism requires the “production of a face” (Secor, 2016), it requires ‘facialization’, or particular signification and value to be attached or coded-onto

⁶⁷ The faciality machine (they describe through black-holes of subjectivity /white-walls of signification) can be interpreted as the majoritarian system of stratification and subjectification, through which the body is territorialized through “a single substance of expression” (1987, p. 179-180)

particular bodies over and over.

Simply ‘changing the face’, by representing diversity in hiring practices and promotional materials and presentations interprets equity as ‘presence’, where merely having a seat at the table, a job, or being present in the room or on the promotional materials will increase an organisation’s diversity. As per the previous section’s discussion this can be tied into accounting practices such as employment ‘diversity forms’ where the number of women, or people of colour who apply and are hired are counted: Tick-box ‘presence’ equals successful diversity. However, these interpretations of equity do not necessarily result in any substantive change in how an organization is able to change the interpretation of social justice and equity, and implement it. Adonia Lugo was Equity Initiative Manager at the League of American Bicyclists from 2013 until 2016 and co-founder of Los Angeles City of Lights scheme, an outreach programme focusing on low-income bicycle users. In an interview she stated:

“The issue of privilege is still really shaping what sort of agendas are coming out of bicycle advocacy, because you have some individuals who are very unfamiliar with ways of life beyond their own, but they kind of project that their own experience is what should be informing designs for everyone who is using the street. What I found was that the field wasn’t really ready for me to be bringing that up, at the level I was hired to do it”. (Adonia Lugo, interview, 2015)

However, ‘changing the face’ of cycling advocacy might carry potential to do more than simply feed the ‘faciality machine’ if there is the possibility of infiltration of ‘defacializing’ strategies, a potential to question and dismantle racist power relations (Secor, 2016) from within organisations. The presumption, however, that activists and employees understood as variations of differentiation from, or ‘other-than’, white, male, middle-class, cis-gendered, heterosexual and able-bodied should necessarily take on the work of dismantling racism and injustice is itself troubling. Yet, the experience of being ‘othered’ as a

denigrated or ‘minority’ body *matters*. If the presence of your own ‘marked’ body cannot be forgotten, perhaps bodily difference in general cannot be so readily elided and lives ‘beyond [your] own’ cannot be rendered quite so invisible.

In an interview a white, male cycling advocate who has written about cycling in Los Angeles, revealed the difficulties for him around discussing race, due to not wanting to speak about “communities of colour” and “come in and exercise some form of dominance or superiority” (in an interview with author, 2015). In my field notes I wrote about his account of cycling in the city of LA: “[it] does not mention race, 100,000 words and the world ‘race’ only comes up in the sense of a relay-race, a speed race - that kind of race (Author’s field notes after an interview, January 2015).

Perhaps Serres’ way of conceiving of pain as a kind of cry to bodily consciousness - “Pain increases with consciousness and consciousness with pain” (Serres, 2011) - might speak to this⁶⁸:

Be it physical or moral, pain cries: how to forget this unbearably present body? That usual habitat, in fact, presupposes forgetfulness in order that we may live there even more comfortably. Onto this vague background of a quasi-absent body, suffering brings an excess of presence and lucidity. (Serres, 2011)

The ways in which black, crip, queer and feminist thought have in many ways been unable to ‘live comfortably’ within a ma[i]nstream accounting for, or eliding of bodily difference is something I return to in the next section. First however, there is a way in which Lugo’s comment, above, points towards different understandings of equity. Her notion of equity does not stop at increased participation of under-represented groups, but rather is a vision of equity informed by the experiences and ‘ways of life’ of those less privileged. This

⁶⁸ Although it is also problematic to associate being ‘othered’, necessarily with pain – eliding the ways consciousness of ‘othering’ might come equally from the pleasures that exist in being ‘other-than’.

raises important questions around what assumptions of ‘equity’ in cycling and transport are co-constructed by – and reflected in – the ways difference is understood and accounted for.

The terms equity and justice are often used inter-changeably within policy documents and cycling advocacy publications (T. Butler, 2015; Lugo et al., n.d.; Skinner & Masuda, 2013). I want to focus here on how ‘equity’ can be used in a way that maintains the ‘faciality’ machine of identity (reinscribing and reiterating difference as identity; race, class, gender, sexuality, age) through a liberal inclusionary politics, yet does not necessarily question the basis on which these injustices are constructed and reinforced. I argue that the way in which the individual subject comes into being and is understood (including through the forms of accounting discussed above) ties into what forms of equity are promoted and seen as possible.

Discussions of mobility equity tend to use dominant liberal distributive justice approaches (Pereira, Schwanen, & Banister, 2016); assess spatial and social inequities in distributions of transport investment, or considerations of inequity and disadvantage in terms of metrics of accessibility (Lucas, van Wee, & Maat, 2015; Martens, 2012), particularly experienced by particular groups, such as those on welfare (Blumenberg & Ong, 2001). This relates both to how ‘society’/individuals are conceived of, as well as the functions, value and characteristics of transportation. Largely, transport is seen as a ‘good’ or ‘commodity’, something with social and monetary cost (often seen in terms of time and money) and social and individual utility (in terms of providing access to jobs, social connection, health, goods and services). The inability to be mobile (or the burden of costs of travel being very high) can therefore be seen as a form of transport poverty (Lucas, 2004a; Martens, 2012). Transport equity is the necessary drive towards ensuring that both the ‘commodity’ or

social and economic ‘value’ of transport as well as the costs, burdens and exposures thereof are more equitably distributed amongst social groups understood through categories such as race, income, age and gender.

This concept of transport equity is vital in a context where access to basic needs and standards of living is intimately related to transportation. However, it is worth exploring the ways in which these forms of equity rely largely on liberal notions of distributive justice (e.g. Rawlsian), such as those discussed in Pereira et al. (2016). The basic assumptions within these understandings of equity are based on a form of thought experiment wherein people are conceived of as ‘billiard balls’ – individualized, rational, utility-maximizing, having equal rights and obligations and differing only as variations or ‘identities’, but with the same core presumptions applying. The image of the cyclist in the bike count sheet, above, epitomizes this kind of uniformity. The problem of equity becomes essentially one of distributing a given ‘pie’ of goods and burdens.

I will discuss notions of justice again in Chapter 5, 6 and in the Conclusions, but here I want to draw out three points: Firstly, this form of ‘equity’ does not necessarily include a conception of justice that addresses wider political, historical and geographical processes of racialised, gendered, ableist and class injustice (in Deleuze & Guattari’s terms, this conception of ‘difference’ then upholds and fixes into place the ‘faciality machine’ rather than de-facializing it). Rather than question the very logics of the construction of racial and class hierarchies, it risks reifying them. Secondly, the concept of possessive individualism presumed in these forms of equity does not recognize sufficiently how humans are entangled within affective contagions, habits, queer inheritances, traumas, dependencies and relationalities of bodies - to the meanings and materialities within and between bodies, technologies and cities. Thirdly, there is a sense in which this form of

equity is an inclusion of ‘difference’ and ‘otherness’ into the status quo of the dominant notions of what is determined a ‘cost’, a ‘good’ and a ‘good life’. As the “Agenda for Equity” document on building a just transportation system in Los Angeles County, published in 2014, states: “The economy only hums when everyone is included” (Carter, Pastor, & Wander, 2013). There is less opportunity to think about the forms of inequity and injustice inherent within these very normative conceptions of ‘the economy’ and ‘the good life’ themselves. What if ‘equity’ was not simply about a fixed ‘distribution’ or ‘re-distribution’ but about considering the logics, processes and politics of distribution itself? This might, for example mean having a common right (Harvey, 2008) to help define what a good life should mean. Why should everyone have to aspire to forms of living that are currently seen as ‘valued’, and if they did not, or cannot, why should they be forced to struggle - to be left with various options of slow death (Berlant, 2007b)?

4.4 Beneath the surface of ‘identity’? Difference-in-itself



Figure 4.9: “Beneath the surface”: Gender performance in mobility

Car Show LA 2014, photograph by author

In this section I turn to some of these concerns with ‘billiard ball’ notions of possessive individualism and the attendant notions of difference as identity. Here I draw on different critiques of ‘identity’ to consider what these can add to understandings of how bodily difference comes to matter in Los Angeles cycling. Critiques of identity politics within theory can be seen as critical of representationalism, or the notion that there is no ‘outside’ of our representations. On the one hand this could be said of (the caricature of) positivism or realism, which would argue, for example, that the data on demographics of cycling in LA are simply stating fact - that one out of five cyclists in LA are women, or that there are

two men and a woman in the picture above. The representation – the photograph, or the statistics and the notions of male and female, are seen to represent (a) reality. On the other hand, representationalism in postmodernism can be characterized by conceptualizations that there is no ‘reality’ as such, outside of discourse (Grosz, 2004, p. 191). This, for example, could mean arguing that it is not only that gender is being performed in the image above, but that ‘below the surface’ of the performances, even what we might think of as biological ‘sex’ – or what has been thought of as the ‘material base’ of gender - can only be understood as socially constructed. As Iris van der Tuin (2011) argues, this makes positivism and a postmodern linguisticism two sides of the same coin. According to Karen Barad (2003b), both these sides are anthropocentric, giving agency to human representations such as data or language but leaving matter powerless and inert (Colls, 2007). In the image above, for example, this means seeing the gender performances as an entirely social phenomenon, one in which the cars, clothing and hair are merely props.

How might difference be understood in a way that does not parse the world into ‘realities’ and their ‘representations’ (Colebrook, 2000b), and allows the materialities of bikes and clothing and bodies themselves to speak? To simply focus on the cycling bodies or to follow the materials enrolled within cycling to get away from a focus on representation and representationalism will simply flip the focus onto the other side of this fundamental dichotomy, reinforcing it (Bray & Colebrook, 1998). Understandings of bodily difference that are critical of these ‘representationalisms’ and dichotomies between matter and meaning, often draw on philosophical lineages of monism from Spinoza (Deleuze, 1988) to Deleuze and Guattari (1987). They are characterized by a focus on relational ontologies and embodied practices, events, becomings and performativity (Nash, 2000), rather than centering on fixed, individualized, structurally-defined notions of identity – but their (in)consideration of bodily difference varies substantially.

In some respects it might make more sense to speak of ‘more-or-less human’⁶⁹ bodily difference, than ‘identity’ at all. The age of information capitalism and biotechnology, according to Parisi (2004), brings into being Donna Haraway’s notion of the cyborg (Donna Haraway, 1991) and an ontology, whereby individuation is no longer about being part of fixed, structural identities, but rather, about the ‘dividual’ in societies of control (Deleuze, 1992). Difference, in this Deleuzian vein, is to be understood as difference-in-itself (Parr, 2010), not as difference through comparative, externally-given, identities: “I am a cyclist, not a driver, male *not* female”, rather, difference is a mutually constitutive socio-material force. Discerning ‘difference’ then is not about identifying group labels as much as examining the conditions that produce the event of this difference-in-itself. For theorists who draw on Deleuze, bodily differences – whether described as ‘gender’, ‘debility’ (Puar, 2009) or ‘race’ (Weheliye, 2014) - can be understood as *assemblages*⁷⁰: relations between bodies (Puar, in Kafer, 2013, p. 10) as a “series of intensities, flows and speeds” (Bray & Colebrook, 1998).

Also drawing on Deleuzian thought, within British human geography, the body of work placed under the umbrella term Non Representational Theory (NRT) (B. Anderson & Harrison, 2010; Thrift, 2007) tends to situate itself in opposition to, or at least shifting away from identity politics (Wylie, 2010). However, for some writing within an NRT tradition, there is a difficulty then of speaking of and for injustice as it relates to questions of bodily difference. This has been addressed in more detail elsewhere (Colls, 2012; Cresswell, 2012; Nash, 2000; Tolia-Kelly, 2006), but here I want to focus on a specific

⁶⁹ What I mean to elicit by this is an attempt not to put a line under discussions of the ontology of the human (as though this has been ‘done’), and yet, to take into account the ways in which theories of the posthuman and more-than-human have given important insights into the always-already nonhuman and inhuman constitution of the human. That we have ‘never been human’, and we are in fact very much bacterial, mineralogical, textual, energetic beings – substances and forces that are in many senses more and less than human in terms of their scale and reach.

⁷⁰ These are very short-hand renditions of a term, *assemblage*, thought up by Deleuze and Guattari (Deleuze & Guattari, 1987) and since used in many different ways. For more in-depth articulations of notions of assemblage, see (Deleuze & Guattari, 1987) (Dewsbury, 2011; Weheliye, 2014)

way in which some NRT approaches considers bodily identity as ‘outside’ of the purview of its theoretical lens. In some NRT, identity is seen as an effect of cognition, where language and shared meanings create the notion of group identities such as gender (Somdahl-Sands, 2013, p. 4). Identity, then, can be dismissed as a form of representational layer on top of a ‘nonrepresentational’ or pre-representational body. The task of NRT, in this particular account, is seen as: “recogniz[ing] the moment *before* the category is recognized and/or acted upon because that is the most radical moment of all” (Somdahl-Sands, 2013, p. 4).

However, does a pre- or non-representational ‘moment’ in an event of possibility prior to the ‘representational capture’ (McCormack, 2013, p. 135) of identity really exist, or indeed does the ‘negation of identity’ (Gerlach & Jellis, 2015, p. 143) risk a form of universalization of bodies which decades of feminist, postcolonial and critical race theory have fought against? The crux of the question is whether bodily existence/movement/practice in general can be thought of as prior to or separate from the notion of particular and differentiated experience and embodiment (Coole, 2007, p. 203).

In some respects fleshy affects and substance can be seen to exist prior to, and separate from, the *cognition* or representation of an identity-as-category. However this does not mean that bodies are not in some sense always-already conditioned by the various manifestations of apparatus of categorization. Examples of this abound. Prior to being born, babies already are conditioned through in vitro exposures; body burdens of toxic chemicals have been found in umbilical cord blood of newborn babies tested in the United States (Environmental Working Group, 2005). Access to prenatal health screening and care is lower for undocumented women in the United States (The American College of Obstetricians and Gynecologists, 2015). In this way, due to racialized, social and legal

restrictions or exposures placed on those without papers, the bodies are conditioned through a different set of possibilities prior to birth. This theorization does not imply a body ‘marked’ by identity in any fixed or predetermined way, but it means there is no easy way to speak of a ‘before’ or ‘outside’ of identity when it comes to bodies born into societies.

To be clear, this is not to imply there is no such thing as ‘outside representation’. It means taking on board fully the work of queer theorists and material feminisms, arguing for disruption of the binaries that haunt bodily definition: between straight and gay; able-bodied and disabled (Kafer, 2013; Puar, 2009), meaning and materiality (Barad, 2012; Povinelli, 2011), life and non-life, vitalism and inertia (Chen, 2012), mobility and immobility. For example, Karen Barad in her agential realism, queers the very concepts of identity and individuality of all bodies, from particles to human bodies, as well as notions of the material and discursive (Barad, 2012). Material is “always already material-discursive – *that is what it means to matter*” (Barad, 2007, p. 153). Rather than interaction between pre-existing and separate objects, intra-action implies that difference and identity are always produced in relation.



Figure 4.10: Die-in protest

Downtown LA intersection during Black Lives Matter protest, 2014

There is, however, a question left hanging. As Barad's quote opening this chapter implies, feminisms do not need to speak of 'women' and queer theory questions the limitations of fixed 'identity' and the constructions of normativity itself (Wright, 2010, p. 57), exploring the pleasures and freedoms that exist beyond these (Winnubst, 2012). Yet, how do we then find the words and concepts to speak in a critical way of interests, location and structures of dominance based on, articulated and experienced through bodily difference? How can we speak of how 'safe streets' (a topic returned to in Chapter 5) do not necessarily mean the same thing if you are identified as black or white in Los Angeles, as the Black Lives Matter movement (see Figure 4.10) has pointed out? Notions of bodily difference as flows and speeds, and difference-in-itself, could risk playing into the hands of a depoliticized,

neoliberal notion of individuality, and post-feminist and post-racial discourses that deny ongoing uneven exposures to violence, dispossession and access to resources. For these reasons, postcolonial theorists, such as Stuart Hall and Gayatri Spivak, have cautioned against theorization that abandons notions of identity and subjectivity entirely, for its neglect of questions of race and the subaltern (Weheliye, 2014, p. 48). The vignettes and stories below show that for cyclists and cycling advocates in Los Angeles there is certainly a need to continue to speak in terms of ‘identity’, even if these are ‘queered’ in various ways.

4.5 Giving accounts of ‘identity’ and difference in Los Angeles

People who cycle and cycling advocates in L.A. expressed the tension between seeking inclusion, recognition, rights, access or ‘safe space’ using the language(s) of group identity, and yet the desire to break free of constricting, determining and simplistic notions of identity. In my conversation with Jenna, for example, a student and athlete using a hand-cycle living in the Inland Empire⁷¹, it became clear that the specific bodily difference of being in a wheelchair after a cycling crash mattered in many aspects of her life. Her daily bodily rhythms and speeds (“I just can’t be there [on campus] as long as I used to, I have to relieve my body, I have to get out of my chair, I can’t stay in there so long because I get sores, I get swelling in my legs, my back hurts. I’m just not capable of being on campus for 6 hours”) the energy and time it takes her to get to university; (getting ready for school, and travelling to school, and then going to the class, and sitting through the class, and then coming home, it’s just a lot of work, and people don’t realize that. It’s like they just walk up the stairs and it’s like ‘oooh’, and they just go. And for me it’s like I have to take this

⁷¹ The Inland Empire is a somewhat nebulous term used to refer to the cities to the east of the LA metropolitan area, including the cities of western Riverside County.

ramp that goes around, like the farthest way around the school); the work and help it took to learn to do everything again - how to live her body, and how to cycle again. This kind of work speaks to a malleable obduracy in bodies, bodies tending towards particular (changed and always changing) bodily assemblages – ones that take a different kind of work and energy to live and move within.

The bodily difference between before and after her crash, between hand cyclists and ‘normal’ or ‘regular’ cyclists matters, and is something she wants to see recognized: “there’s a lot of things that just aren’t thought about, because in reality, we’re not the majority, so when one or two people come along, we just have to suck it up, cause they’re not going to change it for one or two people...”. However, Jenna is an athlete, a cyclist, a student training to be a dietician. Throughout our conversation it was clear that she did not want to be boxed in to an identity that was tied to what others thought she could *not* do: from assumptions that she would always cycle with other hand cyclists (she only cycles with ‘regular cyclists’), to a friend who advised her never to do a century (100km) ride again and a professor who assumed she had learning difficulties:

“the attitudes people have now, [...] towards people in wheelchairs. You know I get a lot of people who think I have mental disabilities, and they think I don’t understand them...or...all these negative stereotypes, when they see me, they enact out on me, even though they don’t know me, so I have to fight that, so I have to look nice, my hair has to look nice and I need to have good clothes, cause I don’t want to fall into that negative stereotype that people make up in their minds...”.

Jenna did not mention racial identity, riding a bike while white was not a factor brought up in our conversation⁷². For Tamika Butler (Newton, 2015), however, riding while black, is something she takes account of both in her own experience and in her advocacy work:

⁷² Race tended to come up less often in conversations I had with people who (I had, or who had self-) identified as white.

But it's hard for me to just get lost in the studies about what happens when people wear helmets... It's hard for me to get lost there, when my life experience is that I know that Driving While Black happens whether or not I am driving a car. And it happens to me all the time when I drive a car with my white partner and we get pulled over, people ask her if she's OK. Or, driving [sic] a bike. And so for me, that's what becomes problematic. Whenever you have these laws, how are they going to be enforced?

Several cycling groups and cycling advocacy organisations in and around L.A, identify with bodily difference in their name and titles, and focus specifically on particular communities. Race and gender were identified more explicitly for groups identifying as black, people of colour or women, and were left largely unspoken in groups that were predominantly white and/or male. So, for example, BKoB (Black Kids on Bikes) organized Freedom Rides as “another way for a community to get together”⁷³ to encourage more black people onto bikes in L.A, and to change images of cyclists as only either “nerds or gangsters” (Sulaiman, 2013). Multicultural Communities for Mobility started out of a City of Lights campaign by the LACBC and branched out as an organization dedicated to running: “culturally competent, multilingual safety and advocacy workshops, programs, and campaigns, in coalition with low-income focused groups in the City of Los Angeles” (MCM, 2016). Not all groups focusing on women mentioned race: Women on Bikes offers “Storytelling Tools to Elevate the Voice & Impact of Women for More Mindful Mobility” and the group Bodacious Bike Babes (Figure 4.11, left) started as a cycling group when they noticed they were the only women on group rides (“no, it's not just for people with boobs” – Interview with Andrea). Their twitter handle described the group as: “Bikes, Smiles, Laughter, Fun, Boisterous, Inclusive, Brilliant, Clever, Short Shorts. Born April 22, 2010 on the streets of Los Angeles. LOVE LIFE!”. The Ovarian Psycos (O.V.A.S)

⁷³ <http://www.streetfilms.org/l-a-s-freedom-ride-bkob/>

(Figure 4.11, right) in contrast, run a community space out of Boyle Heights and self-identified as a womxn⁷⁴ of color bicycling brigade: “cycling for the purpose of healing our communities physically, emotionally and spiritually by addressing pertinent issues...”. Their monthly Full Moon Luna Ride invitation was a dedicated (mobile) safe space: “FULL MOON Luna Rides are ONLY for womxn, queer womxn, trans, and gender non conforming individuals.”

Figure 4.11: Left: Bodalicious Bike Babes; Right: O.V.AS (in 2014)

Left: Union Station Ride – image source: [BikeStyleLA](#); Right – Image Source:

<https://www.firestorm.coop/img/events/2184OvarianPscosFilmScreening.jpg>

⁷⁴ The notation ‘womxn’ is used to denote a radical departure from ‘Man’ and ‘his-tory’, as per the following text in a website linked from the Ovarian Pscos website: <https://searchuci.wordpress.com/about/what-does-the-x-is-hxstory-stand-for/> : “SEARCH uses the spelling ‘Hxstory’ for two main reasons. The first is a form of resistance to patriarchal society and to shed light on the social injustices womxn have and currently face. Take a moment, to think about how hxstory was taught in high school that tend to leave out the contributions of womxn and those who do not gender identify, from the telling of “history.” The second reason is to redefine the way “history” was told in educational spaces. We know that “history” has always been retold by those who won, the details, and representations have been skewed in the retelling. The “x” is meant to be an inclusive and progressive term that stands for the many different identities, struggles, and intersectionalities. We hold the “x” as a way to acknowledge our untold hxstories and collectively push forward to reclaim the lost.”

These groups stress their inclusivity, despite accusations of ‘reverse’ racism and sexism in online and offline discussions. While I did not experience identity ‘policing’ on the rides I went on, Trish, who had been on the same Clitoral Mass ride in 2014, did notice some tension around cis men present:

Me: I liked the fact there were men, cis-men, on the ride, I liked that it wasn’t exclusionary in that sense...”

Trish: “mmm, there was a little friction about them [the cis –men]”

Me: I didn’t notice the friction, how did it play out?

Trish: “But there were few enough, so they could find another place, It was very brief that I noticed it and only in the first few miles...and people sort of settled their arrangements of where they would be and who they were near”. ...[...] “It was more facial expressions of complaint and discomfort, more



Figure 4.12: Feminist Library on Wheels

At CicLAvia October 2014, photo by author

complaint and annoyance than discomfort...and certainly I heard nothing voiced, but as I said, people shifted around where they were riding, who they were riding with”

There is a tension at play between an apparent ‘inclusivity’ and expansions of categories such as ‘woman’, and a distinct need for safe spaces and distinct identity groups. The Feminist Library on Wheels (F.L.O.W) co-founder (Figure 4.12) described the Los Angeles cycling community as:

“a very stratified community and a very segregated community. CicLAvia is helping, because it puts everyone in the same place, but it’s not enough at the level of structural organizing [...] I feel like we have a great opportunity, our project is a great opportunity to start crossing bridges, but at the same time, I don’t want to be an asshole about that – I don’t want us to be perceived as the white women from Silverlake who are going to export their model for what liberation and mobility looks like for everyone else”

Cyclists “being in the same place” at the same time, does not overcome the sense of coming from wildly different places in terms of class, age, racial, cultural, political and neighbourhood backgrounds; and necessarily having different visions for what enacting a cycling feminism’ might look like. In the 2014 CicLAvia in Downtown and East LA, for example, F.L.O.W were taking out memberships and lending feminist books from the back of their custom-built book bike on the side of the road on Glendale Boulevard (see Figure 4.12). The Bodacious Bike Babes (BBB) were hosting a bike dance party at a busy intersection of East 2nd and Broadway. The O.V.A.S were on the corner of Boyle and E. 4th, selling merchandise with the slogan: ‘Ovaries so big we don’t need no fucking balls’

to raise money for their community center, La Concha (Fig 4.13)

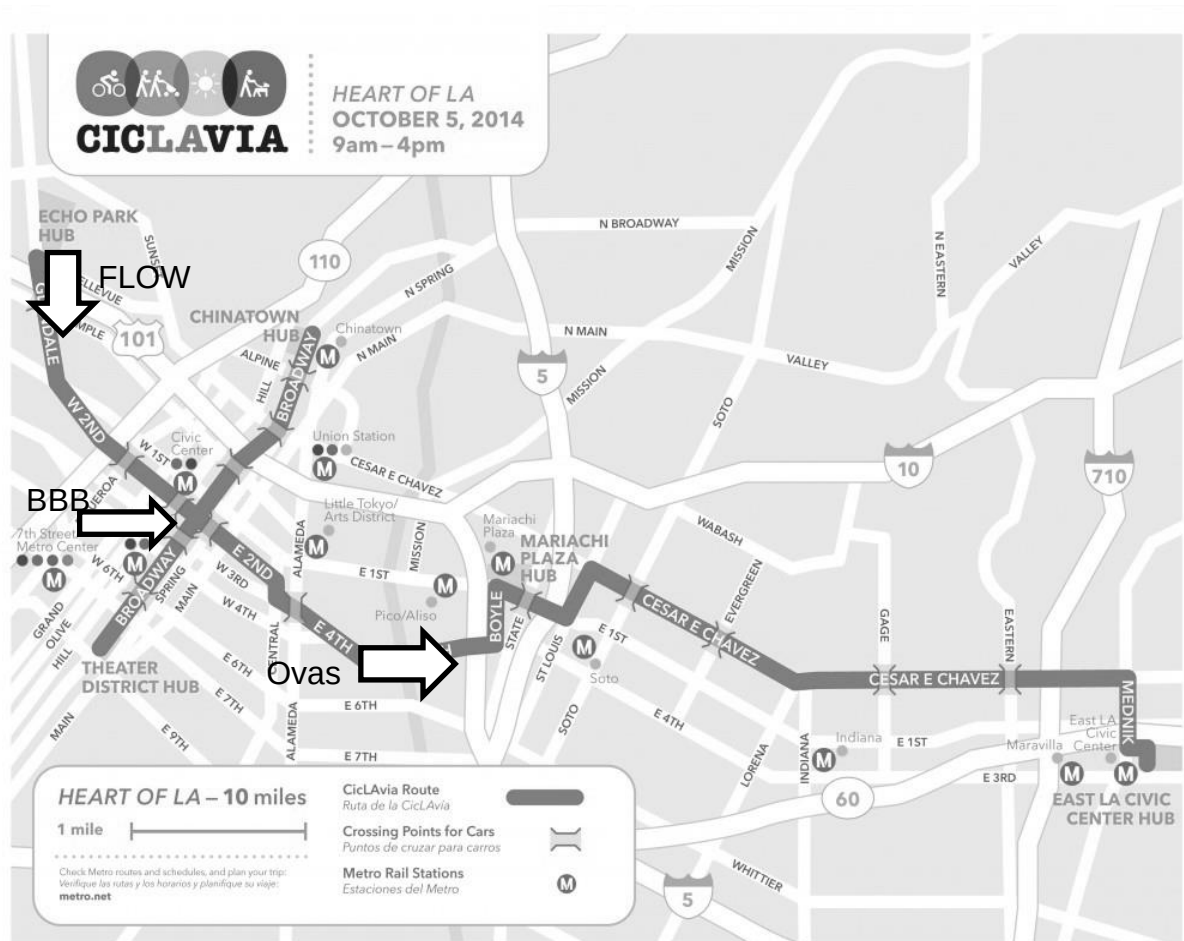


Figure 4.13: Map of Heart of LA CicLAvia route, 2014

One group that does not necessarily have dedicated rides, a website or a ‘named’ presence at the CicLAvia, is labeled by some as “invisible cyclists”. The label is contested, disliked by some and considered apt by others ((Fuller & Beltran, 2010; Koeppel, 2006; Mannos, nd). In *The Invisible Cyclists of Los Angeles* Fuller and Beltran (2010) write:

“...you won’t see invisible cyclists at Los Angeles City Council meetings demanding bike lanes. You might not see them in the street either, as these cyclists tend to ride alone, often intermingled with pedestrians on the sidewalk, and without lights or reflective clothing. These cyclists are also often Latino immigrants, and nearly 20,000 of them in the L.A. metropolitan area use a bicycle as their main means of transportation to work”.

The term invisible cyclist highlights the problematic way in which a particular term and naming refers to, identifies – and marks – particular bodies and groups of bodies, rather than the structures of power that help produce the differentiation. Perhaps the problem is not so much the ‘invisibility’ of these cyclists – remedied in one way by giving out free lights (see Operation Firefly, Figure 4.14) - but the fact that they are rendered unseen by the prevailing modes of representing cyclists in advocacy, inequities in access to labour and transportation, and the politics and laws of exclusion that criminalize immigration and render people ‘undocumented’.

Figure 4.14: Operation Firefly

Image Courtesy of the Los Angeles County Bicycle Coalition

This way of thinking through the body and its signifiers of identity might hold accountable the webs of domination that help construct cycling bodies as (im)possible, (il)legible, (il)legal, (in)visible, (un)countable. Many of the theories and practices employed by

cycling advocacy groups and activists, such as the Ovarian Psycos, Tamika Butler, Adonia Lugo, Allison Mannos, Sarah Sulaiman, align with this approach to bodily difference. Their form of identity politics does not stop at bringing more women or people of colour cyclists onto the street. It focuses on being able to name lived experience and ongoing inheritances of violence through colonialism, white supremacy, male dominance, and the neo-colonial exploitations within neoliberal capitalism. The Ovas' use of the terms *womxn* and *womxn-identified* is a core example of the way in which an identity 'label' is repurposed to contain within its definition both the recognition and the subversion of histories of violence and erasure, as well as an openness to exploding its own category and including, the "queer, trans, two-spirited and gender-nonconforming".

4.6 Flesh and the Body: "Or No Humans Involved"

Where phenomenology attends to the tactile, vestibular, kinaesthetic and visual character of embodied reality, Fanon asks us to think of the 'historic-racial' schema, which is '*below it*'. (Ahmed, 2007, p. 153, my emphasis added)

"Public officials of the judicial system of Los Angeles routinely used the acronym N.H.I to refer to any case involving a breach of the rights of young Black males who belong to the jobless category of inner city ghettos. N.H.I. means "no humans involved"." Wynter (1994, p. 103)

Sylvia Wynter in her essay *No Humans Involved*, written in the wake of the attack on Rodney King by three white LAPD officers, writes of the power of categorization. Beyond simply diagnosing or denouncing the racisms and violence of individual police officers, or the institution of policing, for Wynter (1994) this categorization is one that arises from the very modes of thinking *humanness*. Within dominant epistemes (which are not recognized as 'culturally' and historically specific) and through which humanness is thought in largely

economic and biological terms, Americanness and humanness is pre-defined as ‘optimally’ White and optimally middle-class.

This is a notion that delves ‘below the surface’ (see the large screen in the background of Figure 4.9) of a view of racialization and gendering as individualized, internalized “inequality *written on the body*” (Hawkesworth & Disch, 2016, p. 9, my emphasis added). It digs below the forms of ‘optimal’ racial, gendered and able-bodiedness visibly performed at the Los Angeles Car Show, for example, which create and colonize various desires – to become ‘properly’ masculine or feminine, and to have, do and desire that which gets us closer to this becoming. This is not to deny or denounce the importance of these performances of subjectivity, recognition and desire embodied in the cars, advertising, clothing and the human bodily stances and orientations. These move, create and destroy worlds, as does the visible violence of the Rodney King Event.

However thinking with Sylvia Wynter and the O.V.A.S understandings of difference discussed above, goes ‘beneath’ these particular ‘intercorporeal situations’ (Saldanha, 2016) of bodily difference and identity performance, towards how racialized categorization structures the very presumptions of what it means to be human. This means treading a fine line between on the one hand simply reproducing and reinforcing modes of categorization and the hierarchies they reinforce; and on the other, eliding discussion of difference altogether and dismissing the differential violence and exposures that persist. In line with critical race theories (McKittrick, 2015d) this means seeing race not simply as an ‘identity’, when the very definition of what it means to be a “Human Body” is deeply racialized and based on the over-representation of a particular ethno-class (Sylvia Wynter in interview with Scott (2000)).

The assumption of a body without ‘race’, ‘gender’⁷⁵, ‘sexuality’, ‘disability’ or ‘diversity’, whether in theory or in (cycling) policy, is by default filled in by the form of the majority, unlabelled and unhyphenated, blank-canvas human: The figure of the white, able-bodied, heterosexual male. In Deleuze and Guattari (1987) this is the ‘face’ of white Christian masculinity, of which every ‘other’ face is a divergence. As Ferreira da Silva argues, this default of what it means to be ‘a body’, is a basic philosophical presumption (da Silva, 2014). This can be seen in the naming of bodies of theory, where theory (predominantly white, male, European) denotes unlabelled universalist theory and the labelled theories; feminist, postcolonial, queer, black, crip; which, even if writing on the same questions as white, masculinist European theory, are “almost exclusively relegated to the jurisdiction of ethnographic locality” (Weheliye, 2014, p. 6)⁷⁶.

A white male academic I spoke to felt uncomfortable and ‘out of place’ writing on questions of race or gender in cycling, whereas Tamika Butler, as a black, queer and gender non-conforming woman, has had to work with people’s hesitations: “I think there’s definitely people feeling me out. They don’t know what to make of me. They don’t know what to make of the fact that I say “equity” a lot. That I say “low-income communities of color” a lot” (Newton, 2015). Butler was faced with the criticism that the Los Angeles County Bicycle Coalition was primarily about cycling, not about race and social justice, topics that these critics did not see as central to the work of the organization. There is a

⁷⁵ Or a body whose gender or colour does not require elucidation, and does not appear to ‘matter’ in the recounting of experience. See for a similar critique Rachel Colls’ comments on accounts of pain and boredom within NRT, where gender is named but not considered as a differentiator of experience (Colls, 2012).

⁷⁶ (McKittrick, 2015a, p. 150): “I offer that within the academy, our political imaginary is produced within a self-referencing system that is underwritten by normative and biocentric conceptions of the human. Here, normal-biologically-and-economically-politically-right-on-Man inhabits the center or origin of our geopolitical systems, representing, embodying, and *defining* full humanness and emancipation, while Man’s human Others, in particular those coded as racially-sexually condemned are variously (dis)placed within this system.”

corollary in theory where ‘minority’ theories, theorists and activist-theorists, even if they represent an actual majority, are pressured not to “overstep their proper domain” (Povinelli, 2006, p. 12): Feminisms should work on female bodies, queer theory on sexuality, crip theory on disability, and critical race on black and brown bodies. The putative effect is to leave ma(i)nstream theory supposedly unsullied by the vicissitudes of ‘identity politics’.

In contrast, critical theory, such as that by Ferreira Da Silva (2007) in *Toward a Global Idea of Race* and theoretical work building on Sylvia Wynter’s oeuvre, in the edited volume *Sylvia Wynter: On Being Human as Praxis* (McKittrick, 2015d), offer accounts wherein bodily difference, particularly racialized notions of blackness, cannot be ‘set aside’. Indeed blackness needs to be considered as central in the construction of what it means to be ‘human’ in the present system of Western thought (McKittrick, 2015c). As such, social categories of ‘colonized’ ‘black’ ‘non-white’, ‘poor’, ‘jobless’, ‘incarcerated’, are not merely socially produced labels placed onto ‘marked bodies’, but bodies relegated as less *human* (McKittrick, 2015c, p. 7) or in Weheliye’s (Weheliye, 2014) terms, as mere *flesh*. Importantly, critical race perspectives acknowledge the centrality of categories of bodily difference to humanity, *without* making these either essentialized, naturalized givens, nor simply representations or ‘cultural classifications’.

For Sylvia Wynter, following Frantz Fanon (Fanon, 2008) and his concept of *sociogenesis*, race is ‘built in the social imaginary grounded on colonial difference’ (Mignolo, 2015). This is in one sense ‘below the surface’ of internalized discourse and social practices and as such cannot be thought without considering the implications of the very structures of thought. Going ‘below’ in this sense means questioning the very epistemological foundations of ‘humanity’ in Western thought – the biopolitical hierarchies of who is included in the realm of the Human. Who is considered a legally, socially and politically

recognizable Face or Body (according to recognizable categorizations) and who is relegated Not Human or mere flesh?

Alexander Weheliye's theorisation of a biopolitics of the flesh, by way of Sylvia Wynter and Hortense Spillers, brings a conceptual division between 'flesh' and 'the Body', to which I will return in following sections. The Body – akin to Deleuze & Guattari's 'facialization machine' – is a figuration that represents the legally, socially, politically and economically recognized unit of the Human as Man. It is a deeply racialized, ageist, heteronormative, ableist and gendered figure, that violently divides those bodies considered Human from the sub-human, or 'mere flesh'. The flesh represents that which survives – and has forms of agency – when entry into the category of Human Body is denied or rescinded.

Weheliye's (2014) concept of the flesh engages with and critiques Agamben's *homo sacer*, which describes bodies banned from the realm of the human and from political subjectivity, the un-mournable who can be killed with impunity. For Agamben, *homo sacer* is epitomised by the Muselmänner in the state of exception of Nazi concentration camps. However, as Alexander Weheliye (2014) argues in his book *Habeas Viscus*, it is not necessary to look towards states of exception to find forms of bare life. The routine racialized violence of colonization, slavery, Jim Crow segregation and the contemporary United States prison industrial complex are conditions of bare life present within supposed conditions of 'normality' (p. 37). Further, Weheliye argues, many conceptualizations of bare life and biopolitics, whether consciously or not, serve to place notions of race and/or gender as 'identity politics' outside the realm of consideration within supposedly pre-identitarian theories of humanity (2014, p.7). Bare life, for example, can be interpreted as a form of universal biological base, an abstraction that denies both the racialization of the

very definition of humanity and the ways racialization effects the capacities and configurations of flesh.

Yet there is a need for a language and conceptualization that has the capacity for ‘commoning’ and recognizes the differential ways in which categorizations delineate some humans as lesser-than-human, and in this way is a bio/necropolitical technology in the distribution of life and death (Mbembe, 2003). The Black Lives Matter⁷⁷ movement (in which sit-ins, lie-ins and die-ins at intersections, sometimes with bicycles, are common, see Figure 4.10) has struggled with the appropriation of the slogan and the social media hashtag “Black Lives Matter”. Misappropriations in the form of ‘Our lives matter’ or ‘all lives matter’ may well ring true, yet this universalization and dis-identification (from Black, to ‘our’) serves to distract and silence the very specific call to recognize the ways in which Black lives, specifically, are subjected to intersections of state violence, economic disadvantage and white supremacy.

As such, there is value in a notion of the flesh that has the capacity for ‘commoning’, following Munoz (2015, pp. 209-210), below, yet has the capacity for recognizing the violence of classification:

“Queer thought is, in large part, about casting a picture of arduous modes of relationality that persist in the world despite stratifying demarcations and taxonomies of being, classifications that are bent on the siloing of particularity and on the denigrating of any expansive idea of the common and commonism.”

The flesh/Body distinction allows for recognition of the ways in which ‘we are all flesh’ – and theoretically all have the capacity to become *mere flesh* (not recognized as a Human

⁷⁷ Black Lives Matter is a movement started in the United States by queer Black women Patrisse Cullors, Opal Tometi and Alicia Garza in 2012 in the aftermath of the police shooting of Trayvon Martin. Its aim is to rebuild the Black liberation movement and do so in a way that is intersectional – fighting against white supremacy, hetero-patriarchy, militarism, state violence and ableism (blacklivesmatter.com).

Body) - yet this possibility is never evenly distributed. The following chapter on configuration will look more closely at these uneven distributions of energies, violence, exposure and recognition within cycling.

4.7 Conclusion

Cycling is a way in to questions around how difference comes to matter – it can be a way into symptoms of wider injustices – and yet it also offers a way to understanding how difference is co-constituted and reiterated through the specific materialities of cycling. It opens up different understandings, performances and interpretations of ‘identity’ categories – how a *cycle can be part of reinterpreting and ‘fixing’ identities – through, for example, going out on a bike and using public space differently, how it reimagines being ‘disabled’ through the things that *can* be done, but also the ways a city is specifically disabling for particular *cycle-body configurations.

If this analysis seems a schizoid relation to difference and cycling, perhaps it is: It is attempting to hold together both the fixities, moorings and trappings of the ‘recognized and ‘representable’ identity categories of the Body of Man as well as the forms of proliferating, open, unrepresentable bodily differentiations that are always in flux. Importantly, it aims to see how these are deeply imbricated in one another. Aligning with Puar (2011b), perhaps this means thinking bodily differences as assemblages (as discussed above, constructed through matter that is not only about ‘signification’/meaning) alongside and through notions of intersecting ‘identity’ categories as attached to rights-bearing individuals. Puar’s (2011b) argument is that these two modes of thinking through and producing difference also align with different techniques of power, the former being societies of control (individuals produced as information, as ‘dividuals’, and modification

of affects and capacities, as described by Deleuze (1992) and discussed further in Chapter 6), and the latter forms of disciplinary power (powers of recognition, and inclusion or exclusion within political institutions).

In other words, for those excluded from recognition as Human Bodies, a queer utopia that seeks to undo categories of identity, or notions of difference below or 'prior to' the 'representational capture' of identity, do not speak to the need to gain rights and recognition. At the same time, thinking through *flesh* as an assemblage, with material feminists, might allow for an understanding of how bodily differentiation and unequal exposures and capacities are (re-) produced through matter itself: How, for example do the specificities and affordances of *cycles make and unmake differentiated bodies? The next chapter will go into this question, to consider how always differentiated and categorised cycling bodies are specifically configured through cycling.

5. Configuration: Cycling through ontologies of the flesh

5.1 Introduction

“Power is nothing without control”

(Text from Pirelli tyre advert painted onto the stairs at Los Angeles Car Show, 2014)

“Driving mad, not riding bad, not riding mad, but it’s the cars that are driving me mad. Cycling is like a kind of release. Driving around LA for the first 5 days was stressful. I got honked at, I was too slow, I didn’t dare to turn right on red, I waited too long until the spaces were too big. I hated the speed, I hated the need to plan everything, the lack of spontaneity.

“I took Pinkie [the bike], wanting to test it out before tomorrow’s ride to the gym and hoping for a smoother ride. Strapped the pink strip to my ankle, the pink cover on my backpack and my phone into its holster. Google maps said 13 minutes. My lungs felt kind of raw, but then they do in London too. I was shit scared. I arrived at Guisados half-trembling and soaked.

[Notes on cell phone]: “Fuck sweat dripping and at guisados. The bike lane stops at the traffic lights, where you need it most. The bike lane is positioned exactly in the door zone. You have no choice but to either get doored to death or to drive..”

Backed up on myself towards the end, realising I wouldn’t be able to cross the two-lanes both ways at almost-rush-hour. Crossed the zebra crossing on green, with a man (who stared at me unsmiling) and his son. I thought ‘finally safer’, off my bike, half-off it at least, crossing on green...but a car turning left screeched to a halt, and a car turning right inched towards us. Pedestrians here seem to take this in their stride. It makes my blood boil...Pedestrians are treated like a nuisance by the laws, by the lights, and their right to cross the road unhindered, unhounded is so frigging limited. I felt hounded, chased, like people were out to mow me down. I got back (all rabid-dogged, all wide-eyed, all pumped with adrenaline and fear, and hives that popped out all over my arm a wee while later)...**Fieldnotes after one of the first rides in Los Angeles, Wednesday 1st October, 2014**

“We have inherited an imagination so deeply ingrained that it is often not actively thought. Based on assumptions no longer recognised as such, it is an imagination with the implacable force of the patently obvious.”

(Massey, 2005, p. 17)

If cycling bodies need always be considered through their differentiations, as Chapter 4 argued, what defines or unifies the fleshiness of cycling? How do relations of power

configure and work through LA streets, my body-*cycles, and the exposures, densities, proximities, and meanings that constitute the experience described above? How are these specific to cycling and differentiate it from walking or driving? Rather than leave cycling bodies undefined, as the ‘patently obvious’ (Massey, 2005) or employ a cyclical definition – cycling bodies are bodies on cycles – this chapter seeks to understand cycling ontologies through four empirical inroads: the lungs (airways); light (exposure); taking the lane (space-times) and locomotion (*cycles and efforts). In doing so I maintain the inherent differentiation of cyclists and the flesh/Body conceptual distinction as discussed in Chapter 4, but expand this to ask *how* these are materially-semiotically differentiated. This chapter both develops an ontology of the flesh, and considers through four empirical ‘slices’ into cycling in Los Angeles, how cycling shapes and is shaped by power in always uneven ways.

The ‘patently obvious’ notions of what a cyclist *is* needs to be questioned because these are debates that arise in controversies on law, policy and everyday interactions on streets. An example of this lies in the apparent conflicts between bikes and cars in cities such as Los Angeles (as illustrated also by the eponymous 2015 documentary *Bikes vs. Cars*, set in Los Angeles, Toronto and Sao Paulo). Several cycling advocates I spoke to in Los Angeles rejected the placing of cyclists as ‘other’ or different to car drivers. According to this logic, a cyclist should be given all the same rights and responsibilities as a motorized vehicle⁷⁸. A rhetoric of ‘we are all the same’ needs to be employed to make drivers see that cyclists are humans too, just like them. As one cycling advocate, I spoke to said; ‘we like

⁷⁸ In August and September 2017 the publicity and debate around the death of a pedestrian after a collision with a cyclist in London has caused similar sets of arguments.

to personalize cycling, get people to imagine it could be their daughter on a bicycle’ (interview 11th April 2016, Sydney).

However, it makes little sense to take on policies of blind equivalence and legally treat a cyclist the same as either a pedestrian, a motorcyclist, or driver with the same responsibilities and repercussions. The speed, technology, morphology, spatiality on and off the road, sensory capacities, affective experience and ensuing vulnerabilities, effects and capacities of a body cycling (what I call configurations, or enfleshments in this section) is not the same as a pedestrian or auto body. Holding these road users equivalent is extremely problematic. Yet, a very strict spatial-temporal delimitation and categorization makes little sense either: a cyclist who drives *is* in some respects still a driver. When and where does a cycling body start and end: At the skin, or the kitted-out, geared-up body? Does it include the **cycle*? Do you become a ‘cycling body’ the moment you get on a **cycle*, or when you learn how to ride, the learned motor skills supposedly staying with you for life (Wulff et al., 2009)?

Through questioning the patently obvious definitions of what a cyclist is, there is the possibility of both rethinking some of the hidden assumptions – of a cyclist as an individualized, bounded, rational utility-maximizing actor (as discussed in the Literature Review) – and of opening up other imaginations of what a cycling body is and what it is possible to be.

The ontologies of the flesh I draw on are theories of socially, historically and materially ‘open’ and contextual embodiment from within feminist (J. Butler, 2015; Grosz, 1994, 1999b; Olkowski, 2002) and critical race theory (Spillers, 1987; Weheliye, 2014). Some

of these engage directly with Merleau-Ponty's flesh of the world⁷⁹ (Merleau-Ponty, 1968), while others are elaborations, interpretations and derivations more removed from his writings. These theorists offer a historically and politically contextual notion of flesh, one that centres the role of racialization in bodily definition, does not universalize bodies from the positionality of white, 'Western' Man, and goes beyond experience and representation to consider the uneven materialities in the constitution of the flesh.

Merleau-Ponty's ontology of the flesh is a notion usefully thought of alongside, and yet in abstraction to, the kind of flesh that refers to a body's soft tissues of muscle and fat. His concept of flesh does not refer simply to the physical 'stuff' of the body, yet it does not transcend these materialities in a theological division between flesh and soul⁸⁰ (Rivera, 2015). Rather, flesh speaks to the relations of bodies in and of the world. This opening allows for an ontology that starts from bodily sensation and has offered, particularly feminist theorists, a way to consider women's subjectivity through lived experience (Young, 2005, p. 7).

Most importantly for this project, I want to return to Merleau-Ponty's flesh not to seek justification for analysing cycling at the level of the body as conventionally understood (as contained within the skin), nor a way of sourcing the 'truth' in this bodily experience. Rather, it is the way in which Merleau-Ponty's concept of flesh, offers, ironically, a starting point to undo 'himself' – to question the universality of Western thought. As Weheliye puts it, the flesh can be considered a 'gash in the armor of Man' (Weheliye,

⁷⁹ It is with some hesitance that I start a discussion on the flesh with Merleau-Ponty. While wanting to problematize the tendency of faithfully returning to an 'original author', or the first (white) Man as a gatekeeper to the concept, I do want to draw out how feminist theorists have read his notion of the flesh in *The visible and the Invisible* (Merleau-Ponty, 1968). This text was published after his death, pieced together from notes and drafts, and as such attempting a 'faithful' reading makes little sense. Feminist and critical race theory has tended to think through Merleau-Ponty's concept of the flesh to consider what techniques and tools it can lend to feminist theory and practice (Grosz, 1999b).

⁸⁰ Though for some, not enough of a departure from the theologic (Deleuze & Guattari, 2013, p. 178).

2014). The flesh is a way to think, write and live bodies that can be otherwise, that do not need to reproduce dualities, given assumptions, erasures and violent hierarchies.

Drawing on these inheritances of the “flesh of the world” I think cycling through an ontology of enfleshment. I use the term ‘enfleshment’ to describe a process of spatio-temporal ‘cohesion’/dispersion (a kind of constitutive opening/exposure to the world, and yet a coherence and ‘closing off’). This is a process of ‘becoming’ through cycling that does not speak to a discrete ‘whole’ body⁸¹ (Dixon, 2014) understood as cohesive and mapped onto by a legally defined personhood. Enfleshment also speaks to embodiment that is not necessarily cognizant of (all of) itself (e.g. in the ‘unthoughtness’ of habit, the incorporation of pollution, muscle memory, balance). Enfleshment is not *only physical* or *only* shaped by discourse, but always both, and not in ways that are necessarily of the ‘here and now’ but are queer inheritances of distributed material and semiotic processes.

The flesh also opens up to notions of a body beyond life/death binaries (flesh can still be flesh when it is dead). If the assumption is not automatically of a living body, a living flesh, it is easier to see how the mineralogical, the energetic, the nonliving or partially living, the non-vital within/through us also constitutes us. It does away with some of the automatic assumptions of bodies as living, agentic and ‘meaningful’ and bikes, streets as nonliving and inert. This is also why I discuss various cycling enfleshments through ‘body parts’ and nonliving entities and processes: lungs; light; taking the lane and locomotion.

In the following sections I think through enfleshment with particular processes and specific bodily-cycling assemblages, such as lungs and air (section 5.3), light and exposure to

⁸¹ Flesh is discussed by Deborah Dixon (Dixon, 2014) in light of material feminism. To her, an invocation of the ‘flesh’ is also to highlight the materiality of the body and particular fleshy parts, such as stem cells, that are disassembled and move apart from ‘the body’ (page 140). Her usage of the term ‘flesh’ allows her to speak of ‘body parts’ (e.g. stem cells) or bodily matter within geopolitics and consider geopolitics through a feminist stance.

vision (section 5.4), ‘taking the lane’ (section 5.5), locomotion and speed (section 5.6). I emphasise these processes rather than following individual bodies or *cycles as the objects or materialities of mobility (Sheller, 2014) in order to focus on the intercalated becoming of cycling with its worlds. I do not want to reify these particular processes or bodily parts (e.g. cycling as being ‘exposed’), but have chosen these as incisions into ontologies of cycling bodies and the ways in which power is bound up in the configurations of cycling. They represent conceptions - such as exposures - and connections - such as between vision and exposure - that are set up, in part to be unsettled and broken down.

5.2 Lungs: Cycling airways [insides/outside]

Field notes 16/10/2014

Three weeks in, and it's different. It's astounding what you can get used to. I can still hear it [the road], but it doesn't drive me crazy anymore, or if it does, it's driving me nuts in a more subtle way. That's exactly the part that scares me a little. You get used to something (like I do to allergies, taking antihistamines every day) a certain level of symptoms, a certain level that you might have thought was suffering before, way back before when you didn't have them, or when they just started. You thought: How can people live that way?

These things are minor - minor allergies, minor traffic (4 lanes of a 35 mile an hour road, and not a freeway). Yes, it's a rough road surface, but [the apartment is] slightly set back, [there are] windows that do something, but where does the limit lie of what you can suffer, what you just forget, because forgetting is easier, forgetting is survival, necessary for survival...I guess it's when you just can't forget anymore, that's when it breaks [...] breaks into protest on the street, a critical mass of suffering, an event, a drop in a bucket...

“On top of the pollution of the cars and the construction pollution. I Just couldn't take it anymore. I'd come home and I'd have black snot, it was nasty.” Mirna Katika – (Science Friday, 2015)



Figure 5.1: Dark dust on finger

(Found on railings outside apartment, Silver Lake Boulevard, 2nd October 2014)

“One can say that we perceive the things themselves, that we are the world that thinks itself—or that the world is at the heart of our flesh. In any case, once a body-world relationship is recognized, there is a ramification of my body and a ramification of the world and a correspondence between its inside and my outside, between my inside and its outside.” (Merleau-Ponty, 1968, p. 136)

The dark dust found near the busy LA road (Figure 5.1) I was staying on might have been visible on my finger, but I could not be sure whether what I felt in my lungs had any connection with this⁸². I spoke to Angelenos about a tight ‘heavy’ sensation in my chest I had for several days whenever I first arrived in Los Angeles. Some were very surprised; “Oh no, I don’t have that at all. Los Angeles air is clean now!” said one cyclist on a group ride. The subconscious, unconscious, habitual, gotten-used-to, or never-perceived effects

⁸² I have a dust mite allergy and both dust and diesel might be allergen carriers (Ormstad, Johansen, & Gaarder, 1998)

of air and noise pollution, speaks not only to the limits of our human perceptions, but also to the very capacity we have to sustain life. The ability to breathe, to incorporate outside elements, energies and stimulus is one of the conditions of life, as is the ability to adapt to a changing environment (Grosz, 2004), to make it part of a new ‘normal’ or equilibrium state⁸³ and make it liveable. Cycling requires the intercalation of lungs and air, the exchange of oxygen and carbon dioxide, and through cycling the very relation of lungs to air is changed with increasing lung capacity, for example.

Merleau-Ponty uses metaphors of intercalated leaves and the sensations of vision and touch to explicate the ways in which a body’s very being, agency and sentience, is conditional on a formative, constitutive prior ‘touch’, an originary receptivity and impression(ability) (J. Butler, 2015, p. 41). While the air and lungs ‘touch’, and are open to one another, they are not the *same*, it is their enfoldings between ‘inside’ and ‘outside’ that constitute them (Grosz, 2004): the air becomes human breath, the lungs become exhaust and exhausted and grow to become cycling lungs. As Grosz puts it: “the flesh is composed of the “leaves” of the body interspersed with the “leaves” of the world: it is the chiasm linking and separating the one from the other, the “pure difference” whose play generates persons, things, and their separations and unions” (1994, p. 103). In this way, an ontology of the flesh is not an undifferentiated substance or universal force (Flynn, 2011).

The notion of incorporation is one that speaks to how a cycle ride *constitutes* the body itself in ways that fundamentally question fixed boundaries between the inside (body, health) and outside (environment, street, city) of a cyclist and between materiality and meaning. While understanding the subjective experience of cycling through memory and perception (as in the images and field notes above) is important, there needs also to be

⁸³ Thanks to Tim Schwanen for this comment.

consideration of those exposures, violences and 'queer inheritances' that human sensation does not have ready access to, or comprehension of. In some respects, this builds on Merleau-Ponty's 'the flesh of the world' through some of its critics: Some have criticised his account for being over-reliant on theorisations and metaphors of subjective experience and human sensations of touch and vision (Voss, 2013). How can it then speak to those forces and materialities such as air, and the breath through lungs that might constitute and yet in many ways exceed individual 'subjectivity' and the sensible (Yusoff, 2013b)?

Povinelli asks 'Where is the human body if it is viewed from within the lung?' (Povinelli, 2016, p. 42). For her the lung is a figure of the Anthropocene, opening up to the human contingency on – and implications for – wider non-human and non-living entities and forces such as green plants, hydrogen, microbes and – central to the discussion at hand – the carbon cycle. For Povinelli, lungs also shift a political discourse from that of recognition ("listen to me") to "I can't breathe" (p.43). I interpret this as a shift from a politics centred on identity, recognition and inclusion (into the realm of rights and recognizable political subjectivity), towards a politics of the uneven, violent distributions of the (discursive and material) line drawn between life and death, vitality and inertia (Povinelli, 2016, p. 21). Thinking through an ontology of the flesh allows for consideration of the myriad material-semiotic conditions that constitute, or enflesh cycling bodies differently: Reinscribing the dominant racial and colonial flesh/Body division (Spillers, 1987; Weheliye, 2014) wherein the recognition and definition of a particular ethnoclass as Human Bodies requires the relegation of the 'dysselected' (Wynter, 2003) to 'mere' flesh and slow death (Berlant, 2007b).

‘I can’t breathe’, Eric Garner⁸⁴’s words that became a political cry in the Black Lives Matter protests in 2014 and 2015, are significant also to how the ‘mundane’ capacities of cycling are tied together with much wider atmospheric and structural inequalities. The fact that Eric Garner had asthma is not incidental. Asthma is inflammation of the airways that results in shortness of breath. Exposure to NO₂ and diesel exhaust particles increases symptoms and proximity to heavy traffic is linked to asthma hospitalizations (Huang, 2009). In Los Angeles asthma prevalence, care and outcomes are linked to obesity, geographic area, health insurance coverage and poverty. There are also significant racial/ethnic disparities in asthma rates in Los Angeles with African American children having approximately three times the prevalence of asthma (almost 20% of children) than white and Latino children (Los Angeles County Department of Public Health, 2014a). While exercise can trigger asthma (causing some to avoid physical activity), gaining fitness is also seen as a necessary part of an asthma management plan.

The process of ‘enfolding’ in the development of a set of lungs (children, with their relatively larger lung surface area and developing immune systems are particularly vulnerable to asthma) is also constituted by the distributions of exposures and access to mitigations (e.g. healthcare) that are highly unevenly distributed by supposed ‘identity categories’ of race, age, class and geography. The affective experiences, senses and atmospheres (Simpson, 2017) bodies become within, always need to be understood as also constituted by these queer inheritances - the freeways you grew up boxed within (e.g. in Boyle Heights), the busy roads you walked alongside, the forms of healthcare or lack thereof you and your mother experienced. What makes a ‘conducive atmosphere’ (Simpson, 2017) for ‘diverse bodies’ of cyclists may have something to do with their sense

⁸⁴ Eric Garner was killed while in a police chokehold on July 17th 2014, Staten Island, New York. He also suffered from asthma.

of the experience (whether reflexive or ‘pre-reflexive’) but may also have a lot to do with the differential conditions of our enfleshment and how these condition the very possibilities of breathing. As Judith Butler puts it, flesh is: “not something one has, but, rather the web in which one lives; it is not simply what I touch of the other, or of myself, but the condition of possibility of touch” (2015, p. 36).

A focus on affect is seen to signify a theoretical shift in focus from what a body *is* to what a body *can do* (Bissell, 2010a), but what if we tried to think of affective atmospheres in a way that speaks to differential capacities to breathe? I would argue this does not mean seeking to apply a given theoretical framework to ‘othered bodies’⁸⁵, but that there is something about the framework itself that does not allow for the operation of power via bodily difference. The literatures on affective atmospheres (Bissell, 2010a) that rely overly on Non Representational Theory (Dewsbury & Thrift, 2005) risk sanitizing enfleshment from ‘identity politics’ and notions of ideology in a way that reduces the affective experience to the here and now. As discussed in Chapter 4, there is ironically the risk of creating a new binary – that between the supposed ‘pre-discursive’ ‘pre-cognitive’ and ‘pre-personal’ (the realm of affect) and the emotional, discursive, identitarian and cognitive.

As I discussed more extensively in Chapter 4, it is vital to question the potential fixings and entrapments of representation and notions of identity. As Elizabeth Grosz points out (1999), a body considered entirely socially constructed leaves no room for resistance, a pre-discursive flesh is needed as a kind of substrata of sensory experience – vested with the only real possibility of resistance. We do not absorb meanings/matter simply to reflect

⁸⁵ There is a tendency to add a proviso, footnote (see for example (McCormack, 2013)) or addendum to research (see for example (R. Shaw, 2014)), stating that what is excluded, or remains to be done is to *apply* the theory or framework under discussion to ‘other’ bodies and its implications for race, gender, sexuality.

these back – there is a movement and capacity to queer these inheritances. This is where I find theories within feminist traditions, critical of settler-colonial and racialization, have a more convincing understanding of affect and the relations between materiality and meaning than Nonrepresentational Theory. Rather than think of the realm of the ‘nonrepresentational’ or the ‘pre-discursive’, these theoretical approaches allow for an understanding of how the affects, genes, lungs, airways, bikes and stuff of our bodies - is already implicated in material-discursive relations at *some* level.

By the time a handful of individuals meet at a specific intersection in Los Angeles for a group ride, their lungs will have particular configurations, inheritances that are not determined, nor entirely defined by past spatio-temporalities, but that nonetheless speak to very differential spatio-temporal and material-discursive configurations and possibilities. Some of the Latinx women I spoke to who grew up in Boyle Heights, for example, described how their mothers discouraged them from cycling as an unsafe activity for girls. How might the development of their lungs have differed from their brothers’? Or from girls who grew up in West Los Angeles? In this sense, the flesh of lungs should not be seen as a materiality in opposition to the discursively produced notions of gender and ‘The Body’, these are always imbricated in one another.

This aligns with the way Elizabeth Povinelli writes of relations of flesh and carnality in liberal settler colonies of the United States and Australia (Povinelli, 2006). For Povinelli, *corporeality* speaks to the political and juridical aspects of embodiment, whereas *carnality* speaks to flesh as something that cannot be entirely claimed by discourse, as an “unruly vector at play within these biopolitics” (p. 7) and the “socially-built space between flesh and environment”. The relationship between flesh and discourse, then, is not one of simple cause and effect, but it is, as Povinelli describes it, drawing on Elizabeth Wilson’s work

(E. A. Wilson, 2004), a relation of mutual obligation or vulnerability (p. 9). So flesh is not created *by* discourse, or vice versa, but the conditions of possibility for both are always vulnerable and indebted to the other. This is not a ‘representation’ that is ‘the same again’, it is not enfleshed in a predictable way, nor even in a way that *we/science/language* can understand, but it is nonetheless encoded into the flesh. What is revealed and becomes of that ‘encoding’ is not predetermined and fixed.

Thinking through cycling lungs in this way allows for a historicized and spatialized notion of enfleshment beyond the boundaries of the given ‘experience’ at hand. Ferreira Da Silva argues, drawing on Scott (Ferreira Da Silva, 2007, p. xxx; J. W. Scott, 1991), that much research that privileges experience does not adequately historicize this experience nor consider its imbrications in discursive power – i.e. the role of discursive power in how subjectivity is imagined, what categories (human, black, white, male, female...etc..) are used and what they are made to mean.

Additionally, to pose Mel Chen’s (2012) question, what happens when “we move beyond the exclusionary zone made up of the perceptual operands of phenomenology” (p. 209)? Privileging of the sensory relationalities and affectivities of experience in the ‘here and now’ risks denying the wider socio-material effects and conditions of a particular practice, such as cycling, and the ‘animacies’ of supposedly ‘inanimate objects’ such as *cycles. These forces not only have implications for *how* a given ride is experienced (how hard it is to breath, how fast you can go, how fit you feel, how ‘comfortable’ you are) but for configuring the very possibilities of riding at all (if, where and when you cycle, whether this is something you ever learned, want to learn, or consider as desirable at all).

Thinking enfleshment through cycling lungs is a reminder of how we are constituted by a surface area open to the ‘outside’ on the inside. Not only does it blur boundaries of

inside/outside of bodies, but it questions the ‘space’ we take up as necessarily ‘extensive’ (the surface area of lungs can be approximately 75 square meters) *or* bounded (see Juliana Spahr, below). Lungs adapt to what they do, and in this sense the notion of embodiment evoked is an active one. Thinking through lungs also cautions against a kind of fetishization (and naturalization and universalization) of sensory, cognitive, individualized human experience, and the anthropocentrism in the privileging of these human sensations and the scales, bandwidths, temporalities, spectra, to which humans have direct access. Instead, thinking through the enfleshment of lungs as always material and semiotic allows for a consideration of the highly uneven (and spatio-temporally distributed) ways in which bodily capacities are configured, as Juliana Spahr so evocatively writes:

Excerpt from Juliana Spahr’s Poem Written after September 11, 2001

The space of everyone that has just been inside of everyone mixing
inside of everyone with nitrogen and oxygen and water vapor and
argon and carbon dioxide and suspended dust spores and bacteria
mixing inside of everyone with sulfur and sulfuric acid and
titanium and nickel and minute silicon particles from pulverized
glass and concrete.

How lovely and how doomed this connection of everyone with
lungs.

(Spahr, 2005)

5.3 Light & heat: cycling exposures

One security guard outside a bank, to another after their shift, Los Angeles Arts District,

Downtown, 2014:

It's so hot, I'm going to get into my car and turn on the air conditioning so high

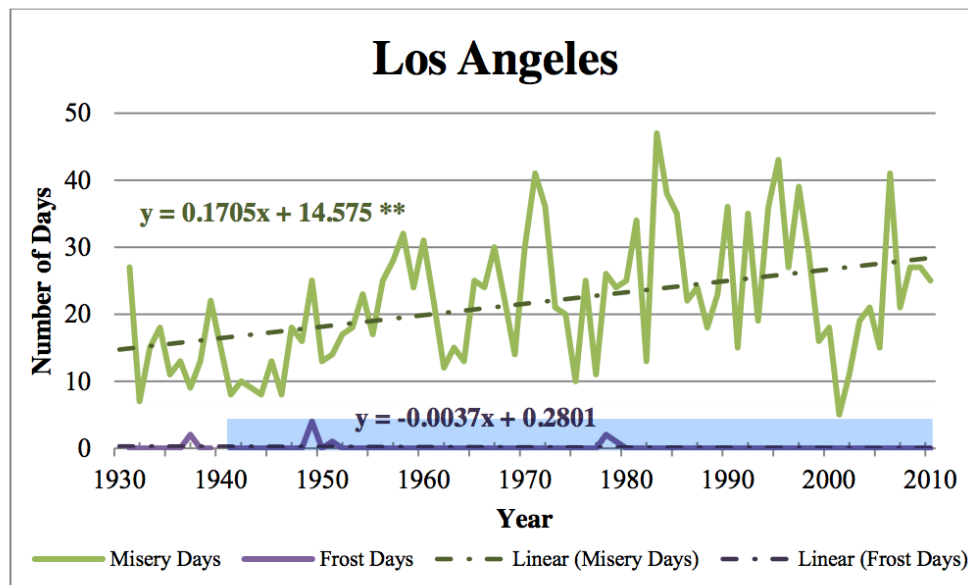


Figure 5.2: Los Angeles misery days

Photo source (Reed, 2015, p. 49) A misery day is classified as one with maximum temperature above 90 degrees Fahrenheit (equivalent to 32 degrees Celsius).

"Oh you're used to London, you'll be fine walking up there" said my host. Actually it's not the distance or the time spent walking, 30 minutes when you have something to see, when you loiter and take things in, when you pass people, when a city is a-buzz, that goes quite fast, but 30 minutes in the heat, waiting for cars to let you go, with a stream of speedy cars down Vine street...feels like a longer 30 minutes, feels like a 30min I didn't really want to do again.

Field notes, 3rd May 2015

The previous discussion on lungs and airways and the fragments of fieldnotes and data on heat in Los Angeles, above, might risk considering cycling bodies as inherently exposed.

In this section I discuss a way of thinking through cycling exposures that avoids attaching exposure necessarily to individual, bounded bodies – and hence placing responsibility for exposure onto the ‘choices’ (to wear high-viz, for example), behaviours (to ride in more ‘visible’ ways) or identity (race, gender or age) of the individual. I want to move away from technological or infrastructural determinisms of attaching exposure to cycling *per se*, or only to particular forms of ‘dangerous’ infrastructure. My discussion until now has emphasised the perceptible, imperceptible and affective cycling exposures arising from what might be considered ‘environmental’ factors – e.g. heat, light, pollution. In what follows I want to think through ‘exposure’ and vulnerability in light of constructions of ‘safety’ around inter-personal violence and danger. Affects of ‘comfort’, ‘danger’, ‘safety’ while cycling need to be understood within racialized, classed and gendered practices of policing, criminalization and racialized hierarchies of Humanness. In this section I complicate the above assumptions through a consideration of more general cycling exposures, before focusing on light and visibility.

The term ‘exposure’ and its Latin roots implying ‘placed outwards’⁸⁶, follows on from the above discussion of the enfolding of the insides/outside of enfleshment. I am also drawn to the term exposure because it captures some of the ways cyclists and cycling advocates speak of differential vulnerabilities in relation to other road users. Yet, I want to problematize general ‘exposure’ as a defining feature of cyclists, and of this as necessarily coded ‘bad’ or dangerous. Yes, the average cyclist buffered by 3 feet of air instead of the carapace (bumper, safety features, filtration systems) of the car, will potentially be more

⁸⁶ Thanks to Tim Schwanen for pointing out the roots of the word.

exposed to sun, sound⁸⁷, mud⁸⁸, wind, rain and the hazard of being ‘doored’ by a car. However, they may be less exposed to air pollution⁸⁹, boredom, stress, feelings of claustrophobia, the car stereo system, air fresheners, the effects of bodily inactivity, or the effects of travelling inside a vehicle (and more crucially, stopping abruptly) at speeds of more than 30 km/hour.

In this way, there is nothing *intrinsically* more exposed about a body cycling than a pedestrian walking down Vine street (above), a security guard working outside (above) or a car driver, there are just different discursive-material relations in which these bodies are enfolded in specific space-times. This matters, because automatic assumptions about the risks and exposures of cycling, who is more or less vulnerable, and who is responsible *for* the exposure and whose responsibility it is to mitigate, are not ‘neutral’, apolitical discourses. Nor should the need to ‘stay safe’ and ‘reduce exposure’ be taken at face value: Are all exposures associated with cycling necessarily *bad*? Is it even useful to characterise these exposures in terms of *good* or *bad*?

The notion of ‘flesh of the world’ considers human bodies as ontologically open - or ‘exposed’ – as a condition of being, surviving and thriving in the world as much as it is the potential condition for pain, bodily damage and death. Sunlight and heat exposure, for example, can both bring pain and discomfort as well as a sense of wellbeing and vitamin D photosynthesis (Reichrath, 2006; Wolpowitz & Gilchrest, 2006). It can contribute to dehydration, sunburn, heat stroke, melanomas - all depending on the specific contexts and

⁸⁷ Recent studies have sought to find links between traffic noise exposure and hypertension, see for example (de Kluizenaar, Gansevoort, Miedema, & de Jong, 2007) de Kluizenaar, Y., Gansevoort, R.T., Miedema, H.M., de Jong, P.E., 2007. Hypertension and road traffic noise

⁸⁸ There are accounts of bouts of illness associated with cyclists ingesting materials (e.g. mud) from the road surface (T. L. Stuart et al., 2010).

⁸⁹ Recent research comparing exposure by transport mode indicates that exposure to NOx and some compounds like Benzene may be highest in car commuters e.g. (Chertok, Voukelatos, Sheppard, & Rissel, 2004)

queer inheritances of a given body, the time of day and year, weather, skin covering and level of street canopy.

Similarly, cycling can mean higher levels of absorption of (ultra)fine particles (UFP), carbon monoxide, carbon dioxide, oxides of nitrogen, particle-bound polycyclic aromatic hydrocarbon and volatile organic compounds. These are emissions that have been associated with motor vehicles (S. Hu et al., 2012) and higher exposure has been associated with higher mortality and morbidity (Jerrett et al., 2005). The effects of these pollutants aren't necessarily directly proportional to ambient 'exposure' as higher breathing rates (e.g. during exercise) can mean higher absorption at the same ambient concentrations of pollutants (Boogaard, Borgman, Kamminga, & Hoek, 2009; Panis et al., 2010). Existing conditions, such as diabetes, are thought to increase sensitivity (Jerrett et al., 2005, p. 733). The effects of these exposures on a particular person will depend on a vast array of factors, not all of them known – the time of year, day, wind speed and direction, distance from the emissions source and particular actions such as overtaking vehicles, waiting at traffic lights or passing large intersections (Boogaard et al., 2009). It could be argued that these exposures are deeply contextual and specific – as each cyclist will have particular enfleshments. They are also indeterminate in the sense that the relationship between a particular exposure and its eventual enfleshments in and through a body, are not necessarily predictable, linear or known. The particular ways in which the effects of sun, pollution, noise, heat, stress, adrenaline, enjoyment and exercise interrelate through and within a given lungs-body-immune system and other enfleshed inheritances are singular.

The examples above point towards exposure not as a condition of the *inside* of the body, nor something that comes from *outside* it, but that the affects - whether joy, pain, damage, growth, ache, fear, exhilaration – are an enfleshment that occurs as a relation, between, for

example, ambient air pollution, breathing rates and the queer inheritances of the flesh that condition the lungs and a heart. Importantly, however, these enfleshments are not simply based on contingencies occurring in the specific space-time or event of cycling.

I ache everywhere, and the burning in my neck from the sun is distracting. Redneck. Yeah, let's find yet another demeaning word for people who don't have the luxury to sit in their 'ego-boxes' (as the guy in the Cycle 20 store called cars). (I know, I would have that luxury, I could). The only other people out there in the sun (there was a ! red warning on my phone for heat today, 31 degrees at 11 a.m.) in the areas I cycled through until about the 1st street turnoff? I'm not sure. The only people I passed were workers in the gardens around the posh houses. [...]...green grass, pristine.

Field notes, 2nd October 2014

In Los Angeles, those exposed to sunlight through their work in gardening, food production or construction work, for example, are disproportionately lower paid workers of colour. For example from 2015 data, 70% of LA construction workers were Latinx (B. Walsh, 2017). Lower income, people of colour are also disproportionately likely to be reliant on public transport, walking and cycling. Getting in the car to avoid this particular exposure may be less of a 'choice'. Air pollution levels are often worse in areas with higher populations of people classified as non-white and areas of higher poverty⁹⁰(O'Neill et al., 2003). In turn, these exposures disproportionately lead to worse health effects due to underlying vulnerabilities (O'Neill et al., 2003). Extreme heat events, for example, have worse effects for people who are older, less wealthy, have prior health conditions, no air conditioning, and live in urban centres (Reid et al., 2009).

Tree canopy in urban areas can reduce exposure to UV rays, and ambient temperatures through evapotranspiration and shade, however the cover of urban canopy is unevenly

⁹⁰ Although some research on health outcomes maps race and socio-economic position onto each other (O'Neill et al., 2003) point out that these are two different 'variables' with different health effects.

distributed, with economically disadvantaged areas tending to have lower levels of tree coverage⁹¹ (Moreno, Tangenberg, Hilton, & Hilton, 2015). Although the causality is debated, higher temperatures in some U.S cities have been correlated to higher crime rates (Hipp, Bauer, Curran, & Bollen, 2004; Sahagun, 2014), potentially increasing or compounding the already spatially, socio-economically, racially uneven vulnerability of bodies to violence. The exposure as a cyclist or pedestrian to the risk of death or injury on the roads in the “capital of hit-and-runs” (Whitcomb, 2015) is not evenly distributed among the population either. California-wide research has shown that people racialised as Latino and African American are over-represented in pedestrian fatalities (Loukaitou-Sideris, Liggett, & Sung, 2007). Clearly these exposures cannot be attributed solely to individual bodies, nor can they be understood as simply ‘environmental’ or technical hazards to be objectively measured and overcome.

The uneven configuration of exposures needs to be understood as deeply political and not simply a matter of individual bodily enfleshment. Wider spatio-temporal inheritances subtend individual bodies – providing the conditions for particular enfleshments. This is where criticism of Merleau-Ponty by feminists (e.g. Irigaray and Grosz in Fielding (2006)) and critical race theorists (Rivera, 2015) rest: Does Merleau-Ponty’s notion of embodiment abstract away structural violences, does it presume a white, male, able-bodied, heterosexual bodily experience by default? It could be argued that the body in Merleau-Ponty’s notion of the flesh of the world is one that presumes a comfort and ‘safe’, receptive openness in and to the world (e.g. reading of Fanon by Rivera (2015)), one that cannot be presumed to be a fundamental characteristic becoming of all bodies. What if your body opens to a world that does not consider it fully-human before it is even born, considers it

⁹¹ Interview with TreePeople staff member, and www.treepeople.org

‘abnormal’, dangerous, wants it changed, used, improved, bettered, healed, fixed? As Deleuze & Guattari (2013, p. 179) put it, perhaps Merleau-Ponty’s particular flesh of the world is “too tender” (p. 179)? Rather than assume a comfortable neutral openness of and to the world, the concept of the flesh needs to recognize the uneven distribution of violence and energies that constitute it. For Weheliye (2014) the flesh: “operates as a vestibular gash in the armor of Man, simultaneously a tool of dehumanization and a relational vestibule to alternate ways of being that do not possess the luxury of eliding phenomenology with biology” (Weheliye, 2014, p. 44)

#SafetyIs

There’s this idea that our jobs as people who care about transportation is just getting people from point A to B and maybe making it a little pretty on their way. But that’s not only our jobs, I hear everyone say ‘safety, safety, safety’, but for who? Who is safe in our communities?

(Tamika Butler <https://www.youtube.com/watch?v=T4R7MuNBMvk>)

While cycling later in the evening in City Terrace I turned my lights off once, just for a few moments until I realised I was more likely to die by *not* being seen. It felt as though I was *too* visible, alone on the street, as though the darkness would be safer. **Field/personal reflections, 2015**

While riding in Los Angeles I heard a lot about the “safety” of cycling through different neighbourhoods, the safety of cycling as a woman on your own⁹², or the safety of cycling under a freeway underpass. The forms these discussions took and the meanings of safety attached to particular areas of the city, times of day and night and the imagination of whose bodies were ‘safe’ or ‘dangerous’ was tied intimately with racialization, gender and class.

⁹² A female interviewee spoke of never going on rides unaccompanied, another, Jenna Rollman – spoke of riding only with leg-powered cyclists in part so they were more visible on the road.

My own reflections (above) need to be seen in light of my particular queer inheritances, and in particular my enfleshment of structures of white supremacy and gender. In this way, turning on or off lights should not be seen just as an individualized ‘choice’: A previous frightening experience riding at night alone had made me feel on edge, hyper-vigilant and aware of being visible. As a relatively small person who is identified mostly as young, white and female, riding alone in the dark in the late evening, in an area with few people on the street, I have been ‘enfleshed’ into considerations of myself as a potential ‘victim’ of danger. I had not stayed in City Terrace – a largely Latinx neighbourhood in East Los Angeles - for long, and had been confronted with expressions of surprise when I mentioned to people where I was staying, something I could not entirely decipher, but seemed to imply something about safety.

While these subjective experiences need to be taken seriously in policy making, as Tamika Butler pointed out, whose notions of safety are taken into account and in what way? There is a risk if perceptions such as mine, above, were to be taken at face value without an understanding of the ways in which my fear was enfleshed by wider narratives embedded within white supremacist dividing lines between bodies as safe/dangerous. This notion of enfleshment of fear and perception questions any neat divisions between subjective/objective ‘truths’.

Yet, simply dismissing ‘subjective truths’ is also deeply problematic, as it then becomes too easy to dismiss the violence of, for example, racist, ableist, transphobic, homophobic and sexist microaggressions registered through bodies in ways that may not be readily put into words. Claudia Rankine’s poem expresses this; “...and how you feel is how you feel even if what you perceive isn’t tied to what is... What is?” Rankine (2015, p. 152) as quoted in Winnubst (2016). This does not mean that the phenomena, such as microaggressions,

do not exist, just that modes of perception, recognition and their expression tend not to be registered in the language of objective and universal ‘truth’, nor is their truth readily acknowledged. As Rankine writes, such acknowledgement “doesn’t sit comfortably inside the communal” (Rankine, 2015, p. 153).

By starting with these examples I want to problematize making too quick a link between ‘safety’ and notions of visibility. Bodies on cycles tend to be more exposed to others’ vision⁹³, (mis)recognition and response than bodies in vehicles. For some this exposure and recognition is expressed as desirable. Trish, who I interviewed in Pasadena, described how on her daily commute to work through a tree-lined suburban neighbourhood, she would wave and say hello to a woman who always sat out in her garden reading. This was one of her favourite parts of the commute and something she knew she wouldn’t be able to do in a car. However, in other contexts decisions are made by cyclists to weigh up risks and forms of exposure, some of which conflict with one another. Whether to ride on the road (and risk the speed of cars) or sidewalk (and risk being arrested), or to wear a helmet or not – some people I spoke to claimed they were treated more ‘carefully’ by cars if they didn’t wear one⁹⁴.

However, being (mis)identified as a gang member, homeless or undocumented, threatening or vulnerable, a woman, queer, trans, a person of colour or from the ‘wrong’ neighbourhood or street may be ‘unsafe’. The risk of bodily violence while out on the street is not an exposure shared evenly across Los Angeles – spatially or demographically. Persons of colour are disproportionately likely to be stopped, frisked, arrested by the LAPD

⁹³ I speak of vision here, not to denigrate other senses, but to consider the specific ways in which bodies are recognized, identified and categorized while cycling, it is vision – or light - that is most likely to be the sense through which this is done (be they humans, surveillance cameras or car computers). Arguably another important way of being ‘visible’ on a bicycle is being tracked through your data on google maps or Strava.

⁹⁴ Recent research on passing distances cars gave cyclists in relation to different forms of safety aids worn by cyclists, supports this perception (Walker, Garrard, & Jowitt, 2013).

(even though statistically less likely to be carrying a weapon or drugs (Ayres & Borowsky, 2008))⁹⁵.

In terms of exposure to police surveillance, neighbourhoods of Los Angeles⁹⁶ are subject to different styles and levels of policing and being racially and socio-economically profiled can mean cyclists and pedestrians are particularly exposed to stopping, harassment and detainment. Sometimes this exposure is literal:

He has stories of his co-workers, they just know the police, they know their names, they stop them all the time, like his brother had to show his new tattoos when he got them, because there's all this gang prevention stuff, like this weird stuff, where you have to show your tattoos when you're just walking down the street to the store

(Interview, Liz, Culver City, LA, 15th November 2014)

Young black students involved in the Youth/Police Violence project with the Invisible Institute in Chicago describe some of the effects of exposure to police violence:

"You can't even hang out no more, like if they see you as a group, they stop you" "It's restricting, you can't do stuff that regular people would, because it's like, you're being harassed" "If I'm outside with my friends, if I see the police, I cross the street so I walk by myself so they don't target me" "If you got dreads you're an easy target" "pick our places where we got to go, we know how the police are in certain neighbourhoods..." "makes you want to change your routes"

⁹⁵ This is based on 2008 data for pedestrian and car stops, data on bicycle stops and citations are not available, and the LAPD are no longer recording the data from which the 2008 report was compiled. A database is currently being set up by the LA County Sheriff department in order to collect data on traffic collisions and citations <http://www.californiabids.com/bid-opportunities/2015/10/07/6613687-Traffic-Collision-and-Citation-Database-System.html>

⁹⁶ One interviewee spoke of this as an east-side and west-side difference: "I was born and raised on the west-side...I ride my bike there, I do stuff over there [the eastside], but I don't live there...but I think there's generally more police presence and more interaction with the police, than there is over here. We just call them, they don't come get us, we mostly just call them when there's trouble. Rather than there, they're on the street all the time, doing patrols." (Interview with Liz, 14th November 2014).

**Transcription of video at Youth/Police Conference: How it Makes Me Feel-Youth, April 2015
(University of Chicago Law School, 2015)**

These differentiated exposures to law enforcement, violence and the threat of violence might be different from exposures to air pollution or the risk of traffic crashes, yet they also have very material consequences. They enflesh bodies in particular ways, mark them by forms of trauma and force adaptive strategies in route use, mode use⁹⁷, body comportment and self-presentation (Carla Shedd and Herschella Conyers speaking at the University of Chicago Law School, 2015). Some of the youth at the Chicago conference expressed the treatment by police made them feel disrespected, like ‘less of a man’, like caged animals - less human: the racialized biopolitics of the flesh internalized.

Ironically, the relative exposure of ‘being seen’ whilst on a *cycle is specifically employed as a tactic by law enforcement and security. Rhetoric around community policing emphasizes officers being seen and being able to talk to ‘the community’ (McQuade, 2015). In Downtown Los Angeles, the “highly visible” Purple Patrol is a team of safety officers on *cycles employed by the Downtown Center Business Improvement District’s “Safe & Clean team”⁹⁸. The LAPD⁹⁹ also has its own Bicycle Patrol, which is seen to provide both “greater visibility in high crime areas that are more difficult to patrol by motor vehicle”¹⁰⁰ and “decreased visibility” providing an “effective approach to crime

⁹⁷ In an Interview with Josie J (17th October 2014) he explains also how there are a lot of DUI’s (tickets for Driving Under the Influence) in Los Angeles, something people don’t really talk about, but that they end up using a bike to get around while they lose their license, “and then they really get into it” so then they’re kind of ‘forced into the bicycling community’ while their license is suspended. (18.14)

⁹⁸ http://www.downtownla.com/5_02_safeAndCleanTeams.asp

⁹⁹ From the LAPD website From the bicycle coordination Unit:
http://www.lapdonline.org/special_operations_support_division/content_basic_view/1030 : Today, between 200 and 250 bicycle officers are deployed on a daily basis in all 18 Areas of the LAPD. Approximately 1,500 officers have completed the LAPD Bicycle Patrol School, which provides officers with five days of intensive, certified training in pursuit bicycle handling, bicycle safety, night patrol techniques, shooting, and maintenance.

¹⁰⁰ The emphasis on the website is placed on retail areas, beaches and public housing.

surveillance”. Yet, far from reducing problems of criminalization, it can be seen to deepen its hold and strengthen police powers, the term ‘community’ simply providing a “euphemism for an effort to build grassroots support for policing and deputize community organizations and residents as agents of the carceral state” (McQuade, 2015).

Rather than reaffirm these racialized, geographically-determinist, police-centered and criminalizing notions of neighbourhood safety, the #SafetyIs social media campaign of the Night Out for Safety and Liberation, started in 2013, seeks to redefine what safe neighbourhoods and communities mean (Night Out for Safety and Liberation, 2016). Individuals and community groups have used the hashtag #SafetyIs on Twitter to open up wider conversations around how social justice issues of work and housing insecurity, documentation, mobility, racialized (policing and police) violence and unhealthy environments are key questions of safety.



Figure 5.3: Tweet using hashtag SafetyIs, August 15th 2017

While exposure may be our ontological state of becoming as humans, a requirement for life, and not readily classified as a ‘good’ or ‘bad’ state, the production, distribution and harnessing of exposure needs to be understood as a functioning of power. In this way ‘safety’ as the reduction of exposure to harm is employed in deeply political ways. As I will discuss further in Chapter 6, individualizing the responsibility to protect ‘yourself’ from exposure to outside risks is a central imaginary of neoliberal governmentality. The

circulation of this notion of the cycling subject thrives in part due to the profits to be made from propagating it (consumption of face masks, hi-viz clothing) and the ways in which it relieves governments, and powerful vested interests in automobility of their responsibilities for harm. However, ever-more knowledgeable, lit-up, and protected cycling bodies themselves – unless part of a far wider transition - do little to directly mitigate the sources of ‘harms’ such as air pollution, bodily violence or climate change. Rather, the procurement of individualized protections, such as: Health insurance, a house in a ‘safe’, cycle-able neighbourhood, further from freeways, where the police comes to help if you call, an SUV with a high safety record and an expensive *cycle that is fast enough to ‘take the lane’, merely provides a measure of protection from exposures deemed undesirable and enhances those desired – for those cyclists who, in Wynter’s terms have managed to attain the ethno-class criterion of being human (in Scott, 2000, p. 16)).

Similarly, the exposures and ‘danger’ enfolded into specific racialized and gendered bodies and spaces, need to be understood as a technique of power in the everyday functioning of the carceral state through racial capitalism. Narratives of individual responsibility and criminality serve again to displace responsibility from wider social, political and economic discussions around access to the conditions of life, to access ‘legality’ through documentation, water, food, the right to work, fair pay, adequate housing, healthcare, sufficient mobility. It also serves to hide the systematic ways in which the ‘protections’ and privileges (of whiteness, the ability to remove yourself from harmful exposure) afforded to some are *due to* the burdens of harmful exposure (dehumanization, exploitation of labour) placed on those deemed ‘other’. It is easier to place responsibility for the inability to mitigate harmful exposures (lack of healthcare, lack of education, geographic location, poverty) onto individuals and populations themselves and argue for their ‘inclusion’ or ‘uplifting’ (e.g. out of criminality, into ‘safe neighbourhoods’, towards

‘healthier lifestyles’) rather than question the systematic distribution of material-semiotic “exposure” in ways that might call for notions of justice that ‘cost’ something to those privileged within the system.

5.4 ‘Taking the lane’: enfleshments of time-space

“This plan recognizes the importance of our City’s streets as the lifeblood of our health and economy and seeks to prioritize resources to transform and maintain our streets as complete streets that serve all users, now and into the future.” (pg 31-32, LA Mobility Plan 2035)

“...notions of the body always imply, and in turn produce, notions of spatiality”

(Grosz, 2002, p. 35)

When I was a regular cyclist I used to go out and ride in L.A. regularly, and do organized rides and all kinds of stuff, but it’s like now that I’m on a hand cycle, it’s really closed off to me, and it’s a place that I won’t go anymore, unless...I do the LA marathon, it’s the only time I really ride in L.A. anymore. It went from being a really good open place for me to cycle, to a place that is really threatening to me, just based on the kind of bike I have and my visibility and the reactions I get in traffic, you know I’m wider, my bike is wider, so there are areas I just can’t go anymore. So it does just change.

Jenna Rollman, phone interview, 2015.



Figure 5.4: Jenna Rollman,

Photo source: Inland Empire Women Cyclists [Meetup.com](https://www.meetup.com/Inland-Empire-Women-Cyclists/), 2015



Figure 5.5: Jenna Rollman (Image courtesy of Jenna Rollman)

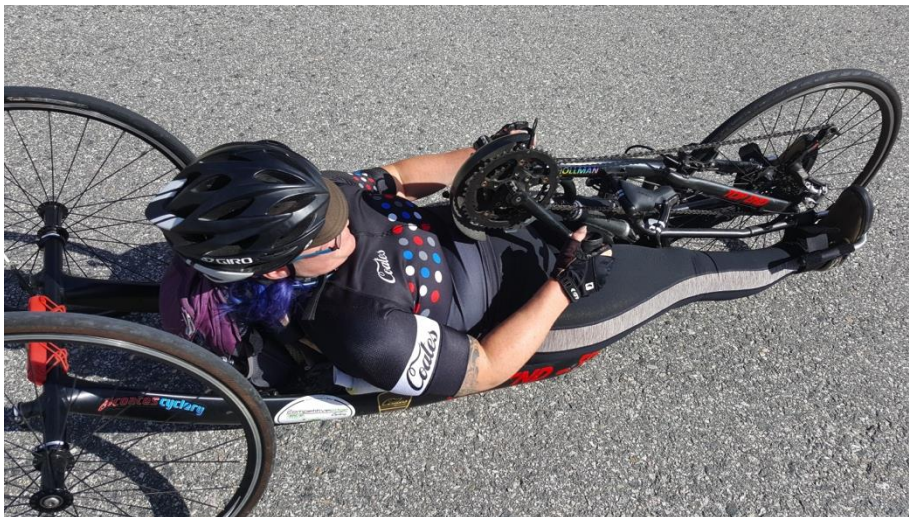


Figure 5.6: Jenna Rollman (Image courtesy of Jenna Rollman)

For Jenna Rollman, the width of her hand cycle, her vertical positioning lower down in relation to the cyclists she refers to as ‘regular’ means she feels invisible (see figures 5.4-5.6). She has to place a flag on her hand cycle and chooses to cycle with leg-powered, upright cyclists, in part to make herself more visible to other (particularly, faster, larger, heavier) road users. Far from being simply a practical matter, the way she takes up space

on the road and is deemed visible or invisible is political and reflective of the dominant arrangement and relations of bodies (auto-, pedestrian and cycling bodies, alike) within street space. If cycle lanes and streets were designed specifically for the dimensions and speeds of Jenna's hand cycle, or if the dominant mode of mobility on LA streets were pedestrians and runners, as in the LA marathon, her visibility would not be the same kind of issue.

While the last section focused on visibility and exposure largely in terms of the human gaze and recognition, in this section I think through the way cyclists 'take-up' space and time (or space-time (Massey, 1999)) through their relative spatio-temporal configurations: The materials, proximities, affordances of speed¹⁰¹, and the position on the road, in relation to other road users. Thinking through different ways cyclists enflesh and are enfleshed through time-spaces in Los Angeles, I will explore both how enfleshment is understood spatially and temporally, and what thinking through enfleshment means for understandings of space and time.

Entitled to 'take the lane'?

Power through taking up space and time struck me with icy cold shame on reviewing film footage after coming back from fieldwork. I had been filming with a GoPro camera on my handlebars, while cycling on the sidewalk under the Silverlake 101 freeway. The angle and lighting visible through the camera as opposed to my eyes and the slowing down of the footage allowed me to see what I hadn't in person on my bike: A man with a shopping trolley got off the sidewalk and onto the edge of the fast-moving road to let us pass. There

¹⁰¹ Although the section after this one will focus more on speed, it cannot be entirely disentangled from a discussion here on enfleshments of time-space (e.g. in the notion of 'design speed'). In some respects faster vehicles require more space, as average speed of a vehicle is built into the safe geometric design of a roadway. The higher the speeds the more banking is required, the larger the radii of curves, and the more gentle the required topography.

is no way of knowing why he made way for us – was it because we were going faster, because he knew we wouldn't see him as our eyes didn't have time to adjust to the darkness under the overpass, or was there some sense of differential entitlement to that space?

This experience ties in to some of the dominant narratives I encountered in L.A. about the 'appropriate' ways cyclists should take up space, whether on the street, the sidewalk or 'taking the lane'. These reflect very particular discourses around normative bodily comportment on a *cycle, where riding 'assertively', out from the curb and along with traffic (i.e. 'taking the lane' or 'primary position') is considered by some to be a superior and safer mode of cycling, taken up by 'confident' riders. In an interview, LA cyclists John and Liz reflected on this:

John: I think it might, it might just be...an entitlement issue, well not really, I feel like I belong on the street. I feel like, it's not entitlement, I don't know if that's the right word, a confidence issue. I feel like I shouldn't be forced onto the sidewalk, going 3 miles an hour avoiding things...and if they're not going to pay for a lane for me, I want to force them, and I have the faith that these people aren't going to run me over, I have the confidence that... like I'm a part of this society and that...[Liz: the system works for you to some degree, even though it doesn't to such a great degree...].yeah, right.

Liz: whereas, a lot of the Latino workers we know don't have papers, and are just doing...living on the edge, you know, they don't feel like they can call the police...

(Culver City, 15th November 2014)

Another interviewee in Los Angeles claimed that encouraging cycling safety should not be about paint on roads or building cycle lanes, but about getting people to take the lane. He, a white, male American citizen and professional contrasted himself to women and Latinx immigrants who, he said, hug the curb and risk getting doored (being hit by an opening car door). Yet, he set himself apart from lycra-clad testosterone-fuelled male cyclists. Taking the lane, in this case seems to represent a kind of liberal, 'reasonable', white masculinity.

Rather than ask what the discursive-material conditions are that might dis/enable this form of *cycle-body comportment, the assumption is that taking the lane is superior and more ‘rational’; supposedly ensuring visibility on the road, avoiding vehicle doors and unsafe overtaking.

The bodily imaginary enfolded in taking the lane is one of an empowered, righteous, competent and entitled Human Body. I would argue this is not just an ‘embodiment’ of a discourse or a performance of a particular identity, rather it is a series of material-semiotic capacities, recognitions and privileges that become enfolded to make ‘taking the lane’ a more comfortable and more likely practice. In contrast, some of the politics of visibility and recognition of racialization, sexuality and gender outlined in the previous section, mean that for some cyclists, higher visibility on the road may not be desirable. Cycling on a poor quality and badly maintained *cycle, too can make it harder to stay abreast with the speed of cars and being ‘too slow’ while taking the lane risks being the target of driver aggression or police scrutiny and stops¹⁰².

Dominant discourses, policy and design of city spaces, bikes and even cycle clothing have particular assumptions of the ‘normative’ or mathematically couched “average” human body, shape, size and speed designed into their very fabric. The assumption of such a ‘norm’ belies the bodily-legal-social differentiations and specificities of the rider, the proximities and qualities of the *cycle, clothing, other road users and the variations of

¹⁰² Under the California Vehicle Code a cyclist on the highway (a public road or street – not a ‘freeway’) has to comply with many of the same rules as a car <http://johnforester.com/Articles/Government/Calif%20Veh%20Code.htm>. A vehicle (including a *cycle) that is slower than cars needs to stay right, and allow cars to pass where possible (this somewhat contradicts the ‘taking the lane’ advice). The bike needs to have working lights and cannot be too large or small for the operator. It is not implausible to see how some of these laws are a matter of interpretation <http://ocbike.org/bicycle-law/graduate-degree-in-bicycle-law/>

weather and other condition, which means it is never possible to take up the ‘same’ position on the road, or re-trace the ‘same’ ride as mapped routes through Los Angeles.

Rather than thinking of a replicable cycle route through the fixed ‘mapped’ space of Los Angeles or the positioning of a cyclist within road space as a ‘given’ position, thinking through time and space as enfolded draws on relational and feminist (Secor, 2013) conceptions of inter-related space and time. Space in this view is not an “ether” through which forces produce effects (Grosz, 2002, p. 163), nor a fixed, non-agentic backdrop *through* which mobile, active bodies travel or time and history affect change (Massey, 2005). Spatio-temporal configurations, proximities, rhythms and mobilities are produced through relations of power. As Michael Brown (2000) argues, thinking through the spatialities of ‘the closet’ and drawing on Lefebvre’s production of space (Lefebvre, 1991): Space is a ‘materialization of power’ and leaving space ‘unthought’ and ‘simply there’ diverts our critical attention away from the social forces that produce spatial relations and meanings (p. 62).

Feminist theoretical conceptions of space and time, in particular, have drawn out the centrality of (specific, situated and material) bodies to notions of spatiality (Grosz, 1995a, 1995b; Katz, 2001; McDowell, 1983; Riach & Wilson, 2014). Feminists have questioned binaries which situate ‘bodies’, bodily spaces and allied practices, experiences, differentiations and affects, as ‘private’ or ‘personal’ spaces *as opposed* to public, political, global scalar notions of space. They have sought to think the ‘intimate’ together with and through the global (Pratt & Rosner, 2006), the corporeal with the urban as body-cities (Grosz, 2002) or ‘urban flesh’ (Weiss, 2005), and the territorialisation of black women’s bodily space through geographies of transatlantic slavery and white supremacy (McKittrick, 2014). Bodies are both produced through space, and productive of space,

through a ‘field of action’ (Riach & Wilson, 2014). For feminist theorists this enfleshment of spacetime, is never ‘neutral’, always produced through relations of power which configure bodily spacetimes *differently*.

This differential enfleshment of spacetimes through cycling also occurs in relation to the particular configurations of *cycles. Just as cars have been considered an extension of bodily spatial boundaries (Canzoneri et al., 2013) and sense of ‘self’. The Three Feet for Safety Act, passed in California in September 2014 (see fig 5.7), offers a further way of exploring this enfleshment of space.



Figure 5.7: “I Give 3 Feet: It’s the Law”

The Three Feet for Safety Act Came into effect in the State of California on 16th September 2014.

The law requires motorists overtaking cyclists to give them 3 feet (approx. 90cm) of space, otherwise a fine of \$35 is levied or \$220 if “a collision occurs between a motor vehicle and a bicycle causing bodily injury to the operator of the bicycle...[..]” (“Vehicles: bicycles: passing distance,” 2013). Far from a neutral, abstracted distance of 3 feet, this ‘space’ needs to be considered through the textures and meanings of its enfleshment: The air, the parts of a cycling body, flapping clothing, the legal protections offered and the ways these are enforced. The 3 feet can in an instant become two, one, or a collision, with hands on a steering wheel pulling to the right or a cyclist veering out of the way of a pedestrian, car

door, a pot hole, a heat-cracked pavement. The three feet is supposed to act as a safety ‘buffer’¹⁰³ to protect the cyclist, as part of ‘courteous’ and safe driving (NHTSA, 2015), enforced through relying on law enforcement seeing and adjudicating, followed by a fine if it can be proven.

How differently are these three feet enfolded (by body-cycle-law-street-enforcement assemblages) than, say, the more-than three feet of the crumple zone or the crash box, variations of which have been designed into car bumpers since the 1950s (Raiciu, 2016)? In a sense, the space of a bumper is a materialization of the car’s potential speeds. The bumper is built to absorb and dissipate the force of an impact, slow down deceleration, and so minimize damage (and the costs associated) to both the human passenger and the auto-body. It was only in the 1970s and early 1980s that the safety of pedestrians and cyclists in the event of a collision was taken into account in the design of cars (Simms & Wood, 2009). Contemporary research, regulations and laws on car design for cyclist and pedestrian safety are still lagging behind that of occupant safety (Simms & Wood, 2009, p. 99). In particular, some of the vehicles deemed the safest for occupants (e.g. large sports utility vehicles) (Insurance Institute for Highway Safety Highway Loss Data Institute, 2015) are some of the most dangerous for pedestrians and cyclists¹⁰⁴.

Distributions of labour, risk and responsibility in ‘the governance of the self’ on the road thus need to be understood through a ‘self’ that is enfolded through – or indeed *as* - specific mobile spatial technologies, speeds, materialities (Merriman, 2005) and relations of power. Specific discourses of individuality and responsibility apply to spatial

¹⁰³ According to the League of American Bicyclists, nationally 40% of cyclist fatalities are due to unsafe passing (Balmer, 2014).

¹⁰⁴ Numerous studies have shown that sports utility vehicles are more likely to cause serious injury to pedestrians than smaller vehicles (J. Hu & Klinich, 2015).

arrangements and conceptions of individualized ‘right to space’. These result in a kind of Darwinian spatial problem with different road users vying for the limited resource of road space, carving up the road in segments or discourses of ‘sharing’ the road between different categories of users. Arguably, without intervention, then, there is a form of on-road ‘arms race’ of mass, speed and space with the most armoured, fastest, highest bidder ‘winning’.

This ‘arms race’ is not limited to the timespaces of the street. In LA I noticed dedicated cycling lawyers advertising on the side of cycling websites and magazines. The website *BikeWoke.com* set up by UCLA triathlete Nako Nakatsuka in the wake of her serious crash, advises cyclists on how to ‘protect themselves’ before and in the event of a crash. Including tips on wearing helmets, being seen, checking the weather and bike maintenance, there is specific advice on what to do when hit: Go to the hospital in an ambulance (even if adrenaline means you do not feel pain), take photos, grab witnesses, ensure police reports are written and call a lawyer. Nako was rear-ended by a driver of a vehicle and subsequently sued by them for damages, had she done any of the above there would have been an evidence trail to protect her. However, the barriers to achieving any of these ‘protections’ are high: Gaining witness accounts or police involvement and a report may not be possible or desirable for all riders and an ambulance ride can cost around \$1000.

Fleshy openings in space-time

What if, in contrast, the time-spaces of the street were imagined with a different spatio-temporal imagination, wherein interdependent enfleshments, shared conditions and violence, affects and relative exposures were emphasized? What openings are there for reconfigurations of politics if the ‘time-space’ taken up by different vehicles were not simply understood through the imaginary of an arms race in the ‘here and now’ of a street?

Considering the time-spaces of a street as a configuration of power means asking wider political questions about what a street is and needs to do, for whom, and whether some effects produced (speed of flow, prioritization of the time-spaces of vehicular traffic) are worth the ‘unwanted’ and contingent effects (e.g road deaths and injuries). Is it a utilitarian speed-maximizing time-space of competition, prioritizing the most ‘powerful’ – both in terms of on-the-road relations of power, and in terms of the monetary and lobbying power that constitute the morphology of the street and the legal framework around its use and flows? Is it tailored towards the space-times of consumption, shopping, eating, drinking?

Thinking through these configurations as political also requires a reframing of notions of responsibility within the time-spaces of streets. A notion of streets as ‘containers’ for different-but-equal actors responsible for their individualized choices and behaviours, breaks down when streets are seen as enfleshments of configurations of power. Treating all cyclists as one category, cyclists as ‘vehicles’ and equivalent in terms of rights and responsibilities to drivers under the law (e.g. in particular sections of California Vehicle code) makes very little sense when fleshy particularities are taken into account.

A campaign that highlights these relations of power on streets is [#CrashNotAccident](#), started by US not-for-profits; Families for Safe Streets, Transportation Alternatives and the Vision Zero Network ([crashnotaccident.com](#)). They argue for the reframing of the language around pedestrian and cycling injuries and fatalities away from that of an ‘accident’. For some advocates this is interpreted as relating *cycle deaths to the explicit ‘choices’ made or not made by vehicle drivers (Wilborn, 2016). However, within a relational understanding of how the space-times of a street are ‘taken-up’, the responsibility cannot so easily be displaced onto *another* individual road user. This does not mean absolving individuals of any responsibility for their actions, but it means also

retaining a focus on the wider social and political ‘givens’ that remain unquestioned – where road spaces are geared towards speed and efficiency and where provisions for vulnerable road users such as pedestrians and cyclists are systematically under-funded and under-protected. Council members in Los Angeles have spoken about ‘people [in hit-and-runs] left on the side of the road like wounded animals’ (Councilman Mitch Englander) and data on injuries and deaths has only just started to be collected (Beck, 2013). In this sense ‘justice’ is not done in the name of a cyclist killed by a hit and run driver, when that individual driver is found and locked up. Nor is justice necessarily done by winning a \$6.5 million lawsuit against the City of Los Angeles for hitting a pothole¹⁰⁵ while cycling. Rather, justice becomes about a wider political recognition of entangled responsibilities, displacements and distributions. Through notions of enfleshment, a cycling fatality is constituted through relations within which we are all implicated: the norms and requirements of speed and efficiency, relative exposures and energetic relations. Vitrally, these go beyond the ‘here-and-now’ of the space-times of a particular ‘dangerous’ street, a particular ‘dangerous’ driver or a particularly reckless, or ‘invisible’ cyclist.

Taking a wider imaginary than the ‘here and now’, the time-space configurations of a motorized vehicle, for example, could be seen as a mobilisation, a temporary ‘cohesion’ of large swathes of time-space. The materials that compose a vehicle and fossil fuels have not only come from geographically dispersed (deep, far) but have required processes over a vast expanse of geologic time. This vast spatio-temporal condensation is combusted (Clark & Yusoff, 2014) and transformed into a particularly dense configuration of speed and force. In contrast, a *cycle, while still requiring significant mining and fossil-fuel input

¹⁰⁵ <https://www.bicycling.com/news/when-cyclists-sue-the-city>

in its production, for its day-to-day running requires inputs (food energy) that have less deep of a space-time footprint (Hird & Clark, 2013).

This spatio-temporal imagination aligns more with non-linear accounts of time (and to a lesser extent, space) espoused by feminist and critical race theorists in particular. As Doreen Massey (2005) argues, a clear demarcation and delineation of times and spaces as ‘the past’ or ‘other spaces’ allows for violence to be cast as ‘over’, as ‘pre-history’ as outside of the spaces of calculation and responsibility (e.g carbon footprint accounting areas, pollution jurisdictions).

By seeing the process of enfleshment as spatially and temporally distributed, as displaced from the ‘here and now’, this seriously problematizes neat equivalences between embodied road users. It breaks open the myth of linear time and bounded space that is required of a colonial-capitalism that needs to relegate some people, societies, ways of life to the past, and to ‘othered’ spaces and categories, beyond recognition and ‘relevance’. Claudia Rankine (2015) calls forth the effort and weight the haunting of racialized violence exacts in the flesh when she writes: “Yes, and the body has memory. The physical carriage hauls more than its weight” (p. 28), and: “You can’t put the past behind you. It’s buried in you; it’s turned your flesh into its own cupboard” (Rankine, 2015, p. 63). For Avery Gordon (2008), haunting is a way of thinking through the ‘meeting of force and meaning’ (p. xvi) in racialised capitalism – particularly the kinds of everyday impacts of systemic violence that are denied or considered ‘in the past’. There are openings afforded by a consideration not only of the ‘body’ as flesh, but of the vehicles, speeds, bodies, weathers that make up the space-times of streets as understood within the same spatio-temporal ontology. Importantly, conjuring up the imagination of dispersed spatio-temporalities such as above, does not mean a deterministic structural understanding of what a road space is and can be.

Rather, it is an ontology of a street wherein it is understood through the processes of its constitution, and what it can do, or can become should be understood as “unpredictable and open” (Grosz, 2005, p. 88).



Figure 5.8: Black Lives Matter protest, December 2014, author's image

This is not an unlimited ‘open street’. In the street scene above, at the crossroads of Hollywood Blvd and Highland, in December 2014, Black Lives Matter protestors were squeezed onto the sidewalk between the admonition to “live your life” and consume clothing, and the four lanes of vehicle traffic protected by the police. This brings a heart-wrenching irony to the protestor’s placard – in the right of the image, in front of the *cycle - asking: “Who do the police really protect?” The onflow of car bodies, the steel and plastic shells, are being ‘protected’ from the exposed bodies of protestors.

It is not by chance that the Black Lives Matter protests ‘took to the streets’ as in the image above. As Avila has argued: “The freeway is the perfect place to protest Ferguson” (Avila, 2014b). Freeway construction has shaped the racialized geographies of Los Angeles and

many other US cities, emphasizing segregation, often destroying or boxing-in black and Latinx neighbourhoods, and paving the way for suburban white-flight (Avila, 2014a). In Los Angeles protestors often blocked intersections with ‘die-ins’ (see Figure 4.10 in Chapter 4) or took to the freeways. These were protests against the systematic loss and cutting-short of black people’s lives often on public streets, but also in wider systems of violence, of being removed from public life (incarceration), or being curtailed in the capacity to live and access the requirements of life through poverty, lack of work and documentation or forced deportation.

It is also not ‘by chance’ that protestors were pedestrians (and to a lesser-extent cyclists), with fleshy bodies present, exposed and visible. Much has been written about the politics of protest on streets, from the ‘revolutionary potential’ of “holding the street” (see Virilio in Deleuze and Guattari (1987, p. 386)) to a more embodied feminist perspective on shared bodily precarity, interdependence and uneven exposure (Judith Butler, 2011a). Bodies taking up time-spaces on streets are not merely representing a political message, it is also a physical manifestation, forcing a material reconfiguration of the flows of the city. The *cycle’s specific speed, (relatively light) mass and transportability mean that a cyclist can to some extent – albeit not without certain frictions such as pedals catching ankles – merge into a crowd and become a pedestrian.

This ‘chameleon-like’ capacity of the *cycle (Nello-Deakin, 2017) to become a pedestrian or a cyclist, to be taken on the metro, placed on the front of a bus in Los Angeles or to be transported in the back of a car, raises a further question about the particular spatio-temporal affordances of the *cycle. As will be considered further in the next section and in Chapter 6, its spatio-temporalities offers a proximity of exposures to other people, places, wind, sun and rain. In contrast to a car where the micro-environment of

temperature, shelter, in-car display of a satnav and sound is tailored *to* you and your comfort, the *cycle is an opening to being exposed to that which is ‘not you’ and not ‘for you’. The question of whether this enfleshes a subjectivity that is aggressively self-protective and defensive, or one more open to the ‘others’ that are your very condition for existence is not predetermined.

5.5 Locomotion: Configurations of effort, *cycles and speed

“The two-wheeled velocipede is the animal which is to supersede everything else. It costs but little to produce, and still less to keep. It does not eat cart loads of hay, and does not wax fat and kick. It is easy to handle. It never rears up. It won’t bite. It needs no check or rein or halter, or any unnatural restraint. It is little and light, let alone it will lean lovingly against the nearest support. It never flies off at a tangent unless badly managed and under no circumstances will it shy at anything...”

(The Velocipedist, New York, 1 February 1869)

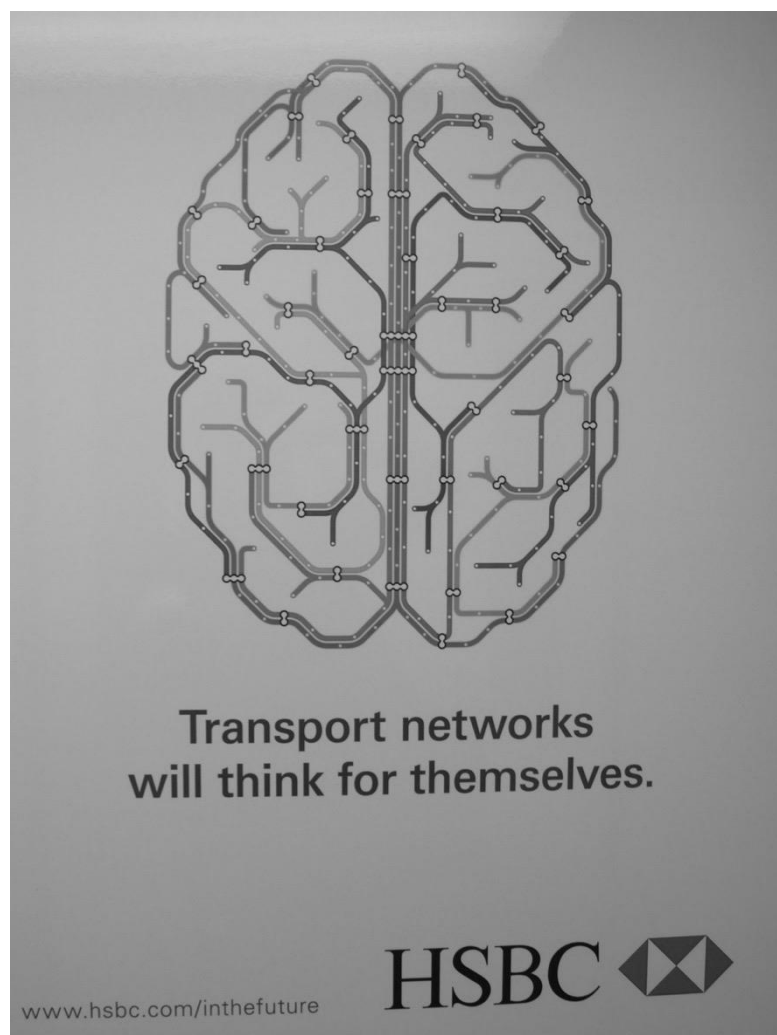


Figure 5.9: HSBC advert at LAX airport 2015 (author’s photo)

“In the future: Transport networks will think for themselves” HSBC’s vision of a transport network imposed on the image of a brain, carries echoes of the future envisioned in 1869, where the “two-wheeled velocipede” was to “supersede all else”. While entirely specific to their time and placings (the former at LAX airport as part of a ‘global advertising campaign’ in 2015, the latter a New York cycling magazine in 1869), these imaginaries contain the notion that it will be “animals”/networks that will ‘take care of themselves’, they will not need cart loads of hay and *they* will do the thinking. Progress in transport, it seems from these images, is brought through technologies that take *effort* away from humans.

This conception of progress through technologies (‘Vorsprung durch Technik’ - the car manufacturer Audi’s advertising slogan) that remove human effort, is so contrasting¹⁰⁶ to the particular configurations of power that define cycling in contemporary California. It is locomotion by ‘human-power’ that defines a bicycle in the Californian Vehicle Code: “A **bicycle** is a device upon which any person may ride, propelled exclusively by human power through a belt, chain, or gears, and having one or more wheels.” (California Vehicle Code, 1985).

How *cycle chains, belts or gears and wheels translate human efforts and/or mass (on the downhill, in particular) into locomotion and particular speeds is the focus of this section. Bringing together the specific spatio-temporalities of cycling (section 5.5), with consideration of the flesh as an enfolded surface (section 5.3) allows for consideration of how - through the specific efforts of cycling - the city, cyclist and *cycle ‘enflesh’ one another. Far from thinking *cycles as technologies that only add or diminish the

¹⁰⁶ The “Smart technologies” in transport the HSBC advert seems to refer to, may claim to ‘do the thinking’ but this does not mean they do not in fact enroll and require very particular efforts of human users. I am not trying to set up a false binary of effort (cycling) /no effort (smart technologies).

requirements for human power, I want to consider how particular configurations, materialities, forces and meanings associated with (specific) *cycles –enroll and adapt bodies within particular circuits of force. As Donna Haraway quotes Ihde: “insofar as I use or employ a technology, I am used by and employed by that technology as well...We are bodies in technologies” (Haraway, 2008, p. 249). In what follows, through *cycles, speeds and efforts, I consider the specific *configurations* of these efforts that en flesh *cycles, cyclists and cities together; what they require, mean and what effects they produce.

***Cycles**

A bike is not necessarily the malleable, loving and predictable ‘animal’ the Velocipedist (above) described it as. The bike trains us in very particular ways, and for any number of unpredictable and indeterminate reasons¹⁰⁷ can throw you off. Riding a bike shuts down particular possibilities for being as much as it opens up others. My right knee is comfortable with sustained cycling *or* running, but hurts and locks if I try to switch between the two. The specific muscular requirements and adaptations of cycling mean that some professional cyclists have reported struggling to walk downhill¹⁰⁸

*Cycles can be ‘fitted’ to body size and shape (e.g. female-specific saddles), and procured based on the requirements and desires of its users: They come with prefixes and descriptors such as: Men and women’s, kids’, city, tricycles, hand cycles, electric, “beater bikes”, road, race, cross, bmx, comfort, commuter, touring, or cargo bikes. These all do different work depending on the physiology, techniques and practices of the user (e.g. age and ability),

¹⁰⁷ Think for example of falling over handlebars due to braking quickly on a new bike or with newly adjusted brakes.

¹⁰⁸ (<http://stevetilford.com/2016/05/18/standingwalking-downhill-kills-the-professional-cyclist/>).

what needs to be done (e.g. delivering goods, transporting food or children) and how, and the spaces ridden (potholes, dust, cracks on LA streets, temperatures, rain).

Yet, the *cycle is its own enfleshment of queer inheritances: It is a temporary cohesion in spacetime of plastics, paints and metals, designed and marketed to stimulate and appeal to prevailing social norms and produced through global supply chains. It is the malleability of its constitutive parts that make a *cycle possible: the malleability of metals, the fluidity of rubber, to be shaped into wheels and frames, for example. Its ability to reduce friction and lose very minimal energy through ‘rolling friction’ (the frictions between tyres and roads, gear sprockets and chains, and pedal axels and wheel mounts) (D. G. Wilson, Papadopoulos, & Whitt, 2004), makes the bicycle one of the most efficient modes of mobility in terms of energy consumption (Illich, 1974). There are varying particular obduracies and frictions required of the bicycle and provided through it: Ideally a frame should not snap, some want a ‘stiff’ frame, others a smooth ride, different tyre frictions are used depending on road/off-road surface, conditions and desired speed.

Pink (Figure 5.10), for example, is a Surly Cross-check. Surly is an American bike company that hand builds steel frames in Taiwan (www.surlybikes.com). According to the Surly website: *There is no such thing as one bike that can do it all, but the Cross-Check comes mighty close...The Cross-Check’s frame is engineered to supply a comfortable but lively ride.* On the advice of a friend knowledgeable about American *cycle brands, when I got to Los Angeles I searched for a Surly on Craigslist, a classified advertisement site (figure 5.10). The seller, a white, queer woman in mid-town (I wrote in my notes: *where there were massive fuck-off mansions, and the road surface was sweet and smooth*) explained that she had the frame painted pink in a car body shop to make a statement about the male dominance of cycling.

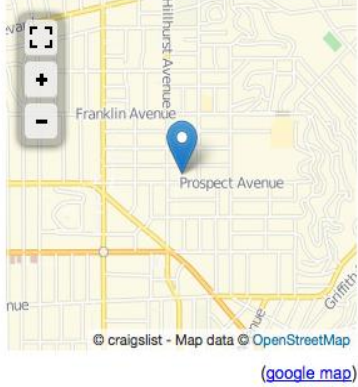
CL

los angeles > central LA > for sale > bicycles - by owner

reply

Posted: 30 days ago

Excellent hot-pink Surly for quick sale - \$500 (Los Feliz)

condition: **good**

make / manufacturer: **Surly**

model name / number: **Crosscheck**

size / dimensions: **50cm**

- [safety tips](#)
- [prohibited items](#)
- [product recalls](#)
- [avoiding scams](#)



We have to sell "Pink", our much loved (50cm frame) Surly before we leave L.A - the good price reflects the need for a quick sale. It's been a great bike, and a smooth ride. We've had some work done on it - replaced the brake pads, put on new handlebar tape, a second set of brakes on the handlebars (see the picture) and had the gears tuned. The price includes a Bell helmet; D-lock (Bulldog mini) and cable; and m-wave pannier. (New these would cost you a combined \$100 easily).

Get in touch to check the bike out. First come first served (cash only as we're visiting from abroad).

- do NOT contact me with unsolicited services or offers

Figure 5.10: Screenshot Craigslist advert, 2015

Pink, it turns out, enrolled its owner-riders into a self-selecting queer chain of attention. Several times when riding under the 101 freeway on N. Vendome street, I heard a woman's voice in the darkness yell: "hey! Pink bike! I used to have one like that". The buyer who responded to my advert (Figure 5.10) on Craigslist a year later and bought the bike, was a white, female English literature PhD student working on queer and crip theory. Pink had a material-semiotic selective force of identification and attention.

Pink was a comfortable fit on a number of levels. This was a comfort that came with the privilege of access to funds and credit – new a Cross Check is more than \$1000, although it retained its value when sold a year later, Pink was still \$500 up front and required quite some maintenance costs. The enfleshment of comfort only became truly evident when it was lacking. Pink's comfort as enfleshed with me, was in part due to its steel frame and its particular geometry (the angles, lengths and shapes of the tubes of the frame, which is sometimes referred to as a *cycle's DNA as other components can be changed¹⁰⁹). Its 4130 cromoly steel frame, a steel often used in car frames, is lighter than carbon steel, has high tensile strength and was smooth on the roads cracked in the L.A. heat. The tyres were sturdier than the lighter, speedier, and shakier 1970s Bianchi I sometimes rode making the switch between bikes a jarring experience in more ways than one: my muscle memory having attuned to the needs of the particular bike (particular pressure on breaks, the 'unthought' habit (Grosz, 2013; Schwanen et al., 2012) of switching gears).

When I briefly borrowed a friend's bike – an abandoned city rider in disrepair that she had picked up for free - with no gears, a too-low saddle and pedal 'slipping' in its crank, I was hit by the profound discomfort. This wasn't the smooth pedal strokes and instinctive body-bike-melding joy of Pink. The enfleshment of bike-body and our angles did not fit - I could get no force behind the pedals. I felt ashamed, self-conscious, out of pace with traffic, unbalanced, sweaty, out of breath and control, and out of place. I was tempted to get off and walk.

*Cycles can be 'tailored' to the individual, their supposed identities, needs, desires and physiologies, but the configurations of cycling also leave the rider differently exposed to the forces of the world and from the limits of your own capacities. In contrast, the

¹⁰⁹ <https://roadcyclinguk.com/gear/buyers-guide-bicycle-geometry.html>

microenvironments of a car, or the virtual interface environments of a computer or smartphone, produce ‘individuals’ through the tailoring to the particular needs and desires of the individual or ‘family’ of user(s) (this will be discussed further in Chapter 6). In this way, the specific configurations of *cycle and body in relation to the wider streets and city, en flesh one another differently (depending on the bike, differently than a car). This affords a set of encounters, an enfleshment or becoming-with an ‘outside’ that is both not-you, not *for* you, and does not care about you, and yet that constitutes the very ‘youness’ of you. This forms a constitutive boundary relation: The more-than-human forces inhering in the bike, the road, food energy, drugs and emotions constitute bodies, *make them what they are*. Yet these relations also form the conditions of its limits/boundaries/ends (the road and the bike are “not-you”, the friction with its saddle causes sores, the impact of pedals on ankles, knees on frame, elbows, legs, knees, hands, head on the street causes pain, injury, death).

Speeds

She Wolf Attack Team (SWAT) member Sarah Kalin: “Riding at night in the dark, it’s more freeing, you can go faster at night”.

“They talked of the adrenaline of dodging cars as if it was fun.”

(Gale Holland, LA Times)

I heard the words ‘adrenaline’, ‘rush’, ‘freedom’ ‘joy’, ‘falling in love’ associated with cycling over and over in interviews, but there is something hard to capture about the moment muscles engage through pedals, a glance up at an empty stretch of road, a lurch of anticipation, rush of wind in your face and a sense of exhilaration. At a Critical Mass bike ride in Los Angeles in 2014, a young black guy rode in the middle of the street, riding

the line almost into oncoming cars stuck in traffic, he sat upright, arms off the handlebars stretched out to the side, and yelled....”FREEDOM!”

Yet, to attach this affective experience of cycling to ‘speed’ denies how the relative slowness of cycling also affords the ability to smell, feel, hear the neighbourhoods you cycle through, for socialities on the street; to chat to someone and receive a business card at the traffic light¹¹⁰, or to see an unfamiliar and interesting street vendor or store and stop in time. As argued previously, one reason why cycling is touted as ‘good for business’, lies in the economies of attention afforded by cycling speeds and exposures. However, there is unevenness around which bodies can afford to slow down or speed up with the attendant exposures that this brings. Cycling may be too slow to travel the vast distances across Los Angeles sometimes required for work, meetings, visits or family. People are increasingly – and highly unevenly - subjected to fractured time¹¹¹, with multiple forms of paid and unpaid labour. The efforts, affordances and costs of cycling may in this respect simply be ‘unaffordable’.

I also want to avoid an analysis of cycling that posits a fixed or deterministic relationship between its particular enfleshments and the speed of a movement as *necessarily* ‘expansive’ (mobility as taking-up time-space or traversing space). Some of the sensations of climbing and a ‘rush’ of adrenaline can also be felt by cyclists in the gym. Spinning, or stationary cycling (see Figure 1.1 in Introduction), which started in Los Angeles, is replete with metaphors of hills to climb, journeys and obstacles to overcome. It is carried out in a completely darkened studio (normally with no visualisations of hills) with dance lights,

¹¹⁰ This was how I first made contact with one of my interviewees.

¹¹¹ particularly for those with multiple caring duties in dispersed sites (a larger proportion of which are women) (Huff & Ralph, 2014).

loud music and an instructor with a microphone shouting “don’t waste your time here”. For many, the ‘soulcycle journey’ (a brand of spinning) is described as an exhilarating high, where the ‘journey’ may not be about moving your body from one physical space to another, but a form of spiritual journey of ‘personal growth’ and change. In the spinning gym, speed is no longer a way to win a race or reach a destination faster, it becomes an abstracted end in itself, or a means for tracking progress on your ‘journey’, represented through your performance in RPM, rotations per minute, and power (see figure 5.11).

However, just as the stationary *cycles have particular singularities (be careful not to lose your knees, as the wheel does not stop turning when you stop pedalling), different *cycles on the street do too. The relative weights, resistances and wheel size of particular *cycle technologies, open up different relations of effort and speed. Trish, who proudly rides a Pashley (a “classic” bike hand-built in the U.K.) spoke of:

“a ride that did not work out. It was advertised as a slow-paced ride intended for heavy pretty bicycles, like mine. Flying pigeon shop organised it....said there’d be like-minded bicycles, to see art galleries...it started at 6pm...[inaudible]...someone posted it on facebook and a lycra crowd on fixies joined in...[...] but it wasn’t exactly joining in because there were about 80 of the lycras and about 20 at most of the heavy bicycles. The lycra ones wanted to do mass bike behaviour where you block off the intersections against the cars and go roaring through at speed, and the heavies weren’t intending to do that at all. There was a clash of cultures...”

As well as a clash of genders it seemed, as Trish described the ‘fixies’ as all men and the ‘heavies’ as being women, men and children. Similarly, in an interview, artist and sometime *cycle mechanic Josie J explained how from around 2005 he noticed that:

“the fixed gear became the new BMX, so all the kids down in the ‘hood are starting to ride fixed gears instead of BMX bikes *and* it turns out they can go farther with a fixed gear, so now they have the freedom to go across town and what not with their fixed gears as opposed to their small BMXes” (Interview 17th October 2014, Los Angeles).

Similarly, a cycling advocate in South Chicago I spoke to (April 2015) explained how life was small – just a few blocks - before he started cycling. It also allowed him to get out of

trouble on the street (he didn't elaborate on this) and opened up parts of the city he never had access to before.

In this way speed is not only a bio-mechanical process. The normative gendered, ableist and ageist assumptions of bodily fitness associated with speed are evident. A conversation I had with a man outside the Chrysalis in Downtown Los Angeles – a non-profit job centre for people with barriers to work – highlighted this.

Man: Hey you/boy¹¹², like riding your bike? Do you race it too? Do you like going fast?

Me: No not really, I'm not really into that. I'm not that fast. I just don't have a car so it's easier.

Man: No racing? I mean I'd rather have a car myself. I mean I'd rather walk than ride a bike. I'm a grown man.

Me: How come?

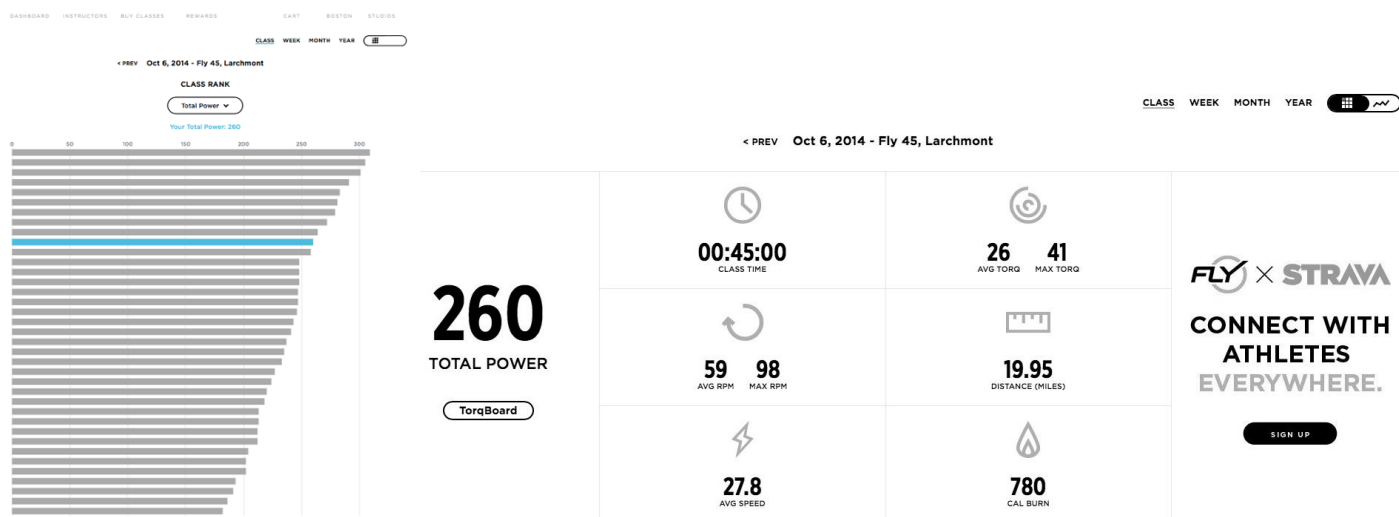
Man: If I was riding a bike, I'd feel defeated, you know. It looks good on you, but I'm older than you. Walking's good, it keeps the weight off you know. Keeps my gut in.

Conversation with author outside Chrysalis Downtown, Nov, 2014.

¹¹² I'm not sure whether I heard this correctly

Even in spinning classes (Figure 5.11), the speed of your legs (RPM) and resistance setting of your bike (higher is harder) contribute to your ‘power’ and determine your ranking on the ‘leaderboard’ (see left of Fig 5.11 for ranking). Social meanings related to speed and

Figure 5.11: FlyWheel, Screenshot of author’s class summary, 2014.



power become enfleshed through anxiety and exhilaration, sweat and shame, the exhaustion of not keeping up in a group ride, the drive to ‘succeed’ and not be defeated, to be faster. The cycling body becomes an enfleshment of the material-semiotic relative speed and slowness.

The enfleshment of exercise, whether in stationary cycling or not, requires and co-creates a speeding up of bodily processes that defies bodily boundaries of insides/outside. Heart rate increases, metabolisms need to work faster - there is a more direct link (than in a car, for example) between the ‘speed’ you are relating within the world (whether simply the speed in RPM or your speed on the road in kilometers/hour) and your internal organs and cellular processes. This is not limited to the specific time-spaces of a cycle ride, the body becomes differently both before and after the event of a ride. Exercise is seen to improve motor response times (Perrey, 2013), and there are studies correlating increased cycling and improved mood (Whitaker, 2005). Physiologically, in response to increased, regular

cycling (sometimes called ‘exercise stress’), most of the systems in the body adapt to the specific requirements of the task: Producing more mitochondria in cells, more capillary beds, a higher volume of blood, larger glycogen stores.

Uneven efforts

Through cycling a body becomes something other than it is (be it more sweaty, uncomfortable, bigger-hearted, faster, ‘fitter’, happier, in pain, stronger, more tired) through its own efforts. However, the capacities, propensities and meanings of exercise and speed are highly contingent. As discussed in the prior sections through asthma and particular bodily capacities and adaptations (e.g. Jenna’s hand cycle), the ways in which the effort of exercise enfleshes within a body are highly uneven and need to be understood through the workings of power *through* fleshy inheritances in relation with normative configurations of spacetimes of streets, and normative configurations of *cycles. The discursive constructions around gender, race, age, ability, exercise and bodily comportment as I discussed above are vital in this, and are aspects that have been considered extensively by feminist researchers (Young, 1980, 2005) but I want to emphasise, as I have done throughout this chapter, how this is material-semiotic, not simply discursive.

Rather than understanding cycling as a practice with efforts and speeds that are simply ‘experienced’ differently by people understood through categories of race, class, gender, age and ability, for example, I consider efforts and speeds of cycling as enfleshed through these very relations of power. The opportunity or necessity of exercise and/or manual labour as a child and young adult, nutrition, exposure to toxins and pollution, understandings of ‘appropriate’ physical activity and the configurations of the particular *cycle afforded cannot simply be captured through the notion of ‘experience’, nor are they

necessarily ‘known’ or knowable. Startle responses, for example, as a ‘fast’ pre-cognitive mobility, is one of the ways in which childhood trauma – unevenly distributed by gender and race – becomes enfolded (Jovanovic et al., 2009)).

In this way, efforts of cycling as locomotion should not be seen outside the highly uneven efforts of endurance (Povinelli, 2016) and the biopolitical division of humanity into racialized hierarchies ((Foucault, 2003) in (Weheliye, 2014)). There is an effort required simply to hold in tension the constitutive enfolded openness or permeability required (to be able to communicate, breathe, absorb nutrients, to sense surroundings, socialize) and the need to modulate this openness and exposure, to maintain a form of obduracy and cohesion of the flesh. Deprivation or injury, as mentioned by Judith Butler, below, is where this permeability gives way:

“...some humans are born into destitution and fail to become human by virtue of being physically deprived or physically injured, so there is no inevitability attached to becoming animated by a prior and external touch” (J. Butler, 2015, p. 62).

‘Failing to become human’ through deprivation or injury is not a defined line between being alive and dead, nor is it merely a matter of inevitable chance or a ‘side-effect’ of power, but a core biopolitical apparatus, in Foucault’s words, of ‘making live and letting die’. Within a racialized, white supremacist biopolitics as Ruth Gilmore (Gilmore, 2007) states, racism’s function is: “the production and exploitation of group-differentiated vulnerabilities to premature death”.

Rather than an end in itself, if cycling is understood as an effort within ongoing endurance (Berlant & Povinelli, 2014), it may simply be something that either exacts too much effort to consider undertaking, or further exhausts in the necessity of its undertaking. In an interview with Tamika Butler (see Appendix 1), then director of the LACBC, she discussed

how the desire to see ‘cycling’ as a priority in someone’s life (rather than simply a way you happen to, or *have to*, get around) varies:

...sometimes when you’re trying to work with certain groups whether its as a woman as a person of colour, as someone who’s poor. Like I may bike, but that may not be my most pressing issue, like there might be other things on my mind.

As I will discuss further in Chapter 6 on human energies, this ‘effort’ is not necessarily measurable or comparable across bodies and contexts in currencies of RPM, power, joules, calories or minutes, mass over geometric distance (even if it can be described through the ‘weight’ carried in flesh, Claudia Rankine speaks of (Rankine, 2015)). This may be about the effort of being exhausted, of ‘having other things on my mind’, or the effort to overcome fears associated with being exposed on a bike, of enduring violence and/or microaggressions.

Cycling effort, enflesh(ed) cities

As opposed to the ‘flattened’ routes of the HSBC transport network, or the google map I used to plan my cycling routes through Los Angeles, thinking through enfleshment attempts to imagine ‘what it takes’ to cycle. Fleshy inheritances condition the ways a route is ridden, how it is experienced, the speeds afforded and exposures enfleshed. The acceleration of going downhill, the speed and feel of a climb up hill will depend on the particular configurations of the *cycle, the wind speeds, the gradient of the hill and the condition and surface of the road, and the fleshy composition of a body – technique, aerobic fitness, muscle mass, weight, power-to-weight ratio (in watts/kilo, a measure that serious sport cyclists measure and aim to improve for climbing faster).

A cyclist and the topography of Los Angeles enflesh one another, in uneven ways – muscles flex, burn and tear in relation to the particular movement and exertion required of the gradient and the road surface. The mass and speed of a bike have a differential impact on the road surfaces, the ambient sound, emissions into the air, production of heat, than a car might have. On a downhill, hands grip the brakes, shoulders brace against the handlebars, you stand up out of the saddle, leaning back slightly, engaging and building very particular muscles. Sensation and affect as concepts do not necessarily capture how a city (and wider atmospheres) and body become through one another, in ways that are not always noticeable and traceable in experience.

Understanding cycling a city through enfleshed queer inheritances, adrenaline, hills, darkness, for example, differs from an understanding of the ‘self’ as it is ‘made’ and ‘undone’ in relation to a landscape through the practice of walking, for example (Wylie, 2005, p. 245). Rather than a focus on individual subjectivity, a notion of enfleshment seeks to attend to the forces and relations of power - dispersed at various spatio-temporal scales – that configure a particular ‘embodiment’. So although Wylie (2005), for example, speaks of configurations, corporeality and the ‘more-than-subjective’, and relies on a range of theorists that I too have drawn on, the emergent narrative is still largely one of a ‘self’-‘landscape’ relation - a solo male ‘explorer’ traversing landscape. The concepts of ‘landscape, subjectivity and corporeality’ (ibid, p. 234) are concepts ‘out there’ that can be accessed and reflected on through a solitary coastal walk with a backpack full of white male theorists. The relations of power that configure the specific necessary enfleshments of the walk are less reflected on; the potential wider socio-material relations that are enrolled to make it possible to walk for three weeks alone – childcare, money and an affinity for and knowledge of the countryside, the confidence to walk alone? For Wylie there is no “*a priori* and fixed exterior matter determining perception” (p. 236) and there

is no walk in-itself, but the very specific ways in which this singular walk is made to represent all walks of life is problematic.

5.6 Conclusions

This chapter has outlined an ontology of the flesh and the efforts of enfleshment by drawing on critical race and feminist theoretical interpretations of Merleau-Ponty. I developed this conceptualization of cycling through considering enfleshment as configurations of, and through, relations of power: First through lungs and the ways in which an understanding of the flesh sees the enfolding of the inside/outside of bodies, secondly through light and the differential exposures of enfleshment, thirdly through ‘taking the lane’ and the ways in which space-times are enfleshed and lastly through locomotion, and the differential enfleshment of effort and speeds.

Through this ontology cycling needs to be understood as made possible and configured through material-semiotic relations of power, but this is not a one-way street where cycling is merely ‘produced’. Cycling itself reconfigures power and enfleshes the time-spaces, exposures, speeds, efforts and capacities of bodies and cities otherwise. Thinking through the flesh carries implications for understandings of both cycling and embodiment.

Firstly, it allows for a consideration of a flesh that becomes in relation to, and as a condition of, the world. This flesh needs to be considered in its capacities, requirements, obduracies and vitalities at spatio-temporal levels that do not ‘map’ directly onto the figure of ‘a Body’ bound by skin and mapped onto by a legally recognized living Person. The flesh, however, is not a given, static, fixed substance or some form of universal human substrate. Rather, enfleshment as a material-semiotic effort of becoming is always uneven and stratified through a racialized biopolitical hierarchy of the Body (co-implicated in gender, age, sexuality, bodily ability). This occurs in relation to spaces and temporalities (e.g. speeds,

positioning in the road), technologies (e.g. from *cycles, to tarmac and modes of counting and surveillance) and discourses (e.g. in relation to a Human Body and notions of health, responsibility and ‘success’ associated).

Secondly this effort of enfleshment holds in tension a level of necessary exposure with a socio-material obduracy, cohesion and endurance. The conditions of this effort of enfleshment are deeply uneven queer inheritances – the forms of (epi-)genetic, biochemical, socio-cultural and material conditions and exposures that do not determine, but modulate, the possibilities for enfleshment, in indeterminate ways. The flesh and work of enfleshment allow for a consideration of the particular effects and conditions of possibility of cycling. Rather than a notion of the individualized cycling body as the primary unit of measurement (of health, mobility, access), responsibility, or as the locus of subjective experience, or affect, the flesh considers also the effects of - and on - cycling that might be below cognition or sensation (e.g. the work of muscle memory), trans-bodily and indeterminate (e.g. exposure to ultrafine particles, to racialized police surveillance). In this respect cycling is not only about embodied discourse, experience, practice or habit but is an active effort of enfleshment that is in, and of, particular materialities (or spatio-temporalities) and queer inheritances. These are not bound to any one body or individual understood as ‘locatable’ in a limited spatio-temporal imagination.

The notion of ‘flesh’ not only allows cycling bodies to be understood as fundamentally differentiated (as emphasized in Chapter 4) and inextricable from spaces of roads, *cycles, clothing, discourse, histories and futures, but it also speaks to notions of health and ‘well-being’ beyond the individual unit of the body. If health is understood as a relational effort this departs from individualized notions of responsibility for health and requires looking to the wider configurations of the world/city/streets/energy. Considering cycling as

configured within wider socio-material conditions and effects also means accepting an element of indeterminacy – a ‘surplus’ that cannot be fully known or planned for. This might imply, then, a notion of health that is not necessarily bound to medicalized understandings of bodies, or notions of knowable ‘healthy’ ideals (e.g. Body Mass Index measures), the pursuit of ‘positivity’ (and notions of ‘happiness’, ‘wholeness’) and the control of exposures (e.g. sun-block, helmets, avoiding ‘danger’ at all costs). Rather, an understanding of the work of enfleshment as holding together a malleable, open and yet enduring flesh means accepting required destruction and violence (eating for energy, tearing muscles for gaining strength). It leads to a notion of health that is more aligned with notions of sustainability, and is more about the capacity for relations in the world (Grosz, 1999a), and the capacity to ‘experience affects and enter relations’ (Braidotti, 2006b, p. 209), without a prior moralistic delimitation of what these might become. The second part of Chapter 6 will discuss these implications further in elaborating an ethic of response-ability.

6. Valuation: cycling through value

6.1 Introduction

“Founded in 1993, New Urbanism is a movement united around the belief that our physical environment has a direct impact on our chances for happy, prosperous lives. New Urbanists believe that well-designed cities, towns, neighbourhoods, and public places help create community: healthy places for people and businesses to thrive and prosper”

(Congress for the New Urbanism, 2015)

“I am exhausted, exhausted by hours and hours of listening to this...[..]I couldn’t handle it...I felt like I am absorbing fear and hatred...and I’m paying for this conference, I feel sick that this money, through me, through the state [ESRC funding], is part of this machine, part of smoothing the wheels along. It is an oppression machine and it thinks it’s doing good.” (Edited fieldnotes, Congress for New Urbanism 23, Dallas Texas, Day 1)

The Congress for the New Urbanism’s programme in Dallas-Fort Worth, Texas in 2015 was filled with session titles such as: “creating thriving urban neighbourhoods”, “the human scale: bringing cities to life”, “Bootstrapping community revitalization”, “maintaining & fostering authenticity & character”, “happy cities” and “liveability”. Vitality, life, human scales, bikeability, walkability, thriving, happiness: These stated values and aims were so dissonant with the helplessness I felt, at what I found myself, in a state of exhaustion, describing as an ‘oppression machine’.

The CNU presentations I attended aimed towards designs, planning and funding for valued futures and contained ideals of what future people (happy, healthy) and cities (sustainable, community-focused, healthy) should be like, sometimes invoking what one interviewee stated as a ‘fabled past’. However, this chapter does not focus specifically on critiques of

New Urbanism, this is done elsewhere; (Ellis, 2010; Hetzler, Medina, & Overfelt, 2006) nor will it dwell on the fairness of my response to the first day of the conference. Rather, by drawing out the contrast between the discourse of designing ‘happiness’ into cities and the enfleshment of my exhaustion, I want to introduce a discussion on what is valued around cycling in cities through the flesh: How is cycling enrolled into notions of ‘the good’, ‘good life’, ‘good’ cycling subjects, hierarchies of value, and what displacements of value, violence and forms of exhaustion are constructed and relied upon? The first part of this chapter asks how power operates through the enfleshment, accumulation and flow of value through spatio-temporal configurations and particular techniques of categorization. Rather than define ‘value’ at the outset, I argue, in a Foucaultian vein (Foucault, 1994) that value – or what is deemed varyingly as good, useful, beneficial and/or ethical – needs to be understood through the techniques and practices of governing populations through techniques of measurement and subjectivation. Necessarily then, the question of value is dependent on - and builds on - the notions developed in Chapter 4 and 5. The power of categorization and naming cyclists (Chapter 4) is also implicated with modes of valuation: Something is made to matter differently by ‘naming’ and is only named if its valuation or devaluation matters. Similarly, in Chapter 5, the ways in which power is manifest through energetic and material configurations of cycling are inherently intertwined with the techniques of valuation.

The first half of this chapter explicates some of the techniques of valuation at work through cycling in Los Angeles. Rather than take notions of health, fitness, urban enhancement, social cohesion and sustainability¹¹³ at face value and ascertain to what extent cycling does

¹¹³ The Los Angeles 2035 Mobility plan, for example, states that active travel, such as cycling, can further social interaction, mental and physical human health, fitness and wellbeing and the health of ‘natural systems’ (Los Angeles Department of City Planning, 2015)

or does not contribute to their ‘enhancement’, I look towards the techniques of valuation. In the second half of this chapter I ask whether there are other ways to conceive of ‘value’ around cycling that are less didactic and open up possibilities for considering humanness – and its ‘value’ – otherwise. To do so I bring into conversation LA cycling practices with black feminist and material feminist insights on ethics arising from the ontologies of Chapter 4 and 5.

6.2 Cycling in the market of liveability

“... for me, often writing ‘liveability’ is code word for bike, walk and transit-oriented all together as one...which is a little bit bullshit, but it’s shorthand for that. It has to do with...a lot of places in America are super car-dependent and, things like the price of gas and the type of commute are huge burdens for people and impediments for quality of life, dragging down people’s quality of life, and liveability is having enough...you know, proximity and safety, transportation choices that you’re not sort of trapped in this car [inaudible: crap/trap] culture....[laughs]” **Los Angeles cycling and sustainability advocate.**

Notions of value around cycling; expressed through sustainability, health, quality of life, fitness, aesthetic enhancement and social cohesion are not given ‘end-points’ with meanings that can be readily defined or delimited. Rather, in a kind of semiotic free market, the meanings that *work* are those that gain currency, and need to be understood within the particular and contextual (Collier, 2005) techniques and practices of attributing and assessing value itself. In what I call here a ‘market for liveability’, techniques of valuation produce and require units of measurement and ‘subjects’ of value (both individual subjects, but also communities and populations). They also require - and are productive of - particular meta-narratives around progress. In what follows I introduce selected collages of images showing configurations of technologies, urban form and meanings which

together tell particular stories of cycling value. Beyond merely ‘symbolic’ value, the particular material-semiotic configurations that cycling enrol (as discussed in Chapter 5), also provide a limit to the circulation of some forms of value (i.e. less input required in terms of gas, for example) in ways that attribute ‘value’ to cycling through enhancing sustainability and health. At the aggregate level (e.g. a city) these values of health and sustainability tend to be expressed through economic modes of valuation; as universalizable values that can be quantified, hierarchized and monetized. Similarly, the valued subjectivities that are constructed through cycling focus on norms of ‘striving’. Lastly, I argue that both modes of valuation and critiques thereof, which rest on purely economic notions of value and techniques of valuation obscure and displace the operation of hierarchies of value based on race, gender and ability.

How cycling was enrolled in wider circuits of value was made evident by a visit to the Los Angeles Car Show in November 2014 (Figure 6.1). Other than a vague sense of trying to get under the hood of automobility, I did not know exactly what I was hoping to find. The imagery and wording around sustainability and the sheer number of bicycles employed to sell cars astounded me. I counted at least six bicycles: There were concept bicycles (lower left Figure 6.1), bikes on roof racks (top left), a stationary bike hooked up to a power-meter where visitors were encouraged to measure their power, and bikes in promotional videos shown on large screens. Yet my bike was the only one parked in the rack outside the convention centre (see image top right). Other cars at the show displayed slogans and labels claiming: *EcoDiesel*, *zero-emission* and the talking Ford car ‘EcoBoost’ or ‘eco’ for short, spoke to the male presenter in a female voice: “well that’s just part of my emissions-friendly nature...I’m all about fuel economy..[...]” and flashed her eye-lashed headlights seductively while the presenter patted her hood approvingly and smiled. The static sign

“The only true test of values is our ability to make the world a better place by Henry Ford” written in large letters accompanied the live show. Henry Ford’s wonderfully tautological statement portends the kind of slipperiness in attempting to get a hold on (Pignarre & Stengers, 2011) value through

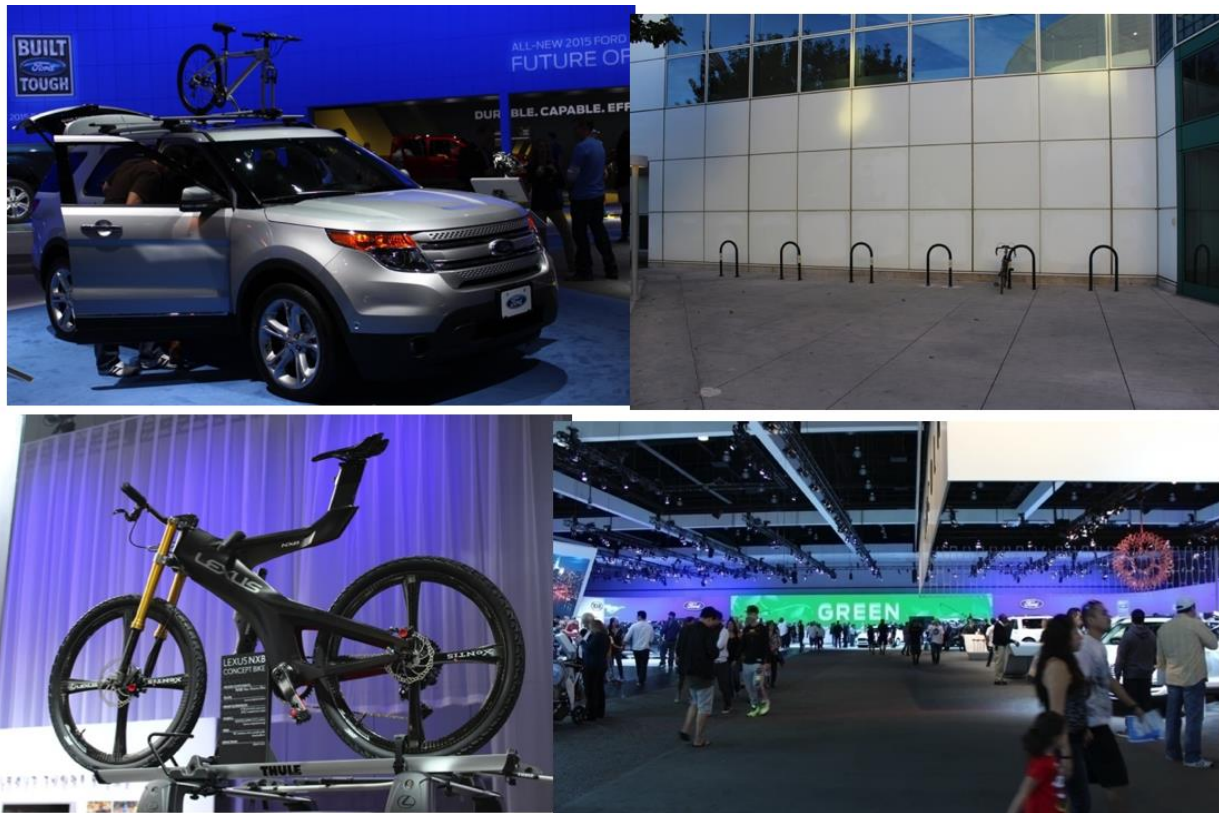


Figure 6.1: Los Angeles Car Show, 2014.

Clockwise from top left: Ford SUV with bicycle on top; the only bicycle outside the convention centre; Large screen sponsored by Ford displaying the words ‘Green Brand 2014’; Lexus Concept Bike on top of a Lexus car.

cycling in Los Angeles. On the one hand the images show how bicycles represent and purport to fulfil the desires for hipper, more sustainable, faster, fitter, healthier, happier or more productive¹¹⁴ lives. Yet, fundamentally these bicycles are being used to sell cars to those who can afford them or are increasingly tied into debt to obtain them (McLannahan,

¹¹⁴ Words used in a Radiohead song “Fitter Happier” on album OK Computer in 1997, lyrics by Thom Yorke and voice by Apple Mac: “Fitter, happier, more productive, comfortable, not drinking too much, regular exercise at the gym....”.

2017). In a context of discussions around ‘peak car’ (Goodwin & Van Dender, 2013; Wee, 2015) with demand for cars thought to be flat-lining or reducing amongst younger people, is this the car industry’s way of attracting supposedly unwilling or increasingly eco-conscious drivers? Is this a green-washing, a misappropriation or co-option of cycling and its ‘true’ valued ends - health, fitness, social cohesion and sustainability - not in order to actually utilize bicycles to achieve these outcomes, but merely as signifiers to smooth the ongoing circulation of (automotive) business as usual? This collage of images questions a view of the bicycle as *necessarily* healthier, or more sustainable for bodies, communities, streets and cities. Yet, it is perhaps an unfair starting point, surely the ‘true’ value of a bicycle lies in how it is actually put to use and in particular, whether it replaces less healthy or sustainable modes of transport?

In contrast to the bicycles placed on top of cars, the bicycle depicted in Figure 6.2 looks as though it has been ridden and/or used as storage. It was parked in front of the LA Times offices in downtown Los Angeles in 2014. There was something about the encounter between the bike heavily laden with bags and clothes, and the stylized bicycle-shaped bike rack that made me stop and take notice. It seemed to weave together the fragmented insights I had started to gather into some of the divisions within downtown Los Angeles. At the time of taking the photo I wasn’t aware that the two ‘miniature high wheeler’ racks it was parked at were designed by an artist, Patrick Bambrough, and are part of a series of ten unique cycle racks installed downtown in 1995 and 1996. The “Bike Stops Here” project was sponsored by the Los Angeles Department of Transportation (LADOT) and was funded by an \$18,000 grant from the Community Redevelopment Agency. According to a write-up on the project, the racks “create a sense of place, provide a secure place to leave bikes and enhance the appearance of downtown” (Several, 1997). The pun on ‘the

buck stops here’ implies that responsibility can no longer be passed on. Yet this raised curious questions for me: Who takes responsibility to make a space into a ‘place’? In doing so, who determines what values of safety and aesthetic enhancement mean, and to whom and what it applies? Was this particular bicycle the kind of future use the designers, funders and LADOT had envisaged? The bike might stop here, but where is it that the buck associated really stops – where and with what effects is value accrued?



Figure 6.2: The Bike Stops Here.

Parked bicycle in downtown L.A (racks designed by artist Patrick Bambrough), outside the Los Angeles Times, 1st/Spring St, October 2014

The LA Times offices where the bike was parked, are on 1st street between Spring and Broadway, a few blocks from Skid Row where the residents of the area’s hostels and streets often use bikes and shopping carts for transport, storage and sometimes, like activist General Dogon (Figure 6.3, below), as a tool for awareness raising. In 2015 the LA Times mapped data from the biannual homelessness count, conducted by 5,500 volunteers for the Los Angeles Homeless Services Authority (Figure 6.4).

Figure 6.3: Skid Row activist, General Dogon (DeAratanha, 2015)

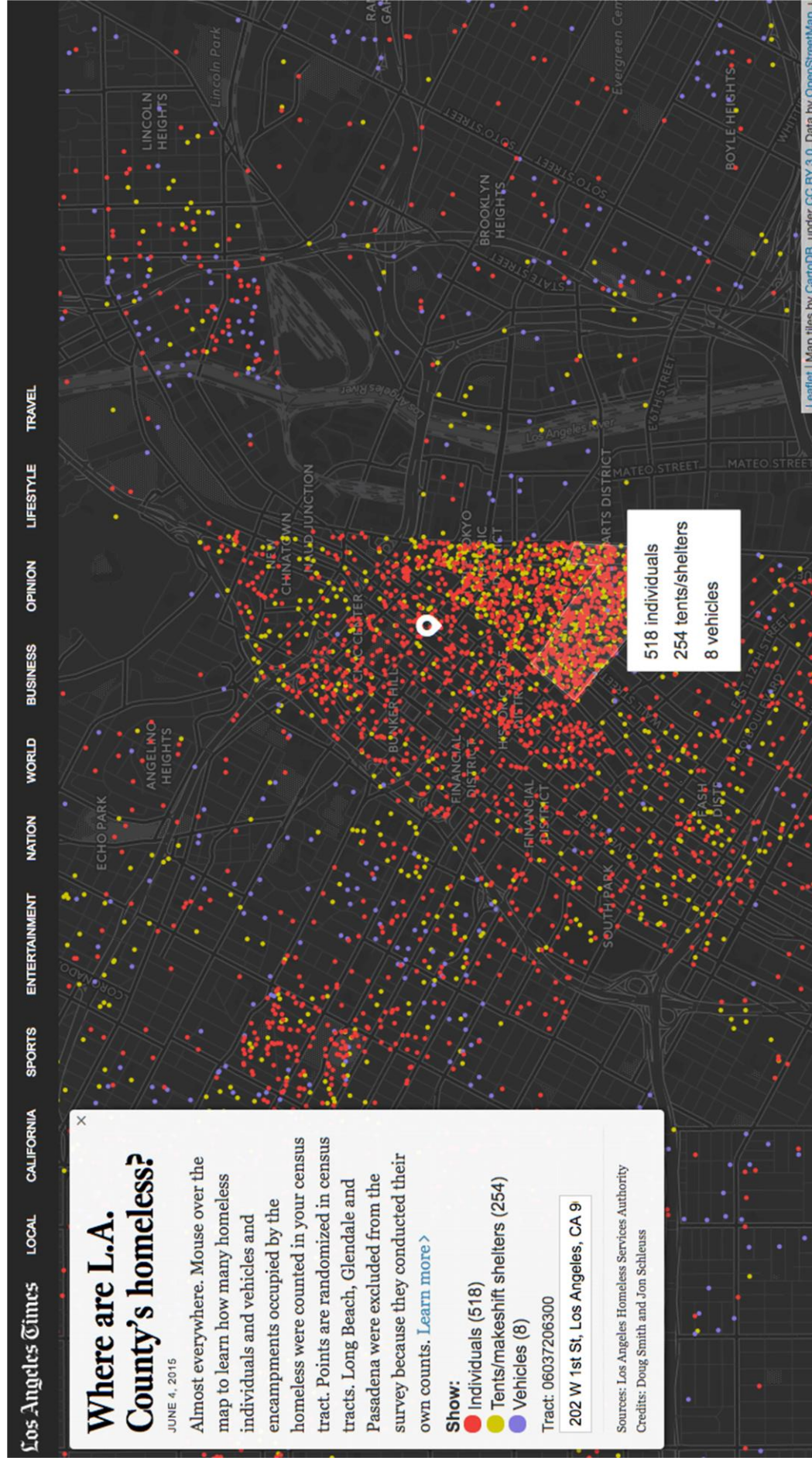


Figure 6.4: Where are LA's Homeless?

White marker on LA Times building, figure of 518 individuals, 254 tents/shelters and 8 vehicles is for a single highlighted census tract. Source: Los Angeles Times (2015)



Figure 6.5: DTLA Bike Share Scheme

Bike docking stations (Source: LA Metro Bike Share). Shaded area is skid row as defined by Google maps

A year after I took the photo of the parked bicycle (Figure 6.2), and four blocks away from where it was parked, at the Los Angeles Poverty Department's Skid Row History Museum and Archive on South Broadway, Skid Row activist General Dogon's tricked out bicycles were on display in the exhibition: *Screaming Two Wheelers* (Figure 6.3). General Dogon used lowrider bicycles he designed and built himself in his work with LACAN (Los Angeles Community Action Network) to raise awareness amongst Skid Row residents of their rights. Alongside increased 'revitalization' of downtown Los Angeles, since the

‘Safer Streets’ initiative in 2006 there was a sharp increase in police abuse and policing of behaviours like jay-walking, littering, and sitting on the sidewalk (F. Stuart, 2011). In an article for the Los Angeles Times in 2014, General Dogon commented on the City Council’s ‘skid row clean-up’ spending to make up for lack of services like street cleaning, public toilets and trash cans:

“There’s a dirty divide between the haves and have-nots in downtown. West of Main Street...there are pocket parks and dog water fountains. East of Main Street we ain’t got nothing”.

(General Dogon in, Holland, 2014)

Along with pocket parks, dog water fountains and wooden slatted fences that have been called ‘gentrification fences’¹¹⁵ (Figure 6.6), particular forms of cycling and cycling



Figure 6.6: Image of Airbnb author stayed in, Silver Lake Blvd (Hotpads, 2015)

¹¹⁵ http://laist.com/2016/05/04/wooden_slatted_fences.php

infrastructure have been seen as a harbinger and symbol of gentrification. The siting of docking stations in the new Metro bike share scheme is visible on the map in Figure 6.5. The locations focus on parts of downtown that tend to be associated with gentrification and excludes most parts of skid row. Cost and the need for a credit card is another, less visible, barrier to uptake of the bike share scheme by low income people or those without documentation¹¹⁶.

East across the Los Angeles River from downtown LA, the imbrications of bicycle infrastructure with gentrification were in focus at the event “Will Bike Lanes Gentrify my ‘Hood’”. The event held in September 2014, at the Ovarian Psycos home of La Concha in Boyle Height brought local bike activists together in discussing cycling and gentrification¹¹⁷. Cycling advocates spoke of bicycle parking that had recently sprung up in Boyle Heights with little community consultation. In an informal conversation at Espacio 1839 in Boyle Heights on 6th December, Jose spoke of a more general narrative around development in Boyle Heights:

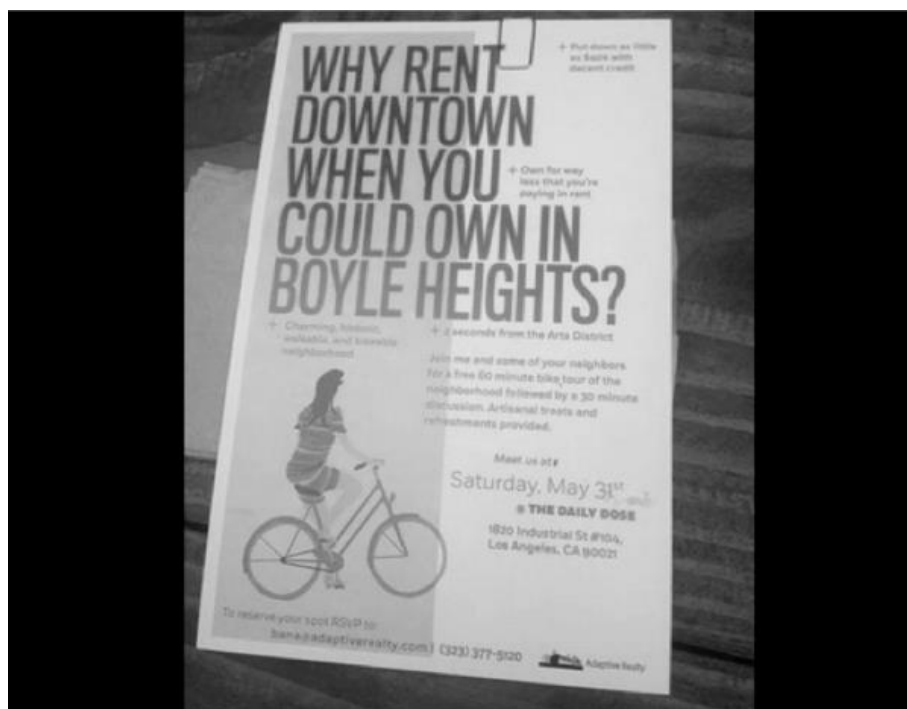
“It’s the narrative of “development”, it’s implying that everyone is a criminal, that the communities are crap and ‘need help’ - 75% of the places are rented, and the landlords aren’t there, you post a cheque and you don’t know where the landlord is, if you don’t fix a window yourself it doesn’t get fixed. So it’s not people’s fault, it’s

¹¹⁶ <http://la.streetsblog.org/2016/06/29/metro-bike-share-opens-july-7-mobility-advocates-team-up-for-equity/>

¹¹⁷ Within more recent critical theoretical and geographical work (Norcliffe, 2015), cycling practices are situated within cultural, spatial, gendered, racial and political-economic relations of power and the universalized assumptions around the ‘value’ of cycling and the effects of its uneven circulation are put into question. For example, Adonia Lugo’s anthropological work on cycling in Los Angeles (Hoffman & Lugo, 2014; Lugo, 2012, 2013a, 2013b; Lugo et al., n.d.) discusses how cyclists and cycling infrastructures (Lugo’s ‘body-city-machine’ assemblage) are interrelated with the process of gentrification. Cycling ‘creative classes’ are valued within visions of green urbanism whereas subaltern cyclists - often racialized and lower income – are devalued and made to become invisible. John Stehlin (Stehlin, 2014, 2015) writing about cycling advocacy on the west coast of the USA, discusses how the symbolic value, practices and infrastructures of cycling are intimately related to racialized and spatialized inequalities in urban investment.

these landlords. People coming in ‘improving’. Nobody asked for help, and they don’t listen to what the community wants.” (From author’s notes based on conversation)

Yes, they wanted bicycle infrastructure, but they wanted to be consulted on what forms this would take, and they wanted the infrastructure to benefit the communities that had been cycling in Boyle Heights for decades. With a flurry of interest around Boyle Heights as the new ‘frontier’ of gentrification (see Figure 6.7) there has also been a growing resistance to its effects in terms of the changing culture and fabric of the area (with more expensive, ‘hipster’ establishments) and increasing displacement pressures (see Figure 6.8). The building of cycle lanes aroused a real scepticism: Why were these infrastructure investments happening now, and for whom?



sahra @sahrasulaiman · May 28

It's been fun watching #BoyleHeights rally around the most tone-deaf gentri-flyer in the history of man today.

Reply Retweet Favorite

Figure 6.7: Gentriflyer, Tweet, 2014.

Tweet on May 28th 2014, by Sahra Sulaiman depicting Adaptive Realty’s flyer.



Figure 6.8: Protesting gentrification & displacement, Boyle Heights.

The photographs in Figure 6.8 were taken during a CicLavia in October 2014 routed through Boyle Heights, and it was during this ride that I first met Rigo of Somos Wyvernwood (as discussed in Chapter 3). However, I did not have to leave the area around the apartment I was staying in to encounter cycling entangled within gentrification. The apartment complex itself used the slatted wooden fencing around the building and between apartments and provided bicycle parking (depicted in Figure 6.6), but only a few car

parking spaces. Inside the apartment the renovations looked eerily similar to those on the blogs of a housing developer I had been following. According to one LA-based developer in an article entitled “Meet the hipster real estate developers building for millennials” the developers’ tactic is to: “buy neglected apartment buildings in promising neighborhoods, renovate, raise rents, and fill them with young professionals.” Apparently [millennials] “want to drop off their car on a Friday and not see it again until Monday,” and for this demographic, they proclaim, cycle parking is crucial whereas car parking less so (Steverman, 2015).

While my host in that apartment on Silver Lake Blvd did rely heavily on Ubers to get around, I didn’t see anyone in the building using bicycles or the bike parking depicted in Figure 6.6 for the three months living there. However, in some respects my own presence there, using my bicycle to get around and renting through Airbnb, was problematically enmeshed within flows of value associated with gentrification. Airbnb has been criticized for exacerbating affordable housing shortages in Los Angeles, particularly where residential units are entirely converted into short term rentals, removing housing from the standard rental market and potentially increasing rents (Dayne Lee, 2016). Towards the end of my stay in December 2014, another piece of bicycle symbolism joined me and my bike on Silver Lake Boulevard: In a sign placed on an apartment block (the location of the sign is mapped in Figure 6.9) by the company BRE Investment.

According to the company website, BRE Investment represent a kind of proto-hipster company: “Founded in Echo Park [in] 2005. Representing landlords before everyone started using the term “lofts” and “bungalows” and “hipsters” (BRE Investment, 2017)¹¹⁸. Echo Park is the area immediately southeast of Silverlake (see map, Figure 6.9). It seemed too cliché to be true:

¹¹⁸ Echo Park, was an ethnically diverse neighbourhood which started gentrifying in the 1990s (Molina, 2015). The film *Quinceañera* (2006) offers a glimpse into gentrifying Echo Park.

This sign depicting a bicycle came alongside other ‘signs’ of a gentrification aesthetic in the neighbourhood – more wooden slatted fences, and a particular “sans serif minimalist address number” (Coleman, 2016).

A few months earlier an Airbnb host – who lived in the hilly area north of Sunset Blvd (represented in blue on map in Figure 6.9) had been advising on locations to look for housing. She advised not to live ‘south of Sunset’, in my notes after our conversation I asked:

What does it mean to be south of sunset? Like the blonde young mum who was our first airbnb host up on [xxx street name] (north of sunset), she said - don’t go south of sunset. Why? Because, you know, LA is neighbourhood based, and you just cross one street, go under one boulevard and then it’s different. Did she mean the Latino boys on their bmxes last night? It’s like we’re at the borderline of gentrification, the borderline of the boulevard, where the road surface changes (Author’s notes, Friday 26th September 2014).

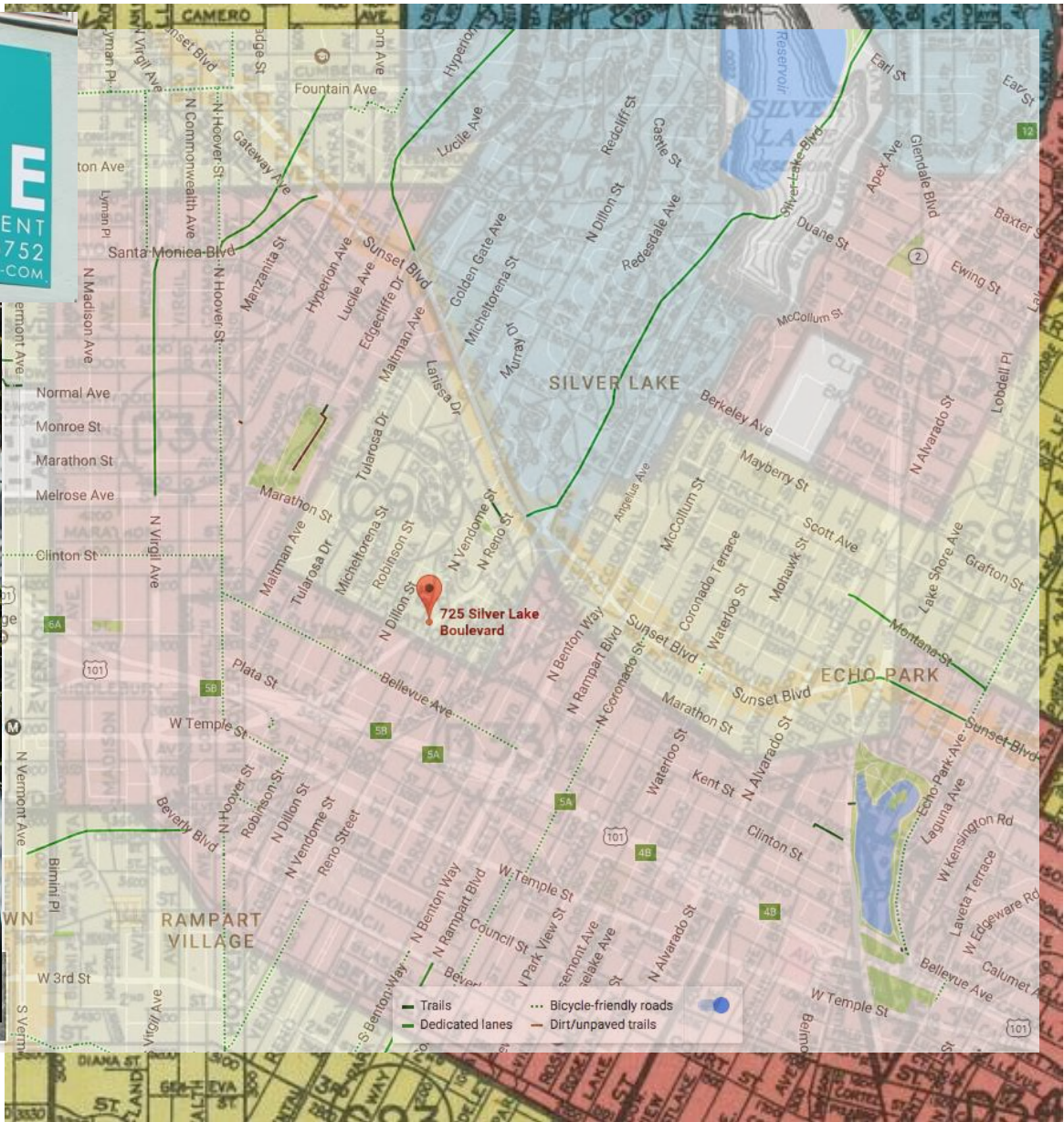


Figure 6.9 : Cycling imagery, infrastructure and redlining maps.

Silverlake Boulevard Apartment building December 2014; (right): Google map showing dedicated bike lanes (Source Google, 2017) superimposed onto redlining map (source: Home Ownership Loan Corporation map. 1939. NARA II RG 195 Entry 39 Folder “Metropolitan Los Angeles, California Security Map” Box 101: credit LaDale Winling www.urbanoasis.org)

Sunset marks a line on Silver Lake Boulevard where the traffic changes. North of Sunset the road is quieter and tree-lined, the surface is a darker asphalt, and a ‘road diet’¹¹⁹ means there is only one lane of car traffic in each direction, and a painted cycle lane on each side (see Figure 6.9). South of Sunset the road builds up speed on the on and off-ramp to the 101 Freeway, and the road surface is an older, lighter and louder¹²⁰ cement block, with two lanes of faster traffic (and no cycle lane) in each direction.

I came across the dividing line of Sunset Boulevard again some months later through the T-RACES project (Marciano, Goldberg, & Hou, 2017) that provides online interactive maps of historic redlining superimposed onto contemporary maps of California. The underlying map in Figure 6.9 (above) is the Home Owner’s Loan Corporation (HOLC) map from 1939. Starting in the early 1930s the HOLC along with the Federal Housing Association introduced long term mortgages and in doing so, mapped and institutionalized redlining in ‘safety maps’ – the designation of residential areas that insurance providers and lenders deemed safe or too ‘risky’ to invest in (Hillier, 2003, p. 396).

¹¹⁹ Road diets tend to reduce vehicular traffic lanes, reducing speeds and crashes, increasing space for dedicated turning lanes, cycle lanes and parking ‘buffers’ to protect cyclists and pedestrians. The Silver Lake Blvd road diet between Glendale Blvd in the north and Reservoir Street was implemented in 1999 as one of the first road diets in Los Angeles. <http://la.streetsblog.org/wp-content/uploads/sites/2/2014/07/Bikeways-Projects-Road-Diets-14Jul2.pdf>

¹²⁰ Author’s notes; 26th September: “My throat feels tight, woke up with a headache. Is it the noise of the road? I keep wanting to go somewhere quiet, my eyes were a little stuck together, gunned [sic] up this morning. Is it the road? Is it just the different air on a different continent? Is it the air conditioning? Will I get used to this?”

Author’s notes 29th September 2014: Had a morning inside trying to work in the flat, and I got tense, I got stressed, anxious, felt like I needed to escape. Took the rental car out for its last run around (ended up costing 250\$ for the 5 days...half a bike...is it worth it, I don’t know, wouldn’t have been able to get the bike without the car...or with difficulty).

Author’s notes 16th October 2014: “Three weeks in, and its different. It’s astounding what you can get used to. I can still hear it, but it doesn’t drive me crazy anymore, or if it does, it’s driving me nuts in a more subtle way.

The HOLC maps were colour coded according to the perceived future value or lending risk of a given zone. The blue areas (2nd grade) were characterized as: “completely developed. They are like a 1935 automobile *still good*, but not what the people are buying today who can afford a new one.” (Marciano et al., 2017). The area description file for the blue area depicted (above) contained: “Professional men, minor executives, small business men, white collar workers” (Marciano et al., 2017). Red areas, the lowest, and fourth grade, were generally described as: “Characterized by detrimental influences in a pronounced degree, undesirable population or infiltration of it” (Marciano et al., 2017). The particular description for the area of the apartment (in Figure 6.9) was described as:

Population is extremely heterogeneous, there being a concentration of Japanese south Temple St.- and one of Negroes west of Alvarado between Bellevue and Beverly Blvd..In addition to these concentrations there is a sprinkling of Russians and Mexicans..These adverse racial influences which are noticeably increasing inevitably presage lower values, rentals and a rapid decrease of residential desirability. While not blighted in its entirety it is not felt that the area qualifies for higher than a "high red" grade.. (Marciano et al., 2017).

The correspondence of the lines of Sunset Blvd do not by themselves constitute causal lines of argumentation i.e. that the HOLC maps *caused* redlining, which in turn caused the current difference in value and potential for gentrification. I have not here discussed the role of the 101 Freeway, either, which was only built in the 1940s (Samuels, 2017) but 1929 plans already indicate ‘street widening’ (The Traffic Commission, 1929)). However, nor are these factors mere coincidence. Gentrification – a term first coined by the sociologist Ruth Glass (Glass, 1964) and developed by geographers such as Smith (1979b) and Lees (Lees, 2011) - has been defined as: “the production of space for progressively more affluent users” Hackworth (2002, p. 815) in De Verteuil, 2010). In Los Angeles, gentrification is seen to be happening in pockets

throughout the city, causing displacement of poorer populations (De Verteuil, 2010). Yet the interrelations of gentrification with processes and policies of urban racial segregation (Massey, Douglas, & Denton, 1998) in the United States is complex and not fully understood (Hwang, 2016). Rather, the dividing line of Sunset delineates a tangle of queer inheritances of value: Body-loads of noise, exhaust emissions, micro-particle inheritances of freeway and road proximity; historical disinvestment associated with racist notions of valued and desired versus ‘infiltrating’ devalued and dehumanized populations; wealth accumulation associated with exploitation of (slave and wage) labour, the value of white privilege, consolidated, hidden and mapped-over by supposedly ‘objective’ technologies of land valuation.

How do the contemporary forms of gentrification which investors, gentrifiers, developers and agencies like BRE in Los Angeles spur, and live off, tie into these multiple inheritances of value? I asked bicycle advocates, an urban tree canopy advocate, professional transport consultants and a member of the planning department about my perceptions of differences in tree coverage, road surface and cycling facilities between Silver Lake Boulevard north and south of Sunset. The suggestions ranged from racialised patterns of investment, tree planting and upkeep throughout the city; ‘historical planting’ and pressure for infrastructure change by particular neighbourhoods and individuals; and supposedly ‘apolitical’ issues of practicality and resourcing: The Department of Transportation had plans to work on ‘lower Silver Lake Blvd’ but they had not yet implemented these and road diets are harder to implement near freeway on and off ramps.

Consensus on cycling value in the market of liveability

In the narratives above, cycling's symbolic value, attached to lifestyle choices, places, particular people, properties or automobiles are seen to enhance their value. Interrelated with this symbolic realm of value, the overlapping industries, institutions, practices and discourses of governance related to cycling are enrolled in a form of 'soft neoliberal' consensus (Foucault, *The Birth of Biopolitics*, p. 84 as cited in W. Brown, 2015, p. 69) on the aggregate valuation of cycling. 'Soft neoliberalism' (Peck, 2010), is seen as 'progressive' – 'diverse', 'liberated', green and pink (Puar, 2006), one where the 'softer' qualitative values around wellbeing, liveability and access are centered (Rajé & Saffrey, n.d.). Within this, consensus remains on the economistic techniques through which liveability and wellbeing are assessed and measured (universalized measures, monetization, hierarchies, growth and maximization), the ways access is distributed ('choice' through markets), and the understandings of teleological progress (logics of debt and present investment into presumed future growth). In this section I discuss how some of these techniques are employed within cycling, not to carry out an exhaustive survey of valuation techniques of cycling in the Los Angeles context, but to draw out how they function and with what effects. In the next section I elaborate on the forms of individual subjectivity valued, seen to be required and (always imperfectly) reproduced within this consensus.

Amongst policy makers, New Urbanism activists, developers and transport planners I spoke to in Los Angeles and at the Congress for New Urbanism (in Dallas, 2015) there tended to be a consensus around notions of 'progress'. The dominant narrative was one of investment being needed to counter the lock-in to automobility portrayed as dirty, dangerous and 'backward', the ensuing parking deserts and urban sprawl being *against* all that is progressive: Community, connection, sustainability, safety and health. Instead, progress is the creation of an array of

healthy, sustainable, affordable and convenient mobility choices that enhance human and environmental capital. This notion of progress is largely seen as universal and transferrable. League tables on bikeable (LADOT, 2012) and liveable cities¹²¹ indicate that this is a ‘universalizable’ set of measures through which objective progress can be attained. Yet, it is often a view of progress with a European ‘ideal’ and (at the CNU in Dallas, for example, a study trip to the Netherlands was entitled “Learning from the Best”) this is largely an imaginary of Europe portrayed as white, picturesque and middle-class. Sometimes European cities such as Amsterdam and Copenhagen are seen as examples¹²², and European planners and design studios are drafted in as consultants (e.g. Jan Gehl architects work in conjunction with Troller Mayer Associates and Melendrez on the Figueroa corridor in Los Angeles). There may be debates about whether and how these forms of urbanism can actually be achieved¹²³, but investing in “achieving a more vibrant and liveable urbanity” (Culver, 2017, p. 28) is not really questioned.

One of the ways in which achievement of ‘progress’ is measured, operationalized, evaluated and compared at a policy level is through attaching a monetary value to the costs and benefits

¹²¹ See, for example, The Economist’s “Intelligence Unit” global livability report: https://www.eiu.com/public/topical_report.aspx?campaignid=Liveability17

¹²² The U.S.- wide nonprofit People for Bikes, funded largely by the bicycling industry, developed a series of study tours to Copenhagen and Amsterdam for U.S. city officials (<http://www.peopleforbikes.org/green-lane-project/pages/netherlands2015>)

¹²³ Comparisons with Copenhagen and/or Amsterdam were also often followed by exasperated responses: ‘L.A. will never be an Amsterdam’. The Figueroa Corridor Partnership (representing the corridor’s business interests) “is committed to the area’s development as a safe, clean, economically vibrant, and aesthetically pleasing environment in which to conduct business, continue an education, visit a museum, attend a sporting event, worship, or reside” Amongst their 2013 ‘accomplishments’ were: “179 Illegal Vendor Contacts” and “3858 Transient Contacts”. (<https://www.figueroacorridor.org/who>). Clearly this is a vision where a vibrant and aesthetically pleasing environment is only accessible to subjects carrying out the above ‘sanctioned’ utilitarian ends.

of cycling. Particularly when it comes to making the case for ‘investment’¹²⁴ in cycling infrastructures and programmes, or making a choice perceived to be *for* cycling at the cost of other modes, there is pressure for policy-makers, transport researchers, consultants and cycling advocates to speak of cycling impacts on population health (Gotschi, 2011), sustainability (Boehmer et al., 2017) and the economy (Sierra Club, 2012; The League of American Bicyclists, n.d) in monetary terms. For example, Damien Kevitt, advocate for safer streets and survivor of a hit-and-run incident in Los Angeles, spoke about the City’s new adoption of a Vision Zero policy, on KPFK Radio’s Bike Talk programme:

Vision Zero¹²⁵...[...]. It’s smart because, honestly, there’s millions, hundreds of millions of dollars, every year, literally spent on handling and caring for those people who’ve been injured, medical bills and things like that, or lost time at work and productivity that if those people were not injured, you’d be gaining those funds and those resources and that energy that people produce by being citizens, productive citizens (Kevitt, 2016).

In this sense, ‘safety’ becomes operationalized as reducing the monetary medical and human productivity ‘costs’ associated with injury. Safety becomes a way to maintain bodily health, and health is allied to productivity of ‘resources and energy’ by individuals understood as citizens¹²⁶. This is not far from the way in which California’s Department of Health Care Services website discusses the Affordable Care Act or ‘Obamacare’ as: ‘allow[ing] California

¹²⁴ “Why estimate the costs to build bicycle and pedestrian improvements? Regional Transportation Plan is an opportunity to improve public health. Estimated cost for bike/ped infrastructure can inform discussion about investments in active transportation”. Text on a slide by Sternfeld and Haberman from County of Los Angeles Department for Public Health http://publichealth.lacounty.gov/place/docs/DPHCost_Method_new.pdf

¹²⁵ Vision Zero is: <http://visionzero.lacity.org/> “To decrease transportation related fatality rate to zero by 2035” (LA2035 Mobility Plan)

¹²⁶ As David Harvey has observed, within capitalism sickness is defined as the inability to work (in *Spaces of Hope*, as cited in Berlant, 2007b)

to make significant strides toward supporting a healthier, more productive state’ (California Department of Health Care Services, 2016).

The County of Los Angeles Department for Public Health’s ‘PLACE’ programme (Policies for Liveable Active Communities and Environments) has furthered the ‘Plan for a Healthy Los Angeles’. Introduced in 2014, it is the first health policy framework for planning in the City of Los Angeles and brings together different departments. Under the sub-heading “What’s the Problem?” the Los Angeles County Department of Public Health starts with:

“Heart disease, stroke, diabetes, cancer, and other chronic diseases are the leading causes of premature death and disability in our society. These conditions account for approximately 80 percent of all healthcare costs.” (Los Angeles County Department of Public Health, 2014b).

The document goes on to highlight how planning – including for transportation - can exacerbate or help address some of these health problems and inequities.

Monetization - as above through attributing costs to healthcare - facilitates processes of cost-benefit analyses, comparisons over time, across different initiatives, transport modes, departments (health, planning, transport) and between cities. Creating a common ‘bottom line’ and language such as attaching a monetary value allows for an assessment of the relative magnitude of impacts, or return on investment, and a guidance for ‘where we can target limited dollars’ (Claire Bowin, Senior City Planner with the City of Los Angeles, (Los Angeles County Department of Public Health, 2014b)). This is a double-edged sword for cycling. As discussed in Chapter 4 in terms of categorization, employing techniques of monetization and accounting for cycling value in economic terms may be necessary to gain the public and grant

funding required. However, it also ensures that cycling is enrolled (dominantly) within particular registers and circuits of valuation.

Within the urban policy context of cycling there was a wider sense, particularly at the Congress for New Urbanism (CNU), that to have ‘power’ to make ‘real changes’ in the ‘real world’ there is a need to speak the common language of this consensus. This particularly means understanding and targeting what different stakeholder’s (self-)interests are, as a Californian presenter in Dallas, in 2015 expressed it, rife with ‘driving’ metaphors:

“This is something CNU has always done...know your enemy, know your enemy really well. The reason we succeed and academia doesn’t succeed is that we engage developers, traffic engineers, banks, and we understand what’s driving them. We think about it, and we can speak their language and understand....quite frankly, modify our approaches based on understanding who they are and what they need to do. Academia never has that forceful engagement [audience roars with laughter], and therefore continue to drive down dead end streets...with hypothetical strategies that have no real power in the real world. We engage the people who...we engage all of their concerns and their thoughts...the reason I’m so fixated on co-benefits, we call them co-benefits, co-benefit analysis is that, I know that in any audience there’s gonna be 60 different people with 60 different agendas, and the more we can know each agenda and address it, the more power we have.” (Anonymous CNU presenter, 2015)

That particular CNU presentation was about carbon emissions reductions in California. In some respects, cycling in California has benefited from monetization of greenhouse gas emissions through the Cap-and-Trade Program started in 2012. The aptly named California *Air Resources Board* created the market for emissions (combined with Quebec in Canada) where parties, including transportation providers (since 2015), bid at auction for greenhouse gas emission allowances (Air Resources Board, 2017). In 2015 \$1.7 billion of the proceeds of

the auction – the “Cap and Trade Dollars at Work” - were reinvested into a range of projects that further California’s climate target. However, the High Speed Rail Authority, the Clean Vehicle Rebate Program and the California Strategic Growth Council have appropriated the largest proportion of funds and the 2016 annual report on spending does not mention the word ‘cycling’. Arguably some of the programs, such as the Affordable Housing and Sustainable Communities and Low Carbon Transportation programmes have components which include ‘active transportation’ particularly as a cited ‘co-benefit’ – or side-effect (California Climate Investments, 2016).

Although some of the benefits of cycling can be monetized in the ways described above, cycling does not really garner direct investment on anywhere near the scale of high-speed rail or the ‘greening’ of automobility. This is unsurprising when you consider the relatively low average running cost of (non-electric) cycling. Cycling advocates estimate the running costs of a bicycle at anywhere between \$350-850 per year (Alter, 2011) as opposed to spending on transport in the Los Angeles area (2013-2014) of \$8315 or 15% of the total household spend (of which 92.8% was spent on the cost of running and maintaining private vehicles (Bureau of Labor Statistics, 2015))¹²⁷.

‘liveliness’(geo) linked to the

The United States is the second largest (after China) global producer of motor vehicles, producing 12 million in 2015, while only approximately 200,000 bicycles were manufactured in the United States in 2015 (National Bicycle Dealers Association, 2015). In this way,

¹²⁷ In comparison, 13.1% or \$7279 was spent on food. These averages belie the disparities amongst income levels, with lower income groups spending more than a third of their incomes on transport (Lutz, 2014).

automobility in the United States maintains livelihoods and a circulation of value that is ‘too big to fail’. In 2009 the car industry was bailed out \$85 billion and in a speech to the United Auto Workers Union in 2012 President Obama said: “it is unions like yours that forged the American middle class, that great engine of prosperity, the greatest the world has ever known”. Given the emissions that result in this engine of prosperity, predictions of ‘peak car’ (Goodwin & Van Dender, 2013; Wee, 2015) and a car industry upheld by subprime loans amounting to a debt of \$1.17 trillion dollars in May 2017 (McLannahan, 2017) the questions are: How is this prosperity engine fuelled and how long can it run? How is present consumption and production of ‘prosperity’ based on future assumptions and requirements of economic growth (in a sense debts produce the requirements for future growth)? Equally, as will be discussed in the next section on cycling subjectivities, what modes of control (Deleuze, 1995, p. 181) are instituted through this indebtedness?

In this consensus, individuals as workers and as debt-carrying consumers are tied into these ‘vibrant and liveable’ urbanities through choice in the markets of housing, jobs, lifestyles and transport. The Congress for New Urbanism states: “The Congress for the New Urbanism (CNU) is an international nonprofit organization working to build vibrant communities where people have *diverse choices* for how they live, work, and get around.” [my emphasis added] (Congress for the New Urbanism, 2015). At the CNU conference a presenter, Jarrett Walker, spoke of his interpretation of Alan Watts’ quotation: “Western cultures are prone to ‘eat the wrapper and throw away the food’ as eating the glorification of technology and infrastructure, but throwing away the food of ‘freedom and accessibility’. Technology and infrastructure-fixes may be questioned, but freedom as the central value in transportation, it seems, cannot be questioned. A LA-based transport planner I interviewed reiterated this: Transport policy should be about

expanding the availability of good transport choices. It is both the right (and the responsibility) of individuals to choose within a market that maximizes housing and mobility options. Freedom to ‘choose’ in the openly competitive market, according to this ‘consensus’, cannot be limited aside from through ‘nudging’, marketing and market-based incentivizing, as encouragement to make the ‘right’ choices.

The wider policy problem with regards to inequalities and social justice then becomes largely framed as an inequality of access to the market of liveability. How can it be ensured that this basket of ‘goods’ (health, mobility, access to green spaces...etc) is distributed equitably? The emphasis is on enhancing the capacities of all to access a range of networks through mechanisms of market regulation, co-location, co-benefits, peer-to-peer networks, training, capacity building, confidence-building, resilience, optimism, resourcefulness. For example, enhancing access to the bike share scheme in Los Angeles was attempted through free bike-share passes¹²⁸ and through educational campaigns such as Operation Firefly (see Figure 4.14) where LACBC educates individuals on safe cycling and distributes free bike lights. While the benefits of these programmes should not be dismissed – they may make a real difference to the capacities of those individuals’ who benefit, and may forge new socialities - yet, through framing of ‘the problem’ as primarily one of individuals’ limited access to the liveability market there is a real risk of further reiterating discourses of individualized responsibility and ‘misdiagnosing’ and obscuring the deeper hierarchies of value and systemic inequalities. For example, an individual might be encouraged to take up cycling through an educational programme, but this will not take away the barriers that may exist such as distances from home

¹²⁸ (<http://www.scpr.org/news/2017/07/07/73599/as-metro-bike-share-turns-a-year-old-tips-to-incre/>)

to work, due, for example to precarious employment, rising rents and displacement (Stehlin, 2015).

Furthermore, ‘values’ or ‘costs’ associated with driving or cycling that are not readily attached to either individual or aggregate health, wider notions of sustainability, nor are readily measurable in economic terms become invisible. How, for example, can the attachment to place and the pain and trauma of displacement, James Rojas describes, below, be ‘captured’ through economized notions of value?

Displacement has always been part of my life, growing up as a Latino in East Los Angeles. First it was the constructing of the 60 Freeway which took the homes of family members; then it was the expanding of Roosevelt High School in the 1970’s, which erased our small family community...[...] Displacement is like a sudden death because something we once valued is abruptly taken away from us. Enduring places are like people and are interwoven with memories created by interactions with others set in place. [...] We leave and disperse with a collective sadness or pain that is rarely reflected on.

James Rojas, personal communication, 8th September 2016

There are problematic exclusions that occur not only with the ‘market of liveability’ itself, but with a diagnosis of these forms of cycling valuation as *solely* a product of neoliberalism. There is a silencing of discussion of historical violence – such as Rojas’ displacement, above - and constitutive injustices: What categorizations, definitions, ascriptions and flows of value co-constitutes these inequalities? In what ways are racial, class and spatial inequalities built into the very constitution and accumulation of value? Why is it, for example, as Salgado and Vasquez (2014) argue, through their comic *Justice For All* (Figure 6.10) that the sustainable

practices of those in poverty, particularly people of colour, are only valued once they are appropriated by the privileged?

Like the redlining map hidden underneath the Google map (Figure 6.9) in following and critiquing the neoliberal cycling valuation at face value, the specific histories of (de)valuation and dehumanization (Gilmore, 2007) based on racialization (e.g. colonization, slavery, racially targeted relations to debt), gender (e.g. control and exploitation of unpaid reproductive labour) and ability, are made to matter only in very particular ways. These risk becoming homogenized and sanitized ‘differences’ attached to different forms of consumer value (Winnubst, 2016). Categorized as different starting points, unequal levels and kinds of access to network capital, they are interchangeable differences in need of levelling out, rather than specific histories in need of excavation and re-membering (Haraway, 2016). Haraway uses the term re-member to herald a recognition of “all the members, animate and inanimate, that make up the knot of a particular life” (Haraway, 2008, p. 162). In the case of cycling valuation, this re-membering would recognize the historical and spatial workings of a whole set of other binaries: Human/nonhuman, human/less-than-flesh white/black, male/female, life/non-life, Body/flesh that are entangled and co-constitutive of ‘value’ within capitalist modes of value generation and exploitation. Yet these notions of value are not entirely reducible to ‘neoliberalism’, nor analyzable only through this interpretive lens.

A further risk that sometimes befalls diagnoses of ‘neoliberalism’ is falling into an in/out binary of hopelessness at necessary complicity: Either we are all under the spell of totalizing neoliberal capitalist societies of control (Deleuze, 1992) with little room for agency, flight or resistance (a kind of analysis Pignarre & Stengers (2011) caution against). Or, we must resist

it by undoing, unworking (Weeks, 2011) and disentangling from these modes of valuation. This is the risk of homogenizing cycling as a neoliberal mobility fix (Spinney, 2016) or of disregarding it simply as an accoutrement to a predominantly white, relatively privileged and self-congratulatory sustainable hipster aesthetic: As Spinney also recognizes (2016), there are multiple forms and uses of cycling, and these do not necessarily neatly fit into either a pattern of neoliberal complicity *or* outright resistance. With these critiques in mind, and staying within this contradictory space of complicity and resistance, I turn to ways of understanding how power operates through valued cycling subjectivities.

6.3 (In)human energies: Striving cycling subjects

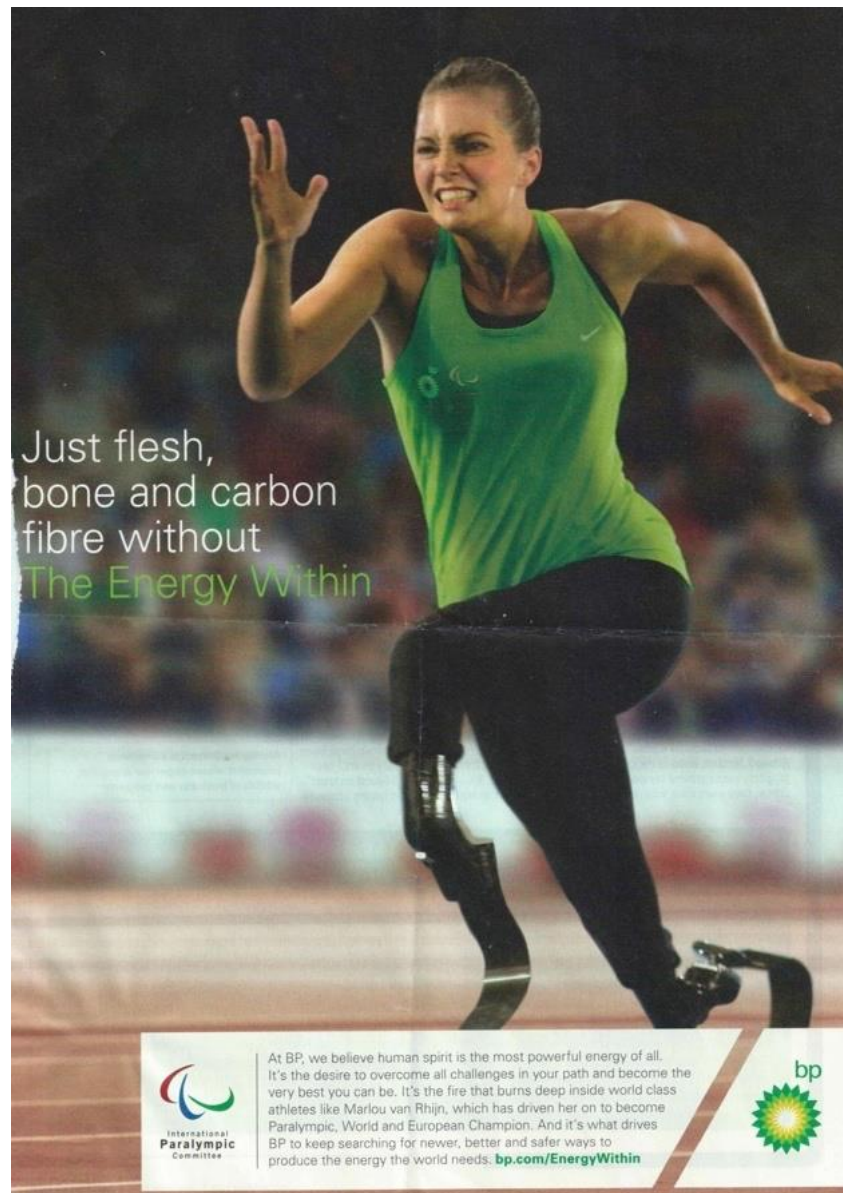


Figure 6.11: Photograph of BP advert and sponsorship of paralympic games, 2015

“My life has taught me one big thing about discovering the energy within, if you want to conquer others, you first have to conquer yourself” Professional cyclist, Lizzie Armitstead, BP Youtube advert, “The Energy Within”, August 1st 2016.

“I’ve always known that I’m in charge of my future, everything I do contributes to success or failure, for me.” Lizzie Armitstead, BP Youtube advert, “Striving for better” June 24th 2014.

“The disciplinary man was a discontinuous producer of energy, but the man of control is undulatory, in orbit, in a continuous network. Everywhere *surfing* has already replaced the older *sports*.”

Deleuze (1997)

In this section I turn to how the aggregate modes of valuation (monetization, quantification, categorization, comparison, hierarchies) discussed above co-construct particular forms of individual cycling subjectivities. In doing so I build on Foucaultian approaches to mobility (Bonham, 2006; Manderscheid, Schwanen, & Tyfield, 2014) and critical interventions on cycling (Spinney, 2016; Stehlin, 2014, 2015) which have theorized cycling as one way in which neoliberalization reproduces networked (Urry, 2007) ‘dividuals’ (Deleuze, 1992) or ‘entrepreneurial subjects’, imbuing in individuals the need for self-management of health, efficient mobility and productive labour to be socially and environmentally (Aldred, 2010) ‘responsible’ subjects (Cupples & Ridley, 2008). However, rather than see neoliberal urbanization as relatively independent of the ‘sustainability imperative’ as Spinney (2016) does, I argue that particular understandings of ‘sustainability’ as well as ‘health’ cannot be disentangled from one another, flows of energy and meaning, and the neoliberal contexts through which they are constructed.

The British Petroleum (BP) advert juxtaposed with Deleuze’s quote offers an inroad into thinking cycling subjectivity through the various enfleshments of (in)human energy. What I will call the ‘striving cycling subject’ is not intended to represent the complexities of actual individual cyclists, but to capture tendencies, flows and understandings of energy that are valued, fostered and increasingly required by prevalent economic and social conditions in LA.

Importantly, I want to emphasize a form of subjectivity that is neither simply passively internalized, nor do I want to valorize an active resistance (as positive, active) to this subjectivity. The bike in this framing is not simply a tool of neoliberal complicity *or* a liberating tool, mobilizing practices of resistance (reinventing subaltern spaces, ‘reinterpreting’ space (Spinney, 2010)). Instead, this striving cycling subjectivity is “likely to be inhabited in the mode of failure” (Joseph, 2014, p. 62), or in Lauren Berlant’s words is a form of “practical sovereignty” (Berlant, 2007b) a form of constrained agency: There are not such clear lines that divide the energy required to exist as recognized subjects; to strive, sell, click, rate and play along enough to be able to live, and the energy expended in forms of refusal and resistance.

Further, I want to avoid a form of dialectical materialism, through which the human power of ideology or discourse works through the subject to transform the inert ‘natural’ substance of the body, the *cycle and the city into something valuable¹²⁹. I want to avoid a view through which the *cycle and body are filled with social meaning and their culturally, socially, political-economic ‘value’ is determined through their use in social practices, exchange, fulfilment of needs and/or symbolism. Instead I want to think through subjectivities as complex, not entirely self-aware, rational, nor fully controllable, always incomplete and in formation through social, political-economic and always material conditions not of our own choosing (Gilmore, 2007). This is a subject constituted through the material-semiotic configurations outlined in Chapter 5, wherein value is not simply conferred through discourse,

¹²⁹ See Pheng Cheah’s discussion on notions of materiality in dialectical materialism and non-dialectical materialism (Coole & Frost, 2010).

but by material-semiotic forces of the world. Crucially, the energies and materialities of the *cycle, the city, the body – and their affordances – also have forms of agency.

In particular, cycling's configurations as discussed in Chapter 5, in many respects limit the capacity for circulation of energy, space and monetary value. This capacity (or lack thereof) is one of the presumed values of the green, clean, quiet and efficient mobility tool. The bike may be a 'trendy' add-on for millennials and baby-boomers wanting to move to 'liveable', walkable cycleable neighbourhoods (various talks at CNU 2015). However, catering to the bicycle is more profitable for housing developers in Los Angeles. Complying with Los Angeles' minimum parking requirements can cost up to \$40,000 per parking spot (Manville, Beata, & Shoup, 2013) and take up space that could otherwise be converted into another residential unit. The Los Angeles real estate developer Moses Kagan discusses this on his blog:

I, of course, would love to develop this kind of housing [21st century rooming houses]. After all, by cramming more people into a given space, you give yourself the opportunity to generate much higher rent per square foot than is generally possible in conventional apartments.

And LA obviously needs this type of housing. There are tons of kids coming into town who can afford \$800-1,000 / month, which is not enough to rent a studio in most neighborhoods, but is enough to make the model work on a rooming house. The problem, as with almost every type of development in LA, is the parking. So long as the city insists on having two spaces per 2-3 bed unit, developing rooming houses is infeasible. And that means young people are going to continue to suffer in the rental market... and the city is going to suffer, too, because we're going to be deprived of the talents and energy of a whole bunch of people who decide to move to Austin or Detroit or wherever.

(Kagan, 2016)

For developers near Downtown LA, building cycling racks instead of parking spaces might be an investment ‘valued’ through the calculation of profits. Yet cycling value cannot simply be registered through notions of opportunity costs or capital (Stehlin, 2015). The developer Moses Kagan, above and the cycling advocate Damien Kevitt, quoted previously, echo the BP advert in speaking of a ‘human energy’ associated with cycling that the city should want to keep, attract and safeguard.



Figure 6.12. Go Human campaign, SCAG

(Southern California Association of Governments, source: <http://gohumansocal.org/Pages/About.aspx>)

The language of human energy¹³⁰ and the human itself as being the true carrier of ‘value’ in a city or on a street is one that is reflected at the Los Angeles city and State level (see the ‘Go Human campaign of SCAG, Figure 6.12)¹³¹ and particularly through discourse on cycling. At a CicLAvia open streets event in Los Angeles, for example, where a selection of streets are closed to cars, Seleta Reynolds, General Manager of Los Angeles Department of Transport said; “what makes streets beautiful, safe and beloved is people” (LADOT, 2015). At the same event, L.A. Mayor Eric Garcetti lauded CicLAvia for allowing people to see each other’s faces

¹³⁰ This coincides to a time when US total energy use for transportation (from petroleum, natural gas, renewables and electricity) per year peaked in 2007 and has stayed relatively stable since then (Oak Ridge National Laboratory, 2017).

¹³¹ The ‘Go Human’ social marketing campaign launched in 2015 by the Southern California Association of Governments is used to promote safe walking and bicycling (www.gohumansocal.org)

and recognize friends, something that doesn't happen "when we're stuck in our cars" (LADOT, 2015). This aligns with discourses on the importance of place, walkability and community that has long been a focus of new urbanism (Duany, Shiffman, & Torre, 1994) and is central also in Jane Jacobs' focus on pedestrians and 'eyes on the street' (Jacobs, Hirt, & Zahm, 2012).

But who gets to be recognized at a CicLAvia? If people make streets 'safe and beloved', why does General Dogon (Figure 6.3) need to do the work he does on Skid Row? Why are people sleeping near cycle paths described as 'blight' (see discussion in Introduction)? Clearly this 'human energy' speaks to a selection of humans and particular forms of their energy seen as worthy of inclusion, recognizable as productive and valued. What is alluded to in these discussions of human energy is more than the transformation of food energy to the energies of cycling, work and life. As depicted in Figure 6.11, it refers to something almost 'immaterial' – an internal human drive and at the same time, a racial, ableist, economic and gendered notion of what it means to be a valued human. Yet, the ecologies enrolled in BP's business and the collages of images above are hardly 'immaterial'. As I will discuss more below, particular assemblages of humans and tools, equipment and practices of valuation attend forms of cycling mobility, and in doing so, displace/'emplace' value and energy in particular ways and through particular cycling bodies.

These (im)material contradictions are a hallmark of an ideal subject of 'soft neoliberalism' (Peck, 2010). I want to use the app Strava and their concept of 'striving' to think through some of these (im)material entanglements of neoliberal subjectivation. I use Strava not so much for the specific functions and interfaces of this particular app (as has been done by Schwanen,

2015a), nor was it mentioned or used particularly often amongst my respondents. Rather, it is the language of ‘striving’ (see quotes by Armitstead under Figure 6.11) and the techniques of individual subjectivation that I want to draw out.

Being an athlete is simple – all you have to do is strive.

Strava is the social network for athletes, but not everyone is comfortable calling themselves an athlete. It can be hard to live up to that title. Does it mean you have to be a pro? Or race? Or get a CR/KOM/QOM?

Our answer is: just be yourself. Be on the road. Be on the trail. Be relentless. Be daring. Be proud. Be a teammate to other athletes.

It doesn’t matter how fast you are, how many races you win – or if you race at all. All you have to do is strive. That’s it. Strive to be an athlete, and you are one. Be brave enough to lace up your shoes and break a sweat, and you’ll have a place in the Strava community.

(Source: Strava Stories: <http://blog.strava.com/strive/>)

Using a phone or bike computer’s GPS, and linked up to ‘power meters’¹³² and heart rate monitors Strava tracks, times, maps and analyses ‘performance’. Users can share data and images of a ride and compete with a ‘global community’ of athletes (www.strava.com). For several respondents the particular ‘allure’ (Schwanen, 2015a) of the app and cycling computer they used meant they described it as ‘addictive’, immediately went to their computer to analyse their data after a ride, or that cycling was ‘all about the numbers’. One respondent described being so drawn into her cycling computer, she was involved in a crash. While only three

¹³² A power meter is a device installed into the crank, hub or pedal of a bike to measure the power output of the rider where power = force x (displacement/time). Power, in watts, has increasingly become a ‘currency’ in training for sport road cycling and racing. These devices ranged in price from \$500-\$1600 in April 2016 (<http://www.bicycling.com/bikes-gear/guides/what-to-know-before-buying-a-power-meter/slide/8>).

individuals I spoke to mentioned data and tracking as a dominant aspect of cycling, the notion of striving and the techniques of self-monitoring (including the use of ‘wearable’ trackers like Fitbits) and social media sharing/surveillance employed by Strava and its users, represents a much more pervasive set of subjectivation practices.

Striving embodies a core notion of the valuation of human energies: Vitally, the desired end state of ‘health’ or ‘sustainability’ is not ever truly achievable – “one is never finished with anything” (Deleuze, 1992, p. 5). Beyond a point¹³³, your value is not only attached to an identity or an identifiable notion of belonging. Supposedly (and this is the ‘lie’, I will argue later) what class, race, gender you are, what forms of disability you have, nor what particular sport you do *matters* – as long as you are striving towards self-improvement¹³⁴. In Foucault’s terms it is a society and economy made up of individuals as enterprise-units (W. Brown, 2015; Foucault, 2008, p. 225; Mbembe, 2013). These are not parties to an exchange but rather ‘entrepreneurs of the self’ and ‘abilities-machines’ (Foucault, 2008, p. 226).

“ Universal Truth #1: Cyclists love data.

Heart rate monitors, cadence sensors, power meters are part of our love affair with numbers, but it’s hard to put all that information together and have a meaningful conversation with others. Strava does an excellent job culling all of our GPS information together and cycling has never been the same.

Source: <http://ciclavalley.org/what-strava-heat-maps-tells-us-about-cycling-in-los-angeles/>

¹³³ The laws, and increasingly executive orders, surrounding citizenship and right to enter, remain, work and access services in the United States notwithstanding.

¹³⁴ The impossible bind is in the proclamation to; ‘just be yourself’ as long as you do not stay who you were before you started striving.

The love of data may not be a universal truth. At Black Lives Matter protests in Los Angeles in 2014, organisers, cyclists and pedestrians feared having their phone data and identifying information scraped by law enforcement Stingray devices (American Civil Liberties Union, 2017). However, the striving (cycling) subjects are damned if they do, damned if they don't: Be plugged in to access the necessities to live and be recognized as such, but then be open to surveillance and categorization (risk being subsumed into categories of the 'other', the transient, the dehumanized and imprisoned, the terrorist, the threat to order and security). Striving subjects are composed of and working both as 'data' and as networked nodes (Haraway, 2013) to transfer and proliferate data – representable as a series of GPS locations, an online 'trace', a credit rating. As Deleuze (1992) puts it, in a society of control, the subject is "undulatory, in orbit, in a continuous network" (p.6).

Success may not be directly quantified in monetary terms, but the traces¹³⁵ of monetized, quantified and hierarchized value remains: Units of BMI (body mass index), pounds (of weight), calories, power, BPM (heart beats per minute), check-ins, miles, 'friends', likes, star-ratings, hits, heat and clicks. Yet, a successful ride alone, it could be argued, without its commodifiable tracings, has little economic value. This form of value is generated once a ride is geo-located, filmed, mapped, tagged and shared, aggregated, networked, relayed and replayed. Percentiles, ratings and leader boards allow for competition with yourself, beating your own 'personal best' and amongst peers in your 'community'. Strava captures here how the success of the individual striving 'node' lies less in the content of the activity (*"it doesn't matter how fast you are"*). What matters is the ranking and the climbing of the hierarchy (e.g.

¹³⁵ The link, for example between UK £ (pounds) and lbs of weight (pounds) (Thank you to Sarah Whatmore for this point).

a ‘leader board’) and the ability - connectedness, speed and effectiveness - of transferring and proliferating data/value itself. Locational and mobility data - in aggregate - has monetary value in both targeted marketing and ‘security’ (M. W. Wilson, 2012) as well as, increasingly, for political campaigning and urban planning¹³⁶. The value, then, of the striving subject within the wider economy¹³⁷, depends on their capacity to strive, to further and grow the (perceptions of) future economic (or economizable) value more rapidly.

Dematerialized, ‘sharing’ subjects

The car’s role in producing individualized mobile subjectivities has been studied extensively (Lutz, 2014). The striving cycling subject does not renounce entirely the value of ‘individualism and independence’ (McDowell, 2004) but it is not a subject of possessive individualism, as much as a ‘nodal’ independence - striving to grow its capacities to network (Urry, 2007) and transmit value. In some representations, the ideal striving cycling subject is framed as mobile and almost ‘dematerialized’ – the global young creatives working in code, cottage industries, capital and clean technologies, from local trendy coffee shops (see Figure 6.13). In the marketing speak of housing developers at CNU 2015, Millennials¹³⁸ were said not to desire ownership of cars or houses, but instead want to participate in dense networked sharing economies of access. Rather than *owning* specific technologies such as cars (Goodwin

¹³⁶ Since 2014 Strava has sold data for bicycle and pedestrian transport planning under their data services branch, Strava Metro (Strava Metro, n.d.). Seattle and Queensland are cited on their website as case study cities.

¹³⁷ I am cognizant here of omitting the ways in which an app itself can have ‘value’ for an individual, or, as Schwanen puts it, drawing on Object-Oriented Ontology, forms of non-relational non-instrumental ‘allure’ (Schwanen, 2015a)

¹³⁸ The interest and focus on the desires and habits of millennials can be summarized by: “(“one of the largest generations in history...about to move into its prime spending years” (<http://www.goldmansachs.com/our-thinking/pages/millennials/>)

& Van Dender, 2013; Wee, 2015), the theory goes, which are burdens and responsibilities to have, care for and store, potentially making subjects less mobile in response to changing labour markets, they are encouraged to buy into membership. Alternatives to ownership exist in terms of memberships to bike shares (see One Santa Fe images, Figure 6.13), Uber to access a car and Airbnb for accommodation. Conversely, possessions are seen as assets that stem the flow of value/desire (you cannot desire and consume what you already own) - and need to be mobilized to their full capacity; a spare room and bike are rented out on airbnb, 'spare' time and a car become their Uber driving enterprise. The latent question, of course, is whether the consumption patterns of so-called 'millennials' is truly a reflection of changing desires and cultural trends or worsening economic prospects: There are rising levels of car debt (McLannahan, 2017) and student debt in the US (Fry, 2014) and the median income of renters in Los Angeles is declining while rental prices are increasing (The cost of rental for a studio in One Santa Fe (Figure 6.13) was \$1958/month in 2017), leaving almost 80% of low income renters 'severely rent burdened' (with more than 30% of income going to rent and utility costs (Capperis, Ellen, & Karfunkel, 2015)). Perhaps the shift from ownership towards a 'sharing economy' can equally be analyzed as a primitive accumulation of the means of social reproduction.



Figure 6.13. A collage of Downtown ‘regeneration’: One Santa Fe

Photographs taken by author outside and around One Santa Fe residential complex, LA, 2015. Clockwise from top left: Broken television on bridge over LA River, by One Santa Fe; One Santa Fe bike and electric car; Sign ‘Coming soon: Unique Merchants, local restaurants, organic grocery; Affirmations on vegetarian Café Gratitude; One Santa Fe Bike Share; Nearby coffee shop.

More-than-human energies, less-than-human value

Emphasising the ‘human energies’ and the techniques and tools through which cyclists become networked nodes, productive of – and constituted by - data, in an increasingly ‘dematerialized’, service and sharing economy risks obscuring the more-than-human energies that flow through and constitute these economies and subjects. It also risks hiding the constitutive production and displacement of values and subjectivities rendered abject and unvalued.



Figure 6.14 “Fat Lane/Fast lane” (Loveyourbike.org, 2006)

Image courtesy of Creative Concern / Manchester Friends of the Earth. Photography by Graeme Cooper, art direction by Mat Bend.

In just a few words the slogan “Burn fat not fossil fuels” (and the billboard, Figure 6.14, by Friends of the Earth in the UK) captures some of the pitfalls of a ‘puritan’ understanding of cycling as a valued practice for health and sustainability. The anti-obesity (Evans & Colls, 2009) rhetoric employed is evident, and indicative of problematic automatic assumptions around obesity, exercise and ill-health used in pro-cycling discourse. This indicates the ways

in which a ‘striving’ valued cycling subjectivity relies on the making-object of the alternative – the fat, the supposedly unfit, the slow.

The notion that cycling burns food or human fat ‘calories’ in contrast to cars which burn oil or fossil fuels is a difficult line to maintain in both material and semiotic terms. Energy gels¹³⁹ sometimes used by sport cyclists are sold with names like: vi-fuel, torq-gel, accel-gel, ignite, re-load, surge, roctane. If you are what you eat, or buy into what you would like to become, do these ‘fuels’ idealize and conjure up a machinic cycling body - less perishable, fallible and fateful and more precisely, expertly engineered? They also often contain non-calorific ‘energy’ in the form of caffeine. They speak to the non-food substances from which cyclists gain energy: Ranging from ‘everyday’ substances such as painkillers, nicotine, caffeine, alcohol and marijuana to the PEDs (Performance-enhancing drugs) such as steroids, bronchodilators, EPO, growth hormones and testosterone that have been intimately wrapped up in the economies and cultures of cycle racing. The line between a socially and legally unacceptable medicine or ‘drug’ and merely a lifestyle consumption choice - or an integral part of some cycling socialities, with respect to beer and coffee, in particular – is very blurred.

Hard lines distinguishing ‘clean’, ‘healthy’ bodies and ‘real’ food are problematic for a number of reasons. Some of the substances used in doping are made to closely resemble human hormones, and have been produced for ‘legal’ medical use and agricultural production. The majority of food and drink produced in the United States relies heavily on the inputs of fossil fuels at every stage of production, packaging, storage and transportation (Pfeiffer, 2006). As

¹³⁹ I was first handed one for free on the LA River Ride in 2015

Matt Huber (2013) argues, since World War II the U.S. food system has been “completely fossilized” (p. 87) – with manual (human and animal) labour being replaced by fossil-fuelled equipment, and pesticides and fertilizers increasingly derived from fossil fuels (e.g. nitrogen ammonia). Even human adipose tissues (‘fat’), or energy from human biomass that may be ‘burned’ or used in the process of cycling, cannot be understood apart from the fossil fuels that suffuse it. The body, as Huber (2013) points out, is reproduced in, with and through petroleum products – food, fabrics, cosmetics, medical equipment and medicines.

An over-simplified valorization of the ‘healthy’ and ‘responsible’ behavioural ‘choice’ to cycle also obscures the relations of power through which flows of energy and metabolics are configured. Los Angeles County is home to the U.S.’s largest population of food insecure people. Nearly 1.5 million, or 14.7% of LA County residents are food insecure (Feeding America, 2015) and food insecurity has been linked to obesity, particularly in women (Townsend, Pearson, Love, Achterberg, & Murphy, 2001). An estimated 55% of Californian adults are pre-diabetic or diabetic (Babey, Wolstein, Diamant, & Goldstein, 2016) and rates of diabetes and obesity vary strongly by race and poverty (Levine, 2011). Figure 6.15 compares the scale of loss of limbs in war with those due to diabetes. Such figures and correlations and, many more¹⁴⁰, tend to be drawn out to target policy initiatives towards particular populations, geographies and practices. Yet, policies based on assumptions of food and energy as material ‘stuff’ to be measured, distributed, followed and purified from their semiotic entanglements, denies the more-than-material imbrications of ‘human energy’.

¹⁴⁰ One such correlation is that of increased average temperatures and rates of diabetes. The underlying pathway is hypothesized to be tied to the work of brown adipose tissue (BAT) – with higher abundance of BAT in lower temperatures and BAT potentially protecting against diabetes (Kaplan, 2017).

Figure 6.15: Artist unknown, Manifest Justice, LA, 2-10 May 2015.

In an article on the failure of the 2008 fast food restaurant ban in South LA, Sulaiman (2015), wrote about Shanique, a 19-year-old South LA resident, who was obese and did not have

enough money for food. The day Sulaiman spoke to Shanique she was going to see if she could get hot dogs at the rec centre a mile away. Yet, as Sulaiman's article expresses, juxtaposing these few bits of information about Shanique: Her weight, the lack of availability of healthy food, and potentially low levels of exercise, do not do justice to the varying forms of energy she needs to persist. Shanique has experienced food insecurity, rape, the violent deaths of her brother and step-father, exclusion from school, being charged with a felony, her mother's disability and her fear on leaving the house due to threats from her brother's killers.

There needs to be recognition of the ways in which trauma, displacement, violence, food insecurity and food types, availability of safe spaces, bodily activities and capacities enflesh in particular ways and require efforts (Ahmed, 2015b) and forms of (in)human energy that are not necessarily captured via joules or calories. There also needs to be consideration of how enfleshments of trauma, loss and insecurities of income and food, may conflict with normative and 'valued' activities (regular exercise), temporalities, rhythms (e.g. dietary advice on 'regular small meals') and 'futures' associated in understandings of health and sustainability as planned 'investments' into future health or longevity.

Simply tracing, mapping or correlating populations with BMI, disease, and the availability, use or expenditure of joules and calories, does not do justice to how there is a psychic, socio-genic (Wynter, 2001), more-than-material flow of energy/force that co-constitutes the material, one that is deeply enmeshed in dominant (white supremacist, heteronormative, patriarchal) hierarchies of value. Seeing human energies, forces and capacities as always bios-mythoi (Wynter, in McKittrick, 2015), as both biological and cultural allows for a more complex understanding.

In this way, fat, calories, the ‘energy’ and financial resources to undertake physical activity, symbols of health and sustainability are ‘coded’ by and reproduce wider hierarchies of value. In the production of value through categorization and hierarchies, there is the required production of the excluded and not-yet valued. When you ride at the CycleHouse, for example (see Figure 6.16, below), the price per session produces an ‘exclusive’ community, one where luxuries of eucalyptus towels and virtuous fruit snacks are provided, and where the valued (active, quick, training, riding, working out, deserving of comfort) *you* is constructed through the devalued (in need, underserved) *they*. Rather than a redistribution of energies/income/resources at source (e.g. taxing the wealthy an additional \$29 directed to a basic universal income, for example) additional energies, resources and money are circulated through systems that serve to enhance the enfleshed ‘value’ of some (the riders) through economies of charity.

As the Salgado and Vasquez comic (Figure 6.10) discusses in relation to sustainability, there is a symbolic value attached and reproduced by a selected ethno-class of human (Wynter in Scott, 2000) ‘making good choices’, whereas the “lack-of-being” (Wynter in Ansfield, 2015, p. 138) encoded into black and brown people in relative poverty is associated with lack of agency and choice in relation to their bodies and environments. For example, shifting ‘responsibility’ for obesity from Shanique as an individual onto wider social structures or the spaces of the city (access to green spaces, food deserts, poverty, race) may be necessary. However, it still maintains intact a symbolic hierarchy wherein notions of deviance, impurity, lack of agency, unfitness, unhealthiness are coded onto poverty and the racially ‘othered’, and purity, cleanliness, fitness, agency, activity and health are coded through whiteness, normality and morality (Ansfield, 2015). What needs to be recognized, and is symbolized by the

CycleHouse ‘Take 1, Give 2’ (below), is that the virtue, values and ‘normality’ requires a notion of the biologically ‘dysselected’ (Wynter, 2003) the ‘liminal other’ – the slower, fatter, the unfit, the ‘underserved around us’ – in order to uphold the particular valued “order of knowledge” (Wynter, as quoted in Ansfield, 2015, p. 136).

Figure 6.16: Take 1, Give 2, CycleHouse

“Every ride at the House is a full body, fat-burning workout that incorporates interval training designed to produce real results, real quick. [...] At Cycle House, we’re all about community and providing the best training experience for our riders. We offer rental shoes for \$2, cooling eucalyptus towels, locker rooms stocked with all the essentials, fresh fruits to munch on, and a comfortable lounge area to hang out after class! The best part about the Cycle House experience is that it ends with something special. We care deeply about improving the underserved community around us and so for every single ride taken, we donate two meals to a person in need.” CycleHouse Los Angeles, 2015

6.4 An immanent ethic of enfleshment: Cycling response-ability

“Curiosity is seen as futility. However, I like the word; it suggests something quite different to me. It evokes "care"; it evokes the care one takes of what exists and what might exist; a sharpened sense of reality, but one that is never immobilized before it; a readiness to find what surrounds us strange and odd; a certain determination to throw off familiar ways of thought and to look at the same things in a different way; a passion for seizing what is happening now and what is disappearing; a lack of respect for the traditional hierarchies of what is important and fundamental.”

(Foucault, 1994, p. 325)

“How might we embrace, as Sylvia Wynter puts it, “being human as praxis” and think outside the logic of coordinated exclusion and profitable conformity”

(McKittrick, 2015a, p. 154)

“As a way of conceptualizing politics, then, habeas viscus diverges from the discourses and institutions that yoke the flesh to political violence in the modus of deviance. Instead, it translates the hieroglyphics of the flesh into a potentiality in any and all things, an originating leap in the imagining of future anterior freedoms and new genres of humanity”

(Weheliye, 2014, p. 137)

Cure/Curiosity/Care/Cry/Queer

It matters what thoughts think thoughts (Haraway, 2016) and what words world worlds. Being curious about the etymology of a wor(l)d means an opening, an orientation towards the history of all the meanings it carries, like hidden fragments of DNA or code, these archaic links and shared roots carry queer linkages and immanent possibilities.

curious (adj.)

mid-14c., "eager to know" (often in a bad sense), from Old French *curios* "solicitous, anxious, inquisitive; odd, strange" (Modern French *curieux*) and directly from Latin *curiosus* "careful, diligent; inquiring eagerly, meddling," akin to *cura* "care" (see *cure* (n.)).

care (v.) Old English *carian*, *cearian* "be anxious, grieve; to feel concern or interest," from Proto-Germanic **karo-* "lament," hence "grief, care" (source also of Old High German *charon* "to lament," Old Saxon *karon* "to care, to sorrow"), from Proto-Germanic **karo* (source also of Old Saxon *kara* "sorrow;" Old High German *chara* "wail, lament;" Gothic *kara* "sorrow, trouble, care;" German *Karfreitag* "Good Friday"), from PIE root **gar-* "cry out, call, scream" (source also of Irish *gairm* "shout, cry, call;" see *garrulous*). OED emphasizes that it is in "no way related to L. *cura*." Related: *Cared*; *caring*. Positive senses, such as "have an inclination" (1550s); "have fondness for" (1520s) seem to have developed later as mirrors to the earlier negative ones.

queer (adj.) c. 1500, "strange, peculiar, eccentric," from Scottish, perhaps from Low German (Brunswick dialect) *queer* "oblique, off-center," related to German *quer* "oblique, perverse, odd," from Old High German *twerh* "oblique," from PIE root **terkw-* "to turn, twist, wind" (see *thwart* (adv.)).

Source: <http://www.etymonline.com/>

The etymologies of the wor(l)ds introduced above, reveal curious¹⁴¹ linkages and lineages: To queer is to turn, odd, strange and off-center. Care is a cry, grief, sorrow, a call, an inclination, an orientation. Curiosity is akin to care, and meddlesome, odd and strange. There is a sense of ambivalence of value within these words that I want to carry through the section that follows. In this section I look towards a curious¹⁴² ethic of enfleshment as an immanent ethic: A practice of cycling ethics, rather than an attachment to cycling as a tool towards achieving valued ‘ends’. I will first introduce the theoretical lineages I draw on, before taking a curious test ride into an ethic of cycling otherwise; through futurities (food waste), questioning binary hierarchies of life/death, and howling and healing ‘otherwise’ with the Ovarian Psycos (O.V.A.S).

I will think an ethic of enfleshment through bringing together anti-humanist, Deleuzian inspired material feminisms (e.g. Grosz, Braidotti) and decolonial, black feminist *counterhumanisms* (Wynter & McKittrick, 2015, p. 11) inspired by the work of philosopher and theorist Sylvia Wynter (e.g. McKittrick, Mignolo). While theorists such as Weheliye (2014) have brought these traditions into conversation, others have argued that they are largely incompatible, and incomparable (Tlostanova, 2017): The former relying on concepts from the Western philosophical canon, whereas the latter are de-colonial epistemologies “undermining the very epistemic grounds and principles of modernity/coloniality” (Tlostanova, 2017, p. 28). Rather than attempting to neatly resolve this tension, I want to draw out some of the ways

¹⁴¹ I am indebted here also to Haraway (2016) and her discussion, through the work of feminist theorists Vinciane Despret and Isabelle Stengers, of a ‘curious practice’ of ‘visiting’, thinking-with and making theory and practice.

¹⁴² This is a curiosity that, as Povinelli puts it, drawing on Foucault, is not about gathering knowledge, but about allowing one to be free of oneself (Povinelli, 2012). With ‘self’ I want to think with, but also beyond the notion of the individual, authorial ‘self’ as well as the human ‘self’.

in which these traditions might offer imaginaries and practices towards an ethic through cycling: One that departs from the subjectivities, hierarchies of value and techniques of power described in the section above.

Despite different conceptual lineages, there are assumptions both frameworks have sought to unsettle and which I want to draw attention to: Linear thinking on progress and futurity; universalized notions of value; and hierarchies of value in relation to life/death, animacy and inanimacy. Both approaches have sought to develop a form of ethic, rather than set out *a priori* alternative hierarchies of values that dictate how future action is to be undertaken (de la Bellacasa, 2012), they have focused on a praxis (Wynter & McKittrick, 2015), ethologies or logics of practice (Grosz, 2017, p. 255) of thinking-being human *otherwise* beyond the humanisms and associated binaries and hierarchies associated with the human as Man.

In both cases, this is an onto-ethic in that it is immanent from ontologies of humanness. As discussed in Chapter 4 and 5 in particular, through ontologies of enfleshment, these are relational ontologies wherein ‘nothing comes without its world’ (de la Bellacasa, 2012), and the human is understood as always constituted through the material/ideal (matter/meaning) (Grosz, 2017, p. 250) or in Sylvia Wynter’s Fanonian conceptualization: the socio-genic and bio-genic (Wynter, 2001). Rather than leaving the bio- geo- chemical and evolutionary understandings of humanness to biopolitical, racialized ‘science’, both traditions in their own ways: “Insist[s] that we take seriously the workings of neurology, blood, flesh, bones, and muscles, as biological life and death are language[d] into existence...[...]” (McKittrick, 2015a, p. 155) .

6.4.1 Futurities – (or Unfuck/unlearn the world)

Question: Why waste emotion when there's no future?

Answer: Because it feels good now.

(personal communication)

“Derrida, insisting on the future insofar as it is futural, asks that we open ourselves to the “to come.” Freedom would not be a theoretical object, but it would have practical effects: act as if the future were incalculable. Indeed, responsibility would only be responsibility if it were responsive without having calculated its range in advance.”

(Colebrook, 2016, p. 210)

The forms of futurity imagined in both these traditions are in some respects linked to the ‘futility’ that Foucault speaks of in the quote on page 276. This is a future that does not simply seek to ‘include’ or ‘improve’ those whose futures have been disinvested in, made unimaginable and cut short. It is another imagination of futurity one that arises, and is oriented towards, the ‘undercommons’¹⁴³ (Halberstam, 2013; Harney & Moten, 2013) those people, places and temporalities, considered failed, futile or ‘pointlessness’, unproductive, or waste within dominant modes of valuation. Women, the undocumented, the queers, les damnés (Fanon, 1963), the crips (Kafer, 2005, 2013), the dysselected (Wynter & McKittrick, 2015) who the current dominant hierarchies of value and valued subjectivities place as lesser-than, and within liberal notions of justice as inclusion are seen to need inclusion, equalizing-with and improvement to ‘strive-to-become’ fully Human.

¹⁴³ The Undercommons is also the name of a collective of Black graduate students at UCLA, started in 2016. They have constructed a meetings space for “people with marginalized ways of knowing that are often devalued by the university..” to examine and seek to achieve liberation (theundercommons.wordpress.com)

In a process of transduction¹⁴⁴, rather than a dialectic of power and dominance versus valorized resistance (as introduced above in the discussion on subjectivities), this is about seeing what lies in the interstices of dominant modes of valuation. Importantly this is not a question of positing alternative values *against* dominant ones in a ‘flipped’ hierarchy of valuation, maintaining a teleological drive towards a planned ‘better’ world.

This departs in important ways from projects that expand the realm of ethical consideration or shift the emphasis onto alternative sets of values. An environmental or post human ethic might include the planetary level, future generations, or nonhuman species or communities understood otherwise into their ethical remit (Whatmore, 2002). Within feminist political theory for example, authors like Sevenhuijsen (1998), Gilligan (in Hekman, 1995) and Tronto (2016) have countered patriarchal devaluing of the ‘feminized’, privatized sphere of emotional and corporeal work of care. Instead they emphasize a democratic politics or socialist solidarity (McDowell, 2004), with values centred on human relationality, capacities for empathy and responsiveness as opposed to neoliberal valuation of competition and individualism. Responsibility is seen to rest not so much on individuals as on wider social harms and inequities (Lawson, 2007). Postcolonial or anti-colonial geographers (Raghuram, 2016; Raghuram, Madge, & Noxolo, 2009) thinking care together with responsibility have considered how these can bring recognition to injustices at a temporal and spatial ‘distance’, allowing a “vigilan[ce] to those historical relations which remain hidden, unrecognizable or have mutated” (Raghuram et al., 2009).

¹⁴⁴ For Simondon (Grosz, 2017, p. 180) this is a process of ‘transduction’ as opposed to a dialectic – analyzing not what needs to be negated or overcome, but that which, “returns, transforms itself without an unusable residue, and that, if it leaves a remainder, leaves it as dynamic and full of potential, an inexhaustible if changing virtuality”.

The expansion of values beyond anthropocentric, colonial, productivist, economic and utilitarian forms is vital, yet my emphasis here is less on how values can be replaced by a morality rooted in alternative values of a care, social responsibility and solidarity¹⁴⁵ but to enact other ways of being human through the ontologies I have drawn on in Chapters 4 and 5. Importantly too, while resistance is necessary on one level (e.g. resistance under the current U.S. Trump administration), the fundamental imbrication of subjectivities and materiality of lives lived within dominant regimes of value, makes ‘resistance’ both something of a luxury and an impossibility: If being a ‘striving subject’ and entrepreneur of the self is necessary to have an income, who can afford not to ‘strive’?

Instead, the futurities I am thinking with have no truck with strict defining lines of outside/inside, good/bad, nor before/after. It is a call not to make a new world, but to “Unfuck” or ‘unlearn’ the present world with the tools it has given us – be that duct tape, repurposed crates and dumpster dived food as in Figure 6.17. The photo depicts members of the Comida no Bombas who brought ‘food waste’ to the O.V.A.S-led ride to the Unfuck the World event. An event organized by an LA-based organization ‘A million drops’ dedicated to improving the lives of homeless and at-risk youth and young adults.

As Kirby (2011) notes, in discussing the work of Derrida and Irigaray: “the freedom, or ‘play’ in a system, does not come from some radically other, parallel or separate arena, from ‘outside’ of the given system, but emerges from within the ‘frisson’ constituted by its very operation; a different economy of valuation, indeed, different worlds, can be found within the very ‘scene’ from which we might hope to escape” (p. 113). Similarly, for McKittrick (McKittrick, 2015a):

¹⁴⁵ This still begs the question of who/what is to be included in the realm of the ‘social’, by what conditions of exclusion, who or what is subject to solidarity and with what effects?

“Man-as-human-and-origin fades away not to be *replaced* by an alternative perspective/figure who occupies that divining position, but rather to bring a challenge to *where* humanness takes place.” (McKittrick, p. 155).

Figure 6.17: Notes on Unfuck the World event, Saturday 13th June 2015

It was the first co-ed ride of the year - one guy and his friend, he was holding a plastic straw like a cigarette, had just quit 13 days. He said it was easier than all the other drugs. He had a lot of tattoos, works in a drug treatment centre I think. He had an easy rider. Three guys showed up with a great cargo bike, filled with clothes to donate. After we stopped off in Silverlake they showed up with a bunch of food - bags of baguettes, some bananas, that had been dumpster dived. He goes there quite often. They're with Comida no Bombas. Food not bombs.



This notion of futures is conditioned through distributed spatio-temporalities (or queer inheritances, as discussed in Chapters 3 and 5). As I will discuss further, below, this is a future inherently knotted into the spatio-temporal practices of the present, and the particular figuring of histories. Yet this is not a future that follows deterministically from the past, as Colebrook

(2016) writes (in the quote above) this is a futurity that has an openness, one that is not pre-determined. This is not a past that is over and fixed in time and place, but as Sylvia Wynter and Katherine McKittrick write, it is about: “Giving humanness a Different Future by Giving it a Different Past” (Wynter & McKittrick, 2015, p. 70).

6.4.2 Cycling energies: indistinctions of life/death

“...our individual bodies and minds are mere coagulations or decelerations in the flows of biomass, genes, memes, and norms. Here, too, we might be defined both by the material we are temporarily binding or chaining to our organic bodies and cultural minds and by the timescale of the binding operation. Over the millennia, it is the flow of biomass through food webs, as well as the flow of genes through generations, that matters, not the bodies and species that emerge from these flows.”

(De Landa, 2000, p. 258)

“For the flesh provides a stepping stone toward new genres of human...[...] offers a praxis and a theory, a text for living and for dying, and a method for reading both through their diverse mediations” (Spillers, 1987, p. 207, as quoted in Weheliye, 2014, p. 45)

Within the spatio-temporalities and events that make up a life (Deleuze, 2001) or a *cycle ride, for that matter, the temporary coagulations of ‘biomass, genes, memes, and norms’ De Landa speaks of, above, *do* matter. The temporary enfleshment of our human bodies in the form called ‘a life’ tends to be the central point of reference for most notions of value. Most discourses on the value of cycling can be traced to prolonging and enhancing an individual human ‘life’ (e.g. through increasing disability adjusted life years), enhancing or improving

the chances for different communities to have a ‘liveable life’, or to enhance the persistence of human ‘species’ life through sustainability.

What if ontologies of unified, bounded individuals or species persistence were troubled in the ways I have attempted to do by ontologies of enfleshment in Chapter 5 and flows of energy (earlier in this chapter)? What do these ontologies do for understandings of persistence, health and sustainability? How do we understand human desires to persist, ‘to be healthy’, to change and ‘get healthier’, to give humanness different futures (Wynter and McKittrick, 2015, p. 10) through narratives that do not automatically cleave to the neoliberal biopolitics described in the section above? How do more-than-human - supposedly ‘inanimate’ - bicycles and streets desire to persist, and what forms of death and tendencies towards change do they express? How is death figured within an enfleshed ontology that questions the hierarchies of value within the figure of Man (flesh/Body and cognizant binaries of feminine/masculine; nature/culture; fallen flesh/Spirit; irrational/rational; sub-human/human; inanimate/animate)?

Thinking through cycling and energies, offers a curious way into these questions. The energy (understood in joules in this instance) humans consume for mobility is borne of forms of metabolism and ‘deaths’, that divert energy from one form to another, whether this is the life, death and transformation of organisms millions of years ago (coal, oil) or the accumulation of the sun’s energy through living plant matter, through trophic levels into flesh, and transformed into human food. In this respect cycling is also enrolled within distributions of energy and exhaustion, ‘weatherings’ (Neimanis & Walker, 2014) or wearing down (of tyres and roads, chains and cogs) tearing and growth of tissue in bodies (Acker, 1993)) extraction and exploitation and of making-(in)coherent. Thinking through these forms of energy, an immanent ethic of cycling could also be rephrased as: What energies are exploited, what is

torn and reconfigured, who and what will have been killed, and what other things/lives will be made more or less liveable and unthinkable in the process? This conceptualization makes it less tenable to think through cycling as ‘healthy’, ‘good’, mobile’ ‘active’, without always attending to the constitutive processes of energetic transformation that make these possible.

Furthermore, it forces a way of thinking death and life beyond a binary opposite, where life is necessarily attached to agency, energies mobilized, growth, renewal, proliferation, speed, activity (the ‘good’) and death is associated with latent or inert energies, decay, decrease, deceleration, passivity (coded ‘bad’)¹⁴⁶. It opens up to the indistinct zones between life and death emphasized by both Weheliye (2014), Povinelli (2006) (as discussed in Chapter 5). In this way ‘biopolitics’ does not merely operate through processes of ‘making live and letting die’, but through the “production of precarity and (un)liveability” (Puar, 2017).

Yet, this indistinct zone does not need to be rendered a passive ‘endurance’ powerless in the face of political violence and subjection. Instead it is in the flesh – for Weheliye the notion of *habeas viscus* – that there is the possibility for other ways of being human (Weheliye, 2014) and different possibilities for living and dying (Povinelli, 2014). The unwieldy surplus of the flesh - the aspects that cannot be entirely ‘subjected’ - allows for a production of the flesh that is nonlinear, non-determinist (or non-hylomorphic¹⁴⁷, following Deleuze & Guattari by way of Simondon (Protevi, 2001, p. 7)).

¹⁴⁶ Felicity Callard has pointed out (2003) there is a disciplinary culture in social and political geography that “...makes it nigh impossible to draw attention to, let alone dwell upon, the possibility that individuals might need to be theorized in terms of impotence, the loss of agency, or the lack of progressive transformation.” (Callard, 2003, p. 307).

¹⁴⁷ Where hylomorphic refers to a schema where the technical production process imposes a form on “passive and indeterminate matter” (Simondon, 1964, p.40 in Protevi, 2001, p8).

Through cycling I read this ‘surplus’ of the flesh as an immanent desire to tend towards its own limits, of becoming something other than it is¹⁴⁸. This does not need to be towards a reproductive or productivist notion of life, ‘vibrancy’ or vitalism as a transcendent force (Bennett, 2010). Produced by queer inheritances (Yusoff, 2015b) this is not a deterministic, automatic or naturalized force necessarily tending towards ‘survival’, but is an enfleshment of force that cannot be fully known or predicted discursively (Olkowski, 2002). This is aligned in some respects to the Spinozan term *conatus* – “a desire to persist in and enhance its being” (Grosz, 2017, p. 82). While a very different notion of ‘striving’ than discussed above, it still tends to be interpreted as a valorization of growth (i.e. ‘enhancement’) and vitality (Bissell, 2009). Arguably Leibniz’s *conatus* is less attached to animacy – as it encompasses both a notion of force and of ‘dead force’ (as the disposition for motion in the absence of motion) (Suisky, 2009).

This surplus or *conatus* is not enfleshed in an individual atomized human body. Considering enfleshment beyond the human and beyond the individual, opens up consideration of forms of enfleshment such as De Landa (2000) indicated above: inheritances through adaptations within very different (spatio-temporal) environmental contexts. There is research, for example, on human evolutionary cognitive development and locomotion (Leisman, Moustafa, & Shafir, 2016), which might be read as implying that we are made to move, and that we ‘think because we move’. We are, in a sense, carriers of a range of undetermined capacities that have been ‘encoded’ through a vast array of very different practices of living in socio-

¹⁴⁸ For Serres (2011) this question is posed: “Does our evolution and, perhaps, that of the whole of life consist in this fearful, timid and reckless boldness: going outside toward the world of things, not remaining at rest, at home; moving out? Being born: exposing the fragile to the harsh, the warm to the icy, the soft to the hard and the tender to violence; this is what it means to know”. (p. 7)

ecological-geological-technological contexts. Human enfleshment is therefore adapted to a particular range of energies, speeds, technologies, movements and capacities – sitting on chairs at desks and sitting/lying on *cycles are relatively recent applications of these capacities – and hence may come with particular exhilarations, frictions, capacities, dangers and openings.

6.4.3 A praxis of the more-than-human: cycling response-abilities

Rather than a morality understood as an anthropocentric ‘good’, a socially constructed human capacity of ideality imposed to shape a material world, an immanent ethic speaks to a response-ability to the forces and forms of ideality within matter. This is based on an ontology whereby all matter is suffused by and has a form of ideality, the ‘incorporeal’ (Grosz, 2017), or ‘an idea’ of what it is to become (Barad, 2015). This is not necessarily about matter containing an ‘intrinsic value’ understood as something anthropocentrically useful, good or worthy of maintaining, but rather as forces of their own accord, which will exist whether or not we can acknowledge, recognise or care. In this way, an ethic of response-ability is also about taking the objects, technologies and matter at face value (e.g. Schwanen (2015a) drawing on Object Oriented Ontology) and recognizing the efforts of a kind of inhuman reproduction: Both the efforts and wearing-downs exerted by the inhuman entities, their specific configurations, requirements and capacities and effects in the world, and the human effort required in their ongoing reproduction.

When tyres come into contact with rain and oil on Los Angeles streets after it has not rained in months, riding at speed downhill on a bike with breaks that aren’t well maintained or are newly adjusted, or the exact moment a chain snaps or a sharp object meets your tyre: These are conditioned also by the particular *conatus* of the socio-materialities of *cycles, streets and

bodies, and the relations through which they are constituted. The way a body and bike ‘fit’, or do not, a bike’s design and state of repair (as discussed in Chapter 5), deeply matter to the forces and efforts enrolled in a ride. In turn these different morphologies of the *cycle interact to create enfleshments; exacerbating or alleviating discomfort or pain, sciatica (Bray-Ali, n.d.), repetitive strain injuries and particular cycling specific muscular development (Izquierdo, Hakkinen, Gonzalez-Badillo, Ibanez, & Gorostiaga, 2002).

Within this ontology it makes less sense to speak of the ‘value’ of *cycling through an economized maximization of the valued outputs (e.g. comfort, mobility, access, affective attachments, values of health, sustainability, happiness) with respect to the ‘inputs’ or costs (e.g. food, fuel, procurement and running costs, time). The notion of cycling as a *pharmakon* practice, and to think through cycling and ‘health’ through a ‘particular version of the art of paying attention’ pharmacologically (Stengers, 2015, p. 100) is helpful here. The Greek philosophical notion of *pharmakon* refers to the ambiguity of a substance that is both remedy and poison. Elizabeth Wilson (2015) uses the concept to think through feminisms alongside depression and the gut. For her, harm and healing need to be thought as co-constitutive¹⁴⁹ (E. Wilson, 2015). It is this inherent instability of the *pharmakon* that requires a particular mode of attention (Stengers, 2015) – what I have here referred to as a mode of curiosity and care. Rather than hailing cycling as ‘dangerous!’ or simply as ‘healthy’, care is needed in remaining in the constitutive ambiguity between.

¹⁴⁹ In *Gut Feminisms* Elizabeth Wilson (2015) questions polarities between remedy and harm, and feminist theory’s own binaries within methods of reading and writing, as either skepticism (paranoid, critical) and enthusiasm (affirmative, constructive). She draws on Derrida’s thinking on *pharmakon* - a word that both implies remedy and poison, to think through the co-constitutive relations of harm and remedy. As she puts it: “damage is a necessary condition of any endeavor to heal” (p. 144).

Thinking cycling as a *practice* pharmacologically, following ontologies of enfleshment means it is not so much that a *cycle itself is a pharmakon (healing or dangerous) to ‘a body’¹⁵⁰. Rather it is the enfleshed practices of cycling understood as configured through the multiple energies and intra-actions (Barad, 2003a) that constitute a ride (as discussed in Chapter 5): Genetic inheritances, air, the configurations of bicycles, time-spaces of streets, dominant notions of value - that need to be understood pharmacologically. This confounds a simple ‘re-signification’ or transformation of the ‘bad’ into ‘good’. For example, unfitness, immobility, anger or pain ‘overcome’ and turned towards positive action (E. Wilson, 2015). Rather it emphasizes an ethic of working-with, within and living-with¹⁵¹, without predetermined ends, one where ‘good’ or ‘bad’ is not determined by a transcendental morality, but by an immanent practice.

This an open-ended, curious effort of learning and technique. It is being response-able (Haraway, 2003, 2016) to the obduracies, openings, wearings-down and necessary deaths that cycling requires. The efforts of practice, technique and care – enhancing grip and friction through deeper tyre treads, reducing frictions by putting Vaseline or chamois cream between saddle and skin, putting rust-inhibiting greases into the frame (‘care and feeding of your steel frame’ (Surly, 2017)), an adjusted saddle, new brake pads, an oiled chain, pumped up tyres and maintenance of the road surface will change the quality, efforts and risks of a ride. These

¹⁵⁰ Taking seriously the “impossibility of the subject as individual” (Grosz, 2017, p. 191) does not mean that there is no individuation of living and/or nonliving things, no boundary between ‘inside’ and ‘outside’, but that the functioning of boundaries is constitutive and understood through foldings and enfoldings as discussed in Chapter 5.

¹⁵¹ Aligned in some ways to Nietzsche’s *amor fati*, to love one’s fate.

tyres, road surfaces, creams, rust-inhibitors and bike sprays come with their own inheritances and indeterminate impacts and toxicities.

The *pharmakon* is apt also for thinking through the effects of the more-than-human energies cycling enrolls in and through bodies, not least due to the ways people describe cycling as addictive. Rather than a binary of cycling ‘pain’ and ‘gain’, the joy, the rush of a ride, the effort, practice, pain and drudgery are tied together in ambiguous ways. The rhythms and activity of cycling induce particular neurochemical processes in brains, research on which has led to media claims of cycling as a ‘cure’ for ADHD and Alzheimer’s (Usborne, 2012)). Rather than take this research at face value, thinking through these effects with Sylvia Wynter and Katherine McKittrick (2015) allows this neurochemical activity to be a form of creative force. Wynter’s understanding of neurochemical systems as behaviour-regulating opiate-reward and opiate-blocking systems (p.58), does not mean taking neuro-chemical affects as fixed, ‘biological’ or ‘deterministic’, but understanding that these are also socio-genic – socially encoded in contingent ways. In line with the ‘surplus’ of the flesh, as discussed above, for McKittrick (2015a), there is a way in which the creative work of musical improvisation (she discusses Jimi Hendrix) as a praxis of being human “unfold(s) in the absence of social processes, political options, and intellectual imperatives” (p. 161). There is a force that evades coding by dominant modes of knowing and valuation, it “refuse(s) biocentricity without eschewing our physiological data” (p. 157).

Cycling can be enrolled within this desire to push against and towards limits - nobody knows fully what a body-bike can do. This creative ‘surplus’ – an indeterminacy that confounds the withins/outwiths of enfleshment - is not one that can be fully known or planned for. Rather than a controlled, diagnosed, and managed ‘healthy’ and ‘sustainable’ mobility, street and

body, there is an element of needing to ‘surrender’ and work with the indeterminate exposures and obduracies of enfleshment, or as Protevi puts it ‘work with the grain of the wood’ (Protevi, 2001, pg. 8). There is an inventiveness, a mental ‘emptiness’, a risk, a pure joy and fear within a ride.

What if these opiate-rewards systems, the neuro-chemical creativity of a ride is not only harnessed into modes of neoliberal modes of ‘striving’ (as discussed above) and understandings of ‘health’ and ‘well-being’ associated with ever-increasing consumption, technological ‘innovation’ and the resultant injustices of climate change? What if there was more space in notions of humanness for this creative force rather than vicious cycles of (ever increasing, increasingly sedentary) work and (increasingly sedentary) consumption that feed particular opiate-reward systems within dominant systems of the human as *homo economicus* (Wynter)?

This has implications for thinking through some of the dominant ethical discourses around climate change and health in which cycling is often entangled. It confounds questions of supposed ‘decoupling’ (of material throughput from economic growth), and reframes discussions around scarcity, limits and finitude that are often at the heart of environmental discourse. The ethical imperative becomes less one of ‘saving’, ‘conserving’ or of ideal attributes of health, sustainability and ‘liveability’ imposed on individuals, streets, or cities. The question of cycling response-ability is more about the very particular effects of intensities and transformation on varying human, nonhuman, inhuman capacities: How is energy, effort and (power) worked through practices such as cycling; with what logics or tendencies of distribution and with what differential effects?

Rather than imposed moralities and hierarchies – of health, fitness, sustainable behaviour and ‘liveability’ - for individual units (individual people, streets, communities, cities) to be compared against, compete and strive towards, the question of cycling response-ability is about being attuned to the uneven forms of power (and power as energy) cycling enfleshments constitute, and are constituted by. Notions of health and sustainability understood as response-ability recognize ‘what it takes to keep it all together’ and maintain the paradox of a porous, but cohesive enfleshment (Butler, 2015, speech on 5th Nov 2015). This is not to define a single equilibrium of valued ‘health’ or ‘sustainability’ but a recognition of the dispersed (in)human energies it takes to maintain a level of ‘integrity’ (Grosz, 2017) or autonomy (Wynter & McKittrick, 2015). Cycling response-ability would mean a wider consideration of the forces of fossil fuels, foods, adrenalines, drugs, clothes, status, documentation, skills, habits, *cycles, tarmac and infrastructures enrolled to make cycling possible. In Shanique’s case, as discussed above, it means finding a register in which to recognize the energies it takes her to persist, and the dispersed relations of power that make that work necessary. There is a difficulty in mapping and accounting for these efforts in simple equivalences of joules or incomes, hours of effort or life expectancies; different registers of tracing and storytelling (or ‘riding’) may be needed to consider the forces which assemble to make possibilities differently (Povinelli, 2014).

6.4.4 Riding response-ability: Howling/healing with the Psycos

"The Chicano movement was a legitimate movement for civil rights, but getting together and riding bikes, I don't know if that counts", cycling advocate and bike store owner, Josef Bray-Ali, speaking in the documentary on the Ovarian Psycos.

An Ova (member of the Ovarian Pscyos) responding to negative reactions they received:
"Hate is gonna hate and ovaries gonna ovulate"

For Lefebvre enjoyment is: "merely a flash, a form of energy that is expended, wasted, destroying itself in the process" (Lefebvre, 2014, p. 115)

"Justice, which entails acknowledgement, recognition, and loving attention, is not a state that can be achieved once and for all. There are no solutions; there is only the ongoing practice of being open and alive to each meeting, each intra-action, so that we might use our ability to respond, our responsibility, to help awaken, to breathe life into ever new possibilities for living justly." (Barad, 2007, p. x)

There was a collective howl or 'whoop' riders called out on O.V.A.S rides. Sometimes one person started and others followed, the howls rolled out into one, at times it was a regrouping call; "get back on the saddle, we're rolling", at others I read it as a singular/collective expression of presence and persistence - We are here, we persist and desire to persist - because of, despite and with the forces that we become. Speeding downhill it was exhilaration, joy, perhaps mixed with fear. In the dark of the underpass the howl was polyphonic, unmoored and joyously unsettling.

In this section I write/ride through this 'howl' as an immanent ethic, a cycling response-ability. It may well be a mere flash, an effort of breath that is expended and cannot be captured by a GoPro, a documentary film or the written word, yet the howl forces a particular kind of rupture in the city, it is a *ridden* theory and ethic, not necessarily an exemplar to be followed in other

contexts¹⁵², but a particular embodied praxis of being human and writing/riding the city and theory otherwise.

As a participant on O.V.A.S rides, I did not necessarily know the route or where we were going. The rides often were less about a destination as much as working through a theme, or as the O.V.A.S said: ‘connecting the dots’. I read riding to connect the dots as riding a herstory *with* and through the city, through the layered archives of embodied collective spaces, a herstory that is necessary for futures that are otherwise.

As part of one Luna Ride on a full moon night in 2014, we assembled in a circle in a park in North East LA. The theme of the ride was violence against women, with a small fire, smoke from sage smudge and hot soup shared from the back of a bike trailer, womxn-identified people shared their thoughts, memories and stories of violence. Two women had been found dead in that park in the past years. The howls and whoops on that ride spoke to trauma, relief, loss and life, differentially enfleshed, knotted into muscles and memories and the city itself.

The Ovas say they ride to heal their bodies and communities. These are traumas held not only as individual psychologized, narrated life stories, but of people as 'remnants' or effects (Grosz, 2017): In the Ovarian Psycho documentary Xela de la X says: "We are the remnants of 500 years of colonization". The rides are not ‘healing’ as a kind of ‘overcoming’, but reminiscent of what Sara Ahmed (2015a) has called a “queer melancholia” (subverting the view of

¹⁵² In this sense it is minoritarian, in Deleuze and Guattari’s sense of the notion; “Groups to whom it would never occur to think or wish that everyone would follow their example, are minoritarian” (Pignarre & Stengers, 2011, p. 108)

melancholia as the pathological opposite to a healthy mourning and ‘overcoming’ of a loss), the O.V.A.S allow pasts and their constitutive and present violence to actively animate bodies and cities – to be reimagined otherwise, not to be put under erasure, wrapped up and ‘moved past’¹⁵³. The howls - and the very name Ovarian Psycos - ride in the tensions of emotional, embodied, emplaced inheritances of multiple axes of oppression.

The howl is joyous and unsettling: It is a desire for life, an expression of the ongoing efforts to persist within lives structurally cut short (Gilmore, 2007): Trans and queer life, Latinx, working class, womxn of colour life, people who persist despite and through differential bodily privileges and burdens; the build-up of ultrafine particles exposures to police and sexual harassment and confinement.

The particular affordances, efforts and requirements of cycling are not incidental or accidental to the O.V.A.S’ politics. On bikes, voices carry, howls and embodied presence is seen¹⁵⁴ and heard. The accessibility of cycling without a license, their relatively inexpensive inputs, parts and repair - tie into a collective DIY and sustainability ethic. The ability to change your bodily speeds, metabolisms, space-times, exposures, and the configurations of your own enfleshment through your ‘own’ muscle power is a practice of intensive and collective autonomy – building skills and capacities - rather than the extensive freedom of consumer choice.

¹⁵³ Speaking on the racial politics of time, Brittney Cooper says: “Now we also see this idea, that black people are people either alternately outside the bounds of time or stuck in the past. In a scenario where, much as I’m doing right now, a black person stands up and insists racism still matters, and a person, usually white, says to them “why are you stuck in the past?”, “why can’t you move on?”. (Cooper, 2016)

¹⁵⁴ An interviewee stated: “In LA, often, especially bicycling in LA...in the 90s, often when I saw someone bicycling it was someone I knew, because you know we were all ‘fighting the man’ together...[...].so I think that folks who use active transportation, you know, know each other, because you see each other in the city..

Yet, the Ovas do not ride only to promote cycling itself, nor for a readily commodified sense of 'health' or 'wellbeing'. Nor is it necessarily about riding to be 'recognized' or included and written into the extant city and its history, nor even to create a 'safe space' within the city's existent form. Rather, as Xela put it: they ride "not so much to make the streets 'safe', but to make them that much more dangerous for the rapists; potential paedophiles, a cop, a gentrifier". This city is not ridden as a roadmap of a utopia, nor a particularly 'comfortable' universal inclusion, this is no comfortable win-win story. Rides open up a fissure, a break of possibility that speaks to the otherwise, which Grosz describes as "an openness of a future which is nevertheless tied to, based on but not entirely limited by, the past and present" (Grosz, 2017, p. 2). In and through riding and howling the city, it becomes otherwise, body-minds and emotional topologies become configured (they look, connect, metabolise, sound, feel) otherwise through the efforts of cycling the city, organising, recounting, remembering, connecting dots.

The howl as a praxis of being human speaks less to teleological healing or improvement, but of curiosity, and response-ability to the highly uneven forces that both constitute and confound the boundaries between singular self/other; inside/outside, past/future, violence/life. This is not to ascribe these 'forces' (be it food, oil, the materiality of the bike, or the histories of violence) complete power, removing a need for ongoing forging of a politics of response-ability. Nor is it over-ascribing force to the human ability to predict and plan to determine valued future cities and bodies.

Perhaps an onto-ethic of response-ability is the ongoing effort of distinguishing those always-indeterminate realms of forces, pasts and futures over which there is a limited and fragile authorship. Connecting the dots of our own ongoing imbrications within these metabolisms of

force, the particular ways in which our (always geographically, racially, sexually, bodily singular positions) can transform and reproduce them, may entail a level of discomfort, an ongoing effort of thought and exposure often left unrecognized. Rather than an exponential and assumed proliferation of efforts, of energies metabolized – a call to ‘mobilize!’, with all its militaristic baggage (Pignarre & Stengers, 2011) - it might necessitate particular instances of slowing down (Pignarre & Stengers, 2011). It is only through an active listening – ‘a loving attention’ (Barad, 2007) - that you can hear a city’s minor herstories being ridden, it is only by tuning in to the feel of the bike that you can try to understand its needs, and only by letting go on the downhill, letting the bike take you into the darkness, the speed, that you can join with a singular howl. This is not a call for a passive patience¹⁵⁵ but for recognition of how the efforts of riding the city, forging an onto-ethic and infrastructure of ‘connecting the dots’ may constitute an affective commons in and through increasingly privatized (Berlant, 2016) and surveilled space, one that is potentially less readily tracked, accounted for, and enrolled into markets of liveability.

6.5 Conclusions

In this chapter I argued that the material-semiotic ascription and (re)production of value through particular cyclists, spacetimes, meanings and practices of cycling is a technique of power. Valued modes of cycling act as nodes of dispersal, accumulation and proliferation of further value, energy and normativity which in turn further their thriving. In order for some

¹⁵⁵Turner argues that a call for ‘patience’ is used against marginalized people to justify institutional inaction on injustice and to shift responsibility on those deemed with(out) the ‘patience’ required to see change occur (B. Turner, 2017).

lives and ways of living to be valorized, there is a concomitant denigration of lives and ways of living not deemed worthy, beneficial or ‘normal’. These are systematically, structurally, materially-semiotically devalued, cut short, denied the requirements for persisting.

In the first section I outlined techniques of valuation of cycling I encountered in Los Angeles within a form of ‘market for liveability’, wherein the value of cycling (to individuals or aggregate populations) is ascribed and accounted for largely through economized techniques – quantification, monetization, universalization, comparison and hierarchies. By instituting techniques and a language of valuation that is supposedly “value-free” and “objective”, this can serve to depoliticize and displace the normative assessments behind the numerical sciences of valuation. It can also generate particular flows of investment (e.g. from taxes to active transportation), energy, political will, competition and particular forms of sociality (e.g. virtual communities through Strava). These techniques of valuation also generate and require a particular form of valued subjectivity I have described here as ‘striving’. I characterized this as an individualized, competitive entrepreneurial subjectivity of ‘self-improvement’, one that necessarily fails (otherwise what would there be to ‘strive’ towards?).

In this way *cycles, spaces of cycling, cyclists, and the conceptual or ‘immaterial’¹⁵⁶ notions of a cycling – are hooked up as networked nodes in the flow of presumed future value. If these nodes ‘work’ (W. Brown, 2015, p. 130) to enhance the flow of value, they gain further investment. More than an analysis of biopower within neoliberalism - focused on techniques of control over life through the management of populations and the construction of norms –

¹⁵⁶ I use ‘immaterial’ in quotation marks to recognize that there is no such thing as the truly ‘immaterial’ – that the conceptual notion of the cyclist always also has material underpinnings and effects. For a critique of the notion of immaterial labour see: A feminist manifesto for the study of capitalism (Bear et al., 2015).

this represents a power not only associated with ‘life’(bio), but also with flows of value through forms of human and more-than-human energy, ‘liveliness’(geo) linked to the ecologies of life (Whatmore, 2013). It rests on assumptions and perceptions of value, potential investment risk/gain, and economies of attention (economies of the click and of tracking).

I argued, however, that the reduction of a diagnosis to ‘neoliberalism’ is too quick to distil down the complexities of valuation. “It’s the economy (or capitalism), stupid”, belies fundamental valuations that neoliberalism relies on, and yet manages to obscure: generativity/degenerativity; male/female; animism/inanimacy (Chen, 2012); life/non-life (Povinelli, 2016); white/black; human/non-human. Critique or resistance to these regimes of value, based within political economic framings are necessary and illuminating, yet may obscure the constitutive racial and colonial violence of meaning, thought and normativity which preclude people from access to ‘humanity’.

Reducing valuation to a function of neoliberalism denies the intrinsic force and obduracies of matter and energy. In other words, the bike is not simply a symbol or weapon (Deleuze, 1992; Gurba, 2016) a blank carbon fibre or steel frame merely waiting to be filled with notions of ‘value’ and mobilized within particular visions of a future ‘better’ cycling subject and ‘better’ world. *Cycles and spacetimes of cycling have their own socio-material obduracies and openings. Nor is ‘value’ itself an immaterial, purely socially constructed force. I suggested that an orientation towards a curious ethic of care and response-ability, rather than regimes, hierarchies and binaries of value may offer ways to think and practice cycling that allows for a ‘living and dying well’ (Haraway, 2015).

Drawing on both material feminisms (e.g. Grosz, Barad) and black feminist theory (e.g. McKittrick, Wynter) I argued, this is not about replacing one mode of valuation with another, nor about human values *placed* onto a malleable material world, city or body to transform it. Rather, seeing the ontological entanglement of matter and meaning requires a form of practical ethics. Thinking through futurities, more-than-human energies and howling with the O.V.A.S, I elaborated on this immanent ethics and its possibilities for thinking and riding Los Angeles otherwise. The exact contours of how cycling makes bodies and cities ‘other than what we are’ (Foucault, 1994, p. 327) is not predetermined, but also not malleable without limit. There is something that is exhausted and energized by the bike, there is a material and energetic configuration of the *cycle that enrolls particular flows of energy, bodily practices and forms of infrastructure and urban space. Compared to private cars it offers a slowing of some circulations (e.g. oil), and yet a speeding up of others (e.g. face-to-face interactions). What precisely these interactions and flows can *do*, however, remains to be ridden. As Gloria Anzaldua wrote in *The Bridge that is Our Back* (Moraga & Anzaldua, 1983): "Voyager, there are no bridges, one builds them as one walks". Maybe there is a Los Angeles that can be built as we ride?

7. Conclusions

There is something that resists conclusions in the mode of thought that I have followed in this dissertation. Conclusions speak to a finality and to ‘answers’ and ‘aims’ that does not sit well with ‘being content’ to listen to and encounter openings, unsettlings and fragmented findings through ‘riding theory’ (as discussed in Chapter 3) in Los Angeles. Perhaps this is too modest

an aim (or too evasive of the drive to have an 'aim') within an academic context that increasingly requires novelty, rewards product-shaped thought, new 'turns' and terms, new-but-easily-transferable and implementable and impactful results. For better or worse, it is in this vein of 'unsettling', rather than 'finding' or 'concluding' that this chapter proceeds.

The approach of 'unsettling', as discussed in Chapter 3, speaks to staying with the inconclusive, the potentially uncomfortable, and thought deemed 'subaltern', minor, side-lined, and left-out of dominant understandings and conceptual formulations. This orientation relies on notions of unsettling as they relate to the suppressed legacies of settler colonialism in the U.S context (Wynter, 2003), but also the orientations of a queer theory that finds the joy in being/becoming unsettled, while acknowledging the concomitant violence borne in bodies enfleshed in these ways.

I embarked on this project in part because of some relatively settled notions I held about what cycling was and did: I perceived a resistance to commoditizability inherent in cycling practices. With cycling I wanted to think through a relatively 'old' technology, and a human-powered form of mobility that was – (as I perceived it) on the face of it, at the point of use - free and not commodified. What role does this bodily power have in increasingly fossil-fuelled and technology-driven mobile lives? How is it valued? How and why is it normalised in some contexts and not others? These questions changed, contracted and expanded over the course of four years of research, responding to the openings afforded by different theoretical framings, a reassessment of what was manageable, the encounters with the research sites and people in Los Angeles and a desire to do these justice in the writing. These encounters questioned me, changed me, and changed the questions I felt needed asking most urgently and were possible to ask. After coming back from Los Angeles these questions became more 'basic'

and both less about cycling itself (more about 'power' and bodies), and more about the very specificities of cycling in Los Angeles - questions I could not have asked or answered before going to Los Angeles: What does it mean to speak of 'a cyclist'? What notions of bodily difference are at play within cycling in Los Angeles and how can these be conceptualized? What is specific – materially, semiotically, technologically - about the bodily work of cycling? What can thinking through cycling bodily work in Los Angeles, contribute to how 'bodies' are conceptualized? How might the bodily practices of cycling (be seen to) (re)produce or subvert particular relations of power? How can the urban conditions for 'future' cycling (im)possibilities be understood? What work has been done, and continues to be done, by divergent imaginaries of 'healthy', 'sustainable', 'attractive' cycling urban futures?

Some of these questions have had sustained attention in this dissertation while others have been side-lined. I return to questions left underexplored in section 7.2, where I discuss the limitations of the project, and how it might be taken further. The first section summarises the main themes: How cycling bodies are embedded, made possible through and reproduce the relations of power that categorize and name; configure energies and materialities; and the regimes of value that ascribe hierarchies of worth to bodies and bodily practices. I will discuss how these interrelate and are situated within extant and emerging bodies of literature. The second section (7.2) will speak to some 'emergent' implications these conceptions of cycling and power have for thinking on 1) health and sustainability, 2) mobilities and justice, and 3) methodologies of theory.

7.1 Power and corporeality through cycling

This project has considered cycling practices in Los Angeles diffractively (Haraway, 1992; van der Tuin, 2014) through feminist, queer and critical race theory on the body. As discussed in Chapter 3 I came to Los Angeles - both literally for fieldwork, but also figuratively in terms of settling on Los Angeles as a city - with a set of questions about how cycling works and what it does in urban contexts dominated by automobility. I also had an unsettled, dissatisfied sense of how academic literatures on cycling, mobility and bodies negotiated ideas of power and conceptualized the body (as discussed in Chapter 2). The iterative cycle between cycling as theory and feminist theory, means this project has not offered a definitive diagnosis or set of prescriptions around cycling in Los Angeles, but rather suggests a mode of unsettling thought and practice, towards seeing cycling through ontologies of becoming and as enacting forms of power in specific, context-based processes of categorization, configuration and regimes of valuation.

Rather than define 'power' definitively at the outset, the substantive chapters 4, 5 and 6 have developed a particular understanding of power that is enacted through particular spatial-temporal unfoldings and *processes* (hence the chapters' titles referring to processes - categorization, configuration and valuation) and is one that relies on an emergent ontology. The arguments therein have proceeded in a spiral or wheel-like fashion, always returning on its axis around the core question of how power operates through cycling, reiterating this on different terrain and adding layers. The three parts of the dissertation, explicate some of the interrelated processes through which cycling practices - and the people, technologies and materialities that do or don't undertake them - become differentially possible, meaningful, valuable, exposed and come to be lived in very different ways.

This is an understanding of power, then - indebted to Foucaultian approaches - wherein the operations of power need to be understood through their specific intensities and forms (B. Anderson, 2017). Some inheritors of Foucault have tended to focus largely on discourse, the power of truth and meaning-making in and through bodies¹⁵⁷ (e.g. Doughty & Murray, 2016). While wanting to fully incorporate the role of discourses on cycling bodies, my focus has attempted - indebted here to material and black feminism - to follow how power operates through the interplay of the material and the semiotic, the incorporeal (Grosz, 2017) intra-actively (Barad, 2007; Colls, 2007) and in humans sociogenically and biogenically (Wynter, 2001).

The way I considered categorization and identity, in Chapter 4, attempted not only to understand how people negotiated and reworked varying intersecting identities through and in cycling, but how categorization is always already material-semiotic: the techniques of accounting - such as the bike count I volunteered in - and the enrolment of bikes and clothing into the performance of identities, for example, co-produce bodies themselves, as well as the possibilities for understanding and governing them. Not only do systems and processes of categorization form part of structures of power that operate on a 'surface' of signification, but these co-construct the very lived conditions that make the meanings-materialities of cyclists possible.

Some of these techniques of accounting for bodies rely on, and reinforce, understandings of cyclists as fundamentally individualized mobile units, rational and utility-driven and placed within 'categories' such as gender, race, class and ability. These fundamental assumptions of

¹⁵⁷ With less attention to the 'vital Foucault' (Manderscheid et al., 2014).

the human subject tend to imply a distributional notion of 'transport equity' where a given understanding of the 'goods' and 'bads' associated with mobility should be distributed equally across groups. However, this does not take into account the deeper historical, semiotic and systemic roots of injustices, nor does it question given assumptions of what is valued or devalued in mobility and the relations of power through which valuation operates.

Drawing on critical race theories (McKittrick, 2015d; Mignolo, 2015; Wynter, 2001, 2003), I argued that structures of categorization are wrought into the racialized understandings of what it means to be human, the theoretical notions of a human 'prior-to' identity, and concomitant blank theory (where notions of 'identity', race, gender are seen as secondary, irrelevant to the project at hand). My argument in this chapter has not dismissed critiques of identity politics - there is a real danger in reiterating and reinforcing fixed modes of categorization, and the hierarchies towards a properly Human Body that they reinforce.

Yet, there is also a danger in eliding all discussion of identity and being unable to give an account of the differential violence and exposures of persistence within gendered, racialized, ableist, heterosexist and ageist relations of power (as detailed in Chapter 5 on configurations). For cycling in Los Angeles this shift in thinking is crucial: You are not a cyclist who *happens to be* a woman, queer, black or crip person, *difference* occurs at the very material-semiotic conditions of possibility for persisting and cycling (e.g. being able to leave the house without fear, being visible enough on your *cycle, being able to move around the city without violence). Racialization and gender difference, for example, *becomes* enfolded within bodies-as-differentiated, but these are not differences understood only as biological, but are outcomes of deeply racialized, ableist and gendered structures of thought regarding who is valued and recognized as truly human (Wynter, 1994) and who is relegated to 'mere flesh'. While the Los

Angeles Police Department may no longer write 'No Humans Involved' on their police reports, the division of those considered 'Human' versus 'mere flesh' is still enacted and materialized through unequal exposures to harm and death and possibilities for life.

Chapter 4 explored how cycling advocates and activists navigate tensions around identity politics - both being constituted by, requiring and relying on structures of categorization (and at times struggling for inclusion into recognition as Human) while at the same time attempting to subvert categorization and the very definition of the Human. Therefore, this is a notion of power that cannot be understood in terms of a dialectic of power and resistance. This is not to say that cycling is not a form of 'resistance', just that this is always a resistance-in-collusion, made possible through the very workings of power that is being resisted against. So for example, to queer identity on bikes as the O.V.A.S do, disrupts some of the functioning of identity and the faciality machine (Deleuze & Guattari, 1987) but there is no escape from racist, sexist and colonial inheritances and practices that matter-forth, and influence bodily chances of being harassed, hit by a car, access to mobility, to energy sources or clean air.

At this intersection, Chapter 5 on *configuration* picks up from the first. While Chapter 4 drew out the difficulty of ever speaking of a 'cyclist' or a single undifferentiated 'cycling practice', Chapter 5 concentrated on *how* the material-semiotic flows of cycling are differentiated and what the specific configurations of cycling afford. Through differentiated cycling lungs; exposures to light; taking up space-times of streets and the efforts of locomotion I worked through ontologies of enfleshment, drawing on feminist (Grosz, Butler, Young) and critical race theorists' (Fanon, Rivera, Weheliye, Wynter) readings of Merleau-Ponty and concepts of the flesh of the world. I argued that a notion of the flesh and processes of cycling enfleshment, allows for a view of the cycling body that departs from defined, individualised, rational-

decision-making, mobile subjects, bounded by skin and riven by mind/body, self/other, inside/outside divisions.

The ontological assumption of cycling bodies as ‘flesh of the world’ is an ontology of intertwining or co-constituted differentiation. The human body, *cycle, air and street for example, are in constitutive relations to one another, they are both of the flesh of the world, but they are not the same thing. Following this ontology through the specific configurations of timespace that cycling allows or requires (i.e the efforts, exchanges and adaptations of lungs, the exposures to air and light, the taking up of spacetimes, and the efforts of locomotion in conjunction with *cycles) allows for an understanding of cycling as not simply a ‘mode choice’ amongst others, or a ‘tool’ that can be filled with varying human uses or meanings – but as a particular practice of shaping bodies and cities otherwise.

Chapter 5 drew out some of the implications of this ontology: Firstly, a body is not a body placed on a *cycle, it becomes a substantively different body through *cycling. Bodily states of ‘fitness’ or ‘health’ cannot thus be understood as fixed bodily conditions that inhere in a body, but rather are processes always in relation to wider spatio-temporalities (milieus) of practices. Secondly, in relation to cycling ‘taking up space-times’ on streets, I discussed the California 3-foot rule when passing cyclists in parallel with the crumple zone in cars. Rather than see space in Euclidean terms, space as differentially enfleshed by the human bodies, meanings and non-human materialities allows for a critical sense in which sharing the road with cyclists is not as simple as ‘giving them space’. Finally, following on from discussions in Chapter 4 on justice as equality and inclusion, an ontology of flesh and enfleshment means that notions of justice need to be understood not simply through notions of distribution (of space, for example) between discrete ‘users’, but as a common endeavour that involves an

understanding of the material and semiotic, human and nonhuman conditions of possibility (queer inheritances, force/speed/densities matter).

Although Merleau-Ponty's notion of the flesh opens up these ontologies it has also been critiqued and expanded on in a number of ways: Firstly, a focus on subjective experience of cycling is vital but insufficient. I argued in Chapter 5 that there needs to be consideration of those exposures, violences and 'queer inheritances' that human sensation cannot access or readily comprehend. Thinking through cycling lungs here allowed for a focus also on the flesh's materiality (the way the flesh speaks to the sub-parts of the body and that which blurs the boundaries of what is 'of the body') and its capacities that exist beyond sensory realms (the function of lungs are not under conscious control). Lungs as in-foldings are a huge density of 'space' or surface area that connects with the putative 'outside', and their lung capacity, efficiency and exposures mean they become differently as they cycle.

Secondly, there is a sense in which the body in Merleau-Ponty's notion of the flesh of the world is 'too tender' (Deleuze & Guattari, 2013) and presumes a comfort and 'safe', receptive openness in and to the world (reading of Fanon by Rivera (2015)), one that cannot be presumed to be a fundamental characteristic becoming of all bodies. What if your body opens to a world that alienates it before it is even born, that abhors it, wants it changed, used, improved, bettered, healed, fixed? I argued in this chapter that the assumption needs to be of a world that is not 'neutral', that does not just exist in 'first principles' ontologically prior to the distribution of violence and energies that constitute it¹⁵⁸.

¹⁵⁸ I want to be careful here to avoid an interpretation of this point as being a simple flipping of the script from a world presumed to be 'comfortable' to one presumed to be 'uncomfortable' (thank you to Tim Schwanen for pointing this out). Saying the world is not politically neutral is not simply the reverse of saying that it is

In Chapter 6 I pulled together some of the threads developed in 4 and 5, to focus on how power operates through the attribution, production and flow of value through cycling. The categorization of bodies (Chapter 4), and the configuration of enfleshment (Chapter 5) occur through and within hierarchies of value. A set of ‘unsettling encounters’ revealed the techniques and logics through which cycling is attributed and enrolls value within what I called a ‘market of liveability’: Artist-designed *cycle racks in ‘The Buck Stops Here’ project in Downtown Los Angeles showed how the imagery and imaginaries of cycling are tied into investment into downtown regeneration, but also how artists employ bicycles to resist these processes (General Dogon with his tricked-out bikes). The use of bicycles at the 2014 Los Angeles car show, showed how the symbolic and monetary value of cycling - intertwined with attachment of value to speed, design, masculinities, eco-responsibility - is enrolled in car sales. The use of cycling within the aesthetics and urban design for gentrifying lifestyles in Boyle Heights and Silver Lake is tied not only to discourses of sustainability, efficient use of space, but to displacement of lower income populations.

In the ‘market of liveability’, I argued, value is attached to cycling and its proposed health and sustainability benefits through economized techniques of valuation. Yet, within this, the *cycles themselves are not merely blank ‘tools’ to be filled with value. The particular limitations that inhere in cycling’s capacity to mobilize flows of capital and energy, mean that value flows in particular ways: The imagery of sustainability, and ‘immaterial’, clean energy and values attach to cycling and cycling subjectivities. I characterized valued neoliberal

‘comfortable’, it could be very comfortable for some and uncomfortable for others. Refusing to assume the world’s ‘neutrality’ means you allow in historical and geographical context and injustice into the relations that make things the way they are. It does not mean making an *a priori* judgment for how these relations will sit/fall/be interpreted as comfortable or uncomfortable. I will discuss this further, below in the section on mobility and justice.

cycling subjectivities as ‘striving’; responsibly investing in their own enhanced capacity to re-circulate value.

In this chapter I also pointed towards the limitations of critiques of cycling valuation that set their sights predominantly on a monolithic neoliberalism. In line with the previous chapters, I argued that there are more fundamental hierarchies at play within the production of valued subjectivities, such as intercalated hierarchies of the Body/flesh; living/dead; vital/non-vital; black/white; male/female. The ways in which contemporary gentrification and cycling infrastructures map – if imperfectly – onto historical red-lining maps in some areas of Los Angeles, for example, reveals the imbrications of racialized hierarchies of value associated with bodies, space, investment and economic value.

In the final section of Chapter 6, I followed the ontology of flesh developed in previous chapters, to rethink cycling as a form of immanent, practical ethics. Rather than calling for an alternative set of values by which cycling should be judged as ‘positive’ or ‘negative’, this onto-ethics – drawing on both feminist materialisms and black feminisms - is one practiced and emergent from cycling ontologies, rather than a morality set in advance. This seeks to move away from a valorization of affirmation, growth, change, flow and flux (a risk in some Deleuzian-inspired theory) and starts from the fundamental recognition that human mobility is fuelled by forms of death (whether fossil fuels or food energy). An emergent ethic of cycling response-ability, then, thinks through the particular spatio-temporal distribution of these human and non-human energies, efforts and deaths, rather than an anthropocentric and vitalist dialectic of human ‘labour’ or cultural ‘values’ that transform ‘nature’ or materiality into a good, commodity or symbol of value.

I ended Chapter 6 by riding an immanent ethics through the force of a common howl on an O.V.A.S. ride. Through ‘riding theory’ (discussed in Chapter 3), concepts are not only derived through human language (a supposed realm of ideas/immateriality), but through the conceptual affordances of material practices; cycling carries ideas and possible futures. The ethics of the common howl is one that arises from the limits and affordances of cycling-city configurations themselves. The particular configurations and hauntings of the city, the energetic and maintenance requirements, speeds, bodily capacities, exposures and socialities afforded through cycling might be where the ethics of cycling lie. This is not a morality of striving for efficiency, frugal use of resources or ‘health’ understood through productivity, but a form of ethic that arises from riding to ‘connect the dots’ in a city and the common force of a howl expressed in a dark LA underpass. Does this offer an ethic towards more modest visions of anthropocene humans? Not an apocalyptic or post-apocalyptic¹⁵⁹ vision, nor a vision of a unified human species redeeming themselves through linear notions of progress, through further, ‘better’, more ‘responsible’ mastery over matter, but an always fractured humanity that re-makes/thinks itself through careful response-ability to the queer inheritances, technologies and matters that make and unmake us.

¹⁵⁹ A whole dissertation could be written on the portrayal of *cycles in post-apocalyptic (post fossil-fueled era) film and television dramas.

7.2 Rummaging through attics and closets: Leftovers, lost usefulness and other queer inheritances

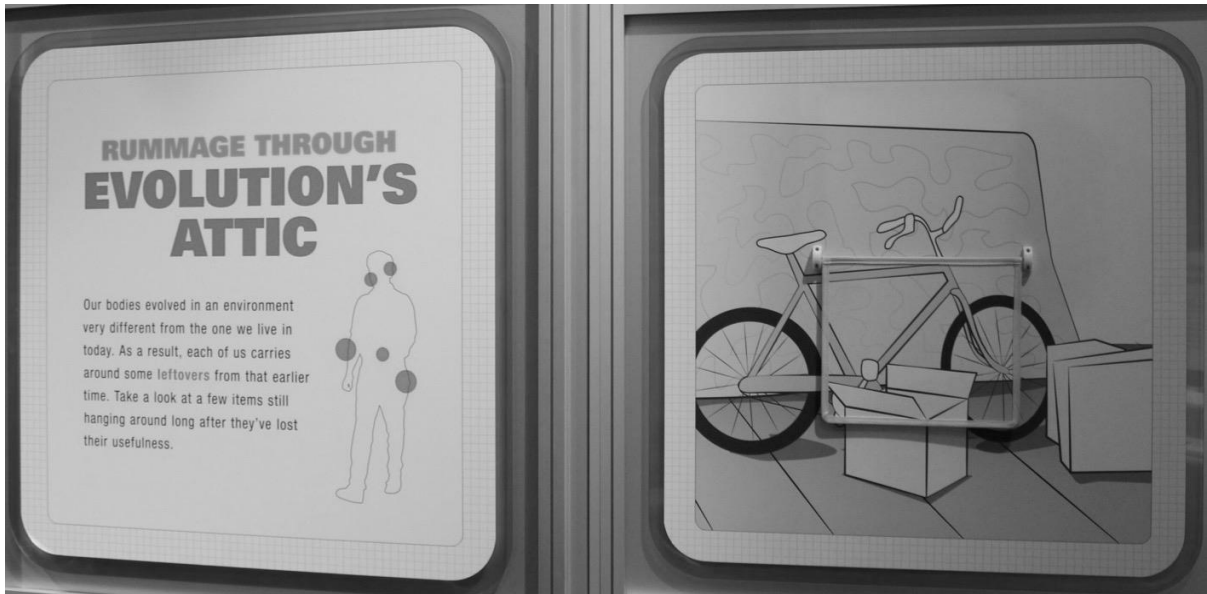


Figure 7.1: Museum of Nature and Science in Dallas, Texas, author's photo, 2015,

How does this dissertation relate to futures and elsewhere? To what future work might this project be put, how could it be applied to *other* arenas, such as policy-making and planning, to future analyses of *other* technologies, practices and *other* places. What is its historical and geographical transferability, applicability, generalizability? Perhaps in defiance of the linearity, utilitarian terms and comparative approaches of such questions, I am inspired by the image (Figure 7.1) of the bicycle left over in evolution's attic, a display I came across in the Bio Life Exhibit in the Museum of Nature and Science while in Dallas, Texas for the Congress for the New Urbanism in 2015. In one respect this dissertation represents a method of paying attention to these closeted attic remnants, following the 'queer inheritances', the affects, materialities and workings of power stuffed into closets and relegated to curbs, 'still left

hanging around even after they've lost their usefulness'. Surely, it is within technologies, ideas and practices relegated to 'uselessness' within dominant vision of evolution and progress where some of the most radical critical practices might be found? This section rummages in the attic of this dissertation to ask what ideas were put away for later and left unfinished due to my own particular orientations of thought and limitations. What might be lurking in there that could be picked up and put to future use, or incite thought, inspire enjoyment, boredom, rejection or critique? In what follows I will draw out the gaps and limitations of this dissertation and the wider implications that might arise. In particular, I will emphasise and problematize what might be considered the practical implications.

I chose to focus this research on cycling in part due to its very everyday, practical implications. Most research on cycling (as discussed in Chapter 2) has a link – if not a direct aim – to influence policy and practices on cycling, largely in the hopes of increasing the share of cycling journeys (away from private fossil-fuelled vehicles) and increasing their levels of comfort and convenience. For a project that set out with this aim of bringing together the everyday, mundane, practicalities of cycling with theoretical considerations of bodies, bodily energy and relations of power, it has had very little to say that can be directly implemented in cycling policy, urban planning or public health policy. In part this is unsurprising, the theoretical lineages I have drawn on, from Foucault, Deleuze & Guattari, to Rosi Braidotti, Elizabeth Grosz, Sylvia Wynter and Alexander Weheliye have not directly sought to feed into 'practice' at the level of actionable bullet-points to policy-makers. Their interventions are more at the level of understanding and critiquing regimes of 'truth'. If policy-making and the research-practice interface are discussed, it is more through considering these a technique of

power, as methods and practices of constructing particular regimes of truth, subjectivities, populations and normative understandings of humanness.

The ‘futures’ imagined in these texts are not written as policy proposals, and are less linear in terms of their orientations. As discussed in Chapter 6, these are less planned-for ‘futures’ or blueprints of an ideal normative theory or hierarchy of values that should be set out, but practices in the ‘present’: in terms of ontologies, onto-ethics (Grosz, 2017) and methods of thought-practice. Metaphors, creative practices such as music making (McKittrick, 2015a), the figure of the cyborg (Haraway, 1997) the nomad (Braidotti, 2006b) activist movements (Pignarre & Stengers, 2011) sub-cultural spirituality of witches (e.g. Starhawk, in Stengers, 2012), art and more mundane figurations in human-dog relations (Haraway, 2008) and string-figures (Haraway, 2016) to a more general ‘becoming minoritarian’ (becoming-woman, becoming-animal in Deleuze and Guattari (1987)) are taken as the figurations for ways of being more ‘justly’ in the world.

In this project, cycling practice in Los Angeles was the ‘figuration’ for thinking through notions of justice and sustainability. How then does my stated desire for a ‘practical’ embodied theory become operationalized, if it is not through implementable prescriptions towards more just and sustainable modes of cycling? Below I will consider this question in more detail through discussions of health and sustainability; mobility and justice; and the methodologies of riding theory.

If, following Foucault, “Practicing criticism is a matter of making facile gestures difficult” (Dalby, 2007), this dissertation has attempted to ‘make difficult’ the often-automatic assumptions of cycling as ‘progressive’, healthy, just, sustainable or even necessarily as a form

of mobility (discussions on spinning in Introduction and Ch.5). The questions I asked tended to avoid – as far as this is ever possible - settling for definitions of what these concepts might mean, and ask instead what the conditions of possibility are for cycling in Los Angeles, and what forms of relations cycling might reconfigure. The sections that follow discuss the implications of notions of power and cycling developed in this dissertation for unsettling ideas of health and sustainability; mobility and justice and methodologies of making theory. In each section I will consider both the relation to extant literatures but also how this overlaps with wider public discussions, in the media and in public policy realms. Most of these discussions are from a UK context, in part because I have sought to bring the insights of the largely Los Angeles-based project to bear on the everyday discourses and policy contexts I found myself in.

7.2.1 Unsettling health and sustainability

Characteristics of the Healthy and Sustainable City: 1. Lively, interesting streets with a mix of local shops and quality brands 2. Streets and neighbourhoods that are well designed, that **reflect local character** and **feel safe** to walk along. 3. Parks, schools and shops within walking distance of **our** homes. 4. Homes that look like they **belong**, that reflect **tradition** but are also contemporary and **comfortable** inside...” **Dittmar (2013), my emphasis added.**

“Places like Downtown were economically unsuccessful, yes, places like Broadway were where huge numbers of immigrants spent their first dollars in LA and stuff, and yet they’re not.....I was going to say healthy communities...[...] I think places like downtown, even though there’s displacement, there was a system there, in the sense of an ecosystem there, that wasn’t healthy, that is not perfect today, but that is working better today than it was 20 years ago....[*In what sense?*] That it’s economically more viable, that there’s more walking and bicycling, that there’s preservation and use of great historic buildings that it’s seen as a place people want to go to and not a place

people want to avoid...there's probably less drug use...there's probably a bunch of metrics that you can get from that..." **Cycling and liveability advocate in Los Angeles**

The "Characteristics of the Healthy and Sustainable City" and quote from a cycling advocate in Los Angeles show how notions of health and sustainability cannot be separated from land use, economic and other 'metrics', design and planning of housing and transport. As has been pointed out by a range of literatures, cycling (Aldred, 2013a) and transport (Schwanen, 2015b) need to be considered within these wider social, policy and economic contexts. Yet there is a haunting, but unspoken, 'we that belong' presumed within the excerpt above, and *given* notions and characteristics of health and sustainability that are fixed (and understood by metrics), that then map on to an 'us'. As discussed throughout these chapters (and in the next section 7.2.2), justice and equity then tend to be seen as *separate* to notions of health and sustainability, as vectors through which to distribute the rights and responsibilities that arise. Supposedly, it is *we* who get to feel safe and it is *our* traditions and *our* local character reflected in the built environment, but who are *we* that are made to feel this city is *ours*? For some cycling advocates in Los Angeles there was a need to keep cycling *about cycling*, as separable from questions of race and injustice. The constitutive exclusions that define the 'we', and the exclusions within the opaque understandings of 'health' and 'sustainability' become erased and displaced from discussion.

It could be argued that at least sustainable, liveable and healthy cities proponents are having urgent conversations around urban sustainability and climate change, in contexts where this reality is denied at the highest levels of office (e.g. the Trump administration). However, as discussed in Chapter 6, by separating out questions of race and social justice from sustainability, and yet reiterating exclusionary and/or racialized and economistic assumptions

around what makes ‘unhealthy/unsustainable’ communities, there is real danger in reproducing understandings of health and sustainability entangled with a white supremacist and economized notion of value. Being a liberal ‘green’ cycling proponent *and* an anti-racist in opposition to rising climate denial and ethno-nationalism in both the UK and US (e.g. discourses around immigration and Brexit, and the Trump administration) may seem like the ‘moral high ground’. However, the deeper necessary task may be to question the very presumptions of health, sustainability and ‘humanness’ (as discussed in Chapter 6) and the ways in which drives towards sustainability and inner-city ‘improvements’, for example, are happening in neo-colonial ways: Through neoliberal urban change (see discussion in Chapter 6, Stehlin (2014, 2015) and Golub et al. (2016)) with rising house prices, gentrification and the displacement of people on lower incomes (in many cities around the world, such as London, New York, Los Angeles (Lees et al., 2015)).

The terms ‘health’ and ‘sustainability’ constitute and reinstate particular limits, those around the disciplinary apparatus through which they are defined (e.g. health defined through medicine, public health, ‘environment’ through climate science, ‘environmental’ policies) and the bodies which they constitute and to which value is then seen to attach. Someone who drives an SUV to a spinning gym in Los Angeles three times a week might have a ‘healthy body’ on some measures of health, but their ‘choice’ of vehicle may be considered ‘unsustainable’. This dissertation has attempted to look towards the effects of these individualized (aggregated to population-level) notions of ‘good’ and ‘responsible’ sustainable behaviour, and personally-tracked, insurance-incentivized, metric driven, striving notions of healthiness. An avenue for further research, one that I have not been able to consider in sufficient depth here, would be a pathway through which these definitions of sustainability and health serve to obscure wider

political discussions around the systems of (global) distribution of energy, resources, technologies and work (the very conditions for both ‘health’ and ‘unsustainability’).

For example, there are clear boundaries around whose bodies count in defining health and sustainability. Unqualified statements such as “[*bicycles*] bring health to their users and do not damage the health of others” (Gatersleben & Appleton, 2007) do not take into account, for example, reports of human rights abuses in bicycle factories like the Baoan facility in southern China, where Huffy bicycles have been made (AFL-CIO Wal-Mart Campaign, 2009). Nor do they factor in concerns related to higher levels of cancer amongst workers in synthetic rubber manufacturing (Sathiakumar et al., 2005). In this way definitions of health and the procedures of its management, are not neutral nor necessarily ‘healthy’ for all bodies and in all ways – e.g. those not counted, those demonized as obese (Colls, 2007) and those subjected to individualized hi-tech bodily (self-)surveillance justified by the imminent “pandemic of physical inactivity”¹⁶⁰ (Kohl et al., 2012).

Similarly, the notion of sustainability in transport is by no means standardized, ‘objective’ nor particularly meaningful, given usage of the term to denote everything from “...protecting wildlife and natural habitats, reducing levels of noise [to] promoting economic growth....[...]” (Holden, Linnerud, & Banister, 2013). However, equally, sustainability is necessarily - for functionality, manageability, comparability, availability of data – defined in relatively exclusionary terms. For example, in modelling possible sustainability scenarios for London’s transport futures (Hickman et al., 2010) sustainability is defined in terms of emissions of CO₂

¹⁶⁰ A sub-heading in the paper: *The pandemic of physical inactivity: global action for public health*, reads: “Panel 1: Physical activity surveillance: if it is important, it must be measured”. The wording in these headings has to be seen in light of a wider context where governments (UK and US for example, ref: Snowden) are harvesting citizens’ data in the name of national security.

during use. This omits humans-as-environment (i.e health) other environmental impacts as well as CO2 emissions of extracting raw materials, production, transport and disposal (of vehicles, for example), the burdens of which often fall disproportionately on ‘other’ geographies¹⁶¹. The ‘here, now and closer’ is privileged over the ‘other’ elsewheres, futures, pasts and presents.

This dissertation has not done the work of ‘following the stuff’ (as done, for example, by Sheller (2014) on aluminium) of Los Angeles bicycle materialities, energies or food production and consumption to ‘other’ times and places. Nor have I developed a full alternative definition of what health and sustainability might mean. However, the ontologies of the flesh I have proposed in this dissertation unsettle ideas of health and sustainability as separable spheres, limited by the boundaries of individual bodies, populations, cities, or material-semiotic substances and ‘measures’ such as fat or CO2. The particular enfleshments of the breath, exposures, flows of energy, the human-hot-pink-bike entanglements I followed in Chapter 4 point to a health and sustainability that are inextricably tied to one another and to the specific configurations, capacities and malleable limitations of the flesh (yes, human flesh, but human as in-and-of-the-world, and always more-than-human. The planet will be ‘sustained’ in some form, it is not the boundaries of a sustainable planet for cockroaches or bicycles that is at the centre of questions of ‘sustainability’).

Health and sustainability, in this respect, are not metrics to be maximized as an end in and of itself, or characteristics that inhere in individuals, populations or environments. Rather, Chapters 4, 5 and 6 have led to understandings whereby health and sustainability are

¹⁶¹ Although the burdens of CO2 emissions in terms of global climate change are ostensibly ‘global’, this needs to be contended in light of the unequal global distributions of extant and predicted catastrophes related to climate change.

themselves part of techniques of power operating on and through bodies and body-environments, making these more or less liveable in highly uneven ways. This is not to further an ontology of a boundary-less morass of undifferentiated ‘stuff’, but that a relational¹⁶² understanding of sustainability and health might allow more attention to be paid to the energies and configurations required to maintain the malleable, permeable stability of boundaries. This opens up to a notion of health not fundamentally about longevity, nor a lack of exposure to ‘harms’, but about the relations (or capacity for affect) which enfleshments make possible.

The ontologies I laid out in Chapters 4, 5 and 6 point towards understandings of ‘health’ and ‘sustainability’ whereby the ‘subject’ is the *relation*, not the individual or population. If your health needs always to be understood as contingent upon mine, ours, the nonhuman, non-living conditions that make these possible, the practical question this mode of thinking raises is: What particular violence results, and what violence is overlooked in the shift of emphasis and value? In this sense health and sustainability are simply different scalar perspectives onto the same fundamental question of the ability to persist in-relation-to. Whose and what forms of life are affected, what energies are curtailed and enabled in particular provisioning of happier, healthier, cycling sustainability?

Through riding theory – as discussed in chapter 5, 6, and in terms of my own limits, chapter 3 – I have constantly encountered the problematic of malleable boundaries and *limits*. Health can be understood as maintaining a form of porous enfleshed bodily boundary (Chapter 4), and yet the specific configurations (and joys, fears, exposures) of cycling are also about pushing the limits of what a body-without-a-*cycle can do (go faster, go downhill without

¹⁶² There is also a need to speak of the ‘non-relational’, as Ash and Simpson (2016) point out. The ‘stuff’ that does not care about us.

effort): ‘We don’t know what a body-*cycle can do’ (to paraphrase Spinoza). As discussed in Chapter 6, cycling speaks to an inherent inventiveness, force or *conatus* in human enfleshment, but the question is whether this has to be harnessed into drives towards ‘health’ and ‘well-being’ associated with ever-increasing consumption and technological ‘innovation’? What if there was more space in a life to develop different avenues for this ‘force of life’, rather than vicious cycles of (ever increasing, increasingly sedentary) work and (increasingly sedentary) consumption?

7.2.2 Justice on the move – Cycling's affordances



Figure 7.2: Volkswagen display at the Los Angeles Car Show, November 2014.

I went to spinning gyms in Los Angeles and started the introduction to this dissertation with an image of spinning (Figure 1.1) in part because I did not want to set out with a *prima facie* conception of cycling as a form of mobility. In a circuitous way I now return to these notions of mobility with some unsettling questions, and only an emergent sense of how these might be approached: How can mobility be understood? How does power operate through mobility? As discussed in Chapter 2 the burgeoning literatures in mobility studies have attached a particular branding and a cluster of approaches to academic discussion of movement. Arguably one of the central ways in which a turn to mobilities defines itself as different from discussions of movement in transport geographies, is the way movement is intertwined with the power of social, cultural and political meanings (Cresswell, 2010). Mobilities studies opened up discussion of the immobilities and stillnesses inherent in, and required for ‘mobility’ (Bissell, 2011). Yet, there are vast divergences and nuances of how mobility and power are understood in their interrelations and co-constitutions within the literatures. Below I set out briefly how

my approach to cycling in the dissertation sits in an unsettled way within some of these notions of mobility.

Rather than supposedly static notions of ‘society’ or culture, a focus on mobilities allows for analyses of practices and the increasing movements of people, capital, ideas and objects across spaces and times (Urry, 2007). The contemporary need to focus on mobility not only arises from its quantitative and qualitative proliferation, resulting in increasing environmental, economic and social impacts, but also in the ways it puts into question the more ‘settled’ scalar and disciplinary boundaries of bodies, nested in cities, societies and nation-states. As Cresswell (2010b) argues, power operates through what starts and ends movement, the rhythms, speeds, routes and experience of mobility. Mobility is seen in this definition as not simply the physical movement, but how physical movement is in a “fragile entanglement” with representations and practices (Cresswell, 2010). For some drawing on NRT and approaches thought of as ‘post-phenomenological’ (Ash & Simpson, 2016), understanding the experience of movement is a central analytic in understanding power and life, studied through movement as vibrations (Bissell, 2010b); elements in infrastructures (McCormack, 2017); and experiences of movement in relation to technologies, nonhumans and the flow of pre-personal affect (Spinney, 2015).

Despite the richness of this work, the analytic concept of ‘mobility’ has not been central to my understanding of power, cycling and the body in this dissertation. While this could certainly be shored up as a shortcoming, it is also a product of my queer inheritances and orientations towards unsettling encounter (discussed in the methodology, Chapter 3): I have been less interested in the question of whether something is mobile or immobile. From the vibrations of atoms to the spinning of a stationary bicycle, everything is in some respects in a tension of

mobility and immobility. It has been the *how* of cycling understood as a relation of power – its categorization, its configurations, its valuation, that has emerged as my focus. Indebted to critical theory; material feminisms and black feminisms in particular, I have been less focused on describing who and what is mobile and more interested in asking what the conditions are for cycling, what meanings-materialities as relations of power it configures and reconfigures.

In some respects I am aligned with Frello (2008) in questioning the division Cresswell has made between the empirical ‘brute fact’ of displacement and its representation. There is no such thing as a ‘given’ mobility, and what gets to count as mobile is an effect of power, a discursive construction. In a sense she does for mobility what third wave feminists have done to the sex/gender division. Frello (2008) characterises power and mobility through visibility, legitimacy, distance, direction and ‘who gets to tell the story’ of mobility. Similarly, ‘governmobility’ (Bærenholdt, 2013) describes movement not as something onto which power (discursive/material/governmental...etc..) places ‘meaning’ or forces change but mobility itself is seen as a technique through which power operates.

Seeing power as operating through mobility is central to this dissertation but I have attempted also to move beyond a notion of power limited to human, social or governmental relations. The insights of both post-phenomenologists and new materialists are needed here: As discussed in Chapters 5 and 6 in particular, the power of food, fossil fuels, the sun and the energies cycling takes, the affordances made possible, the configurations of matter-meaning through which mobility occurs need also to be taken into account. There are particular material proximities and distances (pollution, the proximity, density, obdurate materiality, mass, speed of a bus in proximity to a bicycle) that do not “care” whether or what discursive relations they

are part of - and yet they matter. These are always already interrelated with the power of discourse, but they are also deeply impactful (powerful) materially in forceful ways beyond capture in and through human discourse.

This dissertation has tended towards a notion of mobility that is inherently tied to its (material and immaterial) energetic requirements and affordances. Seeing mobility in this way I have also attempted to avoid a necessary attachment of value to mobility and energy. There is a way in which Frello's notion of mobility is still haunted by this attachment, when she writes: "mastering of movement is a resource" (p. 34). While in many respects this is true, there are also many ways in which remaining-in-place is an act of mastery and the forced displacement, migration and exhausting commutes come at a grave cost to lives and livelihood. There is a similar risk of idealising flow, flux and mobility within some of the Deleuzian-inspired philosophies (e.g. Braidotti's Nomadic theory, see also Olkowski (2002), where in Merleau-Ponty, particular capacities are reserved only for "every living being with the power of mobility"). An understanding of mobility as always made possible through energetic (always material-immaterial) deaths and transformations is not about choosing a binary between mobility as valuable or not, but it is about thinking through the wider material-semiotic antecedents for mobility and thinking about the historical and geographical relations of power that make particular mobilities possible.

This is where I find the limits lie with post-phenomenological and NRT accounts of mobility. There is a discussion of experience, emotion and affect that attempts to access the pre-cognitive, and forms of action and motion not fully captured by the politics of representation. Yet, there tends to be a curious form of neutrality or agnosticism imposed: Vibrations come

from all sides (Bissell, 2010b) without a notion that some vibrations systematically loosen and destroy things. It does not seem to matter what affordances make a multi-day walk possible (Wylie, 2005) or the particular affordances of white, western masculinity in urban exploration are under-explored (Garrett, 2014; Garrett & Hawkins, 2013; Mott & Roberts, 2013a, 2013b). There is a neutral level of comfort presumed within the theoretical forms and assumptions made, and less emphasis (exceptions include Bissell (2009), for example) on affects that move us most, in highly uneven ways - fear, pain, loss – even if on a level before consciousness, there are responses to danger, for example, that happen prior to consciousness (see startle responses as discussed in Chapter 5).

Instead, seeing mobility as inherently a question of energetic transformation means it is always-already tied up with questions of justice: The ways in which human mobility - whether understood as legs spinning on a stationary *cycle, arms turning the wheels of a hand-cycle, or the documentary of the O.V.A.S spinning on a film reel at a film festival far from Los Angeles - require certain forms of death (fossil fuels, food) and transformation of energy. The question of what (energy) burns, when and where is tied intimately to what gets to live and die, when and how. For Tamika Butler, executive director of LACBC from 2014 to 2017, cycling is embedded within social and urban justice understood as distributions of health, access, ‘choice’ and housing:

“Bikes are just, for me and for this organisation, a tool for social justice. We can’t talk about bikes without talking about health, without talking about housing, without talking about gentrification and displacement. Transportation is such a core right...transportation has always been a core right in our community, whether or not what investments are made in our community” (T. Butler, 2015)

More work is needed to fully draw out the implications of the ontologies and understandings of power developed in this dissertation for conceptions of mobility and justice. However, there are some key points that can be made already: The ‘choice’ of political theory and philosophy relied upon within conceptions of mobility and justice is itself political and has deeper implications (Lucas et al., 2015; Pereira et al., 2016). The attendant ontological and epistemological assumptions for how individuals, ‘societies’, resources, and mobility are understood shape what forms of justice are envisioned as possible and what methods or techniques are deemed appropriate to determine just outcomes.

For example, the notion of justice relied on within this dissertation is immanent in that it emerged *through* the arguments made in Chapters 4, 5 and 6 rather than being defined at the outset. Rather than assessing justice and cycling, for example, against absolute notions of a universal morality that “issues maxims and prescriptions” (Butler & Athanasiou, 2013) it is more aligned to an immanent ethic, as discussed in Chapter 6.

The ontologies of the flesh I have outlined here do not align with more economic conceptions of justice as distribution of access or mobility to individual consumer-units through techniques of willingness to pay, or cost benefit analyses (see Chapter 6 for a critique of economized modes of determining value). The ontological assumptions of this dissertation also have distinct frictions with liberal understandings of justice based on universal hierarchies of principles determined through thought experiments such as the ‘veil of ignorance’ (e.g. Rawls, as discussed in Pereira et al. (2016)). Ideal theory of this form has been critiqued by feminist theorists and critical race theorists alike (Mills, 2017) for the impossibility of accounting for historical (e.g. racial, gendered) injustices, and retributive justices. Such thought experiments remove the very possibilities and lingering powers of the queer inheritances I have discussed

in this dissertation. Further, the thought experiments of John Rawls, for example, rely on liberal presumptions of ‘possessive individualism’ (Harney & Moten, 2013): Self-possessed, rational, individualized, humans with a ‘normal’ capacity for morality –far from the intertwined, subconscious ontologies of enfleshed becoming that I discussed in Chapter 5. Ontologies which reconfigure notions of justice as response-ability rather than individualized ‘responsibility’ (see Chapter 6).

Lastly, within liberal political theory or economic notions of utility maximization, materiality tends to be simply a ‘resource’ for production of utility and value. The ‘stuff’ of the world is largely seen as a vehicle for achieving valued human ends (e.g. in transport the notion of ‘accessibility’), reinforcing a human/environment binary. The spheres within which principles of justice such as egalitarianism or sufficientarianism (Lucas et al., 2015) apply, is a human one, tied to a given political territory, political subjects or policy sphere and time (i.e. currently living humans). This does not leave space for more radical conceptualizations of justice that transgress political and economic boundaries and boundaries between presents/futures and humans/environments. By considering the particular affordances and conditions of possibility of cycling, the ontologies laid out in this dissertation, drawing on material feminist and black feminist theory, might open up to more radical understandings of mobility and justice. These contradict with prevalent and dominant understandings of individualized bounded human subjectivity, economized ‘value’ (e.g. utility maximization) and mobility as utilitarian (what Haraway (2016) calls “bounded utilitarian individualism). It is beyond the scope of this dissertation to fully engage in this beyond pointing towards other theoretical lineages that might form the basis for reimagining and enacting humanity (and its mobilities) otherwise than continued anthropogenic crises, such as feminist visions of justice-to-come (Barad, 2013)

or “an existential sense of justice, not as grim retribution but as shared happiness” (Sylvia Wynter, in interview by David Scott (2000, p. 124)).

The discussion on human and inhuman energies and cycling, in Chapter 6, also points towards the need to discuss questions of justice, mobility and energy distribution from a critical theoretical perspective, as a form of structural violence. The ways in which human energies and consumption of (material/immaterial) energy and ‘efforts’ (Povinelli, 2014) are knotted into questions of justice need to be considered beyond quantifiable understandings of energy flows and economic understandings of ‘distribution’. Rather than a focus on sustainability as incidental and incremental ‘choice’ and ‘behaviour change’, there needs to be a notion of re-working and re-imagining unjust global energy systems. The big taboos around limiting ‘choices’, slowing down, contracting consumption patterns need to be considered without necessary recourse to the salvation narrative of ‘de-coupling’: The idea that economic growth can occur without energetic and/or material throughputs. The arguments I have drawn on in this dissertation point towards the problems in considering anything ‘de-coupled’ from its material conditions. Again, I have not had the space to develop these themes, beyond pointing out potential pathways for further consideration.

In sum, further reflection (some of this is imminent (Sheller, Forthcoming)) is needed on the possibilities for conceptions of justice within mobility that arise from engagement with political theory from a range of traditions – not simply dominant, Western, liberal (and predominantly white and male) theorists. Notions of justice that take into account colonial and neo-colonial and racialized power relations; are based on ontologies of the human that are not simply assumptions of *homo economicus*; and take seriously justice as necessarily a more-

than-human pursuit are needed for the radical changes required of increasingly unjust and urgent anthropocenic contexts.

7.2.3 Riding Theory: Making other LA stories

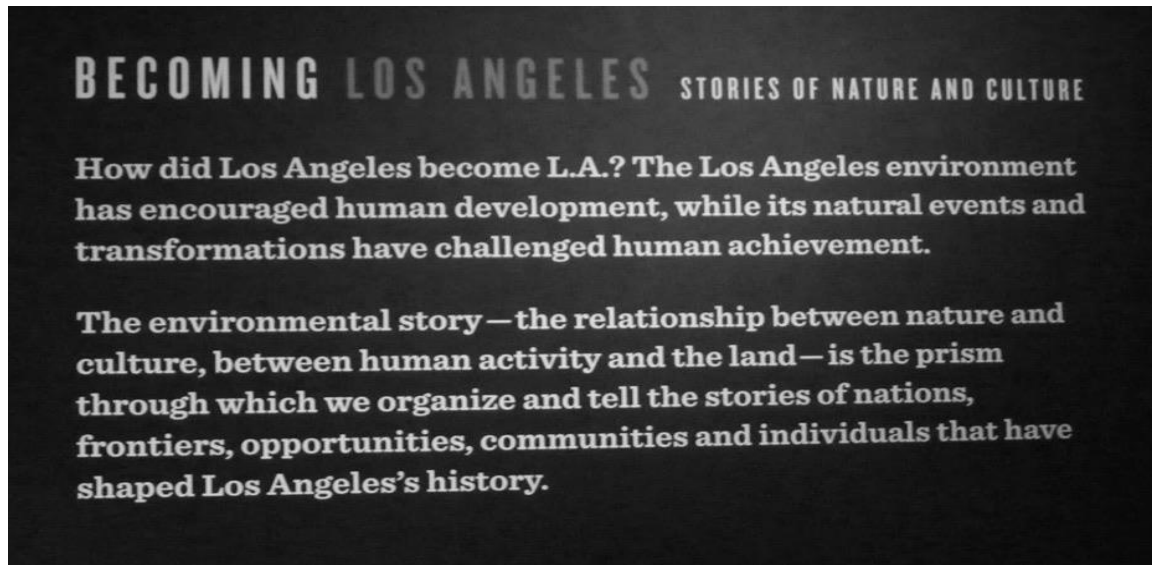


Figure 7.3: Los Angeles museum of natural history

“It matters what thoughts think thoughts” and what stories tell stories (Haraway, 2016, p. 35). This dissertation has attempted to craft a practice of riding theory, of thinking through and with cycling that is not so much telling stories *about* cycling in Los Angeles, but of connecting the dots as the O.V.A.S put it, of story-telling (through theory, image/text assemblages) as a practice of world-making. For David Harvey, the Right to the City is: ‘the right to change ourselves by changing the city’ (Harvey, 2008). If, as the ontologies followed in this dissertation point towards, matter and meaning are intertwined (Grosz, 2017), and we are

sociogenic (Wynter, 2001) storied-becomings, then the stories we tell of cycling in cities, of cycling futures and pasts, of how Los Angeles came to be what it is and how it will become – are material forces of change, not simply abstract theory.

Throughout this dissertation I have tried to ride a curious story of cycling Los Angeles (see Chapter 3 and 6) one that in Haraway’s words “cultivates response-ability” (2016, p. 130). As discussed above, I have tried to ride cycling stories that question the reproduction of deterministic linear futures of human ‘progress’ and exclusive visions and assumptions of individualized *homo economicus* humanity, health and sustainability (as discussed above).



Figure 7.4 Presentation by League of American Bicyclists, at CNU in Dallas, Texas.

These stories matter. Dominant visions of cycling are part of projections of ‘the good life’ (see Figure 7.4) that construct the forms of life that are made possible, imbued with meaning, value and investment. Through riding theory I wanted to tell a story that does not simply proffer the binaries of an ‘Exit’ from the status quo (see Figure 7.4) or signing up to the dominant “good

life” (one where in the presentation above, ‘good’ cyclists spend more, and learning from the ‘best’ means modelling the Netherlands). The dominant depictions of the cycling ‘good life’ I encountered were often *business as usual on a bicycle*: Wherein cycling as mobility is still wrapped up within valorization of speed and ‘friction-less’ mobility, cycling is another ‘choice’ in the realm of freedom as ever-expanding consumer choice, well-being is ‘utility maximization’ and different cyclists are categorized by race, class, fitness, sexuality, gender and generation in ways that reinforce damaging assumptions and relations of power. The paths to *Velotopia*¹⁶³ tend to be paved by policies of technology- mobility- infrastructure-fixes (even if the *cycle is a ‘retro-fix’), prioritising individualized behaviour change, marketing and education. But the deeper politics of cycling and the latent assumptions of what it means to be a human and lead a ‘good life’ are often hauntingly absent. It is through and within these registers that policy powerfully reproduces, enacts and cuts lives short. This is the story I have attempted to ride, one that draws attention to the (un)necessary violence of going about a ‘good life’ and how the *cycle can both serve to reproduce and reinvent this particular tale.

In riding theory, I have tried to balance on a ridge between falling into abstracted, generalizing theory *about* embodiment and bodies on the one side, and on the other, a phenomenological account that privileges my subjective experience without recognizing its own nesting in axes of power. Through a situated practice of unsettling encounters (see Chapter 3) I have attempted to keep coming back to the question of what conditions, what queer inheritances make cycling stories possible. The interventions I aimed to make are within the practices of thought production (on cycling, mobility, visions of ‘the good life’) within which I am embroiled (e.g.

¹⁶³ The title of a recent book that epitomises this vision, as reviewed by (Nello-Deakin, 2017). The citizens in *Velotopia*, for example, are conceived of in very conventional, particularly ageist and heteronormative ways; the views of parents with small children are valorized as they are seen, uniquely to care about the future.

a decolonization that does not happen ‘elsewhere’ – but needs first to occur in the thought/practices of the colonizers – Cesaire and Senghor in Wilder (2015)) yet one that attempts always to refuse “the white benevolent stance (‘I am good because I am doing anti-colonial work’)” (Mahtani, 2014, p. 364).

There are, however, many potential potholes in my efforts of riding theory. Situating my work in the sometimes overlapping and contested spaces between material feminisms, black feminisms and queer theory takes the risk of not doing justice to the conceptual breadth and depth of any of these inheritances. Further, the risk of ‘riding with’ a concept such as the ‘flesh’ in different directions (i.e. through cycling) is that it is made to contort in ways that belie its nuances in previous work. The particular risk I am mindful of in my choice of focus on ‘the body’, is that of ‘fixing’ discussions of race, gender, ability, sexuality – yet again – to the body and reiterating tropes of women as ‘fleshy’, leaky (Longhurst, 2001), blackness as attached to ‘bodies’ and fixed into (bodily) space, as McKittrick puts it, where: “the body is understood as the only useful black geographic scale” (Mahtani, 2014, p. 362); and of the body and everyday embodiment as the ‘proper’ scale and domain of feminisms (as opposed to, for example: political economy, the city, the globe or global geo-politics). If nothing else, I hope my particular take on riding theory has started to unravel some of these fixed and damaging understandings of scale, bodies and power.

There are many more lines of curiosity I would like to have followed, stories left untold and ways of telling, writing, riding theory left undone: The more experimental and embodied forms of storying that I employed throughout this project (see Chapter 3) are largely made invisible/illegible by the confines of a written, on-the-page dissertation format. The hours of film footage, the voice and sound recordings and the rides themselves are not manifest in the

text. Nor are the creative planning practices I learned of and tried out, such as James Rojas' collaborative and participative practice: Through playing with colourful plastic toys participants are asked to build/recreate positive childhood memories individually (see Figure 7.5, below) and then collaboratively invent future city spaces. Aside from collaborating with Rojas on a blog post (Rojas & Davidson, 2015) this avenue of my research did not manifest in the dissertation or beyond.



Figure 7.5 Place-It workshop, LA June 2015

Participants build favourite childhood memory (Photo: James Rojas)

In this way, I have only touched on planning for cycling obliquely. If planning is future-story telling, what would an immanent planning (Banville & Torres, 2017) for cycling in cities look like? Is it possible to speak across the epistemological divides between the kind of stories of power told in this dissertation, and the biopolitical apparatus of power in planning (Rutland,

2015) for, despite and with cycling? If the future is effected through the practices of now and if ‘elswheres’ are also imbricated in “heres” what does this mean for ‘visioning’ and planning ‘for sustainability’? How can practices such as Rojas’ (above) subvert dominant relations of power in planning? These are questions that need to be ‘parked’ for now.

As does another story I had wanted to tell: Of how we tell stories of ‘capitalisms’ and the role of human and inhuman effort, energy and labour. As discussed in the Introduction, my interest in cycling arose from a set of emergent questions around bodily efforts and how and why particular forms of bodily work are valued. This remains an interesting, and increasingly relevant question in a context where electric bicycles and self-driving cars or Autonomous Vehicles are gaining ground¹⁶⁴ (Zakharenko, 2016). The particular ways in which these practices alleviate the need for, require and transform human and inhuman energies; and the impacts on city-body-energy enfleshments and circulation of value and inequity needs in-depth consideration. The role of human energies and efforts in cycling and capitalisms was always going to be too big a question, and the work in this dissertation has only just begun to find a language and method for (re-)formulating the questions I – or someone else – may want to ask.

It matters whose stories we tell and it matters how these stories are told. As I write this an email in my Inbox asks me if I want to join the Cycle House in Los Angeles in cycling on the spot for their Hurricane Harvey appeal. Whether it is genuine charity or capitalizing on care, \$50/bike for a death toll of 50 at the time of writing (3rd September 2017), there is no mention

¹⁶⁴ See for example, the discussion on autonomous vehicles in Guardian Transport, June 2017: <https://www.theguardian.com/sustainable-business/live/2017/jun/13/future-driverless-autonomous-vehicles-live-chat>

of the un-labelled, un-capitalized, un-categorized ‘monsoon rains’, the estimated death toll of 1200 in India, Nepal, Bangladesh and Pakistan. A comparison of deaths is crude, and the causal relations between extreme weather events, flooding, urban form and anthropogenic climate change are too complex and contested to discuss here. However, the CH♥TX (Cycle House love Texas) charity ride shows what economies of attention and striving are valued, the imaginaries of human lives categorized as losses versus anonymous numbers of ‘bodies’, the imaginaries and material flows that bound ‘our’ response-ability around places, practices and people. There is an urgent need for other stories.

Postscript

It feels as though I have not moved more than my fingers and eyes in hours. My professed *riding theory* is marked by the gaping irony that the translation through the computer and printers onto a page belies the rides, the howls, the rush of wind, the hot sun, the many slightly manic and breathless post-ride voice-recorded thoughts and feelings, sweaty shaky fingers typing on an over-heated phone.

The work of writing is also laborious, working energy and muscles differently:

the computer's smooth screen forms a rock face: what holds are there to grab onto? Then yes, the entire body gathers itself, from the feet to the cranium: head and belly, muscles and genitalia, back and thighs, sweat and presence of mind, emotion, attention and valor, persevering slowness, the five senses assembled by that of movement, but suddenly, lightning speed, inspiration and concentration, demand for silence... (Serres, 2011)

This text was written through, with and punctuated/punctured by rides, but writing is not riding, and wor(l)ds are lost and made in the translation.

References

- #BlackLivesMatter. (2017). BlackLivesMatter Retrieved from <http://blacklivesmatter.com/>
- Abrahamsson, S., & Simpson, P. (2011). The limits of the body: boundaries, capacities, thresholds. *Social & Cultural Geography*, 12(4), 331-338.
doi:10.1080/14649365.2011.579696
- Acker, K. (1993). Against ordinary language: the language of the body. In M. Kroker (Ed.), *The last sex : feminism and outlaw bodies* (pp. 20-28). Basingstoke: Basingstoke : Macmillan.
- An act to amend Section 21212 of the Vehicle Code, relating to bicycles, 192, California Senate (2015).
- Agamben, G. (1998). *Homo sacer: Sovereign Power and Bare Life*. Stanford; California: Stanford University Press.
- Ahmed, S. (2007). A phenomenology of whiteness. *Feminist Theory*, 8(2), 149-168.
doi:10.1177/1464700107078139
- Ahmed, S. (2008). Open Forum Imaginary Prohibitions: Some Preliminary Remarks on the Founding Gestures of the `New Materialism'. *European Journal of Women's Studies*, 15(1), 23-39. doi:10.1177/1350506807084854
- Ahmed, S. (2012). *On Being Included*. London: Duke University Press.
- Ahmed, S. (2015a). *The cultural politics of emotion* (Second ed.). Edinburgh: Edinburgh University Press.
- Ahmed, S. (2015b). Melancholic Universalism. Retrieved from <http://feministkilljoys.com/>
- Ahmed, S. (2017). *Living a feminist life*. Durham and London: Duke University Press.
- Air Resources Board. (2017). California Climate Investments. Retrieved from www.arb.ca.gov
- Akyelken, N. (2013). Development and Gendered Mobilities: Narratives from the Women of Mardin, Turkey. *Mobilities*, 8(3), 424-439. doi:10.1080/17450101.2013.769725
- Alaimo, S. (2010). *Bodily natures [electronic resource] : science, environment, and the material self*. Bloomington: Indiana University Press.
- Alava, J. J., Ross, P. S., & Gobas, F. A. (2016). Food Web Bioaccumulation Model for Resident Killer Whales from the Northeastern Pacific Ocean as a Tool for the Derivation of PBDE-Sediment Quality Guidelines. *Arch Environ Contam Toxicol*, 70(1), 155-168. doi:10.1007/s00244-015-0215-y
- Alcala, N. (2015). LA's Cycle House (and a Hottest Trainer Contestant!) Score a Reality Show: Racked, Los Angeles
- Aldred, R. (2010). "On the outside": constructing cycling citizenship. *Social & Cultural Geography*, 11(2009), 35-52.
- Aldred, R. (2013a). Cycling and society. *Journal of Transport Geography*, 30, 180-182. doi:10.1016/j.jtrangeo.2013.04.009
- Aldred, R. (2013b). Who are Londoners on Bikes and what do they want? Negotiating identity and issue definition in a 'pop-up' cycle campaign. *Journal of Transport Geography*, 30(0), 194-201. doi:10.1016/j.jtrangeo.2013.01.005
- Aldred, R., & Jungnickel, K. (2014). Why culture matters for transport policy: the case of cycling in the UK. *Journal of Transport Geography*, 34, 78-87. doi:10.1016/j.jtrangeo.2013.11.004

- Alexander, M. (2010). *The new Jim Crow: Mass incarceration in the age of colorblindness*. New York: The New Press.
- Alter, L. (2011). How Much Does It Cost to Commute By Bike? Retrieved from <http://www.treehugger.com/bikes/how-much-does-it-cost-to-commute-by-bike.html>
- Ambrose, T. (2013). *The History of Cycling in Fifty Bikes*: The History Press
- American Civil Liberties Union. (2017). Stingray Tracking Devices: Who's Got Them? Retrieved from <https://www.aclu.org/map/stingray-tracking-devices-whos-got-them?redirect=maps/stingray-tracking-devices-whos-got-them>
- Anable, J. (2005). "Complacent car addicts" or "aspiring environmentalists"? Identifying travel behaviour segments using attitude theory. *Transport Policy*, 12, 65-78.
- Anable, J., Brand, C., Tran, M., & Eyre, N. (2012). Modelling transport energy demand: A socio-technical approach. *Energy Policy*, 41(0), 125-138. doi:10.1016/j.enpol.2010.08.020
- Anderson, B. (2017). Cultural geography i: Intensities and forms of power. *Progress in Human Geography*, 41(4). doi:10.1177/0309132516649491
journals.sagepub.com/home/phg
- Anderson, B., & Harrison, P. (Eds.). (2010). *Taking-place : non-representational theories and geography* ([electronic resource] ed.). Burlington, VT: Burlington, VT : Ashgate.
- Anderson, M. (2013). The appeal of e-bikes: 5 facts from a new study. Retrieved from <https://bikeportland.org/2013/11/07/the-appeal-of-e-bikes-5-facts-from-a-new-study-96861>
- Anonymous CNU presenter (2015, 2nd May 2015). [Urbanism in the Age of Climate Change].
- Ansfield, B. (2015). Still Submerged: The Uninhabitability of Urban Redevelopment. In K. McKittrick (Ed.), *Sylvia Wynter: On Being Human as Praxis* (pp. 124-141). Durham and London: Duke University Press.
- Anzaldúa, G. (1987). *Borderlands: the new mestiza = La Frontera*. San Francisco: Aunt Lute Books.
- Ash, J., & Simpson, P. (2016). Geography and post-phenomenology. *Progress in Human Geography*, 40(1), 48-66. doi:10.1177/0309132514544806
- Attewell, R. G., Glase, K., & McFadden, M. (2001). Bicycle helmet efficacy: a meta-analysis. *Accident Analysis & Prevention*, 33(3), 345-352. doi:[http://dx.doi.org/10.1016/S0001-4575\(00\)00048-8](http://dx.doi.org/10.1016/S0001-4575(00)00048-8)
- Avila, E. (2014a). *The Folklore of the Freeway: Race and Revolt in the Modernist City*. Minneapolis and London: University of Minnesota Press.
- Avila, E. (2014b). The Freeway Is the Perfect Place to Protest Ferguson. *Ideas: Nexus*. Retrieved from <http://www.zocalopublicsquare.org/2014/12/15/the-freeway-is-the-perfect-place-to-protest-ferguson/ideas/nexus/>
- Ayres, I., & Borowsky, J. (2008). *A Study of Racially Disparate Outcomes in the Los Angeles Police Department*. Retrieved from Southern California:
- Babey, S. H., Wolstein, J., Diamant, A. L., & Goldstein, H. (2016). *Prediabetes in California: Nearly Half of California Adults on Path to Diabetes*. Retrieved from <http://healthpolicy.ucla.edu/publications/Documents/PDF/2016/prediabetes-brief-mar2016.pdf>
- Bærenholdt, J. O. (2013). Governmobility: The Powers of Mobility. *Mobilities*, 8(1), 20-34. doi:10.1080/17450101.2012.747754

- Balmer, M. (2014). California Bicycle Coalition Launches “I Give 3 Feet” Media Awareness & Outreach Campaign [Press release]
- Banham, R. (1971). *Los Angeles: the architecture of four ecologies*. London: London : Allen Lane.
- Banister, D. (2008). The sustainable mobility paradigm. *Transport Policy*, 15(2), 73-80. doi:10.1016/j.tranpol.2007.10.005
- Banville, M.-S., & Torres, J. (2017). On embracing an immanent ethics in urban planning: Pursuing our Body-without-Organs. *Planning Theory*, 16(3), 255-274. doi:10.1016/j.planning.2017.07.007
- Barad, K. (2003a). Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter. *Signs*, 28(3), 801-831.
- Barad, K. (2003b). Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter. *Signs: Journal of Women in Culture and Society*, 28(3), 801-831.
- Barad, K. (2007). *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham and London: Duke University Press.
- Barad, K. (2010). Quantum Entanglements and Hauntological Relations of Inheritance: Dis/continuities, SpaceTime Enfoldings, and Justice-to-Come. *Derrida Today*, 3(2), 240-268. doi:10.3366/drt.2010.0206
- Barad, K. (2012). Nature’s Queer Performativity. *Kvinder, Kon & Forskning*, 1-2, 25-53.
- Barad, K. (2013). On Touching--The Inhuman That Therefore I Am. *differences*, 23(3), 206-223. doi:10.1215/10407391-1892943
- Barad, K. (2015). TransMaterialities: Trans*/Matter/Realities and Queer Political Imaginings. *GLQ: A Journal of Lesbian and Gay Studies*, 21(2-3), 387-422. doi:10.1215/10642684-2843239
- Bartholomew, D. (2009, 2nd February 2009). Blight hits 14-mile bicycle path along the Metro's Orange Line. *Los Angeles Daily News*. Retrieved from <http://www.dailynews.com/article/ZZ/20090202/NEWS/902029889>
- Bear, L., Ho, K., Tsing, A., & Yanagisako, S. (2015, March 30 2015). Gens: A Feminist Manifesto for the Study of Capitalism. *Theorizing the Contemporary, Cultural Anthropology website*. Retrieved from <https://culanth.org/fieldsights/652-gens-a-feminist-manifesto-for-the-study-of-capitalism>
- Beck, C. (2013). Analysis of traffic collisions over the last five years. In L. A. P. Department (Ed.). Los Angeles.
- Beecham, R., & Wood, J. (2014). Exploring gendered cycling behaviours within a large-scale behavioural data-set. *Transportation Planning and Technology*, 37(1), 83-97. doi:10.1080/03081060.2013.844903
- Behrendt, F. (2016). Why cycling matters for Smart Cities. Internet of Bicycles for Intelligent Transport. *Journal of Transport Geography*, 56, 157-164. doi:10.1016/j.jtrangeo.2016.08.018
- Behrendt, F. (2017). Why cycling matters for electric mobility: towards diverse, active and sustainable e-mobilities. *Mobilities*, 1-17. doi:10.1080/17450101.2017.1335463
- Bennett, J. (2010). *Vibrant matter : a political ecology of things*. Durham, N.C.: Durham, N.C. : Duke University Press.
- Berlant, L. (2007a). On the Case. *Critical Inquiry*, 33(4), 663-672.
- Berlant, L. (2007b). Slow Death (Sovereignty, Obesity, Lateral Agency). *Critical Inquiry*, 33(4), 754-780.

- Berlant, L. (2016). The commons: Infrastructures for troubling times. *Environment and Planning D: Society and Space*, 34(3), 393-419. doi:10.1177/0263775816645989
- Berlant, L., & Povinelli, E. (2014). Holding Up the World, Part III: In the Event of Precarity...A Conversation. *e-flux*, 58.
- Bijker, W. E. (1995a). *King of the road : the social construction of the safety bicycle*. Cambridge, MA: Cambridge, MA : MIT Press.
- Bijker, W. E. (1995b). *Of Bicycles, Bakelites, and Bulbs: Toward a Theory of Sociotechnical Change* London: MIT Press.
- Bingham, N. (2003). Writing Reflexively In M. Pryke, G. Rose, & S. Whatmore (Eds.), *Using Social Theory : Thinking Through Research*. London: SAGE Publications Ltd.
- Binnie, J., Edensor, T., Holloway, J., Millington, S., & Young, C. (2007). Mundane mobilities, banal travels. *Social & Cultural Geography*, 8(2), 165-174. doi:10.1080/14649360701360048
- Bissell, D. (2009). Travelling vulnerabilities: mobile timespaces of quiescence. *Cultural Geographies*, 16(4), 427-445. doi:10.1177/1474474009340086
- Bissell, D. (2010a). Passenger mobilities: affective atmospheres and the sociality of public transport. *Environment and Planning D: Society and Space*, 28(2), 270-289. doi:10.1068/d3909
- Bissell, D. (2010b). Vibrating materialities: mobility-body-technology relations. *Area*, 42(4), 479-486.
- Bissell, D. (2011). Thinking habits for uncertain subjects: movement, stillness, susceptibility. *Environment and Planning A*, 43(11), 2649-2665. doi:10.1068/a43589
- Blaagaard, B., & Tuin, I. v. d. (2014). *The subject of Rosi Braidotti : politics and concepts*. London: Bloomsbury.
- Blickstein, S. G., & Hanson, S. (2001). Critical mass: forging a politics of sustainable mobility in the information age. *Transportation*, 28, 347-362.
- Blumenberg, E. (2008). Immigrants and transport barriers to employment: The case of Southeast Asian welfare recipients in California. *Transport Policy*, 15(1), 33-42. doi:10.1016/j.tranpol.2007.10.008
- Blumenberg, E., & Ong, P. (2001). Cars, Buses, and Jobs: Welfare Participants and Employment Access in Los Angeles. *Transportation Research Record*, 1756, 22-31.
- Boehm, S., Jones, C., Land, C., & Paterson, M. (Eds.). (2006). *Against Automobility*. Malden, Oxford: Blackwell.
- Boehmer, T. K., Wendel, A. M., Bowers, F., Robb, K., Christopher, E., Broehm, J. E., . . . Ralph, J. (2017). U.S. Transportation and Health Tool: Data for action. *Journal of Transport & Health*, 6, 530-537. doi:10.1016/j.jth.2017.02.007
- Bonham, J. (2006). Transport: disciplining the body that travels. *The Sociological Review*, 54(s1), 57-74.
- Bonham, J., & Wilson, A. (2012). Bicycling and the Life Course: The Start-Stop-Start Experiences of Women Cycling. *International Journal of Sustainable Transportation*, 6(4), 195-213. doi:10.1080/15568318.2011.585219
- Boogaard, H., Borgman, F., Kamminga, J., & Hoek, G. (2009). Exposure to ultrafine and fine particles and noise during cycling and driving in 11 Dutch cities. *Atmos Environ*, 43, 4234-4242.
- Bosworth, K. (2016). Thinking permeable matter through feminist geophilosophy: Environmental knowledge controversy and the materiality of hydrogeologic

- processes. *Environment and Planning D: Society and Space*.
doi:10.1177/0263775816660353
- Bourdieu, P. (1977). *Outline of a Theory of Practice* (Vol. 16): Cambridge University Press.
- Bourdieu, P. (1984). *Distinction. A Social Critique of the Judgement of Taste* (R. Nice, Trans.). Cambridge, MA: Harvard University Press.
- Boyer, K., & Spinney, J. (2016). Motherhood, mobility and materiality: Material entanglements, journey-making and the process of 'becoming mother. *Environment and Planning D: Society and Space*, 34(6), 1113-1131.
doi:10.1177/0263775815622209
- Brady, P. (2014). The Second-Class Citizen. Retrieved from
<http://redkiteprayer.com/2014/08/the-second-class-citizen/>
- Braidotti, R. (2006a). Posthuman, All Too Human: Towards a New Process Ontology. *Theory, Culture & Society*, 23(7-8), 197-208. doi:10.1177/0263276406069232
- Braidotti, R. (2006b). *Transpositions: On Nomadic Ethics*. Cambridge: Polity.
- Braidotti, R. (2014). Writing as a Nomadic Subject. *Comparative Critical Studies*, 11(2-3), 163-184. doi:10.3366/ccs.2014.0122
- Braidotti, R., & Butler, J. (1994). Feminism by Any Other Name. *Differences: A journal of feminist cultural studies*, 6.2+3, 27-61.
- Braun, B. P. (2014). A new urban dispositif? Governing life in an age of climate change. *Environment and Planning D: Society and Space*, 32, 49-64.
- (n.d.). LACBC Operation Firefly and Josef Bray-Ali at Flying Pigeon [
- Bray, A., & Colebrook, C. (1998). The Haunted Flesh: Corporeal Feminism and the Politics of (Dis)Embodiment. *Signs: Journal of Women in Culture and Society*, 24(1), 35-67.
- BRE Investment. (2017). BRE Investment. Retrieved from
<http://www.breinvestment.com/#mission-statement>
- Brown, M. P. (2000). *Closet space [electronic resource] : geographies of metaphor from the body to the globe*. London: Routledge.
- Brown, M. P., & Boyle, P. (2000). National Closets: Governmentality, sexuality and the census. In M. P. Brown (Ed.), *Closet space [electronic resource] : geographies of metaphor from the body to the globe*. London: Routledge.
- Brown, W. (2002). At the Edge. *Political Theory*, 30(4), 556-576.
- Brown, W. (2015). *Undoing the demos : neoliberalism's stealth revolution*: New York : Zone Books.
- Buehler, R., & Pucher, J. (2011). Cycling to work in 90 large American cities: new evidence on the role of bike paths and lanes. *Transportation*, 39(2), 409-432.
doi:10.1007/s11116-011-9355-8
- Bureau of Labor Statistics. (2015). Consumer Expenditures for the Los Angeles Area: 2013-2014. Retrieved from https://www.bls.gov/regions/west/news-release/pdf/consumerexpenditures_losangeles.pdf
- Buscher, M., & Urry, J. (2009). Mobile Methods and the Empirical. *European Journal of Social Theory*, 12(1), 99-116. doi:10.1177/1368431008099642
- Butler, J. (1988). Performative Acts and Gender Constitution: An Essay in Phenomenology and Feminist Theory *Theatre Journal*, 40(4), 519-531.
- Butler, J. (1990). *Gender Trouble: Feminism and the Subversion of Identity*. New York: Routledge.
- Butler, J. (2011a, 7th September 2011). *Bodies in Alliance and the Politics of the Street*. Paper presented at the The State of Things, Venice.

- Butler, J. (2011b). *Bodies That Matter*. Abingdon: Routledge.
- Butler, J. (2015). *Senses of the Subject*. New York: Fordham University Press.
- Butler, J., & Berbec, S. (2017, June 26th, 2017). We are Worldless Without One Another: An Interview with Judith Butler. *The Other Journal: An Intersection of Theology and Culture*. Retrieved from <https://theotherjournal.com/2017/06/26/worldless-without-one-another-interview-judith-butler/>
- Butler, T. (2015, December 23rd 2015) *Emerging Equity Leaders: Tamika Butler/Interviewer: A. Washington*. PolicyLink, PolicyLink, California.
- California Climate Investments. (2016). *ANNUAL REPORT TO THE LEGISLATURE ON California Climate Investments Using Cap-and-Trade Auction Proceeds*. Retrieved from California: https://arb.ca.gov/cc/capandtrade/auctionproceeds/cci_annual_report_2016_final.pdf
- California Department of Health Care Services. (2016). Affordable Care Act. Retrieved from <http://www.dhcs.ca.gov/individuals/Pages/AffordableCareActLinks.aspx>
- California Vehicle Code, Words and Phrases Defined C.F.R. § Division 1 (1985).
- Callard, F. (1998). The body in theory. *Environment and Planning D: Society and Space*, 16, 387-400.
- Callard, F. (2003). The taming of psychoanalysis in geography. *Social & Cultural Geography*, 4(3), 295-312. doi:10.1080/14649360309071
- Callon, M., Méadel, C., & Rabeharisoa, V. (2002). The economy of qualities. *Economy and Society*, 31(2), 194-217. doi:10.1080/03085140220123126
- Campbell, A. A., Cherry, C. R., Ryerson, M. S., & Yang, X. (2016). Factors influencing the choice of shared bicycles and shared electric bikes in Beijing. *Transportation Research Part C: Emerging Technologies*, 67, 399-414. doi:10.1016/j.trc.2016.03.004
- Canzoneri, E., Ubaldi, S., Rastelli, V., Finisguerra, A., Bassolino, M., & Serino, A. (2013). Tool-use reshapes the boundaries of body and peripersonal space representations. *Exp Brain Res*, 228(1), 25-42. doi:10.1007/s00221-013-3532-2
- Capperis, S., Ellen, I. G., & Karfunkel, B. (2015). *Renting in America's Largest Cities*. Retrieved from http://furmancenter.org/files/CapOneNYUFurmanCenter_NationalRentalLandscape_MAY2015.pdf
- Carbado, D., Crenshaw, K., Mays, V., & Tomlinson, B. (2013). INTERSECTIONALITY: Mapping the Movements of a Theory. *Du Bois Review: Social Science Research on Race*, 10(2), 303-312. doi:10.1017/S1742058X13000349
- Carlsson, C. (2008). *Nowtopia: How Pirate Programmers, Outlaw Bicyclists, and Vacant-lot Gardeners are Inventing the Future Today!* Oakland, CA: AK Press.
- Carter, V., Pastor, M., & Wander, M. (2013). *An Agenda for Equity: A Framework for Building a Just Transportation System in Los Angeles County*. Retrieved from California: http://cityplanning.lacity.org/PolicyInitiatives/CPCEquityOpportunity/MP_Agenda.pdf
- Chakrabarti, S. (2017). How can public transit get people out of their cars? An analysis of transit mode choice for commute trips in Los Angeles. *Transport Policy*, 54, 80-89. doi:10.1016/j.tranpol.2016.11.005

- Chapple, K. (2015). Incomplete Streets, Complete Regions: In search of an equitable scale. In S. Zavestoski & J. Agyeman (Eds.), *Incomplete Streets: Processes, Practices, and Possibilities* (pp. 290-305). Oxon: Routledge.
- Chen, M. Y. (2012). *Animacies: Biopolitics, Racial Mattering, and Queer Affect*. London: Duke University Press.
- Chertok, M., Voukelatos, A., Sheppard, V., & Rissel, C. (2004). Comparison of air pollution exposure for five commuting modes in Sydney - car, train, bus, bicycle and walking. *Health Promotion Journal of Australia*, 15(1).
- Cidell, J., Prytherch, D., & Addie, J.-P. D. (2015). *Transport, mobility, and the production of urban space*. New York: Routledge.
- Cixous, H. (1986). Sorties: Out and Out: Attacks/Ways Out/Forays (B. Wing, Trans.) *The Newly Born Woman*. Minneapolis: University of Minnesota Press.
- Clark, N. (2010). Volatile Worlds, Vulnerable Bodies: Confronting Abrupt Climate Change. *Theory, Culture & Society*, 27(2-3), 31-53. doi:10.1177/0263276409356000
- Clark, N. (2011). The Play of the World *Using Social Theory* (pp. 29-46). London, England: SAGE Publications, Ltd.
- Clark, N., & Yusoff, K. (2014). Combustion and Society: A Fire-Centred History of Energy Use. *Theory, Culture & Society*. doi:10.1177/0263276414536929
- Clarke, A. (2015). Official LCC event: Are We Ready for Success? With Andy Clarke, President of the League of American Bicyclists. London: London Cycling Campaign.
- Colebrook, C. (2000a). From Radical Representations to Corporeal Becomings: The Feminist Philosophy of Lloyd, Grosz, and Gatens. *Hypatia*, 15(2), 76-93.
- Colebrook, C. (2000b). Questioning Representation. *SubStance*, 29(2), 47-67. doi:10.1353/sub.2000.0017
- Colebrook, C. (2016). What is the Anthro-Political? In T. Cohen, C. Colebrook, & J. H. Miller (Eds.), *Twilight of the Anthropocene Idols*. London: Open Humanities Press.
- Coleman, J. (2016). How These Wooden Fences Became A Symbol Of Gentrification Across Los Angeles. Retrieved from http://laist.com/2016/05/04/wooden_slat_fences.php
- Collier, S. (2005). *The Spatial Forms and Social Norms of 'Actually Existing Neoliberalism': Toward a Substantive Analysis*. International Affairs Working Paper. International Affairs. The New School. New York.
- Colls, R. (2004). 'Looking alright, feeling alright': emotions, sizing and the geographies of women's experiences of clothing consumption. *Social & Cultural Geography*, 5(4), 583-596. doi:10.1080/1464936042000317712
- Colls, R. (2007). Materialising bodily matter: Intra- action and the embodiment of 'Fat'. *Geoforum*, 38(2), 353-365. doi:10.1016/j.geoforum.2006.09.004
- Colls, R. (2012). Feminism, bodily difference and non-representational geographies. *Transactions / Institute of British Geographers.*, 37, 430-445.
- Congress for the New Urbanism. (2015). Who We Are. Retrieved from <https://www.cnu.org/who-we-are>
- Conley, J., & McLaren, A. (2009). *Car Troubles: Critical Studies of Automobility and auto-mobility* Farnham: Ashgate.
- Cook, N., & Butz, D. (2015). Mobility Justice in the Context of Disaster. *Mobilities*, 11(3), 400-419. doi:10.1080/17450101.2015.1047613

- Coole, D. H. (2007). *Merleau-Ponty and Modern Politics after Anti-Humanism*. Plymouth, UK: Rowman & Littlefield Publishers.
- Coole, D. H., & Frost, S. (2010). *New materialisms : ontology, agency, and politics*. Durham, N.C.: Durham, N.C. : Duke University Press.
- Cooper, B. (Producer). (2016, 12th May 2017). The Racial Politics of Time. *TEDWomen*. Retrieved from https://www.ted.com/talks/brittney_cooper_the_racial_politics_of_time#t-273682
- Cowen, D. (2011). Logistics' Liabilities. *Limn*, 1(1).
- Cresswell, T. (2010). Towards a politics of mobility *Environment and Planning D: Society and Space*, 28, 17-31.
- Cresswell, T. (2012). Review essay. Nonrepresentational theory and me: notes of an interested sceptic. *Environment and Planning D: Society and Space*, 30(1), 96-105. doi:10.1068/d494
- Culver, G. (2017). Mobility and the making of the neoliberal “creative city”: The streetcar as a creative city project? *Journal of Transport Geography*, 58, 22-30. doi:10.1016/j.jtrangeo.2016.11.005
- Cupples, J., & Ridley, E. (2008). Towards a heterogeneous environmental responsibility: sustainability and cycling fundamentalism. *Area*, 40(2).
- da Silva, D. F. (2014). No-bodies: law, raciality and violence. *Meritum - Belo Horizonte*, 9(1), 119-162.
- Dalby, S. (2007). Anthropocene Geopolitics: Globalisation, Empire, Environment and Critique. *Geography Compass*, 1(1), 103-118. doi:10.1111/j.1749-8198.2007.00007.x
- Damant-Sirois, G., Grimsrud, M., & El-Geneidy, A. M. (2014). What’s your type: a multidimensional cyclist typology. *Transportation*, 41(6), 1153-1169. doi:10.1007/s11116-014-9523-8
- Davis, C. (2015). Under the Bridge: The Crime of Living Without a Home in Los Angeles. Retrieved from <https://theintercept.com/2015/07/25/criminalizing-homelessness-in-los-angeles/>
- Davis, M. (2006). *City of Quartz*. London: Verso.
- de Certeau, M. (1984). *The Practice of Everyday Life*. London: University of California Press.
- de Kluizenaar, Y., Gansevoort, R. T., Miedema, H. M. E., & de Jong, P. E. (2007). Hypertension and road traffic noise exposure. *Journal of occupational and environmental medicine*, 49(5), 484. doi:10.1097/JOM.0b013e318058a9ff
- de la Bellacasa, M. P. (2012). ‘Nothing comes without its world’: thinking with care. *The Sociological Review*, 60, 197-216. doi:10.1111/j.1467-954X.2012.02070.x
- De Landa, M. (2000). *A Thousand Years of Nonlinear History*. New York: Swerve Editions.
- de Nazelle, A., Nieuwenhuijsen, M. J., Anto, J. M., Brauer, M., Briggs, D., Braun-Fahrlander, C., . . . Lebret, E. (2011). Improving health through policies that promote active travel: a review of evidence to support integrated health impact assessment. *Environ Int*, 37(4), 766-777. doi:10.1016/j.envint.2011.02.003
- De Verteuil, G. (2010). Evidence of Gentrification-induced Displacement among Social Services in London and Los Angeles. *Urban Studies*, 48(8), 1563-1580. doi:10.1177/0042098010379277
- DeAratonha, R. (2015). The activist known as General Dogon poses with his custom bikes at the Skid Row History Museum and Archive in downtown Los Angeles. The bikes are

- on display as part of a series of exhibitions that will chronicle the history of Skid Row. Los Angeles Times.
- Deleuze, G. (1988). *Spinoza : practical philosophy*. San Francisco: San Francisco : City Lights Books.
- Deleuze, G. (1992). Postscript on the Societies of Control. *October*, 59, 3-7.
- Deleuze, G. (1995). *Negotiations : 1972-1990*. New York: Columbia University Press.
- Deleuze, G. (1997). Gilles Deleuze. In N. Leach (Ed.), *Rethinking architecture : a reader in cultural theory*. London: New York, NY : Routledge.
- Deleuze, G. (2001). *Pure Immanence: Essays on A Life* (A. Boyman, Trans.). New York: Zone Books.
- Deleuze, G., & Guattari, F. (1987). *A thousand plateaus: capitalism and schizophrenia* (B. Massumi, Trans.). London: University of Minnesota Press.
- Deleuze, G., & Guattari, F. (2013). *What is Philosophy?* (G. Burchell & H. Tomlinson, Trans.). London: Verso.
- DeLyser, D. (2010). *The SAGE handbook of qualitative geography*. Los Angeles, Calif. and London: SAGE.
- Derrida, J. (1994). *Specters of Marx: The State of the Debt, the Work of Mourning and the New International*. Abingdon, Oxon: Routledge.
- Dewsbury, J. D. (2011). The Deleuze-Guattarian assemblage: plastic habits. *Area*, 43, 148-153. doi:10.1111/j.1475-4762.2011.01006.x
- Dewsbury, J. D., & Thrift, N. (2005). 'Genesis Eternal': After Paul Klee1. 89-108. doi:10.3366/edinburgh/9780748618743.003.0006
- Dill, J., & McNeil, N. (2012). *Four Types of Cyclists? Testing a Typology to Better Understand Bicycling Behavior and Potential*.
- Dill, J., Mohr, C., & Ma, L. (2014). How Can Psychological Theory Help Cities Increase Walking and Bicycling? *Journal of the American Planning Association*, 80(1), 36-51. doi:10.1080/01944363.2014.934651
- Diprose, R. (2002a). *Corporeal generosity [electronic resource] : on giving with Nietzsche, Merleau-Ponty, and Levinas*. Albany: Albany : State University of New York Press.
- Diprose, R. (2002b). Writing in Blood: Response to Helen Keane and Marsha Rosengarten, 'On the Biology of Sexed Subjects'. *Australian Feminist Studies*, 17(39), 279-282.
- Diprose, R. (2011). Building and Belonging Amid the Plight of Dwelling. *Angelaki: Journal of the Theoretical Humanities*, 16(4), 59-72.
- Diprose, R. (2012). Continental Philosophy: Thinking the Corporeal with the Political. *The Southern Journal of Philosophy*, 50, 220-233.
- Dittmar, H. (2013). [Presentation at Executive Education course].
- Dixon, D. P. (2014). The way of the flesh: life, geopolitics and the weight of the future. *Gender, Place & Culture*, 21(2), 136-151. doi:10.1080/0966369x.2013.879110
- Dolphijn, R., & Tuin van der, I. (2012). *New Materialism: Interviews & Cartographies*. Ann Arbor: Open Humanities Press.
- Doughty, K., & Murray, L. (2016). Discourses of Mobility: Institutions, Everyday Lives and Embodiment. *Mobilities*, 11(2), 303-322. doi:10.1080/17450101.2014.941257
- Duany, A., Shiffman, R., & Torre, S. (1994). The New Urbanism, the Newer and the Old [Dispatches]. *Places*, 9(2).
- Edmondson, B. (2011). *The U.S. Bicycle Market: A Trend Overview*. Retrieved from
- Elden, S., & Crampton, J. (2007). *Space, Knowledge and Power: Foucault and Geography*. Aldershot: Ashgate.

- Elgart, Z. (2013). *Transportation Finance in Los Angeles County: An Overview*. Retrieved from https://investinginplace.org/wp-content/uploads/2017/02/transportationfinance_lacounty_101_feb20-5.pdf
- Ellis, C. (2010). The New Urbanism: Critiques and Rebuttals. *Journal of Urban Design*, 7(3), 261-291. doi:10.1080/1357480022000039330
- Elvik, R. (2011). Publication bias and time-trend bias in meta-analysis of bicycle helmet efficacy: a re-analysis of Attewell, Glase and McFadden, 2001. *Accid Anal Prev*, 43(3), 1245-1251. doi:10.1016/j.aap.2011.01.007
- Environmental Working Group. (2005). *Body Burden: The Pollution in Newborns*. Retrieved from <http://www.ewg.org/research/body-burden-pollution-newborns>
- Esposito, R. (2008). *Bíos : biopolitics and philosophy*. Minneapolis: Minneapolis : University of Minnesota Press.
- Evans, B., & Colls, R. (2009). Measuring Fatness, Governing Bodies: The Spatialities of the Body Mass Index (BMI) in Anti-Obesity Politics. *Antipode*, 41(5), 1051-1083. doi:10.1111/j.1467-8330.2009.00706.x
- Eyer, A., & Ferreira, A. (2015). Taking the Tyke on a Bike: Mothers' and Childless Women's Space-Time Geographies in Amsterdam Compared. *Environment and Planning A*, 47(3), 691-708. doi:10.1068/a140373p
- Fannin, M., MacLeavy, J., Lerner, W., & Wang, W. W. (2014). 'Work, life, bodies: New materialisms and feminisms'. *Feminist Theory*, 15(3), 261-268. doi:10.1177/1464700114545320
- Fanon, F. (1963). *The Wretched of the Earth*. New York: Grove Press.
- Fanon, F. (2008). *Black Skin, White Masks* (C. M. Markmann, Trans.). London: Pluto Press.
- Fausto-Sterling, A. (2000). *Sexing the body : gender politics and the construction of sexuality*. New York: New York : Basic Books.
- Feeding America (Producer). (2015, 6th November 2015). Map the Meal Gap 2015 Documents Hunger in Every County and Congressional District in the Nation. Retrieved from <http://www.prnewswire.com/news-releases/map-the-meal-gap-2015-documents-hunger-in-every-county-and-congressional-district-in-the-nation-300064891.html>
- Felski, R., & Friedman, S. S. (Eds.). (2013). *Comparison : theories, approaches, uses*. Baltimore, MD: Baltimore, MD : Johns Hopkins University Press.
- Ferreira Da Silva, D. (2007). *Toward a Global Idea of Race*. Minneapolis: University of Minnesota Press.
- Fielding, H. (2006). White Logic and the Constancy of Color. In D. Olkowski & G. Weiss (Eds.), *Feminist Interpretations of Maurice Merleau-Ponty*. University Park, Pennsylvania Penn State University Press.
- Fincham, B. (2006). Bicycle messengers and the road to freedom. *Sociological review*, 54(1), 208-222.
- Fishman, E. (2015). Bikeshare: A Review of Recent Literature. *Transport Reviews*, 36(1), 92-113. doi:10.1080/01441647.2015.1033036
- Flynn, B. (2011). Maurice Merleau-Ponty. *The Stanford Encyclopedia of Philosophy*. Retrieved from <http://plato.stanford.edu/archives/fall2011/entries/merleau-ponty/>
- Flyvbjerg, B. (2006). Five Misunderstandings About Case-Study Research. *Qualitative inquiry*, 12(2), 219-245. doi:10.1177/1077800405284363
- Foster, C., & Hillsdon, M. (2004). Changing the environment to promote health-enhancing physical activity. *J Sports Sci*, 22(8), 755-769. doi:10.1080/02640410410001712458

- Foucault, M. (1977). *Language, Counter-Memory, Practice: Selected Essays and Interviews* Ithaca, NY: Cornell University Press.
- Foucault, M. (1978). *The History of Sexuality* (Vol. I). New York: Columbia University Press.
- Foucault, M. (1980). Questions on Geography. In C. Gordon (Ed.), *Power/Knowledge: Selected Interviews and Other Writings, 1972-1977*. New York: Pantheon.
- Foucault, M. (1986). Of Other Spaces. *Diacritics*, 16(1), 22-27.
- Foucault, M. (1991). *Discipline and Punish: The Birth of the Prison* (A. Sheridan, Trans.). London Penguin Books
- Foucault, M. (1994). *Ethics: Subjectivity and Truth* (R. Hurley, Trans. P. Rabinow Ed.). New York: New Press.
- Foucault, M. (2003). " *Society Must Be Defended*". New York: Columbia University Press.
- Foucault, M. (2007). *Security, Territory, Population: Lectures at the College de France 1977-1978*: Palgrave MacMillan.
- Foucault, M. (2008). The Birth of Biopolitics: Lectures at the College de France, 1978-1979. In M. Senellart (Ed.), *The Birth of Biopolitics: Lectures at the College de France, 1978-1979*. New York: Palgrave Macmillan
- Foucault, M. (2012). *The Courage of Truth: The Government of Self and Others II. Lectures at the College de France 1983-1984* (G. Burchell, Trans. F. Gros Ed.). Basingstoke: Palgrave Macmillan.
- Freeman, E. (2010). *Time Binds: Queer Temporalities, Queer Histories*. Durham and London: Duke University Press.
- Frello, B. (2008). Towards a Discursive Analytics of Movement: On the Making and Unmaking of Movement as an Object of Knowledge. *Mobilities*, 3(1), 25-50. doi:10.1080/17450100701797299
- Friss, E. (2016). *The cycling city : bicycles and urban America in the 1890s*. Chicago: The University of Chicago Press.
- Fry, R. (2014). *Young Adults, Student Debt and Economic Well-being*. Retrieved from Washington, D.C.: <http://www.pewsocialtrends.org/2014/05/14/section-1-student-debt-and-overall-economic-well-being/>
- Fuller, O., & Beltran, E. (2010). The Invisible Cyclists of Los Angeles. Retrieved from <http://www.plannersnetwork.org/2010/07/the-invisible-cyclists-of-los-angeles/>
- Furness, Z. (2010). *One Less Car: Bicycling and the Politics of Automobility*. Philadelphia, PA: Temple University Press.
- Garrett, B. L. (2014). Undertaking recreational trespass: urban exploration and infiltration. *Transactions of the Institute of British Geographers*, 39(1), 1-13. doi:10.1111/tran.12001
- Garrett, B. L., & Hawkins, H. (2013). And Now For Something Completely Different ... Thinking Through Explorer Subject-Bodies : A Response to Mott and Roberts. *Antipode*, 1-22.
- Gartman, D. (2004). Three Ages of the Automobile: The Cultural Logics of The Car. *Theory, Culture & Society*, 21(4-5), 169-195. doi:10.1177/0263276404046066
- Gase, L. N., Barragan, N. C., Simon, P. A., Jackson, R. J., & Kuo, T. (2015). Public awareness of and support for infrastructure changes designed to increase walking and biking in Los Angeles County. *Prev Med*, 72, 70-75. doi:10.1016/j.ypmed.2014.12.033

- Geels, F. W. (2012). A socio-technical analysis of low-carbon transitions: introducing the multi-level perspective into transport studies *Journal of Transport Geography*, 24, 471-482.
- Geller, R. (2009). *Four Types of Cyclists*. Retrieved from Portland, Oregon: <https://www.portlandoregon.gov/transportation/article/264746>
- Gerlach, J., & Jellis, T. (2015). Guattari: Impractical philosophy. *Dialogues in Human Geography*, 5(2), 131-148.
- Ghekiere, A., Van Cauwenberg, J., de Geus, B., Clarys, P., Cardon, G., Salmon, J., . . . Deforche, B. (2014). Critical environmental factors for transportation cycling in children: a qualitative study using bike-along interviews. *PLoS One*, 9(9), e106696. doi:10.1371/journal.pone.0106696
- Gilmore, R. W. (2007). *Golden gulag : prisons, surplus, crisis, and opposition in globalizing California*. Berkeley: University of California Press.
- Glass, R. (1964). *London : aspects of change*. London: MacGibbon & Kee.
- Golub, A. (2015). Moving Beyond Fordism: "Complete Streets" and the changing political economy of urban transportation. In S. Zavestoski & J. Agyeman (Eds.), *Incomplete Streets: Processes, Practices, and Possibilities* (pp. 36-53). New York: Routledge
- Golub, A., Hoffmann, M. L., Lugo, A. E., & Sandoval, G. (2016). *Bicycle Justice and Urban Transformation : Biking for all?* Florence: Taylor and Francis.
- Goodman, A., Brand, C., Ogilvie, D., & consortium, o. b. o. t. i. (2012). Associations of health, physical activity and weight status with motorised travel and transport carbon dioxide emissions: a cross-sectional, observational study. *Environmental Health*, 11(1), 52.
- Goodwin, P., & Van Dender, K. (2013). 'Peak Car' — Themes and Issues. *Transport Reviews*, 33(3), 243-254. doi:10.1080/01441647.2013.804133
- Gordon, A. F. (2008). *Ghostly Matters: Haunting and the Sociological Imagination* London: University of Minnesota Press.
- Gotschi, T. (2011). Costs and Benefits of Bicycling Investments in Portland, Oregon *Journal of Physical Activity and Health*, 8(Suppl. 1), 49-58.
- Graves, L. (2014). There's a Biking Gender Gap. And It Has a Real Economic Impact. *The Atlantic*. Retrieved from <http://www.theatlantic.com/politics/archive/2014/12/theres-a-biking-gender-gap-and-it-has-a-real-economic-impact/431745/>
- Gregson, N. (2003). Discipline games, disciplinary games and the need for a post-disciplinary practice: responses to Nigel Thrift's 'The future of geography'. *Geoforum*, 34, 5-7.
- Grosz, E. (1987). Notes towards a corporeal feminism. *Australian Feminist Studies*, 2(5), 1-16. doi:10.1080/08164649.1987.9961562
- Grosz, E. (1994). *Lived Bodies: Phenomenology and the Flesh Volatile Bodies: Toward a Corporeal Feminism*.
- Grosz, E. (1995a). *Bodies-Cities Space, Time and Perversion. Essays on the Politics of Bodies* (pp. 241-253). London: Routledge.
- Grosz, E. (1995b). *Space, time and perversion : essays on the politics of bodies*. New York ; London: New York ; London : Routledge.
- Grosz, E. (1999a). *Becomings : explorations in time, memory, and futures*. Ithaca and London: Cornell University Press.
- Grosz, E. (1999b). Merleau-Ponty and Irigaray in the Flesh. *Thesis Eleven*, 36, 37-59.

- Grosz, E. (2002). *Architecture from the Outside: Essays on Virtual and Real Space*. Massachusetts Massachusetts Institute of Technology.
- Grosz, E. (2004). *The Nick of Time: Politics, Evolution and the Untimely*. Crows Nest: Allen & Unwin.
- Grosz, E. (2005). *Time Travels: Feminism, Nature, Power*. Crow's Nest: Allen & Unwin.
- Grosz, E. (2013). Habit Today: Ravaissan, Bergson, Deleuze and Us. *Body & Society*, 19, 217-239. doi:10.1177/1357034X12472544
- Grosz, E. (2017). *The Incorporeal: Ontology, Ethics, and the Limits of Materialism*. New York: Columbia University Press.
- Grosz, E., Yusoff, K., & Clark, N. (2017). An Interview with Elizabeth Grosz: Geopower, Inhumanism and the Biopolitical. *Theory, Culture & Society*, 34(2-3), 129-146. doi:10.1177/0263276417689899
- Guattari, F. (2016). *Lines of Flight: For Another World of Possibilities* (A. Goffey, Trans.). London: Bloomsbury Academic.
- Gurba, M. (2016, March 16th 2016). Ovarian Psycos' Radical Biking: The Feminist Bikers Inspire Filmmakers' New Documentary. *KCET*. Retrieved from <https://www.kcet.org/shows/departures/ovarian-psycos-radical-biking-the-feminist-bikers-inspire-filmmakers-new>
- Guthman, J. (2014). Doing Justice to Bodies? Reflections on Food Justice, Race, and Biology. *Antipode*, 46(5), 1153-1171. doi:10.1111/j.1467-8330.2012.01017.x
- Halberstam, J. (2005). *In a Queer Time and Place: Transgender Bodies, Subcultural Lives*. New York and London: New York University Press.
- Halberstam, J. (2011). *The queer art of failure*. Durham [NC: Duke University Press.
- Halberstam, J. (2013). The Wild Beyond: With and for the Undercommons. In S. Harney & F. Moten (Eds.), *The Undercommons: Fugitive Planning & Black Study*. New York: Minor Compositions.
- Haraway, D. (1988). Situated Knowledges: The Science Question in Feminism as a Site of Discourse on the Privilege of Partial Perspective. *Feminist Studies*, 14(3), 575-599.
- Haraway, D. (1991). *Simians, cyborgs, and women : the reinvention of nature*. New York: New York : Routledge.
- Haraway, D. (1991). *Simians, Cyborgs, and Women: The Reinvention of Nature*. New York: Routledge.
- Haraway, D. (1992). The Promises of Monsters: A regenerative Politics for Inappropriate/d Others. In L. Grossberg, C. Nelson, & P. Treichler (Eds.), *Cultural Studies* (pp. 295-337). New York: Routledge.
- Haraway, D. (1997). *Modest-Witness@Second-Millennium.FemaleMan-Meets-OncoMouse : feminism and technoscience*. New York ; London: Routledge.
- Haraway, D. (2003). *The companion species manifesto : dogs, people, and significant otherness*. Chicago, Ill. ; [Great Britain]: Prickly Paradigm ; Bristol : University Presses Marketing.
- Haraway, D. (2008). *When species meet*. Minneapolis, Minn.: University of Minnesota Press ; Bristol : University Presses Marketing [distributor].
- Haraway, D. (2010). When Species Meet: staying with the trouble. *Environment and Planning D: Society and Space*, 28(1), 53-55. doi:10.1068/d2706wsh
- Haraway, D. (2013). The biopolitics of postmodern bodies: constitutions of self in immune system discourse. In T. Campbell & A. Sitze (Eds.), *Biopolitics: A Reader*. Durham and London: Duke University Press.

- Haraway, D. (2015). Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin. *Environmental Humanities*, 6, 159-165.
- Haraway, D. (2016). *Staying with the trouble : making kin in the Chthulucene*. Durham, North Carolina: Duke University Press.
- Harding, S. G. (2004). *The feminist standpoint theory reader : intellectual and political controversies*. New York and London: Routledge.
- Harney, S., & Moten, F. (2013). *The Undercommons: Fugitive Planning & Black Study*. New York: Minor Compositions.
- Harvey, D. (1998). The body as accumulation strategy. *Environment and Planning D: Society and Space*, 16, 401-421.
- Harvey, D. (2008). The Right to the City. *New Left Review*, 53, 23-40.
- Hawkesworth, M., & Disch, L. (2016). Feminist Theory: Transforming the Known World. In M. Hawkesworth & L. Disch (Eds.), *The Oxford Handbook of Feminist Theory*. Oxford: Oxford University Press.
- Heart Foundation. (2013). *Women and Cycling Survey* Retrieved from
- Hekman, S. J. (1995). *Moral voices, moral selves : Carol Gilligan and feminist moral theory*. Cambridge: Polity.
- Hekman, S. J. (1996). *Feminist interpretations of Michel Foucault*. University Park, Pa.: Pennsylvania State University Press.
- Herod, A., & Wright, M. W. (2007). *Geographies of Power [electronic resource] : Placing Scale*. Chichester: John Wiley & Sons.
- Hetzler, O., Medina, V. E., & Overfelt, D. (2006). Gentrification, Displacement and New Urbanism: The Next Racial Project. *Sociation Today*, 4(2).
- Hickman, R., Ashiru, O., & Banister, D. (2010). Transport and climate change: Simulating the options for carbon reduction in London. *Transport Policy*, 17, 110-125.
- Hillier, A. (2003). Redlining and Homeowners' Loan Corporation. *Journal of Urban History*, 29(4), 394-420.
- Hipp, J. R., Bauer, D. J., Curran, P. J., & Bollen, K. A. (2004). Crimes of Opportunity or Crimes of Emotion? Testing Two Explanations of Seasonal Change in Crime. *Social Forces*, 82(4), 1333-1372.
- Hird, M. J. (2007). The Corporeal Generosity of Maternity. *Body & Society*, 13(1), 1-20. doi:10.1177/1357034x07074760
- Hird, M. J. (2010). Meeting with the microcosmos. *Environment and Planning D: Society and Space*, 28(1), 36-39. doi:10.1068/d2706wsc
- Hird, M. J., & Clark, N. (2013). 'Deep Shit'. *O-Zone: A Journal of Object-Oriented Studies*(1).
- Historic Core of Downtown Los Angeles. (2017). About: Meet the BID. Retrieved from <http://hdlabid.com/wps/about/>
- Hoffman, M. L., & Lugo, A. E. (2014). Who is 'World Class'? Transportation Justice and Bicycle Policy. *Urbanities*, 4(1), 45-61.
- Hoffmann, M. L. (2016). *Bike lanes are white lanes : bicycle advocacy and urban planning*. Lincoln, [Nebraska] and London, [England]: University of Nebraska Press.
- Holland, G. (2014, May 13, 2014). Council OKs \$3.7 million for skid row cleanup, 'valet cart storage'. *Los Angeles Times*. Retrieved from <http://www.latimes.com/local/lanow/la-me-ln-skid-row-cleanup-20140513-story.html>

- Hopkins, D., & Mandic, S. (2016). Perceptions of cycling among high school students and their parents. *International Journal of Sustainable Transportation*, 11(5), 342-356. doi:10.1080/15568318.2016.1253803
- Hotpads. (2015). Silver Lake Boulevard 1 bed: \$2,150.
- Howie, G. (2010). *Between feminism and materialism : a question of method* (1st ed.. ed.). New York: New York : Palgrave Macmillan.
- Hu, J., & Klinich, K. D. (2015). Toward designing pedestrian-friendly vehicles. *International Journal of Vehicle Safety*, 8(1). doi:10.1504/IJVS.2015.066272
- Hu, S., Paulson, S. E., Fruin, S., Kozawa, K., Mara, S., & Winer, A. M. (2012). Observation of Elevated Air Pollutant Concentrations in a Residential Neighborhood of Los Angeles California Using a Mobile Platform. *Atmos Environ* (1994), 51, 311-319. doi:10.1016/j.atmosenv.2011.12.055
- Huang, J. (2009). *Quick Facts: Disparities in Asthma*. Retrieved from <http://publichealth.lacounty.gov/mch/AsthmaCoalition/docs/Statistics%20and%20Reports/Fact%20Sheet%20on%20Disparities%20in%20Asthma10.09.pdf>
- Huber, M. T. (2013). *Lifeblood: Oil, Freedom, and the Forces of Capital* London: University of Minnesota Press.
- Huff, H., & Ralph, K. (2014). The reason fewer US women cycle than the Dutch is not what you think it is *The Guardian*, . Retrieved from <https://www.theguardian.com/environment/bike-blog/2014/oct/03/the-reason-fewer-us-women-cycle-than-the-dutch-is-not-what-you-think-it-is>
- Hunecke, H., Haustein, S., Boehler, S., & Grischkat, S. (2010). Attitude-based target groups to reduce the ecological impact of daily mobility behaviour. *Environment and Behaviour*, 42(3-43).
- Hwang, J. (2016). *Gentrification without Segregation: Race and Renewal in a Diversifying City*. Harvard University. Harvard. Retrieved from http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/hwang_meyerworkingpaper_may2016.pdf
- Hylton, K. (2017). The unbearable whiteness of cycling. Retrieved from <http://theconversation.com/the-unbearable-whiteness-of-cycling-76256>
- Illich, I. (1974). *Energy and Equity*. New York, Evanston, San Francisco, London Harper & Row.
- Insurance Institute for Highway Safety Highway Loss Data Institute. (2015). Saving Lives: Improved vehicle designs bring down death rates. *Status Report*. Vol. 50, No. 1. Retrieved from <http://www.iihs.org/iihs/sr/statusreport/article/50/1/1>
- Izquierdo, M., Hakkinen, K., Gonzalez-Badillo, J. J., Ibanez, J., & Gorostiaga, E. M. (2002). Effects of long-term training specificity on maximal strength and power of the upper and lower extremities in athletes from different sports. *Eur J Appl Physiol*, 87(3), 264-271. doi:10.1007/s00421-002-0628-y
- Jackson, P. (2000). Rematerializing social and cultural geography. *Social & Cultural Geography*, 1(1), 9-14. doi:10.1080/14649369950133449
- Jacobs, J., Hirt, S., & Zahm, D. L. (2012). *The urban wisdom of Jane Jacobs*. London and New York: Routledge.
- Jacques, C., Manaugh, K., & El-Geneidy, A. M. (2013). Rescuing the captive [mode] user: an alternative approach to transport market segmentation. *Transportation*, 40(3), 625-645. doi:10.1007/s11116-012-9437-2

- Jarrett, J., Woodcock, J., Griffiths, U. K., Chalabi, Z., Edwards, P., Roberts, I., & Haines, A. (2012). Effect of increasing active travel in urban England and Wales on costs to the National Health Service. *Lancet*, 379(9832), 2198-2205. doi:10.1016/s0140-6736(12)60766-1
- Jayne, M., & Ward, K. (2016). *Urban theory : new critical perspectives*. London: Routledge.
- Jensen, O. B. (2009). Flows of Meaning, Cultures of Movements – Urban Mobility as Meaningful Everyday Life Practice. *Mobilities*, 4(1), 139-158. doi:10.1080/17450100802658002
- Jerrett, M., Burnett, R. T., Ma, R., Pope, C. A., Krewski, D., Newbold, K. B., . . . Thun, M. J. (2005). Spatial Analysis of Air Pollution and Mortality in Los Angeles. *Epidemiology*, 16(6), 727-736. doi:10.1097/01.ede.0000181630.15826.7d
- Jezebel (Producer). (2014). Cycling is like being a woman? Retrieved from <http://groupthink.jezebel.com/cycling-is-like-being-a-woman-1602661690>
- Johnston, L. (1998). Reading the Sexed Bodies and Spaces of Gyms. In H. J. Nast & S. Pile (Eds.), *Places through the body*. London: Routledge.
- Jones, P. (2005). Performing the city: a body and a bicycle take on Birmingham, UK. *Social and cultural geography*, 6(6), 813-830. doi:<http://dx.doi.org/10.1080/14649360500353046>
- Jones, P. (2012). Sensory indiscipline and affect: a study of commuter cycling. *Social and cultural geography*, 13(6), 645-658.
- Jones, P., & Burwood, D. (2011). Cycling and the City: Reflections of Commuting Practices. *Liminalities: A Journal of Performance Studies*, 7(4).
- Jones, T., Chatterjee, K., Spinney, J., Street, E., Van Reekum, C., Spencer, B., . . . Beale, N. (2016). *cycle BOOM. Design for Lifelong Health and Wellbeing. Summary of Key Findings and Recommendations*. Retrieved from Oxford:
- Jones, T., Harms, L., & Heinen, E. (2016). Motives, perceptions and experiences of electric bicycle owners and implications for health, wellbeing and mobility. *Journal of Transport Geography*, 53, 41-49. doi:10.1016/j.jtrangeo.2016.04.006
- Jones, T., & Novo de Azevedo, L. (2013). Economic, social and cultural transformation and the role of the bicycle in Brazil. *Journal of Transport Geography*, 30(0), 208-219. doi:<http://dx.doi.org/10.1016/j.jtrangeo.2013.02.005>
- Joseph, M. (2014). *Debt to Society: Accounting for Life under Capitalism*. Minneapolis University of Minnesota Press
- Jovanovic, T., Blanding, N. Q., Norrholm, S. D., Duncan, E., Bradley, B., & Ressler, K. J. (2009). Childhood abuse is associated with increased startle reactivity in adulthood. *Depress Anxiety*, 26(11), 1018-1026. doi:10.1002/da.20599
- Jungnickel, K., & Aldred, R. (2013). Cycling's Sensory Strategies: How Cyclists Mediate their Exposure to the Urban Environment. *Mobilities*, 1-18. doi:10.1080/17450101.2013.796772
- Kafer, A. (2005). *Accessible Futures? Disability, Feminist and Queer Theory, and Progressive Politics*. (Doctor of Philosophy), Claremont Graduate University, Claremont, California.
- Kafer, A. (2013). *Feminist, Queer, Crip*. Bloomington, Indiana: Indiana University Press.
- Kagan, M. (2016, 15th March 2016). The rebirth of rooming houses? Retrieved from <http://kagansblog.com/2016/03/the-rebirth-of-rooming-houses/>
- Kaplan, K. (2017, March 20, 2017). Why global warming could lead to a rise of 100,000 diabetes cases a year in the U.S. *Los Angeles Times*. Retrieved from

- <http://www.latimes.com/science/sciencenow/la-sci-sn-global-warming-diabetes-20170320-story.html>
- Katz, C. (2001). On the Grounds of Globalization: A Topography for Feminist Political Engagement. *Signs*, 26(4), 1213-1234.
- Keall, M., Chapman, R., Howden-Chapman, P., Witten, K., Abrahamse, W., & Woodward, A. (2015). Increasing active travel: results of a quasi-experimental study of an intervention to encourage walking and cycling. *J Epidemiol Community Health*, 69(12), 1184-1190. doi:10.1136/jech-2015-205466
- Kelly, P., Kahlmeier, S., Goetschi, T., Orsini, N., Richards, J., N, Scarborough, P., & Foster, C. (2014). Systematic review and meta-analysis of reduction in all-cause mortality from walking and cycling and shape of dose response relationship. *International Journal of Behavioral Nutrition and Physical Activity*, 11(132).
- Kern, L. (2012). Connecting embodiment, emotion and gentrification: An exploration through the practice of yoga in Toronto. *Emotion, Space and Society*, 5(1), 27-35. doi:10.1016/j.emospa.2011.01.003
- Kern, L. (2015). From toxic wreck to crunchy chic: environmental gentrification through the body. *Environment and Planning D: Society and Space*, 33(1), 67-83. doi:10.1068/d13150p
- (2016, September 3rd 2016). *Bike Talk L.A.* [
- Kirby, V. (1997). *Telling Flesh: The Substance of the Corporeal*. London: Routledge.
- Kirby, V. (2011). *Quantum Anthropologies: Life at Large*. Durham and London: Duke University Press.
- Kobayashi, A. (2005). Anti-racist Feminism in Geography: An Agenda for Social Action. In L. Nelson & J. Seager (Eds.), *A Companion to Feminist Geography*. Oxford: Blackwell Publishing.
- Koeppel, D. (2006). Invisible Riders. Retrieved from <http://www.utne.com/community/invisibleriders>
- Koglin, T. (2014). Vélomobility and the politics of transport planning. *GeoJournal*. doi:10.1007/s10708-014-9565-7
- Koglin, T., & Rye, T. (2014). The marginalisation of bicycling in Modernist urban transport planning. *Journal of Transport & Health*, 1(4), 214-222. doi:10.1016/j.jth.2014.09.006
- Kohl, H. W., Craig, C. L., Lambert, E. V., Inoue, S., Alkandari, J. R., Leetongin, G., & Kahlmeier, S. (2012). The pandemic of physical inactivity: global action for public health. *The Lancet*, 380(9838), 294-305. doi:10.1016/s0140-6736(12)60898-8
- Krizek, K. J., & Roland, R. W. (2005). What is at the end of the road? Understanding discontinuities of on-street bicycle lanes in urban settings. *Transportation Research Part D: Transport and Environment*, 10(1), 55-68. doi:10.1016/j.trd.2004.09.005
- Krupar, S., R. (2013). *Hot Spotter's Report: Military Fables of Toxic Waste*. Minneapolis: Minnesota
- LACBC. (2015, March 12, 2015). Downtown L.A. Turns into a Bicycling Neighborhood. Retrieved from <http://www.la-bike.org/news/downtown-la-grows-bicycling-neighborhood>
- LADOT. (2012). League of American Bicyclists Awards Los Angeles as Bicycle Friendly Community at the Bronze Level. Retrieved from <https://ladotbikeblog.wordpress.com/2012/10/18/league-of-american-bicyclists-awards-los-angeles-as-bicycle-friendly-community-at-the-bronze-level/>

- LADOT. (2015). CicLAvia Launch, October 18, 2015. YouTube: LA Department of Transportation.
- Law, J. (2004). *After method : mess in social science research*. London: London : Routledge.
- Law, R. (1999). Beyond 'women and transport': towards new geographies of gender and daily mobility. *Progress in Human Geography*, 23(4), 567-588.
doi:10.1191/030913299666161864
- Lawson, V. (1995). The Politics of Difference: Examining the Quantitative/ Qualitative Dualism in Post-Structuralist Feminist Research. *The Professional Geographer*, 47(4), 449-457. doi:10.1111/j.0033-0124.1995.449_1.x
- Lawson, V. (2007). Geographies of Care and Responsibility. *Annals of the Association of American Geographers*, 97(1), 1-11.
- League of American Wheelmen. (2016). Women Bike. Retrieved from <http://www.bikeleague.org/womenbike>
- Lee, D. (2015). The Unbearable Weight of Irresponsibility and the Lightness of Tumbleweeds: Cumulative irresponsibility in neoliberal streetscapes. In S. Zavestoski & J. Agyeman (Eds.), *Incomplete Streets: Processes, Practices, and Possibilities* (pp. 77-93). New York: Routledge
- Lee, D. (2016). How Airbnb Short-Term Rentals Exacerbate Los Angeles's Affordable Housing Crisis: Analysis and Policy Recommendations. *Harvard Law & Policy Review*, 10(1).
- Lee, N. (2014). Ride like a girl: Cycling is awfully similar to being a woman. Retrieved from <https://medium.com/@nkk1/ride-like-a-girl-1d5524e25d3a>
- Lees, L. (2011). The geography of gentrification: Thinking through comparative urbanism. *Progress in Human Geography*, 36(2), 155-171. doi:10.1177/0309132511412998
- Lees, L., Shin, H. B., & López-Morales, E. (2015). *Global gentrifications : Uneven development and displacement*: Policy Press.
- Lefebvre, H. (1991). *The production of space* (D. Nicholson-Smith Ed.). Oxford: Blackwell.
- Lefebvre, H. (2014). *Toward an architecture of enjoyment* (R. Bononno, Trans.). Minneapolis, Minnesota: University of Minnesota Press.
- Legg, S. (2016). Empirical and analytical subaltern space? Ashrams, brothels and trafficking in colonial Delhi. *Cultural Studies*, 30(5), 793-815.
doi:10.1080/09502386.2016.1168113
- Leisman, G., Moustafa, A. A., & Shafir, T. (2016). Thinking, Walking, Talking: Integratory Motor and Cognitive Brain Function. *Front Public Health*, 4, 94.
doi:10.3389/fpubh.2016.00094
- Levine, J. A. (2011). Poverty and obesity in the U.S. *Diabetes*, 60(11), 2667-2668.
doi:10.2337/db11-1118
- Li, Z., Wang, W., Yang, C., & Ragland, D. R. (2013). Bicycle commuting market analysis using attitudinal market segmentation approach. *Transportation Research Part A: Policy and Practice*, 47, 56-68. doi:10.1016/j.tra.2012.10.017
- Linton, J. (2014). What the Latest Census Data Says About L.A. City Bicycle Commuting. Retrieved from <http://la.streetsblog.org/2014/09/23/what-the-latest-census-data-says-about-l-a-city-bicycle-commuting/>
- Linton, J. (2017). L.A. City Council Approves \$27.2M For Vision Zero 2017 Budget. Retrieved from <http://la.streetsblog.org/2017/05/18/l-a-city-council-approves-27-2m-for-vision-zero-2017-budget/>
- Longhurst, R. (2001). *Bodies: Exploring Fluid Boundaries*. London: Routledge.

- Longhurst, R. (2005). Situating Bodies. In L. Nelson & J. Seager (Eds.), *A Companion to Feminist Geography*. Oxford: Blackwell Publishing.
- Longhurst, R., & Johnston, L. (2014). Bodies, gender, place and culture: 21 years on. *Gender, Place & Culture*, 21(3), 267-278. doi:10.1080/0966369x.2014.897220
- Los Angeles Bicycle Coalition. (2014). *L.A. Bike and Ped Count: Bicycle Findings & Recommendations* Retrieved from Los Angeles:
- Los Angeles Community Action Network. (2013). *The Dirty Divide in Downtown Los Angeles: A Call for Public Health Equity*. Retrieved from <http://sites.uci.edu/humanrights/files/2013/03/The-Dirty-Divide-in-DTLA.pdf>
- Los Angeles County Department of Public Health. (2014a). *Breathing Easy? Child Asthma in Los Angeles County*, . Retrieved from Los Angeles:
- Los Angeles County Department of Public Health. (2014b). *The Plan for a Healthy Los Angeles: A City Dreams Big, Aiming to Make Health Goals and Metrics a Part of Its General Plan*. Retrieved from http://publichealth.lacounty.gov/place/docs/FINAL_CTG%20HIGHLIGHTS%20Plan%20for%20Healthy%20LA_Nov%202014.pdf
- Los Angeles Department of City Planning. (2011). *2010 Bicycle Plan: A Component of the City of Los Angeles Transportation Element*. Los Angeles Retrieved from <https://planning.lacity.org/cwd/gnlpln/transelt/NewBikePlan/Txt/LA%20CITY%20BICYCLE%20PLAN.pdf>.
- Los Angeles Department of City Planning. (2015). *Mobility Plan 2035: An Element of the General Plan*. Los Angeles.
- Loukaitou-Sideris, A., Liggett, R., & Sung, H. G. (2007). Death on the Crosswalk: A Study of Pedestrian-Automobile Collisions in Los Angeles. *Journal of Planning Education and Research*, 26(3), 338-351. doi:10.1177/0739456x06297008
- Lovelace, R., Beck, S. B. M., Watson, M., & Wild, A. (2011). Assessing the energy implications of replacing car trips with bicycle trips in Sheffield, UK. *Energy Policy*, 39(4), 2075-2087. doi:<http://dx.doi.org/10.1016/j.enpol.2011.01.051>
- Loveyourbike.org. (2006). Fat Lane Fast Lane advert. In *FatLaneFastLane1.jpg* (Ed.), (Vol. 583/1023). <http://www.manchesterfoe.org.uk/wp-content/uploads/2011/05/FatLaneFastLane1.jpg>: Friends of the Earth.
- Lucas, K. (2004a). Locating transport as a social policy problem *Running on empty [electronic resource] : transport, social exclusion and environmental justice*. Bristol, U.K.: Policy Press Scholarship Online.
- Lucas, K. (2004b). Towards a 'social welfare' approach to transport. In K. Lucas (Ed.), *Running on Empty: Transport, social exclusion and environmental justice*. Bristol: Policy Press.
- Lucas, K., van Wee, B., & Maat, K. (2015). A method to evaluate equitable accessibility: combining ethical theories and accessibility-based approaches. *Transportation*, 43(3), 473-490. doi:10.1007/s11116-015-9585-2
- Lugo, A. E. (2012). Planning for diverse use/rs: ethnographic research on bikes, bodies, and public space in LA. *Kroeber Anthropological Society papers*, 101, 49-65.
- Lugo, A. E. (2013a). *Body-City-Machines: Human Infrastructure for Bicycling in Los Angeles*. (Doctor of Philosophy), University of California Irvine.
- Lugo, A. E. (2013b). CicLAvia and human infrastructure in Los Angeles: ethnographic experiments in equitable bike planning. *Journal of Transport Geography*, 30(0), 202-207. doi:<http://dx.doi.org/10.1016/j.jtrangeo.2013.04.010>

- Lugo, A. E., Murphy, E., & Szczepanski, C. (n.d.). *The New Movement: Bike Equity Today*. Retrieved from [http://bikeleague.org/sites/default/files/The New Movement Report Web.pdf](http://bikeleague.org/sites/default/files/The%20New%20Movement%20Report%20Web.pdf)
- Lutz, C. (2014). The U.S. car colossus and the production of inequality. *American Ethnologist*, 41(2), 232-245. doi:10.1111/amet.12072
- Lydon, P. M. (2011). *Make it a Law - Help Protect Us From Ourselves*.
- Lyng, S. (2005). *Edgework : the sociology of risk taking*. New York London: Routledge.
- Mackendrick, N. (2014). More Work for Mother. *Gender & Society*, 28(5), 705-728. doi:10.1177/0891243214529842
- MacKinnon, D. (2010). Reconstructing scale: Towards a new scalar politics. *Progress in Human Geography*, 35(1), 21-36. doi:10.1177/0309132510367841
- Macmillan, A., Connor, J., Witten, K., Kearns, R., Rees, D., & Woodward, A. (2014). The societal costs and benefits of commuter bicycling: simulating the effects of specific policies using system dynamics modeling. *Environ Health Perspect*, 122(4), 335-344. doi:10.1289/ehp.1307250
- Mahmood, S. (2005). *Politics of piety [electronic resource] : the Islamic revival and the feminist subject*. Princeton, N.J.: Princeton University Press.
- Mahtani, M. (2014). Toxic geographies: absences in critical race thought and practice in social and cultural geography. *Social & Cultural Geography*, 15(4), 359-367. doi:10.1080/14649365.2014.888297
- Manderscheid, K., Schwanen, T., & Tyfield, D. (2014). Introduction to Special Issue on 'Mobilities and Foucault'. *Mobilities*, 9(4), 479-492. doi:10.1080/17450101.2014.961256
- Mannos, A. (nd). *Invisible Cyclists*. University of California Los Angeles.
- Manville, M., Beata, A., & Shoup, D. (2013). Turning Housing Into Driving: Parking Requirements and Density in Los Angeles and New York. *Housing Policy Debate*, 23(2), 350-375. doi:10.1080/10511482.2013.767851
- Marciano, R., Goldberg, D., & Hou, C. (2017). T-RACES: a Testbed for the Redlining Archives of California's Exclusionary Spaces. Retrieved from <http://salt.umd.edu/T-RACES/>
- Markowitz, S., & Chatterji, P. (2015). Effects of bicycle helmet laws on children's injuries. *Health Econ*, 24(1), 26-40. doi:10.1002/hecl.2997
- Marres, N. (2011). The costs of public involvement: everyday devices of carbon accounting and the materialization of participation. *Economy and Society*, 40(4), 510-533. doi:10.1080/03085147.2011.602294
- Marres, N. (2012). *Material participation : technology, the enviroment and everyday publics*. Basingstoke: Palgrave Macmillan.
- Marston, S. A. (2000). The social construction of scale. *Progress in Human Geography*, 24(2), 219-242.
- Martens, K. (2012). Justice in transport as justice in accessibility: applying Walzer's 'Spheres of Justice' to the transport sector. *Transportation*, 39(6), 1035-1053. doi:10.1007/s11116-012-9388-7
- Marx, K., Engels, F., Harvey, D., & Moore, S. (2008). *The communist manifesto*. London: Pluto Press.
- Massey, D. (1999). Space-time, 'science' and the relationship between physical geography and human geography. *Transactions / Institute of British Geographers*, 24, 261-276.

- Massey, D. (2003). Imagining the Field. In M. Pryke, G. Rose, & S. Whatmore (Eds.), *Using Social Theory : Thinking Through Research*. London: SAGE Publications Ltd.
- Massey, D. (2005). *For Space*. London: Sage.
- Massey, D., Douglas, S., & Denton, N. (1998). *American Apartheid: Segregation and the Making of the Underclass*. Cambridge: Harvard University Press.
- Mbembe, A. (2003). Necropolitics. *Public Culture*, 15(1), 11-40.
- Mbembe, A. (2013). *Kritik der schwarzen Vernunft* (M. Bischoff, Trans.). Berlin: Suhrkamp.
- McCormack, D. P. (2008). Geographies for Moving Bodies: Thinking, Dancing, Spaces. *Geography Compass*, 2(6), 1822-1836. doi:10.1111/j.1749-8198.2008.00159.x
- McCormack, D. P. (2013). *Refrains for Moving Bodies: experience and experiment in affective spaces*. Durham and london: Duke University Press.
- McCormack, D. P. (2017). Elemental infrastructures for atmospheric media: On stratospheric variations, value and the commons. *Environment and Planning D: Society and Space*, 35(3), 418-437.
- McDonald, N. C. (2012). Is there a gender gap in school travel? An examination of US children and adolescents. *Journal of Transport Geography*, 20(1), 80-86. doi:10.1016/j.jtrangeo.2011.07.005
- McDowell, L. (1983). Towards an understanding of the gender division of urban space. *Environment and planning D*, 1, 59-72.
- McDowell, L. (2004). Work, workfare, work/life balance and an ethic of care. *Progress in Human Geography*, 28(2), 145-163.
- McKenzie, B. (2014). *Modes Less Traveled - Bicycling and Walking to Work in the United States: 2008-2012*. Retrieved from
- McKittrick, K. (2014). The Last Place They Thought Of. In J. J. Gieseking & W. Mangold (Eds.), *The People, Place, and Space Reader*. Oxon: Routledge.
- McKittrick, K. (2015a). Axis, Bold as Love: On Sylvia Wynter, Jimi Hendrix, and the Promise of Science. In K. McKittrick (Ed.), *Sylvia Wynter: On Being Human as Praxis* (pp. 106-123). Durham and London: Duke University Press.
- McKittrick, K. (2015b). Diachronic loops/deadweight tonnage/bad made measure. *Cultural Geographies*, 23(1), 3-18. doi:10.1177/1474474015612716
- McKittrick, K. (2015c). Yours in the Intellectual Struggle. In K. McKittrick (Ed.), *Sylvia Wynter: On Being Human as Praxis*. London: Duke University Press.
- McKittrick, K. (2017). *The Algorithm and the Song* Paper presented at the Feminist Theory Workshop, Duke University, Durham, USA.
- McKittrick, K. (Ed.) (2015d). *Sylvia Wynter: On Being Human as Praxis*. Durham and London: Duke University Press.
- McLannahan, B. (2017, May 30, 2017). Debt pile-up in US car market sparks subprime fear, The Big Read. *The Financial Times*. Retrieved from <https://www.ft.com/content/bab49198-3f98-11e7-9d56-25f963e998b2>
- MCM. (2016). Multicultural Communities for Mobility. Retrieved from <http://www.multicultimobility.org/>
- McQuade, B. (2015, 18th November 2015). Against Community Policing. *Jacobin*.
- Mellander, E., & Wiszmeg, A. (2016). Interfering With Others - Re-configuring Ethnography as a Diffractive Practice. *Kulturstudier*, 1.
- Merleau-Ponty, M. (1962). *The Phenomenology of Perception*. London: Routledge.
- Merleau-Ponty, M. (1968). *The Visible and the Invisible* (A. Lingis, Trans. C. Lefort Ed.). Evanston: Northwestern University Press.

- Merleau-Ponty, M. (2004). The Visible and the Invisible. In T. Baldwin (Ed.), *Maurice Merleau-Ponty: Basic Writings*: Routledge.
- Merriman, P. (2005). Materiality, subjectification, and government: the geographies of Britain's Motorway Code. *Environment and Planning D: Society and Space*, 23(2), 235-250. doi:10.1068/d362t
- Merriman, P. (2013). Rethinking Mobile Methods. *Mobilities*, 1-21. doi:10.1080/17450101.2013.784540
- Meyer, J. M., & Kersten, J. (2016). *The Greening of Everyday Life: Challenging Practices, Imagining Possibilities*. Oxford: Oxford University Press.
- Middleton, J. (2009). 'Stepping in Time': Walking, Time, and Space in the City. *Environment and Planning A*, 41(8), 1943-1961. doi:10.1068/a41170
- Middleton, J. (2010). Sense and the city: exploring the embodied geographies of urban walking. *Social & Cultural Geography*, 11(6), 575-596. doi:10.1080/14649365.2010.497913
- Mignolo, W. D. (2015). Sylvia Wynter: What Does It Mean to Be Human? In K. McKittrick (Ed.), *Sylvia Wynter: On Being Human as Praxis* (pp. 106-123). Durham and London: Duke University Press.
- Mills, C. W. (2017). *Black rights/white wrongs : the critique of racial liberalism*. New York, NY: Oxford University Press.
- Milt Olin Foundation. (2016). Retrieved from <http://miltolinfoundation.org/>
- Mitchell, D. (2003). To Go Again to Hyde Park: Public Space, Rights, and Social Justice *The Right to the City: Social Justice and the Fight for Public Space*. New York: Guildford Press.
- Mitchell, K., Marston, S. A., & Katz, C. (Eds.). (2004). *Life's work : geographies of social reproduction*. Oxford: Oxford : Blackwell Publishing.
- Mock, B. (2014). Please, people, stop using bikes to whitesplain privilege. Retrieved from <http://grist.org/cities/please-people-stop-using-bikes-to-whitesplain-privilege/>
- Molina, N. (2015). The Importance of Place and Place-Makers in the Life of a Los Angeles Community: What Gentrification Erases from Echo Park. *Southern California Quarterly*, 97(1), 69-111.
- Monsere, C., & Dill, J. (2015). *Early Adopters of the Protected Bicycle Lane in United States: What Have We Learned*. Paper presented at the LCC, Blackboard.
- Moraga, C., & Anzaldúa, G. (Eds.). (1983). *This Bridge Called My Back: Writings by Radical Women of Color*. New York: Kitchen Table: Women of Color Press.
- Moreno, A., Tangenberg, J., Hilton, B., & Hilton, J. (2015). An Environmental Assessment of School Shade Tree Canopy and Implications for Sun Safety Policies: The Los Angeles Unified School District. *ISPRS International Journal of Geo-Information*, 4(2), 607-625. doi:10.3390/ijgi4020607
- Moreton-Robinson, A. (2004). Whiteness, Epistemology, and Indigenous Representation. In A. S. Press (Ed.), *Whitening Race: Essays in Social and Cultural Criticism*. Canberra.
- Mott, C., & Roberts, S. (2013a). Difference Really Does Matter: A Reply to Garrett and Hawkins. *Antipode*.
- Mott, C., & Roberts, S. (2013b). Not Everyone Has (the) Balls: Urban Exploration and the Persistence of Maculinitist Geography. .
- Mountz, A. (2017). Political geography III: Bodies. *Progress in Human Geography*, 1-11. doi:10.1177/0309132517718642

- Mountz, A., Bonds, A., Mansfield, B., Loyd, J., Hyndman, J., Walton-Roberts, M., . . . Curran, W. (2015). For Slow Scholarship: A Feminist Politics of Resistance through Collective Action in the Neoliberal University. *Forthcoming in: ACME, International E-journal for Critical Geographies*.
- Munoz, J. E. (2015). The Sense of Brownness: Theorizing Queer Inhumanisms. *GLQ: A Journal of Lesbian and Gay Studies*, 21(2-3).
- Muñoz, J. E. (1996). Ephemera as Evidence: Introductory Notes to Queer Acts. *Women & Performance: a journal of feminist theory*, 8(2), 5-16.
doi:10.1080/07407709608571228
- Murphy, D. (2017, 19th April 2017). Where is the world's most sprawling city? *The Guardian*. Retrieved from <https://www.theguardian.com/cities/2017/apr/19/where-world-most-sprawling-city-los-angeles>
- Murphy, M. (2016). *Alterlife in the Aftermath*. Paper presented at the Doing the Body in the 21st Century, University of Pittsburgh. <http://www.comm.pitt.edu/event/afterlife-aftermath-michelle-murphy-university-toronto>
- Musser, A., J. (2014). *Sensational Flesh: Race, Power and Masochism*. London: New York University Press.
- Nakamura, N. (2010). Indigenous Methodologies: Suggestions for Junior Researchers. *Geographical Research*, 48(1), 97-103. doi:10.1111/j.1745-5871.2009.00625.x
- Nash, C. (2000). Performativity in practice: some recent work in cultural geography. *Progress in Human Geography*, 24(4), 653-664.
- National Bicycle Dealers Association. (2015). Industry Overview 2015. Retrieved from <http://nbda.com/articles/industry-overview-2015-pg34.htm>
- Neimanis, A., & Walker, R. I. (2014). *Weathering: Climate Change and the "Thick Time" of Transcorporeality*. *Hypatia*, 29(3), 558-575.
- Nello-Deakin, S. (2017). Book review. Velotopia: The Production of Cyclespace in Our Minds and Our Cities, S. Fleming. *Journal of Transport Geography*, 63, 48-49.
doi:10.1016/j.jtrangeo.2017.07.006
- Neumann, R. P. (2008). Political ecology: theorizing scale. *Progress in Human Geography*, 33(3), 398-406. doi:10.1177/0309132508096353
- Newton, D. (2015). My Interview with Tamika Butler: Equity and Social Justice Are Rallying Cries for LACBC's New Leader. Retrieved from <http://la.streetsblog.org/2015/04/15/my-interview-with-tamika-butler-equity-and-social-justice-are-rallying-cries-for-lacbc-new-leader/>
- Ng, S. W., & Popkin, B. M. (2012). Time use and physical activity: a shift away from movement across the globe (Vol. 13, pp. 659-680). Oxford, UK.
- NHTSA. (2015). Traffic Safety Facts: Bicyclists and Other Cyclists. In N. H. T. S. Administration (Ed.), (Vol. DOT HS 812 151). Washington DC: U.S. Department of Transportation.
- Night Out for Safety and Liberation. (2016). Who We Are Retrieved from <http://www.nosl.us/who-we-are-0>
- Norcliffe, G. B. (2015). *Critical geographies of cycling : history, political economy and culture*. Burlington, VT: Ashgate Publishing Company.
- Nourian, P., van der Hoeven, F., Rezvani, S., & Sariyildiz, S. (2015). *Easiest paths for walking and cycling: Combining syntactic and geographic analyses in studying walking and cycling mobility*. Paper presented at the 10th International Space Syntax Symposium, London.

- Noxolo, P. (2014). Towards an embodied securityscape: Brian Chikwava's Harare North and the asylum seeking body as site of articulation. *Social & Cultural Geography*, 15(3), 291-312. doi:10.1080/14649365.2014.882397
- O'Neill, M. S., Jerrett, M., Kawachi, I., Levy, J. I., Cohen, A. J., Gouveia, N., . . . Conditions, S. (2003). Health, Wealth, and Air Pollution: Advancing Theory and Methods. *Environ Health Perspect*, 111(16), 1861-1870. doi:10.1289/ehp.6334
- O.V.A.S. (2017). MISA NEGRA 2017 AKA CLITORAL MASS. Retrieved from <https://ovarianpsycos.com/>
- Oak Ridge National Laboratory. (2017). Transportation Energy Data Book. Retrieved from <http://cta.ornl.gov/data/chapter2.shtml>
- Ogilvie, D., Egan, M., Hamilton, V., & Petticrew, M. (2004). Promoting walking and cycling as an alternative to using cars: systematic review. *BMJ*, 329, 763.
- Olkowski, D. (2002). Flesh to Desire: Merleau-Ponty, Bergson, Deleuze. *Strategies: Journal of Theory, Culture & Politics*, 15(1), 11-24. doi:10.1080/10402130220127825
- Ormstad, H., Johansen, B., & Gaarder, P. (1998). Airborne house dust particles and diesel exhaust particles as allergen carriers. *Clinical and Experimental Allergy*, 28(6), 702-708. doi:10.1046/j.1365-2222.1998.00302.x
- Orr, J. (2012). Materializing a Cyborg's Manifesto. *Women's Studies Quarterly*, 40(1/2), 273-280.
- Orzeck, R. (2007). What does not kill you : historical materialism and the body. 25, 496-515. doi:10.1068/d2704
- Osborne, T., & Rose, N. (1999). Do the social sciences create phenomena?: the example of public opinion research. *British Journal of Sociology*, 50(3), 367-396.
- Oswin, N. (2008). Critical geographies and the uses of sexuality: deconstructing queer space. *Progress in Human Geography*, 32(1), 89-103. doi:10.1177/0309132507085213
- Oswin, N. (2012). The queer time of creative urbanism: family, futurity, and global city Singapore. *Environment and Planning A*, 44(7), 1624-1640. doi:10.1068/a44282
- Oswin, N. (2014). Queer Theory. In P. Adey, D. Bissell, K. Hannam, P. Merriman, & M. Sheller (Eds.), *The Routledge handbook of mobilities*. Milton Park, Abingdon, Oxon: Routledge.
- Page, T. (2017). Vulnerable writing as feminist methodological practice. *Feminist Review*, 115, 13-29.
- Panis, L. I., de Geus, B., Vandenbulcke, G., Willems, H., Degraeuwe, B., Bleux, N., . . . Thomas, I. (2010). Exposure to particulate matter in traffic: A comparison of cyclists and car passengers. *Atmos Environ* (1994), 44, 2263-2270. doi:10.1016/j.atmosenv.2010.04.028
- Parisi, L. (2004). For a Schizogenesis of Sexual Difference. *Journal for Politics, Gender and Culture*, 6, 67-93.
- Parr, A. (2010). *The Deleuze Dictionary*. Edinburgh: Edinburgh University Press.
- Pastor, M., Ortiz, R., Carter, V., Scoggins, J., & Perez, A. (2012). *California Immigrant Integration Scorecard*. Retrieved from Los Angeles:
- Paton, K. (2011). Not the only power in town? Challenging binaries and bringing the working class into gentrification research. In G. Bridge, T. Butler, & L. Lees (Eds.), *Mixed Communities: Gentrification by Stealth?* : Policy Press.
- Peck, J. (2010). *Constructions of neoliberal reason*. Oxford: Oxford University Press.
- Pedal Love. (2016). Pedal Love. Retrieved from <http://www.pedallove.org/>

- PeopleForBikes and Alliance for Biking and Walking. (2014). *Building Equity: Race, ethnicity, class, and protected bike lanes: An idea book for fairer cities*. Retrieved from
- Pereira, R. H. M., Schwanen, T., & Banister, D. (2016). Distributive justice and equity in transportation. *Transport Reviews*, 37(2), 170-191. doi:10.1080/01441647.2016.1257660
- Perrey, S. (2013). Promoting motor function by exercising the brain. *Brain Sci*, 3(1), 101-122. doi:10.3390/brainsci3010101
- Peters, D. (2013). *Gender and Sustainable Urban Mobility*. Retrieved from Nairobi: <http://www.unhabitat.org/grhs/2013>
- Pfeiffer, D. A. (2006). *Eating Fossil Fuels: Oil, Food and the Coming Crisis in Agriculture*. Gabriola Island, BC: New Society Publishers.
- Pierce, J. M. T., Nash, A. B., & Clouter, C. A. (2013). The in-use annual energy and carbon saving by switching from a car to an electric bicycle in an urban UK general medical practice: the implication for NHS commuters. *Environment, Development and Sustainability*, 15(6), 1645-1651. doi:10.1007/s10668-013-9454-0
- Pignarre, P., & Stengers, I. (2011). *Capitalist Sorcery: Breaking the Spell* (A. Goffrey, Trans.). Basingstoke Palgrave Macmillan
- Pooley, C., Jones, T., Tight, M., Horton, D., Scheldeman, G., Mullen, C., . . . Strano, E. (2013). *Promoting Walking and Cycling*. Bristol Policy Press.
- Povinelli, E. (2006). *The Empire of Love: Toward a Theory of Intimacy, Genealogy, and Carnality* London: Duke University Press.
- Povinelli, E. (2011). *Economies of abandonment : social belonging and endurance in late liberalism*. Durham, N.C. ; London: Durham, N.C. ; London : Duke University Press.
- Povinelli, E. (2012). The Will to Be Otherwise/The Effort of Endurance. *South Atlantic Quarterly*, 111(3), 453-475. doi:10.1215/00382876-1596236
- Povinelli, E. (2014). Holding Up the World, Part II: Time/Bank, Effort/Embankments. *e-flux*, 58.
- Povinelli, E. (2016). *Geontologies : a requiem to late liberalism*. Durham: Duke University Press.
- Pratt, G., & In collaboration with the Philippine Women Centre, V., Canada, . (1998). Inscribing Domestic Work on Filipina Bodies. In H. J. Nast & S. Pile (Eds.), *Places through the body*. London: Routledge.
- Pratt, G., & Rosner, V. (2006). Introduction: The Global and the Intimate. *WSQ: Women's Studies Quarterly*, 34(1&2).
- Protevi, J. (2001). *Political Physics: Deleuze, Derrida and the Body Politic*. London: The Athlone Press.
- Pryke, M., Rose, G., & Whatmore, S. (2003). *Using social theory [electronic resource] : thinking through research*. London: London : SAGE.
- Puar, J. (2006). Mapping US Homonormativities. *Gender, Place & Culture*, 13(1), 67-88. doi:10.1080/09663690500531014
- Puar, J. (2009). Prognosis time: Towards a geopolitics of affect, debility and capacity. *Women & Performance: a journal of feminist theory*, 19(2), 161-172. doi:10.1080/07407700903034147
- Puar, J. (2011a). Citation and Censorship: The Politics of Talking About the Sexual Politics of Israel. *Feminist Legal Studies*, 19(2), 133-142. doi:10.1007/s10691-011-9176-3

- Puar, J. (2011b). 'I would rather be a cyborg than a goddess' Intersectionality, Assemblage, and Affective Politics. *Transversal Texts*.
- Puar, J. (2017, September 15, 2017). Hands Up, Don't Shoot! *The New Inquiry*. Retrieved from <https://thenewinquiry.com/hands-up-dont-shoot/>
- Public Policy Institute of California. (2017). Undocumented Immigrants in California. *Just the Facts*. Retrieved from <http://www.ppic.org/publication/undocumented-immigrants-in-california/>
- Pucher, J., & Buehler, R. (2010). Walking and Cycling for Healthy Cities. *Built Environment*, 36(4), 391-414.
- Pucher, J., & Buehler, R. (2017). Cycling towards a more sustainable transport future. *Transport Reviews*, 37(6), 689-694. doi:10.1080/01441647.2017.1340234
- Pucher, J., Buehler, R., & Seinen, M. (2011). Bicycling renaissance in North America? An update and re-appraisal of cycling trends and policies. *Transportation Research Part A: Policy and Practice*, 45(6), 451-475. doi:<http://dx.doi.org/10.1016/j.tra.2011.03.001>
- Pucher, J., Dill, J., & Handy, S. (2010). Infrastructure, programs, and policies to increase bicycling: an international review. *Prev Med*, 50 Suppl 1, S106-125. doi:10.1016/j.ypmed.2009.07.028
- Pucher, J., Komanoff, C., & Schimek, P. (1999). Bicycling renaissance in North America?: Recent trends and alternative policies to promote bicycling. *Transportation Research Part A: Policy and Practice*, 33(7-8), 625-654. doi:[http://ezproxy.ouls.ox.ac.uk:2093/10.1016/S0965-8564\(99\)00010-5](http://ezproxy.ouls.ox.ac.uk:2093/10.1016/S0965-8564(99)00010-5)
- Rabl, A., & de Nazelle, A. (2012). Benefits of shift from car to active transport. *Transport Policy*, 19(1), 121-131. doi:10.1016/j.tranpol.2011.09.008
- Raghuram, P. (2016). *Locating care ethics beyond the global north*. Department of Geography. The Open University.
- Raghuram, P., Madge, C., & Noxolo, P. (2009). Rethinking responsibility and care for a postcolonial world. *Geoforum*, 40(1), 5-13. doi:10.1016/j.geoforum.2008.07.007
- Raiciu, T. (2016). How Crumple Zones Work. Retrieved from <http://www.autoevolution.com/news/how-crumple-zones-work-7112.html>
- Rajé, F., & Saffrey, A. (n.d.). 'The Value of Cycling'. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/50958/7/value-of-cycling.pdf
- Ramdas, K. (2016). Feminist care ethics, becoming area. *Environment and Planning D: Society and Space*, 34(5), 843-849. doi:10.1177/0263775816656530
- Rankine, C. (2015). *Citizen: An American Lyric*. London: Penguin Books.
- Rea, S. (2012). *Hollywood Rides a Bike: Cycling with the Stars*. Santa Monica: Angel City Press.
- Reed, D. D. (2015). *Historical Temperature Trends in Los Angeles County, California*. (Master of Science), University of Southern California, Los Angeles, California.
- Reichrath, J. (2006). The challenge resulting from positive and negative effects of sunlight: how much solar UV exposure is appropriate to balance between risks of vitamin D deficiency and skin cancer? *Prog Biophys Mol Biol*, 92(1), 9-16. doi:10.1016/j.pbiomolbio.2006.02.010
- Reid, C. E., O'Neill, M. S., Gronlund, C. J., Brines, S. J., Brown, D. G., Diez-Roux, A. V., & Schwartz, J. (2009). Mapping community determinants of heat vulnerability. *Environ Health Perspect*, 117(11), 1730-1736. doi:10.1289/ehp.0900683

- Rerat, P., & Lees, L. (2011). Spatial capital, gentrification and mobility: evidence from Swiss core cities. *Transactions / Institute of British Geographers*, 36, 126-142.
- Riach, K., & Wilson, F. (2014). Bodyspace at the pub: Sexual orientations and organizational space. *Organization*, 21(3), 329-345. doi:10.1177/1350508413519767
- Rich, A. (1987). *Blood, bread and poetry : selected prose 1979-1985*. London: Virago.
- Rietveld, P., & Daniel, V. (2004). Determinants of bicycle use: do municipal policies matter? *Transportation Research Part A: Policy and Practice*, 38, 531-550.
- Rifkin, M. (2014). *Settler Common Sense: Queerness and Everyday Colonialism in the American Renaissance*. Minneapolis and London: University of Minnesota Press.
- Rivara, F. P., Thompson, D. C., & Thompson, R. S. (1997). Epidemiology of bicycle injuries and risk factors for serious injury. *Inj Prev*, 3, 110-114.
- Rivera, M. (2015). *Poetics of the Flesh*. London: Duke University Press.
- Rojas-Rueda, D., de Nazelle, A., Teixido, O., & Nieuwenhuijsen, M. J. (2012). Replacing car trips by increasing bike and public transport in the greater Barcelona metropolitan area: a health impact assessment study. *Environ Int*, 49, 100-109. doi:10.1016/j.envint.2012.08.009
- Rojas, J., & Davidson, A. (2015). **Popsicle freeways, plastic parks: participation in urban planning**. Retrieved from <https://transformationsoxford.wordpress.com/2015/09/29/popsicle-freeways-plastic-parks-participation-in-urban-planning-in-conversation-with-james-rojas/>
- Romero, D. (2017). L.A. Has the Worst Traffic Congestion in the World. *LA Weekly* Retrieved from <http://www.laweekly.com/news/la-has-the-worst-traffic-congestion-in-the-world-7953381>
- Rose, G. (2003). A Body of Questions. In M. Pryke, G. Rose, & S. Whatmore (Eds.), *Using Social Theory*. London, England: SAGE publications Ltd.
- Ruddick, S. (2010). The Politics of Affect: Spinoza in the Work of Negri and Deleuze. *Theory, Culture & Society*, 27(4), 21-45. doi:10.1177/0263276410372235
- Ruddick, S. (2015). Reading and Writing in a Materialist Way. Retrieved from <http://societyandspace.org/2015/12/08/reading-and-writing-in-a-materialist-way-by-sue-ruddick/>
- Rutland, T. (2015). Enjoyable life: Planning, amenity and the contested terrain of urban biopolitics. *Environment and Planning D: Society and Space*, 33(5), 850-868. doi:10.1177/0263775815599312
- Rychetnik, L., & Wise, M. (2004). Advocating evidence-based health promotion: reflections and a way forward. *Health promotion International*, 19(2), 247-257.
- Sælensminde, K. (2004). Cost–benefit analyses of walking and cycling track networks taking into account insecurity, health effects and external costs of motorized traffic. *Transportation Research Part A: Policy and Practice*, 38(8), 593-606. doi:<http://dx.doi.org/10.1016/j.tra.2004.04.003>
- Sahagun, L. (2014, February 19, 2014). Climate change brings more crime. *Los Angeles Times*. Retrieved from <http://articles.latimes.com/2014/feb/19/science/la-sci-sn-climate-change-crime-20140219>
- Said, E. (1978). *Orientalism*. New York: Pantheon.
- Saldanha, A. (2015). Guattari, ideology and the ironies of theoretical (im)practice. *Dialogues in Human Geography*, 5(2), 149-154. doi:10.1177/2043820615587789
- Saldanha, A. (2016). Scale, Difference and Universality in the Study of Race. *Postcolonial Studies*, 18(3), 326-335. doi:10.1080/13688790.2015.1136586

- Samuels, L. C. (2017). Resistance at the Trench. *Journal of Planning History*, 153851321769744. doi:10.1177/1538513217697440
- Sauber-Schatz, E. K., Ederer, D. J., Dellinger, A. M., & Baldwin, G. T. (2016). Vital Signs: Motor Vehicle Injury Prevention — United States and 19 Comparison Countries. . *MMWR Morb Mortal Wkly Rep*, 65. doi: <http://dx.doi.org/10.15585/mmwr.mm6526e1>
- Saville, S. J. (2008). Playing with fear: parkour and the mobility of emotion. *Social & Cultural Geography*, 9(8), 891-914. doi:10.1080/14649360802441440
- Scheiner, J. (2013). The car as scarce resource. How women and men in partnerships negotiate about a car and which role mobility and spatial context play. *Berichte zur Deutschen Landeskunde*, 87(1), 65-85.
- Schwanen, T. (2015a). Beyond instrument: smartphone app and sustainable mobility. *EJTIR*, 15(4).
- Schwanen, T. (2015b). Geographies of transport I: Reinventing a field? *Progress in Human Geography*. doi:10.1177/0309132514565725
- Schwanen, T., Banister, D., & Anable, J. (2011). Scientific research about climate change mitigation in transport: A critical review. *Transportation Research Part A: Policy and Practice*, 45(10), 993-1006. doi:10.1016/j.tra.2011.09.005
- Schwanen, T., Banister, D., & Anable, J. (2012). Rethinking habits and their role in behaviour change: the case of low-carbon mobility. *Journal of Transport Geography*, 24, 522-532. doi:10.1016/j.jtrangeo.2012.06.003
- Schwanen, T., & Kwan, M.-P. (2009). "Doing" Critical Geographies with Numbers. *The Professional Geographer*, 61(4), 459-464. doi:10.1080/00330120903103072
- Science Friday (2015). [Does Air Pollution Deflate Urban Bikers' Health?].
- Scott, D. (2000). The Re-Enchantment of Humanism: An Interview with Sylvia Wynter. *Small Axe*, 8, 119-207.
- Scott, J. W. (1991). The Evidence of Experience. *Critical Inquiry*, 17(4), 773-797.
- Secor, A. (2013). 2012 Urban Geography Plenary Lecture Topological City. *Urban Geography*, 34(4), 430-444. doi:10.1080/02723638.2013.778698
- Secor, A. (2016). Difference and the faciality machine, or, how I underestimated my moustache growing ability. *Postcolonial Studies*, 18(3), 299-304. doi:10.1080/13688790.2015.1136582
- Seigel, M. (2005). Beyond Compare: Comparative Method after the Transnational Turn. *Radical History Review*, 91, 62-90.
- Serres, M. (2011). *Variations on the Body* (R. Burkes, Trans.): Univocal.
- Sevenhuijsen, S. (1998). *Citizenship and the ethics of care : feminist considerations on justice, morality, and politics*. London: Routledge.
- Several, M. (1997). The Bike Stops Here. Retrieved from http://www.publicartinla.com/CivicCenter/bike_rack.html
- Sharpe, S. (2013). The aesthetics of urban movement: habits, mobility, and resistance. *Geographical Research*, 51(2), 166-172. doi:<http://dx.doi.org/10.1111/j.1745-5871.2012.00781.x>
- Shaw, J., & Hesse, M. (2010). Transport, geography and the 'new' mobilities. *Transactions / Institute of British Geographers*, 35, 305-312.
- Shaw, R. (2014). Beyond night-time economy: Affective atmospheres of the urban night. *Geoforum*, 51, 87-95. doi:10.1016/j.geoforum.2013.10.005

- Sheller, M. (2014). Global Energy Cultures of Speed and Lightness: Materials, Mobilities and Transnational Power. *Theory, Culture & Society*. doi:10.1177/0263276414537909
- Sheller, M. (2015). Uneven Mobility Futures: A Foucauldian Approach. *Mobilities*, 11(1), 15-31. doi:10.1080/17450101.2015.1097038
- Sheller, M. (Forthcoming). *Mobility Justice: The Ethics of Transport, Travel and Migration*
- Sheller, M., & Urry, J. (2006). The new mobilities paradigm. *Environment & planning A*, 38(2), 207-226.
- Shove, E. (2003). Users, Technologies and Expectations of Comfort, Cleanliness and Convenience. *Innovation: The European Journal of Social Science Research*, 16(2), 193-206. doi:10.1080/13511610304521
- Sidaway, J. D. (2000). Recontextualising positionality: Geographical Research and Academic Fields of Power. *Antipode*, 32(3), 260-270.
- Sierra Club. (2012). *Pedaling to Prosperity* Retrieved from http://vault.sierraclub.org/pressroom/downloads/BikeMonth_Factsheet_0512.pdf
- Simms, C., & Wood, D. (2009). *Pedestrian and Cyclist Impact: A Biomechanical Perspective*. London: Springer.
- Simpson, P. (2017). A sense of the cycling environment: Felt experiences of infrastructure and atmospheres. *Environment and Planning A*, 49(2), 426-447. doi:10.1177/0308518x16669510
- Skinner, E., & Masuda, J. R. (2013). Right to a healthy city? Examining the relationship between urban space and health inequity by Aboriginal youth artist-activists in Winnipeg. *Soc Sci Med*, 91, 210-218. doi:10.1016/j.socscimed.2013.02.020
- Slocum, R. (2008). Thinking race through corporeal feminist theory: divisions and intimacies at the Minneapolis Farmers' Market. *Social & Cultural Geography*, 9(8), 849-869. doi:10.1080/14649360802441465
- Smart, M. J., Ralph, K. M., Taylor, B. D., Turley, C., & Brown, A. E. (2014). *Honey, Can You Pick-Up Groceries on Your Way Home? Analyzing activities and travel among students and in non-traditional households*. Retrieved from Los Angeles:
- Smith, N. (1979a). Geography, science and post-positivist modes of explanation. *Progress in Human Geography*, 356-383.
- Smith, N. (1979b). Toward a Theory of Gentrification A Back to the City Movement by Capital, not People. *Journal of the American Planning Association*, 45(4), 538-548. doi:10.1080/01944367908977002
- Snyder, S. (2011). Women in Cycling: Why We Matter. Retrieved from <http://girlbikelove.com/2011/12/women-in-cycling-why-we-matter-too/>
- Soja, E. (1986). Taking Los Angeles apart: some fragments of a critical human geography. *Environmenta and Planning D: Society and Space*, 4, 255-272.
- Soja, E. (2014). *My Los Angeles : from urban restructuring to regional urbanization*. Berkeley, California: University of California Press.
- Somdahl-Sands, K. (2013). "Non-Representational Theory for the Uninitiated: Come JUMP with me!". *Geography Compass*, 7, 1-6. doi:10.1111/gec3.12020
- Spahr, J. (2005). *This connection of everyone with lungs : poems*. Berkeley and London: University of California Press.
- Spillers, H. J. (1987). Mama's Baby, Papa's Maybe: An American Grammar Book. *Diacritics*, 17(2), 64-81.

- Spinney, J. (2006). A place of sense: a kinaesthetic ethnography of cyclists on Mont Ventoux. *Environment and planning D*, 24(5), 709-732.
doi:<http://dx.doi.org/10.1068/d66j>
- Spinney, J. (2009). Cycling the City: Movement, Meaning and Method. *Geography Compass*, 3(2{Spinney, 2009 #347}), 817-835. doi:10.1111/j.1749-8198.2008.00211.x
- Spinney, J. (2010). Performing resistance? Re-reading practices of urban cycling on London's South Bank. *Environment and Planning A*, 42(12), 2914-2937.
doi:<http://dx.doi.org/10.1068/a43149>
- Spinney, J. (2011). A Chance to Catch a Breath: Using Mobile Video Ethnography in Cycling Research. *Mobilities*, 6(2), 161-182. doi:10.1080/17450101.2011.552771
- Spinney, J. (2015). Close encounters? Mobile methods, (post)phenomenology and affect. *Cultural Geographies*, 22(2), 231-246. doi:10.1177/1474474014558988
- Spinney, J. (2016). Fixing Mobility in the Neoliberal City Cycling Policy and Practice in London as a Mode of Political Economic and Biopolitical Governance. *Annals of the Association of American Geographers*, 106(2), 450-458.
doi:10.1080/24694452.2015.1124016
- Spivak, G. C. (1988). Can the Subaltern Speak. *Marxism and the Interpretation of Culture*, 271-313.
- Spivak, G. C. (2012). *In Other Worlds electronic resource] : Essays In Cultural Politics*. Hoboken: Hoboken : Taylor and Francis.
- State of California. (2017). SB1 Overview. Retrieved from <http://rebuildingca.ca.gov/overview.html>
- Stehlin, J. (2014). Regulating Inclusion: Spatial Form, Social Process, and the Normalization of Cycling Practice in the USA. *Mobilities*, 9(1), 21-41.
doi:10.1080/17450101.2013.784527
- Stehlin, J. (2015). Cycles of investment: bicycle infrastructure, gentrification, and the restructuring of the San Francisco Bay Area. *Environment and Planning A*, 47(1), 121-137. doi:10.1068/a130098p
- Stein, S. (2011). Bike Lanes and Gentrification: New York City's Shades of Green. *Progressive Planning*, 188, 34-37.
- Steinbach, R., Green, J., Datta, J., & Edwards, P. (2011). Cycling and the city: a case study of how gendered, ethnic and class identities can shape healthy transport choices. *Social science & medicine*, 72, 1123-1130. doi:10.1016/j.socscimed.2011.01.033
- Stengers, I. (2012). Reclaiming Animism. *e-flux*, 36.
- Stengers, I. (2015). *In Catastrophic Times: Resisting the Coming Barbarism* (A. Goffey, Trans.). Paris: Open Humanities Press.
- Stengers, I., Despret, V., & Knutson, A. (2014). *Women who make a fuss : the unfaithful daughters of Virginia Woolf*. Minneapolis, Minnesota: Univocal.
- Steverman, B. (2015, 30th September 2015). Meet the Hipster Real Estate Developers Building for Millennials. *Bloomberg*. Retrieved from <https://www.bloomberg.com/news/articles/2015-09-30/meet-the-hipster-real-estate-developers-building-for-millennials>
- Strauss, K., & Meehan, K. (2015). Introduction: New Frontiers in Life's Work. In K. Strauss & K. Meehan (Eds.), *Precarious Worlds: Contested Geographies of Social Reproduction*. Athens, GA: University of Georgia Press.

- Strava Metro. (n.d.). Data-Driven Bicycle and Pedestrian Planning. Retrieved from <http://metro.strava.com/>
- Stuart, F. (2011). Constructing Police Abuse after Rodney King: How Skid Row Residents and the Los Angeles Police Department Contest Video Evidence. *American Bar Foundation*, 36(2), 327-353.
- Stuart, T. L., Sandhu, J., Stirling, R., Corder, J., Ellis, A., Misa, P., . . . Galanis, E. (2010). Campylobacteriosis outbreak associated with ingestion of mud during a mountain bike race. *Epidemiol Infect*, 138(12), 1695-1703. doi:10.1017/S095026881000049X
- Suisky, D. (2009). *Euler as Physicist*. Berlin: Springer.
- Sulaiman, S. (2013). Black Kids on Bikes Spread the Gospel of the Bike at the King Day Parade. Retrieved from <http://la.streetsblog.org/2013/01/22/black-kids-on-bikes-spread-the-gospel-of-the-bike-at-the-king-day-parade/>
- Sulaiman, S. (2015). What Does the “Failure” of the Ban on Fast-Food Restaurants in South L.A. to Curb Obesity Really Tell Us? . Retrieved from <http://la.streetsblog.org/2015/03/27/what-does-the-failure-of-the-ban-on-fast-food-restaurants-in-south-l-a-to-curb-obesity-really-tell-us/>
- Surly. (2017). Care and Feeding of Your Steel Frame. Retrieved from http://surlybikes.com/info_hole/spew/spew_care_and_feeding_of_your_steel_frame
- Swyngedouw, E., & Heynen, N. C. (2003). Urban Political Ecology, Justice and the Politics of Scale. *Antipode*, 898-918.
- Swyngedouw, E., & Kaika, M. (2014). Urban Political Ecology. Great Promises, Deadlock... and New Beginnings? - (L'ecologia política urbana. Grans promeses, aturades... i nous inicis?). *Documents d'Anàlisi Geogràfica*, 60(3). doi:10.5565/rev/dag.155
- Szczepanski, C. (n.d.). Women Bike: Closing the Gender Gap, Growing the Movement. Retrieved from <https://calbike.org/women-bike-closing-the-gender-gap-growing-the-movement/>
- Thaler, R., & Sunstein, C. (2009). *Nudge: Improving decisions about health, wealth and happiness*. London: Penguin
- The American College of Obstetricians and Gynecologists. (2015). *Health Care for Unauthorized Immigrants*. Retrieved from
- The League of American Bicyclists. (n.d). Women mean business: Female riders spend millions - will the bike industry benefit? Retrieved from <http://files.ctctcdn.com/0ec6037a001/de7224d6-0925-4460-8d53-f231c71423b0.pdf>
- The League of American Bicyclists and The Sierra Club. (2013). *The New Majority: Pedaling Towards Equity*. Retrieved from http://www.bikeleague.org/sites/default/files/equity_report.pdf
- The Traffic Commission. (1929). *Major Traffic Street Plan, Los Angeles, California*. Retrieved from <https://www.scribd.com/document/289285833/1924-Traffic-Street-Plan#>
- Thomas, B., & DeRobertis, M. (2013). The safety of urban cycle tracks: a review of the literature. *Accid Anal Prev*, 52, 219-227. doi:10.1016/j.aap.2012.12.017
- Thompson, D. C., Nunn, M. E., Thompson, R. S., & Rivara, F. P. (1996). Effectiveness of bicycle safety helmets in preventing serious facial injury. *JAMA*, 276, 1974-1975.
- Thompson, D. C., Rivara, F. P., & Thompson, R. S. (2000). Helmets for preventing head and facial injuries in bicyclists. *Cochrane database of systematic reviews (Online : Update Software)*, CD001855.

- Thompson, R. S., Rivara, F. P., & Thompson, D. C. (1989). A Case-Control Study of the Effectiveness of Bicycle Safety Helmets. *New England Journal of Medicine*, 320(21), 1361-1367. doi:doi:10.1056/NEJM198905253202101
- Thrift, N. J. (2007). *Non-representational theory [electronic resource] : space, politics, affect*. New York and London: Routledge.
- Tlostanova, M. (2017). Transcending the Human/Non-Human Divide. *Angelaki*, 22(2), 25-37. doi:10.1080/0969725x.2017.1322816
- Tolia-Kelly, D. (2006). Affect - an ethnocentric encounter? Exploring the 'universalist' imperative of emotional/affectual geographies. *Afea*, 38(2), 213-217.
- Tomer, A. (2011). *Transit Access and Zero-Vehicle Households*. Retrieved from https://www.brookings.edu/wp-content/uploads/2016/06/0818_transportation_tomer.pdf
- Townsend, M. S., Peerson, J., Love, B., Achterberg, C., & Murphy, S. P. (2001). Food Insecurity Is Positively Related to Overweight in Women. *Community and International Nutrition*, 131(6), 1738-1745
- Tronto, J. C. (2016). *Who cares? : how to reshape a democratic poliitics*. Ithaca: Cornell Selects.
- Tsing, A. L. (2011). *Friction [electronic resource] : An Ethnography of Global Connection*. Princeton: Princeton : Princeton University Press.
- Tuin van der, I. (2011). The New Materialist “Always Already”: On an A-Human Humanities. *NORA - Nordic Journal of Feminist and Gender Research*, 19(4), 285-290. doi:10.1080/08038740.2011.620575
- Turner, B. (2017). Passive patience is oppressive, but active patience can help us all. Retrieved from <https://www.opendemocracy.net/transformation/breeshia-turner/how-passive-patience-is-oppressive-but-active-patience-could-help-us->
- Turner, L. (2007). Political Insiders and Social Activists: Coalition Building in New York and Los Angeles. In L. Turner & D. Cornfield (Eds.), *Labor in the new urban battlegrounds: Local solidarity in a global economy* (pp. 129-143). Ithaca, NY: Cornell University Press.
- TwoXChromosomes (Producer). (2014). Reddit: Ride like a girl - Cycling is awfully similar to being a woman. Retrieved from http://www.reddit.com/r/TwoXChromosomes/comments/2a1tbh/ride_like_a_girl_cycling_is_awfully_similar_to/
- UN-Habitat. (2013). *Planning and Design For Sustainable Urban Mobility: Report on Human Settlements 2013*. Retrieved from Milton Park, Abindon, Oxon:
- United States Census Bureau. (2014). Census Bureau Reports 1.0 percent of Workers Commute by Bike in Los Angeles [Press release]. Retrieved from <https://www.census.gov/newsroom/press-releases/2014/cb14-r04.html>
- United States Census Bureau. (2016). Cycling commuters. *Visualizations*. Retrieved from https://www.census.gov/content/dam/Census/library/visualizations/2016/comm/cb16-tps96_bike2work.pdf
- United States Environmental Protection Agency. (2017). Sources of Greenhouse Gas Emissions. Retrieved from <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>
- University of Chicago Law School. (2015). Youth/Police Conference: How it Makes Me Feel - Youth. YouTube.

- Urry, J. (2004). The 'System' of Automobility. *Theory, Culture & Society*, 21(4-5), 25-39. doi:10.1177/0263276404046059
- Urry, J. (2006). Inhabiting the Car. *Sociological review*, 54(1), 17-31.
- Urry, J. (2007). *Mobilities*. Cambridge: Polity.
- Usborne, S. (2012, 18th December 2012). The Cycle Path to Happiness. *The Independent*. Retrieved from <http://www.independent.co.uk/life-style/health-and-families/features/the-cycle-path-to-happiness-8422706.html>
- van der Tuin, I. (2011). "A Different Starting Point, a Different Metaphysics": Reading Bergson and Barad Diffractionally. *Hypatia*, 26(1).
- van der Tuin, I. (2014). Diffraction as a Methodology for Feminist Onto-Epistemology: On Encountering Chantal Chawaf and Posthuman Interpellation. *parallax*, 20(3), 231-244. doi:10.1080/13534645.2014.927631
- van Dooren, T. (2014). Care: Living Lexicon for the Environmental Humanities. *Environmental Humanities*, 5, 291-294.
- Vehicles: bicycles: passing distance, 1371, State of California (2013).
- Villa-González, E., Ruiz, J. R., Mendoza, J. A., & Chillón, P. (2017). Effects of a school-based intervention on active commuting to school and health-related fitness. *BMC Public Health*, 17(20). doi:10.1186/s12889-016-3934-8
- Vivanco, L. A. (2013). *Reconsidering the Bicycle: An Anthropological Perspective on a New (Old) Thing*. Oxon: Routledge.
- Voss, D. (2013). The Philosophical Concepts of Meat and Flesh: Deleuze and Merleau-Ponty. *Parrhesia*, 18, 113-124.
- Walker, I., Garrard, I., & Jowitt, F. (2013). The influence of a bicycle commuter's appearance on drivers' overtaking proximities: An on-road test of bicyclist stereotypes, high-visibility clothing and safety aids in the United Kingdom. *Accident Analysis & Prevention*(0). doi:<http://dx.doi.org/10.1016/j.aap.2013.11.007>
- Walsh, B. (2017). Construction jobs analysis. Retrieved from <https://github.com/datadesk/construction-jobs-analysis/blob/master/analysis.ipynb>
- Walsh, D., Valestrand, H., Gerrard, S., & Aure, M. (2013). Gendered mobilities in the North: Advancing an international comparative perspective. *Norsk Geografisk Tidsskrift*, 67(5), 260-265. doi:10.1080/00291951.2013.847857
- Wang, R., & Liu, C. (2013). Bicycle-Transit Integration in the United States, 2001-2009. *Journal of Public Transportation*, 16(3), 95-119.
- Wardlaw, M. J. (2014). History, risk, infrastructure: perspectives on bicycling in the Netherlands and the UK. *Journal of Transport & Health*, 1(4), 243-250. doi:10.1016/j.jth.2014.09.015
- Wardman, M., Tight, M., & Page, M. (2007). Factors influencing the propensity to cycle to work. *Transportation research. Part A, Policy and practice.*, 41(4), 339-350.
- Watson, M. (2012). How theories of practice can inform transition to a decarbonised transport system. *Journal of Transport Geography*, 24, 488-496. doi:10.1016/j.jtrangeo.2012.04.002
- Wearing, S., Gunaratnam, Y., & Gedalof, I. (2015). frailty and debility. *Feminist Review*, 111(1), 1-9. doi:10.1057/fr.2015.39
- Wee, B. v. (2015). Peak car: The first signs of a shift towards ICT-based activities replacing travel? A discussion paper. *Transport Policy*, 42|CHRONI=2015|DATE=2015|PAGES=1-3, pp1-3. doi:doi:10.1016/j.tranpol.2015.04.002

- Weeks, K. (2011). *The Problem with Work: Feminism, Marxism, Antiwork Politics and Postwork Imaginaries*. London: Duke University Press.
- Weheliye, A. G. (2014). *Habeas Viscus: Racializing Assemblages, Biopolitics, and Black Feminist Theories of the Human*. Durham and London: Duke University Press.
- Weiss, G. (2005). Urban Flesh. *Philosophy Today*, 49(9999), 116-127.
doi:10.5840/philtoday200549Supplement15
- Whatmore, S. (2002). *Hybrid Geographies: Natures, Cultures Spaces*. London Sage.
- Whatmore, S. (2003). Generating materials. In M. Pryke, G. Rose, & S. Whatmore (Eds.), *Using Social Theory : Thinking Through Research*. London: SAGE Publications Ltd.
- Whatmore, S. (2006). Materialist returns: practising cultural geography in and for a more-than-human world. *Cultural Geographies*, 13, 600-609.
doi:10.1191/1474474006cgj377oa
- Whatmore, S. (2013). Earthly Powers and Affective Environments: An Ontological Politics of Flood Risk. *Theory, Culture & Society*, 30(7-8), 33-50.
doi:10.1177/0263276413480949
- Whitaker, E. D. (2005). The bicycle makes the eyes smile: exercise, aging, and psychophysical well-being in older Italian cyclists. *Medical anthropology*, 24(1), 1-44. doi:<http://dx.doi.org/10.1080/01459740590905633>
- Whitcomb, D. (2015). 'Hit-and-run' capital Los Angeles launches alert system, rewards. *Reuters*. Retrieved from <http://www.reuters.com/article/us-usa-losangeles-hitandrun-idUSKBN0LE2Z120150210>
- Whitelegg, J. (1997). *Critical Mass: Transport, Environment and Society in the Twenty-first Century*. Chicago, IL: Pluto Press.
- Wilborn, P. (2016). We've used the word 'accident' on our site for years. As of today, that changes. Retrieved from <https://www.bikelaw.com/2016/02/bicycle-crashes-are-not-accidents/>
- Wilder, G. (2015). *Negritude, Decolonization and the Future of the World*. Paper presented at the Internationalism, Cosmopolitanism and the Politics of Solidarity Research Group, LSE, London.
- Willems-Braun, B. (1997). Reply: On Cultural Politics, Sauer, and the Politics of Citation. *Annals of the Association of American Geographers*, 87(4), 703-708.
doi:10.1111/1467-8306.00075
- Wilson, D. G., Papadopoulos, J., & Whitt, F. R. (2004). *Bicycling science* (3rd ed. ed.). Cambridge, Mass. and London: MIT Press.
- Wilson, E. (2015). *Gut Feminism*. London: Duke University Press.
- Wilson, E. A. (2004). *Psychosomatic: Feminism and the Neurological Body*. Durham: Duke University Press.
- Wilson, M. W. (2012). Location-based services, conspicuous mobility, and the location-aware future. *Geoforum*, 43(6), 1266-1275. doi:10.1016/j.geoforum.2012.03.014
- Winnubst, S. (2012). The Queer Thing about Neoliberal Pleasure: A Foucauldian Warning. *Foucault Studies*, 14, 79-97.
- Winnubst, S. (2016). *Fearing Difference Gender without Borders*. London.
- Wolpowitz, D., & Gilchrest, B. A. (2006). The vitamin D questions: how much do you need and how should you get it? *J Am Acad Dermatol*, 54(2), 301-317.
doi:10.1016/j.jaad.2005.11.1057
- Woodcock, J., Banister, D., Edwards, P., Prentice, A. M., & Roberts, I. (2007). Energy and transport. *The Lancet*, 370(9592), 1078-1088. doi:10.1016/s0140-6736(07)61254-9

- Woodcock, J., Edwards, P., Tonne, C., Armstrong, B., Ashiru, O., Banister, D., . . . Roberts, I. (2009). Public health benefits of strategies to reduce greenhouse-gas emissions: urban land transport. *Lancet*, 374, 1930-1943. doi:10.1016/S0140-
- Wright, M. W. (2010). Gender and geography II: bridging the gap -- feminist, queer, and the geographical imaginary. *Progress in Human Geography*, 34(1), 56-66. doi:10.1177/0309132509105008
- Wulff, P., Schonewille, M., Renzi, M., Viltono, L., Sassoe-Pognetto, M., Badura, A., . . . De Zeeuw, C. I. (2009). Synaptic inhibition of Purkinje cells mediates consolidation of vestibulo-cerebellar motor learning. *Nat Neurosci*, 12(8), 1042-1049. doi:10.1038/nn.2348
- Wylie, J. (2005). A single day's walking: narrating self and landscape on the South West Coast Path. *Transactions of the Institute of British Geographers*, 30(2), 234-247. doi:10.1111/j.1475-5661.2005.00163.x
- Wylie, J. (2010). Non-Representational Subjects? In B. Anderson & P. Harrison (Eds.), *Taking-place : non-representational theories and geography* ([electronic resource] ed.). Burlington, VT: Burlington, VT : Ashgate.
- Wynter, S. (1994). No Humans Involved: An Open Letter to My Colleagues. *Forum N.H.I. Knowledge for the 21st Century*, 1(1).
- Wynter, S. (2001). Towards the Sociogenic Principle: Fanon, Identity, the Puzzle of Conscious Experience, and What It Is Like to Be "Black". In M. F. Duran-Cogan & A. Gomez-Moriana (Eds.), *National Identities and Sociopolitical Changes in Latin America*. London: Routledge.
- Wynter, S. (2003). Unsettling the Coloniality of Being/Power/Truth/Freedom: Towards the Human, After Man, Its Overrepresentation - An Argument. *The New Centennial Review*, 3(3), 257-337. doi:10.1353/ncr.2004.0015
- Wynter, S., & McKittrick, K. (2015). Unparalleled Catastrophe for our Species? Or, to Give Humanness a Different Future: Conversations. In K. McKittrick (Ed.), *Sylvia Wynter: On Being Human as Praxis* (pp. 106-123). Durham and London: Duke University Press.
- Yang, L., Sahlqvist, S., McMinn, A., Griffin, S. J., & Ogilvie, D. (2010). Interventions to promote cycling: systematic review. *BMJ*, 341, c5293. doi:10.1136/bmj.c5293
- Young, I. (1980). Throwing Like a Girl: A Phenomenology of Feminine Body Comportment Motility and Spatiality *Human Studies*, 3(2), 137-156.
- Young, I. (2005). *On Female Body Experience: "Throwing Like a Girl" and Other Essays*. Oxford: Oxford University Press.
- Yusoff, K. (2013a). Geologic life: prehistory, climate, futures in the Anthropocene. *Environment and Planning D: Society and Space*, 31, 779-795.
- Yusoff, K. (2013b). Insensible worlds: postrelational ethics, indeterminacy and the (k)notes of relating. *Environment and Planning D: Society and Space*, 31(2), 208-226. doi:10.1068/d17411
- Yusoff, K. (2015a). Geologic subjects: nonhuman origins, geomorphic aesthetics and the art of becoming in human. 22(3), 383-407. doi:10.1177/1474474014545301
- Yusoff, K. (2015b). Queer Coal: Genealogies in/of the Blood. *philoSOPHIA*, 5(2), 203-229.
- Yusoff, K., Grosz, E., Clark, N., Saldanha, A., & Nash, C. (2012). Geopower: a panel on Elizabeth Grosz's Chaos, Territory, Art: Deleuze and the Framing of the Earth. *Environment and Planning D: Society and Space*, 30(6), 971-988. doi:10.1068/d3006pan

- Zahran, S., Brody, S. D., Maghelal, P., Prelog, A., & Lacy, M. (2008). Cycling and walking: Explaining the spatial distribution of healthy modes of transportation in the United States. *Transportation Research Part D: Transport and Environment*, 13(7), 462-470. doi:10.1016/j.trd.2008.08.001
- Zakharenko, R. (2016). Self-driving cars will change cities. *Regional Science and Urban Economics*, 61, 26-37. doi:10.1016/j.regsciurbeco.2016.09.003
- Zavestoski, S., & Agyeman, J. (2015). *Incomplete Streets: Processes, Practices, and Possibilities*. New York: Routledge

Appendix 1

Interview Tamika Butler, Director LACBC – 38 minutes Skype interview – 26th January 2016

[...recording starts after having been given verbal consent to record the interview]

A: Uhm, it'll be really helpful when I'm writing up notes and things, to know exactly what you've said, rather than some poor memory of what you've said. I guess I should say a little bit about my PhD and my project to give you a bit of background so you know where I'm coming from, uhm then you can probably anticipate some of my questions too, based on that (laughs). I'm doing a PhD here in the UK, living in London, grew up in the Netherlands, the project is about cycling and power, so it's a feminist, uhm, critical race theory, social justice angle on cycling, seeing how cycling can be a force of social change, but also, I guess, in some respects can be a tool for enhancing the status quo or can be a softening the edge of business as usual. Are you still there...I can't really hear you?

T.B. [crackling sound...]

A: I couldn't hear you...it went a dead for a second, and I wondered if you were still...

T.B. [Crackling sound and car sound] I heard everything you said, I'm just so used to conference calls where you put yourself on mute so you can't hear my background noise.

A: OOhh, now I know, I was just like, it's really silent there...I wondered if I was just doing a monologue

T.B. No, no, your thesis sounds very cool.

A: Cool, cool, thanks. I don't like really formal interviews, where you're just being asked loads of questions and you don't really know who it is that's asking the questions. That's why...so you know who I am at least, a little part of that.

T.B. Great

A: The first question I had, was why, for you, is cycling a kind of struggle that you got behind? Cause I read a bit about your background, and you've got loads of experience in so many different things, so for me that was super interesting, why cycling?

T.B: I think I definitely fell into cycling more by accident than on purpose (laughs) uhm, you know, I was a civil rights lawyer, and then I was doing public health work. And for me I've definitely been more of a walker than a biker, uhm, except for when I was a kid. When I was

a kid I biked everywhere and then I kinda moved into adulthood, flirted around with skateboarding for a bit, but then was very much uhm, a walker, especially living in the San Francisco Bay area where it is so easy to walk everywhere, uhm, that was my main mode of transportation. Walking and public transit, and then when I moved to LA, which is very much a spread out city, and so, I was running an organisation, having to get all over having to get all over, and I was constantly in my car, I gained a tonne of weight. I was going from meeting to meeting in my car, stopping to get fast food, it just wasn't healthy. I hated LA, I hated living here, because I felt like the only way you could live here is if you were in your car all the time. And I had a doctor who told me I was pre-diabetic and I needed to exercise more, and so I had a friend who really enjoyed cycling, uhm, and she was like, you should buy a bike and you should ride with me. And I was like I don't know, I'm a pretty chubby girl, those are skinny tyres, I don't know if I can do it. And I did it, I signed up for an AIDS life cycle seven day ride from San Francisco to LA, I did it, and when I was training I thought, "Oh my god, I hate this, who does this for fun, I'll never do it again", but slowly I started to fall in love with LA because I realised you could see so much on your bike, I wasn't stuck in my car anymore, and in one day I could be in the mountains and at the beach at the same time, and I could get there powered by me, and I was getting healthier, so it was really transformative and I saw, I saw it as a way that uhm, people came together, and I saw it as a tool for social justice uhm because of my civil rights background, I definitely see mobility as a civil rights issue. Because of one of my heroes, Rosa Parks, I see transportation and how you move freely about your community as such an issue, and when this job came up, the same friend who was like "you should buy a bike", was like "you should apply for this job", so it was very much by chance, but I'm very happy I did it.

A: Yeah, that kind of links into the next question I wanted to ask...how cycling for you relates to....in some ways...cause I was in LA last year for a few months, and just speaking to different people I found that in some ways the cycling community in LA seemed to be quite, uhm, divided by kind of class and race and identity groups, I mean, not strictly class and race, but that there were divisions in some ways, of different kinds of cycling activities for sport or commuting or. I just wondered how you feel the relationship is between cycling and identity, identity is maybe the wrong word, but for want of a better word..cycling and identity.

T.B: I think that's a tough question, and I think that really really depends on who you ask. You know, it's how do you identify yourself as in, within yourself what groups, there's a lot of folks in this space that identify themselves first and foremost as cyclists, that's who they are, that's so core to everything they do, the way they think, what they believe, how they experience the world, and that's how they would describe themselves. And for me, I don't really identify as a cyclist, I identify as a person who rides a bike, but if I had to put together a list for how I identify, I would probably start with Black, Queer, Gender non-conforming, woman, and so, it would be a while before I got to cyclist, I would probably say lawyer first, you know there's other ways in which I identify, and so I think that riding a bike is something

I do, riding a bike is something I like, and enjoy and I would even say love, and it's something that makes me happy, but if someone said to me, you know, you could, you could, we're gonna take away one of your identities away, you could never ride a bike again, or you could never be black again. I would wanna be black, I'd say, take the bike, I'll figure something else out, and so, I think that identity representations within this movement are just so different from person to person, now, while that's true, I also, uhm, I also think you know that within the biking world there are definitely those groups, right like the more affluent, uhm older white guy covered in spandex, is very different from the kid from the hood who is on a bright coloured fixie, and they ride around with their crews in very different ways and for very different purposes, I know that's not a good answer, but the answer is, yeah there's identity, but it totally depends on who you're talking to, is how they would describe them. For me because the bike is a tool for social justice, just like law is a tool for social justice, uhm, or art is a tool for social justice, right now in my life it is the tool I am using and it's the tool that's bringing me the most joy, uhm, but that's where I see it in my identity.

A: Yeah, and I guess the way I'm trying to look at it as well, is, is, how how cycling differs, by..and that's why I don't like, I don't really like the word identity I guess, but it's hard to think of a different...I suppose the way I could put it is how does cycling relate to questions of heteronormativity and patriarchy and racialization, you know the kind of, the ways that cycling while being a woman is different to being a man, or cycling while being a white man is different to cycling while being a black man potentially, right and I guess I wondered, how an organisation – and it's not a critical question – it's just I'm interested, how an organisation can manage to incorporate those differences, right, and those interests, that people have different needs interests based on class and race and gender and some might be common, but some might be different?

T.B. I guess the question is how does an organization handle that, and the answer is probably not well (laughs)

A: laughs

T.B. You know, I think here, everyone is starting to talk more about equity, and everyone is starting to talk uhm more about race, uhm, and there's definitely people in the space who've been talking about it for a really long time, much longer than me, right I've been at this job for a year, and there's people who've been talking about it and talking about it for a very long time and no one was listening or no one was paying attention to them, and it's because they weren't white men, uhm and so, I think, if I had to..it's too complicated to boil down into one sentence, but if I had to, (inaudible) a black man versus a white man, what is it like uh, being a woman versus a man, if I had to boil it down to; its how you're seen, it's how you're seen and how you're treated and how you're heard. And in the States we talked for a really long time about driving while black or driving while brown and I think the same thing happens on a bike. Uhm, there's a reporter here who wrote a story here about the Martin Luther King

parade, in a predominantly black neighbourhood and there's this group black kids on bikes, and they were in the parade, they were supposed to be in the parade, but because they were black kids, mostly boys, they were stopped and asked why are you trying to interfere with the parade? Because the assumption wasn't that they would be in the parade, right? similarly we know that if you're black or brown you're gonna be seen differently than if you're a white guy, so you know I'm very aware in my neighbourhood that when I'm out on my bike that's expensive, there might be a question of 'did I steal that bike, is that bike mine?' or you know, do I belong there? Do I belong on that bike? And we know that question might not happen, might not happen for white folks. I think when it comes to gender, it's definitely one of those things where there's fewer women, and I remember when I went to my first bike summit uhm, the first national bike summit I went to was last year, and there was a panel of female folks from the industry, you know, talking about you know like clothes (indignantly), (A laughs) and talking about speaking to women and why marketing to women is important because literally there are different pads and you know women's pants then there are men's pants, and talking about different campaigns and the things I heard from men, whether it was on social media or just being in the space when they didn't think anyone was looking, especially because a lot of people think I'm a man, uhm, is they're not paying attention and they see me in a suit and a tie sitting there, and they think I'm guy and they say the things they say if they're with guys and the things they say – is "this is sexist, and I can't believe this panel is only about women" and so I think as a movement we have a long way to go, and I think it's you know, the bike space is dealing with things every other space dealt with years ago...but the bike movement is also really young, and I try to remember that, it's a young movement, it's a young advocacy space, and it's growing, but I think there's a lot of work to be done, and I think groups are figuring it out and I think there are some groups who are doing it really well and there are other groups who are really afraid to even broach the subject because they don't want to alienate who they think is their core, which is, you know, white guys uhm I just have a different opinion. I feel like, I am who I am, so I'm gonna talk about things the way I've experience things, and I'm a person who lives in the intersections I understand intersectionality and multiple identities and so that's how I want to approach our advocacy work, and I don't think everyone's a fan, but I have to, I have to stay true to myself, I can't try to make other people happy.

A: Ahuh, yeah, that makes total sense. How, uhm, what are the kind of strategies that LACBC has for trying to increase participation of women, for example, because it's a really difficult one right, I guess, cause there's loads of ideas about how that's best done, but what's LACBC's strategy?

T.B: (sighs) You know, I think it's multi-pronged, it's using events, and really focusing our outreach on being really inclusive and partnering on - we're not historically a group that does a tonne of work – or is historically very accepted in say, low income communities of colour, so rather than just going into one of those communities with a saviour complex and being like,

“we’re here now, we’re gonna be better, play with us!” I think uhm, what we really try to do is form partnerships and be good partners, be good partners to the folks who are on the ground level already doing the work, uhm and through those partnerships really be successful and intentional about what we do. It’s also choosing how we talk about things. I’ve been very conscious that, you know, we don’t always talk about biking. We talk about biking and walking, and race and gender and class, and housing and health, I think when you, when you...sometimes when you’re trying to work with certain groups whether its as a woman as a person of colour, as someone who’s poor. Like I may bike, but that may not be my most pressing issue, like there might be other things on my mind. If you’re coming to my community meeting where we’re talking about why we don’t have grocery stores, why(inaudible), why police see this neighbourhood (inaudible) in our neighbourhood. “I have the solution: bikes!” Uhm, you might not get the furthest, right? So I think you have to be a good listener, you have to be a good partner. And I think you have to stretch a little and be willing to talk about other things and how those other things relate to what you’re doing.

A: I’m really glad you talk about it that way, uhm, cause when I was in L.A. and I kind of, uhm, read a bit, and heard about, and spoke to people from MCM – multicultural communities for mobility

TB: right, yeah

A: and I was curious, cause it seemed to me a bit like, and this is from a total outsider’s perspective, and I could be totally off, but it did strike me at the time that LACBC was kind of more trying to get funding and support from a more racing, middle upper class type demographic, whereas MCM was working much more with lower income and communities of colour, and it seemed almost like that was a sort of division, from the outside it seemed like that was a division – and the interesting part to me was that MCM, although they did a lot of work about cycling, was called mobilities more generally, right? It seemed like they were focused on mobility, it wasn’t just a single-minded focus on cycling. Which reflects a bit what you’re saying.

TB: Yes and I think that’s totally accurate,..(inaudible)

A: Oh, I’m losing you a little bit, let me just...

TB: can you hear me?

A: it’s breaking up a bit, let me just see...

TB: I moved a little bit, is that better?

A: yeah that’s better.

TB: They're one of the groups, for sure, that I admire, that (inaudible) the folks at MCM are some of my closest (inaudible) and biggest mentors, and have really been big support for me as I've gone through this year, (inaudible) insofar as how we talk about things, and rubbing people a little bit the wrong way, and I think there was that divide...We're starting to...(inaudible)

A: Sorry, it's breaking up again, you're starting to...?

TB: I think I just said I think we're starting to bridge that gap or that divide.

A: Ok, yeah, that's also why I was so excited to, and I really wanted to get the chance to talk to you, because I spoke to the previous uhm, director of LACBC, from hearing announcements, and getting your emails from LACBC, I noticed things seemed to be different. It was just a sea change a real difference, and I wondered how that was panning out. I had a question on the female representation question, you know the LACBC bike counts that are done periodically, I volunteered doing them and I noticed on the actual form, it kind of has tick boxes, right, where you have to mark how many cyclists are going passed, and there's a sort of other category, and in the other category there are females, I kinda wondered who designed that sheet, and whether its purposefully also about counting women versus men, and why there's just gender on the form as a difference? I guess I just found it slightly problematic for volunteers to be identifying someone's gender, as someone also who..I get sirred a lot, just to be volunteering and having to decide whether other people were male or female...I just wondered how you thought of that form?

TB: Yeah, I think that's a really good point, and frankly I just hadn't really dug into the form. My understanding is that the form is something we a little bit inherited and part of it was like something that the city is actually supposed to be doing, but they don't do, so we do, uhm, but frankly those are just all excuses and I think totally a valid point, and I, it's one of those things where you know what you hear when you speak to planners and you bring this kind of stuff up is they're like, yeah, that's totally valid, that's totally valid, but, but feeling this fear of if you put 'other', or 'don't know', how do you get the data. And I think that's...it's not a good answer, but it brings me to I think one of the biggest struggles that I've faced, and that's because I come from uhm a sociology, psychology background where data is important, but you're looking at data in a different way, and you are definitely looking beyond just numbers, and I think that's just,..we wanna be able to write a report that says "hey we did a bike count, and in areas where there's more infrastructure, people feel safer, and where people feel safer there's more women who ride. Like we want to be able to make that extrapolation, and I think sometimes in this space, planners fall so much in love with an ability to use data in that way, so when you talk about being more inclusive or when you talk about doing something that would be a little bit harder you know, it becomes this really interesting conversation about well you can't get good data if you're doing this, so you know, we were just having a

conversation in one of our coalitions with uhm, with the City, where they were talking about getting data about crash statistics and we were like, yes it's really great to be out on the street and with your eyes see things and get that data, but what about actually going out and ground trooping, what about actually going out and talking to folks in the community and having them bike (inaudible) and in this case it would be problem and trouble spots but what about actually getting out and talking to people? And again, I think unfortunately that's just been something that in this planning, active transportation space, that type of research hasn't traditionally been as valued, or as many researchers haven't been invested in it. So I think that's a super good question and it's something I should totally tackle and take some responsibility for, but I also think it points to this larger issue in this space.

A: And that's actually, I hadn't thought about it in that larger way, so that's super helpful to think about it that way. I wondered also, there's another thing that's been coming up, when I went to some community meetings and spoke to people, was the fear of cycling and cycle lanes being a kind of sign of gentrification, or even causing gentrification in some areas, where there's this idea that if, if the city invests in putting new bike lanes and new infrastructure in there somewhere that it'll attract a certain kind of hipster white, influx in an area. So in that way it might make people feel quite anti-biking, right, or anti a certain kind of biking or a certain kind of infrastructure, is that something you've found at all?

TB: yeah for sure. This is something we talk about all the time and I think both at our coalition, and in my space with my friends, when we're all folks of colour, we're all young professionals, we all wanna live in the neighbourhoods...I wanna live in a historically black neighbourhood, I just bought a house in a historically black neighbourhood, but I'm also very well aware that as a young professional that I might be displacing somebody by doing that, and so gentrification is complicated and displacement is complicated because it's not always black and white, uhm, the pun is not intended. It's not always that crystal clear. But I will say, there's this article just going round about gentrification and bike lanes, that all the equity folks in the space were sharing. My thoughts on bike lanes and gentrification is the reason its upsetting to folks of colour to see bike lanes, is not because they dislike bikes, I think there's been this false narrative of these low income folks of colour, they don't like bikes, and that's what it's about, and that's not what it's about. What it's about is the fact that in low income neighbourhoods of colour, someone's aunty or uncle has been bicycling for years, like that's been their only way to get around and it might be because they're undocumented and they weren't able to get a license, it might be that they're formerly incarcerated and they're just getting out of prison and they can't afford a car uhm, it might be because they literally can't afford a car and it's either a car or food, and in our communities of colour we've been biking for ever and then all of a sudden when other folks start to move into our communities, then you get bike lanes, then it's important for us to be safe? I think it's that idea, again, these are neighbourhoods without grocery stores without resources, without sidewalks and government isn't interested in putting infrastructure in, whether or not it's a bike lane or a quicker response

from police officers, whatever it is, it's a lack of investment that doesn't come, until other folks move in, and I think that's what really gets to people, and a bike lane is symbolic, and we have to be real about the fact that it is, it is a big deal, but it's what it reflects it reflects that all of a sudden my government cares about me because other people live here that don't look like me.

A: That was gonna be another question of mine, was this idea of infrastructural racism or infrastructural inequalities in terms of class uhm, where I talked to a planner who had just retired from LA City, I tried to get answers about that, about why in wealthier areas there's more trees, why is it that in wealthier areas there are more bike lanes and he wasn't able to give me a straight answer. And I wondered if you have any more insights into how exactly that ends up, the mechanisms of that racism, how does it end up happening like that?

TB: I mean I think, I think you nailed it on the head, I think it's definitely more complicated, but it's institutionalized racism, and its this idea about what areas are worthy of investment, you know, what areas when the street lights go out, does the government run out right away and fix them and what areas do they stay out for years, what in, Flint Michigan, what areas is there not working water, what areas is there like clean water, right, so government can have a lot of reasons why they don't do what they do, and I think if you talk to people in government you'll hear a lot of different responses from a lot of different people, but at the end of the day the answer is institutional racism and that's, in some ways that's over simplistic and in some ways that's exactly what it is.

A: I think in some ways that's why I didn't get a straight answer, he couldn't say that, he couldn't say those words. Yeah it just makes it...it's something so slippery, you can't say the exact mechanisms through which it works. I guess that's the nature of it.

TB: right.

A: I was wondering too, what did happen in one of these community meetings was there was this sense of kind of, of people needing cars. Also what you said, some people have been biking forever for various reasons, and one of those reasons could be not being able to afford a car, cause in a lot of scholarship in cycling, cycling is seen as this sort of 'choice', this wonderful thing that you're so like green and good if you do it, the perspective that cycling could actually be a symptom of poverty, you know, that it's not a choice in some cases, that it could be that you have to cycle cause you can't afford a car, I just wondered whether that's something that ever causes conflict, or whether that's something that can be incorporated into cycling advocacy, that it's not just cycling versus cars, that some people actually do need cars.

TB: I would definitely say that was one of the hardest, one of the hardest things for me, with my team, and not because they didn't want to do it, it was just hard to change that narrative, but to get my team to stop saying 'choice', you know I went through this internal process

where I was like: “look when we put things in our newsletter, when we put things in press releases, like, we’re not saying, you know, “the city deserves to be safer for anyone who chooses to ride a bike” Then we’re still only talking about a select group of people and the reality is everybody doesn’t choose to ride a bike, uhm, there are some low income people that have to drive, right, so I’m not...I also don’t want to be part of that group that is its cars versus bikes and like is looking down on you because you’re driving, right, like maybe you choose to drive because you live in a low income community of colour where there are no jobs and so if you don’t have a car, you can’t get to the only place that will hire you, on time and you will lose your job. So why am I gonna judge you for not riding a bike? Similarly, you may not, for all the reasons we’ve talked about before, and many more, you may uhm, only have a bike, and so when you talk about it as a choice or not a choice, you’re excluding a whole number of people, and really what nobody wants to admit, is you’re passing judgement and...that’s, you know, that’s really not something that I’m about, so really switching that narrative is something that I’ve tried to make sure my staff is intentional about, and speaking of which, we have a staff meeting at 10, so I can probably take like one or two more questions.

A: Sure yeah, sorry about that, I didn’t realise what time it was

TB: That’s what happens when you’re just having good conversation!

A: Yeah, thank you by the way, for, I just find it really exciting to hear what you’re saying, it rings so true to me, but you find words for things that I just can’t. Just the last question would be, what kind of uhm, what kind of LA County is your ideal, as an organisation, you’re at the helm of this organisation, and its looking to the future, it’s trying to build a different kind of future, and what kind of future is that for you?

TB: Yeah, you know, in our mission we say, we’re trying to build a healthy, safe, fun place to ride a bike and I’ve definitely added equitable to that, and I think that is, that is the ideal, right, for whoever is riding a bike, wherever they’re riding a bike, whether they choose or don’t choose, or whatever it may be, uhm, you know, when you’re on a bike you feel like you’re safe, you feel like you can have fun, you’re getting healthy and it’s a healthy community, uhm, which means that safe streets impact public health in other ways and I think the equitable part of it is that you know these, these resources and this vision impacts all people, not just the select group of people that have the means or have the agency or have the experience to advocate for those resources and so I think that’s what is really important to me, and I just I think LA is so diverse, I think if we don’t get it right here, it would be such a mistake, and we’re on the verge, we’re moving in the right direction, we have the right folks in government who get it, we have the right advocates who get it, and I think we’re starting to talk about it in a way that works, but my hope is that we keep moving in that direction.

A: I think you are, that sounds, yeah it sounds like a great direction. I'll leave you to it, because it's already 10 for you, I don't want to keep you too long.

TB: Thank you so much

A: Thanks and keep it up, it's amazing work you're doing.

TB: And if you need anything else, shoot me an email, if you're ever in LA let me know.

A: If I quote you in my work I'll send you stuff beforehand so you can veto it. Have a good day out there.

TB: You too,

A; Thanks a lot, bye.

TB: bye

Appendix 2

SCHOOL OF GEOGRAPHY AND THE ENVIRONMENT

OUCG, South Parks Road, Oxford OX1 3QY United Kingdom
Tel: +44(0)1865 285070 Fax: +44(0)1865 275885
enquiries@geog.ox.ac.uk | www.geog.ox.ac.uk



Consent Form

Title of Project: Power, cycling and the city

Name of Researcher: Anna Davidson

Research description: In a context of increasing climate change and growing cities, transport that is sustainable, healthy, safe and accessible for all, is a pressing challenge. This project focuses bicycling activities in very different countries - the USA and India - to better understand how cycling is experienced in cities. The project will be exploring how cycling relates to other activities in a day, their use of energy, the kinds of clothing and equipment used and their perceptions of bicycling.

Participants are able to withdraw from the study at any time and will be referred to by pseudonym in any publications arising from the research.

1. I confirm that I have read and understand the description of the above study and have had the opportunity to ask questions.
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason.
3. I consent to this interview being audio-taped/videotaped
4. I agree / do not agree (delete as applicable) to take part in the above study.

_____	_____	_____
Name of Participant	Date	Signature
_____	_____	_____
Anna Davidson	Date	Signature